



September 1, 2017

**VIA ELECTRONIC FILING**

The Honorable Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: Joint Filing of Revisions to the ISO New England Inc. Transmission, Markets and Services Tariff to Incorporate a Clustering Approach in the Interconnection Procedures; Docket No. ER17-\_\_\_\_-000**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act (“FPA”),<sup>1</sup> ISO New England Inc. (the “ISO”)<sup>2</sup> joined by the New England Power Pool (“NEPOOL”) Participants Committee, and the Participating Transmission Owners Administrative Committee (“PTO AC”) on behalf of the Participating Transmission Owners (“PTO”) (together, the “Filing Parties”),<sup>3</sup> hereby electronically submit revisions to Sections I and II of the Tariff to incorporate a methodology for considering Interconnection Requests and allocating interconnection upgrade costs on a cluster basis when a specified set of conditions are present in the interconnection queue.<sup>4</sup> These changes are collectively

---

<sup>1</sup> 16 U.S.C. § 824d (2006 and Supp. II 2009).

<sup>2</sup> Capitalized terms used but not otherwise defined in this filing letter have the meanings ascribed thereto in the ISO’s Transmission, Markets and Services Tariff (the “Tariff”). Section II of the Tariff contains the Open Access Transmission Tariff (the “OATT”).

<sup>3</sup> The Filing Parties note that the rights under Section 205 of the FPA to modify terms, conditions and rates in the Tariff that are being filed herein are held and exercised by the ISO, with the limited exception of Schedule 11 of the OATT over which the PTOs jointly hold the Section 205 rights, and Schedules 22, 23 and 25 of the OATT over which the ISO shares its Section 205 rights with the PTO AC in the manner specified in Section 3.04 of the Transmission Operating Agreement between the PTOs and the ISO (the “TOA”). NEPOOL, which pursuant to the Participants Agreement provides the sole Market Participant stakeholder process for advisory voting on ISO matters, supported the changes reflected in this filing and, accordingly, joins in this Section 205 filing.

<sup>4</sup> The proposed methodology for evaluating Interconnection Requests on a cluster basis is referred to in this transmittal letter as the “clustering methodology” or the “clustering approach.” The clustering methodology is primarily reflected in Schedules 22, 23 and 25 of the OATT. Schedule 22 contains the Standardized Large Generator Interconnection Procedures (“LGIP”) and Large Generator

referred to in this filing letter as the “Clustering Revisions.” The filing also includes the supporting testimony of Alan McBride, Director, Transmission Strategy and Services at the ISO, which is sponsored solely by the ISO (“McBride Testimony”).

The Clustering Revisions are the result of an extensive programmatic effort initiated by the ISO, in conjunction with stakeholders, to help address the interconnection queue backlog in Northern and Western Maine.<sup>5</sup> As more fully described in Section III of this letter, in most cases, the interconnection process is working well throughout the New England Transmission System with Interconnection Studies being completed within expected timeframes.<sup>6</sup> This, however, has not been the case for studies associated with Interconnection Requests for resources seeking to interconnect in the Northern and Western Maine parts of the system. The Northern and Western Maine areas of the system are comprised of a transmission network that was built to serve low levels of area load, and there are already a number of generators connected to this part of the system, leaving this part of the transmission system at its performance limit with no remaining margin.<sup>7</sup> Despite the limited infrastructure in the area, the ISO’s interconnection queue contains requests for more than 5,800 megawatts (“MW”) (as of September 2017) of proposed new resources (mostly wind) seeking to interconnect in the area. Significant new transmission infrastructure is required to interconnect the quantity of proposed resources in Northern and Western Maine.<sup>8</sup> This identified need for significant transmission infrastructure is common to all of the resources seeking to interconnect in these areas of the system.<sup>9</sup> Each Interconnection Request involves complex, lengthy engineering studies to identify the significant transmission infrastructure needed to accommodate the proposed resource, and individual interconnection projects are not able or willing on an individual basis to make the necessary system upgrade investments.<sup>10</sup> This combination of circumstances led to the development of a clustering solution to move the situation forward.<sup>11</sup>

---

Interconnection Agreement (“LGIA”), Schedule 23 contains the Standardized Small Generator Interconnection Procedures (“SGIP”) and Small Generator Interconnection Agreement (“SGIA”), and Schedule 25 contains the Elective Transmission Upgrade Interconnection Procedures (“ETU IP”) and Elective Transmission Upgrade Interconnection Agreement (“ETU IA”) (collectively, the “Interconnection Procedures”).

<sup>5</sup> See McBride Testimony at 4, 13-15.

<sup>6</sup> See *id.* at 4, 7-8.

<sup>7</sup> See *id.* at 4-5, 7-13.

<sup>8</sup> See *id.*

<sup>9</sup> See *id.*

<sup>10</sup> See McBride Testimony at 5.

<sup>11</sup> See *id.*

The Clustering Revisions submitted in this filing provide the process to resolve the queue backlog in Northern and Western Maine and, in the future, elsewhere on the New England Transmission System, should similar conditions arise.<sup>12</sup> More specifically, the Clustering Revisions incorporate in the OATT a two-phased study methodology for expediting the consideration of two or more Interconnection Requests and allocating interconnection upgrade costs among Interconnection Customers on a cluster basis in certain circumstances.<sup>13</sup> As described in Section III of this letter, the proposed clustering approach was informed by extensive research and review of cluster study approaches implemented by other independent system operators (“ISO”) and regional transmission organizations (“RTO”) in North America, including specific “targeted” study approaches designed to address situations similar to those observed in Maine,<sup>14</sup> as well as stakeholders’ experiences with those processes.<sup>15</sup> In parallel with this review, the ISO also initiated a strategic infrastructure study – the Maine Resource Integration Study – to identify the transmission upgrades that will be necessary to enable the interconnection of potentially all of the proposed resources in Northern and Western Maine.<sup>16</sup> This work not only informed the development of the clustering approach reflected in the Clustering Revisions proposed herein, but also will form the basis for the ISO’s first cluster study effort once the Clustering Revisions are approved.

As more fully described in Section IV of this letter, the proposed clustering methodology provides for Interconnection Requests to be considered on a cluster basis where a backlog of two or more Interconnection Requests seeking to interconnect in the same electrical part of the system is likely to persist with the continued application of the serial queue study process due to the need for new common significant infrastructure to interconnect the resources.<sup>17</sup> The application of the clustering approach will be limited and targeted because the serial queue study construct is generally working well throughout the New England system except in Northern and Western Maine.<sup>18</sup> Moreover, the imposition of clustering in all circumstances would run counter to key objectives of the cluster design, such as limiting the likelihood of restudies.<sup>19</sup>

---

<sup>12</sup> See *id.* 5-6.

<sup>13</sup> See *id.* 19-21.

<sup>14</sup> See *id.* at 13-19.

<sup>15</sup> See McBride Testimony at *id.* 16-17. See also *American Wind Energy Ass’n*, Comments of ISO New England Inc., Docket No. RM15-21-000 (filed Sept. 8, 2015) (“ISO-NE Comments”); *American Wind Energy Ass’n*, Petition for Rulemaking to Revise Generator Interconnection Procedures, Docket No. RM15-21-000 (filed June 19, 2015) (“AWEA Petition”).

<sup>16</sup> See McBride Testimony at 15.

<sup>17</sup> See *id.* at 19-21.

<sup>18</sup> See *id.* at 21-22.

<sup>19</sup> See *id.*

The clustering methodology comprises several mechanisms specifically designed to increase certainty, facilitate more informed decisions, and reduce the likelihood of restudies under clustering, consistent with the objectives of the reforms proposed in the Commission's recent *Reforms of Generator Interconnection Procedures and Agreements*, Notice of Proposed Rulemaking, issued in Docket No. RM17-8-000.<sup>20</sup> As described in Sections IV.A1-3 of this letter, the clustering approach consists of a two-phased study process designed to provide Interconnection Customers meaningful early information in the first phase of the study process regarding the likely ultimate outcome and cost of the infrastructure needed for the cluster study effort.<sup>21</sup> The approach also provides reasonable opportunities for Interconnection Customers to decide, on the basis of that information, whether or not to proceed to interconnection.<sup>22</sup> The first phase of the process consists of a transmission planning study performed under the Regional System Planning Process in Attachment K to identify the transmission infrastructure, called "Cluster Enabling Transmission Upgrades" ("CETU"), and associated system upgrades that will be necessary to enable the interconnection of potentially all of the proposed resources in the interconnection queue.<sup>23</sup> This first phase is referred to as the "Cluster Enabling Transmission Upgrade Regional Planning Study" ("CRPS"). The second phase consists of a Cluster Interconnection System Impact Study ("CSIS") and a Cluster Interconnection Facilities Study ("CFAC") (collectively, the "second-phase cluster studies") performed under the Interconnection Procedures to identify the specific facilities required to interconnect the resources that elect to move toward interconnection, and meet the entry requirements to participate in the second-phase cluster studies.<sup>24</sup>

As described in Section IV.A.5 below, when the clustering approach is triggered, all Interconnection Requests identified by the ISO as requiring the common CETU to interconnect will proceed to be considered under the clustering approach and included in the CRPS.<sup>25</sup> At the conclusion of the CRPS, the ISO will issue a final CRPS report identifying the CETU and associated system upgrades, and their cost estimates. The final CRPS report will also identify, as eligible to participate in the second-phase cluster studies, all Interconnection Customers with Interconnection Requests that need the CETU to interconnect to the system and do not have a completed System Impact Study ("SIS"). The issuance of the final CRPS report will trigger the second phase of the study process.

---

<sup>20</sup> *Reforms of Generator Interconnection Procedures and Agreements*, Notice of Proposed Rulemaking, 157 FERC ¶ 61,212 (Dec. 15, 2016) (the "Interconnection Reforms NOPR" or "NOPR"). *See also* *Reforms of Generator Interconnection Procedures and Agreements*, Comments of ISO New England Inc., Docket No. RM17-8-000 (filed Apr. 13, 2017).

<sup>21</sup> *See* McBride Testimony at 23-24.

<sup>22</sup> *See id.*

<sup>23</sup> *See id.* at 29-36.

<sup>24</sup> *See id.* at 36-42.

<sup>25</sup> *See id.* 25-27.

At the beginning of the second phase, Interconnection Customers identified as eligible to participate in the second-phase cluster studies that are ready to move forward will have an opportunity to elect to proceed to the cluster studies and meet the associated requirements.<sup>26</sup> Interconnection Customer's that are not ready to commit to move forward will have the opportunity to either step aside to the bottom of the interconnection queue or withdraw from the interconnection queue altogether. The CSIS will be filled, in queue order, with the Interconnection Requests associated with Interconnection Customers that elect to proceed to the second-phase cluster studies and meet the cluster entry requirements up to the megawatt quantity enabled by the CETU.<sup>27</sup>

To minimize uncertainties and impacts of late-stage withdrawals that are a significant vulnerability of some cluster study constructs, the Clustering Revisions incorporate additional requirements designed to evidence an Interconnection Customer's commitment to remain in the cluster and proceed to interconnection, and milestones that can serve as decision points for Interconnection Customers.<sup>28</sup> As described in Section IV.A.5 of this letter, Interconnection Customers will be required to submit two potentially non-refundable Cluster Participation Deposits in order to demonstrate initial and additional commitments to proceed towards interconnection. The first deposit is due upon election to enter the CSIS phase of the process, and the second is due prior to entering the Interconnection Agreement phase of the process, which follows the completion of the CFAC.<sup>29</sup> The combined Cluster Participation Deposits amount to a total of 10 percent of Interconnection Customer's respective cost responsibility for the CETU and associated system upgrades, and will be determined based on the proposed cost allocation methodology set forth in Schedule 11 of the OATT.<sup>30</sup> Unless forfeited due to withdrawal from the queue, the Cluster Participation Deposits will be fully refunded following the Interconnection Customer's disbursement of a 20 percent deposit that will be due to the Interconnecting Transmission Owner after Interconnection Customer's receipt of the final Interconnection Agreement for execution.<sup>31</sup>

Additionally, recognizing that the circumstances known at the time of an Interconnection Customer's election to be included in the CSIS can change significantly, the Clustering Revisions incorporate in the Interconnection Procedures time-specific off-ramps that afford Interconnection Customers reasonable opportunities to withdraw and receive a full refund of the applicable Cluster Participation Deposit(s) to the extent certain events occur.<sup>32</sup> Examples of such events include a

---

<sup>26</sup> See McBride Testimony at 43-44.

<sup>27</sup> See *id.* at 54-55.

<sup>28</sup> See *id.* at 42-43.

<sup>29</sup> See *id.* at 45-54.

<sup>30</sup> See *id.*

<sup>31</sup> See McBride Testimony at 48-50, 53-54.

<sup>32</sup> See *id.*

significant increase in the overall cost estimates for the CETU and the associated system upgrades provided in the CRPS when compared to the cost estimates provided in the second-phase cluster studies. To further minimize the uncertainties and impacts of withdrawals, the Clustering Revisions also incorporate key cluster design features to address the possibility of cluster oversubscription (where more eligible Interconnection Requests in the queue meet the cluster entry requirements than can be ultimately accommodated by the CETU), cluster undersubscription (where less than 90 percent of megawatt quantity enabled by the CETU and associated upgrades elect to proceed to the CSIS), backfilling (where later-queued eligible projects can enter the cluster upon withdrawal of a cluster project), and cluster collapse (where all projects withdraw or all but one eligible project withdraws from the cluster process).<sup>33</sup>

As mentioned earlier, the proposed threshold to trigger the clustering approach is the identified need for new common significant infrastructure to interconnect the proposed resources in the interconnection queue. Schedule 11 of the OATT, however, does not currently address how to allocate interconnection costs to Interconnection Customers in the case of clustering. Accordingly, the Clustering Revisions also revise Schedule 11 of the OATT to incorporate cluster cost allocation provisions, pursuant to which, sole use facility costs will continue to be paid by the respective Interconnection Customer, and shared upgrade (*e.g.*, CETU) costs will be paid for by Interconnection Customers with Interconnection Requests included in the cluster based on either a distribution factor or pro-rata megawatt methodology, depending on the type of upgrade.<sup>34</sup> The Clustering Revisions also incorporate in Schedule 11 late comer provisions that provide for reimbursement of CETU costs to Interconnection Customers in the cluster by certain Interconnection Customers with resources that interconnect to the CETU after the original CETU funding.<sup>35</sup>

Finally, the Clustering Revisions modify the Interconnection Procedures to establish clear transition rules. As noted earlier, the ISO is in the process of completing the Maine Resource Integration Study, a new study for the Maine area that will identify the interconnection upgrades that will be necessary to enable the interconnection of potentially all of the proposed resources in Northern and Western Maine. To avoid further delays in addressing the Maine queue backlog, the Clustering Revisions modify the transition rules to provide for the current Northern and Western queue backlog to be the first circumstance that triggers the clustering approach, and the Maine Resource Integration Study to be the first CRPS and serve as the basis for the first cluster studies.<sup>36</sup> As described in Section IV.A.7, consistent with the transition construct established in Order No. 2003, the amendments to the transition rules also specify how Interconnection Customers will be

---

<sup>33</sup> *See id.* at 54-57

<sup>34</sup> *See id.* at 58-64.

<sup>35</sup> *See id.* at 64-66.

<sup>36</sup> *See McBride Testimony* at 66-67.

identified as eligible for inclusion in the transition cluster, and the ISO has already begun working with these customers to facilitate their transition into the new rules.<sup>37</sup>

The Clustering Revisions were strongly supported by NEPOOL, the PTO AC and all six New England states. The Filing Parties submit the Clustering Revisions are just and reasonable, and request the Commission accept them as filed, without modification or condition, to be effective on **November 1, 2017**.

## **I. DESCRIPTION OF THE FILING PARTIES AND COMMUNICATIONS**

The ISO is the private, non-profit entity that serves as the RTO for New England. The ISO plans and operates the New England bulk power system and administers New England's organized wholesale electricity market pursuant to the Tariff and the TOA with the PTOs. In its capacity as an RTO, the ISO has the responsibility to protect the short-term reliability of the New England Control Area and to operate the system according to reliability standards established by the Northeast Power Coordinating Council and the North American Electric Reliability Corporation.

The PTOs<sup>38</sup> are Transmission Providers providing Local Service over Non-Pool Transmission Facilities on an open-access basis under Schedule 21 of the OATT. Pursuant to the terms of the TOA among the PTOs and the ISO, the PTOs own, physically operate and maintain Transmission Facilities in New England and the ISO has Operating Authority (as defined in Schedule 3.02 of the TOA) over all of the Transmission Facilities of the PTOs, including those used to provide service under Schedule 21. Section 3.04 of the TOA also grants the PTOs authority under Section 205 of the FPA to submit filings to the Commission in matters affecting the rates, terms and conditions of Local Service under Schedule 21 and rates and charges, including cost allocation, for Regional Transmission Service under the OATT.

---

<sup>37</sup> *See id.*

<sup>38</sup> The PTOs include: Town of Braintree Electric Light Department; Central Maine Power Company; Maine Electric Power Company; The City of Chicopee Municipal Lighting Plant; Connecticut Municipal Electric Energy Cooperative; Connecticut Transmission Municipal Electric Energy Cooperative; Emera Maine (Bangor Hydro Division); The City of Holyoke Gas and Electric Department; Green Mountain Power Corporation; Town of Hudson Light and Power Department; Massachusetts Municipal Wholesale Electric Company; Town of Middleborough Gas & Electric Department; New England Power Company d/b/a National Grid; New Hampshire Electric Cooperative, Inc.; New Hampshire Transmission, LLC; Eversource Energy Service Company on behalf of certain of its affiliates: The Connecticut Light and Power Company, Western Massachusetts Electric Company, and Public Service Company of New Hampshire; NSTAR Electric Company; Taunton Municipal Lighting Plant; Town of Norwood Municipal Light Department; Town of Reading Municipal Light Department; The United Illuminating Company; Unitil Energy Systems, Inc.; Fitchburg Gas and Electric Light Company; Vermont Electric Power Company; Vermont Electric Cooperative, Inc.; Vermont Transco, LLC; Vermont Public Power Supply Authority; Shrewsbury Electric and Cable Operations; and Town of Wallingford, Connecticut Department of Public Utilities Electric Division.

NEPOOL is a voluntary association organized in 1971 pursuant to the New England Power Pool Agreement, and it has grown to include more than 460 members. The Participants include all of the electric utilities rendering or receiving service under the Tariff, as well as independent power generators, marketers, load aggregators, brokers, consumer-owned utility systems, end users, developers, demand resource providers, and a merchant transmission provider. Pursuant to revised governance provisions accepted by the Commission,<sup>39</sup> the Participants act through the NEPOOL Participants Committee. The Participants Committee is authorized by Section 6.1 of the Second Restated NEPOOL Agreement and Section 8.1.3(c) of the Participants Agreement to represent NEPOOL in proceedings before the Commission. Pursuant to Section 2.2 of the Participants Agreement, “NEPOOL provide[s] the sole Participant Processes for advisory voting on ISO matters and the selection of ISO Board members, except for input from state regulatory authorities and as otherwise may be provided in the Tariff, TOA and the Market Participant Services Agreement included in the Tariff.”

Correspondence and communications in this proceeding should be addressed to:

**THE ISO**

Monica Gonzalez, Esq.\*  
Senior Regulatory Counsel  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841  
Tel: (413) 535-4178  
Fax: (413) 535-4379  
E-mail: [mgonzalez@iso-ne.com](mailto:mgonzalez@iso-ne.com)

**PTO AC**

Paul A. Dumais, DSL  
Chair, PTO AC  
c/o AVANGRID  
89 East Avenue Rochester, NY 14580  
Tel: (585) 724-8542  
E-mail: [paul.dumais@iberdrolausa.com](mailto:paul.dumais@iberdrolausa.com)

Mary E. Grover, Esq.\*  
Chair, PTO AC Legal Work Group c/o  
Eversource Energy  
800 Boylston Street, P1700  
Boston, MA 02199-8003  
Tel: (617) 424-2105  
E-mail: [mary.grover@eversource.com](mailto:mary.grover@eversource.com)

---

<sup>39</sup> *ISO New England Inc.*, 109 FERC ¶ 61,147 (2004).



## NEPOOL

José A. Rotger  
ESAI Power LLC  
401 Edgewater Place, Suite 640  
Wakefield, Massachusetts 01880 USA  
Tel: (781) 245-2036 x28  
Fax: (781) 245-8706  
E-mail: [jrotger@esai.com](mailto:jrotger@esai.com)

Eric K. Runge, Esq.\*  
Day Pitney LLP  
One International Place  
Boston, MA 02110  
Tel: (617) 345-4735  
E-mail: [ekrunge@daypitney.com](mailto:ekrunge@daypitney.com)

\*Persons designated for service.<sup>40</sup>

## II. STANDARD OF REVIEW

The Clustering Revisions are submitted pursuant to Section 205 of the FPA, which “gives a utility the right to file rates and terms for services rendered with its assets.”<sup>41</sup> Under Section 205, the Commission “plays ‘an essentially passive and reactive’ role”<sup>42</sup> whereby it “can reject [a filing] only if it finds that the changes proposed by the public utility are not ‘just and reasonable.’”<sup>43</sup> The Commission limits this inquiry “into whether the rates proposed by a utility are reasonable – and [this inquiry does not] extend to determining whether a proposed rate schedule is more or less reasonable than alternative rate designs.”<sup>44</sup> The revisions filed herein “need not be the only reasonable methodology, or even the most accurate.”<sup>45</sup> As a result, even if an intervenor or the Commission develops an alternate proposal, the Commission must accept this Section 205 filing if it is just and reasonable.<sup>46</sup>

The Clustering Revisions include proposed variations to the Commission-approved *pro forma* LGIP/LGIA and SGIP/SGIA set forth in Schedules 22 and 23 of the OATT, which the ISO also submits under the “independent entity variation standard” of review established in

---

<sup>40</sup> The Filing Parties respectfully request a waiver of Section 385.203(b)(3) of the Commission’s regulations to allow the inclusion of more than two persons on the service list in this proceeding.

<sup>41</sup> *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002).

<sup>42</sup> *Id.* at 10 (quoting *City of Winfield v. FERC*, 744 F.2d 871, 876 (D.C. Cir. 1984)).

<sup>43</sup> *Id.* at 9.

<sup>44</sup> *Cities of Bethany, Bushnell, et al. v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir.), *cert. denied*, 469 U.S. 917 (1984) (“*Cities of Bethany*”). See also *ISO New England Inc.*, 114 FERC ¶ 61,315 at P 33 and n.35 (2005) (citing *Pub. Serv. Co. of New Mexico v. FERC*, 832 F.2d 1201, 1211 (10th Cir. 1987) and *Cities of Bethany* at 1136.).

<sup>45</sup> *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (citing *Cities of Bethany* at 1136).

<sup>46</sup> *Cf. S. California Edison Co., et al.*, 73 FERC ¶ 61,219 at 61,608 n.73 (1995) (“Having found the Plan to be just and reasonable, there is no need to consider in any detail the alternative plans proposed by the Joint Protesters.”) (citing *Cities of Bethany* at 1136.).

Order No. 2003.<sup>47</sup> In accordance with Order No. 2003, an RTO or an ISO proposing variations from the *pro forma* interconnection procedures and agreement established in that Final Rule must demonstrate that the variations are just and reasonable and not unduly discriminatory, and would accomplish the purposes of Order No. 2003.<sup>48</sup> To evaluate the variations sought by RTOs and ISOs, the Commission applies the “independent entity variation standard” of review.<sup>49</sup> This standard reflects the Commission’s recognition that “an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in an unduly discriminatory manner than a Transmission Provider that is a market participant.”<sup>50</sup> This standard also provides RTOs and ISOs greater flexibility to customize their interconnection procedures and agreements to the particular needs of the region.<sup>51</sup>

---

<sup>47</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh’g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh’g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh’g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230, (Feb. 25, 2008). *See also Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, *order on reh’g*, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005), *order on clarification*, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006).

<sup>48</sup> *See* Order No. 2003 at PP 822-27. In Order No. 2006, the Commission also provided that an ISO/RTO may seek an “independent entity variation” from the final rule, which permits an ISO/RTO to adopt interconnection procedures that are responsive to specific regional needs. The Commission reviews variations proposed by an ISO/RTO “to ensure that they do not provide unwarranted opportunity for undue discrimination or produce an interconnection process that is unjust and unreasonable.” *See ISO New England Inc.*, 115 FERC ¶ 61,050 at P 12 (2006) (citing *PJM Interconnection, L.L.C.*, 108 FERC ¶ 61,025 at P 7 (2004); *Midwest Independent Transmission Sys. Operator, Inc.*, 114 FERC ¶ 61,270 at P 29 (2006)).

<sup>49</sup> *See* Order No. 2003 at P 827.

<sup>50</sup> *Id.* *See also Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 13 (2008) (“Because RTOs and ISOs do not own generation and thus do not have an incentive to unduly discriminate, variations sought by an RTO or ISO are reviewed under the “independent entity variation standard.”) (“Queuing Practices Order”).

<sup>51</sup> *See* Order No. 2003 at P 147; *see id.* at PP 26 (allowing RTOs and ISOs “more flexibility to customize” interconnection procedures and agreements), 34 (affording RTOs and ISOs “more flexibility to propose different procedures and a different agreement”), 822 (providing “an RTO or ISO greater flexibility than that allowed under the regional differences rationale to propose variations from the Final Rule provisions”).

### III. BACKGROUND

The Clustering Revisions incorporate the proposed clustering approach in Schedules 22, 23 and 25 of the OATT – the Interconnection Procedures – which are based on the basic *pro forma* structure adopted in the Commission’s Order Nos. 2003 and 2006. To facilitate the Commission’s consideration of the Clustering Revisions, the Filing Parties provide an overview of the Interconnection Procedures, highlighting some of the key regional variations reflected therein, as well as the specific issues in the region leading to the Clustering Revisions proposed herein.

#### A. The New England Interconnection Procedures

In Order Nos. 2003 and 2006, the Commission established the *pro forma* interconnection procedures and agreements setting forth the terms and conditions under which public utilities must provide interconnection service to Large Generating Facilities and Small Generating Facilities, respectively. While Order Nos. 2003 and 2006 recognized the need to establish an overarching national framework for Generating Facility interconnections, they also acknowledged the need for regional flexibility because of the vastly different network electrical characteristics, market structures and fundamentals, and the different compositions of the interconnection queues across the nation.<sup>52</sup> Indeed, in the case of independent transmission providers, such as ISOs and RTOs, the Commission indicated that it would consider variations from the *pro forma* interconnection procedures and agreements, recognizing “that an RTO or ISO has different operating characteristics, depending on its size and location, and is less likely to act in an unduly discriminatory manner than a Transmission Provider that is a market participant.”<sup>53</sup> Thus, the *pro forma* set out in Order Nos. 2003 and 2006 provided the baseline from which the ISO worked to ensure that its interconnection procedures and agreements would accommodate its market, tariff and operational differences from other regions, while still advancing the core objectives reflected in the orders.

While based on the Order Nos. 2003 and 2006 *pro forma*, since the initial compliance filing, Schedules 22 and 23 of the OATT have necessarily reflected regional differences that are significant. Through a series of filings to comply with Order No. 2003, NEPOOL initially, and after RTO formation, the ISO and PTOs (the latter acting through the PTO AC) sought to incorporate a modified version of the Commission’s *pro forma* LGIP and LGIA as Schedule 22 of the OATT. The Commission accepted most of the modifications as originally proposed under the “independent entity” standard.<sup>54</sup> In particular, the Commission approved the retention of a number of New

---

<sup>52</sup> See Order No. 2003 at P 827 (recognizing the differing characteristics of each region and providing ISO/RTOs with the flexibility to seek independent entity variations from the final rule “to customize its interconnection procedures and agreements to fit regional need”).

<sup>53</sup> *New England Power Pool, Bangor Hydro-Electric Co., et al.*, 109 FERC ¶ 61,155 at P 4 (2004) (citing Order 2003 at P 827) (“Order No. 2003 Compliance Order”).

<sup>54</sup> See, e.g., *id.* The approved independent entity variations were also carried forward into Schedule 23 of the OATT, which was filed in compliance with Order Nos. 2006 and 2006-A on November 10, 2005, and February 15, 2006, in Docket No. ER06-191-000. On April 14, 2006, the Commission issued an Order accepting in part and rejecting in part certain proposed variations to the Commission’s *pro forma*

England's existing rules and policies, including a single Interconnection Service pursuant to the Minimum Interconnection Standard ("MIS"),<sup>55</sup> and the "but-for" cost allocation provisions under Schedules 11 and 12 of what is now the OATT.<sup>56</sup> The ISO's unique market rules also contributed to the need for regional variations from the Order No. 2003 *pro forma*. Variations were warranted because of New England's regional design under which firm transmission service is not offered, but transmission is instead scheduled in real-time energy markets based on security-constrained economic dispatch outcomes.<sup>57</sup> Finally, the initial and subsequent levels of Interconnection Service offered prior to and since the issuance of Order No. 2003 have been designed to correlate with the level of market participation requested (or pursued) by the Interconnection Customer.<sup>58</sup>

Despite these important differences, the Interconnection Procedures in New England have generally reflected the interconnection process flow and milestones established in Order Nos. 2003 and 2006, starting with the submission of an Interconnection Request, followed by a Scoping

---

SGIP and SGIA. See *ISO New England Inc.*, 115 FERC ¶ 61,050 (2006) ("April 2006 Order"). On May 15, 2006, as amended on June 1, 2006, and supplemented on October 23, 2006, the ISO (together with NEPOOL and the PTO AC) submitted a subsequent filing in compliance with the Commission's April 2006 Order, in Docket No. ER06-191, which was accepted by the Commission in a Letter Order issued on April 13, 2007. These parties made an Order No. 2006-B compliance filing in ER07-87, which was accepted in part and rejected in part in *ISO New England Inc.*, 119 FERC ¶ 61,293 (2007). A subsequent compliance filing was made on July 23, 2007, in Docket No. ER07-87, which was accepted by Letter Order issued on December 3, 2007.

<sup>55</sup> See Order No. 2003 Compliance Order at PP 36-50. See also *ISO New England Inc. and New England Power Pool*, 121 FERC ¶ 61,070 (2007) ("October 19, 2007 Order") (addressing commitment to develop tariff revisions to address the relationship between Forward Capacity Market and the interconnection process). MIS differs from the Commission's Energy Resource Interconnection Standard. It is designed to identify the minimum required upgrades, consistent with no degradation of transfer capability, maximum one-for-one displacement of existing/proposed generation, meeting all reliability standards, and an ability to operate and maintain the system. MIS is more stringent than a "plug and play"-type standard. It assures no degradation to the load-serving capability of the system, but does not assure incremental capacity to serve load. See *New England Power Pool*, 87 FERC ¶ 61,347 (1999).

<sup>56</sup> See Order No. 2003 Compliance Order at PP 83-85. The compliance filing with Order No. 2003 left intact the cost allocation arrangements in New England for upgrade cost allocation, including the provisions applicable to the costs of Generator Interconnection Related Upgrades, which were set forth in Schedules 11 and 12 of the OATT. The interconnection cost allocation methodology provided for under Schedule 11 allocates all costs of interconnection that would not have been incurred but for the interconnection to Interconnection Customers. In turn, Interconnection Customers do not pay for the regional transmission service needed to deliver the generator's output to load; load pays for that.

<sup>57</sup> See *ISO New England Inc.*, 123 FERC ¶ 61,133 at PP 13-17 (2008).

<sup>58</sup> See *ISO New England Inc. and New England Power Pool*, 126 FERC ¶ 61,080 at P 14 (2009) ("FCM/Queue Amendments Order").

Meeting and the required Interconnection Studies, and culminating with an Interconnection Agreement. More specifically, under the Interconnection Procedures, the interconnection process begins with an Interconnection Customer's submission of an Interconnection Request for a proposed Generating Facility or an Elective Transmission Upgrade ("ETU") interconnection to the Administered Transmission System. Once a valid Interconnection Request is established, the ISO assigns a Queue Position (based on the traditional "first-come, first-served" approach) to the Interconnection Request. The assigned Queue Position is used to determine the order of performing the Interconnection Studies and the cost responsibility for the upgrades necessary to accommodate the Interconnection Request. Following the Scoping Meeting, the Interconnection Customer elects whether it wishes to streamline the Interconnection Studies' stage of the process by opting to complete the Interconnection Feasibility Study ("FS") as part of the SIS. Once that election is made, the ISO proceeds to perform the FS or the SIS, depending on the Interconnection Customer's election, using the *pro forma* serial queue study approach. The Interconnection Procedures also provide Interconnection Customers the option to expedite the interconnection process by waiving the Interconnection Facilities Study ("FAC") in favor of an Engineering and Procurement Agreement with the Interconnecting Transmission Owner and proceeding directly to the development of the Interconnection Agreement. After performance of Interconnection Studies, the interconnection process culminates with a *pro forma* Interconnection Agreement.

## **B. Significant Improvements to the Interconnection Procedures**

Since incorporating the LGIP/LGIA in Schedule 22 and the SGIP/SGIA in Schedule 23 of the OATT, the Interconnection Procedures have undergone significant enhancements and several minor improvements to address concerns unique to the region. Two significant enhancements – the incorporation of the Forward Capacity Market ("FCM") and the inclusion of ETUs – influenced some of the key features of the clustering approach. Thus, a brief overview of these enhancements is provided herein.

### **1. Alignment of the FCM and Interconnection Queue Processes**

In the 2006-2008 timeframe, the ISO's interconnection queue experienced a significant increase in Interconnection Requests activities driven, in part, by the implementation of the FCM.<sup>59</sup> The FCM – New England's capacity market, which procures enough capacity to meet New England's forecasted Installed Capacity Requirements three years in the future – encouraged the development of additional generation in New England, in turn increasing the number of Interconnection Requests in the interconnection queue. These efforts introduced certain complexities to the interconnection queue process in New England in that they led to more generation in the interconnection queue than would be qualified through the FCM and that would likely be constructed.<sup>60</sup> Some New England stakeholders also raised concerns with the FCM qualification process' reliance upon the interconnection queue, established based on a

---

<sup>59</sup> See Queuing Practices Order at PP3, 5.

<sup>60</sup> See *id.*

“first-come, first-serve” construct, to break the tie between overlapping new generator resources in the same or similar electrical location seeking to qualify for participation in the same Forward Capacity Auction (“FCA”).<sup>61</sup>

In a 2008 joint filing with the PTO AC and NEPOOL, the ISO revised its Tariff, including Schedules 22 and 23, to accommodate implementation of the FCM.<sup>62</sup> The FCM/Queue Amendments improved the coordination between the FCM and the interconnection queue process for the allocation of interconnection capability on the system. Before the FCM/Queue Amendments, Schedules 22 and 23 reflected a single Interconnection Service level – the Network Resource Interconnection Service (“NRIS”) – based on the MIS that provided generators interconnecting to the system with full market access, including eligibility for capacity credits. The FCM/Queue Amendments continued to provide resources the option of NRIS, but formalized that NRIS would no longer be sufficient to participate in the capacity market.<sup>63</sup> Participation in the capacity market would be pursuant to a new type of Interconnection Service – the Capacity Network Resource Interconnection Service (“CNRIS”) – achieved through a resource’s successful participation in the FCM and completion of the upgrades identified to accommodate the request.<sup>64</sup> The CNRIS option affords Interconnection Customers the ability to interconnect their facilities for capacity under the intra-zonal deliverability standard, called the Capacity Capability Interconnection Standard, up to the facility’s Capacity Network Resource (“CNR”) Capability.<sup>65</sup> The CNR Capability is based on the Interconnection Customer’s Capacity Supply Obligation obtained through the FCM.

To achieve full coordination with the FCM, New England also shifted from a “first-come, first-served” to a “first-cleared, first-served” approach for CNRIS. Under the coordinated processes, Interconnection Customers seeking CNRIS and NRIS must complete the same steps (*i.e.*, participate in a Scoping Meeting, complete Interconnection Studies, and enter into an Interconnection Agreement). All Interconnection Requests are studied in sequential order under the “first-come, first-served” serial queue order construct, and are subject to restudy only to the extent the conditions specified in the Interconnection Procedures are triggered. To achieve CNRIS, however, an Interconnection Customer must also complete additional FCM-related milestones, including participating in an annual group study (the “CNR

---

<sup>61</sup> See FCM/Queue Amendments Order at P 9.

<sup>62</sup> See *ISO New England Inc., et al.*, Joint Filing of Proposed Revisions to the Generator Interconnection Process and the Forward Capacity Market Participation Provisions Set Forth in the ISO New England Inc. Transmission, Markets and Services Tariff, Docket Nos. ER04-432-006, *et al.* (filed Oct. 31, 2008) (the “FCM/Queue Amendments”).

<sup>63</sup> See FCM/Queue Amendments Order at P 14.

<sup>64</sup> See *id.*

<sup>65</sup> See *id.*

Group Study”) conducted by the ISO as part of the FCM qualification process for capacity deliverability assessment. The CNR Group Study is a cluster study conducted for capacity purposes. In the CNR Group Study, CNRIS Interconnection Requests are studied in queue order relative to the other Interconnection Requests that are also seeking to qualify to participate in the same FCA. These requests are qualified to participate in the FCA if needed upgrades can be completed in time for the relevant FCA Capacity Commitment Period. During this process, later-queued resources learn if their upgrades depend on the outcome for earlier-queued resources. CNRIS (and associated upgrade and cost responsibilities) is assigned to those resources that obtain a Capacity Supply Obligation even if they clear before an earlier-queued resource – hence, a “first-cleared, first-served” construct. In other words, the allocation of interconnection capacity service and the associated obligations is based on the results of the market. This provides a mechanism to discipline multiple capacity Interconnection Requests when they are pending in the interconnection queue – the first cleared resource moves forward and the remaining resources decide whether to participate in a subsequent auction or withdraw. The resulting coordinated processing, while complicated, has been successful for multiple capacity periods.

## **2. ETU Interconnection Process Improvements**

In 2015, in a joint filing with the PTO AC and NEPOOL, the ISO further revised its Tariff to address certain identified deficiencies with the then-existing process for evaluating the interconnection of participant-funded transmission lines – ETUs – to the New England system.<sup>66</sup> As of February 2015, there were approximately 20 applications proposing the interconnection of transmission facilities that were in different stages of studies in the ISO interconnection study queue. Such requests ranged from internal New England upgrades to better integrate generation to interconnecting new transmission lines with neighboring Control Areas, both high voltage direct current (“HVDC”) and alternating current (“AC”), seeking to import capacity and energy into the region. Under the then-current rules, it was difficult for both ETU developers and the ISO to make progress on the SIS and interconnection of these projects. Although ETU applicants were assigned a Queue Position at the time of the application, that Queue Position was essentially meaningless because an ETU’s SIS could not be conducted in an orderly manner, consistent with the assigned Queue Position. An ETU’s SIS could not delay a Generating Facility’s SIS and, therefore, had to constantly true-up to generator interconnection studies. Said differently, ETU Queue Positions were in constant “free-fall,” resulting in study uncertainties, added costs and project delays.

The Tariff changes (referred to as the “ETU Rule Changes”) incorporated rules to manage the interconnection of ETUs. More specifically, through a new Schedule 25 designed to set forth interconnection requirements and obligations for ETUs, similar to those of internal Large Generating Facilities, ETUs are now able to establish and maintain a meaningful Queue Position. The ETU Rule Changes also established the ability to obtain Interconnection Service

---

<sup>66</sup> See *ISO New England Inc.*, 151 FERC ¶ 61,024 (2015).

for certain types of External ETUs. The changes also created mechanisms for ETU interconnections within the New England Control Area (“Internal ETUs”) to become directly associated with specific Generating Facilities seeking CNRIS so that they can be studied together and thereby improve the Generating Facility’s ability to interconnect and qualify for the FCM.<sup>67</sup> The addition of interconnection requirements and obligations for ETUs similar to those of internal Large Generating Facilities helped streamline the overall queue and provided certainty in the process for those ETUs that continued in the queue.

#### **B. The Need for Additional Changes to New England’s Interconnection Process**

The above-described major efforts have significantly improved interconnection queue processing in New England. In most cases, the interconnection process is working well throughout the New England Transmission System with SISs being completed, on average, within a year of execution of the SIS Agreement.<sup>68</sup> This, however, has not been the case for studies associated with Interconnection Requests for resources seeking to interconnect in the Northern and Western Maine parts of the system.

The Northern and Western Maine areas of the system are comprised of a transmission network that was built to serve low levels of area load, and there are already a number of generators connected to this part of the system, leaving this part of transmission system at its performance limit with no remaining margin.<sup>69</sup> Despite the limited transmission infrastructure in the area, the ISO’s interconnection queue contains requests for approximately 5,800 MWs (as of September 2017) of new resources (mostly wind) seeking to interconnect in the area.<sup>70</sup> Simply put, significant infrastructure is needed to interconnect the quantity of proposed resources in Northern and Western Maine.<sup>71</sup> While the primary obstacle to interconnection for these resources is a physical one of limited transmission infrastructure, ISO-NE has identified the key contributing factors to the Maine queue study backlog.<sup>72</sup> As described in the ISO-NE Comments, each of the identified factors has introduced significant complexities to the Interconnection Studies, requiring more effort and time to those studies.<sup>73</sup> Thus, in July 2015, ISO-NE, in conjunction with stakeholders, initiated a programmatic effort to address them.

---

<sup>67</sup> *See id.* at PP 9-10.

<sup>68</sup> *See* McBride Testimony at 7.

<sup>69</sup> *See id.* at 8-13. *See also* ISO-NE Comments at 13-17.

<sup>70</sup> *See* McBride Testimony at 4. *See also id.* at 13.

<sup>71</sup> *See id.* at 8.

<sup>72</sup> *See id.* at 13-14. *See also* ISO-NE Comments at 12-18.

<sup>73</sup> *See id.*



First, as part of that effort, the ISO focused on addressing the complexities introduced by the nature of the generation technology (primarily wind and inverter-based generation) being proposed. That effort resulted in a February 2016 joint filing of the ISO and PTO AC (with stakeholder support) proposing revisions to the Interconnection Procedures to incorporate new technical and modeling data requirements, including detailed up-front project design and standardized model requirements, for wind and inverter-based generators designed to make these technologies more “study-ready,” similar to conventional generators.<sup>74</sup> The 2016 Improvements, approved by the Commission in April 2016 under the “independent entity variation” standard,<sup>75</sup> also included clarifications of the ISO’s Material Modification review procedures and other provisions to accommodate technology changes while minimizing potential impacts to lower-queued projects. Improvements are already being observed as a result of the implementation of these changes.<sup>76</sup>

While the 2016 Improvements provided key tools to expediting Interconnection Study work for wind and inverter-based generators, they alone were not expected to resolve the Maine queue backlog. As noted above, there is a lack of transmission infrastructure in this relatively remote region, far from New England’s load centers. Accordingly, in early 2016, the ISO engaged in further discussions with stakeholders to respond to the identified infrastructure challenge, which led to the consideration of a clustering solution to move the situation forward.<sup>77</sup> Careful consideration, however, was warranted to minimize the uncertainties and restudy exposure issues that can be experienced with cluster study constructs.<sup>78</sup>

To that end, the ISO undertook extensive research and reviewed with stakeholders at the Planning Advisory Committee the clustering approaches implemented in other ISOs and RTOs in North America.<sup>79</sup> The ISO’s review included “targeted” clustering approaches implemented in other

---

<sup>74</sup> See *ISO New England Inc. and Participating Transmission Owners Admin. Comm.*, Revisions to Schedules 22, 23 and 25 of the Open Access Transmission Tariff Related to Certain Interconnection Process Improvements, Docket No. ER16-946-000, *et al.* (filed Feb. 16, 2016) (the “2016 Improvements”).

<sup>75</sup> See *ISO New England Inc. and Participating Transmission Owners Admin. Comm.*, 155 FERC ¶ 61,031 (April 15, 2016) (“April 2016 Order”) (accepting the 2016 Improvements).

<sup>76</sup> See McBride Testimony at 14. For example, in 2016, a new inverter-based electric storage facility seeking to interconnect in Southern Maine completed the entire interconnection process and achieved Commercial Operation in approximately a year.

<sup>77</sup> See *id.* at 15. A clustering approach would allow Interconnection Requests to be studied together and share the cost of the significant new transmission upgrades.

<sup>78</sup> See *id.* See, e.g., AWEA Petition at 22.

<sup>79</sup> See McBride Testimony at 16-17. The ISO surveyed the cluster study approaches in the California Independent System Operator Corporation (“CAISO”), Midcontinent Independent System Operator, Inc. (“MISO”), New York Independent System Operator, Inc. (“NYISO”), PJM Interconnection, L.L.C. (“PJM”), and Southwest Power Pool, Inc. (“SPP”).

regions that were specifically designed to address situations similar to those observed in Maine – namely, an emergence of a backlog in a remote part of the system and the identification of a set of infrastructure that could be used to interconnect queued resources.<sup>80</sup> Additionally, the ISO sought stakeholders’ experiences with clustering processes in other areas. In this regard, the ISO also considered the concerns raised in the AWEA Petition and the objectives of the reforms that AWEA proposed therein. In particular, the ISO considered the requests to improve study/restudy and cost certainty and limit restudy exposure, all of which would be harmed by the application of a poorly designed clustering methodology or by the unnecessary application or over-application of clustering.<sup>81</sup> Finally, the ISO considered the interaction of a clustering approach with the FCM.<sup>82</sup> As described above, the Interconnection Procedures already include a form of an annual cluster or group study – the CNR Group Study – conducted as part of qualification for each FCA. The imposition of a second cluster study approach in all circumstances where there are new resources in proximity would over-complicate and impede FCM participation, as resources would have to await for the outcome of the additional cluster study processes before having sufficient information to participate in the FCM.<sup>83</sup> Such a design would run counter to the competitive dynamic that is created under the current CNR Group Study design described above.

In parallel with the clustering approach discussions, the ISO initiated the Maine Resource Integration Study, a strategic infrastructure study to identify the significant transmission infrastructure needed to enable the interconnection of potentially all of the resources proposed in Northern and Western Maine.<sup>84</sup> This study work has been presented and discussed from its formative stage at the Planning Advisory Committee. Through this study work, the ISO has provided a wealth of information regarding system limitations in the Northern and Western Maine parts of the system, and the needed transmission infrastructure and system upgrades. This effort informed the clustering methodology proposed herein. It has also informed Interconnection Customers with Interconnection Requests pending in the queue without completed SIS, policymakers, regulators and other interested stakeholders, and should facilitate their considerations regarding regional initiatives, merchant development and other efforts.

---

<sup>80</sup> See *id.* See also *Portland Gen. Elec. Co.*, 139 FERC ¶ 61,133 (2012) (granting request for limited waiver regarding interconnection studies for the Cascade Crossing Transmission Project, a proposed 500 kV transmission line that was being developed to connect a large amount of resources located east of the Cascade Mountains to Portland General Electric Company’s transmission system) (the “Cascade Project Order”); *California Indep. Sys. Operator*, 118 FERC ¶ 61,226 (2007) (granting request for waiver to conduct a clustered System Impact Study of the Tehachapi Wind Resource Area, California’s largest wind resource area, with approximately 4,500 megawatts of proposed wind generation resources, requiring significant transmission infrastructure upgrades to interconnect them) (the “Tehachapi Order”).

<sup>81</sup> See McBride Testimony at 16-17.

<sup>82</sup> See *id.* at 17-19.

<sup>83</sup> See *id.* at 18-19.

<sup>84</sup> See *id.* at 15.

These combined efforts resulted in the proposed clustering approach targeted at addressing situations like those observed in Northern and Western Maine that is reflected in the Clustering Revisions filed herein. As more fully described below, the Clustering Revisions establish the mechanism for considering Interconnection Requests and allocating interconnection upgrade costs among Interconnection Customers on a cluster basis under the circumstances when a queue backlog caused by a lack of transmission infrastructure in a given part of the system is likely to persist with the continued application of the serial queue study process. Importantly, the Clustering Revisions do not, and are not intended to, create a mechanism for transmission infrastructure itself to get built unless the Interconnection Customer commits to pay for the transmission through the process.<sup>85</sup> Instead, they provide the mechanism (and the associated cost allocation) by which Interconnection Requests can be studied and information about the magnitude and cost of the needed infrastructure will be provided in an open and transparent way, so that Interconnection Customers can make well-informed decisions regarding whether or not to move forward with their projects. The first phase of the clustering approach provides for the identification of the Interconnection Requests that may be eligible to participate in the cluster studies and the needed infrastructure (and associated cost estimates) to interconnect the proposed resources in an open and transparent forum – the Regional System Planning Process. This first-phase work will be presented and discussed from its formative stage through completion at the Planning Advisory Committee where Interconnection Customers, policymakers, regulators and other interested parties can take an active role and provide input to the ISO. The outcome of the first phase of the study process will provide Interconnection Customers a wealth of information necessary to facilitate well-informed decisions about whether or not to move forward with their projects. It can also inform regional initiatives and other considerations, including state procurement processes taking place outside of the ISO's interconnection process.<sup>86</sup> This, in turn, will help discipline the interconnection queue when a backlog is likely to result because of a need for significant common transmission infrastructure.

#### **IV. DESCRIPTION OF AND JUSTIFICATION FOR THE REVISIONS**

The Clustering Revisions achieve the key cluster design objectives, and are reflected in the Tariff as follows:

- Schedules 22, 23 and 25 of the OATT have been revised to incorporate the proposed situation-specific clustering methodology, including the: cluster triggers; two-phased study process and responsibility for study costs; cluster entry requirements (including deposits) and milestones; procedures for populating the cluster and addressing the impacts of cluster oversubscription, undersubscription, and withdrawals; and, transition rules;

---

<sup>85</sup> See *id.* at 6-7.

<sup>86</sup> As is the case today, third parties, such as the states through procurement processes, can choose to fund any or all of an interconnection project's upgrade cost through separate arrangements with the Interconnection Customer.

- Attachment K of the OATT has been revised to set out the procedures to facilitate the CRPS to be conducted in the first phase of the two-phased clustering study construct; the second phase, which consists of the CSIS and CFAC, is reflected in the Interconnection Procedures; and,
- Schedule 11 of the OATT has been modified to establish the clustered cost allocation methodology, as well as a “late comer” cost allocation mechanism.

These changes, together with other conforming and ministerial changes, are discussed in detail below.

## **A. Revisions to Incorporate the Proposed Clustering Methodology**

### **1. Situation-Specific Clustering Approach**

Currently, the Interconnection Procedures provide for a serial study approach, under which each valid Interconnection Request is assigned a Queue Position upon receipt.<sup>87</sup> Under this approach, the Queue Position assigned to a valid Interconnection Request determines the order of performing Interconnection Studies and the cost responsibility for facilities necessary to accommodate the Interconnection Request. The Interconnection Studies – FS, SIS and FAC – are designed to assess the impact of an Interconnection Request on the New England Transmission System, and identify the needed upgrades and their associated costs to accommodate the requested interconnection. Under the established cost allocation methodology set forth in Schedule 11, all upgrade costs that would not have been incurred but for the interconnection are directly assigned to the Interconnection Customer.

As discussed in Section III.B of this letter, the existing serial queue study approach under the Interconnection Procedures is working well for processing Interconnection Requests throughout the New England Transmission System except in Northern and Western Maine. Interconnection Requests in Northern and Western Maine are seeking to interconnect into remote areas of the system that were built to serve minimal system load and not to accommodate the injection of large amounts of megawatts from proposed new resources. Significant transmission infrastructure is needed to interconnect the quantity of proposed new resources in this area of the system. Because of the need for significant transmission infrastructure, the backlog in Northern and Western Maine is likely to persist with the continued application of the serial study approach for processing the pending Interconnection Requests.

---

<sup>87</sup> Current Section 4.2 of the LGIP reflects the *pro forma* Clustering provisions adopted in Order No. 2003; however, those could not be implemented absent cost allocation procedures. *See* Order No. 2003 Compliance Order at PP 57-58 (concurring “that clustered cost allocation provisions must be established in the NEPOOL OATT before ISO New England could be permitted to consider interconnection requests on a clustered basis.”). The Clustering Revisions address this by revising Schedule 11 of the OATT to incorporate provisions for the allocation of interconnection upgrade costs among Interconnection Customers included in a cluster.

To address this, the Clustering Revisions amend the Interconnection Procedures to adopt a clustering approach to processing Interconnection Requests to be used whenever the conditions that can lead to significant queue backlogs, such as those currently observed in Northern and Western Maine, exist.<sup>88</sup> More specifically, the Clustering Revisions provide for the ISO to process Interconnection Requests using the clustering approach, which is further described below, whenever the ISO identifies a specific combination of circumstances (*i.e.*, clustering triggers) in the interconnection queue.<sup>89</sup> These are that: (1) there are two or more Interconnection Requests without completed SIS in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (2) none of the Interconnection Requests will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at or above 115 kV AC or HVDC (*i.e.*, the CETU).<sup>90</sup> This situation-specific clustering approach, including the triggering conditions, is reflected in Section 4.2 of the LGIP, Section 1.5.3 of the SGIP, and Section 4.2 of the ETU IP.

Unlike the Order No. 2003 *pro forma* clustering construct,<sup>91</sup> the proposed clustering approach for New England is situation-specific and its use is limited to the occurrence of the conditions listed above. Said differently, absent the combination of the above-listed circumstances in the interconnection queue, Interconnection Requests will continue to be processed under the serial study approach. This targeted and limited application is appropriate for New England where, as described above, the interconnection process is currently working well in non-Maine areas of the system, rendering the imposition of a clustering approach in all circumstances unnecessary.<sup>92</sup> Moreover, the unnecessary application or over-application of clustering would run counter to the key objectives underlying the clustering design (*i.e.*, to provide a mechanism to expedite interconnection processing without harming the overall efficient participation of new resources in the FCM, and in a

---

<sup>88</sup> See McBride Testimony at 19-21.

<sup>89</sup> See *id.*

<sup>90</sup> See *id.* The Clustering Revisions modify the Interconnection Procedures to incorporate the CETU as a new term, to be defined as:

new significant transmission line infrastructure that consist of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Request for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

<sup>91</sup> See Order No. 2003 at P 155 (clustering using fixed queue windows).

<sup>92</sup> See McBride Testimony at 21-22.

manner that limits the likelihood of restudy).<sup>93</sup> The proposed situation-specific clustering approach is also consistent with other Commission-approved “targeted” clustering designs, such as the approach implemented to facilitate the Tehachapi Renewable Transmission Project in CAISO.<sup>94</sup> That targeted design addressed a backlog in a remote part of the system by identifying a set of infrastructure that could be used to interconnect queued resources. The situation addressed by the Commission in approving the CAISO’s targeted cluster design is similar to the situation being observed in Northern and Western Maine.

## **2. Clustering Triggers**

As described above, the Clustering Revisions amend the Interconnection Procedures to specify the circumstances under which Interconnection Requests will be processed using the clustering approach. For the clustering approach to be triggered, there must be two or more Interconnection Requests without completed SISs in the same electrical part of the New England Control Area (to be determined based on the proposed Point of Interconnection) that cannot interconnect to the system without new common significant transmission infrastructure.<sup>95</sup> These triggers are appropriate, and are reflected in Section 4.2.1 of the LGIP, Section 1.5.3.1 of the SGIP, and Section 4.2.1 of the ETU IP.

Under the proposed approach, the presence of a number of Interconnection Requests located in close electric/geographic proximity in the interconnection queue alone will not trigger clustering.<sup>96</sup> This is because a number of Interconnection Requests for resources in close electric/geographic proximity by itself does not lead to queue backlog.<sup>97</sup> For example, four new Interconnection Requests in a robust part of the system may not require significant new infrastructure, and they can be studied relatively quickly.<sup>98</sup> These requests would not involve lengthy complicated study work. Further, as described earlier, the Interconnection Procedures

---

<sup>93</sup> *See id.*

<sup>94</sup> *See* Tehachapi Order at PP 1, 6-12. In the Tehachapi Order, the Commission approved CAISO’s request for waiver of the CAISO OATT to conduct a “targeted” cluster System Impact Study to identify the significant transmission infrastructure necessary to interconnect approximately 4,350 MWs of primarily wind generation in the remote Tehachapi Wind Resource Area of the system. *See id.* Similarly, in the Cascade Order, the Commission approved PGE’s OATT waiver request to suspend serial evaluation of proposed interconnections and instead conduct a cluster study to evaluate approximately 3,000 MWs of Interconnection Requests seeking to interconnect to the system through the same transmission project. *See* Cascade Project Order at PP4-6.

<sup>95</sup> *See* McBride Testimony at 19-21.

<sup>96</sup> *See id.* at 22.

<sup>97</sup> *See id.*

<sup>98</sup> *See id.*

already provide a mechanism to discipline the process for multiple CNRIS Interconnection Requests when they are pending in the interconnection queue.<sup>99</sup> In the CNR Group Study conducted for capacity purposes, CNRIS Interconnection Requests are studied in queue order relative to the other Interconnection Requests that are also seeking to qualify to participate in the same FCA, and are qualified to participate in the FCA if needed upgrades can be completed in time for the FCA Capacity Commitment Period. During this process, later-queued resources learn if their upgrades depend on the outcome for earlier-queued resources. CNRIS (and associated upgrade and cost responsibilities) is assigned to those resources that obtain a Capacity Supply Obligation even if they clear before an earlier queued resource. This mechanism already allows for interconnection projects to move forward without the need for further clustering activities.

The proposed threshold to trigger the cluster process in the case of new transmission line infrastructure rated at or above 115 kV AC or HVDC is also appropriate.<sup>100</sup> These types of upgrades take significantly more time to design and are significantly more expensive.<sup>101</sup> They can also accommodate more than one new resource leading to the impetus for cost-sharing among more than one Interconnection Request.<sup>102</sup>

### **3. Initiation of Clustering**

When the ISO identifies that a combination of the above-described clustering triggers is present in the interconnection queue, the Clustering Revisions provide for the ISO to initiate the clustering study process.<sup>103</sup> The ISO will announce the initiation of clustering to the region through the Planning Advisory Committee under the Regional System Planning Process in Attachment K of the OATT.<sup>104</sup> At the same time, the ISO will notify each individual Interconnection Customer with an Interconnection Request identified by the ISO to be considered under clustering.<sup>105</sup> This notice requirement – reflected in proposed Section 4.2.2 of the LGIP, Section 1.5.3.2 of the SGIP, and Section 4.2.2 of the ETU IP – will suspend all ongoing serial queue-based individual study work

---

<sup>99</sup> *See id.* at 22-23.

<sup>100</sup> *See* McBride Testimony at 23.

<sup>101</sup> *See id.*

<sup>102</sup> *See id.*

<sup>103</sup> *See id.* at 25.

<sup>104</sup> *See id.*

<sup>105</sup> *See* McBride Testimony at 25.

associated with the identified Interconnection Requests so that they can proceed to be considered under the clustering construct, which, will consist of two study phases, as described below.<sup>106</sup>

Because the ISO is required to provide Interconnection Service as a critical component of open access transmission service, the clustering construct, as designed, assumes that all Interconnection Requests identified by the ISO for evaluation under the clustering construct intend to proceed toward interconnection.<sup>107</sup> These include Interconnection Requests without completed SISs located in the same electrical part of the New England Control Area that cannot interconnect to the system without new common significant transmission infrastructure.<sup>108</sup> The ISO, through clustering, must identify the transmission infrastructure necessary to enable the interconnection of the proposed resources in the queue.

Accordingly, when the clustering process is triggered, all Interconnection Requests identified by the ISO for consideration under that process will be clustered for consideration in the CRPS, including Interconnection Requests for which the associated SIS under the serial study process is underway but not completed.<sup>109</sup> Correspondingly, to the extent an Interconnection Request identified by the ISO remains in the queue, the Interconnection Customer associated with that request may not refuse to be “clustered.” An Interconnection Customer’s refusal to be considered under the clustering process would block the progress of the interconnection process for all other eligible requests.<sup>110</sup> Conversely, an Interconnection Customer with an Interconnection Request for which the SIS has been completed would not be eligible to elect to be clustered, as the study identifying the needed upgrades and their associated costs to accommodate the requested interconnection is completed for such a project; thereby, enabling the Interconnection Customer to make an informed decision regarding whether to proceed with the interconnection of the proposed resource or withdraw.<sup>111</sup>

#### **4. Clustering Two-Phase Study Process**

As described above, the Interconnection Procedures currently provide for a three-study Interconnection Study process, consisting of the FS, SIS and FAC for each individual Interconnection Request. The Interconnection Procedures, however, provide Interconnection Customers the option to complete the FS as part of the SIS, and to waive the FAC. The ISO’s

---

<sup>106</sup> See *id.* See, e.g., Cascade Project Order at PP 5-8 (suspending queue-based individual studies to transition in the proposed cluster study).

<sup>107</sup> See McBride Testimony at 25-26.

<sup>108</sup> See *id.*

<sup>109</sup> See *id.* at 26.

<sup>110</sup> See *id.*

<sup>111</sup> See *id.*



experience has been that most Interconnection Customers elect to waive the FAC, rendering the SIS as the key study that identifies the facilities that are needed to interconnect the proposed project and the cost estimates for those upgrades.

The Clustering Revisions modify the current Interconnection Study-construct to allow for two or more Interconnection Requests to be evaluated under a two-phased study process.<sup>112</sup> As the Clustering Revisions reflect in Section 4.2.2 of the LGIP, Section 1.5.3.2 of the SGIP, and Section 4.2.2 of the ETU IP, the first phase of the study process will consist of the CRPS. The CRPS is a transmission planning study conducted under the Regional System Planning Process in Attachment K of the OATT to identify the potential transmission infrastructure (*i.e.*, the CETU and associated system upgrades) that will be necessary to interconnect potentially all of the proposed resources in the interconnection queue. The second phase will consist of the CSIS and CFAC performed under the Interconnection Procedures to identify the specific facilities required to interconnect the resources that elect, and meet the requirements, to participate in the second-phase cluster studies.

The two-phased study construct is designed to increase certainty, enable more informed decisions and reduce the likelihood of restudies under clustering.<sup>113</sup> In the first phase of the study process, the ISO will provide Interconnection Customers significant information about the likely outcome of the cluster effort.<sup>114</sup> For example, the ISO will identify the Interconnection Requests that may be eligible to participate in a cluster study, the magnitude of the needed transmission infrastructure to interconnect those projects, and the estimated cost of those upgrades. Following the conclusion of the first phase of the process, Interconnection Customers will also have a reasonable opportunity to decide, on the basis of the information provided in the CRPS, whether or not to proceed to interconnection.<sup>115</sup> With the transmission expansion plan (*i.e.*, CETU and associated system upgrades) having been identified in the CRPS, the second part of the study process will focus on the identification of the specific facilities needed to accommodate only those Interconnection Requests that are ready to move forward with their project and elect (and meet the requirements) to participate in the second-phase cluster studies.<sup>116</sup>

The two-phased clustering approach is comparable to other Commission-approved methodologies for considering Interconnection Requests in clusters. For example, the CAISO clustering approach includes two primary study phases, with increased commitment required to enter the second phase.<sup>117</sup> It is also consistent with the one-time study approach addressed in the

---

<sup>112</sup> See McBride Testimony at 20-21.

<sup>113</sup> See *id.* at 23-24.

<sup>114</sup> See *id.*

<sup>115</sup> See *id.*

<sup>116</sup> See *id.*

<sup>117</sup> See *California Indep. Sys. Operator Corp.*, 124 FERC ¶ 61,292 (2008).

Tehachapi Order, which was effectively carried out in two phases. As described in the Tehachapi Order, in that targeted cluster study, the first phase was conducted in the regional planning process and the second phase was conducted in the interconnection process, consistent with the proposed clustering approach.<sup>118</sup>

**a. The First-Phase Regional Planning Study - CRPS**

The Clustering Revisions extend the Regional System Planning Process under Attachment K of the OATT to facilitate the interconnection process.<sup>119</sup> More specifically, the first-phase CRPS, which the Clustering Revisions incorporate in a new Section 15 of Attachment K, supports the interconnection process by identifying the significant common transmission infrastructure necessary to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests identified as potentially eligible to participate in the second-phase cluster studies.<sup>120</sup> As the CRPS is not a study to support the regional transmission planning process, the Clustering Revisions provide in Section 15 that, other than Section 2 of Attachment K regarding the responsibilities of the Planning Advisory Committee and the new Section 15, none of the other provisions in Attachment K apply to the conduct of the CRPS or the results of the study. However, while the CRPS is limited to the support of the interconnection process, the procedures follow the same open and transparent construct used for other transmission planning studies. Additionally, the Clustering Revisions provide for the costs of the ISO's performance of the CRPS to be recovered pursuant to Section IV.A of the Tariff, consistent with other regional planning studies.<sup>121</sup> The costs incurred by the Transmission Owners to develop upgrade cost estimates in support of the ISO's CRPS, however, will be funded by the Interconnection Customers with Interconnection Requests included in the CRPS.<sup>122</sup>

---

<sup>118</sup> See Tehachapi Order at P 8-12.

<sup>119</sup> See McBride Testimony at 29-30. See also *Review of Generator Interconnection Agreements and Procedures, et al.*, Notice Inviting Post-Technical Conference Comments, Docket Nos. RM16-12-000 (June 3, 2016) (seeking comments on whether the interconnection process and the regional transmission planning process should be coordinated to improve efficiency, and whether the transmission planning process should be used to identify transmission upgrades that would facilitate the interconnection process).

<sup>120</sup> See McBride Testimony at 29-30.

<sup>121</sup> See *id.* at 36.

<sup>122</sup> See *id.* As described in Section IV.B of this letter, the initial Interconnection Request deposit and study deposit associated with Interconnection Requests included in the CRPS will be applied toward the costs incurred by Interconnecting Transmission Owners in developing the cost estimates necessary to support the CRPS. If the Interconnection Request is withdrawn during the CRPS, the Interconnection Customer will only be responsible for costs incurred up to that point in time.

The Clustering Revisions incorporate the procedures for the CRPS in Sections 15.1 to 15.4 of Attachment K. Pursuant to Section 15.1, the CRPS will be triggered by the ISO's announcement to the Planning Advisory Committee of initiation of a cluster for studying the Interconnection Requests identified by the ISO as potentially eligible to participate in the cluster studies. As described in Sections 15.2 and 15.3, the CRPS will be performed using a similar approach to a SIS in that its purpose is to identify the new common significant transmission infrastructure and any associated system upgrades needed to interconnect potentially all of the resources proposed in the Interconnection Requests that are expected to be eligible to participate in the cluster studies.<sup>123</sup> To facilitate the conduct of the CRPS, the Clustering Revisions revise the Interconnection Procedures to require Interconnection Customers with eligible Interconnection Requests identified for inclusion in the CRPS to submit to the ISO the same technical data that is used to support the conduct of the SIS.<sup>124</sup> The technical data will need to be submitted to the ISO within 60 days of the ISO's cluster initiation notice to the Planning Advisory Committee. Pursuant to Section 15.3, the ISO will perform the CRPS under the conditions used in the conduct of a SIS. The CRPS will consist of steady state thermal analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak grid-related analysis.<sup>125</sup>

Consistent with the process established for transmission planning studies, the ISO will prepare and post on the ISO website the scope of the CRPS, together with associated parameters and assumptions, and solicit stakeholder input on such scope, parameters and assumptions through the Planning Advisory Committee. As part of the CRPS scope, the ISO will: (1) describe the circumstances that triggered the clustering process; (2) identify the Interconnection Requests, by Queue Position to maintain confidentiality of Interconnection Customers' identity, which is commercially sensitive information, that are expected to be eligible to participate in the second-phase cluster studies; and, (3) identify the preliminary transmission upgrade concepts proposed to be considered in the CRPS.<sup>126</sup> Consistent with the Interconnection Procedures' requirement that Interconnection Studies rely on existing studies, in identifying the CETU, the ISO will consider previously conducted studies and previously identified concepts of transmission upgrades in the relevant electrical area, including proposed ETUs.<sup>127</sup>

---

<sup>123</sup> See *id.* at 30-32.

<sup>124</sup> See *id.*

<sup>125</sup> See McBride Testimony at 30-32. Weak grid-related analysis refers to analysis performed when the transmission network may be too weak to support additional generation and is performed using electromagnetic transient-type tools such as PSCAD. This type of analysis has become standard analysis for proposed wind and inverter-based generator studies. See 2016 Improvements Filing at 19-20.

<sup>126</sup> See McBride Testimony at 31.

<sup>127</sup> See *id.* As described in Section III of this letter, as a result of the ETU Rule Changes, ETUs are now able to establish and maintain a meaningful Queue Position. A feature of the proposed clustering approach is that ETUs will be eligible to participate in clusters. Indeed, under certain circumstances,

The ISO will use Reasonable Efforts to complete the CRPS within twelve months from the cluster initiation notice to the Planning Advisory Committee.<sup>128</sup> The twelve-month period for the CRPS is appropriate. This timeframe reflects a realistic standard informed by the ISO's recent study experience performing other Interconnection Studies, as well as the Maine Resource Integration Study, which, as discussed further below, is proposed to be the first CRPS for the region.<sup>129</sup> It is also not excessive given that the CRPS involves the identification of a comprehensive and implementable transmission expansion plan, and accommodates stakeholder review and input throughout the process.<sup>130</sup> Recognizing the reality that Interconnection Requests may be withdrawn at any time, Section 15.3 also provides for the ISO to terminate the CRPS in the event that less than two Interconnection Requests included in the CRPS remain in the interconnection queue prior to its completion (*i.e.*, the conditions in the interconnection queue have changed).<sup>131</sup> Should that occur, the ISO will terminate the CRPS and consider the remaining Interconnection Request under the existing serial study process.<sup>132</sup>

Upon completion of the CRPS, pursuant to Section 15.4, the ISO will prepare and post on the ISO's website a draft CRPS report for stakeholder comments on the results of the CRPS.<sup>133</sup> In furtherance of transparency, the ISO will also post any written comments received on the CRPS report and its responses to those comments. The completed CRPS report will provide: (1) a planning level description of the CETU(s) and associated system upgrades; (2) a non-binding good faith order-of-magnitude estimate, developed by the applicable Transmission Owner(s), of the costs for the CETU(s) and the associated upgrades;<sup>134</sup> (3) the approximate megawatt quantity (or quantities if more than one level of megawatt injection was studied in the CRPS) of resources that could be interconnected in a manner that meets the interconnection standards in accordance with the Interconnection Procedures; and, (4) a list of the Interconnection Requests, referenced by Queue Position, identified by the ISO as eligible to participate in the second-phase cluster studies, together with the Interconnection Requests' expected cost responsibility for the CETU and associated

---

Internal ETUs may be eligible to step in and perform the role of a CETU. This feature is captured in the proposed changes to the ETU IP, in Section 4.2.1, as further explained below.

<sup>128</sup> *See id.*

<sup>129</sup> *See id.*

<sup>130</sup> *See id.*

<sup>131</sup> *See* McBride Testimony at 31-32.

<sup>132</sup> *See id.*

<sup>133</sup> *See id.* at 32.

<sup>134</sup> As the Interconnection Requests that will move forward into the cluster studies are unknown at this time, the CRPS will not identify Interconnection Facilities; such as, sole use facilities interconnecting an individual generator to the CETU.

upgrade costs.<sup>135</sup> The CRPS will provide significant information about the Interconnection Requests that will be eligible to be considered together in the cluster studies, and the transmission infrastructure needed to interconnect them to the system.<sup>136</sup>

Once the CRPS is finalized, pursuant to Section 15.4 of Attachment K, the ISO will post the final CRPS report on the ISO's website.<sup>137</sup> The posting of the final CRPS report marks the completion of the first phase of the study process, and triggers the start of the second phase of the process.<sup>138</sup> In other words, the posting of the final CRPS report on the ISO's website will trigger the Cluster Interconnection System Impact Study Entry Deadline ("Cluster Entry Deadline") by which Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the second-phase cluster studies will be given the opportunity to elect, on the basis of the information in the final CRPS report, whether or not to move forward with the interconnection process.<sup>139</sup> The Cluster Entry Deadline will be 30 days from the posting of the final CRPS report. The Cluster Entry Deadline elections and the requirements for inclusion in the cluster studies are described further below, following the description of the cluster studies.

#### **b. The Second-Phase Cluster Studies – CSIS and CFAC**

In the second phase of the study process, the Clustering Revisions provide for the ISO to continue the cluster study effort by performing a CSIS and CFAC that consider only Interconnection Requests associated with Interconnection Customers that elect, and meet the associated requirements, to proceed to the second-phase cluster studies.<sup>140</sup> As described in Section IV.A.5 below, at the beginning of the second phase, Interconnection Customers that are not ready to commit to move forward will have the option to either step aside to the bottom of the interconnection queue or withdraw from the interconnection queue altogether. The procedures for the CSIS and the CFAC are set out in Sections 4.2.3 and 4.2.4 of the LGIP, Sections 1.5.3.3 and 1.5.3.4 of the SGIP, and Sections 4.2.2 and 4.2.4 of the ETU IP.

---

<sup>135</sup> *See id.* at 32-35.

<sup>136</sup> *See id.*

<sup>137</sup> *See* McBride Testimony at 32.

<sup>138</sup> *See id.*

<sup>139</sup> *See id.*

<sup>140</sup> *See id.* at 36.

*i. CSIS Scope and Procedures*

In the second phase of the study process, the Clustering Revisions provide for the ISO to first perform a CSIS following the existing provisions governing the conduct of the SIS,<sup>141</sup> with some specific exceptions, described below.

For context, under the current Interconnection Procedures, the ISO performs a SIS for each individual Interconnection Request to identify the facilities needed to accommodate the proposed resource in a manner that does not adversely impact the reliability and safe operation of the New England Transmission System. In general, the Study Base Case for a SIS includes all existing and approved resources, as well as electrically relevant higher-queued Interconnection Requests. The analysis consists of steady state thermal analysis, short circuit analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak grid-related analysis. Depending on the Interconnection Customer's elections, the current serial queued SIS may also include the performance of the FS as the first part of the study, and it may also include a preliminary non-binding overlapping impact analysis to identify potential upgrades that may be necessary for the proposed resource to qualify for participation in a FCA. The CSIS follows this same construct with exceptions.

Under the Clustering Revisions incorporated in Section 4.2.3.4 of the LGIP, Section 1.5.3.3.4 of the SGIP, and Section 4.2.3.4 of the ETU IP, the CSIS scope will address the same items that would be included in a SIS today except that the Study Base Case will include all of the Interconnection Requests that meet the requirements for inclusion in the CSIS so they can be assessed together with the CETU and associated system upgrades identified in the CRPS.<sup>142</sup> The CETU will be included in the Study Base Case of the CSIS as configured in the CRPS.<sup>143</sup> As described earlier, during the CRPS, the ISO will study ranges of megawatts proposed in the electrical area of the system where clustering was triggered in designing the CETU.<sup>144</sup> According to the trigger design, all of the Interconnection Requests considered in the CRPS require new common enabling infrastructure to interconnect to the system. Therefore, it is not necessary to redesign the CETU during the CSIS even upon withdrawal of an Interconnection Request.<sup>145</sup> The CETU will remain configured consistent with the megawatt quantities considered in the final CRPS report.<sup>146</sup>

---

<sup>141</sup> See LGIP at §7; SGIP at § 3.4; ETU IP at § 7.

<sup>142</sup> See McBride Testimony at 37-38.

<sup>143</sup> See *id.* at 34, 37-40.

<sup>144</sup> See *id.*

<sup>145</sup> See *id.*

<sup>146</sup> See *id.*

In addition, if an Internal ETU meets the requirements to take the place of a CETU or part thereof, the CSIS Study Base Case will also include the Internal ETU.<sup>147</sup>

The CSIS will evaluate the interconnection of the Interconnection Requests included in the CSIS under the Network Capability Interconnection Standard.<sup>148</sup> Consistent with that standard, the evaluation will include conditions where the resources proposed in the Interconnection Requests included in the cluster are not dispatched against each other unless they share an operable system constraint that would provide the basis for a redispatch condition.<sup>149</sup> The CSIS will consist of the same analysis performed today, such as, steady state thermal analysis, short circuit analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak-grid-related

---

<sup>147</sup> See McBride Testimony at 35, 40. For clarity, the default expectation is that the Interconnecting Transmission Owner will be responsible for building the CETU. When there is an Interconnection Request for an Internal ETU in the ISO's interconnection queue that the ISO identifies as potentially eligible to step in and perform the role of a CETU, the ISO will identify the Internal ETU's Interconnection Request, by Queue Position, in the final CRPS report as eligible to participate in the second-phase cluster studies. See ETU IP at § 4.2.1. For an Internal ETU to take the place of a CETU or part thereof, the Interconnection Customer for the Internal ETU must elect, and meet the associated requirements, to be included in the CSIS. As is the case for all Interconnection Requests identified in the final CRPS report, the Interconnection Customer for the Internal ETU will have the option to proceed to the second-phase cluster studies, step aside to the bottom of the interconnection queue, or withdraw from the interconnection queue altogether. In addition, each Interconnection Customer in the cluster that needs the CETU to interconnect its proposed facility to the system will need to indicate, by the time the SIS Agreement to support the CSIS is due, that it has an arrangement with the ETU Interconnection Customer establishing a commitment to fund and a right to use the Internal ETU to interconnect to the system. The Clustering Revisions reflect this requirement in Section 4.2.3.4 of the LGIP, Section 1.5.3.3.3.4 of the SGIP, and Section 4.2.3.4 of the ETU IP.

<sup>148</sup> See McBride Testimony at 38-39. Interconnection Requests that successfully complete the interconnection process will achieve NRIS to the extent the proposed facility is eligible for that service. Participation in the CSIS and the sharing of common upgrade costs, however, do not alter the existing procedural flow and milestone progress of the Interconnection Procedures. See *id.* at 39. There is also no change to the procedures and milestones associated with CNRIS. See *id.* Furthermore, Interconnection Customers seeking to achieve CNR status will need to complete the FCM-related milestones that are as set forth in the Tariff, including the achievement of a Capacity Supply Obligation and Commercial Operation within the required timeframe. See *id.* The evaluation of overlapping interconnection impacts in the FCA qualification (*i.e.*, the CNR Group Study) will continue to be conducted in queue order relative to those projects that have submitted Show of Interest Forms to be considered for qualification in the same FCA.

<sup>149</sup> See McBride Testimony at 38-39. For example, under the Network Capability Interconnection Standard, a new generator can be dispatched against an existing generator in the circumstance where running both generators together would cause an overload in the system model. If running both the new and existing generators does not cause an overload, then the existing generator would not be turned down in the analysis. See *id.*

analysis.<sup>150</sup> The ISO will use Reasonable Efforts to complete the CSIS within the timeframes currently provided under the procedures.<sup>151</sup> Because the FS, in essence, will have taken place in the CRPS, Interconnection Customers with Interconnection Requests included in the CSIS will not have the option to have a FS performed as part of the CSIS.<sup>152</sup> Similarly, the preliminary non-binding overlapping impact study will not be an option for the CSIS, as the CRPS will also identify the potential megawatts that may meet the Capacity Capability Interconnection Standard.<sup>153</sup> While all the Interconnection Requests included in the CSIS will be assessed together, upon completion of the CSIS, the ISO will issue a study report to each individual Interconnection Customer, identifying the shared and sole-use facilities required to interconnect the proposed resource and their associated cost estimates.<sup>154</sup>

As is the case today, the deposit that the Interconnection Customers submit along with the executed SIS Agreement (*i.e.*, the study deposit) will be used to fund the cost of the CSIS.<sup>155</sup> The CSIS costs that are associated with an individual Interconnection Request included in the CSIS will be charged directly to the respective Interconnection Customer.<sup>156</sup> The CSIS costs that are associated with the CSIS as a whole will be divided equally among the Interconnection Customers with Interconnection Requests included in the CSIS.<sup>157</sup> For clarity, if an Interconnection Customer withdraws during the CSIS, it will only be responsible for the costs incurred up to that point in time.

*ii. CFAC Scope and Procedures*

Under the current Interconnection Procedures, Interconnection Customers have the option to waive the FAC and proceed directly into the Interconnection Agreement development-phase of the process. This option is not available under the clustering approach. The Clustering Revisions revise the Interconnection Procedures to require all Interconnection Customers with an Interconnection Request included in a completed CSIS, to the extent they remain in the queue, to be studied together in a CFAC in order to develop an adequate quality cost estimate for all common upgrades associated with the cluster (*i.e.*, the CETU and other shared system upgrades).<sup>158</sup> The requirement to complete

---

<sup>150</sup> See *id.* at 37-38.

<sup>151</sup> See *id.* at 38.

<sup>152</sup> See *id.*

<sup>153</sup> See McBride Testimony at 38.

<sup>154</sup> See *id.*

<sup>155</sup> See *id.* at 40-41.

<sup>156</sup> See *id.*

<sup>157</sup> See *id.*

<sup>158</sup> See McBride Testimony at 41-42.



a CFAC is reflected in Section 4.2.4 of the LGIP, Section 1.5.3.4 of the SGIP, and Section 4.2.4 of the ETU IP. As also reflected within these provisions, the scope of the CFAC will be the same as that of the existing FAC based on a +/- 20 percent good faith cost estimate, but it will be limited to shared upgrades.<sup>159</sup> The CFAC will not include sole-use facilities identified in the CSIS.<sup>160</sup> To the extent an Interconnection Customer wishes to pursue a FAC for sole-use facilities identified in the CSIS, it may do so under the existing provisions in the Interconnection Procedures.<sup>161</sup> While all the Interconnection Requests included in the CFAC will be assessed together, upon completion of the CFAC, the ISO will issue a study report to each individual Interconnection Customer, providing the detailed cost estimates for the shared upgrades.<sup>162</sup>

Like the CSIS, the study deposit submitted along with the executed FAC Agreement will be applied toward the cost of the CFAC.<sup>163</sup> The CFAC costs that are associated with an individual Interconnection Request included in the CFAC will be charged directly to the respective Interconnection Customer.<sup>164</sup> The CFAC costs that are associated with the CFAC as a whole will be divided equally among the Interconnection Customers with Interconnection Requests included in the CFAC.<sup>165</sup> As is the case today, an Interconnection Customer that withdraws during the CFAC will only be responsible for the study costs incurred up to that point in time.

## **5. Cluster Study Entry Requirements and Milestones**

### **a. Cluster Eligibility and Notification**

The Clustering Revisions incorporate the provisions for eligibility to participate in the second-phase cluster studies in Section 4.2.3.3.1 of the LGIP, Section 1.5.3.3.3.1 of the SGIP, and Section 4.2.3.3.1 of the ETU IP. As set forth in these provisions, all Interconnection Requests, including requests for Generating Facilities and ETUs located in the same electrical part of the system relative to the CETU, that are identified as requiring the CETU to interconnect to the system and that do not have a completed SIS at the time the CRPS report is finalized will be identified in the final CRPS report as eligible to participate in the second-phase cluster studies.<sup>166</sup> For clarity,

---

<sup>159</sup> *See id.*

<sup>160</sup> *See id.*

<sup>161</sup> Under Clustering, a separate, individual FAC may not be pursued for non-sole use facilities.

<sup>162</sup> *See id.*

<sup>163</sup> *See id.* at 42.

<sup>164</sup> *See McBride Testimony* at 42.

<sup>165</sup> *See id.*

<sup>166</sup> *See id.* at 43-44.

External ETUs that need the CETU to interconnect to the system will be eligible to participate in the cluster studies in the same way as Generating Facilities, recognizing the requested import and export capability.<sup>167</sup> Internal ETUs will be included either as cluster-eligible projects to the extent the Internal ETU needs the CETU to interconnect to the system, similar to a Generating Facility, or as upgrades that are potentially eligible to take the place of a CETU as briefly mentioned above.<sup>168</sup> To facilitate the latter treatment, an Interconnection Request for an Internal ETU that the ISO identifies as potentially eligible to step in and perform the role of a CETU will be identified in the final CRPS report as eligible to participate in the second-phase cluster studies.<sup>169</sup> This treatment is reflected in Section 4.2.1 of the ETU IP.

At the same time the ISO posts on its website the final CRPS report, the ISO will also notify all Interconnection Customers with Interconnection Requests identified as eligible to participate in the second-phase cluster studies.<sup>170</sup> This notice will trigger the 30-day Cluster Entry Deadline by which the identified Interconnection Customer will need to elect to proceed to the second-phase cluster studies.<sup>171</sup> This notification requirement is incorporated in Section 4.2.3.1 of the LGIP, Section 1.5.3.3.1 of the SGIP, and Section 4.2.3.1 of the ETU IP.

#### **b. Cluster Entry Deadline Election**

As described above, the first phase of the cluster study process provides a wealth of meaningful information to Interconnection Customers regarding the likely outcome and cost of the cluster effort, so they have a basis upon which to make a well-informed decision as to whether to move forward with the proposed projects. The Clustering Revisions provide a reasonable opportunity for Interconnection Customers to make this decision at the beginning of the second phase of the study process. More specifically, the Clustering Revisions provide Interconnection Customers an opportunity to choose, by the Cluster Entry Deadline, to: (1) participate in the second-phase cluster studies and meet the associated requirements; (2) move to the bottom of the queue in the same relative order as other eligible requests that make this choice without the need to post another initial \$50,000 Interconnection Request deposit to support the re-queued request; or, (3) withdraw the Interconnection Request from the queue, and receive a refund of the unspent portion of the initial \$50,000 Interconnection Request deposit.<sup>172</sup> The re-queuing or withdrawal of an Interconnection Request will occur as of the Cluster Entry Deadline. These options – incorporated in Section 4.2.3.2.1 of the LGIP, Section 1.5.3.3.2 of the SGIP, and Section 4.2.3.2.1 of the ETU IP

---

<sup>167</sup> *See id.* at 35.

<sup>168</sup> *See id.*

<sup>169</sup> *See McBride Testimony* at 35. *See also id.* at 40.

<sup>170</sup> *See id.* at 43-44.

<sup>171</sup> *See id.* at 44.

<sup>172</sup> *See id.* at 43-44.

– are consistent with a “first-ready, first-served” approach in that Interconnection Customers that are ready to move forward will most likely elect to participate in the second-phase cluster studies and those that are not ready will choose to proceed at a later time by either moving to the bottom of the queue or withdrawing from the queue.

The Clustering Revisions also specify that the Cluster Entry Deadline will not be subject to further extensions given the amount of information that will be available during the first-phase of the study process and the ample period of time Interconnection Customers will have to formulate an informed decision.<sup>173</sup> If an Interconnection Customer does not make an election by the Cluster Entry Deadline, the Clustering Revisions provide for the Interconnection Request to be automatically withdrawn from the interconnection queue without further opportunity to cure. Correspondingly, Interconnection Customers that elect to participate in the second-phase cluster studies must also meet the requirements to be included in the CSIS (*i.e.*, the CSIS entry requirements), described below, by the Cluster Entry Deadline. Otherwise, the associated Interconnection Request will be withdrawn from the queue without further opportunity to cure. This will avoid delays in the progress of the interconnection process for all of the eligible requests that meet the election requirement in a timely manner.

### **c. CSIS Entry Requirements**

One of the key objectives of the clustering design is to minimize uncertainties and the impacts of late-stage withdrawals.<sup>174</sup> Because the cluster studies – the CSIS and CFAC – are dependent on more than one Interconnection Request moving forward, Interconnection Customers electing to include their Interconnection Requests in the second phase of the study process need assurance that the other Interconnection Customers electing the same are also committed to moving forward.<sup>175</sup> To that end, the Clustering Revisions incorporate additional requirements to demonstrate Interconnection Customers’ commitment to remain in the cluster and proceed to interconnection.<sup>176</sup>

The Clustering Revisions incorporate requirements to be included in the CSIS in Section 4.2.3.2.2 of the LGIP, Section 1.5.3.3.2.2 of the SGIP, and Section 4.2.3.2.2 of the ETU IP. Pursuant to these provisions, to be included in a CSIS, an Interconnection Customer with an Interconnection Request identified as eligible to participate in the second-phase cluster studies must submit to the ISO, by the Cluster Entry Deadline: (1) a Cluster System Impact Study Application, in the form provided in the Interconnection Procedures, requesting the inclusion of the Interconnection

---

<sup>173</sup> See McBride Testimony at 44-45.

<sup>174</sup> See *id.* at 42-43.

<sup>175</sup> See *id.* at 47.

<sup>176</sup> See *id.* at 45-46.

Request in the CSIS;<sup>177</sup> and, (2) a potentially non-refundable initial Cluster Participation Deposit, which is described further below.<sup>178</sup> In addition, Interconnection Customers must enter into a new SIS Agreement, which will replace any Feasibility Study Agreements or System Impact Study Agreements that may have been executed prior to the issuance of the final CRPS report, to support the conduct of the CSIS.<sup>179</sup> The new executed SIS Agreement will be due 30 days after receipt of the SIS Agreement from the ISO, consistent with the existing requirements in Section 7.2 of the LGIP, Section 3.4 of the SGIP and Section 7.2 of the ETU IP. At the same time, Interconnection Customers will also need to submit to the ISO continued demonstration of Site Control, the required technical data, and a refundable study deposit (separate from the Cluster Participation Deposit), to the extent that any additional study deposit is required. The Clustering Revisions provide for any unused balance of the study deposit associated with the study agreements entered into prior to the issuance of the final CRPS report to be applied toward the study deposit associated with the new study agreements to support the CSIS.

The initial Cluster Participation Deposit that an Interconnection Customer must submit to the ISO to be included in the CSIS is described in Section 4.2.3.2.2(3) of the LGIP, Section 1.5.3.3.2.2(3) of the SGIP, and Section 4.2.3.2.2(3) of the ETU IP. The initial Cluster Participation Deposit will be calculated as five percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades identified in the final CRPS report.<sup>180</sup> The cost of the CETU and associated system upgrades will be determined based on the cost estimates provided in the final CRPS report, and the Interconnection Customer's cost responsibility for the upgrades will be based on the cost allocation methodology set out in Schedule 11 of the OATT, which is described further below.<sup>181</sup>

The initial Cluster Participation Deposit commensurate to a portion of Interconnection Customer's cost responsibility for the CETU and associated system upgrades is required to

---

<sup>177</sup> A Cluster System Impact Study Application Form has been incorporated in the Interconnection Procedures as Attachment A-2 in the LGIP, Attachment A-1 in the SGIP, and Attachment A-1 in the ETU IP. The Cluster System Impact Study Application Form is intended to memorialize Interconnection Customer's election to be included in the second phase of the cluster studies. The application form requires the Interconnection Customer confirm certain information corresponding to the Interconnection Request (*e.g.*, Queue Position), as well as indicate whether the Interconnection Request is for a Generating Facility that is associated with the Internal ETU that is being pursued to facilitate the Generating Facility's interconnection to the system.

<sup>178</sup> *See id.*

<sup>179</sup> *See* McBride Testimony at 45-46.

<sup>180</sup> *See id.* at 46-47. In the case of an Internal ETU, the initial Cluster Participation Deposit is the lesser of \$1,000,000 or five percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the initial Cluster Participation Deposit is due.

<sup>181</sup> *See id.*

demonstrate Interconnection Customer's commitment to proceed toward interconnection.<sup>182</sup> The Clustering Revisions, however, recognize that the circumstances known at the time of an Interconnection Customer's election can change significantly. Therefore, the Clustering Revisions incorporate in the Interconnection Procedures time-specific off-ramps that afford Interconnection Customers reasonable opportunities to withdraw should a significant change in circumstances occur.<sup>183</sup> More specifically, the Clustering Revisions provide for Interconnection Customers to receive a full refund of the initial Cluster Participation Deposit at specific intervals to the extent the following events occur:

- Before the start of the CSIS to account for significant cluster size differences –
  - If the CSIS is initially undersubscribed by more than ten percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable, and the Interconnection Customer withdraws before the CSIS starts; or,
  - If the CSIS is initially oversubscribed (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), and the Interconnection Customer, to the extent it met the CSIS entry requirements, would have been included in the CSIS but for the oversubscription, in which case the Interconnection Customer will also maintain its Queue Position.<sup>184</sup>
- During the CSIS or CFAC to account for less than two Interconnection Requests – If less than two Interconnection Requests included in the CSIS or CFAC remain in the interconnection queue during the CSIS or CFAC, due to withdrawals, in which case, the applicable cluster study terminates, and the remaining Interconnection Request proceeds to be evaluated using the existing serial queue study process;
- After the CSIS or CFAC to account for significant cost estimate differences – If the overall cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster (as opposed to each individual Interconnection Customer) increase by 25 percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report, as applicable, and the Interconnection Customer withdraws within 30 days after receipt of the draft CSIS report or the draft CFAC report; or,

---

<sup>182</sup> See *id.* at 47.

<sup>183</sup> See *id.* at 48-50.

<sup>184</sup> To account for attrition and avoid the potential for cluster collapse from the start, the CETU identified through CRPS may not be designed to the total megawatts proposed in the Interconnection Requests seeking to interconnect in the clustered area of the system. See McBride Testimony at 34.

- Within 15 Business Days after receipt of final Interconnection Agreement – At the time Interconnection Customer provides Interconnecting Transmission Owner a new milestone deposit of 20 percent of the total upgrade cost estimates (as described below).

Otherwise, to minimize the potential for cascading withdrawals, the initial Cluster Participation Deposit will be forfeited if the Interconnection Customer withdraws its Interconnection Request or if the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline unless all of the Interconnection Requests included in the cluster withdraw from the interconnection queue (*i.e.*, cluster collapse).<sup>185</sup> In the event of cluster collapse, the initial Cluster Participation Deposits will be refunded to the respective Interconnection Customers.<sup>186</sup> The ISO will re-allocate any forfeited initial Cluster Participation Deposits to Interconnection Customers with Interconnection Requests that remain in the cluster when all of the resources proposed in the Interconnection Requests achieve Commercial Operation using the cost allocation methodology in Schedule 11.<sup>187</sup> Said differently, in the case of Cluster Participation Deposits determined using the distribution factor methodology (described below), the share of the sum of all forfeited Cluster Participation Deposits for each of the remaining Interconnection Customers will be based on their respective distribution impacts (*i.e.*, the distribution factor of the Interconnection Customer's resource multiplied by the megawatt value of the proposed resource) on the remaining upgrades. This is appropriate to minimize the uncertainties and risks assumed by the remaining Interconnection Customers in light of late-stage withdrawals.<sup>188</sup>

**d. Additional Requirements to Demonstrate Commitment**

The Clustering Revisions incorporate, in Section 4.2.4.4 of the LGIP, Section 1.5.3.4.4 of the SGIP and Section 4.2.4.4 of the ETU IP, a requirement for Interconnection Customers to provide an additional Cluster Participation Deposit after the final CFAC report in order to advance into the Interconnection Agreement development phase of the interconnection process.<sup>189</sup> The additional Cluster Participation Deposit prior to the development of the Interconnection Agreement is necessary as further assurance for other Interconnection Customers also electing to move forward into the Interconnection Agreement development, and before committing significant resources to the development of complex Interconnection Agreements involving significant transmission infrastructure that will likely be shared among multiple Interconnection Customers, and the need to incorporate shared facilities arrangements and coordinate milestone schedules (*e.g.*, permitting,

---

<sup>185</sup> *See id.* at 50.

<sup>186</sup> *See id.*

<sup>187</sup> *See id.* at 50-51. *See also id.* at 58-64.

<sup>188</sup> *See* McBride Testimony at 51.

<sup>189</sup> *See id.* at 51-52.

construction, etc.) for these facilities.<sup>190</sup> The additional Cluster Participation Deposit will be equal to five percent of the Interconnection Customer's cost allocation responsibility for the CETU and the associated system upgrades,<sup>191</sup> which will be determined based on the cost estimates provided in the final CFAC report.<sup>192</sup> Interconnection Customer's cost responsibility will be based on the Schedule 11 cost allocation methodology.

In addition, the Clustering Revisions revise the Interconnection Procedures to require Interconnection Customers with clustered Interconnection Requests to further commit to the upgrades upon finalizing the Interconnection Agreement. Specifically, as the Clustering Revisions reflect in Section 11.3.1.2 of the LGIP, Section 4.8 of the SGIP, and Section 11.3.1.2 of the ETU IP, within 15 Business Days after receipt of the final Interconnection Agreement, clustered Interconnection Customers will be required to provide the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit in the amount of 20 percent of the total upgrade costs, including the CETU, based on the final CFAC report,<sup>193</sup> unless Interconnecting Transmission Owner's schedule calls for an initial payment greater than 20 percent, in which case, the scheduled payment must be made instead.<sup>194</sup> At the time the Interconnection Customer provides the 20 percent deposit (or makes the initial payment) to the Interconnecting Transmission Owner, the ISO will fully refund the initial and additional Cluster Participation Deposits (10 percent) to the respective Interconnection Customers.<sup>195</sup> If the Interconnection Customer does not submit the 20 percent deposit (or make the initial payment) within the period specified, the Interconnection Request will be automatically withdrawn from the interconnection queue, and the Cluster Participation Deposits will be forfeited and re-allocated, according to the cost allocation methodology contained in Schedule 11, to those Interconnection Customers with Interconnection Requests included in the cluster when all of the proposed resources achieve Commercial Operation.<sup>196</sup> However, if the Interconnection Request

---

<sup>190</sup> *See id.*

<sup>191</sup> *See id.* In the case of an Internal ETU, the additional Cluster Participation Deposit is the lesser of \$1,000,000 or five percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the additional Cluster Participation Deposit is due. *See id.* at 52.

<sup>192</sup> *See* McBride Testimony at 52. The calculation of the additional Cluster Participation Deposit for Interconnection Customers using an Internal ETU that has been identified to take the place of a CETU, or part thereof, to interconnect to the system will not include the costs of the Internal ETU. This is not the case for the initial Cluster Participation Deposit because, at that point in the process, it is unknown whether the Internal ETU will meet the requirements to take the place of a CETU or part thereof.

<sup>193</sup> *See id.* at 52-53. The calculation of the 20 percent deposit for Interconnection Customers using an Internal ETU that has been identified to take the place of a CETU, or part thereof, to interconnect to the system will not include the costs of the Internal ETU. *See id.*

<sup>194</sup> *See id.*

<sup>195</sup> *See id.* at 53-54

<sup>196</sup> *See* McBride Testimony at 53-54.

is withdrawn after the Interconnection Customer submits the 20 percent deposit (or makes the initial payment), then the 20 percent deposit will be applied to offset the costs of the CETU.<sup>197</sup> In the event that all clustered Interconnection Requests are withdrawn from the interconnection queue after the 20 percent deposits (or initial payments) have been made, the associated Interconnection Agreements will be terminated and any unspent portions of the deposits/payments will be returned by the Interconnecting Transmission Owner to the respective Interconnection Customers in accordance with the associated Interconnection Agreements.<sup>198</sup>

**e. Cluster Filling, Oversubscription, and Backfilling**

The Clustering Revisions incorporate in the Interconnection Procedures additional features designed to further minimize uncertainties and the impacts of late-stage withdrawals when clustering is invoked.

Pursuant to Section 4.2.3.3 of the LGIP, Section 1.5.3.3 of the SGIP, and Section 4.2.3.3 of the ETU IP, the CSIS will be filled initially with all Interconnection Requests identified as eligible to participate in the second-phase cluster studies that elect to be included in the CSIS and meet the CSIS entry requirements.<sup>199</sup> As described above, all Interconnection Requests located in the same electrical part of the system relative to the CETU identified in the final CRPS report that do not have a completed SIS will be eligible to participate in the second-phase cluster studies. However, only those Interconnection Requests that meet the CSIS entry requirements by the Cluster Entry Deadline, up to the approximate megawatt quantity identified in the final CRPS report as potentially enabled by the CETU, will be included in the CSIS.<sup>200</sup> The Interconnection Requests will be included in queue order, relative to other eligible Interconnection Requests, up to the megawatts enabled by the CETU.<sup>201</sup> The CETU identified in the final CRPS report may not be designed to interconnect the total of megawatts proposed in the Interconnection Requests located in the same electrical part of the system.<sup>202</sup> This allows for the potential for attrition and avoids cluster failure from the start.<sup>203</sup>

The clustering construct, however, is designed to handle the potential for more megawatts than the CETU is designed to enable. If the cluster is oversubscribed (*i.e.*, more Interconnection

---

<sup>197</sup> See *id.* at 54.

<sup>198</sup> See *id.*

<sup>199</sup> See *id.* at 54-55.

<sup>200</sup> See *id.*

<sup>201</sup> See McBride Testimony at 54-55.

<sup>202</sup> See *id.* at 34.

<sup>203</sup> See *id.*



Requests meet the requirements to enter the CSIS than can be accommodated by the CETU), the Clustering Revisions provide for the ISO to immediately initiate the cluster study process for the next round of eligible projects.<sup>204</sup> Should cluster oversubscription occur, the first round of eligible Interconnection Requests that met the CSIS entry requirements will proceed with the first CSIS, and the ISO will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests with the announcement of a first-phase CRPS through the Planning Advisory Committee.<sup>205</sup> Conversely, as noted above, if the cluster is undersubscribed, then Interconnection Customers that met the CSIS entry requirements will have an opportunity to withdraw their Interconnection Requests from the queue prior to the start of the CSIS.

In the event of withdrawals, whether during the scheduled off-ramps or at any other time, the Clustering Revisions provide for the ISO to backfill the cluster, in queue order, with later-queued Interconnection Requests identified by the ISO as eligible to take the place of (backfill) a withdrawn Interconnection Request.<sup>206</sup> Backfilling will be based on the same criteria applied to fill the original cluster.<sup>207</sup> Consistent with that process, the ISO will notify all Interconnection Customers with Interconnection Requests identified as eligible for backfilling. The Interconnection Customers will have 30 days from the ISO's notice by which to accept their respective Interconnection Request's inclusion in the cluster, request to have the Interconnection Request moved to the bottom of the queue, or withdraw the Interconnection Request. If the Interconnection Customer does not make one of these elections and meets the associated requirements, then the Interconnection Request will be automatically withdrawn.

Consistent with the objective to minimize the impact of the withdrawal on the remaining Interconnection Requests, the ISO may identify the Generating Facility or ETU as proposed in a lower-queued Interconnection Request or a portion of it to be eligible for backfilling and, in such circumstances, the Interconnection Customer will be allowed to modify the Interconnection Request to reflect the appropriate reduction.<sup>208</sup> Correspondingly, when an Internal ETU has been included in the CSIS Study Base Case to take the place of a CETU or part thereof, then only in this circumstance of backfilling, any later-queued Interconnection Request that is joining the cluster must also have a commitment with the ETU developer to fund and use the Internal ETU.<sup>209</sup> Otherwise, the later-queued Interconnection Request will not be eligible to backfill, as rendering the Internal ETU as no

---

<sup>204</sup> *See id.* at 55.

<sup>205</sup> *See id.*

<sup>206</sup> *See McBride Testimony* at 56-57.

<sup>207</sup> *See id.*

<sup>208</sup> *See id.* at 56-57.

<sup>209</sup> *See id.*

longer eligible to take the place of the CETU in the absence of such a commitment at this stage in the process would be too disruptive to the cluster and could result in cluster collapse.<sup>210</sup>

While the backfilling provisions are intended to reduce the need for restudies that may be triggered by withdrawal, the Clustering Revisions also incorporate restudy provisions in the CSIS and CFAC provisions in case restudy is needed. Consistent with the existing restudy provisions in the Interconnection Procedures, the Clustering Revisions specify the circumstances that may warrant a restudy of the CSIS.<sup>211</sup> The circumstances include those that are currently reflected in the existing restudy provisions (*e.g.*, changes to a higher-queued project or modifications to an approved regulated transmission solution included in the base case), as well as, withdrawal of an Interconnection Request that had been included in the CSIS.<sup>212</sup> To the extent restudy is triggered, individual Interconnection Customer's cost responsibilities will be updated.<sup>213</sup>

## **6. Clustering Cost Allocation Methodology**

Under the current Interconnection Procedures, the Queue Position assigned to a valid Interconnection Request determines the cost responsibility for facilities necessary to accommodate the Interconnection Request based on the cost allocation methodology set out in Schedule 11 of the OATT.<sup>214</sup> Currently, Section 5 of Schedule 11 allocates all costs of interconnection that would not have been incurred but for the interconnection to the respective Interconnection Customer. Schedule 11, however, does not address how to allocate interconnection upgrade costs to Interconnection Customers in the case of clustering.

### **a. Cost Allocation Methodology**

To support the consideration of Interconnection Requests on a clustered basis, the Clustering Revisions amend Schedule 11 to establish the provisions for allocating the costs for interconnection upgrades among Interconnection Customers with Interconnection Requests included in a cluster. Under the proposed cost allocation methodology, as reflected in the revisions to Schedule 11, Section 5, the costs for direct-connect or sole-use facilities (*e.g.*, a generator lead connecting a

---

<sup>210</sup> *See id.*

<sup>211</sup> *See* McBride Testimony at 57.

<sup>212</sup> *See id.*

<sup>213</sup> *See id.*

<sup>214</sup> For reference, Schedule 11 was initially accepted by the Commission in *New England Power Pool*, 85 FERC ¶ 61,141 (1998), *order on reh'g.*, 87 FERC ¶ 61,043 (1999). The Schedule 11 cost allocation methodology was upheld by the Commission in *New England Power Pool*, 95 FERC ¶ 61,383 (2001) and *New England Power Pool*, 91 FERC ¶ 61,311 (2000), *order on reh'g.*, 95 FERC ¶ 61,384 (2001). The cost allocation was preserved in the Order No. 2003 compliance. *See* Order No. 2003 Compliance Order at PP 84-85.

Generating Facility to the CETU) will continue to be paid for by the respective Interconnection Customer, the same as today.<sup>215</sup> The costs for common or shared upgrades (*e.g.*, the CETU, other network upgrades)<sup>216</sup> will be allocated to each Interconnection Customer with an Interconnection Request included in the cluster on the basis of a distribution factor methodology or a pro-rata megawatt methodology, depending on the type of upgrade.<sup>217</sup>

The distribution factor cost allocation methodology uses a distribution factor to determine the proportionate shares of costs among the Interconnection Requests participating in the cluster.<sup>218</sup> The distribution factor represents the measure of responsiveness or change in the electrical loading on the shared or common upgrades due to a change in electric power transfer from one part of the system to another, expressed in percent of the change in power transfer.<sup>219</sup> When applying the distribution factor methodology for clustered cost allocation, an Interconnection Customer with an Interconnection Request included in the cluster<sup>220</sup> will be responsible for: the total cost of the shared or common upgrade multiplied by the ratio of the individual distribution impact of the Interconnection Customer's resource divided by the total distribution impact of all of the resources in the cluster.<sup>221</sup> The individual distribution impact of an Interconnection Customer's resource will be calculated by: multiplying the distribution factor of the Interconnection Customer's resource by the megawatt value of the Interconnection Customer's resource<sup>222</sup> included in the cluster.<sup>223</sup> The

---

<sup>215</sup> See McBride Testimony at 58.

<sup>216</sup> Recovery of costs associated with an Internal ETU that is included in the cluster for the purpose of taking the place of a CETU, or portion thereof, is not subject to Schedule 11. Under the ETU IP, ETUs are voluntarily-funded facilities paid for by the Interconnection Customer proposing the ETU. The mechanism by which an Interconnection Customer with an Internal ETU recovers the costs for the Internal ETU from the Interconnection Customers using the ETU is subject to Commission-approved arrangements as between the Internal ETU developer and the Interconnection Customers that need to use the Internal ETU in order to interconnect to the system.

<sup>217</sup> See *id.* at 58-59.

<sup>218</sup> See *id.* 59, 63.

<sup>219</sup> See *id.* at 59.

<sup>220</sup> All Interconnection Customers with the exception of an Interconnection Customers with a proposed Internal ETU that has been included in the cluster for the purpose of taking the place of a CETU or portion thereof. This is because the Internal ETU will be funded by the Interconnection Customers that need to use the Internal ETU to interconnect to the system pursuant to the arrangements with the Internal ETU developer. See *id.* at 63-64.

<sup>221</sup> See McBride Testimony at 59.

<sup>222</sup> For a Generating Facility, the megawatt value will be the Summer Network Resource Capability, and for an ETU, it will be the absolute value of the higher of the requested bidirectional capability that results in a positive distribution factor.

distribution factor of an Interconnection Customer's resource relative to each common or shared upgrade is calculated using the final CSIS Study Case for summer peak load conditions with no contingencies modeled, and a transfer from the injection point associated with the Interconnection Customer's resource to the New England Control Area load.<sup>224</sup> The total distribution impact for the entire cluster will be the sum of all of the individual distribution impacts of the Interconnection Customer's resources.<sup>225</sup> The McBride Testimony provides an example illustrating each component of this calculation.<sup>226</sup>

Where cost allocation of a common or shared upgrade cannot be calculated using the distribution factor cost allocation methodology (*e.g.*, a dynamic reactive device), the Clustering Revisions provide for the upgrade costs to be allocated to each Interconnection Customer with an Interconnection Request included in the cluster based upon a pro rata megawatt share.<sup>227</sup>

#### **b. Late Comer Project Provision**

As described in Section IV.A.5.b above, Interconnection Customers with Interconnection Requests identified by the ISO as eligible to participate in the second-phase cluster studies, will have the option to elect, at the beginning of the second phase of the study process, to be included in the cluster studies by meeting the CSIS entry requirements, move to the bottom of the interconnection queue, or withdraw from the interconnection queue. While this provides Interconnection Customers a reasonable opportunity to make informed-decisions regarding whether to move toward interconnection or withdraw, it also could inadvertently create the opportunity for free-riders to follow with later interconnection making use of the clustering upgrades.<sup>228</sup> To address this concern, the Clustering Revisions incorporate provisions to allow for reimbursement by Interconnection Customers that interconnect within ten years of the CETU's In-Service Date.<sup>229</sup> These Interconnection Customers are referred to as "Late Comer Projects," and provisions for reimbursement by Late Comer Projects are incorporated in Section 5 of Schedule 11.

More specifically, the Clustering Revisions revise Schedule 11 to require an Interconnection Customer with a resource that interconnects within ten years of the In-Service Date of the CETU (*i.e.*, the Late Comer Project) to reimburse the Interconnection Customers that have contributed to

---

<sup>223</sup> *See id.* at 59-60.

<sup>224</sup> *See id.* at 60.

<sup>225</sup> *See id.*

<sup>226</sup> *See id.* at 60-63.

<sup>227</sup> *See* McBride Testimony at 64.

<sup>228</sup> *See id.* 64-65.

<sup>229</sup> *See id.*

the costs of the CETU (for ease, referred to herein as the “Original Interconnection Customers”).<sup>230</sup> Such reimbursement will be in the amount of the Original Interconnection Customers’ corresponding reduction in the CETU costs (adjusted to account for depreciation) based on the comparison of the CETU cost allocation with and without the added Late Comer Project.<sup>231</sup> The Clustering Revisions specify in Section 5 of Schedule 11 the criteria that will be applied to determine whether an Interconnection Customer is a Late Comer Project. As reflected therein, a Late Comer Project is an Interconnection Customer with a resource that: (1) interconnects directly to the CETU, (2) connects to a substation where the CETU terminates, or (3) (a) is greater than five megawatts and is greater than one percent of the CETU normal rating and (b) has an impact<sup>232</sup> on the CETU that is greater than five percent of the CETU normal rating or has a distribution factor on the CETU that is greater than or equal to 20 percent using the distribution factor cost allocation methodology described above.<sup>233</sup> The Original Interconnection Customer’s applicable reimbursement will occur through the Interconnecting Transmission Owner.

The Late Comer Project provisions only apply to CETUs and their costs,<sup>234</sup> because of their unique nature compared with typical interconnection-related upgrades.<sup>235</sup> By definition, CETUs will be major transmission upgrades such as new lines. Such infrastructure tends to be “lumpy,” leading to the potential for the creation of headroom that could be used by later projects.<sup>236</sup> In contrast, upgrades such as the reconductoring of an existing line or the addition of a dynamic reactive device are not deliberately oversized, within the application of standardized equipment, beyond the need of the interconnecting project, minimizing the opportunities for free-riding.<sup>237</sup>

## 7. Transition Procedures

As with prior changes to the Interconnection Procedures, the Clustering Revisions update the transition rules in the Interconnection Procedures to facilitate the transition into the new rules.<sup>238</sup>

---

<sup>230</sup> *See id.*

<sup>231</sup> *See id.*

<sup>232</sup> Meaning, whether the addition of the Late Comer Project’s resource increases/decrease the loading on the CETU – *i.e.*, uses the facility.

<sup>233</sup> *See* McBride Testimony at 65.

<sup>234</sup> For clarity, the Late Comer Project provisions do not apply to Internal ETUs that take the place of a CETU or part thereof.

<sup>235</sup> *See id.* at 66.

<sup>236</sup> *See id.*

<sup>237</sup> *See id.*

<sup>238</sup> *See* LGIP at § 5.1; SGIP at § 1.6; ETU IP § 5.2.

More specifically, the Clustering Revisions incorporate a transition mechanism that provides for the current Northern and Western Maine queue backlog to be the first to trigger the clustering process and the currently ongoing Maine Resource Integration Study to be the first CRPS, so that the second phase of the cluster study process can be initiated soon after the Effective Date of the Clustering Revisions without further delays.<sup>239</sup> Consistent with the Clustering Revisions described above, the final Maine Resource Integration Study report will provide the CETU(s) description, the megawatt quantity enabled by the CETU(s), the cost estimates for the CETU and associated supporting upgrades, and the eligible Interconnection Requests.<sup>240</sup> Consistent with the transition construct established in Order No. 2003, the Clustering Revisions provide for all Interconnection Requests in the queue located in the electrically relevant portions of Northern and Western Maine without a completed SIS by the Effective Date of the Clustering Revisions to be considered as Interconnection Requests eligible to participate in the second-phase cluster studies.<sup>241</sup> In other words, to be identified in the Maine Resource Interconnection Study report as eligible to participate in the second-phase cluster studies, a valid Interconnection Request must be submitted to the ISO prior to the Effective Date of the Clustering Revisions. For the transition, the Cluster Entry Deadline will be 30 days after the later of the Effective Date of the Clustering Revisions or the completion of the Maine Resource Integration Study. This means that for only this transition, an Interconnection Customer with an Interconnection Request identified in the final Maine Resource Interconnection Study report as eligible to participate in the second-phase cluster studies will need to make the required election and meet the associated requirements by the thirtieth day from the latter of: the Effective Date of the Clustering Revisions or the completion of the Maine Resource Integration Study. As with past efforts, the ISO has and will continue to work with Interconnection Customers regarding the status of their Interconnection Requests and any actions they need to take based on that status to facilitate their transition into the new rules.

## **B. Clarifications, Conforming and Other Ministerial Changes**

The Clustering Revisions also include certain conforming changes that are necessary to support the implementation of the clustering methodology, and to reflect other ministerial or clean-up changes.<sup>242</sup> These include revisions to:

---

<sup>239</sup> See McBride Testimony at 66-67.

<sup>240</sup> See *id.*

<sup>241</sup> See *id.*

<sup>242</sup> See *id.* at 68-69. The ministerial changes also include revisions: (1) throughout Schedule 22 (LGIP/LGIA) and 23 (SGIP/SGIA) to, where appropriate, include cross-references to the “Supplementary Wind and Inverter-Based Generating Facility Form,” which is Attachment A-1 in Schedule 22 and Attachment A in Schedule 23, and fix numbering cross-references within the form; (2) to Section 3.1 of the LGIP, Section 1.3.4 of the SGIP, and Section 3.1 of the ETU IP to clarify when a deposit submitted to the ISO is considered received; (3) to Section 3.6 of the LGIP, Section 1.8 of the SGIP, and Section 3.6 of the ETU IP to improve readability; (4) to Section 7.5 of the LGIP, Section 3.4.5 of the SGIP and Section 7.5 of the ETU IP to clarify the process following an Interconnection

- Section I of the LGIP, Article 1 of the LGIA, Attachment 1 to the SGIP and the SGIA, Section I of the ETU IP, and Article 1 of the ETU IA to incorporate definitions for the new concepts of CETU, CRPS, CFAC, CSIS, Cluster Participation Deposit, and Cluster Entry Deadline, and revise the existing definition for “Clustering” to recognize the conduct of the FAC on a cluster basis. Correspondingly, to the extent the new concepts are used in other Tariff provisions (*e.g.*, Attachment K or Schedule 11), Section I.2.2 of the Tariff has been revised to reflect the terms;<sup>243</sup>
- Sections 3.3.1 of the LGIP and Section 3.3.1 of the ETU IP to provide for: (1) the initial deposit of \$50,000 (and the \$10,000 deposit if provided in lieu of Site Control) associated with Interconnection Requests identified for inclusion in a CRPS to be applied toward the Interconnecting Transmission Owner’s costs for developing the CETU and associated system upgrade cost estimates in support of the CRPS in the case of a clustered Interconnection Request; (2) the application of any unused balance toward an Interconnection Request that is re-queued under the cluster election provisions; and (3), the refund of any unused balance upon Interconnection Customer’s election to withdraw under the cluster election provisions. Attachment 2 to the SGIP has also been revised to provide for the initial \$2,500 non-refundable deposit to be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS;
- Sections 3.3.4 of the LGIP, Section 3.2 of the SGIP, and Section 3.3.4 of the ETU IP to recognize the options available to an Interconnection Customer after the Scoping Meeting will change when the clustering approach is triggered. Corresponding changes have also been incorporated in the Interconnection Study provisions in the LGIP, SGIP and ETU IP;

---

Customer’s election to pursue the FAC to eliminate ambiguities and delays introduced in circumstances where Interconnection Customers change their election past the election deadline; (5) to Attachment A to the LGIP, Attachment 2 to the SGIP, and Attachment A to the ETU IP to clarify when the PSCAD model for a non-wind or inverter-based generator needs to be provided to the ISO by removing references to the Scoping Meeting; (6) to Attachment B in the LGIP and the ETU IP to remove the PSCAD model requirement since those attachments relates to the FS; (7) to the Interconnection Feasibility Study Agreement in Schedules 22, 23 and 25 to recognize the scope of the alternative scope FS; and, (8) to Attachment 1 of the SGIP and the SGIA to add the defined terms “Interconnecting Transmission Owner’s Interconnection Facilities” and “Interconnection Customer’s Interconnection Facilities” (and use the capitalized terms throughout the schedule), and reflect certain definitions in each of the attachments that were reflected in one attachment but not the other. *See id.* at 69. Other clean-up changes, such as correcting misspellings, punctuations, spaces, are also reflected.

<sup>243</sup> The ministerial changes also include revisions to the definition of “Material Modification” in Section I of the LGIP, Article 1 to the LGIP, Section I of the ETU IP, and Article 1 to the ETU IA to clarify cross-reference to Attachment A to Appendix 1 and, in the case of the LGIP/LGIA, reflect the addition of Attachment A-1.

- Section 4.1 of the LGIP, Section 1.5.1 of the SGIP, and Section 4.1 of the ETU IP to clarify the treatment of non-clustered Interconnection Requests relative to Interconnection Requests included in a cluster;<sup>244</sup>
- Section 4.4.1 of the LGIP, Section 1.5.5 (as renumbered) of the SGIP, and Section 4.4.1 of the ETU IP to clarify, consistent with the Commission's *pro forma* adopted in Order No. 2003, that an Interconnection Customer may reduce the size of the facility initially proposed any time after its SIS commences, but remains responsible for the costs corresponding to the initially requested megawatt quantity;<sup>245</sup>
- Sections 6-8 of the LGIP, Sections 3.3-3.5 of the SGIP and Sections 6-8 of the ETU IP, which are the Interconnection Study provisions, to: (1) provide for the application of the FS and SIS deposits associated with Interconnection Requests identified for inclusion in a CRPS to be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS; (2) specify that the costs of the CSIS and CFAC associated with an individual Interconnection Request will be directly assigned to the Interconnection Customers and those that are associated with the cluster as a whole will be divided equally, on a per-project basis, among the Interconnection Customers included in the cluster study; and, (3) insert cross-references to Attachment A-1 where appropriate;
- Section 11.3.1.2 of the LGIP and the ETU IP to: (1) distinguish the existing 20 percent refundable deposit required to demonstrate commitment toward interconnection from the new 20 percent potentially non-refundable deposit associated with the Clustering provisions; (2) clarify that the existing 20 percent deposit may be provided in the form acceptable by the Interconnecting Transmission Owner (*e.g.*, cash, letter of credit), consistent with current practice; and, (3) remove ambiguity regarding when the deposit is due, which is within 15 Business Days after receipt of the final Interconnection Agreement;
- Section 1.3 of the SGIP to align the Interconnection Request provisions and the associated assignment of a Queue Position with those in the LGIP and ETU IP;
- Section 3.3.4 and Section 3.5.1 of the SGIP to remove inapplicable *pro forma* SGIP provisions since the New England SGIP incorporates the LGIP three-phase Interconnection Study process; and,
- Schedule 11 of the OATT to clarify the application of the cost allocation methodology set out in Section 5 to ETUs, consistent with Article 11.4 of the ETU IA, and to recognize the

---

<sup>244</sup> Consistent with the queue order, an Interconnection Request included in a cluster will respect an electrically relevant higher-queued Interconnection Request that is not included in the cluster. Likewise, a lower-queued Interconnection Request that is not included in the cluster will respect all of higher-queued Interconnection Requests that are part of the cluster. *See* McBride Testimony at 27-29.

<sup>245</sup> *See* Order No. 2003 at P 133 (addressing Section 4.4.2 of the *pro forma* LGIP).



cost allocation methodology for common or shared upgrades identified through Clustering in Section 7.<sup>246</sup>

## **V. STAKEHOLDER PROCESS**

The Clustering Revisions reflected in Sections I and II of the Tariff were considered and supported through the NEPOOL Participant Process. As briefly described above, the NEPOOL Participant Process was preceded by discussions and presentations at the March and May 2016 meetings of the Planning Advisory Committee, wherein the ISO engaged in discussions and review of the different cluster study approaches implemented in other regions and sought stakeholders' experiences with those processes. Following those discussions, the ISO initiated the NEPOOL Participant Process with presentations of the ISO's cluster design, which was informed by the preceding efforts, to the Transmission Committee at its September and October 2016 meetings. The Transmission Committee reviewed and provided input on the Clustering Revisions reflecting the ISO's cluster design at its November and December 2016 meetings. At its January 24, 2017 meeting, the Transmission Committee voted 73.55% in favor of recommending the Participants Committee support for the Clustering Revisions. The Participants Committee, at its February 3, 2017 meeting, also voted 95% in support of the revisions.

The PTO AC voted to support the Clustering Revisions reflected in Schedules 11, 22, 23 and 25 of the OATT at its February 1, 2017 meeting.

## **VI. REQUESTED EFFECTIVE DATE**

The Filing Parties request that the Commission permit the Clustering Revisions that are being submitted in this filing to become effective, without suspension or hearing, on **November 1, 2017**.

## **VII. ADDITIONAL SUPPORTING INFORMATION**

Section 35.13 of the Commission's regulations generally requires public utilities to file certain cost and other information related to an examination of traditional cost-of-service rates.<sup>247</sup> However, the revisions filed herein are not traditional "rates." Further, the ISO is not a traditional investor-owned utility. Therefore, to the extent necessary, the Filing Parties request waiver of Section 35.13 of the Commission's regulations. Notwithstanding their request for waiver, the Filing Parties submit the additional information enumerated below in substantial compliance with relevant provisions of Section 35.13.

35.13(b)(1) – Materials included herewith are as follows:

---

<sup>246</sup> Section 11.4.1 of the ETU IA has also been revised to reference "ETU Interconnection Related Upgrades."

<sup>247</sup> 18 C.F.R. § 35.13 (2014).

- ♦ This transmittal letter;
- ♦ Marked Sections I and II of the Tariff reflecting the Clustering Revisions effected by this filing;
- ♦ Clean Sections I and II of the Tariff incorporating the Clustering Revisions effected by this filing;
- ♦ Testimony of Alan McBride, solely sponsored by the ISO; and
- ♦ List of governors, utility regulatory agencies in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, and others to which a copy of this filing has been e-mailed.

35.13(b)(2) – As noted above, the Filing Parties request that the Clustering Revisions submitted with this filing become effective on **November 1, 2017**.

35.13(b)(3) - Pursuant to Section 17.11(e) of the Participants Agreement, Governance Participants are being served electronically rather than by paper copy. The names and addresses of the Governance Participants are posted on the ISO's website at: <https://www.isone.com/participate/participant-asset-listings/directory?id=1&type=committee>. A copy of this transmittal letter and the accompanying materials have also been sent electronically to the governors and electric utility regulatory agencies for the six New England states that comprise the New England Control Area, to the New England Conference of Public Utility Commissioners, and to the Executive Director of the New England States Committee on Electricity. In accordance with Commission rules and practice, there is no need for the Governance Participants or the other entities described above to be included on the Commission's official service list in the captioned proceeding unless such entities become intervenors in this proceeding.

35.13(b)(4) - A description of the materials submitted pursuant to this filing is contained in Section VIII of this transmittal letter.

35.13(b)(5) - The reasons for this filing are discussed in Section V of this transmittal letter.

35.13(b)(6) - The ISO's approval of these revisions is evidenced by this filing. These revisions reflect the results of the Participant Processes required by the Participants Agreement and reflect the support of the Participants Committee.

35.13(b)(7) - The Filing Parties have no knowledge of any relevant expenses or costs of service that have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

## VIII. CONCLUSION

For the foregoing reasons, the Filing Parties respectfully request that the Commission approve the Clustering Revisions as described herein, without condition or change, to become effective **November 1, 2017**.

Respectfully submitted,

ISO NEW ENGLAND INC.

By: /s/ Monica Gonzalez  
Senior Regulatory Counsel  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841  
(413) 535-4178

Counsel for the ISO

PARTICIPATING TRANSMISSION OWNERS  
ADMINISTRATIVE COMMITTEE

By: /s/ Mary E. Grover  
Mary E. Grover  
Chair, PTO AC Legal Working Group Chair  
c/o 800 Boylston Street, P1700  
Boston, MA 02199-8003  
(617) 424-2105

Counsel for PTO AC

NEW ENGLAND POWER POOL  
PARTICIPANTS COMMITTEE

By: /s/ Eric K. Runge  
Eric K. Runge, Esq.  
Day Pitney LLP  
One International Place  
Boston, MA 02110  
(617) 345-4735

Counsel for NEPOOL

Dated: September 1, 2017

Enclosures

## **I.2 Rules of Construction; Definitions**

### **I.2.1. Rules of Construction:**

In this Tariff, unless otherwise provided herein:

- (a) words denoting the singular include the plural and vice versa;
- (b) words denoting a gender include all genders;
- (c) references to a particular part, clause, section, paragraph, article, exhibit, schedule, appendix or other attachment shall be a reference to a part, clause, section, paragraph, or article of, or an exhibit, schedule, appendix or other attachment to, this Tariff;
- (d) the exhibits, schedules and appendices attached hereto are incorporated herein by reference and shall be construed with an as an integral part of this Tariff to the same extent as if they were set forth verbatim herein;
- (e) a reference to any statute, regulation, proclamation, ordinance or law includes all statutes, regulations, proclamations, amendments, ordinances or laws varying, consolidating or replacing the same from time to time, and a reference to a statute includes all regulations, policies, protocols, codes, proclamations and ordinances issued or otherwise applicable under that statute unless, in any such case, otherwise expressly provided in any such statute or in this Tariff;
- (f) a reference to a particular section, paragraph or other part of a particular statute shall be deemed to be a reference to any other section, paragraph or other part substituted therefor from time to time;
- (g) a definition of or reference to any document, instrument or agreement includes any amendment or supplement to, or restatement, replacement, modification or novation of, any such document, instrument or agreement unless otherwise specified in such definition or in the context in which such reference is used;
- (h) a reference to any person (as hereinafter defined) includes such person's successors and permitted assigns in that designated capacity;
- (i) any reference to "days" shall mean calendar days unless "Business Days" (as hereinafter defined) are expressly specified;
- (j) if the date as of which any right, option or election is exercisable, or the date upon which any amount is due and payable, is stated to be on a date or day that is not a Business Day, such right, option or election may be exercised, and such amount shall be deemed due and payable, on the next succeeding Business Day with the same effect as if the same was exercised or made on such date or day (without, in the case of any such payment, the payment or accrual of any interest or

other late payment or charge, provided such payment is made on such next succeeding Business Day );

- (k) words such as “hereunder,” “hereto,” “hereof” and “herein” and other words of similar import shall, unless the context requires otherwise, refer to this Tariff as a whole and not to any particular article, section, subsection, paragraph or clause hereof; and a reference to “include” or “including” means including without limiting the generality of any description preceding such term, and for purposes hereof the rule of *ejusdem generis* shall not be applicable to limit a general statement, followed by or referable to an enumeration of specific matters, to matters similar to those specifically mentioned.

#### **I.2.2. Definitions:**

In this Tariff, the terms listed in this section shall be defined as described below:

**Actual Load** is the consumption at the Retail Delivery Point for the hour.

**Additional Resource Blackstart O&M Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Additional Resource Specified-Term Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Additional Resource Standard Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Administrative Costs** are those costs incurred in connection with the review of Applications for transmission service and the carrying out of System Impact Studies and Facilities Studies.

**Administrative Export De-List Bid** is a bid that may be submitted in a Forward Capacity Auction by certain Existing Generating Capacity Resources subject to a multi-year contract to sell capacity outside of the New England Control Area during the associated Capacity Commitment Period, as described in Section III.13.1.2.3.1.4 of Market Rule 1.

**Administrative Sanctions** are defined in Section III.B.4.1.2 of Appendix B of Market Rule 1.

**ADR Neutrals** are one or more firms or individuals identified by the ISO with the advice and consent of the Participants Committee that are prepared to act as neutrals in ADR proceedings under Appendix D to Market Rule 1.

**Advance** is defined in Section IV.A.3.2 of the Tariff.

**Affected Party**, for purposes of the ISO New England Billing Policy, is defined in Section 6.3.5 of the ISO New England Billing Policy.

**Affiliate** is any person or entity that controls, is controlled by, or is under common control by another person or entity. For purposes of this definition, "control" means the possession, directly or indirectly, of the authority to direct the management or policies of an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

**AGC** is automatic generation control.

**AGC SetPoint** is the desired output signal for a Resource providing Regulation that is produced by the AGC system as frequently as every four seconds.

**AGC SetPoint Deadband** is a deadband expressed in megawatts that is applied to changing values of the AGC SetPoint for generating units.

**Allocated Assessment** is a Covered Entity's right to seek and obtain payment and recovery of its share in any shortfall payments under Section 3.3 or Section 3.4 of the ISO New England Billing Policy.

**Alternative Dispute Resolution (ADR)** is the procedure set forth in Appendix D to Market Rule 1.

**Alternative Technology Regulation Resource** is any Resource eligible to provide Regulation that is not registered as a different Resource type.

**Ancillary Services** are those services that are necessary to support the transmission of electric capacity and energy from resources to loads while maintaining reliable operation of the New England Transmission System in accordance with Good Utility Practice.

**Announced Schedule 1 EA Amount, Announced Schedule 2 EA Amount, Announced Schedule 3 EA Amount** are defined in Section IV.B.2.2 of the Tariff.

**Annual Transmission Revenue Requirements** are the annual revenue requirements of a PTO's PTF or of all PTOs' PTF for purposes of the OATT shall be the amount determined in accordance with Attachment F to the OATT.

**Annualized FCA Payment** is used to determine a resource's availability penalties and is calculated in accordance with Section III.13.7.2.7.1.2(b) of Market Rule 1.

**Applicants**, for the purposes of the ISO New England Financial Assurance Policy, are entities applying for Market Participant status or for transmission service from the ISO.

**Application** is a written request by an Eligible Customer for transmission service pursuant to the provisions of the OATT.

**Asset** is a generating unit, interruptible load, a component of a demand response resource or load asset.

**Asset Registration Process** is the ISO business process for registering a physical load, generator, or tie-line for settlement purposes. The Asset Registration Process is posted on the ISO's website.

**Asset Related Demand** is a physical load that has been discretely modeled within the ISO's dispatch and settlement systems, settles at a Node and, except for pumped storage load, is made up of one or more individual end-use metered customers receiving service from the same point or points of electrical supply, with an aggregate average hourly load of 1 MW or greater during the 12 months preceding its registration.

**Asset Related Demand Bid Block-Hours** are Block-Hours assigned to the Lead Market Participant for each Asset Related Demand bid. Blocks of the bid in effect for each hour will be totaled to determine the daily quantity of Asset Related Demand Bid Block-Hours. In the case that a Resource has a Real-Time unit status of "unavailable" for an entire day, that day will not contribute to the quantity of Asset Related Demand Bid Block-Hours. However, if the Resource has at least one hour of the day with a unit status of "available," the entire day will contribute to the quantity of Asset Related Demand Bid Block-Hours.

**Asset-Specific Going Forward Costs** are the net costs of an asset that is part of an Existing Generating Capacity Resource, calculated for the asset in the same manner as the net costs of Existing Generating Capacity Resources as described in Section III.13.1.2.3.2.1.1.1 (for an asset with a Static De-List Bid or an Export Bid) or Section III.13.1.2.3.2.1.1.2 (for an asset with a Permanent De-List Bid or Retirement De-List Bid).

**Assigned Meter Reader** reports to the ISO the hourly and monthly MWh associated with the Asset. These MWh are used for settlement. The Assigned Meter Reader may designate an agent to help fulfill its Assigned Meter Reader responsibilities; however, the Assigned Meter Reader remains functionally responsible to the ISO.

**Auction Revenue Right (ARR)** is a right to receive FTR Auction Revenues in accordance with Appendix C of Market Rule 1.

**Auction Revenue Right Allocation (ARR Allocation)** is defined in Section 1 of Appendix C of Market Rule 1.

**Auction Revenue Right Holder (ARR Holder)** is an entity which is the record holder of an Auction Revenue Right (excluding an Incremental ARR) in the register maintained by the ISO.

**Audited Demand Reduction** is the seasonal claimed capability of a Demand Response Resource as established pursuant to Section III.13.6.1.5.4.

**Audited Full Reduction Time** is the Offered Full Reduction Time associated with the Demand Response Resource's most recent audit.

**Authorized Commission** is defined in Section 3.3 of the ISO New England Information Policy.

**Authorized Person** is defined in Section 3.3 of the ISO New England Information Policy.

**Automatic Response Rate** is the response rate, in MW/Minute, at which a Market Participant is willing to have a generating unit change its output while providing Regulation between the Regulation High Limit and Regulation Low Limit.



**Average Hourly Load Reduction** is either: (i) the sum of the Demand Resource's electrical energy reduction during Demand Resource On-Peak Hours in the month divided by the number of Demand Resource On-Peak Hours in the month; (ii) the sum of the Demand Resource's electrical energy reduction during Demand Resource Seasonal Peak Hours in the month divided by the number of Demand Resource Seasonal Peak Hours in the month; or (iii) in each Real-Time Demand Response Event Hour, the sum of the baseline electrical energy consumption less the sum of the actual electrical energy consumption of all of the Real-Time Demand Response Assets associated with the Real-Time Demand Response Resource as registered with the ISO as of the first day of the month; or (iv) in each Real-Time Emergency Generation Event Hour, the sum of the baseline electrical energy consumption less the sum of the actual electrical energy consumption of all of the Real-Time Emergency Generation Assets associated with the Real-time Emergency Generation Resource as registered with the ISO as of the first day of the month. The Demand Resource's electrical energy reduction and Average Hourly Load Reduction shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements, as described in Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Average Hourly Output** is either: (i) the sum of the Demand Resource's electrical energy output during Demand Resource On-Peak Hours in the month divided by the number of Demand Resource On-Peak Hours in the month; (ii) the sum of the Demand Resource's electrical energy output during Demand Resource Seasonal Peak Hours in the month divided by the number of Demand Resource Seasonal Peak Hours in the month; or (iii) in each Real-Time Demand Response Event Hour or Real-Time Emergency Generation Event Hour, the sum of the electrical energy output of all of the Real-Time Demand Response Assets or Real-Time Emergency Generation Assets associated with the Real-Time Demand Response Resource or Real-Time Emergency Generation Resource as registered with the ISO as of the first day of the month. Electrical energy output and Average Hourly Output shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements, as described in Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Average Monthly PER** is calculated in accordance with Section III.13.7.2.7.1.1.2(a) of Market Rule 1.

**Backstop Transmission Solution** is a solution proposed: (i) to address a reliability or market efficiency need identified by the ISO in a Needs Assessment reported by the ISO pursuant to Section 4.1(i) of Attachment K to the ISO OATT, (ii) by the PTO or PTOs with an obligation under Schedule 3.09(a) of

the TOA to address the identified need; and (iii) in circumstances in which the competitive solution process specified in Section 4.3 of Attachment K to the ISO OATT will be utilized.

**Bankruptcy Code** is the United States Bankruptcy Code.

**Bankruptcy Event** occurs when a Covered Entity files a voluntary or involuntary petition in bankruptcy or commences a proceeding under the United States Bankruptcy Code or any other applicable law concerning insolvency, reorganization or bankruptcy by or against such Covered Entity as debtor.

**Bilateral Contract (BC)** is any of the following types of contracts: Internal Bilateral for Load, Internal Bilateral for Market for Energy, and External Transactions.

**Bilateral Contract Block-Hours** are Block-Hours assigned to the seller and purchaser of an Internal Bilateral for Load, Internal Bilateral for Market for Energy and External Transactions; provided, however, that only those contracts which apply to the Real-Time Energy Market will accrue Block-Hours.

**Blackstart Capability Test** is the test, required by ISO New England Operating Documents, of a resource's capability to provide Blackstart Service.

**Blackstart Capital Payment** is the annual compensation, as calculated pursuant to Section 5.1, or as referred to in Section 5.2, of Schedule 16 to the OATT, for a Designated Blackstart Resource's Blackstart Equipment capital costs associated with the provision of Blackstart Service (excluding the capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart CIP Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 utilizing data from Table 6 of Appendix A to this Schedule 16, or as referred to in Section 5.2, of Schedule 16 to the OATT, for a Blackstart Station's costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service.

**Blackstart CIP O&M Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 to the OATT, utilizing data from Table 6 of Appendix A to this Schedule 16, for a Blackstart Station's operating and maintenance costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of the provision of Blackstart Service.

**Blackstart Equipment** is any equipment that is solely necessary to enable the Designated Blackstart Resource to provide Blackstart Service and is not required to provide other products or services under the Tariff.

**Blackstart O&M Payment** is the annual compensation, as calculated pursuant to Section 5.1 of Schedule 16 to the OATT, for a Designated Blackstart Resource's operating and maintenance costs associated with the provision of Blackstart Service (except for operating and maintenance costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart Owner** is the Market Participant who is authorized on behalf of the Generator Owner(s) to offer or operate the resource as a Designated Blackstart Resource and is authorized to commit the resource to provide Blackstart Service.

**Blackstart Service** is the Ancillary Service described in Section II.47 of the Tariff and Schedule 16 of the OATT, which also encompasses "System Restoration and Planning Service" under the predecessor version of Schedule 16.

**Blackstart Service Commitment** is the commitment by a Blackstart Owner for its resource to provide Blackstart Service and the acceptance of that commitment by the ISO, in the manner detailed in ISO New England Operating Procedure No. 11 – Designated Blackstart Resource Administration (OP 11), and which includes a commitment to provide Blackstart Service under a "Signature Page for Schedule 16 of the NEPOOL OATT" that was executed and in effect prior to January 1, 2013 for Category A Designated Blackstart Resources or a commitment to provide Blackstart Service established under Operating Procedure 11 – Designated Blackstart Resource Administration (OP11) for Category B Designated Blackstart Resources.

**Blackstart Service Minimum Criteria** are the minimum criteria that a Blackstart Owner and its resource must meet in order to establish and maintain a resource as a Designated Blackstart Resource.

**Blackstart Standard Rate Payment** is the formulaic rate of monthly compensation, as calculated pursuant to Section 5 of Schedule 16 to the OATT, paid to a Blackstart Owner for the provision of Blackstart Service from a Designated Blackstart Resource.

**Blackstart Station** is comprised of (i) a single Designated Blackstart Resource or (ii) two or more Designated Blackstart Resources that share Blackstart Equipment.

**Blackstart Station-specific Rate Payment** is the Commission-approved compensation, as calculated pursuant to Section 5.2 of Schedule 16 to the OATT, paid to a Blackstart Owner on a monthly basis for the provision of Blackstart Service by Designated Blackstart Resources located at a specific Blackstart Station.

**Blackstart Station-specific Rate Capital Payment** is a component of the Blackstart Station-specific Rate Payment that reflects a Blackstart Station's capital Blackstart Equipment costs associated with the provision of Blackstart Service (excluding the capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart Station-specific Rate CIP Capital Payment** is a component of the Blackstart Station-specific Rate Payment that reflects a Blackstart Station's capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service.

**Block** is defined as follows: (1) With respect to Bilateral Contracts, a Bilateral Contract administered by the ISO for an hour; (2) with respect to Supply Offers administered by the ISO, a quantity with a related price for Energy (Supply Offers for Energy may contain multiple sets of quantity and price pairs for each hour); (3) with respect to Demand Bids administered by the ISO, a quantity with a related price for Energy (Demand Bids for Energy may contain multiple sets of quantity and price pairs for each hour); (4) with respect to Increment Offers administered by the ISO, a quantity with a related price for Energy (Increment Offers for Energy may contain multiple sets of quantity and price pairs for each hour); (5) with respect to Decrement Bids administered by the ISO, a quantity with a related price for Energy (Decrement Bids for Energy may contain multiple sets of quantity and price pairs for each hour); (6) with respect to Asset Related Demand bids administered by the ISO, a quantity with a related price for Energy (Asset Related Demand bids may contain multiple sets of quantity and price pairs for each hour); and (7) with respect to Demand Reduction Offers administered by the ISO, a quantity of reduced demand with a related price (for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Reduction Offers may contain multiple sets of quantity and price pairs for the day).

**Block-Hours** are the number of Blocks administered for a particular hour.

**Budget and Finance Subcommittee** is a subcommittee of the Participants Committee, the responsibilities of which are specified in Section 8.4 of the Participants Agreement.

**Business Day** is any day other than a Saturday or Sunday or ISO holidays as posted by the ISO on its website.

**Cancelled Start NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Capability Demonstration Year** is the one year period from September 1 through August 31.

**Capability Year** means a year's period beginning on June 1 and ending May 31.

**Capacity Acquiring Resource** is a resource that is seeking to acquire a Capacity Supply Obligation through a Capacity Supply Obligation Bilateral, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Balancing Ratio** is a ratio used in calculating the Capacity Performance Payment in the Forward Capacity Market beginning on June 1, 2018 pursuant to rules filed with the Commission on July 14, 2014.

**Capacity Capability Interconnection Standard** has the meaning specified in Schedule 22, Schedule 23, and Schedule 25 of the OATT.

**Capacity Clearing Price** is the clearing price for a Capacity Zone for a Capacity Commitment Period resulting from the Forward Capacity Auction conducted for that Capacity Commitment Period, as determined in accordance with Section III.13.2.7 of Market Rule 1.

**Capacity Clearing Price Floor** is described in Section III.13.2.7.

**Capacity Commitment Period** is the one-year period from June 1 through May 31 for which obligations are assumed and payments are made in the Forward Capacity Market.

**Capacity Cost (CC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**Capacity Export Through Import Constrained Zone Transaction** is defined in Section III.1.10.7(f)(i) of Market Rule 1.

**Capacity Load Obligation** is the quantity of capacity for which a Market Participant is financially responsible, equal to that Market Participant's Capacity Requirement (if any) adjusted to account for any relevant Capacity Load Obligation Bilaterals, as described in Section III.13.7.3.1 of Market Rule 1.

**Capacity Load Obligation Acquiring Participant** is a load serving entity or any other Market Participant seeking to acquire a Capacity Load Obligation through a Capacity Load Obligation Bilateral, as described in Section III.13.5.2 of Market Rule 1.

**Capacity Network Import Capability (CNI Capability)** is as defined in Section I of Schedule 25 of the OATT.

**Capacity Network Import Interconnection Service (CNI Interconnection Service)** is as defined in Section I of Schedule 25 of the OATT.

**Capacity Load Obligation Bilateral** is a bilateral contract through which a Market Participant may transfer all or a portion of its Capacity Load Obligation to another entity, as described in Section III.13.5 of Market Rule 1.

**Capacity Load Obligation Transferring Participant** is an entity that has a Capacity Load Obligation and is seeking to shed such obligation through a Capacity Load Obligation Bilateral, as described in Section III.13.5.2 of Market Rule 1.

**Capacity Network Resource (CNR)** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Capacity Network Resource Interconnection Service** (CNR Interconnection Service) is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Capacity Performance Payment** is the performance-dependent portion of revenue received in the Forward Capacity Market beginning on June 1, 2018 pursuant to rules filed with the Commission on July 14, 2014.

**Capacity Rationing Rule** addresses whether offers and bids in a Forward Capacity Auction may be rationed, as described in Section III.13.2.6 of Market Rule 1.

**Capacity Requirement** is described in Section III.13.7.3.1 of Market Rule 1.

**Capacity Scarcity Condition** is a period during which performance is measured in the Forward Capacity Market, as described in the rules filed with the Commission on January 17, 2014, and accepted by the Commission on May 30, 2014.

**Capacity Supply Obligation** is an obligation to provide capacity from a resource, or a portion thereof, to satisfy a portion of the Installed Capacity Requirement that is acquired through a Forward Capacity Auction in accordance with Section III.13.2, a reconfiguration auction in accordance with Section III.13.4, or a Capacity Supply Obligation Bilateral in accordance with Section III.13.5.1 of Market Rule 1.

**Capacity Supply Obligation Bilateral** is a bilateral contract through which a Market Participant may transfer all or a part of its Capacity Supply Obligation to another entity, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Transfer Right (CTR)** is a financial right that entitles the holder to the difference in the Net Regional Clearing Prices between Capacity Zones for which the transfer right is defined, in the MW amount of the holder's entitlement.

**Capacity Transferring Resource** is a resource that has a Capacity Supply Obligation and is seeking to shed such obligation, or a portion thereof, through a Capacity Supply Obligation Bilateral, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Value** is the value (in kW-month) of a Demand Resource for a month determined pursuant to Section III.13.7.1.5 of Market Rule 1.

**Capacity Zone** is a geographic sub-region of the New England Control Area as determined in accordance with Section III.12.4 of Market Rule 1.

**Capacity Zone Demand Curves** are the demand curves used in the Forward Capacity Market for a Capacity Zone as specified in Sections III.13.2.2.2 and III.13.2.2.3.

**Capital Funding Charge (CFC)** is defined in Section IV.B.2 of the Tariff.

**CARL Data** is Control Area reliability data submitted to the ISO to permit an assessment of the ability of an external Control Area to provide energy to the New England Control Area in support of capacity offered to the New England Control Area by that external Control Area.

**Category A Designated Blackstart Resource** is a Designated Blackstart Resource that has committed to provide Blackstart Service under a “Signature Page for Schedule 16 of the NEPOOL OATT” that was executed and in effect prior to January 1, 2013 and has not been converted to a Category B Designated Blackstart Resource.

**Category B Designated Blackstart Resource** is a Designated Blackstart Resource that is not a Category A Designated Blackstart Resource.

**Charge** is a sum of money due from a Covered Entity to the ISO, either in its individual capacity or as billing and collection agent for NEPOOL pursuant to the Participants Agreement.

**CLAIM10** is the value, expressed in megawatts, calculated pursuant to Section III.9.5.3 of the Tariff.

**CLAIM30** is the value, expressed in megawatts, calculated pursuant to Section III.9.5.3 of the Tariff.

**Claimed Capability Audit** is performed to determine the real power output capability of a Generator Asset.

**Cluster Enabling Transmission Upgrade (CETU)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.



**Cluster Enabling Transmission Upgrade Regional Planning Study (CRPS)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Cluster Entry Deadline** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Cluster Interconnection System Impact Study (CSIS)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Clustering** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**CNR Capability** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Coincident Peak Contribution** is a Market Participant's share of the New England Control Area coincident peak demand for the prior calendar year as determined prior to the start of each power year, which reflects the sum of the prior year's annual coincident peak contributions of the customers served by the Market Participant at each Load Asset in all Load Zones. Daily Coincident Peak Contribution values shall be submitted by the Assigned Meter Reader or Host Participant by the meter reading deadline to the ISO.

**Commercial Capacity**, for the purposes of the ISO New England Financial Assurance Policy, is defined in Section VII.A of that policy.

**Commission** is the Federal Energy Regulatory Commission.

**Commitment Period** is (i) for a Day-Ahead Energy Market commitment, a period of one or more contiguous hours for which a Resource is cleared in the Day-Ahead Energy Market, and (ii) for a Real-Time Energy Market commitment, the period of time for which the ISO indicates the Resource is being committed when it issues the Dispatch Instruction. If the ISO does not indicate the period of time for which the Resource is being committed in the Real-Time Energy Market, then the Commitment Period is the Minimum Run Time for an offline Resource and one hour for an online Resource.

**Common Costs** are those costs associated with a Station that are avoided only by the clearing of the Static De-List Bids, the Permanent De-List Bids, or the Retirement De-List Bids of all the Existing Generating Capacity Resources comprising the Station.

**Completed Application** is an Application that satisfies all of the information and other requirements of the OATT, including any required deposit.

**Compliance Effective Date** is the date upon which the changes in the predecessor NEPOOL Open Access Transmission Tariff which have been reflected herein to comply with the Commission's Order of April 20, 1998 became effective.

**Composite FCM Transaction** is a transaction for separate resources seeking to participate as a single composite resource in a Forward Capacity Auction in which multiple Designated FCM Participants provide capacity, as described in Section III.13.1.5 of Market Rule 1.

**Conditional Qualified New Resource** is defined in Section III.13.1.1.2.3(f) of Market Rule 1.

**Confidential Information** is defined in Section 2.1 of the ISO New England Information Policy, which is Attachment D to the Tariff.

**Confidentiality Agreement** is Attachment 1 to the ISO New England Billing Policy.

**Congestion** is a condition of the New England Transmission System in which transmission limitations prevent unconstrained regional economic dispatch of the power system. Congestion is the condition that results in the Congestion Component of the Locational Marginal Price at one Location being different from the Congestion Component of the Locational Marginal Price at another Location during any given hour of the dispatch day in the Day-Ahead Energy Market or Real-Time Energy Market.

**Congestion Component** is the component of the nodal price that reflects the marginal cost of congestion at a given Node or External Node relative to the reference point. When used in connection with Zonal Price and Hub Price, the term Congestion Component refers to the Congestion Components of the nodal prices that comprise the Zonal Price and Hub Price weighted and averaged in the same way that nodal prices are weighted to determine Zonal Price and averaged to determine the Hub Price.

**Congestion Cost** is the cost of congestion as measured by the difference between the Congestion Components of the Locational Marginal Prices at different Locations and/or Reliability Regions on the New England Transmission System.

**Congestion Paying LSE** is, for the purpose of the allocation of FTR Auction Revenues to ARR Holders as provided for in Appendix C of Market Rule 1, a Market Participant or Non-Market Participant Transmission Customer that is responsible for paying for Congestion Costs as a Transmission Customer paying for Regional Network Service under the Transmission, Markets and Services Tariff, unless such Transmission Customer has transferred its obligation to supply load in accordance with ISO New England System Rules, in which case the Congestion Paying LSE shall be the Market Participant supplying the transferred load obligation. The term Congestion Paying LSE shall be deemed to include, but not be limited to, the seller of internal bilateral transactions that transfer Real-Time Load Obligations under the ISO New England System Rules.

**Congestion Revenue Fund** is the amount available for payment of target allocations to FTR Holders from the collection of Congestion Cost.

**Congestion Shortfall** means congestion payments exceed congestion charges during the billing process in any billing period.

**Control Agreement** is the document posted on the ISO website that is required if a Market Participant's cash collateral is to be invested in BlackRock funds.

**Control Area** is an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

- (1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of the applicable regional reliability council or the North American Electric Reliability Corporation; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Coordinated External Transaction** is an External Transaction at an external interface for which the enhanced scheduling procedures in Section III.1.10.7.A are implemented. A transaction to wheel energy into, out of or through the New England Control Area is not a Coordinated External Transaction.

**Coordinated Transaction Scheduling** means the enhanced scheduling procedures set forth in Section III.1.10.7.A.

**Correction Limit** means the date that is one hundred and one (101) calendar days from the last Operating Day of the month to which the data applied. As described in Section III.3.6.1 of Market Rule 1, this will be the period during which meter data corrections must be submitted unless they qualify for submission as a Requested Billing Adjustment under Section III.3.7 of Market Rule 1.

**Cost of Energy Consumed (CEC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**Cost of Energy Produced (CEP)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**Cost of New Entry (CONE)** is the estimated cost of new entry (\$/kW-month) for a capacity resource that is determined by the ISO for each Forward Capacity Auction pursuant to Section III.13.2.4.

**Counterparty** means the status in which the ISO acts as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a Customer (including assignments involving Customers) involving sale to the ISO, and/or purchase from the ISO, of Regional Transmission Service and market and other products and services, and other transactions and assignments involving Customers, all as described in the Tariff.

**Covered Entity** is defined in the ISO New England Billing Policy.

**Credit Coverage** is third-party credit protection obtained by the ISO, in the form of credit insurance coverage, a performance or surety bond, or a combination thereof.

**Credit Qualifying** means a Rated Market Participant that has an Investment Grade Rating and an Unrated Market Participant that satisfies the Credit Threshold.

**Credit Threshold** consists of the conditions for Unrated Market Participants outlined in Section II.B.2 of the ISO New England Financial Assurance Policy.

**Critical Energy Infrastructure Information (CEII)** is defined in Section 3.0(j) of the ISO New England Information Policy, which is Attachment D to the Tariff.

**Current Ratio** is, on any date, all of a Market Participant's or Non-Market Participant Transmission Customer's current assets divided by all of its current liabilities, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Curtailment** is a reduction in the dispatch of a transaction that was scheduled, using transmission service, in response to a transfer capability shortage as a result of system reliability conditions.

**Customer** is a Market Participant, a Transmission Customer or another customer of the ISO.

**Data Reconciliation Process** means the process by which meter reconciliation and data corrections that are discovered by Governance Participants after the Invoice has been issued for a particular month or that are discovered prior to the issuance of the Invoice for the relevant month but not included in that Invoice or in the other Invoices for that month and are reconciled by the ISO on an hourly basis based on data submitted to the ISO by the Host Participant Assigned Meter Reader or Assigned Meter Reader.

**Day-Ahead** is the calendar day immediately preceding the Operating Day.

**Day-Ahead Adjusted Load Obligation** is defined in Section III.3.2.1(a)(iii) of Market Rule 1.

**Day-Ahead Congestion Revenue** is defined in Section III.3.2.1(f) of Market Rule 1.

**Day-Ahead Demand Reduction Obligation** is a cleared Demand Reduction Offer multiplied by one plus the percent average avoided peak distribution losses. For Capacity Commitment Periods commencing on or after June 1, 2018, Day-Ahead Demand Reduction Obligation is the hourly demand reduction amounts

of a Demand Response Resource scheduled by the ISO as a result of the Day-Ahead Energy Market, multiplied by one plus the percent average avoided peak distribution losses.

**Day-Ahead Energy Market** means the schedule of commitments for the purchase or sale of energy, payment of Congestion Costs, payment for losses developed by the ISO as a result of the offers and specifications submitted in accordance with Section III.1.10 of Market Rule 1 and purchase of demand reductions pursuant to Appendix III.E2 of Market Rule 1 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Day-Ahead Energy Market Congestion Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market Energy Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market Loss Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead External Transaction Export and Decrement Bid NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead External Transaction Import and Increment Offer NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead Generation Obligation** is defined in Section III.3.2.1(a)(ii) of Market Rule 1.

**Day-Ahead Load Obligation** is defined in Section III.3.2.1(a)(i) of Market Rule 1.

**Day-Ahead Load Response Program** provides a Day-Ahead aspect to the Load Response Program. The Day-Ahead Load Response Program allows Market Participants with registered Load Response Program Assets to make energy reduction offers into the Day-Ahead Load Response Program concurrent with the Day-Ahead Energy Market.

**Day-Ahead Locational Adjusted Net Interchange** is defined in Section III.3.2.1(a)(iv) of Market Rule 1.

**Day-Ahead Loss Charges or Credits** is defined in Section III.3.2.1(h) of Market Rule 1.

**Day-Ahead Loss Revenue** is defined in Section III.3.2.1(g) of Market Rule 1.

**Day-Ahead Prices** means the Locational Marginal Prices resulting from the Day-Ahead Energy Market.

**DDP Dispatchable Resource** is any Dispatchable Resource that the ISO dispatches using Desired Dispatch Points in the Resource's Dispatch Instructions.

**Debt-to-Total Capitalization Ratio** is, on any date, a Market Participant's or Non-Market Participant Transmission Customer's total debt (including all current borrowings) divided by its total shareholders' equity plus total debt, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Decrement Bid** means a bid to purchase energy at a specified Location in the Day-Ahead Energy Market which is not associated with a physical load. An accepted Decrement Bid results in scheduled load at the specified Location in the Day-Ahead Energy Market.

**Default Amount** is all or any part of any amount due to be paid by any Covered Entity that the ISO, in its reasonable opinion, believes will not or has not been paid when due (other than in the case of a payment dispute for any amount due for transmission service under the OATT).

**Default Period** is defined in Section 3.3.h(i) of the ISO New England Billing Policy.

**Delivering Party** is the entity supplying capacity and/or energy to be transmitted at Point(s) of Receipt under the OATT.

**Demand Bid** means a request to purchase an amount of energy, at a specified Location, or an amount of energy at a specified price, that is associated with a physical load. A cleared Demand Bid in the Day-Ahead Energy Market results in scheduled load at the specified Location. Demand Bids submitted for use in the Real-Time Energy Market are specific to Dispatchable Asset Related Demands only.

**Demand Bid Block-Hours** are the Block-Hours assigned to the submitting Customer for each Demand Bid.

**Demand Designated Entity** is the entity designated by a Market Participant to receive Dispatch Instructions for Demand Response Resources, Real-Time Demand Response Resources and Real-Time Emergency Generation Resources in accordance with the provisions set forth in ISO New England Operating Procedure No. 14.

**Demand Reduction Offer** is an offer by a Market Participant with a Real-Time Demand Response Asset to reduce demand. For Capacity Commitment Periods commencing on or after June 1, 2018, Demand Reduction Offer is an offer by a Market Participant with a Demand Response Resource to reduce demand.

**Demand Reduction Threshold Price** is a minimum offer price calculated pursuant to Section III.E1.6 and Section III.E2.6.

**Demand Reduction Value** is the quantity of reduced demand calculated pursuant to Section III.13.7.1.5.3 of Market Rule 1.

**Demand Resource** is a resource defined as Demand Response Capacity Resources, On-Peak Demand Resources, Seasonal Peak Demand Resources, Real-Time Demand Response Resources, or Real-Time Emergency Generation Resources. Demand Resources are installed measures (i.e., products, equipment, systems, services, practices and/or strategies) that result in additional and verifiable reductions in end-use demand on the electricity network in the New England Control Area pursuant to Appendix III.E1 and Appendix III.E2 of Market Rule 1, or during Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, respectively. A Demand Resource may include a portfolio of measures aggregated together to meet or exceed the minimum Resource size requirements of the Forward Capacity Auction.

**Demand Resource Commercial Operation Audit** is an audit initiated pursuant to Section III.13.6.1.5.4.4.

**Demand Resource Forecast Peak Hours** are those hours, or portions thereof, in which, absent the dispatch of Real-Time Demand Response Resources, Dispatch Zone, Load Zone, or system-wide



implementation of the action of ISO New England Operating Procedure No. 4 where the ISO would have begun to allow the depletion of Thirty-Minute Operating Reserve is forecasted in the ISO's most recent next-day forecast.

**Demand Resource On-Peak Hours** are hours ending 1400 through 1700, Monday through Friday on non-Demand Response Holidays during the months of June, July, and August and hours ending 1800 through 1900, Monday through Friday on non-Demand Response Holidays during the months of December and January.

**Demand Resource Operable Capacity Analysis** means an analysis performed by the ISO estimating the expected dispatch hours of active Demand Resources given different assumed levels of Demand Resources clearing in the primary Forward Capacity Auction.

**Demand Resource Performance Incentives** means the additional monthly capacity payment that a Demand Resource may earn for producing a positive Monthly Capacity Variance in a period where other Demand Resources yield a negative monthly capacity variance.

**Demand Resource Performance Penalties** means the reduction in the monthly capacity payment to a Demand Resource for producing a negative Monthly Capacity Variance.

**Demand Resource Seasonal Peak Hours** are those hours in which the actual, real-time hourly load, as measured using real-time telemetry (adjusted for transmission and distribution losses, and excluding load associated with Exports and the pumping load associated with pumped storage generators) for Monday through Friday on non-Demand Response Holidays, during the months of June, July, August, December, and January, as determined by the ISO, is equal to or greater than 90% of the most recent 50/50 system peak load forecast, as determined by the ISO, for the applicable summer or winter season.

**Demand Response Asset** is an asset comprising the demand reduction capability of an individual end-use customer at a Retail Delivery Point or the aggregated demand reduction capability of multiple end use customers from multiple delivery points that meets the registration requirements in Section III.E2.2. The demand reduction of a Demand Response Asset is the difference between the Demand Response Asset's actual demand measured at the Retail Delivery Point, which could reflect Net Supply, at the time the Demand Response Resource to which the asset is associated is dispatched by the ISO, and its adjusted Demand Response Baseline.

**Demand Response Available** is the capability of the Demand Response Resource, in whole or in part, at any given time, to reduce demand in response to a Dispatch Instruction.

**Demand Response Baseline** is the expected baseline demand of an individual end-use metered customer or group of end-use metered customers or the expected output levels of the generation of an individual end-use metered customer whose asset is comprised of Distributed Generation as determined pursuant to Section III.8A or Section III.8B.

**Demand Response Capacity Resource** is one or more Demand Response Resources located within the same Dispatch Zone, that is registered with the ISO, assigned a unique resource identification number by the ISO, and participates in the Forward Capacity Market to fulfill a Market Participant's Capacity Supply Obligation pursuant to Section III.13 of Market Rule 1.

**Demand Response Holiday** is New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, and Christmas Day. If the holiday falls on a Saturday, the holiday will be observed on the preceding Friday; if the holiday falls on a Sunday, the holiday will be observed on the following Monday.

**Demand Response Regulation Resource** is a Real-Time Demand Response Resource eligible to provide Regulation.

**Demand Response Resource** is an individual Demand Response Asset or aggregation of Demand Response Assets within a Dispatch Zone that meets the registration requirements and participates in the Energy Market pursuant to Appendix III.E2 of Market Rule 1 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Demand Response Resource Notification Time** is the minimum time, from the receipt of a Dispatch Instruction, that it takes a Demand Response Resource that was not previously reducing demand to start reducing demand.

**Demand Response Resource Ramp Rate** is the average rate, expressed in MW per minute, at which the Demand Response Resource can reduce demand.

**Demand Response Resource Start-Up Time** is the time required from the time a Demand Response Resource that was not previously reducing demand starts reducing demand in response to a Dispatch Instruction and the time the resource achieves its Minimum Reduction.

**Designated Agent** is any entity that performs actions or functions required under the OATT on behalf of the ISO, a Transmission Owner, a Schedule 20A Service Provider, an Eligible Customer, or a Transmission Customer.

**Designated Blackstart Resource** is a resource that meets the eligibility requirements specified in Schedule 16 of the OATT, and may be a Category A Designated Blackstart Resource or a Category B Designated Blackstart Resource.

**Designated Entity** is the entity designated by a Market Participant to receive Dispatch Instructions for generation and/or Dispatchable Asset Related Demand in accordance with the provisions set forth in ISO New England Operating Procedure No. 14.

**Designated FCM Participant** is any Lead Market Participant, including any Provisional Member that is a Lead Market Participant, transacting in any Forward Capacity Auction, reconfiguration auctions or Capacity Supply Obligation Bilateral for capacity that is otherwise required to provide additional financial assurance under the ISO New England Financial Assurance Policy.

**Designated FTR Participant** is a Market Participant, including FTR-Only Customers, transacting in the FTR Auction that is otherwise required to provide additional financial assurance under the ISO New England Financial Assurance Policy.

**Desired Dispatch Point (DDP)** is the Dispatch Rate expressed in megawatts.

**Direct Assignment Facilities** are facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the OATT or a Generator Owner requesting an interconnection. Direct Assignment Facilities shall be specified in a separate agreement among the ISO, Interconnection Customer and Transmission Customer, as applicable, and the Transmission Owner whose transmission system is to be modified to include and/or interconnect with the Direct Assignment Facilities, shall be subject to applicable Commission requirements, and shall be paid for by the Customer in accordance with the applicable agreement and the Tariff.

**Directly Metered Assets** are specifically measured by OP-18 compliant metering as currently described in Section IV (Metering and Recording for Settlements) of OP-18. Directly Metered Assets include all Tie-Line Assets, all Generator Assets, as well as some Load Assets. Load Assets for which the Host Participant is not the Assigned Meter Reader are considered Directly Metered Assets. In addition, the Host Participant Assigned Meter Reader determines which additional Load Assets are considered Directly Metered Assets and which ones are considered Profiled Load Assets based upon the Host Participant Assigned Meter Reader reporting systems and process by which the Host Participant Assigned Meter Reader allocates non-PTF losses.

**Disbursement Agreement** is the Rate Design and Funds Disbursement Agreement among the PTOs, as amended and restated from time to time.

**Dispatch Instruction** means directions given by the ISO to Market Participants, which may include instructions to start up, shut down, raise or lower generation, curtail or restore loads from Demand Resources, change External Transactions, or change the status or consumption of a Dispatchable Asset Related Demand in accordance with the Supply Offer, Demand Bid, or Demand Reduction Offer parameters. Such instructions may also require a change to the operation of a Pool Transmission Facility. Such instructions are given through either electronic or verbal means.

**Dispatch Rate** means the control signal, expressed in dollars per MWh and/or megawatts, calculated and transmitted to direct the output, consumption or demand reduction level of each generating Resource, Dispatchable Asset Related Demand and Demand Response Resource dispatched by the ISO in accordance with the Offer Data.

**Dispatch Zone** means a subset of Nodes located within a Load Zone established by the ISO for each Capacity Commitment Period pursuant to Section III.13.1.4.6.1.

**Dispatchable Asset Related Demand** is any portion of an Asset Related Demand of a Market Participant that is capable of having its energy consumption modified in Real-Time in response to Dispatch Instructions has Electronic Dispatch Capability, and must be able to increase or decrease energy consumption between its Minimum Consumption Limit and Maximum Consumption Limit in accordance with Dispatch Instructions and must meet the technical requirements specified in the ISO New England Manuals. Pumped storage facilities may qualify as Dispatchable Asset Related Demand resources,

however, such resources shall not qualify as a capacity resource for both the generating output and dispatchable pumping demand of the facility.

**DARD Pump** is a Dispatchable Asset Related Demand that consists of all or part of the pumping load of a pumped storage generating Resource and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) is available for dispatch and manned or has automatic remote dispatch capability, and; (iv) is capable of receiving a start-up or shutdown Dispatch Instruction electronically.

**Dispatchable Resource** is any generating unit, Dispatchable Asset Related Demand, Demand Response Resource, Demand Response Regulation Resource or Alternative Technology Regulation Resource that, during the course of normal operation, is capable of receiving and responding to electronic Dispatch Instructions in accordance with the parameters contained in the Resource's Supply Offer, Demand Bid, Demand Reduction Offer or Regulation Service Offer. A Resource that is normally classified as a Dispatchable Resource remains a Dispatchable Resource when it is temporarily not capable of receiving and responding to electronic Dispatch Instructions.

**Dispute Representatives** are defined in 6.5.c of the ISO New England Billing Policy.

**Disputed Amount** is a Covered Entity's disputed amount due on any fully paid monthly Invoice and/or any amount believed to be due or owed on a Remittance Advice, as defined in Section 6 of the ISO New England Billing Policy.

**Disputing Party**, for the purposes of the ISO New England Billing Policy, is any Covered Entity seeking to recover a Disputed Amount.

**Distributed Generation** means generation resources directly connected to end-use customer load and located behind the end-use customer's meter, which reduce the amount of energy that would otherwise have been produced by other capacity resources on the electricity network in the New England Control Area during Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, provided that the aggregate nameplate capacity of the generation resource does not exceed 5 MW, or does not exceed the most recent annual non-coincident peak demand of the end-use metered customer at the location where the generation resource is directly connected, whichever is greater. Generation resources cannot

participate in the Forward Capacity Market or the Energy Markets as Demand Resources or Demand Response Resources, unless they meet the definition of Distributed Generation.

**Do Not Exceed (DNE) Dispatchable Generator** is any Generator Asset that is dispatched using Do Not Exceed Dispatch Points in its Dispatch Instructions and meets the criteria specified in Section III.1.11.3(e). Do Not Exceed Dispatchable Generators are Dispatchable Resources.

**Do Not Exceed Dispatch Point** is a Dispatch Instruction indicating a maximum output level that a DNE Dispatchable Generator must not exceed.

**DR Auditing Period** is the summer DR Auditing Period or winter DR Auditing Period as defined in Section III.13.6.1.5.4.3.1.

**Dynamic De-List Bid** is a bid that may be submitted by Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Forward Capacity Auction below the Dynamic De-List Bid Threshold, as described in Section III.13.2.3.2(d) of Market Rule 1.

**Dynamic De-List Bid Threshold** is the price specified in Section III.13.1.2.3.1.A of Market Rule 1 associated with the submission of Dynamic De-List Bids in the Forward Capacity Auction.

**EA Amount** is defined in Section IV.B.2.2 of the Tariff.

**Early Amortization Charge (EAC)** is defined in Section IV.B.2 of the Tariff.

**Early Amortization Working Capital Charge (EAWCC)** is defined in Section IV.B.2 of the Tariff.

**Early Payment Shortfall Funding Amount (EPSF Amount)** is defined in Section IV.B.2.4 of the Tariff.

**Early Payment Shortfall Funding Charge (EPSFC)** is defined in Section IV.B.2 of the Tariff.

**EAWW Amount** is defined in Section IV.B.2.3 of the Tariff.

**EBITDA-to-Interest Expense Ratio** is, on any date, a Market Participant's or Non-Market Participant Transmission Customer's earnings before interest, taxes, depreciation and amortization in the most recent fiscal quarter divided by that Market Participant's or Non-Market Participant Transmission Customer's expense for interest in that fiscal quarter, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Economic Dispatch Point** is the output level or consumption level to which a Resource would have been dispatched, based on the Resource's Supply Offer or Demand Bid and the Real-Time Price, and taking account of any operating limits, had the ISO not dispatched the Resource to another Desired Dispatch Point.

**Economic Maximum Limit or Economic Max** is the maximum available output, in MW, of a resource that a Market Participant offers to supply in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the resource's Supply Offer. This represents the highest MW output a Market Participant has offered for a resource for economic dispatch. A Market Participant must maintain an up-to-date Economic Maximum Limit for all hours in which a resource has been offered into the Day-Ahead Energy Market or Real-Time Energy Market.

**Economic Minimum Limit or Economic Min** is (a) for Resources with an incremental heat rate, the maximum of: (i) the lowest sustainable output level as specified by physical design characteristics, environmental regulations or licensing limits; and (ii) the lowest sustainable output level at which a one MW increment increase in the output level would not decrease the incremental cost, calculated based on the incremental heat rate, of providing an additional MW of output, and (b) for Resources without an incremental heat rate, the lowest sustainable output level that is consistent with the physical design characteristics of the Resource and with meeting all environmental regulations and licensing limits, and (c) for Resources undergoing Facility and Equipment Testing or auditing, the level to which the Resource requests and is approved to operate or is directed to operate for purposes of completing the Facility and Equipment Testing or auditing, and (d) for Non-Dispatchable Resources the output level at which a Market Participant anticipates its Non-Dispatchable Resource will be available to operate based on fuel limitations, physical design characteristics, environmental regulations or licensing limits.

**Economic Study** is defined in Section 4.1(b) of Attachment K to the OATT.

**Effective Offer** is the set of Supply Offer values (or **Demand Bid values** in the case of DARD Pumps) that are used for NCPC calculation purposes as specified in Section III.F.1.a.

**EFT** is electronic funds transfer.

**Elective Transmission Upgrade** is defined in Section I of Schedule 25 of the OATT.

**Elective Transmission Upgrade Interconnection Customer** is defined in Schedule 25 of the OATT.

**Electric Reliability Organization (ERO)** is defined in 18 C.F.R. § 39.1.

**Electronic Dispatch Capability** is the ability to provide for the electronic transmission, receipt, and acknowledgment of data relative to the dispatch of generating units and Dispatchable Asset Related Demands and the ability to carry out the real-time dispatch processes from ISO issuance of Dispatch Instructions to the actual increase or decrease in output of Dispatchable Resources.

**Eligible Customer** is: (i) Any entity that is engaged, or proposes to engage, in the wholesale or retail electric power business is an Eligible Customer under the OATT. (ii) Any electric utility (including any power marketer), Federal power marketing agency, or any other entity generating electric energy for sale or for resale is an Eligible Customer under the OATT. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Owner with which that entity is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer) offer the unbundled transmission service or Local Delivery Service, or pursuant to a voluntary offer of such service by the Transmission Owner with which that entity is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer). (iii) Any end user taking or eligible to take unbundled transmission service or Local Delivery Service pursuant to a state requirement that the Transmission Owner with which that end user is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer) offer the transmission service or Local Delivery Service, or pursuant to a voluntary offer of such service by the Transmission Owner with which that end user is directly interconnected, or the



distribution company having the service territory in which that entity is located (if that entity is a retail customer) is an Eligible Customer under the OATT.

**Eligible FTR Bidder** is an entity that has satisfied applicable financial assurance criteria, and shall not include the auctioneer, its Affiliates, and their officers, directors, employees, consultants and other representatives.

**Emergency** is an abnormal system condition on the bulk power systems of New England or neighboring Control Areas requiring manual or automatic action to maintain system frequency, or to prevent the involuntary loss of load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or a fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel; or a condition that requires implementation of Emergency procedures as defined in the ISO New England Manuals.

**Emergency Condition** means an Emergency has been declared by the ISO in accordance with the procedures set forth in the ISO New England Manuals and ISO New England Administrative Procedures.

**Emergency Energy** is energy transferred from one control area operator to another in an Emergency.

**Emergency Minimum Limit or Emergency Min** means the minimum generation amount, in MWs, that a generating unit can deliver for a limited period of time without exceeding specified limits of equipment stability and operating permits.

**EMS** is energy management system.

**End-of-Round Price** is the lowest price associated with a round of a Forward Capacity Auction, as described in Section III.13.2.3.1 of Market Rule 1.

**End User Participant** is defined in Section 1 of the Participants Agreement.

**Energy** is power produced in the form of electricity, measured in kilowatthours or megawatthours.

**Energy Administration Service (EAS)** is the service provided by the ISO, as described in Schedule 2 of Section IV.A of the Tariff.

**Energy Component** means the Locational Marginal Price at the reference point.

**Energy Efficiency** is installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy needed, while delivering a comparable or improved level of end-use service. Such measures include, but are not limited to, the installation of more energy efficient lighting, motors, refrigeration, HVAC equipment and control systems, envelope measures, operations and maintenance procedures, and industrial process equipment.

**Energy Imbalance Service** is the form of Ancillary Service described in Schedule 4 of the OATT.

**Energy Market** is, collectively, the Day-Ahead Energy Market and the Real-Time Energy Market.

**Energy Non-Zero Spot Market Settlement Hours** are hours for which the Customer has a positive or negative Real-Time System Adjusted Net Interchange as determined by the ISO settlement process for the Energy Market.

**Energy Offer Cap** is \$1,000/MWh.

**Energy Offer Floor** is negative \$150/MWh.

**Energy Transaction Units (Energy TUs)** are the sum for the month for a Customer of Bilateral Contract Block-Hours, Demand Bid Block-Hours, Asset Related Demand Bid Block-Hours, Supply Offer Block-Hours and Energy Non-Zero Spot Market Settlement Hours.

**Enrolling Participant** is the Market Participant that registers Customers for the Load Response Program.

**Equipment Damage Reimbursement** is the compensation paid to the owner of a Designated Blackstart Resource as specified in Section 5.5 of Schedule 16 to the OATT.

**Equivalent Demand Forced Outage Rate (EFORD)** means the portion of time a unit is in demand, but is unavailable due to forced outages.

**Estimated Capacity Load Obligation** is, for the purposes of the ISO New England Financial Assurance Policy, the Capacity Requirement from the latest available month, adjusted as appropriate to account for any relevant Capacity Load Obligation Bilaterals, HQICCs, and Self-Supplied FCA Resource designations for the applicable month.

**Establish Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.2.

**Excepted Transaction** is a transaction specified in Section II.40 of the Tariff for the applicable period specified in that Section.

**Existing Capacity Qualification Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**Existing Capacity Qualification Package** is information submitted for certain existing resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**Existing Capacity Resource** is any resource that does not meet any of the eligibility criteria to participate in the Forward Capacity Auction as a New Capacity Resource, and, subject to ISO evaluation, for the Forward Capacity Auction to be conducted beginning February 1, 2008, any resource that is under construction and within 12 months of its expected commercial operations date.

**Existing Capacity Retirement Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**Existing Capacity Retirement Package** is information submitted for certain existing resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**Existing Demand Resource** is a type of Demand Resource participating in the Forward Capacity Market, as defined in Section III.13.1.4.1.1 of Market Rule 1.

**Existing Generating Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.2.1 of Market Rule 1.

**Existing Import Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.3.1 of Market Rule 1.

**Expedited Study Request** is defined in Section II.34.7 of the OATT.

**Export-Adjusted LSR** is as defined in Section III.12.4(b)(ii).

**Export Bid** is a bid that may be submitted by certain resources in the Forward Capacity Auction to export capacity to an external Control Area, as described in Section III.13.1.2.3.1.3 of Market Rule 1.

**Exports** are Real-Time External Transactions, which are limited to sales from the New England Control Area, for exporting energy out of the New England Control Area.

**External Elective Transmission Upgrade (External ETU)** is defined in Section I of Schedule 25 of the OATT.

**External Market Monitor** means the person or entity appointed by the ISO Board of Directors pursuant to Section III.A.1.2 of Appendix A of Market Rule 1 to carry out the market monitoring and mitigation functions specified in Appendix A and elsewhere in Market Rule 1.

**External Node** is a proxy bus or buses used for establishing a Locational Marginal Price for energy received by Market Participants from, or delivered by Market Participants to, a neighboring Control Area or for establishing Locational Marginal Prices associated with energy delivered through the New England Control Area by Non-Market Participants for use in calculating Non-Market Participant Congestion Costs and loss costs.

**External Resource** means a generation resource located outside the metered boundaries of the New England Control Area.

**External Transaction** is the import of external energy into the New England Control Area by a Market Participant or the export of internal energy out of the New England Control Area by a Market Participant in the Day-Ahead Energy Market and/or Real-Time Energy Market, or the wheeling of external energy

through the New England Control Area by a Market Participant or a Non-Market Participant in the Real-Time Energy Market.

**External Transmission Project** is a transmission project comprising facilities located wholly outside the New England Control Area and regarding which an agreement has been reached whereby New England ratepayers will support all or a portion of the cost of the facilities.

**Facilities Study** is an engineering study conducted pursuant to the OATT by the ISO (or, in the case of Local Service or interconnections to Local Area Facilities as defined in the TOA, by one or more affected PTOs) or some other entity designated by the ISO in consultation with any affected Transmission Owner(s), to determine the required modifications to the PTF and Non-PTF, including the cost and scheduled completion date for such modifications, that will be required to provide a requested transmission service or interconnection on the PTF and Non-PTF.

**Facility and Equipment Testing** means operation of a Resource to evaluate the functionality of the facility or equipment utilized in the operation of the facility.

**Failure to Maintain Blackstart Capability** is a failure of a Blackstart Owner or Designated Blackstart Resource to meet the Blackstart Service Minimum Criteria or Blackstart Service obligations, but does not include a Failure to Perform During a System Restoration event.

**Failure to Perform During a System Restoration** is a failure of a Blackstart Owner or Designated Blackstart Resource to follow ISO or Local Control Center dispatch instructions or perform in accordance with the dispatch instructions or the Blackstart Service Minimum Criteria and Blackstart Service obligations, described within the ISO New England Operating Documents, during a restoration of the New England Transmission System.

**Fast Start Demand Response Resource** is a Demand Response Resource that meets the following criteria: (i) Minimum Reduction Time does not exceed one hour; (ii) Minimum Time Between Reductions does not exceed one hour; (iii) Demand Response Resource Start-Up Time plus Demand Response Resource Notification Time does not exceed 30 minutes; (iv) has personnel available to respond to Dispatch Instructions or has automatic remote response capability; and (v) is capable of receiving and acknowledging a Dispatch Instruction electronically.

**Fast Start Generator** means a generating unit that the ISO may dispatch within the hour through electronic dispatch and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes; (iv) available for dispatch and manned or has automatic remote dispatch capability; and (v) capable of receiving and acknowledging a start-up or shut-down dispatch instruction electronically.

**Fast Start Generator** means a generating unit that the ISO may dispatch within the hour through electronic dispatch and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes; (iv) available for dispatch and manned or has automatic remote dispatch capability; and (v) capable of receiving and acknowledging a start-up or shut-down Dispatch Instruction electronically.

**FCA Cleared Export Transaction** is defined in Section III.1.10.7(f)(ii) of Market Rule 1.

**FCA Payment** is the monthly capacity payment for a resource whose offer has cleared in a Forward Capacity Auction as described in Section III.13.7.2.1.1(a) of Market Rule 1.

**FCA Qualified Capacity** is the Qualified Capacity that is used in a Forward Capacity Auction.

**FCM Capacity Charge Requirements** are calculated in accordance with Section VII.C of the ISO New England Financial Assurance Policy.

**FCM Charge Rate** is calculated in accordance with Section VII.C of the ISO New England Financial Assurance Policy.

**FCM Deposit** is calculated in accordance with Section VII.B.1 of the ISO New England Financial Assurance Policy.

**FCM Financial Assurance Requirements** are described in Section VII of the ISO New England Financial Assurance Policy.

**Final Forward Reserve Obligation** is calculated in accordance with Section III.9.8(a) of Market Rule 1.

**Financial Assurance Default** results from a Market Participant or Non-Market Participant Transmission Customer's failure to comply with the ISO New England Financial Assurance Policy.

**Financial Assurance Obligations** relative to the ISO New England Financial Assurance Policy are determined in accordance with Section III.A(v) of the ISO New England Financial Assurance Policy.

**Financial Transmission Right (FTR)** is a financial instrument that evidences the rights and obligations specified in Sections III.5.2.2 and III.7 of the Tariff.

**Firm Point-To-Point Service** is service which is arranged for and administered between specified Points of Receipt and Delivery in accordance with Part ILC of the OATT.

**Firm Transmission Service** is Regional Network Service, Through or Out Service, service for Excepted Transactions, firm MTF Service, firm OTF Service, and firm Local Service.

**Flexible DNE Dispatchable Generator** is any DNE Dispatchable Generator that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; and (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes.

**Force Majeure** - An event of Force Majeure means any act of God, labor disturbance, act of the public enemy or terrorists, war, invasion, insurrection, riot, fire, storm or flood, ice, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond the control of the ISO, a Transmission Owner, a Schedule 20A Service Provider, or a Customer, including without limitation, in the case of the ISO, any action or inaction by a Customer, a Schedule 20A Service Provider, or a Transmission Owner, in the case of a Transmission Owner, any action or inaction by the ISO, any Customer, a Schedule 20A Service Provider, or any other Transmission Owner, in the case of a Schedule 20A Service Provider, any action or inaction by the ISO, any Customer, a Transmission Owner, or any other Schedule 20A Service Provider, and, in the case of a Transmission Customer, any action or inaction by the ISO, a Schedule 20A Service Provider, or any Transmission Owner.

**Forecast Hourly Demand Reduction** means the estimated maximum quantity of energy reduction (MWh), measured at the end-use customer meter that can be produced by a Real-Time Demand Response

Resource, or Real-Time Emergency Generation Resource, in each hour of an Operating Day. For a Real-Time Emergency Generation Asset that is metered at the generator and associated with a Real-Time Emergency Generation Resource, the Forecast Hourly Demand Reduction means the estimated maximum generator output (MWh) in each hour of an Operating Day.

**Formal Warning** is defined in Section III.B.4.1.1 of Appendix B of Market Rule 1.

**Formula-Based Sanctions** are defined in Section III.B.4.1.3 of Appendix B of Market Rule 1.

**Forward Capacity Auction (FCA)** is the annual descending clock auction in the Forward Capacity Market, as described in Section III.13.2 of Market Rule 1.

**Forward Capacity Auction Starting Price** is calculated in accordance with Section III.13.2.4 of Market Rule 1.

**Forward Capacity Market (FCM)** is the forward market for procuring capacity in the New England Control Area, as described in Section III.13 of Market Rule 1.

**Forward Reserve** means TMNSR and TMOR purchased by the ISO on a forward basis on behalf of Market Participants as provided for in Section III.9 of Market Rule 1.

**Forward Reserve Assigned Megawatts** is the amount of Forward Reserve, in megawatts, that a Market Participant assigns to eligible Forward Reserve Resources to meet its Forward Reserve Obligation as defined in Section III.9.4.1 of Market Rule 1.

**Forward Reserve Auction** is the periodic auction conducted by the ISO in accordance with Section III.9 of Market Rule 1 to procure Forward Reserve.

**Forward Reserve Auction Offers** are offers to provide Forward Reserve to meet system and Reserve Zone requirements as submitted by a Market Participant in accordance with Section III.9.3 of Market Rule 1.



**Forward Reserve Charge** is a Market Participant's share of applicable system and Reserve Zone Forward Reserve costs attributable to meeting the Forward Reserve requirement as calculated in accordance with Section III.9.9 of Market Rule 1.

**Forward Reserve Clearing Price** is the clearing price for TMNSR or TMOR, as applicable, for the system and each Reserve Zone resulting from the Forward Reserve Auction as defined in Section III.9.4 of Market Rule 1.

**Forward Reserve Credit** is the credit received by a Market Participant that is associated with that Market Participant's Final Forward Reserve Obligation as calculated in accordance with Section III.9.8 of Market Rule 1.

**Forward Reserve Delivered Megawatts** are calculated in accordance with Section III.9.6.5 of Market Rule 1.

**Forward Reserve Delivery Period** is defined in Section III.9.1 of Market Rule 1.

**Forward Reserve Failure-to-Activate Megawatts** are calculated in accordance with Section III.9.7.2(a) of Market Rule 1.

**Forward Reserve Failure-to-Activate Penalty** is the penalty associated with a Market Participant's failure to activate Forward Reserve when requested to do so by the ISO and is defined in Section III.9.7.2 of Market Rule 1.

**Forward Reserve Failure-to-Activate Penalty Rate** is specified in Section III.9.7.2 of Market Rule 1.

**Forward Reserve Failure-to-Reserve**, as specified in Section III.9.7.1 of Market Rule 1, occurs when a Market Participant's Forward Reserve Delivered Megawatts for a Reserve Zone in an hour is less than that Market Participant's Forward Reserve Obligation for that Reserve Zone in that hour. Under these circumstances the Market Participant pays a penalty based upon the Forward Reserve Failure-to-Reserve Penalty Rate and that Market Participant's Forward Reserve Failure-to-Reserve Megawatts.

**Forward Reserve Failure-to-Reserve Megawatts** are calculated in accordance with Section III.9.7.1(a) of Market Rule 1.

**Forward Reserve Failure-to-Reserve Penalty** is the penalty associated with a Market Participant's failure to reserve Forward Reserve and is defined in Section III.9.7.1 of Market Rule 1.

**Forward Reserve Failure-to-Reserve Penalty Rate** is specified in Section III.9.7.1(b)(ii) of Market Rule 1.

**Forward Reserve Fuel Index** is the index or set of indices used to calculate the Forward Reserve Threshold Price as defined in Section III.9.6.2 of Market Rule 1.

**Forward Reserve Heat Rate** is the heat rate as defined in Section III.9.6.2 of Market Rule 1 that is used to calculate the Forward Reserve Threshold Price.

**Forward Reserve Market** is a market for forward procurement of two reserve products, Ten-Minute Non-Spinning Reserve (TMNSR) and Thirty-Minute Operating Reserve (TMOR).

**Forward Reserve MWs** are those megawatts assigned to specific eligible Forward Reserve Resources which convert a Forward Reserve Obligation into a Resource-specific obligation.

**Forward Reserve Obligation** is a Market Participant's amount, in megawatts, of Forward Reserve that cleared in the Forward Reserve Auction and adjusted, as applicable, to account for bilateral transactions that transfer Forward Reserve Obligations.

**Forward Reserve Obligation Charge** is defined in Section III.10.4 of Market Rule 1.

**Forward Reserve Offer Cap** is \$9,000/megawatt-month.

**Forward Reserve Payment Rate** is defined in Section III.9.8 of Market Rule 1.

**Forward Reserve Procurement Period** is defined in Section III.9.1 of Market Rule 1.

**Forward Reserve Qualifying Megawatts** refer to all or a portion of a Forward Reserve Resource's capability offered into the Real-Time Energy Market at energy offer prices above the applicable Forward Reserve Threshold Price that are calculated in accordance with Section III.9.6.4 of Market Rule 1.

**Forward Reserve Resource** is a Resource that meets the eligibility requirements defined in Section III.9.5.2 of Market Rule 1 that has been assigned Forward Reserve Obligation by a Market Participant.

**Forward Reserve Threshold Price** is the minimum price at which assigned Forward Reserve Megawatts are required to be offered into the Real-Time Energy Market as calculated in Section III.9.6.2 of Market Rule 1.

**FTR Auction** is the periodic auction of FTRs conducted by the ISO in accordance with Section III.7 of Market Rule 1.

**FTR Auction Revenue** is the revenue collected from the sale of FTRs in FTR Auctions. FTR Auction Revenue is payable to FTR Holders who submit their FTRs for sale in the FTR Auction in accordance with Section III.7 of Market Rule 1 and to ARR Holders and Incremental ARR Holders in accordance with Appendix C of Market Rule 1.

**FTR Award Financial Assurance** is a required amount of financial assurance that must be maintained at all times from a Designated FTR Participant for each FTR awarded to the participant in any FTR Auctions. This amount is calculated pursuant to Section VI.C of the ISO New England Financial Assurance Policy.

**FTR Bid Financial Assurance** is an amount of financial assurance required from a Designated FTR Participant for each bid submission into an FTR auction. This amount is calculated pursuant to Section VI.B of the ISO New England Financial Assurance Policy.

**FTR Credit Test Percentage** is calculated in accordance with Section III.B.1(b) of the ISO New England Financial Assurance Policy.

**FTR Financial Assurance Requirements** are described in Section VI of the ISO New England Financial Assurance Policy.

**FTR Holder** is an entity that acquires an FTR through the FTR Auction to Section III.7 of Market Rule 1 and registers with the ISO as the holder of the FTR in accordance with Section III.7 of Market Rule 1 and applicable ISO New England Manuals.

**FTR-Only Customer** is a Market Participant that transacts in the FTR Auction and that does not participate in other markets or programs of the New England Markets. References in this Tariff to a “Non-Market Participant FTR Customers” and similar phrases shall be deemed references to an FTR-Only Customer.

**FTR Settlement Risk Financial Assurance** is an amount of financial assurance required by a Designated FTR Participant for each bid submission into an FTR Auction and for each bid awarded to the individual participant in an FTR Auction. This amount is calculated pursuant to Section VI.A of the ISO New England Financial Assurance Policy.

**GADS Data** means data submitted to the NERC for collection into the NERC’s Generating Availability Data System (GADS).

**Gap Request for Proposals (Gap RFP)** is defined in Section III.11 of Market Rule 1.

**Gas Day** means a period of 24 consecutive hours beginning at 0900 hrs Central Time.

**Generating Capacity Resource** means a New Generating Capacity Resource or an Existing Generating Capacity Resource.

**Generator Asset** is a generator that has been registered in accordance with the Asset Registration Process.

**Generator Imbalance Service** is the form of Ancillary Service described in Schedule 10 of the OATT.

**Generator Interconnection Related Upgrade** is an addition to or modification of the New England Transmission System (pursuant to Section II.47.1, Schedule 22 or Schedule 23 of the OATT) to effect the interconnection of a new generating unit or an existing generating unit whose energy capability or capacity capability is being materially changed and increased whether or not the interconnection is being effected to meet the Capacity Capability Interconnection Standard or the Network Capability Interconnection Standard. As to Category A Projects (as defined in Schedule 11 of the OATT), a Generator Interconnection Related Upgrade also includes an upgrade beyond that required to satisfy the

Network Capability Interconnection Standard (or its predecessor) for which the Generator Owner has committed to pay prior to October 29, 1998.

**Generator Owner** is the owner, in whole or part, of a generating unit whether located within or outside the New England Control Area.

**Good Utility Practice** means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather includes all acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act Section 215(a)(4).

**Governance Only Member** is defined in Section 1 of the Participants Agreement.

**Governance Participant** is defined in the Participants Agreement.

**Governing Documents**, for the purposes of the ISO New England Billing Policy, are the Transmission, Markets and Services Tariff and ISO Participants Agreement.

**Governing Rating** is the lowest corporate rating from any Rating Agency for that Market Participant, or, if the Market Participant has no corporate rating, then the lowest rating from any Rating Agency for that Market Participant's senior unsecured debt.

**Grandfathered Agreements (GAs)** is a transaction specified in Section II.45 for the applicable period specified in that Section.

**Grandfathered Intertie Agreement (GIA)** is defined pursuant to the TOA.

**Handy-Whitman Index of Public Utility Construction Costs** is the Total Other Production Plant index shown in the Cost Trends of Electric Utility Construction for the North Atlantic Region as published in the Handy-Whitman Index of Public Utility Construction Costs.

**Highgate Transmission Facilities (HTF)** are existing U. S.-based transmission facilities covered under the Agreement for Joint Ownership, Construction and Operation of the Highgate Transmission Interconnection dated as of August 1, 1984 including (1) the whole of a 200 megawatt high-voltage, back-to-back, direct-current converter facility located in Highgate, Vermont and (2) a 345 kilovolt transmission line within Highgate and Franklin, Vermont (which connects the converter facility at the U.S.-Canadian border to a Hydro-Quebec 120 kilovolt line in Bedford, Quebec). The HTF include any upgrades associated with increasing the capacity or changing the physical characteristics of these facilities as defined in the above stated agreement dated August 1, 1984 until the Operations Date, as defined in the TOA. The current HTF rating is a nominal 225 MW. The HTF are not defined as PTF. Coincident with the Operations Date and except as stipulated in Schedules, 9, 12, and Attachment F to the OATT, HTF shall be treated in the same manner as PTF for purposes of the OATT and all references to PTF in the OATT shall be deemed to apply to HTF as well. The treatment of the HTF is not intended to establish any binding precedent or presumption with regard to the treatment for other transmission facilities within the New England Transmission System (including HVDC, MTF, or Control Area Interties) for purposes of the OATT.

**Host Participant or Host Utility** is a Market Participant or a Governance Participant transmission or distribution provider that reconciles the loads within the metering domain with OP-18 compliant metering.

**Hourly Calculated Demand Resource Performance Value** means the performance of a Demand Resource during Real-Time Demand Response Event Hours and Real-Time Emergency Generation Event Hours for purposes of calculating a Demand Reduction Value pursuant to Sections III.13.7.1.5.7.3 and III.13.7.1.5.8.3.

**Hourly Charges** are defined in Section 1.3 of the ISO New England Billing Policy.

**Hourly PER** is calculated in accordance with Section III.13.7.2.7.1.1.1(a) of Market Rule 1.

**Hourly Real-Time Demand Response Resource Deviation** means the difference between the Average Hourly Load Reduction or Average Hourly Output of the Real-Time Demand Response Resource and the amount of load reduction or output that the Market Participant was instructed to produce pursuant to a Dispatch Instruction calculated pursuant to Section III.13.7.1.5.7.3.1.

**Hourly Real-Time Emergency Generation Resource Deviation** is calculated pursuant to Section III.13.7.1.5.8.3.1.

**Hourly Requirements** are determined in accordance with Section III.A(i) of the ISO New England Financial Assurance Policy.

**Hourly Shortfall NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Hub** is a specific set of pre-defined Nodes for which a Locational Marginal Price will be calculated for the Day-Ahead Energy Market and Real-Time Energy Market and which can be used to establish a reference price for energy purchases and the transfer of Day-Ahead Adjusted Load Obligations and Real-Time Adjusted Load Obligations and for the designation of FTRs.

**Hub Price** is calculated in accordance with Section III.2.8 of Market Rule 1.

**HQ Interconnection Capability Credit (HQICC)** is a monthly value reflective of the annual installed capacity benefits of the Phase I/II HVDC-TF, as determined by the ISO, using a standard methodology on file with the Commission, in conjunction with the setting of the Installed Capacity Requirement. An appropriate share of the HQICC shall be assigned to an IRH if the Phase I/II HVDC-TF support costs are paid by that IRH and such costs are not included in the calculation of the Regional Network Service rate. The share of HQICC allocated to such an eligible IRH for a month is the sum in kilowatts of (1)(a) the IRH's percentage share, if any, of the Phase I Transfer Capability times (b) the Phase I Transfer Credit, plus (2)(a) the IRH's percentage share, if any, of the Phase II Transfer Capability, times (b) the Phase II Transfer Credit. The ISO shall establish appropriate HQICCs to apply for an IRH which has such a percentage share.

**Import Capacity Resource** means an Existing Import Capacity Resource or a New Import Capacity Resource offered to provide capacity in the New England Control Area from an external Control Area.

**Inadvertent Energy Revenue** is defined in Section III.3.2.1(k) of Market Rule 1.

**Inadvertent Energy Revenue Charges or Credits** is defined in Section III.3.2.1(l) of Market Rule 1.

**Inadvertent Interchange** means the difference between net actual energy flow and net scheduled energy flow into or out of the New England Control Area.

**Increment Offer** means an offer to sell energy at a specified Location in the Day-Ahead Energy Market which is not associated with a physical supply. An accepted Increment Offer results in scheduled generation at the specified Location in the Day-Ahead Energy Market.

**Incremental ARR** is an ARR provided in recognition of a participant-funded transmission system upgrade pursuant to Appendix C of this Market Rule.

**Incremental ARR Holder** is an entity which is the record holder of an Incremental Auction Revenue Right in the register maintained by the ISO.

**Incremental Cost of Reliability Service** is described in Section III.13.2.5.2.5.2 of Market Rule 1.

**Independent Transmission Company (ITC)** is a transmission entity that assumes certain responsibilities in accordance with Section 10.05 of the Transmission Operating Agreement and Attachment M to the OATT, subject to the acceptance or approval of the Commission and a finding of the Commission that the transmission entity satisfies applicable independence requirements.

**Information Request** is a request from a potential Disputing Party submitted in writing to the ISO for access to Confidential Information.

**Initial Market Participant Financial Assurance Requirement** is calculated for new Market Participants and Returning Market Participants, other than an FTR-Only Customer or a Governance Only Member, according to Section IV of the ISO New England Financial Assurance Policy.

**Installed Capacity Requirement** means the level of capacity required to meet the reliability requirements defined for the New England Control Area, as described in Section III.12 of Market Rule 1.

**Interchange Transactions** are transactions deemed to be effected under Market Rule 1.

**Interconnecting Transmission Owner** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.



**Interconnection Agreement** is the “Large Generator Interconnection Agreement”, the “Small Generator Interconnection Agreement”, or the “Elective Transmission Upgrade Interconnection Agreement” pursuant to Schedules 22, 23 or 25 of the ISO OATT or an interconnection agreement approved by the Commission prior to the adoption of the Interconnection Procedures.

**Interconnection Customer** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Interconnection Feasibility Study Agreement** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, or Section I of Schedule 25 of the OATT.

**Interconnection Procedure** is the “Large Generator Interconnection Procedures”, the “Small Generator Interconnection Procedures”, or the “Elective Transmission Upgrade Interconnection Procedures” pursuant to Schedules 22, 23, and 25 of the ISO OATT.

**Interconnection Request** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, or Section I of Schedule 25 of the OATT.

**Interconnection Rights Holder(s) (IRH)** has the meaning given to it in Schedule 20A to Section II of this Tariff.

**Interconnection System Impact Study Agreement** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23 and Section I of Schedule 25 of the OATT.

**Interest** is interest calculated in the manner specified in Section II.8.3.

**Interface Bid** is a unified real-time bid to simultaneously purchase and sell energy on each side of an external interface for which the enhanced scheduling procedures in Section III.1.10.7.A are implemented.

**Intermittent Power Resource** is a wind, solar, run of river hydro or other renewable resource that does not have control over its net power output.

**Intermittent Settlement Only Resource** is a Settlement Only Resource that is also an Intermittent Power Resource.

**Internal Bilateral for Load** is an internal bilateral transaction under which the buyer receives a reduction in Real-Time Load Obligation and the seller receives a corresponding increase in Real-Time Load Obligation in the amount of the sale, in MWs. An Internal Bilateral for Load transaction is only applicable in the Real-Time Energy Market.

**Internal Bilateral for Market for Energy** is an internal bilateral transaction for Energy which applies in the Day-Ahead Energy Market and Real-Time Energy Market or just the Real-Time Energy Market under which the buyer receives a reduction in Day-Ahead Adjusted Load Obligation and Real-Time Adjusted Load Obligation and the seller receives a corresponding increase in Day-Ahead Adjusted Load Obligation and Real-Time Adjusted Load Obligation in the amount of the sale, in MWs.

**Internal Elective Transmission Upgrade (Internal ETU)** is defined in Section I of Schedule 25 of the OATT.

**Internal Market Monitor** means the department of the ISO responsible for carrying out the market monitoring and mitigation functions specified in Appendix A and elsewhere in Market Rule 1.

**Interregional Planning Stakeholder Advisory Committee (IPSAC)** is the committee described as such in the Northeast Planning Protocol.

**Interregional Transmission Project** is a transmission project located within the New England Control Area and one or more of the neighboring transmission planning regions.

**Interruption Cost** is the amount, in dollars, that must be paid to a Market Participant each time the Market Participant's Demand Response Resource is scheduled or dispatched in the New England Markets to reduce demand.

**Investment Grade Rating**, for a Market (other than an FTR-Only Customer) or Non-Market Participant Transmission Customer, is either (a) a corporate investment grade rating from one or more of the Rating Agencies, or (b) if the Market Participant or Non-Market Participant Transmission Customer does not have a corporate rating from one of the Rating Agencies, then an investment grade rating for the Market

Participant's or Non-Market Participant Transmission Customer's senior unsecured debt from one or more of the Rating Agencies.

**Invoice** is a statement issued by the ISO for the net Charge owed by a Covered Entity pursuant to the ISO New England Billing Policy.

**Invoice Date** is the day on which the ISO issues an Invoice.

**ISO** means ISO New England Inc.

**ISO Charges**, for the purposes of the ISO New England Billing Policy, are both Non-Hourly Charges and Hourly Charges.

**ISO Control Center** is the primary control center established by the ISO for the exercise of its Operating Authority and the performance of functions as an RTO.

**ISO-Initiated Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.4.

**ISO New England Administrative Procedures** means procedures adopted by the ISO to fulfill its responsibilities to apply and implement ISO New England System Rules.

**ISO New England Billing Policy** is Exhibit ID to Section I of the Transmission, Markets and Services Tariff.

**ISO New England Filed Documents** means the Transmission, Markets and Services Tariff, including but not limited to Market Rule 1, the Participants Agreement, the Transmission Operating Agreement or other documents that affect the rates, terms and conditions of service.

**ISO New England Financial Assurance Policy** is Exhibit IA to Section I of the Transmission, Markets and Services Tariff.

**ISO New England Information Policy** is the policy establishing guidelines regarding the information received, created and distributed by Market Participants and the ISO in connection with the settlement, operation and planning of the System, as the same may be amended from time to time in accordance with

the provisions of this Tariff. The ISO New England Information Policy is Attachment D to the Transmission, Markets and Services Tariff.

**ISO New England Manuals** are the manuals implementing Market Rule 1, as amended from time to time in accordance with the Participants Agreement. Any elements of the ISO New England Manuals that substantially affect rates, terms, and/or conditions of service shall be filed with the Commission under Section 205 of the Federal Power Act.

**ISO New England Operating Documents** are the Tariff and the ISO New England Operating Procedures.

**ISO New England Operating Procedures** are the ISO New England Planning Procedures and the operating guides, manuals, procedures and protocols developed and utilized by the ISO for operating the ISO bulk power system and the New England Markets.

**ISO New England Planning Procedures** are the procedures developed and utilized by the ISO for planning the ISO bulk power system.

**ISO New England System Rules** are Market Rule 1, the ISO New England Information Policy, the ISO New England Administrative Procedures, the ISO New England Manuals and any other system rules, procedures or criteria for the operation of the New England Transmission System and administration of the New England Markets and the Transmission, Markets and Services Tariff.

**ITC Agreement** is defined in Attachment M to the OATT.

**ITC Rate Schedule** is defined in Section 3.1 of Attachment M to the OATT.

**ITC System** is defined in Section 2.2 of Attachment M to the OATT.

**ITC System Planning Procedures** is defined in Section 15.4 of Attachment M to the OATT.

**Joint ISO/RTO Planning Committee (JIPC)** is the committee described as such in the Northeastern Planning Protocol.

**Late Payment Account** is a segregated interest-bearing account into which the ISO deposits Late Payment Charges due from ISO Charges and interest owed from participants for late payments that are collected and not distributed to the Covered Entities, until the Late Payment Account Limit is reached, under the ISO New England Billing Policy and penalties collected under the ISO New England Financial Assurance Policy.

**Late Payment Account Limit** is defined in Section 4.2 of the ISO New England Billing Policy.

**Late Payment Charge** is defined in Section 4.1 of the ISO New England Billing Policy.

**Lead Market Participant**, for purposes other than the Forward Capacity Market, is the entity authorized to submit Supply Offers, Demand Bids or Demand Reduction Offers for a Resource and to whom certain Energy TUs are assessed under Schedule 2 of Section IV.A of the Tariff. For purposes of the Forward Capacity Market, the Lead Market Participant is the entity designated to participate in that market on behalf of an Existing Capacity Resource or a New Capacity Resource.

**Limited Energy Resource** means generating resources that, due to design considerations, environmental restriction on operations, cyclical requirements, such as the need to recharge or refill or manage water flow, or fuel limitations, are unable to operate continuously at full output on a daily basis.

**Load Asset** means a physical load that has been registered in accordance with the Asset Registration Process.

**Load Management** means installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that curtail electrical usage or shift electrical usage from Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, or Real-Time Demand Response Event Hours to other hours and reduce the amount of capacity needed, while delivering a comparable or acceptable level of end-use service. Such measures include, but are not limited to, energy management systems, load control end-use cycling, load curtailment strategies, chilled water storage, and other forms of electricity storage.

**Load Response Program** means the program implemented and administered by the ISO to promote demand side response as described in Appendix E to Market Rule 1.

**Load Response Program Asset** means one or more individual end-use metered customers that report load reduction and consumption, or generator output as a single set of values, are assigned an identification number, that participate in the Load Response Program and which encompass assets registered in the Real-Time Price Response Program or Real-Time Demand Response Assets, and are further described in Appendix E of Market Rule 1.

**Load Shedding** is the systematic reduction of system demand by temporarily decreasing load.

**Load Zone** is a Reliability Region, except as otherwise provided for in Section III.2.7 of Market Rule 1.

**Local Area Facilities** are defined in the TOA.

**Local Benefit Upgrade(s) (LBU)** is an upgrade, modification or addition to the transmission system that is: (i) rated below 115kV or (ii) rated 115kV or above and does not meet all of the non-voltage criteria for PTF classification specified in the OATT.

**Local Control Centers** are those control centers in existence as of the effective date of the OATT (including the CONVEX, REMVEC, Maine and New Hampshire control centers) or established by the PTOs in accordance with the TOA that are separate from the ISO Control Center and perform certain functions in accordance with the OATT and the TOA.

**Local Delivery Service** is the service of delivering electric energy to end users. This service is subject to state jurisdiction regardless of whether such service is provided over local distribution or transmission facilities. An entity that is an Eligible Customer under the OATT is not excused from any requirements of state law, or any order or regulation issued pursuant to state law, to arrange for Local Delivery Service with the Participating Transmission Owner and/or distribution company providing such service and to pay all applicable charges associated with such service, including charges for stranded costs and benefits.

**Local Network** is defined as the transmission facilities constituting a local network as identified in Attachment E, as such Attachment may be modified from time to time in accordance with the Transmission Operating Agreement.

**Local Network Load** is the load that a Network Customer designates for Local Network Service under Schedule 21 to the OATT.

**Local Network RNS Rate** is the rate applicable to Regional Network Service to effect a delivery to load in a particular Local Network, as determined in accordance with Schedule 9 to the OATT.

**Local Network Service (LNS)** is the network service provided under Schedule 21 and the Local Service Schedules to permit the Transmission Customer to efficiently and economically utilize its resources to serve its load.

**Local Point-To-Point Service (LPTP)** is Point-to-Point Service provided under Schedule 21 of the OATT and the Local Service Schedules to permit deliveries to or from an interconnection point on the PTF.

**Local Public Policy Transmission Upgrade** is any addition and/or upgrade to the New England Transmission System with a voltage level below 115kV that is required in connection with the construction of a Public Policy Transmission Upgrade approved for inclusion in the Regional System Plan pursuant to Attachment K to the ISO OATT or included in a Local System Plan in accordance with Appendix 1 to Attachment K.

**Local Resource Adequacy Requirement** is calculated pursuant to Section III.12.2.1.1.

**Local Second Contingency Protection Resources** are those Resources identified by the ISO on a daily basis as necessary for the provision of Operating Reserve requirements and adherence to NERC, NPCC and ISO reliability criteria over and above those Resources required to meet first contingency reliability criteria within a Reliability Region.

**Local Service** is transmission service provided under Schedule 21 and the Local Service Schedules thereto.

**Local Service Schedule** is a PTO-specific schedule to the OATT setting forth the rates, charges, terms and conditions applicable to Local Service.

**Local Sourcing Requirement (LSR)** is the minimum amount of capacity that must be located within an import-constrained Load Zone, calculated as described in Section III.12.2 of Market Rule 1.

**Local System Planning (LSP)** is the process defined in Appendix 1 of Attachment K to the OATT.

**Localized Costs** are the incremental costs resulting from a RTEP02 Upgrade or a Regional Benefit Upgrade or a Public Policy Transmission Upgrade that exceeds those requirements that the ISO deems reasonable and consistent with Good Utility Practice and the current engineering design and construction practices in the area in which the Transmission Upgrade is built. In making its determination of whether Localized Costs exist, the ISO will consider, in accordance with Schedule 12C of the OATT, the reasonableness of the proposed engineering design and construction method with respect to alternate feasible Transmission Upgrades and the relative costs, operation, timing of implementation, efficiency and reliability of the proposed Transmission Upgrade. The ISO, with advisory input from the Reliability Committee, as appropriate, shall review such Transmission Upgrade, and determine whether there are any Localized Costs resulting from such Transmission Upgrade. If there are any such costs, the ISO shall identify them in the Regional System Plan.

**Location** is a Node, External Node, Load Zone or Hub. For Capacity Commitment Periods commencing on or after June 1, 2018, the Location also is a Dispatch Zone.

**Locational Marginal Price (LMP)** is defined in Section III.2 of Market Rule 1. The Locational Marginal Price for a Node is the nodal price at that Node; the Locational Marginal Price for an External Node is the nodal price at that External Node; the Locational Marginal Price for a Load Zone or Reliability Region is the Zonal Price for that Load Zone or Reliability Region, respectively; and the Locational Marginal Price for a Hub is the Hub Price for that Hub. For Capacity Commitment Periods commencing on or after June 1, 2018, the Locational Marginal Price for a Dispatch Zone is the Zonal Price for that Dispatch Zone.

**Long Lead Time Facility (Long Lead Facility)** has the meaning specified in Section I of Schedule 22 and Schedule 25 of the OATT.

**Long-Term** is a term of one year or more.

**Long-Term Transmission Outage** is a long-term transmission outage scheduled in accordance with ISO New England Operating Procedure No. 3.



**Loss Component** is the component of the nodal LMP at a given Node or External Node on the PTF that reflects the cost of losses at that Node or External Node relative to the reference point. The Loss Component of the nodal LMP at a given Node on the non-PTF system reflects the relative cost of losses at that Node adjusted as required to account for losses on the non-PTF system already accounted for through tariffs associated with the non-PTF. When used in connection with Hub Price or Zonal Price, the term Loss Component refers to the Loss Components of the nodal LMPs that comprise the Hub Price or Zonal Price, which Loss Components are averaged or weighted in the same way that nodal LMPs are averaged to determine Hub Price or weighted to determine Zonal Price.

**Loss of Load Expectation (LOLE)** is the probability of disconnecting non-interruptible customers due to a resource deficiency.

**Lost Opportunity Cost (LOC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**LSE** means load serving entity.

**Lump Sum Blackstart Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Lump Sum Blackstart Capital Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Lump Sum Blackstart CIP Capital Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Manual Response Rate** is the rate, in MW/Minute, at which the output of a Generator Asset is capable of changing.

**Marginal Loss Revenue Load Obligation** is defined in Section III.3.2.1(b)(v) of Market Rule 1.

**Marginal Reliability Impact** is the change, with respect to an increment of capacity supply, in expected unserved energy due to resource deficiency, as measured in hours per year.

**Market Credit Limit** is a credit limit for a Market Participant's Financial Assurance Obligations (except FTR Financial Assurance Requirements) established for each Market Participant in accordance with Section II.C of the ISO New England Financial Assurance Policy.

**Market Credit Test Percentage** is calculated in accordance with Section III.B.1(a) of the ISO New England Financial Assurance Policy.

**Market Efficiency Transmission Upgrade** is defined as those additions and upgrades that are not related to the interconnection of a generator, and, in the ISO's determination, are designed to reduce bulk power system costs to load system-wide, where the net present value of the reduction in bulk power system costs to load system-wide exceeds the net present value of the cost of the transmission addition or upgrade. For purposes of this definition, the term "bulk power system costs to load system-wide" includes, but is not limited to, the costs of energy, capacity, reserves, losses and impacts on bilateral prices for electricity.

**Market Participant** is a participant in the New England Markets (including a FTR-Only Customer) that has executed a Market Participant Service Agreement, or on whose behalf an unexecuted Market Participant Service Agreement has been filed with the Commission.

**Market Participant Financial Assurance Requirement** is defined in Section III of the ISO New England Financial Assurance Policy.

**Market Participant Obligations** is defined in Section III.B.1.1 of Appendix B of Market Rule 1.

**Market Participant Service Agreement (MPSA)** is an agreement between the ISO and a Market Participant, in the form specified in Attachment A or Attachment A-1 to the Tariff, as applicable.

**Market Rule 1** is ISO Market Rule 1 and appendices set forth in Section III of this ISO New England Inc. Transmission, Markets and Services Tariff, as it may be amended from time to time.

**Market Violation** is a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies.

**Material Adverse Change** is any change in financial status including, but not limited to a downgrade to below an Investment Grade Rating by any Rating Agency, being placed on credit watch with negative implication by any Rating Agency if the Market Participant or Non-Market Participant Transmission Customer does not have an Investment Grade Rating, a bankruptcy filing or other insolvency, a report of a significant quarterly loss or decline of earnings, the resignation of key officer(s), the sanctioning of the Market Participant or Non-Market Participant Transmission Customer or any of its Principles imposed by the Federal Energy Regulatory Commission, the Securities Exchange Commission, any exchange monitored by the National Futures Association, or any state entity responsible for regulating activity in energy markets; the filing of a material lawsuit that could materially adversely impact current or future financial results; a significant change in the Market Participant's or Non-Market Participant Transmission Customer's credit default spreads; or a significant change in market capitalization.

**Material Adverse Impact** is defined, for purposes of review of ITC-proposed plans, as a proposed facility or project will be deemed to cause a "material adverse impact" on facilities outside of the ITC System if: (i) the proposed facility or project causes non-ITC facilities to exceed their capabilities or exceed their thermal, voltage or stability limits, consistent with all applicable reliability criteria, or (ii) the proposed facility or project would not satisfy the standards set forth in Section I.3.9 of the Transmission, Markets and Services Tariff. This standard is intended to assure the continued service of all non-ITC firm load customers and the ability of the non-ITC systems to meet outstanding transmission service obligations.

**Maximum Capacity Limit** is the maximum amount of capacity that can be procured in an export-constrained Load Zone, calculated as described in Section III.12.2 of Market Rule 1, to meet the Installed Capacity Requirement.

**Maximum Consumption Limit** is the maximum amount, in MW, available from the Dispatchable Asset Related Demand for economic dispatch and is based on the physical characteristics as submitted as part of a Resource's Offer Data.

**Maximum Daily Consumption Limit** is the maximum amount of megawatt-hours that a DARD Pump is expected to be able to consume in the next Operating Day.

**Maximum Facility Load** is the most recent annual non-coincident peak demand or, if unavailable, an estimate of the annual non-coincident peak demand of a Real-Time Demand Response Asset or a Real-

Time Emergency Generation Asset, where the demand evaluated is established by adding actual metered demand and the output of all generators located behind the asset's end-use customer meter in the same time intervals.

**Maximum Generation** is the maximum generation output of a Real-Time Demand Response Asset comprised of Distributed Generation or the maximum generation output of a Demand Response Asset comprised of Distributed Generation.

**Maximum Interruptible Capacity** is an estimate of the maximum hourly demand reduction amount that a Real-Time Demand Response Asset, Real-Time Emergency Generation Asset or a Demand Response Asset can deliver. For assets that deliver demand reduction, the Maximum Interruptible Capacity is the asset's peak load less its uninterruptible load. For assets that deliver reductions through the use of generation, the Maximum Interruptible Capacity is the difference between the generator's maximum possible output and its expected output when not providing demand reduction. For assets that deliver demand reduction and Net Supply, the Maximum Interruptible Capacity is the asset's peak load plus Maximum Net Supply as measured at the Retail Delivery Point.

**Maximum Load** is the most recent annual non-coincident peak demand or, if unavailable, an estimate of the annual non-coincident peak demand, of a Demand Response Asset, Real-Time Demand Response Asset or Real-Time Emergency Generation Asset.

**Maximum Net Supply** is an estimate of the maximum hourly Net Supply for a Demand Response Asset as measured from the Demand Response Asset's Retail Delivery Point.

**Maximum Number of Daily Starts** is the maximum number of times that a DARD Pump or a generating Resource can be started in the next Operating Day under normal operating conditions.

**Maximum Reduction** is the maximum available demand reduction, in MW, of a Demand Response Resource that a Market Participant offers to deliver in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the Demand Response Resource's Demand Reduction Offer.

**Measure Life** is the estimated time a Demand Resource measure will remain in place, or the estimated time period over which the facility, structure, equipment or system in which a measure is installed continues to exist, whichever is shorter. Suppliers of Demand Resources comprised of an aggregation of

measures with varied Measures Lives shall determine and document the Measure Life either: (i) for each type of measure with a different Measure Life and adjust the aggregate performance based on the individual measure life calculation in the portfolio; or (ii) as the average Measure Life for the aggregated measures as long as the Demand Reduction Value of the Demand Resource is greater than or equal to the amount that cleared in the Forward Capacity Auction or reconfiguration auction for the entire Capacity Commitment Period, and the Demand Reduction Value for an Existing Demand Resource is not overstated in a subsequent Capacity Commitment Period. Measure Life shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements of Market Rule 1 and the ISO New England Manuals.

**Measurement and Verification Documents** mean the measurement and verification documents described in Section 13.1.4.3.1 of Market Rule 1, which includes Measurement and Verification Plans, Updated Measurement and Verification Plans, Measurement and Verification Summary Reports, and Measurement and Verification Reference Reports.

**Measurement and Verification Plan** means the measurement and verification plan submitted by a Demand Resource supplier as part of the qualification process for the Forward Capacity Auction pursuant to the requirements of Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Measurement and Verification Reference Reports** are optional reports submitted by Demand Resource suppliers during the Capacity Commitment Period subject to the schedule in the Measurement and Verification Plan and consistent with the schedule and reporting standards set forth in the ISO New England Manuals. Measurement and Verification Reference Reports update the prospective Demand Reduction Value of the Demand Resource project based on measurement and verification studies performed during the Capacity Commitment Period.

**Measurement and Verification Summary Report** is the monthly report submitted by a Demand Resource supplier with the monthly settlement report for the Forward Capacity Market, which documents the total Demand Reduction Values for all Demand Resources in operation as of the end of the previous month.

**MEPCO Grandfathered Transmission Service Agreement (MG TSA)** is a MEPCO long-term firm point-to-point transmission service agreement with a POR or POD at the New Brunswick border and a

start date prior to June 1, 2007 where the holder has elected, by written notice delivered to MEPCO within five (5) days following the filing of the settlement agreement in Docket Nos. ER07-1289 and EL08-56 or by September 1, 2008 (whichever is later), MGTSA treatment as further described in Section II.45.1.

**Merchant Transmission Facilities (MTF)** are the transmission facilities owned by MTOs, defined and classified as MTF pursuant to Schedule 18 of the OATT, over which the ISO shall exercise Operating Authority in accordance with the terms set forth in a MTOA or Attachment K to the OATT, rated 69 kV or above and required to allow energy from significant power sources to move freely on the New England Transmission System.

**Merchant Transmission Facilities Provider (MTF Provider)** is an entity as defined in Schedule 18 of the OATT.

**Merchant Transmission Facilities Service (MTF Service)** is transmission service over MTF as provided for in Schedule 18 of the OATT.

**Merchant Transmission Operating Agreement (MTOA)** is an agreement between the ISO and an MTO with respect to its MTF.

**Merchant Transmission Owner (MTO)** is an owner of MTF.

**Meter Data Error** means an error in meter data, including an error in Coincident Peak Contribution values, on an Invoice issued by the ISO after the completion of the data reconciliation process as described in the ISO New England Manuals and in Section III.3.8 of Market Rule 1.

**Meter Data Error RBA Submission Limit** means the date thirty 30 calendar days after the issuance of the Invoice containing the results of the data reconciliation process as described in the ISO New England Manuals and in Section III.3.6 of Market Rule 1.

**Metered Quantity For Settlement** is defined in Section III.3.2.1.1 of Market Rule 1.

**Minimum Consumption Limit** is the minimum amount, in MW, available from a Dispatchable Asset Related Demand that is not available for economic dispatch and is based on the physical characteristics as submitted as part of a Resource's Offer Data.

**Minimum Down Time** is the number of hours that must elapse after a Generator Asset or DARD Pump has been released for shutdown at or below its Economic Minimum Limit or Minimum Consumption Limit before the Generator Asset or DARD Pump can be brought online and be released for dispatch at its Economic Minimum Limit or Minimum Consumption Limit.

**Minimum Generation Emergency** means an Emergency declared by the ISO in which the ISO anticipates requesting one or more generating Resources to operate at or below Economic Minimum Limit, in order to manage, alleviate, or end the Emergency.

**Minimum Generation Emergency Credits** are those Real-Time Dispatch NCPC Credits calculated pursuant to Appendix F of Market Rule 1 for resources within a reliability region that are dispatched during a period for which a Minimum Generation Emergency has been declared.

**Minimum Reduction** is the minimum available demand reduction, in MW, of a Demand Response Resource that a Market Participant offers to deliver in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the Demand Response Resource's Demand Reduction Offer.

**Minimum Reduction Time** is the minimum number of hours of demand reduction at or above the Minimum Reduction for which the ISO must dispatch a Demand Response Resource to reduce demand.

**Minimum Run Time** is the number of hours that a Generator Asset must remain online after it has been scheduled to reach its Economic Minimum Limit before it can be released for shutdown from its Economic Minimum Limit or the number of hours that must elapse after a DARD Pump has been scheduled to consume at its Minimum Consumption Limit before it can be released for shutdown.

**Minimum Time Between Reductions** is the minimum number of hours that a Market Participant requires between the time the Demand Response Resource receives a Dispatch Instruction from the ISO to not reduce demand and the time the Demand Response Resource receives a Dispatch Instruction from the ISO to reduce demand.

**Monthly Blackstart Service Charge** is the charge made to Transmission Customers pursuant to Section 6 of Schedule 16 to the OATT.

**Monthly Capacity Variance** means a Demand Resource's actual monthly Capacity Value established pursuant to Section III.13.7.1.5.1 of Market Rule 1, minus the Demand Resource's final Capacity Supply Obligation for the month.

**Monthly Peak** is defined in Section II.21.2 of the OATT.

**Monthly PER** is calculated in accordance with Section III.13.7.2.7.1.1.2(a) of Market Rule 1.

**Monthly Real-Time Generation Obligation** is the sum, for all hours in a month, at all Locations, of a Customer's Real-Time Generation Obligation, in MWhs.

**Monthly Real-Time Load Obligation** is the absolute value of a Customer's hourly Real-Time Load Obligation summed for all hours in a month, in MWhs.

**Monthly Regional Network Load** is defined in Section II.21.2 of the OATT.

**Monthly Statement** is the first weekly Statement issued on a Monday after the tenth of a calendar month that includes both the Hourly Charges for the relevant billing period and Non-Hourly Charges for the immediately preceding calendar month.

**MRI Transition Period** is the period specified in Section III.13.2.2.1.

**MUI** is the market user interface.

**Municipal Market Participant** is defined in Section II of the ISO New England Financial Assurance Policy.

**MW** is megawatt.

**MWh** is megawatt-hour.



**Native Load Customers** are the wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate its system to meet the reliable electric needs of such customers.

**NCPC Charge** means the charges to Market Participants calculated pursuant to Appendix F to Market Rule 1.

**NCPC Credit** means the credits to Market Participants calculated pursuant to Appendix F to Market Rule 1.

**Needs Assessment** is defined in Section 4.1 of Attachment K to the OATT.

**NEMA**, for purposes of Section III of the Tariff, is the Northeast Massachusetts Reliability Region.

**NEMA Contract** is a contract described in Appendix C of Market Rule 1 and listed in Exhibit 1 of Appendix C of Market Rule 1.

**NEMA Load Serving Entity (NEMA LSE)** is a Transmission Customer or Congestion Paying LSE Entity that serves load within NEMA.

**NEMA or Northeast Massachusetts Upgrade**, for purposes of Section II of the Tariff, is an addition to or modification of the PTF into or within the Northeast Massachusetts Reliability Region that was not, as of December 31, 1999, the subject of a System Impact Study or application filed pursuant to Section I.3.9 of the Transmission, Markets and Services Tariff; that is not related to generation interconnections; and that will be completed and placed in service by June 30, 2004. Such upgrades include, but are not limited to, new transmission facilities and related equipment and/or modifications to existing transmission facilities and related equipment. The list of NEMA Upgrades is contained in Schedule 12A of the OATT.

**NEPOOL** is the New England Power Pool, and the entities that collectively participated in the New England Power Pool.

**NEPOOL Agreement** is the agreement among the participants in NEPOOL.

**NEPOOL GIS** is the generation information system.

**NEPOOL GIS Administrator** is the entity or entities that develop, administer, operate and maintain the NEPOOL GIS.

**NEPOOL GIS API Fees** are the one-time on-boarding fees and annual maintenance fees charged to NEPOOL by the NEPOOL GIS Administrator for each NEPOOL Participant or Market Participant that accesses the NEPOOL GIS through an application programming interface pursuant to Rule 3.9(b) of the operating rules of the NEPOOL GIS.

**NEPOOL Participant** is a party to the NEPOOL Agreement.

**NERC** is the North American Electric Reliability Corporation or its successor organization.

**NESCOE** is the New England States Committee on Electricity, recognized by the Commission as the regional state committee for the New England Control Area.

**Net Commitment Period Compensation (NCPC)** is the compensation methodology for Resources that is described in Appendix F to Market Rule 1.

**Net CONE** is an estimate of the Cost of New Entry, net of the first-year non-capacity market revenues, for a reference technology resource type and is intended to equal the amount of capacity revenue the reference technology resource would require, in its first year of operation, to be economically viable given reasonable expectations of the first year energy and ancillary services revenues, and projected revenue for subsequent years.

**Net Regional Clearing Price** is described in Section III.13.7.3 of Market Rule 1.

**Net Supply** is energy injected at the Retail Delivery Point by a Demand Response Asset with Distributed Generation.

**Net Supply Limit** is the estimated portion of the offered Maximum Reduction of a Demand Response Resource that would be provided through Net Supply. The Net Supply Limit is calculated by multiplying the offered Maximum Reduction of the Demand Response Resource by the ratio of total Net Supply to

total demand reduction performance from the prior like Seasonal DR Audit of the Demand Response Assets that are mapped to the Demand Response Resource for the month.

**Network Capability Interconnection Standard** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Network Customer** is a Transmission Customer receiving RNS or LNS.

**Network Import Capability (NI Capability)** is defined in Section I of Schedule 25 of the OATT.

**Network Import Interconnection Service (NI Interconnection Service)** is defined in Section I of Schedule 25 of the OATT.

**Network Resource** is defined as follows: (1) With respect to Market Participants, (a) any generating resource located in the New England Control Area which has been placed in service prior to the Compliance Effective Date (including a unit that has lost its capacity value when its capacity value is restored and a deactivated unit which may be reactivated without satisfying the requirements of Section II.46 of the OATT in accordance with the provisions thereof) until retired; (b) any generating resource located in the New England Control Area which is placed in service after the Compliance Effective Date until retired, provided that (i) the Generator Owner has complied with the requirements of Sections II.46 and II.47 and Schedules 22 and 23 of the OATT, and (ii) the output of the unit shall be limited in accordance with Sections II.46 and II.47 and Schedules 22 and 23, if required; and (c) any generating resource or combination of resources (including bilateral purchases) located outside the New England Control Area for so long as any Market Participant has an Ownership Share in the resource or resources which is being delivered to it in the New England Control Area to serve Regional Network Load located in the New England Control Area or other designated Regional Network Loads contemplated by Section II.18.3 of the OATT taking Regional Network Service. (2) With respect to Non-Market Participant Transmission Customers, any generating resource owned, purchased or leased by the Non-Market Participant Transmission Customer which it designates to serve Regional Network Load.

**New Brunswick Security Energy** is defined in Section III.3.2.6A of Market Rule 1.

**New Capacity Offer** is an offer in the Forward Capacity Auction to provide capacity from a New Generating Capacity Resource, New Import Capacity Resource or New Demand Resource.

**New Capacity Qualification Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**New Capacity Qualification Package** is information submitted by certain new resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**New Capacity Resource** is a resource (i) that never previously received any payment as a capacity resource including any capacity payment pursuant to the market rules in effect prior to June 1, 2010 and that has not cleared in any previous Forward Capacity Auction; or (ii) that is otherwise eligible to participate in the Forward Capacity Auction as a New Capacity Resource.

**New Capacity Show of Interest Form** is described in Section III.13.1.1.2.1 of Market Rule 1.

**New Capacity Show of Interest Submission Window** is the period of time during which a Project Sponsor may submit a New Capacity Show of Interest Form or a New Demand Resource Show of Interest Form, as described in Section III.13.1.10 of Market Rule 1.

**New Demand Resource** is a type of Demand Resource participating in the Forward Capacity Market, as defined in Section III.13.1.4.1.2 of Market Rule 1.

**New Demand Resource Qualification Package** is the information that a Project Sponsor must submit, in accordance with Section III 13.1.4.2.3 of Market Rule 1, for each resource that it seeks to offer in the Forward Capacity Auction as a New Demand Resource.

**New Demand Resource Show of Interest Form** is described in Section III.13.1.4.2 of Market Rule 1.

**New Demand Response Asset** is a Real-Time Demand Response Asset, Real-Time Emergency Generation Asset or Demand Response Asset that is registered with the ISO, has been mapped to a resource, is ready to respond, and has been included in the dispatch model of the remote terminal unit but does not have a winter audit value and a summer audit value.

**New Demand Response Asset Audit** is an audit of a New Demand Response Asset performed pursuant to Section III.13.6.1.5.4.8.

**New England Control Area** is the Control Area for New England, which includes PTF, Non-PTF, MTF and OTF. The New England Control Area covers Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and part of Maine (i.e., excluding the portions of Northern Maine and the northern portion of Eastern Maine which are in the Maritimes Control Area).

**New England Markets** are markets or programs for the purchase of energy, capacity, ancillary services, demand response services or other related products or services (including Financial Transmission Rights) that are delivered through or useful to the operation of the New England Transmission System and that are administered by the ISO pursuant to rules, rates, or agreements on file from time to time with the Federal Energy Regulatory Commission.

**New England System Restoration Plan** is the plan that is developed by ISO, in accordance with NERC Reliability Standards, NPCC regional criteria and standards, ISO New England Operating Documents and ISO operating agreements, to facilitate the restoration of the New England Transmission System following a partial or complete shutdown of the New England Transmission System.

**New England Transmission System** is the system of transmission facilities, including PTF, Non-PTF, OTF and MTF, within the New England Control Area under the ISO's operational jurisdiction.

**New Generating Capacity Resource** is a type of resource participating in the Forward Capacity Market, as described in Section III.13.1.1.1 of Market Rule 1.

**New Import Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.3.4 of Market Rule 1.

**New Resource Offer Floor Price** is defined in Section III.A.21.2.

**NMPTC** means Non-Market Participant Transmission Customer.

**NMPTC Credit Threshold** is described in Section V.A.2 of the ISO New England Financial Assurance Policy.

**NMPTC Financial Assurance Requirement** is an amount of additional financial assurance for Non-Market Participant Transmission Customers described in Section V.D of the ISO New England Financial Assurance Policy.

**Nodal Amount** is node(s)-specific on-peak and off-peak proxy value to which an FTR bid or awarded FTR bid relates.

**Node** is a point on the New England Transmission System at which LMPs are calculated.

**No-Load Fee** is the amount, in dollars per hour, for a generating unit that must be paid to Market Participants with an Ownership Share in the unit for being scheduled in the New England Markets, in addition to the Start-Up Fee and price offered to supply energy, for each hour that the generating unit is scheduled in the New England Markets.

**Nominated Consumption Limit** is the consumption level specified by the Market Participant for a Dispatchable Asset Related Demand as adjusted in accordance with the provisions of Section III.13.7.3.1.3.

**Non-Commercial Capacity** is the capacity of a New Capacity Resource or an increment of an Existing Capacity Resource that is treated as a New Capacity Resource in the Forward Capacity Auction and that has not been declared commercial and has not had its capacity rating verified by the ISO.

**Non-Commercial Capacity Cure Period** is the time period described in Section VII.D of the ISO New England Financial Assurance Policy.

**Non-Commercial Capacity Financial Assurance Amount (Non-Commercial Capacity FA Amount)** is the financial assurance amount held on Non-Commercial Capacity cleared in a Forward Capacity Auction as calculated in accordance with Section VII.B.2 of the ISO New England Financial Assurance Policy.

**Non-Designated Blackstart Resource Study Cost Payments** are the study costs reimbursed under Section 5.3 of Schedule 16 of the OATT.

**Non-Dispatchable Resource** is any Resource that does not meet the requirements to be a Dispatchable Resource.

**Non-Hourly Charges** are defined in Section 1.3 of the ISO New England Billing Policy.

**Non-Hourly Requirements** are determined in accordance with Section III.A(ii) of the ISO New England Financial Assurance Policy, which is Exhibit 1A of Section I of the Tariff.

**Non-Incumbent Transmission Developer** is a Qualified Transmission Project Sponsor that: (i) is not currently a PTO; (ii) has a transmission project listed in the RSP Project List; and (iii) has executed a Non-Incumbent Transmission Developer Operating Agreement. “Non-Incumbent Transmission Developer” also includes a PTO that proposes the development of a transmission facility not located within or connected to its existing electric system; however, because such a PTO is a party to the TOA, it is not required to enter into a Non-Incumbent Transmission Developer Operating Agreement.

**Non-Incumbent Transmission Developer Operating Agreement (or NTDOA)** is an agreement between the ISO and a Non-Incumbent Transmission Developer in the form specified in Attachment O to the OATT that sets forth their respective rights and responsibilities to each other with regard to proposals for and construction of certain transmission facilities.

**Non-Intermittent Settlement Only Resource** is a Settlement Only Resource that is not an Intermittent Power Resource.

**Non-Market Participant** is any entity that is not a Market Participant.

**Non-Market Participant Transmission Customer** is any entity which is not a Market Participant but is a Transmission Customer.

**Non-Municipal Market Participant** is defined in Section II of the ISO New England Financial Assurance Policy.

**Non-PTF Transmission Facilities (Non-PTF)** are the transmission facilities owned by the PTOs that do not constitute PTF, OTF or MTF.

**Non-Qualifying** means a Market Participant that is not a Credit Qualifying Market Participant.

**Notice of RBA** is defined in Section 6.3.2 of the ISO New England Billing Policy.

**Notification Time** is the time required for a Generator Asset to synchronize to the system from the time a startup Dispatch Instruction is received from the ISO.

**Northeastern Planning Protocol** is the Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol on file with the Commission and posted on the ISO website at the following URL: [www.iso-ne.com/static-assets/documents/2015/07/northeastern\\_protocol\\_dmeast.doc](http://www.iso-ne.com/static-assets/documents/2015/07/northeastern_protocol_dmeast.doc).

**NPCC** is the Northeast Power Coordinating Council.

**Obligation Month** means a time period of one calendar month for which capacity payments are issued and the costs associated with capacity payments are allocated.

**Offer Data** means the scheduling, operations planning, dispatch, new Resource, and other data, including generating unit and Dispatchable Asset Related Demand, and for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Response Resource operating limits based on physical characteristics, and information necessary to schedule and dispatch generating and Dispatchable Asset Related Demand Resources, and for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Response Resources for the provision of energy and other services and the maintenance of the reliability and security of the transmission system in the New England Control Area, and specified for submission to the New England Markets for such purposes by the ISO.

**Offered CLAIM10** is, for a generating Resource, a Supply Offer value between 0 and the CLAIM10 of the Resource that represents the amount of TMNSR available from the Resource from an off-line state, and, for a Dispatchable Asset Related Demand or Demand Response Resource that has not been dispatched, is a Demand Bid or Demand Reduction Offer value between 0 and the CLAIM10 of the Resource that represents the amount of TMNSR or TMSR available from the Resource.

**Offered CLAIM30** is a Supply Offer, Demand Bid or Demand Reduction Offer value between 0 and the CLAIM30 of a Resource that represents the amount of TMOR available from an off-line generating



Resource, or Dispatchable Asset Related Demand or Demand Response Resource that has not been dispatched.

**Offered Full Reduction Time** is the value calculated pursuant to Section III.13.6.1.5.4.6.

**On-Peak Demand Resource** is a type of Demand Resource and means installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy consumed during Demand Resource On-Peak Hours, while delivering a comparable or acceptable level of end-use service. Such measures include Energy Efficiency, Load Management, and Distributed Generation.

**Open Access Same-Time Information System (OASIS)** is the ISO information system and standards of conduct responding to requirements of 18 C.F.R. §37 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

**Open Access Transmission Tariff (OATT)** is Section II of the ISO New England Inc. Transmission, Markets and Services Tariff.

**Operating Authority** is defined pursuant to a MTOA, an OTOA, the TOA or the OATT, as applicable.

**Operating Data** means GADS Data, data equivalent to GADS Data, CARL Data, metered load data, or actual system failure occurrences data, all as described in the ISO New England Operating Procedures.

**Operating Day** means the calendar day period beginning at midnight for which transactions on the New England Markets are scheduled.

**Operating Reserve** means Ten-Minute Spinning Reserve (TMSR), Ten-Minute Non-Spinning Reserve (TMNSR) and Thirty-Minute Operating Reserve (TMOR).

**Operations Date** is February 1, 2005.

**OTF Service** is transmission service over OTF as provided for in Schedule 20.

**Other Transmission Facility (OTF)** are the transmission facilities owned by Transmission Owners, defined and classified as OTF pursuant to Schedule 20, over which the ISO shall exercise Operating Authority in accordance with the terms set forth in the OTOA, rated 69 kV or above, and required to allow energy from significant power sources to move freely on the New England Transmission System. OTF classification shall be limited to the Phase I/II HVDC-TF.

**Other Transmission Operating Agreements (OTOA)** is the agreement(s) between the ISO, an OTO and/or the associated service provider(s) with respect to an OTF, which includes the HVDC Transmission Operating Agreement and the Phase I/II HVDC-TF Transmission Service Administration Agreement. With respect to the Phase I/II HVDC-TF, the HVDC Transmission Operating Agreement covers the rights and responsibilities for the operation of the facility and the Phase I/II HVDC-TF Transmission Service Administration Agreement covers the rights and responsibilities for the administration of transmission service.

**Other Transmission Owner (OTO)** is an owner of OTF.

**Ownership Share** is a right or obligation, for purposes of settlement, to a percentage share of all credits or charges associated with a generating unit asset or Load Asset, where such unit or load is interconnected to the New England Transmission System.

**Participant Expenses** are defined in Section 1 of the Participants Agreement.

**Participant Required Balance** is defined in Section 5.3 of the ISO New England Billing Policy.

**Participant Vote** is defined in Section 1 of the Participants Agreement.

**Participants Agreement** is the agreement among the ISO, the New England Power Pool and Individual Participants, as amended from time to time, on file with the Commission.

**Participants Committee** is the principal committee referred to in the Participants Agreement.

**Participating Transmission Owner (PTO)** is a transmission owner that is a party to the TOA.

**Payment** is a sum of money due to a Covered Entity from the ISO.

**Payment Default Shortfall Fund** is defined in Section 5.1 of the ISO New England Billing Policy.

**Peak Energy Rent (PER)** is described in Section III.13.7.2.7.1 of Market Rule 1.

**PER Proxy Unit** is described in Section III.13.7.2.7.1 of Market Rule 1.

**Percent of Total Demand Reduction Value Complete** means the delivery schedule as a percentage of a Demand Resource's total Demand Reduction Value that will be or has been achieved as of specific target dates, as described in Section III.13 of Market Rule 1.

**Permanent De-list Bid** is a bid that may be submitted by an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource in the Forward Capacity Auction to permanently remove itself from the capacity market, as described in Section III.13.1.2.3.1.5 of Market Rule 1.

**Phase I Transfer Credit** is 40% of the HQICC, or such other fraction of the HQICC as the ISO may establish.

**Phase I/II HVDC-TF** is defined in Schedule 20A to Section II of this Tariff.

**Phase I/II HVDC-TF Transfer Capability** is the transfer capacity of the Phase I/II HVDC-TF under normal operating conditions, as determined in accordance with Good Utility Practice. The "Phase I Transfer Capability" is the transfer capacity under normal operating conditions, as determined in accordance with Good Utility Practice, of the Phase I terminal facilities as determined initially as of the time immediately prior to Phase II of the Phase I/II HVDC-TF first being placed in service, and as adjusted thereafter only to take into account changes in the transfer capacity which are independent of any effect of Phase II on the operation of Phase I. The "Phase II Transfer Capability" is the difference between the Phase I/II HVDC-TF Transfer Capability and the Phase I Transfer Capability. Determinations of, and any adjustment in, Phase I/II HVDC-TF Transfer Capability shall be made by the ISO, and the basis for any such adjustment shall be explained in writing and posted on the ISO website.

**Phase One Proposal** is a first round submission, as defined in Section 4.3 of Attachment K of the OATT, of a proposal for a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade, as applicable, by a Qualified Transmission Project Sponsor.

**Phase II Transfer Credit** is 60% of the HQICC, or such other fraction of the HQICC as the ISO may establish.

**Phase Two Solution** is a second round submission, as defined in Section 4.3 of Attachment K of the OATT, of a proposal for a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Planning Advisory Committee** is the committee described in Attachment K of the OATT.

**Planning and Reliability Criteria** is defined in Section 3.3 of Attachment K to the OATT.

**Planning Authority** is an entity defined as such by the North American Electric Reliability Corporation.

**Point(s) of Delivery (POD)** is point(s) of interconnection where capacity and/or energy transmitted by a Transmission Customer will be made available to the Receiving Party under the OATT.

**Point of Interconnection** shall have the same meaning as that used for purposes of Schedules 22, 23 and 25 of the OATT.

**Point(s) of Receipt (POR)** is point(s) of interconnection where capacity and/or energy transmitted by a Transmission Customer will be made available by the Delivering Party under the OATT.

**Point-To-Point Service** is the transmission of capacity and/or energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under the OATT pursuant to Local Point-To-Point Service or OTF Service or MTF Service; and the transmission of capacity and/or energy from the Point(s) of Receipt to the Point(s) of Delivery under the OATT pursuant to Through or Out Service.

**Pool-Planned Unit** is one of the following units: New Haven Harbor Unit 1 (Coke Works), Mystic Unit 7, Canal Unit 2, Potter Unit 2, Wyman Unit 4, Stony Brook Units 1, 1A, 1B, 1C, 2A and 2B, Millstone

Unit 3, Seabrook Unit 1 and Waters River Unit 2 (to the extent of 7 megawatts of its Summer capability and 12 megawatts of its Winter capability).

**Pool PTF Rate** is the transmission rate determined in accordance with Schedule 8 to the OATT.

**Pool RNS Rate** is the transmission rate determined in accordance with paragraph (2) of Schedule 9 of Section II of the Tariff.

**Pool-Scheduled Resources** are described in Section III.1.10.2 of Market Rule 1.

**Pool Supported PTF** is defined as: (i) PTF first placed in service prior to January 1, 2000; (ii) Generator Interconnection Related Upgrades with respect to Category A and B projects (as defined in Schedule 11), but only to the extent not paid for by the interconnecting Generator Owner; and (iii) other PTF upgrades, but only to the extent the costs therefore are determined to be Pool Supported PTF in accordance with Schedule 12.

**Pool Transmission Facility (PTF)** means the transmission facilities owned by PTOs which meet the criteria specified in Section II.49 of the OATT.

**Poorly Performing Resource** is described in Section III.13.7.1.1.5 of Market Rule 1.

**Posting Entity** is any Market Participant or Non-Market Participant Transmission Customer providing financial security under the provisions of the ISO New England Financial Assurance Policy.

**Posture** means an action of the ISO to deviate from the jointly optimized security constrained economic dispatch for Energy and Operating Reserves solution for a Resource produced by the ISO's technical software for the purpose of maintaining sufficient Operating Reserve (both online and off-line) or for the provision of voltage or VAR support.

**Posturing Credits** are the Real-Time Posturing NCPC Credits for Generators (Other Than Limited Energy Resources) Postured for Reliability and the Real-Time Posturing NCPC Credit for Limited Energy Resources Postured for Reliability.

**Power Purchaser** is the entity that is purchasing the capacity and/or energy to be transmitted under the OATT.

**Principal** is (i) the sole proprietor of a sole proprietorship; (ii) a general partner of a partnership; (iii) a president, chief executive officer, chief operating officer or chief financial officer (or equivalent position) of an organization; (iv) a manager, managing member or a member vested with the management authority for a limited liability company or limited liability partnership; (v) any person or entity that has the power to exercise a controlling influence over an organization's activities that are subject to regulation by the Federal Energy Regulatory Commission, the Securities and Exchange Commission, the Commodity Futures Trading Commission, any exchange monitored by the National Futures Association, or any state entity responsible for regulating activity in energy markets; or (vi) any person or entity that: (a) is the direct owner of 10% or more of any class of an organization's equity securities; or (b) has directly contributed 10% or more of an organization's capital.

**Profiled Load Assets** include all Load Assets that are not directly metered by OP-18 compliant metering as currently described in Section IV (Metering and Recording for Settlements) of OP18, and some Load Assets that are measured by OP-18 compliant metering (as currently described in Section IV of OP-18) to which the Host Participant Assigned Meter Reader allocates non-PTF losses.

**Project Sponsor** is an entity seeking to have a New Generating Capacity Resource, New Import Capacity Resource or New Demand Resource participate in the Forward Capacity Market, as described in Section III.13.

**Proxy De-List Bid** is a type of bid used in the Forward Capacity Market.

**Provisional Member** is defined in Section I.68A of the Restated NEPOOL Agreement.

**PTO Administrative Committee** is the committee referred to in Section 11.04 of the TOA.

**Public Policy Requirement** is a requirement reflected in a statute enacted by, or a regulation promulgated by, the federal government or a state or local (e.g., municipal or county) government.

**Public Policy Transmission Study** is a study conducted by the ISO pursuant to the process set out in Section 4A.3 of Attachment K of the OATT, and consists of two phases: (i) an initial phase to produce a

rough estimate of the costs and benefits of concepts that could meet transmission needs driven by public policy requirements; and (ii) a follow-on phase designed to produce more detailed analysis and engineering work on transmission concepts identified in the first phase.

**Public Policy Local Transmission Study** is a study conducted by a PTO pursuant to the process set out in Section 1.6 of Attachment K Appendix 1 of the OATT, and consists of two phases: (i) an initial phase to produce an estimate of the costs and benefits of concepts that could meet transmission needs driven by public policy requirements; and (ii) a follow-on phase designed to produce more detailed analysis and engineering work on transmission concepts identified in the first phase.

**Public Policy Transmission Upgrade** is an addition and/or upgrade to the New England Transmission System that meets the voltage and non-voltage criteria for Public Policy Transmission Upgrade PTF classification specified in the OATT, and has been included in the Regional System Plan and RSP Project List as a Public Policy Transmission Upgrade pursuant to the procedures described in Section 4A of Attachment K of the OATT.

**Publicly Owned Entity** is defined in Section I of the Restated NEPOOL Agreement.

**Qualification Process Cost Reimbursement Deposit** is described in Section III.13.1.9.3 of Market Rule 1.

**Qualified Capacity** is the amount of capacity a resource may provide in the summer or winter in a Capacity Commitment Period, as determined in the Forward Capacity Market qualification processes.

**Qualified Generator Reactive Resource(s)** is any generator source of dynamic reactive power that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Non-Generator Reactive Resource(s)** is any non-generator source of dynamic reactive power that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Reactive Resource(s)** is any Qualified Generator Reactive Resource and/or Qualified Non-Generator Reactive Resource that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Transmission Project Sponsor** is defined in Sections 4B.2 and 4B.3 of Attachment K of the OATT.

**Queue Position** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Rapid Response Pricing Asset** is a Fast Start Generator, a Flexible DNE Dispatchable Generator, or a Dispatchable Asset Related Demand for which the Market Participant's Offer Data meets the following criteria: (i) Minimum Run Time does not exceed one hour; and (ii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes.

**Rapid Response Pricing Opportunity Cost** is the NCPC Credit described in Section III.F.2.3.10.

**Rated** means a Market Participant that receives a credit rating from one or more of the Rating Agencies, or, if such Market Participant is not rated by one of the Rating Agencies, then a Market Participant that has outstanding unsecured debt rated by one or more of the Rating Agencies.

**Rating Agencies** are Standard and Poor's (S&P), Moody's, and Fitch.

**RBA Decision** is a written decision provided by the ISO to a Disputing Party and to the Chair of the NEPOOL Budget and Finance Subcommittee accepting or denying a Requested Billing Adjustment within twenty Business Days of the date the ISO distributes a Notice of RBA, unless some later date is agreed upon by the Disputing Party and the ISO.

**Reactive Supply and Voltage Control Service** is the form of Ancillary Service described in Schedule 2 of the OATT.

**Real-Time** is a period in the current Operating Day for which the ISO dispatches Resources for energy and Regulation, designates Resources for Regulation and Operating Reserve and, if necessary, commits additional Resources.

**Real-Time Adjusted Load Obligation** is defined in Section III.3.2.1(b)(iii) of Market Rule 1.

**Real-Time Adjusted Load Obligation Deviation** is defined in Section III.3.2.1(c)(iii) of Market Rule 1.



**Real-Time Commitment NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Congestion Revenue** is defined in Section III.3.2.1(f) of Market Rule 1.

**Real-Time Demand Reduction Obligation** is a Real-Time demand reduction amount determined pursuant to Section III.E1.8 for Capacity Commitment Periods commencing prior to June 1, 2018, and Section III.E2.7 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Real-Time Demand Resource Dispatch Hours** means those hours, or portions thereof, in which ISO New England Operating Procedure No. 4 is implemented and the ISO has begun to allow the depletion of Thirty-Minute Operating Reserve on a Dispatch Zone, Load Zone, or system-wide basis, and the ISO notifies the Market Participants with Real-Time Demand Response Resources of such hours.

**Real-Time Demand Response Asset** means one or more individual end-use metered customers that are located at a single Node, report load reduction and consumption, or generator output as a single set of values, are assigned a unique asset identification number by the ISO, and that participate in the Forward Capacity Market as part of a Market Participant's Real-Time Demand Response Resource.

**Real-Time Demand Response Event Hours** means hours when the ISO dispatches Real-Time Demand Response Resources in response to Real-Time Demand Resource Dispatch Hours, which may include Dispatch Zone, Load Zone, or system-wide dispatch of such resources.

**Real-Time Demand Response Resource** is a type of Demand Resource that is comprised of installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that: (i) curtail electrical usage in response to a Dispatch Instruction; and (ii) continue curtailing electrical usage until receiving Dispatch Instructions to restore electrical usage. Such measures include Load Management and Distributed Generation. The period of curtailment shall be consistent with Real-Time Demand Response Event Hours.

**Real-Time Dispatch NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Emergency Generation Asset** means one or more individual end-use metered customers that are located at a single Node, report load reduction and consumption, or generator output as a single set of values, are assigned a unique asset identification number by the ISO, and that participate in the Forward Capacity Market as part of a Market Participant's Real-Time Emergency Generation Resource.

**Real-Time Emergency Generation Event Hours** means those hours, or portions thereof, between 7 a.m. and 7 p.m. Monday through Friday, non-Demand Response Holidays in which the ISO dispatches Real-Time Emergency Generation Resources on a Dispatch Zone, Load Zone, or system-wide basis when deficient in Thirty-Minute Operating Reserve and when the ISO implements voltage reductions of five percent of normal operating voltage that require more than 10 minutes to implement.

**Real-Time Emergency Generation Resource** is Distributed Generation whose federal, state and/or local air quality permits, rules or regulations limit operation in response to requests from the ISO to the times when the ISO implements voltage reductions of five percent of normal operating voltage that require more than 10 minutes to implement. A Real-Time Emergency Generation Resource must be capable of: (i) curtailing its end-use electric consumption from the New England grid within 30 minutes of receiving a Dispatch Instruction; and (ii) continuing that curtailment until receiving a Dispatch Instruction to restore consumption.

**Real-Time Energy Market** means the purchase or sale of energy, purchase of demand reductions pursuant to Appendix III.E2 of Market Rule 1, payment of Congestion Costs, and payment for losses for quantity deviations from the Day-Ahead Energy Market in the Operating Day and designation of and payment for provision of Operating Reserve in Real-Time.

**Real-Time Energy Market Deviation Congestion Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market Deviation Energy Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market Deviation Loss Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market NCPC Credits** are the Real-Time Commitment NCPC Credit and the Real-Time Dispatch NCPC Credit.

**Real-Time External Transaction NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Generation Obligation** is defined in Section III.3.2.1(b)(ii) of Market Rule 1.

**Real-Time Generation Obligation Deviation** is defined in Section III.3.2.1(c)(ii) of Market Rule 1.

**Real-Time High Operating Limit** is the maximum output, in MW, of a resource that could be achieved, consistent with Good Utility Practice, in response to an ISO request for Energy under Section III.13.6.4 of Market Rule 1, for each hour of the Operating Day, as reflected in the resource's Offer Data. This value is based on real-time operating conditions and the physical operating characteristics and operating permits of the unit.

**Real-Time Load Obligation** is defined in Section III.3.2.1(b)(i) of Market Rule 1.

**Real-Time Load Obligation Deviation** is defined in Section III.3.2.1(c)(i) of Market Rule 1.

**Real-Time Locational Adjusted Net Interchange** is defined in Section III.3.2.1(b)(iv) of Market Rule 1.

**Real-Time Locational Adjusted Net Interchange Deviation** is defined in Section III.3.2.1(c)(iv) of Market Rule 1.

**Real-Time Loss Revenue** is defined in Section III.3.2.1(i) of Market Rule 1.

**Real-Time Loss Revenue Charges or Credits** are defined in Section III.3.2.1(m) of Market Rule 1.

**Real-Time NCP Load Obligation** is the maximum hourly value, during a month, of a Market Participant's Real-Time Load Obligation summed over all Locations, excluding exports, in kilowatts.

**Real-Time Price Response Program** is the program described in Appendix E to Market Rule 1.

**Real-Time Offer Change** is a modification to a Supply Offer pursuant to Section III.1.10.9(b).

**Real-Time Posturing NCPC Credit for Generators (Other Than Limited Energy Resources) Postured for Reliability** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Posturing NCPC Credit for Limited Energy Resources Postured for Reliability** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Prices** means the Locational Marginal Prices resulting from the ISO's dispatch of the New England Markets in the Operating Day.

**Real-Time Reserve Charge** is a Market Participant's share of applicable system and Reserve Zone Real-Time Operating Reserve costs attributable to meeting the Real-Time Operating Reserve requirement as calculated in accordance with Section III.10 of Market Rule 1.

**Real-Time Reserve Clearing Price** is the Real-Time TMSR, TMNSR or TMOR clearing price, as applicable, for the system and each Reserve Zone that is calculated in accordance with Section III.2.7A of Market Rule 1.

**Real-Time Reserve Credit** is a Market Participant's compensation associated with that Market Participant's Resources' Real-Time Reserve Designation as calculated in accordance with Section III.10 of Market Rule 1.

**Real-Time Reserve Designation** is the amount, in MW, of Operating Reserve designated to a Resource in Real-Time by the ISO as adjusted after-the-fact utilizing revenue quality meter data as described under Section III.10 of Market Rule 1.

**Real-Time Reserve Opportunity Cost** is defined in Section III.2.7A(b) of Market Rule 1.

**Real-Time Synchronous Condensing NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time System Adjusted Net Interchange** means, for each hour, the sum of Real-Time Locational Adjusted Net Interchange for a Market Participant over all Locations, in kilowatts.

**Receiving Party** is the entity receiving the capacity and/or energy transmitted to Point(s) of Delivery under the OATT.

**Reference Level** is defined in Section III.A.5.7 of Appendix A of Market Rule 1.

**Regional Benefit Upgrade(s) (RBU)** means a Transmission Upgrade that: (i) is rated 115kV or above; (ii) meets all of the non-voltage criteria for PTF classification specified in the OATT; and (iii) is included in the Regional System Plan as either a Reliability Transmission Upgrade or an Market Efficiency Transmission Upgrade identified as needed pursuant to Attachment K of the OATT. The category of RBU shall not include any Transmission Upgrade that has been categorized under any of the other categories specified in Schedule 12 of the OATT (e.g., an Elective Transmission Upgrade shall not also be categorized as an RBU). Any upgrades to transmission facilities rated below 115kV that were PTF prior to January 1, 2004 shall remain classified as PTF and be categorized as an RBU if, and for so long as, such upgrades meet the criteria for PTF specified in the OATT.

**Regional Network Load** is the load that a Network Customer designates for Regional Network Service under Part II.B of the OATT. The Network Customer's Regional Network Load shall include all load designated by the Network Customer (including losses) and shall not be credited or reduced for any behind-the-meter generation. A Network Customer may elect to designate less than its total load as Regional Network Load but may not designate only part of the load at a discrete Point of Delivery. Where a Transmission Customer has elected not to designate a particular load at discrete Points of Delivery as Regional Network Load, the Transmission Customer is responsible for making separate arrangements under Part II.C of the OATT for any Point-To-Point Service that may be necessary for such non-designated load.

**Regional Network Service (RNS)** is the transmission service over the PTF described in Part II.B of the OATT, including such service which is used with respect to Network Resources or Regional Network Load that is not physically interconnected with the PTF.

**Regional Planning Dispute Resolution Process** is described in Section 12 of Attachment K to the OATT.

**Regional System Plan (RSP)** is the plan developed under the process specified in Attachment K of the OATT.

**Regional Transmission Service (RTS)** is Regional Network Service and Through or Out Service as provided over the PTF in accordance with Section II.B, Section II.C, Schedule 8 and Schedule 9 of the OATT.

**Regulation** is the capability of a specific Resource with appropriate telecommunications, control and response capability to respond to an AGC SetPoint.

**Regulation and Frequency Response Service** is the form of Ancillary Service described in Schedule 3 of the OATT. The capability of performing Regulation and Frequency Response Service is referred to as automatic generation control (AGC).

**Regulation Capacity** is the lesser of five times the Automatic Response Rate and one-half of the difference between the Regulation High Limit and the Regulation Low Limit of a Resource capable of providing Regulation.

**Regulation Capacity Requirement** is the amount of Regulation Capacity required to maintain system control and reliability in the New England Control Area as calculated and posted on the ISO website.

**Regulation Capacity Offer** is an offer by a Market Participant to provide Regulation Capacity.

**Regulation High Limit** is an offer parameter that establishes the upper bound for AGC SetPoints and is used in the determination of a Resource's Regulation Capacity.

**Regulation Low Limit** is an offer parameter that establishes the lower bound for AGC SetPoints and is used in the determination of a Resource's Regulation Capacity.

**Regulation Market** is the market described in Section III.14 of Market Rule 1.

**Regulation Service** is the change in output or consumption made in response to changing AGC SetPoints.

**Regulation Service Requirement** is the estimated amount of Regulation Service required to maintain system control and reliability in the New England Control Area as calculated and posted on the ISO website.

**Regulation Service Offer** is an offer by a Market Participant to provide Regulation Service.

**Related Person** is defined pursuant to Section 1.1 of the Participants Agreement.

**Related Transaction** is defined in Section III.1.4.3 of Market Rule 1.

**Reliability Administration Service (RAS)** is the service provided by the ISO, as described in Schedule 3 of Section IV.A of the Tariff, in order to administer the Reliability Markets and provide other reliability-related and informational functions.

**Reliability Committee** is the committee whose responsibilities are specified in Section 8.2.3 of the Participants Agreement.

**Reliability Markets** are, collectively, the ISO's administration of Regulation, the Forward Capacity Market, and Operating Reserve.

**Reliability Region** means any one of the regions identified on the ISO's website. Reliability Regions are intended to reflect the operating characteristics of, and the major transmission constraints on, the New England Transmission System.

**Reliability Transmission Upgrade** means those additions and upgrades not required by the interconnection of a generator that are nonetheless necessary to ensure the continued reliability of the New England Transmission System, taking into account load growth and known resource changes, and include those upgrades necessary to provide acceptable stability response, short circuit capability and system voltage levels, and those facilities required to provide adequate thermal capability and local voltage levels that cannot otherwise be achieved with reasonable assumptions for certain amounts of generation being unavailable (due to maintenance or forced outages) for purposes of long-term planning studies. Good Utility Practice, applicable reliability principles, guidelines, criteria, rules, procedures and standards of ERO and NPCC and any of their successors, applicable publicly available local reliability criteria, and the ISO System Rules, as they may be amended from time to time, will be used to define the

system facilities required to maintain reliability in evaluating proposed Reliability Transmission Upgrades. A Reliability Transmission Upgrade may provide market efficiency benefits as well as reliability benefits to the New England Transmission System.

**Remittance Advice** is an issuance from the ISO for the net Payment owed to a Covered Entity where a Covered Entity's total Payments exceed its total Charges in a billing period.

**Remittance Advice Date** is the day on which the ISO issues a Remittance Advice.

**Renewable Technology Resource** is a Generating Capacity Resource or an On-Peak Demand Resource that satisfies the requirements specified in Section III.13.1.1.1.7.

**Re-Offer Period** is the period that normally occurs between the posting of the of the Day-Ahead Energy Market results and 2:00 p.m. on the day before the Operating Day during which a Market Participant may submit revised Supply Offers, revised External Transactions, or revised Demand Bids associated with Dispatchable Asset Related Demands or, for Capacity Commitment Periods commencing on or after June 1, 2018, revised Demand Reduction Offers associated with Demand Response Resources.

**Replacement Reserve** is described in Part III, Section VII of ISO New England Operating Procedure No. 8.

**Request for Alternative Proposals (RFAP)** is the request described in Attachment K of the OATT.

**Requested Billing Adjustment (RBA)** is defined in Section 6.1 of the ISO New England Billing Policy.

**Required Balance** is an amount as defined in Section 5.3 of the Billing Policy.

**Reseller** is a MGTSA holder that sells, assigns or transfers its rights under its MGTSA, as described in Section II.45.1(a) of the OATT.

**Reserve Adequacy Analysis** is the analysis performed by the ISO to determine if adequate Resources are committed to meet forecasted load, Operating Reserve, and security constraint requirements for the current and next Operating Day.



**Reserve Constraint Penalty Factors (RCPFs)** are rates, in \$/MWh, that are used within the Real-Time dispatch and pricing algorithm to reflect the value of Operating Reserve shortages and are defined in Section III.2.7A(c) of Market Rule 1.

**Reserve Zone** is defined in Section III.2.7 of Market Rule 1.

**Reserved Capacity** is the maximum amount of capacity and energy that is committed to the Transmission Customer for transmission over the New England Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II.C or Schedule 18, 20 or 21 of the OATT, as applicable. Reserved Capacity shall be expressed in terms of whole kilowatts on a sixty-minute interval (commencing on the clock hour) basis, or, in the case of Reserved Capacity for Local Point-to-Point Service, in terms of whole megawatts on a sixty-minute interval basis.

**Resource** means a generating unit, a Dispatchable Asset Related Demand, an External Resource or an External Transaction or, for Capacity Commitment Periods commencing on or after June 1, 2018, a Demand Response Resource. For purposes of providing Regulation, Resource means a generating unit, a Dispatchable Asset Related Demand, a Demand Response Regulation Resource or an Alternative Technology Regulation Resource.

**Restated New England Power Pool Agreement (RNA)** is the Second Restated New England Power Pool Agreement, which restated for a second time by an amendment dated as of August 16, 2004 the New England Power Pool Agreement dated September 1, 1971, as the same may be amended and restated from time to time, governing the relationship among the NEPOOL members.

**Rest-of-Pool Capacity Zone** is a single Capacity Zone made up of the adjacent Load Zones that are neither export-constrained nor import-constrained.

**Rest of System** is an area established under Section III.2.7(d) of Market Rule 1.

**Retail Delivery Point** is the point on the transmission or distribution system at which the load of an end-use facility, which is metered and assigned a unique account number by the Host Participant, is measured to determine the amount of energy delivered to the facility from the transmission and distribution system. If an end-use facility is connected to the transmission or distribution system at more than one location, the

Retail Delivery Point shall consist of the metered load at each connection point, summed to measure the net energy delivered to the facility in each interval.

**Retirement De-List Bid** is a bid to retire an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource from all New England Markets, as described in Section III.13.1.2.3.1.5.

**Returning Market Participant** is a Market Participant, other than an FTR-Only Customer or a Governance Only Member, whose previous membership as a Market Participant was involuntarily terminated due to a Financial Assurance Default or a payment default and, since returning, has been a Market Participant for less than six consecutive months.

**Revenue Requirement** is defined in Section IV.A.2.1 of the Tariff.

**Reviewable Action** is defined in Section III.D.1.1 of Appendix D of Market Rule 1.

**Reviewable Determination** is defined in Section 12.4(a) of Attachment K to the OATT.

**RSP Project List** is defined in Section 1 of Attachment K to the OATT.

**RTEP02 Upgrade(s)** means a Transmission Upgrade that was included in the annual NEPOOL Transmission Plan (also known as the “Regional Transmission Expansion Plan” or “RTEP”) for the year 2002, as approved by ISO New England Inc.’s Board of Directors, or the functional equivalent of such Transmission Upgrade, as determined by ISO New England Inc. The RTEP02 Upgrades are listed in Schedule 12B of the OATT.

**RTO** is a regional transmission organization or comparable independent transmission organization that complies with Order No. 2000 and the Commission’s corresponding regulation.

**Same Reserve Zone Export Transaction** is defined in Section III.1.10.7(f)(iii) of Market Rule 1.

**Sanctionable Behavior** is defined in Section III.B.3 of Appendix B of Market Rule 1.

**Schedule, Schedules, Schedule 1, 2, 3, 4 and 5** are references to the individual or collective schedules to Section IV.A. of the Tariff.

**Schedule 20A Service Provider (SSP)** is defined in Schedule 20A to Section II of this Tariff.

**Scheduling Service**, for purposes of Section IV.A and Section IV.B of the Tariff, is the service described in Schedule 1 to Section IV.A of the Tariff.

**Scheduling, System Control and Dispatch Service**, for purposes of Section II of the Tariff, is the form of Ancillary Service described in Schedule 1 of the OATT.

**Seasonal Claimed Capability** is the summer or winter claimed capability of a generating unit or ISO-approved combination of units, and represent the maximum dependable load carrying ability of such unit or units, excluding capacity required for station use.

**Seasonal Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.3.

**Seasonal DR Audit** is a seasonal audit of the demand response capability of a Demand Resource initiated pursuant to Section III.13.6.1.5.4.1.

**Seasonal Peak Demand Resource** is a type of Demand Resource and shall mean installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy consumed during Demand Resource Seasonal Peak Hours, while delivering a comparable or acceptable level of end-use service. Such measures include Energy Efficiency, Load Management, and Distributed Generation.

**Section III.1.4 Transactions** are defined in Section III.1.4.2 of Market Rule 1.

**Section III.1.4 Conforming Transactions** are defined in Section III.1.4.2 of Market Rule 1.

**Security Agreement** is Attachment 1 to the ISO New England Financial Assurance Policy.

**Self-Schedule** is the action of a Market Participant in committing or scheduling its Resource, in accordance with applicable ISO New England Manuals, to provide service in an hour, whether or not in

the absence of that action the Resource would have been scheduled or dispatched by the ISO to provide the service. For a Generator Asset, Self-Schedule is the action of a Market Participant in committing or scheduling a Generator Asset to provide Energy in an hour at its Economic Minimum Limit, whether or not in the absence of that action the Generator Asset would have been scheduled or dispatched by the ISO to provide the Energy. For a Dispatchable Asset Related Demand, Self-Schedule is the action of a Market Participant in committing or scheduling a Dispatchable Asset Related Demand to consume Energy in an hour at its Minimum Consumption Limit, whether or not in the absence of that action the Dispatchable Asset Related Demand would have been scheduled or dispatched by the ISO to consume Energy. Demand Response Resources are not permitted to Self-Schedule.

**Self-Scheduled MW** is an amount, in megawatts, that is Self-Scheduled and is equal to: (i) a Generator Asset's Economic Minimum Limit; (ii) a Dispatchable Asset Related Demand's Minimum Consumption Limit.

**Self-Supplied FCA Resource** is described in Section III.13.1.6 of Market Rule 1.

**Senior Officer** means an officer of the subject entity with the title of vice president (or similar office) or higher, or another officer designated in writing to the ISO by that office.

**Service Agreement** is a Transmission Service Agreement or an MPSA.

**Service Commencement Date** is the date service is to begin pursuant to the terms of an executed Service Agreement, or the date service begins in accordance with the sections of the OATT addressing the filing of unexecuted Service Agreements.

**Services** means, collectively, the Scheduling Service, EAS and RAS; individually, a Service.

**Settlement Financial Assurance** is an amount of financial assurance required from a Designated FTR Participant awarded a bid in an FTR Auction. This amount is calculated pursuant to Section VI.D of the ISO New England Financial Assurance Policy.

**Settlement Only Resources** are generators of less than 5 MW or otherwise eligible for Settlement Only Resource treatment as described in ISO New England Operating Procedure No. 14 and that have elected

Settlement Only Resource treatment as described in the ISO New England Manual for Registration and Performance Auditing.

**Shortage Event** is defined in Section III.13.7.1.1.1 of Market Rule 1.

**Shortage Event Availability Score** is the average of the hourly availability scores for each hour or portion of an hour during a Shortage Event, as described in Section III.13.7.1.1.1.A of Market Rule 1.

**Shortfall Funding Arrangement**, as specified in Section 5.1 of the ISO New England Billing Policy, is a separate financing arrangement that can be used to make up any non-congestion related differences between amounts received on Invoices and amounts due for ISO Charges in any bill issued.

**Short-Term** is a period of less than one year.

**Significantly Reduced Congestion Costs** are defined in Section III.G.2.2 of Appendix G to Market Rule 1.

**SMD Effective Date** is March 1, 2003.

**Solutions Study** is described in Section 4.2(b) of Attachment K to the OATT.

**Special Constraint Resource (SCR)** is a Resource that provides Special Constraint Resource Service under Schedule 19 of the OATT.

**Special Constraint Resource Service** is the form of Ancillary Service described in Schedule 19 of the OATT.

**Specified-Term Blackstart Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 of the OATT, for a Designated Blackstart Resource's capital Blackstart Equipment costs associated with the provision of Blackstart Service (except for capital costs associated with adhering to NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Stage One Proposal** is a first round submission, as defined in Sections 4A.5 of Attachment K of the OATT, of a proposal for a Public Policy Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Stage Two Solution** is a second round submission, as defined in Section 4A.5 of Attachment K of the OATT, of a proposal for a Public Policy Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Standard Blackstart Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 of the OATT, for a Designated Blackstart Resource's capital Blackstart Equipment costs associated with the provision of Blackstart Service (except for capital costs associated with adhering to NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Start-of-Round Price** is the highest price associated with a round of a Forward Capacity Auction as described in Section III.13.2.3.1 of Market Rule 1.

**Start-Up Fee** is the amount, in dollars, that must be paid for a generating unit to Market Participants with an Ownership Share in the unit each time the unit is scheduled in the New England Markets to start-up.

**Start-Up Time** is the time it takes the Generator Asset, after synchronizing to the system, to reach its Economic Minimum Limit and, for dispatchable Generator Assets, be ready for further dispatch by the ISO.

**State Estimator** means the computer model of power flows specified in Section III.2.3 of Market Rule 1.

**Statements**, for the purpose of the ISO New England Billing Policy, refer to both Invoices and Remittance Advices.

**Static De-List Bid** is a bid that may be submitted by an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource in the Forward Capacity Auction to remove itself from the capacity market for a one year period, as described in Section III.13.1.2.3.1.1 of Market Rule 1.

**Station** is one or more Existing Generating Capacity Resources consisting of one or more assets located within a common property boundary.

**Station Going Forward Common Costs** are the net costs associated with a Station that are avoided only by the clearing of the Static De-List Bids, the Permanent De-List Bids or the Retirement De-List Bids of all the Existing Generating Capacity Resources comprising the Station.

**Station-level Blackstart O&M Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Station-level Specified-Term Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Station-level Standard Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Summer ARA Qualified Capacity** is described in Section III.13.4.2.1.2.1.1.1 of Market Rule 1.

**Summer Capability Period** means one of two time periods defined by the ISO for the purposes of rating and auditing resources. The time period associated with the Summer Capability Period is the period of June 1 through September 30.

**Summer Intermittent Reliability Hours** are defined in Section III.13.1.2.2.2.1(c) of Market Rule 1.

**Supplemental Availability Bilateral** is described in Section III.13.5.3.2 of Market Rule 1.

**Supplemental Capacity Resources** are described in Section III.13.5.3.1 of Market Rule 1.

**Supplemented Capacity Resource** is described in Section III.13.5.3.2 of Market Rule 1.

**Supply Offer** is a proposal to furnish energy at a Node or Regulation from a Resource that meets the applicable requirements set forth in the ISO New England Manuals submitted to the ISO by a Market Participant with authority to submit a Supply Offer for the Resource. The Supply Offer will be submitted pursuant to Market Rule 1 and applicable ISO New England Manuals, and include a price and

information with respect to the quantity proposed to be furnished, technical parameters for the Resource, timing and other matters. A Supply Offer is a subset of the information required in a Market Participant's Offer Data.

**Supply Offer Block-Hours** are Block-Hours assigned to the Lead Market Participant for each Supply Offer. Blocks of the Supply Offer in effect for each hour will be totaled to determine the quantity of Supply Offer Block-Hours for a given day. In the case that a Resource has a Real-Time unit status of "unavailable" for the entire day, that day will not contribute to the quantity of Supply Offer Block-Hours. However, if the Resource has at least one hour of the day with a unit status of "available," the entire day will contribute to the quantity of Supply Offer Block-Hours.

**Synchronous Condenser** is a generator that is synchronized to the grid but supplying no energy for the purpose of providing Operating Reserve or VAR or voltage support.

**System Condition** is a specified condition on the New England Transmission System or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm MTF or OTF Service on the MTF or the OTF using the curtailment priority pursuant to Section II.44 of the Tariff or Curtailment of Local Long-Term Firm Point-to-Point Transmission Service on the non-PTF using the curtailment priority pursuant to Schedule 21 of the Tariff. Such conditions must be identified in the Transmission Customer's Service Agreement.

**System Impact Study** is an assessment pursuant to Part II.B, II.C, II.G, Schedule 21, Schedule 22, Schedule 23, or Schedule 25 of the OATT of (i) the adequacy of the PTF or Non-PTF to accommodate a request for the interconnection of a new or materially changed generating unit or a new or materially changed interconnection to another Control Area or new Regional Network Service or new Local Service or an Elective Transmission Upgrade, and (ii) whether any additional costs may be required to be incurred in order to provide the interconnection or transmission service.

**System Operator** shall mean ISO New England Inc. or a successor organization.

**System-Wide Capacity Demand Curve** is the demand curve used in the Forward Capacity Market as specified in Section III.13.2.2.



**TADO** is the total amount due and owing (not including any amounts due under Section 14.1 of the RNA) at such time to the ISO, NEPOOL, the PTOs, the Market Participants and the Non-Market Participant Transmission Customers, by all PTOs, Market Participants and Non-Market Participant Transmission Customers.

**Tangible Net Worth** is the value, determined in accordance with international accounting standards or generally accepted accounting principles in the United States, of all of that entity's assets less the following: (i) assets the ISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (e.g., regulatory assets, restricted assets, and Affiliate assets), net of any matching liabilities, to the extent that the result of that netting is a positive value; (ii) derivative assets, net of any matching liabilities, to the extent that the result of that netting is a positive value; (iii) the amount at which the liabilities of the entity would be shown on a balance sheet in accordance with international accounting standards or generally accepted accounting principles in the United States; (iv) preferred stock; (v) non-controlling interest; and (vi) all of that entity's intangible assets (e.g., patents, trademarks, franchises, intellectual property, goodwill and any other assets not having a physical existence), in each case as shown on the most recent financial statements provided by such entity to the ISO.

**Technical Committee** is defined in Section 8.2 of the Participants Agreement.

**Ten-Minute Non-Spinning Reserve (TMNSR)** is the reserve capability of (1) a generating Resource that can be converted fully into energy within ten minutes from the request of the ISO (2) a Dispatchable Asset Related Demand that can be fully utilized within ten minutes from the request of the ISO to reduce consumption; or (3) a Demand Response Resource that can provide demand reduction within ten minutes from the request of the ISO.

**Ten-Minute Non-Spinning Reserve Service** is the form of Ancillary Service described in Schedule 6 of the OATT.

**Ten-Minute Spinning Reserve (TMSR)** is the reserve capability of (1) a generating Resource that is electrically synchronized to the New England Transmission System that can be converted fully into energy within ten minutes from the request of the ISO; (2) a Dispatchable Asset Related Demand pump that is electrically synchronized to the New England Transmission System that can reduce energy consumption to provide reserve capability within ten minutes from the request of the ISO; or (3) a

Demand Response Resource that can provide demand reduction within ten minutes from the request of the ISO for which none of the associated Demand Response Assets have a generator whose output can be controlled located behind the Retail Delivery Point other than emergency generators that cannot operate electrically synchronized to the New England Transmission System.

**Ten-Minute Spinning Reserve Service** is the form of Ancillary Service described in Schedule 5 of the OATT.

**Third-Party Sale** is any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Regional Network Load or Local Network Load under the Regional Network Service or Local Network Service, as applicable.

**Thirty-Minute Operating Reserve (TMOR)** means the reserve capability of (1) a generating Resource that can be converted fully into energy within thirty minutes from the request of the ISO (2) a Dispatchable Asset Related Demand that can be fully utilized within thirty minutes from the request of the ISO to reduce consumption; or (3) a Demand Response Resource that can provide demand reduction within thirty minutes from the request of the ISO.

**Thirty-Minute Operating Reserve Service** is the form of Ancillary Service described in Schedule 7 of the OATT.

**Through or Out Rate (TOUT Rate)** is the rate per hour for Through or Out Service, as defined in Section II.25.2 of the OATT.

**Through or Out Service (TOUT Service)** means Point-To-Point Service over the PTF provided by the ISO with respect to a transaction that goes through the New England Control Area, as, for example, a single transaction where energy or capacity is transmitted into the New England Control Area from New Brunswick and subsequently out of the New England Control Area to New York, or a single transaction where energy or capacity is transmitted into the New England Control Area from New York through one point on the PTF and subsequently flows over the PTF prior to passing out of the New England Control Area to New York, or with respect to a transaction which originates at a point on the PTF and flows over the PTF prior to passing out of the New England Control Area, as, for example, from Boston to New York.

**Tie-Line Asset** is a physical transmission tie-line, or an inter-state or intra-state border arrangement created according to the ISO New England Manuals and registered in accordance with the Asset Registration Process.

**Total Available Amount** is the sum of the available amount of the Shortfall Funding Arrangement and the balance in the Payment Default Shortfall Fund.

**Total Blackstart Capital Payment** is the annual compensation calculated under either Section 5.1 or Section 5.2 of Schedule 16 of the OATT, as applicable.

**Total Blackstart O&M Payment** is the annual compensation calculated under either Section 5.1 or 5.2 of Schedule 16 of the OATT, as applicable.

**Total Blackstart Service Payments** is monthly compensation to Blackstart Owners or Market Participants, as applicable, and as calculated pursuant to Section 5.6 of Schedule 16 to the OATT.

**Total Negative Hourly Demand Response Resource Deviation** means the absolute value of the sum of the negative Hourly Real-Time Demand Response Resource Deviations and negative Hourly Real-Time Emergency Generation Deviations from all Real-Time Demand Response Resources and Real-Time Emergency Generation Resources receiving Dispatch Instructions in the same hour in the same Dispatch Zone.

**Total Positive Hourly Demand Response Resource Deviation** means the sum of the positive Hourly Real-Time Demand Response Resource Deviations and positive Hourly Real-Time Emergency Generation Deviations from all Real-Time Demand Response Resources and Real-Time Emergency Generation Resources receiving Dispatch Instructions in the same hour in the same Dispatch Zone.

**Total System Capacity** is the aggregate capacity supply curve for the New England Control Area as determined in accordance with Section III.13.2.3.3 of Market Rule 1.

**Transaction Unit (TU)** is a type of billing determinant under Schedule 2 of Section IV.A of the Tariff used to assess charges to Customers.

**Transition Period:** The six-year period commencing on March 1, 1997.

**Transmission Charges**, for the purposes of the ISO New England Financial Assurance Policy and the ISO New England Billing Policy, are all charges and payments under Schedules 1, 8 and 9 of the OATT.

**Transmission Congestion Credit** means the allocated share of total Transmission Congestion Revenue credited to each holder of Financial Transmission Rights, calculated and allocated as specified in Section III.5.2 of Market Rule 1.

**Transmission Congestion Revenue** is defined in Section III.5.2.5(a) of Market Rule 1.

**Transmission Credit Limit** is a credit limit, not to be used to meet FTR Requirements, established for each Market Participant in accordance with Section II.D and each Non-Market Participant Transmission Customer in accordance with Section V.B.2 of the ISO New England Financial Assurance Policy.

**Transmission Credit Test Percentage** is calculated in accordance with Section III.B.1(c) of the ISO New England Financial Assurance Policy.

**Transmission Customer** is any Eligible Customer that (i) executes, on its own behalf or through its Designated Agent, an MPSA or TSA, or (ii) requests in writing, on its own behalf or through its Designated Agent, that the ISO, the Transmission Owner, or the Schedule 20A Service Provider, as applicable, file with the Commission, a proposed unexecuted MPSA or TSA containing terms and conditions deemed appropriate by the ISO (in consultation with the applicable PTO, OTO or Schedule 20A Service Provider) in order that the Eligible Customer may receive transmission service under Section II of this Tariff. A Transmission Customer under Section II of this Tariff includes a Market Participant or a Non-Market Participant taking Regional Network Service, Through or Out Service, MTF Service, OTF Service, Ancillary Services, or Local Service.

**Transmission Default Amount** is all or any part of any amount of Transmission Charges due to be paid by any Covered Entity that the ISO, in its reasonable opinion, believes will not or has not been paid when due.

**Transmission Default Period** is defined in Section 3.4.f of the ISO New England Billing Policy.

**Transmission Late Payment Account** is defined in Section 4.2 of the ISO New England Billing Policy.

**Transmission Late Payment Account Limit** is defined in Section 4.2 of the ISO New England Billing Policy.

**Transmission Late Payment Charge** is defined in Section 4.1 of the ISO New England Billing Policy.

**Transmission, Markets and Services Tariff (Tariff)** is the ISO New England Inc. Transmission, Markets and Services Tariff, as amended from time to time.

**Transmission Obligations** are determined in accordance with Section III.A(vi) of the ISO New England Financial Assurance Policy.

**Transmission Operating Agreement (TOA)** is the Transmission Operating Agreement between and among the ISO and the PTOs, as amended and restated from time to time.

**Transmission Owner** means a PTO, MTO or OTO.

**Transmission Provider** is the ISO for Regional Network Service and Through or Out Service as provided under Section II.B and II.C of the OATT; Cross-Sound Cable, LLC for Merchant Transmission Service as provided under Schedule 18 of the OATT; the Schedule 20A Service Providers for Phase I/II HVDC-TF Service as provided under Schedule 20A of the OATT; and the Participating Transmission Owners for Local Service as provided under Schedule 21 of the OATT.

**Transmission Requirements** are determined in accordance with Section III.A(iii) of the ISO New England Financial Assurance Policy.

**Transmission Security Analysis Requirement** shall be determined pursuant to Section III.12.2.1.2.

**Transmission Service Agreement (TSA)** is the initial agreement and any amendments or supplements thereto: (A) in the form specified in either Attachment A or B to the OATT, entered into by the Transmission Customer and the ISO for Regional Network Service or Through or Out Service; (B) entered into by the Transmission Customer with the ISO and PTO in the form specified in Attachment A to Schedule 21 of the OATT; (C) entered into by the Transmission Customer with an OTO or Schedule 20A Service Provider in the appropriate form specified under Schedule 20 of the OATT; or (D) entered

into by the Transmission Customer with a MTO in the appropriate form specified under Schedule 18 of the OATT. A Transmission Service Agreement shall be required for Local Service, MTF Service and OTF Service, and shall be required for Regional Network Service and Through or Out Service if the Transmission Customer has not executed a MPSA.

**Transmission Upgrade(s)** means an upgrade, modification or addition to the PTF that becomes subject to the terms and conditions of the OATT governing rates and service on the PTF on or after January 1, 2004. This categorization and cost allocation of Transmission Upgrades shall be as provided for in Schedule 12 of the OATT.

**UDS** is unit dispatch system software.

**Unconstrained Export Transaction** is defined in Section III.1.10.7(f)(iv) of Market Rule 1.

**Uncovered Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Uncovered Transmission Default Amounts** are defined in Section 3.4.f of the ISO New England Billing Policy.

**Unrated** means a Market Participant that is not a Rated Market Participant.

**Unsecured Covered Entity** is, collectively, an Unsecured Municipal Market Participant and an Unsecured Non-Municipal Covered Entity.

**Unsecured Municipal Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Municipal Market Participant** is defined in Section 3.3(h) of the ISO New England Billing Policy.

**Unsecured Municipal Transmission Default Amount** is defined in Section 3.4.f of the ISO New England Billing Policy.

**Unsecured Non-Municipal Covered Entity** is a Covered Entity that is not a Municipal Market Participant or a Non-Market Participant Transmission Customer and has a Market Credit Limit or Transmission Credit Limit of greater than \$0 under the ISO New England Financial Assurance Policy.

**Unsecured Non-Municipal Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Non-Municipal Transmission Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Transmission Default Amounts** are, collectively, the Unsecured Municipal Transmission Default Amount and the Unsecured Non-Municipal Transmission Default Amount.

**Updated Measurement and Verification Plan** is an optional Measurement and Verification Plan that may be submitted as part of a subsequent qualification process for a Forward Capacity Auction prior to the beginning of the Capacity Commitment Period of the Demand Resource project. The Updated Measurement and Verification Plan may include updated Demand Resource project specifications, measurement and verification protocols, and performance data as described in Section III.13.1.4.3.1.2 of Market Rule 1 and the ISO New England Manuals.

**VAR CC Rate** is the CC rate paid to Qualified Reactive Resources for VAR Service capability under Section IV.A of Schedule 2 of the OATT.

**VAR Payment** is the payment made to Qualified Reactive Resources for VAR Service capability under Section IV.A of Schedule 2 of the OATT.

**VAR Service** is the provision of reactive power voltage support to the New England Transmission System by a Qualified Reactive Resource or by other generators that are dispatched by the ISO to provide dynamic reactive power as described in Schedule 2 of the OATT.

**Virtual Requirements** are determined in accordance with Section III.A(iv) of the ISO New England Financial Assurance Policy.

**Volt Ampere Reactive (VAR)** is a measurement of reactive power.

**Volumetric Measure (VM)** is a type of billing determinant under Schedule 2 of Section IV.A of the Tariff used to assess charges to Customers under Section IV.A of the Tariff.

**Winter ARA Qualified Capacity** is described in Section III.13.4.2.1.2.1.1.2 of Market Rule 1.

**Winter Capability Period** means one of two time periods defined by the ISO for the purposes of rating and auditing resources. The time period associated with the Winter Capability Period is the period October 1 through May 31.

**Winter Intermittent Reliability Hours** are defined in Section III.13.1.2.2.2.2(c) of Market Rule 1.

**Year** means a period of 365 or 366 days, whichever is appropriate, commencing on, or on the anniversary of March 1, 1997. Year One is the Year commencing on March 1, 1997, and Years Two and higher follow it in sequence.

**Zonal Price** is calculated in accordance with Section III.2.7 of Market Rule 1



## **SCHEDULE 11**

### **GENERATOR INTERCONNECTION RELATED UPGRADE AND ELECTIVE TRANSMISSION INTERCONNECTION RELATED UPGRADE COSTS**

- (1) Classification of Generating Projects. The treatment for purposes of this OATT of the Generator Interconnection Related Upgrade costs with respect to the facilities needed for the interconnection of a particular new or modified generating unit project in accordance with Section II.47 of this OATT depends on whether the project is a Category A Project, a Category B Project or a Category C Project, as follows:
- (a) A Category A Project is one whose Generator Owner committed to pay for upgrade costs on or after October 1, 1998 and prior to October 29, 1998 and has filed a petition with the Commission requesting that the costs associated with the interconnection of its generation project be determined in accordance with Schedule 11 of this OATT, as evidenced either by the filing of an executed Transmission Service Agreement or by the filing of an unexecuted Transmission Service Agreement.
- (b) A Category B Project is any one whose Generator Owner committed to pay for upgrade costs on or after October 29, 1998 and prior to June 22, 1999, as evidenced either by the filing of an executed Transmission Service Agreement or by the filing of an unexecuted Transmission Service Agreement. To the extent not otherwise covered by the preceding sentence, a Category B Project includes any one (other than a Category A Project) on which the Generator Owner had expended at least \$5,000,000, including amounts due under irrevocable commitments, as of June 22, 1999. Category B Projects are those projects listed as Category A Projects in Section 1(a) of this Schedule 11, but no longer qualify as Category A Projects, that had expended at least \$5,000,000 (including amounts due under irrevocable commitments) as of June 22, 1999, as reasonably determined by the ISO, as well as the following projects:

Sithe, Mystic Station Expansion

Sithe Edgar Station Expansion, Fore River

Sithe, West Medway

PG&E, Generating Lake Road Generating

PDC, Milford Power  
PDC, Meriden Power  
Reliant Energy, Hope Rhode Island  
IDC FPL, Bellingham  
Constellation, Merrimack (Nickel Hill) Energy Project  
SEI, Canal Re-powering  
ANP, Bellingham  
ANP, Blackstone  
Cabot, Island End  
Calpine, Westbrook Power  
HQ, Bucksport  
AES, Londonderry  
ConEd, Newington  
Mirant, Kendall Repowering Project

(c) A Category C Project is any project which is not a Category A Project or a Category B Project.

(2) Direct Interconnection Transmission Costs. Direct Interconnection Transmission Costs shall mean the cost of facilities constructed for sole use of the Generator Owner that are not PTF. One hundred percent of Direct Interconnection Transmission Costs shall be the responsibility of the Generator Owner whether the Generator Owner's project is a Category A Project, a Category B Project or a Category C Project.

(3) Treatment of Category A Project Transmission Costs. The allocation of costs of Generator Interconnection Related Upgrades for Category A Projects will be determined as follows:

(d) One-half of the Shared Amount (as defined below) of the capital cost of the PTF upgrade shall constitute Pool Supported PTF and be included in Annual Transmission Revenue Requirements under Attachment F to this OATT. The Generator Owner shall be obligated to pay, in addition to the Direct Interconnection Transmission Costs, the other half of the Shared Amount of the capital cost of the PTF upgrade and all of the capital costs in excess of the Shared Amount, and any applicable tax gross-up amounts, and such amounts to be paid by the Generator Owner shall not be included in Annual Transmission

Revenue Requirements under Attachment F to this OATT. Following completion of the construction or modification of the Generator Interconnection Related Upgrade, the Generator Owner shall be obligated to pay its pro rata share of all of the annual costs (including cost of capital, federal and state income taxes, O&M and A&G expenses, annual property taxes and other related costs) which are allocable to such upgrade, pursuant to the interconnection agreement with the individual PTO or its designee which is responsible for the construction or modification, and such agreement may be filed with the Commission by the PTO, either signed or unsigned, on its own or at the request of the Generator Owner.

- (e) In determining the cost responsibilities related to a Generator Interconnection Related Upgrade to PTF, the ISO may determine that all or a portion of the proposed facilities exceed regional system, regulatory or other public requirements. In such a case, the ISO shall determine the amount of the excess costs of the Generator Interconnection Related Upgrade which shall be borne by the entity which is responsible for requiring such excess costs, and the excess costs shall not be included in the calculation of the Shared Amount.
- (f) The Shared Amount of the capital cost of the Generator Interconnection Related Upgrade of PTF shall be initially determined as of the time that the System Impact Study agreement is executed by all parties and the Generator Owner has paid the cost of the study (such initial determination to be based on the estimated cost of the Generator Interconnection Related Upgrade, subject to later adjustment as set forth below) subject to truing up the KW element of the following formula upon completion of the Generator Interconnection Upgrade, and shall be the lesser of (1) the full actual capital cost of the Generator Interconnection Related Upgrade of PTF (excluding any costs which are determined to be excess costs in accordance with paragraph (b) above) or (2) the amount determined in accordance with the following formula:

$$P = (KW \times R \times 0.50) / C$$

in which:

P is the maximum amount to be shared;

- KW in the case of a generating unit, is the actual demonstrated net capability of the new generating unit or increase in the capacity of an existing generating unit corrected to 50°F in kilowatts. If winter operating conditions are shown in the System Impact Study and/or application under Section 3.9 of Section I of the Transmission, Markets and Services Tariff to require additional transmission reinforcements beyond those reinforcements required for summer operating conditions, the net capability of the unit will be corrected to an ambient air temperature of 0°F;
- R is the Pool PTF Rate in effect on the Compliance Effective Date, which is \$15.57 per kilowatt year, adjusted to reflect compliance with the April 5, 1999 Settlement Agreement, approved by the Commission by order dated July 30, 1999 in Docket Nos. OA97-237-000, et al.; and
- C is the weighted average carrying charge factor of all of the PTOs which own PTF, determined, as of the Compliance Effective Date, in accordance with Attachment F to the OATT, which is 15.87 percent, adjusted to reflect compliance with the April 5, 1999 Settlement Agreement, approved by the Commission by order dated July 30, 1999 in Docket Nos. OA97-237-000, et al.

(g) All payments required hereunder shall be determined initially on an estimated basis, and then adjusted after the appropriate portion of the construction or modification costs has been reflected in OATT rates in the first adjustment of OATT rates after the upgrade has been placed in commercial operation.

(h) The provisions in this Section (3) with respect to allocation of costs for Generator Interconnection Related Upgrades of PTF for Category A projects are subject to further clarifications and/or modifications to reflect the outcome of proceedings in Commission Docket Nos. ER98-3853 (including any court appeals) and EL00-62-000, et al., and further Commission orders with respect thereto.

- (4) Treatment of Category B Project Transmission Costs. The costs of Generator Interconnection Related Upgrades in connection with a Category B Project shall be allocated in the same way as Generator Interconnection Related Upgrades for Category A projects.

- (5) Treatment of Category C Project Transmission Costs. If a Generator Interconnection Related Upgrade or an Elective Transmission Upgrade Interconnection Related Upgrade (collectively, “Upgrade”) is required in order to satisfy the Capacity Capability Interconnection Standard or the Network Capability Interconnection Standard (or its predecessor standard) in connection with a Category C Project, the Generator Owner or Elective Transmission Upgrade Interconnection Customer (“ETU IC”), as applicable, shall be obligated to pay all of the cost of such ~~upgrade~~Upgrade, including all Direct Interconnection Transmission Costs and any applicable tax gross-up amounts, to the extent such costs would not have been incurred but for the interconnection; provided that, if the ISO determines that a particular ~~Generator Interconnection Related~~Upgrade provides benefits to the system as a whole as well as to particular parties, then the cost of such Upgrade shall be allocated in the same way as Reliability Transmission Upgrades. If the Upgrade consists of Interconnecting Transmission Owner’s Interconnection Facilities, Network Upgrades, or Distribution Upgrades, including a Cluster Enabling Transmission Upgrade, that were identified under Clustering and are not included in Direct Interconnection Transmission Costs, then the costs to be paid by each Generator Owner or ETU IC (that is not the ETU IC for an ETU that is taking the place of a CETU, or portion thereof, pursuant to Section 4.2.3.4 of Schedule 22, Section 1.5.3.3.3.4 of Schedule 23, or Section 4.2.3.4 of Schedule 25, Section II of the Tariff) with an Interconnection Request included in the cluster shall be the total costs of such Upgrade multiplied by the ratio of the Generator Owner or ETU IC’s respective distribution impact divided by the total distribution impact of the entire cluster based on the following distribution factor cost allocation methodology.

Distribution Factor Cost Allocation Methodology: The distribution factor is the measure of responsiveness or change in electrical loading on system facilities due to a change in electric power transfer from one part of the electric system to another, expressed in percent of the change in power transfer. The calculation of the distribution factor for each of the eligible Upgrades shall: (i) use the final CSIS Study Case for summer peak load conditions; (ii) use the pre-contingency condition (i.e., no contingencies will be modeled); and, (iii) be conducted using a transfer from the injection point associated with the respective Generator Owner or ETU IC’s facility to New England Control Area load. The distribution impact of each Generator Owner or ETU IC with an Interconnection Request included in the cluster shall be determined by multiplying the Generator Owner or ETU IC’s respective distribution factor, as calculated above, by the Summer Network Resource Capability in the case of a Generating Facility or the absolute

value of the higher of the requested bidirectional capability that results in a positive distribution factor in the case of an Elective Transmission Upgrade. The total distribution impact of the entire cluster shall be the sum of all of the individual distribution impacts for the Generator Owners and ETU ICs with Interconnection Requests included in the cluster.

Where cost allocation for an Upgrade identified under Clustering cannot be determined using the distribution factor cost allocation methodology (e.g., a dynamic reactive device), each Generator Owner or ETU IC with an Interconnection Request included in the cluster shall be obligated to pay the costs of such Upgrade based upon its pro rata megawatt share of the Interconnection Requests included in the cluster study to be determined using the Summer Network Resource Capability in the case of a Generating Facility and the absolute value of the higher of the requested bidirectional capability in the case of an Elective Transmission Upgrade.

Following completion of the construction or modification, the Generator Owner or ETU IC shall be obligated to pay all (or, in the case of an Upgrade identified under Clustering, its share) of the annual costs (including federal and state income taxes, O&M and A&G expenses, annual property taxes and other related costs) which are allocable to the ~~Generator Interconnection Related~~ Upgrade, pursuant to the interconnection agreement (or support agreement) with the individual PTO or its designee which is responsible for the construction or modification, and such agreement may be filed with the Commission by the PTO, either signed or unsigned, on its own or at the request of the Generator Owner ~~or ETU IC~~.

A Generator Owner with a Generating Facility or ETU IC with an Elective Transmission Upgrade that achieves Commercial Operation within ten years of the In-Service Date of a Cluster Enabling Transmission Upgrade (to be referred to as a “Late Comer Project”) shall reimburse the entities (i.e., Generator Owner or ETU IC) that have contributed to the costs of the Cluster Enabling Transmission Upgrade by the amount of said entities’ corresponding reduction in Cluster Enabling Transmission Upgrade costs based on the comparison of the Cluster Enabling Transmission Upgrade cost allocation with and without the added Late Comer Project, if the Late Comer Project: (i) interconnects directly to the Cluster Enabling Transmission Upgrade, (ii) connects to a substation where the Cluster Enabling Transmission Upgrade terminates, or (iii) (a) is greater than five megawatt and is greater than one percent of the Cluster Enabling Transmission Upgrade normal rating, and (b) (1) has an impact on the Cluster Enabling

Transmission Upgrade that is greater than five percent of the Cluster Enabling Transmission Upgrade normal rating or (2) has a distribution factor on the Cluster Enabling Transmission Upgrade that is greater than or equal to 20 percent using the distribution factor methodology described above. A Generator Owner or ETU IC that has contributed to the costs of the Cluster Enabling Transmission Upgrade shall have the payments associated with the Cluster Enabling Transmission Upgrade adjusted based on the depreciation schedule that is being used for the Cluster Enabling Transmission Upgrade.

- (6) Treatment of Elective Transmission Upgrades for Generating Units. If a Generator Owner has requested an Elective Transmission Upgrade pursuant to Section II.47 of this OATT in connection with a new or materially changed generation unit, the Generator Owner shall be subject to the cost, credit assurance and contract obligations set forth in Section II.47 of this OATT and Schedule 12 to this OATT for Elective Transmission Upgrades.
- (7) Contract and Credit Requirements. If a Generator Interconnection Related Upgrade or an Elective Transmission Upgrade Interconnection Related Upgrade (collectively, "Upgrade") is required, the Generator Owner or Elective Transmission Upgrade Interconnection Customer ("ETU IC") requesting such upgrade, at the request of the PTO or its designee responsible for effecting the construction or modification, shall be obligated to pay to the PTO or its designee responsible for effecting the ~~Generator Interconnection Related Upgrade~~ an amount equal to its share of the estimated cost of the construction at one time or in monthly or other periodic installments, including, without limitation, all costs associated with acquiring land, rights of way easements, purchasing equipment and materials, installing, constructing, interconnecting, and testing the facilities; O&M and engineering costs; all related overheads; and any and all associated taxes and government fees. In addition to, or in lieu of said payment, the affected PTO or its designee may require the Generator Owner or ETU IC to provide, as security for its obligation to pay any unfunded balance of the construction costs, a letter of credit or other reasonable form of security acceptable to the PTO or its designee that will be responsible for the construction equivalent to the cost of the upgrade including taxes and consistent with relevant commercial practices, as established by the Uniform Commercial Code. As soon as reasonably practical, but in any event within 180 days after completion of the construction or modifications, or as otherwise mutually agreed, the PTO or its designee responsible for the construction or modification will determine the difference, if any, between the estimated cost already paid by the Generator Owner or ETU IC to the PTO or its designee responsible for the construction or modification and its share of the

actual cost of the construction or modification, and will either receive from the Generator Owner or ETU IC, with Interest (if the sum paid is insufficient) or pay to the Generator Owner or ETU IC, with Interest (if the sum paid is surplus) the difference; provided that if, at the time such determination is made, items of construction that remain to be completed and/or some construction costs have not been invoiced and paid, the PTO or its designee responsible for the construction or modification shall continue to be entitled to recover from the Generator Owner or ETU IC the Generator Owner or ETU IC's Owner's share of the costs of such remaining items and may retain a reserve to cover such items. Furthermore, the PTO shall release any letter of credit or other security instrument received by the PTO, up to the amount allowed to be recovered through the PTO's Annual Transmission Revenue Requirement for Category A and B Projects, no later than sixty (60) days after the later of the reflection of such costs in the regional rates and the commercial operation of the generation-Generating Facility or Elective Transmission Upgrade addition or modification. To the extent Generator Interconnection Related Upgrades, or any portion thereof, are completed in a calendar year, PTO will use their best efforts to reflect such facilities in their Annual Transmission Revenue Requirements calculated on the basis of that year. That portion of the construction or modification costs or deposit paid by the Generator Owner or ETU IC may, by mutual agreement of the PTO and the Generator Owner or ETU IC, either be retained by the PTO, or be refunded to the Generator Owner or ETU IC upon the Generator Owner or ETU IC executing a contract with the PTO obligating the Generator Owner or ETU IC to pay the PTO the ongoing transmission revenue requirement associated with its share of the Generator Interconnection Related Upgrade, including but not limited to cost of capital, federal and state income taxes, O&M and A&G costs, annual property taxes and all other related costs, and providing the PTO with an irrevocable letter of credit or other form of security acceptable to the PTO. In the event the Generator Owner or ETU IC's Owner's portion of the construction or modification costs is retained by the PTO or its designee in accordance with the preceding sentence, the Generator Owner or ETU IC will be obligated (i) to pay the federal and state income taxes required to be paid by the PTO with respect to the retained amount, and (ii) to pay annually its percentage of the O&M and A&G costs, annual property taxes and all other related costs, except for those costs required to be paid under (i) or any costs that are retained by the PTO in accordance with the interconnection agreement. If the Generator Owner or ETU IC for whatever reason goes out of business, or otherwise abandons its generation-Generating Facility or Elective Transmission Upgrade project and the Generator Interconnection Related Upgrade has already been partially or completely constructed, the Generator Owner or ETU IC shall be responsible for all of the unrecovered ongoing costs of the upgrade that would not have been incurred but for the



proposed generation [or ETU](#) project. Nothing contained herein shall prevent the PTO or its designee responsible for the construction or modification and the Generator Owner [or ETU IC](#) from negotiating other methods for providing financial security associated with the cost of an upgrade deemed acceptable to the PTO or other entity. Subject to the foregoing, the interconnection and support agreements for ~~a Generation Interconnection Related an~~ Upgrade may specify the basis for continued support of such upgrade in the event of the cancellation of the project due to a failure to obtain regulatory approvals or permits or required rights of way or other property, or action to terminate the project before its completion for whatever reason and any other matters.

Interest payable hereunder shall be calculated in accordance with Section II.8.3 of the OATT.

**SCHEDULE 22**

**LARGE GENERATOR INTERCONNECTION PROCEDURES**

## TABLE OF CONTENTS

SECTION 1.	DEFINITIONS
SECTION 2.	SCOPE, APPLICATION AND TIME REQUIREMENTS.
2.1	Application of Standard Large Generator Interconnection Procedures.
2.2	Comparability
2.3	Base Case Data
2.4	No Applicability to Transmission Service
2.5	Time Requirements
SECTION 3.	INTERCONNECTION REQUESTS
3.1	General
3.2	Type of Interconnection Services and Long Lead Time Facility Treatment
3.3	Valid Interconnection Request
3.4	OASIS Posting
3.5	Coordination with Affected Systems
3.6	Withdrawal
SECTION 4.	QUEUE POSITION
4.1	General
4.2	Clustering
4.3	Transferability of Queue Position
4.4	Modifications
SECTION 5.	PROCEDURES FOR TRANSITION
5.1	Queue Position for Pending Requests
5.2	Grandfathering
5.3	New System Operator or Interconnecting Transmission Owner
SECTION 6.	INTERCONNECTION FEASIBILITY STUDY
6.1	Interconnection Feasibility Study Agreement
6.2	Scope of Interconnection Feasibility Study
6.3	Interconnection Feasibility Study Procedures
6.4	Re-Study
SECTION 7.	INTERCONNECTION SYSTEM IMPACT STUDY

7.1	Interconnection System Impact Study Agreement
7.2	Execution of Interconnection System Impact Study Agreement
7.3	Scope of Interconnection System Impact Study
7.4	Interconnection System Impact Study Procedures
7.5	Meeting with Parties
7.6	Re-Study
7.7	Operational Readiness
SECTION 8.	INTERCONNECTION FACILITIES STUDY
8.1	Interconnection Facilities Study Agreement
8.2	Scope of Interconnection Facilities Study
8.3	Interconnection Facilities Study Procedures
8.4	Meeting with Parties
8.5	Re-Study
SECTION 9.	ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT
SECTION 10.	OPTIONAL INTERCONNECTION STUDY
10.1	Optional Interconnection Study Agreement
10.2	Scope of Optional Interconnection Study
10.3	Optional Interconnection Study Procedures
10.4	Meeting with Parties
10.5	Interconnection Agreement Developed Based on Optional Interconnection Study
SECTION 11.	STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)
11.1	Tender
11.2	Negotiation
11.3	Evidence to be Provided by Interconnection Customer; Execution and Filing of LGIA
11.4	Commencement of Interconnection Activities
SECTION 12.	CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES
12.1	Schedule
12.2	Construction Sequencing
SECTION 13.	MISCELLANEOUS
13.1	Confidentiality

- 13.2 Delegation of Responsibility
- 13.3 Obligation for Study Costs
- 13.4 Third Parties Conducting Studies
- 13.5 Disputes
- 13.6 Local Furnishing Bonds

## **APPENDICES TO LGIP**

APPENDIX 1 INTERCONNECTION REQUEST

APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT

APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 6 LARGE GENERATOR INTERCONNECTION AGREEMENT

APPENDIX 7 INTERCONNECTION PROCEDURES FOR WIND GENERATION

## **SECTION I. DEFINITIONS**

The definitions contained in this section are intended to apply in the context of the generator interconnection process provided for in this Schedule 22 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of generator interconnections under this Schedule 22. Capitalized terms in Schedule 22 that are not defined in this Section I shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**At-Risk Expenditure** shall mean money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability data bases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking



Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** shall mean that portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** shall mean: (i) in the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 5.2.3 of this LGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 5.2.3, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of

Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Large Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Engineering & Procurement ("E&P") Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin

engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning

and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner's Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** shall mean a Transmission Owner that owns, leases or otherwise possesses an interest, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Large Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Generating Facility with the Administered Transmission System under the Standard Large Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification,

addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements

of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of an existing Generation Facility; (iv) make a Material Modification to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System; (v) commence participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** shall mean the service provided by the System Operator, and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy



capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Standard Large Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**IRS** shall mean the Internal Revenue Service.

**Large Generating Facility** shall mean a Generating Facility having a maximum gross capability at or above zero degrees F of more than 20 MW.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in [Appendix 1](#), Attachment A [\(and Attachment A-1, if applicable\)](#) to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Initial

Synchronization Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource ("NR")** shall mean the portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability ("NR Capability")** shall mean the maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that

meets the criteria under Section 5.2.4 of this LGIP, the NR Capability shall mean the total megawatt amount determined pursuant to Section 5.2.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Large Generating Facility to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer’s Interconnection Facilities connect to the Interconnecting Transmission Owner’s Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for which new interconnection is sought; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for which new interconnection is sought; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for which new

interconnection is sought; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for which new interconnection is sought; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in this Schedule 22 to the Tariff.

**Standard Large Generator Interconnection Procedures (“LGIP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in this Schedule 22 to the Tariff.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this LGIP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

## **SECTION 2. SCOPE, APPLICATION AND TIME REQUIREMENTS.**

### **2.1 Application of Standard Large Generator Interconnection Procedures.**

The LGIP and LGIA shall apply to Interconnection Requests pertaining to Large Generating Facilities. Except as expressly provided in the LGIP and LGIA, nothing in the LGIP or LGIA shall be construed to limit the authority or obligations that the Interconnecting Transmission Owner or System Operator, as applicable, has with regard to ISO New England Operating Documents.

### **2.2. Comparability.**

The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. The System Operator and Interconnecting Transmission Owner will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by the Interconnecting Transmission Owner, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall provide Base Case power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists upon request to the Interconnection Customer and any third party consultant retained by the Interconnection Customer. For the purposes of this provision, Base Case Data may include the electromagnetic transient network model that does not include proprietary electromagnetic transient equipment models. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy as well as any other applicable requirement under Applicable Laws and Regulations regulating disclosure or confidentiality of such information. System Operator is permitted to require that Interconnection Customer or the third party consultant sign a confidentiality agreement before the release of information governed by Section 13.1 or the ISO New England Information Policy, or the release of any other information that is commercially sensitive or Critical Energy Infrastructure Information. Such databases and lists, hereinafter referred to as Base Cases, shall include all generation projects and transmission

projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. The Interconnection Customer, where applicable, shall provide Base Case Data to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

#### **2.4 No Applicability to Transmission Service.**

Nothing in this LGIP shall constitute a request for, nor the provision of, any service except for Interconnection Service, including but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

#### **2.5 Time Requirements.**

Parties that must perform a specific obligation under a provision of the Standard Large Generator Interconnection Procedure or Standard Large Generator Interconnection Agreement within a specified time period shall use Reasonable Efforts to complete such obligation within the applicable time period. A Party may, in the exercise of reasonable discretion and within the time period set forth by the applicable procedure or agreement, request that the relevant Party consent to a mutually agreeable alternative time schedule, such consent not to be unreasonably withheld.

### **SECTION 3. INTERCONNECTION REQUESTS.**

#### **3.1 General.**

To initiate an Interconnection Request, an Interconnection Customer must comply with all of the requirements set forth in Section 3.3.1. The Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. The Interconnection Customer must comply with the requirements specified in Section 3.3.1 for each Interconnection Request even when more than one request is submitted for a single site.

Within three (3) Business Days after its receipt of a valid Interconnection Request, System Operator shall submit a copy of the Interconnection Request to Interconnecting Transmission Owner.



At Interconnection Customer's option, System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

All deposits that must be submitted to the System Operator under this LGIP, must be delivered to the System Operator's [bank account](#) by electronic transfer within the period specified in the respective provision. [A deposit will not be considered received until it is in the System Operator's bank account.](#)

### **3.2 Type of Interconnection Services and Long Lead Time Facility Treatment**

At the time the Interconnection Request is submitted, the Interconnection Customer must request either CNR Interconnection Service or NR Interconnection Service, as described in Sections 3.2.1 and 3.2.2 below. An Interconnection Customer that meets the requirements to obtain CNR Interconnection Service shall obtain NR Interconnection Service up to the NR Capability upon completion of all requirements for NR Interconnection Service, including all necessary upgrades. Upon completion of all requirements for the CNR Interconnection Service, the Interconnection Customer shall also receive CNR Interconnection Service for CNR Capability. An Interconnection Customer that meets the requirements to obtain NR Interconnection Service shall receive NR Interconnection Service for the Interconnection Customer's NR Capability. At the time the Interconnection Request is submitted, the Interconnection Customer may also request Long Lead Facility treatment in accordance with Section 3.2.3.

#### **3.2.1 Capacity Network Resource Interconnection Service**

##### **3.2.1.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which CNRs are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Large Generating Facility to be designated as a CNR, and to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the CNR Capability or as otherwise provided in the Tariff, on the same basis as existing CNRs, and to be studied as a CNR on the assumption that such a designation will occur.

#### **3.2.1.2 The Studies.**

All Interconnection Studies for CNR Interconnection Service shall assure that the Interconnection Customer's Large Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit. The CNR Group Study for CNR Interconnection Service shall assure that the Interconnection Customer's Large Generating Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other CNRs and Elective Transmission Upgrades with CNI Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.1.3 Milestones for CNR Interconnection Service.**

In addition to the requirements set forth in this LGIP, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service shall complete the following milestones prior to receiving CNR Interconnection Service for the CNR Capability, such milestones to be specified in Appendix B of the LGIA, as either completed or to be completed: (i) submit the necessary requests for

participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date (except as modified pursuant to Sections 3.2.3 or 4.4 of this LGIP), in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Generating Facility's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a Capacity Supply Obligation. With respect to (iv) above, if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this LGIP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an LGIA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this LGIP shall be subject to re-study. The Appendices to the LGIA shall be amended (pursuant to Article 30 of the LGIA) to reflect CNR Capability and the results of the re-study.

### **3.2.2 Network Resource Interconnection Service**

#### **3.2.2.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which Network Resources are interconnected under the NC Interconnection Standard. NR Interconnection Service allows the Interconnection Customer's Large Generating Facility to participate in the New England Markets, in accordance with the provisions of Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as other Network Resources. Notwithstanding the above, the portion of a Large Generating Facility that has been

designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

#### **3.2.2.2 The Studies.**

The Interconnection Studies for an Network Resource shall assure that the Interconnection Customer's Large Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.2.3 Milestones for NR Interconnection Service.**

An Interconnection Customer with an Interconnection Request for NR Interconnection Service shall complete the requirements in this LGIP prior to receiving NR Interconnection Service.

### **3.2.3 Long Lead Time Facility Treatment**

#### **3.2.3.1 Treatment of Long Lead Facilities.**

Long Lead Facilities receive the treatment described herein in connection with the associated request of the Interconnection Customer for CNR Interconnection Service for its Large Generating Facility or CNI Interconnection Service for its External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility. Long Lead Facility treatment provides for the Interconnection Customer's Generating Facility or controllable Merchant Transmission Facility or Other Transmission Facility External ETU, after the completion of the Interconnection System Impact Study, to be modeled in the Base Cases for the next CNR Group Study to determine whether the Long Lead Facility would have qualified or enabled the qualification of an Import Capacity Resource to participate in the Forward

Capacity Auction associated with that CNR Group Study, in accordance with Section III.13.1.2 of the Tariff, but for the Long Lead Facility's development cycle (which shall include development of required transmission upgrades). If the Long Lead Facility is deemed to qualify or have enabled an associated Import Capacity Resource to qualify, the Long Lead Facility shall be included in the re-study pursuant to Section 3.2.1.3(iv) in order to determine the facilities and upgrades that would be necessary in order to accommodate the Interconnection Request of the Long Lead Facility, and for which costs the Interconnection Customer must be responsible. In order to maintain Long Lead Facility status, the Interconnection Customer must commit to the completion of these facilities and upgrades in time to allow the Long Lead Facility to achieve its Commercial Operation Date by the start of the associated Capacity Commitment Period. In addition, the Long Lead Facility will be treated as a New Generating Capacity Resource in the case of a Generating Facility or as if an Import Capacity Resource associated with the Long Lead Facility cleared in the case of an External ETU for the sole purpose of inclusion of the Long Lead Facility in the CNR Group Studies for the Forward Capacity Auctions that precede the Forward Capacity Auction for the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation. If an earlier-queued Generating Facility seeking CNR Interconnection Service or an Import Capacity Resource associated with an Elective Transmission Upgrade that is seeking CNI Interconnection Service obtains a Capacity Supply Obligation in a Forward Capacity Auction prior to or simultaneous with the Forward Capacity Auction in which the Long Lead Facility or its contractual counterparty in the case of an Elective Transmission Upgrade obtains a Capacity Supply Obligation, the Long Lead Facility will be re-studied in order to determine whether any additional facilities and upgrades to those identified prior to the CNR Group Study must be completed, at the Interconnection Customer's cost, prior to its Commercial Operation Date. A Long Lead Facility's cost responsibility for the facilities necessary to accommodate the Interconnection Request shall not be impacted by a Generating Facility or an External ETU with a Queue Position lower than the Long Lead Facility or its counterparty in the case of an External ETU that clears in a Forward Capacity Auction, in accordance with Section III.13.2 of the Tariff, prior to the clearance of the Long Lead Facility.

#### **3.2.3.2 Request for Long Lead Facility Treatment.**

An Interconnection Customer requesting CNR Interconnection Service for its proposed Generating Facility or CNI Interconnection Service for its proposed controllable Merchant Transmission Facility or Other Transmission Facility External ETU, which the Interconnection Customer projects to have a

development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) may elect or request Long Lead Facility treatment in the following manner:

(a) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service equal to or greater than 100 MW may elect Long Lead Facility treatment at the time the Interconnection Request is submitted, together with the critical path schedule and deposits required in Section 3.2.3.3.

(b) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service under 100 MW may request Long Lead Facility treatment by submitting a written request to the System Operator for its review and approval, explaining why the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU cannot achieve Commercial Operation by the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for Long Lead Facility treatment is made), together with the critical path schedule and deposits required in Section 3.2.3.3. In reviewing the request, the System Operator shall evaluate the feasibility of the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU achieving Commercial Operation to meet an earlier Capacity Commitment Period based on the information provided in the request and the critical path schedule submitted pursuant to Section 3.2.3.3, in a manner similar to that performed under Section III.13.3.2 of the Tariff. Within forty-five (45) Business Days after its receipt of the request for Long Lead Facility treatment, the System Operator shall notify the Interconnection Customer in writing whether the request has been granted or denied. If the System Operator determines that the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU can achieve a Commercial Operation Date prior to the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction, the Interconnection Customer's request shall be denied. The dispute resolution provisions of the LGIP in the case of a Generating Facility or the ETU IP for

an External ETU are not available for disputes or claims associated with the ISO's determination to deny an Interconnection Customer's request for Long Lead Facility treatment.

(c) An Interconnection Customer that did not request Long Lead Facility treatment at the time the Interconnection Request was submitted, may thereafter submit a request for treatment as a Long Lead Facility, together with the critical path schedule and deposits required in Section 3.2.3.3 and, if applicable, a request for an extension of the Commercial Operation Date specified in the Interconnection Request in accordance with Sections 4.4.4 and 4.4.5. A request for Long Lead Facility treatment that is submitted after the initial Interconnection Request will not be eligible to participate in any Forward Capacity Auction prior to the Forward Capacity Auction associated with the extended Commercial Operation Date. The Long Lead Facility will be modeled in the Base Cases for the CNR Study Group associated with the near term Forward Capacity Auction unless that CNR Study Group is underway, in which case the Long Lead Facility will be modeled in the next CNR Study Group.

### **3.2.3.3 Critical Path Schedule and Deposits for Long Lead Facility Treatment.**

At the time an Interconnection Customer submits an election or request for Long Lead Facility treatment, the Interconnection Customer must submit, together with the request:

**(1) Critical Path Schedule.** A critical path schedule, in writing, for the Long Lead Facility (with a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) that meets the requirements set forth in Section III.13.1.1.2.2.2 of the Tariff. The Interconnection Customer must submit annually, in writing, an updated critical path schedule to the System Operator by the closing deadline of each New Capacity Show of Interest Submission Window that precedes the Forward Capacity Auction associated with the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation, prior to the inclusion of the Long Lead Facility in the Base Case for the CNR Group Study associated with the corresponding New Capacity Show of Interest Submission Window. With its annual update, for each critical path schedule milestone achieved since the submission of the previous critical path schedule update, the Interconnection Customer must include in the

critical path update documentation demonstrating that the milestone has been achieved by the date indicated and as otherwise described in the critical path schedule.

**(2) Long Lead Facility Deposits.**

**(a) Deposits.** In addition to the deposits required elsewhere in the LGIP in the case of a Generating Facility or the ETU IP for External ETU, at the time of its request for Long Lead Facility treatment, in accordance with Section 3.2.3.3, and by each deadline for which a New Generating Capacity Resource is required to provide financial assurance under Section III.13.1.9.1 of the Tariff, the Interconnection Customer must provide a separate deposit in the amount of  $0.25 * (\text{Forward Capacity Auction Starting Price } (\$/\text{kW-mo}) / 2) * \text{requested CNR Capability or CNI Capability}$ . For each calculation of the deposit, the System Operator shall use the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction at the time of that calculation, pursuant to Section III.13.2.4 of the Tariff, or the Forward Capacity Auction Starting Price for the previous Forward Capacity Auction in the case where the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction has not yet been calculated. The total amount of deposits shall not exceed the Non-Commercial Capacity Financial Assurance Amount that the Long Lead Facility would be required to provide if the Long Lead Facility or its counterparty cleared in the upcoming Forward Capacity Auction, in accordance with Section III.13.1.9.1 of the Tariff. The Long Lead Facility deposits will be fully refunded (with interest to be calculated in accordance with Section 3.6) (i) if the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days of the Scoping Meeting or of the completion of the System Impact Study (including restudy of the System Impact Study), pursuant to Section 7, or (ii) once the Long Lead Facility or its counterparty clears in a Forward Capacity Auction.

**(b) Reductions.** Ten (10) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) after the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear in the Forward Capacity Auction that follows the first Forward Capacity Auction for which the Long Lead Facility or its



counterparty could qualify based on the Commercial Operation Date specified in the initial critical path schedule for the Long Lead Facility. An additional five (5) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) following each subsequent Forward Capacity Auction in which the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear such Forward Capacity Auction, not to exceed the maximum period allowed under Sections 3.3.1, 4.4.4 and 4.4.5. The non-refundable portions of the deposits shall be credited to the revenue requirements under Schedule 1 of Section IV of the Tariff.

#### **3.2.3.4 Withdrawal and Refunds After Expenditures for Upgrades.**

An Interconnection Customer that provides documentation in the critical path schedule update to be submitted in accordance with Section 3.2.3.3(1), showing expenditures of the required amounts for upgrades identified in the Interconnection Studies for the Long Lead Facility, may submit a withdrawal of the Interconnection Request for the Long Lead Facility, in accordance with Section 3.6, at any time up to thirty (30) Calendar Days, after the Long Lead Facility's or its counterparty's failure to clear in any Forward Capacity Auction. In such instance, the Interconnection Customer shall receive a refund from the System Operator of the Long Lead Facility deposits (with interest to be calculated in accordance with Section 3.6) as adjusted pursuant to 3.2.3.3(2), if appropriate, and from the Interconnecting Transmission Owner a refund of the payments for the upgrades that exceed the costs incurred by the Interconnecting Transmission Owner. If the Interconnection Customer withdraws only its election or request for Long Lead Facility treatment, such withdrawal will be considered a Material Modification and the Long Lead Facility will lose its Queue Position unless its withdrawal occurs within one of the thirty (30)-day periods described in Section 3.2.3.3(2) of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU.

#### **3.2.3.5 Additional Requirements to Maintain Long Lead Facility Treatment.**

An Interconnection Customer with a Long Lead Facility must begin payment as required by the transmission expenditure schedule for the transmission upgrade costs that have been identified in the pertinent Interconnection Studies. The Interconnection Request for CNR Interconnection Service shall be deemed withdrawn under Section 3.6 if the Interconnection Customer fails to comply with the

requirements for Long Lead Facility treatment, including the milestones specified in Section 3.2.1.4. In this circumstance, the conditions specified in an Interconnection Agreement for a Generating Facility seeking CNR Interconnection Service or External ETU seeking CNI Interconnection Service that had an Interconnection Request of a Queue Position lower than the Long Lead Facility, but cleared (in the case of the Elective Transmission Upgrade, the Import Capacity Resource) in a Forward Capacity Auction prior to the Long Lead Facility, shall be removed.

#### **3.2.3.6 Participation in Earlier Forward Capacity Auctions.**

An Interconnection Customer with a Long Lead Facility may, without loss of Queue Position, elect to participate in an earlier Forward Capacity Auction than originally anticipated, but only if the election to accelerate is made to the System Operator in writing within thirty (30) Calendar Days of the Scoping Meeting or within thirty (30) Calendar Days of the completion of the System Impact Study (but before the Long Lead Facility and the results of the associated System Impact Study are incorporated into the Base Cases). Otherwise, such an election shall be considered a Material Modification.

### **3.3 Valid Interconnection Request.**

#### **3.3.1 Initiating an Interconnection Request.**

To initiate and establish a valid Interconnection Request, Interconnection Customer must submit all of the following to the System Operator in the manner specified in Appendix 1 Interconnection Request to this LGIP: (i) an initial deposit of \$50,000, (ii) a completed application in the form of Appendix 1, (iii) all information and deposits required under Section 3.2, and (iv) in the case of a request for CNR Interconnection Service, demonstration of Site Control or, in the case of a request for NR Interconnection Service, demonstration of Site Control or a posting of an additional deposit of \$10,000. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The portions of the deposit of \$50,000 that have not been applied as provided in this Section 3.3.1 shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that

is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in relative order with any other Interconnection Request also requesting to be re-queued pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit of \$50,000 (and any study-related deposits, if any have been submitted) shall be applied toward the re-queued Interconnection Request's initial deposit of \$50,000 and any remaining balance will be refunded, or (iv) if the Interconnection Customer executes an LGIA. Otherwise, any unused balance of the deposit of \$50,000 shall be non-refundable and applied on a pro-rata basis to offset costs incurred by Interconnection Customers with lower Queue Positions that are subject to re-study, as determined by the System Operator in accordance with the provisions of this LGIP, as a result of the withdrawal of an Interconnection Request with a higher Queue Position.

The deposit of \$50,000 shall be applied toward the costs incurred by the System Operator associated with the Interconnection Request and Long Lead Facility treatment, as well as, the costs of the Interconnection Feasibility Study and/or the Interconnection System Impact Study, including the cost of developing the study agreements and their attachments, and the cost of developing the LGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit of \$50,000 also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.

If, in the case of a request for NR Interconnection Service, the Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.3.3 after submitting its Interconnection Request, the additional deposit of \$10,000 shall be refundable; otherwise, that deposit shall be applied as provided in Section 3.1, including, toward the costs of any Interconnection Studies pursuant to the Interconnection Request, the cost of developing the study agreement(s) and associated attachment(s), and the cost of developing the LGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. The portions of the deposit of \$10,000 that have not been applied as provided in this Section 3.3.1 also shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request,

pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit shall be applied toward the re-queued Interconnection Request in lieu of Site Control for NR Interconnection Service, or (iv) if the Interconnection Customer executes an LGIA.

The expected Initial Synchronization Date of the new Large Generating Facility, of the increase in capacity of the existing Generating Facility, or of the implementation of the Material Modification to the existing Generating Facility shall not exceed seven (7) years from the date the Interconnection Request is received by the System Operator, unless the Interconnection Customer demonstrates that such time required to actively engineer, permit and construct the new Large Generating Facility or increase in capacity of the existing Generating Facility or implement the Material Modification to the existing Generating Facility will take longer than the seven year period. Upon such demonstration, the Initial Synchronization Date may succeed the date the Interconnection Request is received by the System Operator by a period of greater than seven (7) years so long as the Interconnection Customer, System Operator, and Interconnecting Transmission Owner agree, such agreement shall not be unreasonably withheld.

### **3.3.2 Acknowledgment of Interconnection Request.**

System Operator shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement. With the System Operator's acknowledgement of a valid Interconnection Request, the System Operator shall provide to the Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2 or an Interconnection System Impact Study Agreement in the form of Appendix 3.

### **3.3.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid [Interconnection Request](#) until all items in Section 3.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, the System Operator shall notify the Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

#### **3.3.4 Scoping Meeting.**

Within ten (10) Business Days after receipt of a valid Interconnection Request, System Operator shall establish a date agreeable to Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, for a Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be (i) to discuss the estimated timeline for completing all applicable Interconnection Studies, and alternative interconnection options, (ii) to exchange pertinent information including any transmission data that would reasonably be expected to impact such interconnection options, (iii) to analyze such information, (iv) to determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. A PSCAD model is required for all wind and inverter-based Large Generating Facilities. If a PSCAD model is required for other Large Generating Facility types, the Parties shall discuss this at the Scoping Meeting. If the Interconnection Customer provided the technical data called for in Appendix 1, Attachment A ([and Attachment A-1, if applicable](#)) with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

The Parties will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) information regarding general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose

of the meeting. The Parties will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 6.1, and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS, Wwithin five (5) Business Days following the Scoping Meeting Interconnection Customer shall notify the System Operator, in writing, (i) whether it wants the Interconnection Feasibility Study to be completed as a separate and distinct study or as part of the Interconnection System Impact Study; (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternate study scopes is being selected pursuant to Section 6.2; and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

### **3.4 OASIS Posting.**

The System Operator will maintain on its OASIS a list of all Interconnection Requests in its Control Area. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected Initial Synchronization Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested (i.e., CNR Interconnection Service or NR Interconnection Service); and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes an LGIA or requests that the System Operator and Interconnecting Transmission Owner jointly file an unexecuted LGIA with the Commission. Before participating in a Scoping Meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on

OASIS an advance notice of its intent to do so. The System Operator shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to the System Operator's OASIS site subsequent to the meeting between the System Operator, Interconnecting Transmission Owner, and Interconnection Customer to discuss the applicable study results. The System Operator shall also post any known deviations in the Large Generating Facility's Initial Synchronization Date.

### **3.5 Coordination with Affected Systems.**

The System Operator will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected Parties and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. The System Operator will include such Affected Parties in all meetings held with the Interconnection Customer as required by this LGIP. The Interconnection Customer will cooperate with the System Operator and Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies).

The System Operator shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Party(ies).

### **3.6 Withdrawal.**

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 13.5 (Disputes), the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the

Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this LGIP, Upon receipt of such written notice, ~~if the Interconnection Customer wishes to dispute the withdrawal notice, the Interconnection Customer~~ shall have fifteen (15) Business Days, ~~unless otherwise provided elsewhere in this LGIP,~~ in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue Dispute Resolution, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

The System Operator shall update the OASIS Queue Position posting. Except as otherwise provided elsewhere in this LGIP, the System Operator and the Interconnecting Transmission Owner shall arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations, or arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations. In the event of such withdrawal, System Operator, subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.



## SECTION 4. QUEUE POSITION.

### 4.1 General.

System Operator shall assign a Queue Position based up on the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form in Appendix 1 to this LGIP, and Interconnection Customer provides such information in accordance with Section 3.3.3, then System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally ~~submitted~~filed.

Except as otherwise provided in this Section 4.1, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be eligible for inclusion in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and ~~(iii)~~(iv) the cost responsibility for the facilities and upgrades necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is lower queued.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 4.2 of this LGIP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

#### 4.1.1 Order of Interconnection Requests in the CNR Group Study

Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section

III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance with Section III.13.1.1.2 of the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New

Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Appendix A to the Interconnection Agreement for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

#### **4.2 Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.

##### **4.2.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same

electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator determined that none of the Interconnection Requests identified in (a) of this Section 4.2.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at or above 115 kV AC or HVDC.

#### **4.2.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 4.2.1 of this LGIP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 4.2.1 of this LGIP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will be suspended and they will proceed under Section 4.2 of this LGIP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 4.2.1 of this LGIP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated system upgrades, in accordance with this LGIP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 4.2.1 shall submit the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable), to support the conduct of the CRPS.

#### **4.2.3 Cluster Interconnection System Impact Study.**

##### **4.2.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry deadline for the CSIS (the “Cluster Entry Deadline”) to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

**4.2.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 4.1 of this LGIP, shall be eligible to be studied together in the CSIS.

**4.2.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 3.6;
- (ii) request that the System Operator re-assign the Interconnection Customer’s Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 4.2.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 4.2.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 4.2.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the

incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.

#### **4.2.3.2.2 CSIS Entry Requirements.**

An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 4.2.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator a completed Cluster System Impact Study Application in the form specified in Appendix 1, Attachment A-2 of this LGIP, requesting the inclusion of the Interconnection Request in the CSIS;

#### **(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.**

If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection System Impact Study Agreement in accordance with this Section 4.2.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS.

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable), and a

refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 7.2 of this LGIP.

**(3) Cluster Participation Deposit for the CSIS.** By the Cluster Entry Deadline, Interconnection Customer also must submit to the System Operator an initial Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this LGIP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the CSIS is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 4.2.3.3.2 of this LGIP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25) percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Sections 7.5 and 8.3 of this LGIP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS or CFAC remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this LGIP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting

Transmission Owner the deposit specified in Section 11.3.1.2 of this LGIP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.2.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**4.2.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the final CRPS report as potentially enabled by the CETU. The Interconnection Requests will be included in the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 4.1 of this LGIP, relative to other eligible Interconnection Requests.

**4.2.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity of megawatts identified as potentially enabled by the CETU in the final CRPS report having been exhausted in queue order under Section 4.2.3.3.1, (i) the initial Cluster Participation Deposit will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more such Interconnection Requests after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.



**4.2.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 4.2.3.3.1 of this LGIP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Large Generating Facility (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 4.2.3.2 of this LGIP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**4.2.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 4.2.3.4, the CSIS shall be conducted in accordance with Sections 7.3 and 7.4 of this LGIP. The Study Case developed for the CSIS shall also include the CETU and associated system upgrades identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New England Transmission System under the NC Interconnection Standard consistent with Section 3.2.2 of this LGIP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 7.3 of this LGIP except for analysis associated with an Interconnection

Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**4.2.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 7.6 of this LGIP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

**4.2.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this LGIP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

**4.2.4.1 Cluster Interconnection Facilities Study Entry Requirements.** An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 8.1 of this LGIP.

**4.2.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 8.2 and 8.3 of this LGIP based on a +/- 20 percent good faith cost estimate.

**4.2.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 8.5 of this LGIP, a re-study of the CFAC is required due to the withdrawal of an Interconnection

Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

**4.2.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 8.3 of this LGIP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 4.2.4 will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this LGIP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 4.2.3.2.2(3) (v), (vi), or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

Clustering shall be implemented on the basis of Queue Position. If the System Operator elects to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) Calendar Days, hereinafter referred to as the "Queue Cluster

~~Window” shall be studied together. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 7.4, for all Interconnection Requests assigned to the same Queue Cluster Window. The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on System Operator’s OASIS beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.~~

~~Clustering Interconnection System Impact Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the New England Transmission System’s capabilities at the time of each study. The System Operator may study an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.~~

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee’s contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

#### **4.4 Modifications.**

The Interconnection Customer shall submit to System Operator and Interconnecting Transmission Owner, in writing, modifications to any information provided in the Interconnection Request, including its attachments. The Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1 or 4.4.4, or are determined not to be Material Modifications pursuant to Section 4.4.2. The System Operator will notify the Interconnecting Transmission Owner, and, when System Operator deems it appropriate in accordance with applicable codes of conduct and confidentiality requirements, it will notify any Affected Party of such modifications.

A request to: (1) increase the energy capability or capacity output of a Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to Section 5.2 of this LGIP shall require a new Interconnection Request for the incremental increase and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis; and (2) change from NR Interconnection Service to CNR Interconnection Service, at any time, shall require a new Interconnection Request for CNR Interconnection Service and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis. Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service has until the Forward Capacity Auction for which the associated Capacity Commitment Period begins less than seven (7) years (or the years agreed to pursuant to Section 3.3.1 or Section 4.4.5) from the date of the original Interconnection Request for CNR Interconnection Service to clear the entire megawatt amount for which CNR Interconnection Service was requested. A new Interconnection Request for CNR Interconnection Service will be required for the Generating Facility to participate in any subsequent auctions.

During the course of the Interconnection Studies, either the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes do not constitute a Material Modification and are acceptable to the Parties, such acceptance not to be unreasonably withheld, System Operator and the Interconnecting Transmission Owner shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

**4.4.1** Prior to the commencement of the Interconnection System Impact Study, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW)

of the proposed ~~project~~ Large Generating Facility; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. Notwithstanding the foregoing, an Interconnection Customer may decrease the electrical output of a proposed Large Generating Facility after the Cluster Entry Deadline specified in Section 4.2.3.1 of this LGIP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline.

**4.4.2** Prior to making any modification other than those specifically permitted by Sections 4.4.1 and 4.4.4, Interconnection Customer may first request that the System Operator and Interconnecting Transmission Owner evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, the System Operator in consultation with the Interconnecting Transmission Owner, and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall evaluate, at the Interconnection Customer's cost, the proposed modifications prior to making them and the System Operator will inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.3** Upon receipt of Interconnection Customer's request for modification that does not constitute a Material Modification and therefore is permitted under this Section 4.4, the System Operator in consultation with the Interconnecting Transmission Owner and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall commence and perform any necessary additional studies as soon as practicable, but in no event shall the System Operator, Interconnecting Transmission Owner, or Affected Party commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

**4.4.4** Extensions of less than three (3) cumulative years in the Commercial Operation Date, In-Service Date or Initial Synchronization Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing, provided that the extension(s) do not exceed seven (7) years from the date the Interconnection Request was received by the System Operator.

**4.4.5** Extensions of three (3) or more cumulative years in the Commercial Operation Date, In-Service Date or Initial Synchronization Date of the Large Generating Facility to which the Interconnection Request relates or any extension of a duration that results in the Initial Synchronization Date exceeding the date the Interconnection Request was received by the System Operator by seven (7) or more years is a Material Modification unless the Interconnection Customer demonstrates to the System Operator due diligence, including At-Risk Expenditures, in pursuit of permitting, licensing and construction of the Large Generating Facility to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date provided in the Interconnection Request. Such demonstration shall be based on evidence to be provided by the Interconnection Customer of accomplishments in permitting, licensing, and construction in an effort to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date provided in this Interconnection Request. Such evidence may include filed documents, records of public hearings, governmental agency findings, documentation of actual construction progress or documentation acceptable to the System Operator showing At-Risk Expenditure made previously, including the previous four (4) months. If the evidence demonstrates that the Interconnection Customer did not undertake reasonable efforts to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date specified in the Interconnection Request, or demonstrates that reasonable efforts were not undertaken until four (4) months prior to the request for extension, the request for extension shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed Material Modification or proceed with a new Interconnection Request for such modification.

## **SECTION 5. PROCEDURES FOR TRANSITION.**

### **5.1 Queue Position for Pending Requests.**

**5.1.1** Any Interconnection Customer assigned a Queue Position prior to ~~April 17, 2016~~November 1, 2017, shall retain that Queue Position subject to Section 4.4 of the LGIP.

**5.1.1.1** If an Interconnection Study Agreement has not been executed prior to ~~April 17, 2016~~November 1, 2017, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this LGIP in effect on November 1, 2017~~April 17, 2016~~ (or as revised thereafter).

**5.1.1.2** If an Interconnection Study Agreement has been executed prior to ~~April 17, 2016~~November 1, 2017 and is actively under study, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to November 1, 2017~~April 17, 2016~~, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the LGIP in effect on November 1, 2017~~April 17, 2016~~. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 4.2.3.2 of this LGIP within thirty (30) Calendar Days from the later of November 1, 2017 or the issuance of the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure. If the Interconnection Study has not commenced, within sixty (60) Calendar Days from April 17, 2016, Interconnection Customer shall submit an updated Interconnection Request together with completed attachments and models required therein to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the Interconnection Study. Updates to the Interconnection Request and attachments thereto will be subject to review pursuant to Section 4.4 of this LGIP. Notwithstanding any other provision in



~~this LGIP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) Calendar Days, the Interconnection Request shall be deemed withdrawn.~~

**5.1.2 Transition Period.** To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an LGIA has neither ~~April 17, 2016~~ been executed nor submitted to the Commission for approval prior to ~~April 17, 2016~~November 1, 2017), Interconnecting Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the LGIP in effect as of ~~April 17, 2016~~November 1, 2017 (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request” herein shall mean any Interconnection Request, on ~~April 17, 2016~~November 1, 2017: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related LGIA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding Interconnection Request as of the effective date of this LGIP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this LGIP.

**5.1.3 One-Time Election for CNR Interconnection Service at Queue Position Assigned Prior to February 1, 2009.**

An Interconnection Customer with an outstanding Interconnection Request will be eligible to make a one-time election to be considered for CNR Interconnection Service at the Queue Position assigned prior to February 1, 2009. The Interconnection Customer’s one-time election must be made by the end of the New Generating Capacity Show of Interest Submission Window for the fourth Forward Capacity Auction. The Interconnection Customer’s one-time election may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. Interconnection Customers requesting CNR Interconnection Service will be required to comply with the

requirements for CNR Interconnection Service set forth in Section 3.2.1. Interconnection Customers requesting CNR Interconnection Service that have not received a completed Interconnection System Impact Study may request a preliminary, non-binding, analysis of potential upgrades that may be necessary for the fourth Forward Capacity Auction – the prompt or near-term auction – pursuant to Sections 6.3 or 7.3, whichever is applicable.

## **5.2 Grandfathering.**

**5.2.1** An Interconnection Customer's Generating Facility that is interconnected pursuant to an Interconnection Agreement executed or submitted to the Commission for approval prior to February 1, 2009, will maintain its status as a Network Resource with Network Resource Interconnection Service eligible to participate in the New England Markets, in accordance with the requirements of Market Rule 1, Section III of the Tariff, up to the megawatt amount specified in the Interconnection Agreement, subject to the Interconnection Customer satisfying all requirements set forth in the Interconnection Agreement and this LGIP. If the Generating Facility does not meet the criteria set forth in Section 5.2.3 of this LGIP, the Interconnection Customer will be eligible to make a one-time election, pursuant to Section 5.1.3, for Capacity Network Resource treatment without submitting a new Interconnection Request; however, the Interconnection Customer will be required to comply with the requirements for CNR Interconnection Service set forth in Section 3.2.1. Upon completion of the requirements to obtain CNR Interconnection Service, the Interconnection Customer's Interconnection Agreement shall be amended to conform to the LGIA in Appendix 6 of this LGIP.

**5.2.2** An Interconnection Customer's Generating Facility governed by an Interconnection Agreement either executed or filed with the Commission in unexecuted form prior to August 1, 2008, shall maintain the Queue Position assigned as of August 1, 2008, and be eligible to participate in the New England Markets, in accordance with the requirements in Market Rule 1, Section III of the Tariff, as in effect as of August 1, 2008, so long as the Interconnection Customer complies with all of the requirements specified in the Interconnection Agreement, including achieving the milestones associated with At-Risk Expenditures, subject to Section 4.4 of this LGIP.

**5.2.3** All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a CNR and obtain CNR Interconnection Service, in accordance with this LGIP, up to the CNR Capability of the resource. The grandfathered CNR Capability for these resources shall be equal to the megawatt amount established pursuant to the following hierarchy:

- (a) First, the megawatt amount specified in an Interconnection Agreement (whether executed or filed in unexecuted form with the Commission).
- (b) Second, in the absence of an Interconnection Agreement with a specified megawatt amount, the megawatt amount specified in an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision).
- (c) Third, in the absence of an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) with a specified megawatt amount, as determined by the System Operator based on documented historic capability of the Generating Facility.

Where a resource has both an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision), the lower megawatt amount will govern until the resource completes the applicable process(es) under the Tariff for obtaining the higher megawatt amount. The absence of an Interconnection Agreement or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) specifying a megawatt amount shall be confirmed by an affidavit executed by a corporate officer of the resource attesting that the resource does not have an Interconnection Agreement and/or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) that specifies a megawatt amount.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) specifies a megawatt amount at an ambient temperature consistent with the definition of CNR Capability, the grandfathered CNR Capability shall be equal to that amount.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of CNR Capability.

Where the implementation of this Section 5.2.3 results in a CNR Capability that is different than previously had been identified, the revised CNR Capability will be applied commencing with the next Forward Capacity Auction qualification process (after the revised CNR Capability value is identified), which is initiated by the closing deadline of the Show of Interest Submission Window in accordance with Section III.13 of the Tariff. The revised CNR Capability will continue to govern until the resource completes the applicable process(es) for obtaining the higher megawatt amount.

**5.2.4** All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a NR and obtain NR Interconnection Service, in accordance with this LGIP, up to the NR Capability of the resource. The grandfathered NR Capability shall be determined pursuant to the hierarchy set forth in Section 5.2.3.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) of a resource for which a temperature-adjustment curve is used for the claimed capability verification, as set forth in the ISO New England Manuals, specifies a megawatt amount at an ambient temperature, the grandfathered NR Capability shall be equal to a temperature-adjusted value consistent with the definition of NR Capability.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of NR Capability.

### **5.3 New System Operator or Interconnecting Transmission Owner.**

If the System Operator transfers operational control of the New England Transmission System to a successor System Operator during the period when an Interconnection Request is pending, the System Operator shall transfer to the successor System Operator any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The System Operator shall coordinate with the

successor System Operator to complete any Interconnection Study, as appropriate, that the System Operator has begun but has not completed.

If the Interconnecting Transmission Owner transfers ownership of its transmission facilities to a successor transmission owner during the period when an Interconnection Request is pending, and System Operator in conjunction with Interconnecting Transmission Owner has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with the Commission, unless otherwise provided, the Interconnection Customer must complete negotiations with the successor transmission owner.

## **SECTION 6. INTERCONNECTION FEASIBILITY STUDY.**

### **6.1 Interconnection Feasibility Study Agreement.**

Except as otherwise provided in Section 4.2.3.4 of this LGIP, the Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study under this Section 6, or as part of the Interconnection System Impact Study under Section 7. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the System Operator's and Interconnecting Transmission Owner's receipt from the Interconnection Customer of its designation of the Point(s) of Interconnection and of the type of study to be performed pursuant to Section 3.3.4, System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its

attachment(s). No later than thirty (30) Calendar Days after its receipt of the Interconnection Feasibility Study Agreement, (a) the Interconnection Customer shall execute and deliver the agreement to System Operator and the Interconnecting Transmission Owner, (b) the Interconnection Customer shall also deliver the refundable deposit for the Interconnection Feasibility Study to the System Operator, and (c) the technical data called for in Appendix 1, Attachment B. The deposit for the study shall be 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold any amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection Feasibility Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable) or Attachment B, depending on the scope elected pursuant to Section 3.3.1. If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection Feasibility Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection Feasibility Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided,

however, such deficiency does not include failure to deliver the executed Interconnection Feasibility Study Agreement or deposit.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to the Parties, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

## **6.2 Scope of Interconnection Feasibility Study.**

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information.

The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a

limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement.

The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities, and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A [\(and Attachment A-1, if applicable\)](#) with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Large Generating Facility as identified within the scope of the analysis performed as part of the study.

To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.



### **6.3 Interconnection Feasibility Study Procedures.**

The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection Feasibility Study Agreement, study deposit and required technical data in accordance with Section 6.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator with input from the Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow and short circuit databases that have been developed for the Interconnection Feasibility Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **6.3.1 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

### **6.4 Re-Study.**

If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-designation of the Point of Interconnection pursuant to Section 6.1, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take not longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement.

The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

## **SECTION 7. INTERCONNECTION SYSTEM IMPACT STUDY.**

### **7.1 Interconnection System Impact Study Agreement.**

If the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the Interconnection Feasibility Study results meeting, or subsequent to the Scoping Meeting within five (5) Business Days following the receipt of designation of the Point(s) of Interconnection and type of study to be performed pursuant to Section 3.3.4, if the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe for commencing and completing the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA.

## **7.2 Execution of Interconnection System Impact Study Agreement.**

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after its receipt along with a demonstration of Site Control and the technical data called for in Appendix 1, Attachment A [\(and Attachment A-1, if applicable\)](#), and the Interconnection Customer shall also deliver a refundable deposit. An Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The deposit for the study shall be: (i) the greater of 100 percent of the estimated cost of the study or \$250,000; or (ii) the lower of 100 percent of the estimated costs of the study or \$50,000, if the Interconnection Customer can provide: (1) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, required in support of the Interconnection Request or written certification that Major Permits are not required, or (2) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amounts of money described in (i) above; or (iii) the lower of 100 percent of the estimated costs of the study or \$50,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA. [For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.](#) Any difference between the study deposit and the actual cost of the Interconnection System Impact Study [or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS](#) shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the LGIA. [In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster.](#) If the Interconnection Customer elects the deposit described in (ii) above, the System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection System Impact Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A [\(and Attachment A-1, if applicable\)](#); provided that if a PSCAD model for a non-wind or non-inverter-based Large Generating Facility was determined to be needed at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days

from the ~~date of the Scoping Meeting or the~~ execution of the System Impact Study Agreement ~~(whichever is later)~~ to provide the PSCAD model.

If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting or the Interconnection Feasibility Study, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to each Party, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement or Interconnection System Impact Study depending on whether Interconnection Customer requested that the Interconnection Feasibility Study be completed as a separate and distinct study or as part of the Interconnection System Impact Study, as specified pursuant to Section 3.3.4, shall be the substitute.

### **7.3 Scope of Interconnection System Impact Study.**

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected

Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, such as electromagnetic transient analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct; (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environment work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

#### **7.4 Interconnection System Impact Study Procedures.**

The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site Control is required, and required technical data in accordance with Section 7.2. If System Operator ~~or Interconnecting Transmission Owner~~ uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within ~~ninety (90) Calendar Days~~ the times specified in this Section 7.4. after the close of the Queue Cluster Window.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated start date if the study has not commenced and completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow, short circuit and stability databases that have been developed for the Interconnection System Impact Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

Except in the case of a CSIS, The the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Appendix 1 and Attachment A (and Attachment A-1, if applicable), and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications provided they meet the requirements of Section 4.4.1 of this LGIP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

#### **7.5 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study.

Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study. If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the LGIA: (i) Siting approval for the Generating Facility and Interconnection Facilities; (ii) Engineering of Interconnection Facilities approved by Interconnecting Transmission Owner; (iii)



Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Initial Synchronization Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

#### **7.6 Re-Study.**

If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) re-designation of the Point of Interconnection pursuant to Section 7.2, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing.

Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

#### **7.7 Operational Readiness.**

The System Operator shall, as close to the Interconnection Customer's actual Synchronization Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System

with the addition of the Interconnection Customer's Generating Facility. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer.

The System Operator is not obligated to perform the operational analyses described in this Section 7.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting Transmission Owner determines that interconnection of the Interconnection Customer's Generating Facility to the Administered Transmission System is remote and speculative.

## **SECTION 8. INTERCONNECTION FACILITIES STUDY.**

### **8.1 Interconnection Facilities Study Agreement.**

[Except as otherwise provided in Section 4.2.4 of this LGIP,](#) the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection, which means that the Interconnection Customer may enter into E&P Agreements under Section 9 if it had not already done so, and shall enter into an LGIA in accordance with the requirements specified in Section 11.

If the Interconnection Customer waives the Interconnection Facilities Study, the Interconnection Customer, subject to the specific terms of the E&P Agreements, assumes all risks and shall pay all costs associated with equipment, engineering, procurement and construction work covered by the Interconnection Facilities Study as described in Section 8.2 below.

The System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this LGIP simultaneously with the delivery of the Interconnection System Impact Study to the Interconnection Customer.

The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA. Within three (3) Business Days following the Interconnection System Impact Study results meeting, the System Operator and Interconnecting

Transmission Owner shall provide to Interconnection Customer a non-binding good faith estimate of the cost for completing the Interconnection Facilities Study in accordance with requirements specified in Section 8.3. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator within thirty (30) Calendar Days after its receipt, together with the required technical data and the refundable deposit for the Interconnection Facilities Study. In accordance with Section 8.3, the Interconnection Customer shall specify in Attachment A to the Interconnection Facilities Study Agreement whether it wants no more than a +/- 20 percent or a +/- 10 percent good faith cost estimate contained in the report. The deposit for the study shall be either: (i) the greater of twenty-five percent of the estimated cost of the study or \$250,000; or (ii) the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Customer can provide: (1) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2 of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or (2) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amounts of money in (i) above, not including the same At-Risk Expenditures demonstrated with the Interconnection System Impact Study Agreement, if applicable; or (iii) the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Interconnection Facilities Study, the study agreement and its attachment(s) and the LGIA. [In the case of Clustering, CFAC costs that are associated with an individual Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster.](#) The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work

to be conducted on the Interconnection Facilities Study each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost to the accuracy specified by the Interconnection Customer pursuant to Section 8.3, (ii) identify, configurations of required facilities and (iii) identify time requirements for construction and installation of required facilities.

## **8.3 Interconnection Facilities Study Procedures.**

The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the

following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent good faith cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if the Interconnection Customer requests a +/- 10 percent good faith cost estimate. Such cost estimates either individually or in the aggregate will be provided in the final study report. If the System Operator uses Clustering, the System Operator and the Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 8.3.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required.

The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. ~~In such circumstances, u~~Upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer and any Affected Party as deemed appropriate by the System

Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **8.4 Meeting with Parties.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study.

#### **8.5 Re-Study.**

If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

### **SECTION 9. ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT.**

Prior to executing an LGIA, an Interconnection Customer may request, in order to advance the implementation of its interconnection, and the Interconnecting Transmission Owner and any Affected Party shall offer the Interconnection Customer, an E&P Agreement that authorizes the Interconnecting Transmission Owner and any Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the Interconnecting Transmission Owner or any Affected Party shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or Initial Synchronization Date. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer, including a deposit of 100 percent of the estimated engineering and study costs, and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or an E&P Agreement is terminated by any Party, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the Interconnecting Transmission Owner or the Affected Party that is a party to an E&P Agreement may elect: (i) to take title to the equipment, in which event the Interconnecting Transmission Owner or relevant Affected Party shall refund the Interconnection Customer any amounts paid by the Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

#### **SECTION 10. OPTIONAL INTERCONNECTION STUDY.**

### **10.1 Optional Interconnection Study Agreement.**

On or after the date when the Interconnection Customer receives Interconnection System Impact Study report and no later than five (5) Business Days after the study results meeting to review the report, the Interconnection Customer may request in writing, and the System Operator in coordination with the Interconnecting Transmission Owner shall perform, an Optional Interconnection Study. The request shall describe the assumptions that the Interconnection Customer wishes the System Operator to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, the System Operator shall provide to the Interconnecting Transmission Owner and the Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that the Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify the Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case, and (iii) specify the System Operator's and Interconnecting Transmission Owner's estimate of the cost of the Optional Interconnection Study. To the extent known by the System Operator, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. The Optional Interconnection Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Optional Interconnection Study, including the cost of developing the study agreement and its attachment(s). Notwithstanding the above, the System Operator and Interconnecting Transmission Owner shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

The Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the required technical data and the refundable deposit for the Optional Interconnection Study to the System Operator. The deposit for the study shall be 100 percent of the estimated cost of the study. Any difference between the study deposit and the actual cost of the Optional Interconnection Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section



13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Optional Interconnection Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Optional Interconnection Study and the study agreement and its attachments(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

#### **10.2 Scope of Optional Interconnection Study.**

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The System Operator shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

The Optional Interconnection Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis, and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner.

#### **10.3 Optional Interconnection Study Procedures.**

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to the System Operator and Interconnecting Transmission Owner within ten (10) Business Days of the Interconnection Customer receipt of the Optional Interconnection Study Agreement. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed-upon time period

specified within the Optional Interconnection Study Agreement. If the System Operator and Interconnecting Transmission Owner are unable to complete the Optional Interconnection Study within such time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **10.4 Meeting with Parties.**

Within ten (10) Business Days of providing an Optional Interconnection Study report to Interconnection Customer, System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Optional Interconnection Study.

#### **10.5 Interconnection Agreement Developed Based on Optional Interconnection Study.**

If the LGIA for a Large Generating Facility is based on the results of an Optional Interconnection Study, the LGIA shall reflect the conditions studied and any obligations that may involve: (i) additional studies if such conditions change, (ii) operational limits, or (iii) financial support for transmission upgrades.

### **SECTION 11. STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA).**

#### **11.1 Tender.**

Interconnection Customer shall tender comments or provide notice, in writing, to the System Operator and Interconnecting Transmission Owner that the Interconnection Customer has no comments on the draft Interconnection Facilities Study report or on the draft Interconnection System Impact Study report if the Interconnection Customer waived the Interconnection Facilities Study, within thirty (30) Calendar Days of receipt of the report. Except as provided in the E&P Agreement or any mutual agreement by the entities that would be Parties to the LGIA, the System Operator shall initiate the development of the LGIA process within fifteen (15) Calendar Days after the comments are submitted or waived, by tendering to the Interconnection Customer a draft LGIA, together with draft appendices completed by the System Operator, in conjunction with the Interconnecting Transmission Owner to the extent practicable. The draft LGIA shall be in the form of the System Operator's Commission-approved standard form LGIA which is in Appendix 6 to Schedule 22. The Interconnection Customer shall return the Interconnection Customer specific information required to complete the form of LGIA, including the appendices, in Appendix 6 of Schedule 22 that the Interconnection Customer is willing to execute within thirty (30) Calendar Days after receipt of the draft from the System Operator.

## **11.2 Negotiation.**

Notwithstanding Section 11.1, at the request of the Interconnection Customer, the System Operator and Interconnecting Transmission Owner shall begin negotiations with the Interconnection Customer concerning the appendices to the LGIA at any time after the Interconnection Facilities Study is complete or after the Interconnection System Impact Study is complete if the Interconnection Customer intends to waive the Interconnection Facilities Study. The System Operator, Interconnection Customer, and Interconnecting Transmission Owner shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender by the System Operator of the draft LGIA pursuant to Section 11. If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 11.1 and request submission of the unexecuted LGIA with the Commission or initiate Dispute Resolution procedures pursuant to Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute

Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of by the System Operator of the draft LGIA pursuant to Section 11.1, it shall be deemed to have withdrawn its Interconnection Request. The System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer a final LGIA within fifteen (15) Business Days after the mutually agreed completion of the negotiation process.

### **11.3 Evidence to be Provided by Interconnection Customer; Execution and Filing of LGIA.**

#### **11.3.1 Evidence to be Provided by Interconnection Customer.**

**11.3.1.1 Site Control.** Within fifteen (15) Business Days after receipt of the final LGIA, the Interconnection Customer shall provide (A) to the System Operator, reasonable evidence of continued Site Control, or (B) to the Interconnecting Transmission Owner, posting of \$250,000, non-refundable additional security, which shall be applied toward future construction costs. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property.

**11.3.1.2 Development Milestones.** Within fifteen (15) Business Days after receipt of the final LGIA, the Interconnection Customer also shall provide to the System Operator reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, to be elected by the Interconnection Customer, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Large Generating Facility; (v) application for an air, water, or land use permit.

At the same time, the Interconnection Customer [with an Interconnection Request that was not studied using Clustering](#) shall commit to a schedule for the payment of upgrades identified in the Interconnection

Studies or an E&P Agreement, and either: (A) provide evidence of approvals for all Major Permits, as defined in Section III.13.1.1.2.2(a) of the Tariff, or (B) provide to the Interconnecting Transmission Owner, in the form acceptable to the Interconnecting Transmission Owner, a refundable deposit ~~to the Interconnecting Transmission Owner, at execution of the LGIA~~, of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades identified in the Interconnection Studies or an E&P Agreement, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made ~~at time of LGIA execution~~ within the fifteenth Business Day after receipt of the final LGIA. If the Interconnection Customer selects option (B) above, it shall also commit in the LGIA to the achievement of: (i) milestones for the completion of Major Permit approvals, and (ii) in the case of a CNR Interconnection Request, milestones to align the LGIA with the fulfillment of terms outlined in Section III.13 of the Tariff for participation in the Forward Capacity Market.

Within fifteen (15) Business Days after receipt of the final LGIA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation Deposit in accordance with Section 4.2.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final LGIA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by the fifteenth Business Day after receipt of the final LGIA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting

Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

**11.3.2 Execution and Filing of LGIA.** Within fifteen (15) Business Days after receipt of the final LGIA, (i) the Interconnection Customer and Interconnecting Transmission Owner shall execute three (3) originals of the tendered LGIA and return them to the System Operator, who will send an original to Interconnecting Transmission Owner and Interconnection Customer; or (ii) the Interconnection Customer shall request in writing that the System Operator and the Interconnecting Transmission Owner jointly file with the Commission an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered LGIA (if it does not conform with a Commission-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, the System Operator and Interconnecting Transmission Owner, in accordance with Section 11.3.3 or Section 11.3.4, as appropriate, shall jointly file the LGIA with the Commission, together with its explanation of any matters as to which the System Operator, Interconnection Customer or Interconnecting Transmission Owner disagree and support for the costs that the Interconnecting Transmission Owner proposes to charge to the Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by the System Operator and Interconnecting Transmission Owner for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending Commission action.

With respect to the interconnection of an Interconnection Customer under Schedule 22, the LGIA shall be a three-party agreement among the Interconnecting Transmission Owner, the System Operator and the Interconnection Customer. If Interconnecting Transmission Owner, System Operator and Interconnection Customer agree to the terms and conditions of a specific LGIA, or any amendments to such an LGIA, then the System Operator and Interconnecting Transmission Owner shall jointly file the executed LGIA,

or amendment thereto, with the Commission under Section 205 of the Federal Power Act. To the extent the Interconnecting Transmission Owner, System Operator and Interconnection Customer cannot agree to proposed variations from the standard form of LGIA in Appendix 6 or cannot otherwise agree to the terms and conditions of the LGIA for such Large Generating Unit, or any amendments to such an LGIA, then the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted LGIA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act and shall identify the areas of disagreement in such filing, provided that, in the event of disagreement on terms and conditions of the LGIA related to the costs of up grades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such up grades, any financial obligations of the Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on such terms and conditions.

**11.3.3** The Interconnecting Transmission Owner, acting on its own or jointly with the System Operator, may initiate a filing to amend this LGIP and the standard form of LGIA in Appendix 6 under Section 205 of the Federal Power Act and shall include in such filing the views of System Operator, provided that the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on any financial obligations of the Interconnecting Transmission Owner or the Interconnection Customer(s), and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets.

#### **11.4 Commencement of Interconnection Activities.**

If the Interconnection Customer executes the final LGIA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by the Commission. Upon submission of an unexecuted LGIA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall promptly comply with the unexecuted LGIA, subject to modification by the Commission.

## **SECTION 12. CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES.**

### **12.1 Schedule.**

The Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party shall negotiate in good faith concerning a schedule for the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades.

### **12.2 Construction Sequencing.**

**12.2.1 General.** In general, the Initial Synchronization Date of an Interconnection Customer seeking interconnection to the Administered Transmission System will determine the sequence of construction of Network Upgrades.

**12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.** An Interconnection Customer with an executed or unexecuted, but filed with the Commission, LGIA, in order to maintain its Initial Synchronization Date, may request that the Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such Initial Synchronization Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the Interconnection Customer that is seeking interconnection to the Administered Transmission System, in time to support such Initial Synchronization Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party; (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The Interconnecting Transmission Owner or appropriate Affected Party will refund to the Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that the Interconnecting Transmission Owner or appropriate Affected Party has not refunded to the Interconnection Customer.



Payment by that entity with a contractual obligation to construct such Network Upgrades shall be due on the date that it would have been due had there been no request for advance construction. The Interconnecting Transmission Owner or appropriate Affected Party shall forward to the Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to the Interconnection Customer. The Interconnecting Transmission Owner or appropriate Affected Party then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

**12.2.3 Advancing Construction of Network Upgrades that are Part of the Regional System Plan of the System Operator.** An Interconnection Customer with an LGIA, in order to maintain its Initial Synchronization Date, may request that Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such Initial Synchronization Date and (ii) would otherwise not be completed, pursuant to the Regional System Plan, in time to support such Initial Synchronization Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party any associated expediting costs.

**12.2.4 Amended Interconnection System Impact Study.** An Interconnection System Impact Study will be amended to determine the facilities necessary to support the requested Initial Synchronization Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested Initial Synchronization Date. The LGIA will also be amended to reflect the results of the Amended Interconnection System Impact Study and any changes in obligations, including financial support, of the Parties.

## **SECTION 13. MISCELLANEOUS.**

### **13.1 Confidentiality.**

Confidential Information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under

confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by any Party, the other Party(ies) shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**13.1.1 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

**13.1.2 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or

equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

**13.1.3 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**13.1.4 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**13.1.5 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under these procedures or its regulatory requirements.

**13.1.6 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled

to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**13.1.7 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

**13.1.8 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR. section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the LGIA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules, regulations and Section 13.1.

**13.1.9** Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Party’s(ies’) Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**13.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

**13.1.11** The System Operator and Interconnecting Transmission Owner shall, at Interconnection Customer’s election, destroy, in a confidential manner, or return the Confidential Information provided at the time when Confidential Information is no longer needed.

**13.2 Delegation of Responsibility.**

The System Operator and Interconnecting Transmission Owner, or any Affected Party may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. The Party using the services of a subcontractor shall remain primarily liable to the Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### **13.3 Obligation for Study Costs.**

The System Operator and the Interconnecting Transmission Owner shall charge, and the Interconnection Customer shall pay, the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to the Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. The Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. The System Operator and Interconnecting Transmission Owner shall not be obligated to perform or continue to perform any studies unless the Interconnection Customer has paid all undisputed amounts in compliance herewith.

### **13.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) the Interconnection Customer receives notice pursuant to Sections 6.3, 7.4 or 8.3 that the System Operator or Interconnecting Transmission Owner will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) the Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then the Interconnection Customer may request, which request will not be unreasonably denied, that the System Operator and Interconnecting Transmission Owner utilize a third party consultant reasonably acceptable to the System Operator, Interconnection Customer, Interconnecting Transmission Owner and any appropriate Affected Party, to perform such Interconnection Study under the direction of the System Operator or Interconnecting Transmission Owner as applicable. At other times, System Operator or Interconnecting Transmission Owner may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of the Interconnection Customer, or on its own volition. In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where the System Operator or Interconnecting Transmission Owner determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's

pending Interconnection Request and not interfere with the System Operator and Interconnecting Transmission Owner's progress on Interconnection Studies for other pending Interconnection Requests. In cases where the Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, the Interconnection Customer, System Operator and Interconnecting Transmission Owner shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. The System Operator and Interconnecting Transmission Owner shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as practicable upon the Interconnection Customer's request subject to the confidentiality provision in Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. In any case, such third party contract may be entered into with the System Operator, Interconnection Customer, or Interconnecting Transmission Owner at the System Operator and Interconnecting Transmission Owner's discretion. In the case of (iii) the Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if the System Operator and Interconnecting Transmission Owner were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes.

The System Operator and Interconnecting Transmission Owner shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

### **13.5 Disputes.**

**13.5.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "Disputing Party") shall provide the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In

the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, after thirty (30) Calendar Days, then (i) in the case of disputes arising out of or in conjunction with the LGIA, the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted LGIA, or amendment thereto, with the Commission in accordance with Section 11.3.4, or (ii) in the case of disputes arising out of or in connection with any other matter regarding the administration of the LGIP, the System Operator may terminate the Interconnection Request and the Interconnection Customer may seek relief pursuant to Section 206 of the Federal Power Act. Each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Schedule 22.

**13.5.2 External Arbitration Procedures.** Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

**13.5.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons for such decision. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon



the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**13.5.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three-member panel and one-third of any associated arbitration costs; or (2) one-third the cost of the single arbitrator jointly chosen by the Parties and one-third of any associated arbitration costs.

### **13.6 Local Furnishing Bonds.**

**13.6.1 Facilities Financed by Local Furnishing Bonds.** This provision is applicable only to interconnections associated with facilities financed for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, the Interconnecting Transmission Owner shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Interconnection Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance the Interconnecting Transmission Owner's facilities that would be used in providing such Interconnection Service.

**13.6.2 Alternative Procedures for Requesting Interconnection Service.** If the Interconnecting Transmission Owner determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receiving notice of the Interconnection Request. The Interconnection Customer thereafter may renew its Interconnection Request using the process specified in the Tariff.

## **APPENDICES TO LGIP**

- APPENDIX 1 INTERCONNECTION REQUEST
- APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT
- APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT
- APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT
- APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT
- APPENDIX 6 LARGE GENERATOR INTERCONNECTION AGREEMENT

**APPENDIX 1**  
**INTERCONNECTION REQUEST**

The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility to the Administered Transmission System under Schedule 22 - Large Generator Interconnection Procedures ("LGIP") of the ISO New England Inc. Open Access Transmission Tariff (the "Tariff"). Capitalized terms have the meanings specified in the Tariff.

---

---

**PROJECT INFORMATION**

Proposed Project Name: \_\_\_\_\_

**1. This Interconnection Request is for (check one):**

- \_\_\_\_\_ A proposed new Large Generating Facility
- \_\_\_\_\_ An increase in the generating capacity or a modification that has the potential to be a Material Modification of an existing Generating Facility
- \_\_\_\_\_ Commencement of participation in the wholesale markets by an existing Generating Facility
- \_\_\_\_\_ A change from Network Resource Interconnection Service to Capacity Network Resource Interconnection Service

**2. The types of Interconnection Service requested:**

- \_\_\_\_\_ Network Resource Interconnection Service (energy capability only)
- \_\_\_\_\_ Capacity Network Resource Interconnection Service (energy capability and capacity capability)

If Capacity Network Resource Interconnection Service, does Interconnection Customer request Long Lead Facility treatment? Check: \_\_\_\_ Yes or \_\_\_\_ No

If yes, provide, together with this Interconnection Request, the Long Lead Facility deposit and other required information as specified in Section 3.2.3 of the LGIP, including (if the Large Generating Facility will be less than 100 MW) a justification for Long Lead Facility treatment.

3. This Interconnection Customer requests (check one, selection is not required as part of the initial Interconnection Request):

\_\_\_\_\_ An Interconnection Feasibility Study to be completed as a separate and distinct study

\_\_\_\_\_ An Interconnection System Impact Study with the Feasibility Study to be performed as the first step of the study

(The Interconnection Customer shall select either option and may revise any earlier selection up to within five (5) Business Days following the Scoping Meeting.)

4. The Interconnection Customer shall provide the following information:

Address or Location of the Facility (including Town/City, County and State):

---

---

---

Approximate location of the proposed Point of Interconnection ~~(information is not required as part of the initial Interconnection Request)~~:

---

**Type of Generating Facility to be Constructed:** \_\_\_\_\_

**Generating Facility Fuel Type:**

\_\_\_\_\_

**Generating Facility Capacity (MW):**

	Maximum Net MW Electrical Output	Maximum Gross MW Electrical Output
At or above 90 degrees F		
At or above 50 degrees F		
At or above 20 degrees F		
At or above 0 degrees F		

**General description of the equipment configuration (# of units and GSUs):**

\_\_\_\_\_

\_\_\_\_\_

**Requested Commercial Operations Date:**

\_\_\_\_\_

**Requested Initial Synchronization Date:**

\_\_\_\_\_

**Requested In Service Date:**

\_\_\_\_\_

Evidence of Site Control (check one):

\_\_\_\_\_ If for Capacity Network Resource Interconnection Service, Site Control is provided herewith, as required.

\_\_\_\_\_ If for Network Resource Interconnection Service: (Check one)

\_\_\_ Is provided herewith

\_\_\_ In lieu of evidence of Site Control, a \$10,000 deposit is provided (refundable within the cure period as described in Section 3.3.3 of the LGIP).

\_\_\_\_\_ Site Control is not provided because the proposed modification is to the Interconnection Customer's existing Large Generating Facility and, by checking this option, the Interconnection Customer certifies that it has Site Control and that the proposed modification does not require additional real property.

The technical data specified within the applicable attachment to this form (check one):

\_\_\_\_\_ Is included with the submittal of this Interconnection Request form

\_\_\_\_\_ Will be provided on or before the execution and return of the Feasibility Study Agreement (Attachment B) or the System Impact Study Agreement (Attachment A), as applicable

The ISO will post the Project Information on the ISO web site under "New Interconnections" and OASIS.

---

---

**CUSTOMER INFORMATION**

Company Name: \_\_\_\_\_

ISO Customer ID# (If available): \_\_\_\_\_

(Interconnection Customer)

Company Address: PO Box No.:

\_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City, State ZIP:** \_\_\_\_\_

**Company Representative: Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Company Representative's Company and Address (if different from above):**

**Company Name:** \_\_\_\_\_

**PO Box No.:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City, State ZIP:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **FAX:** \_\_\_\_\_ **email:** \_\_\_\_\_

---

---

**This Interconnection Request is submitted by:**

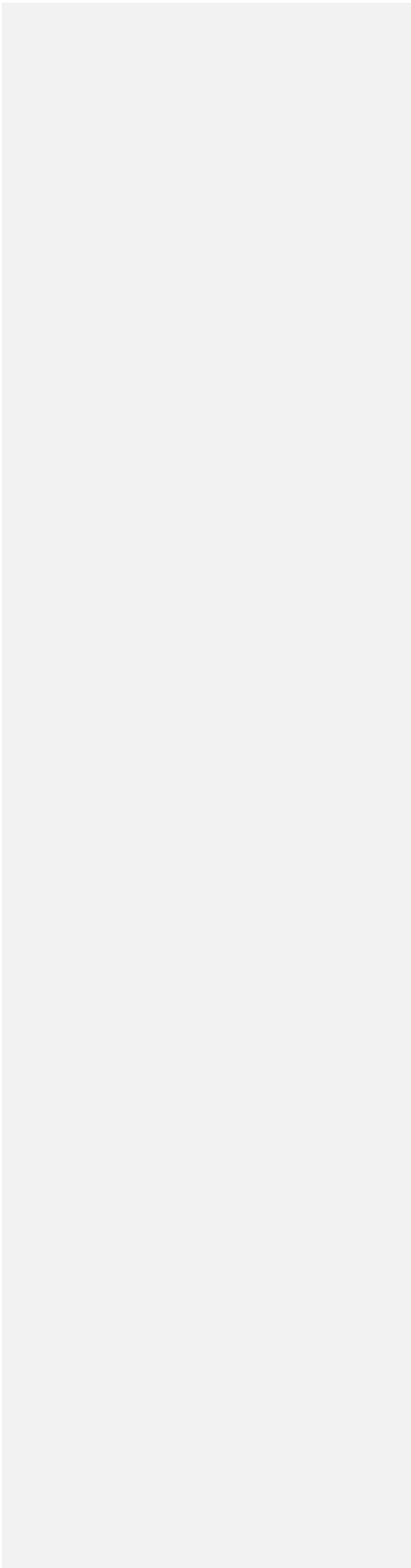
**Authorized Signature:** \_\_\_\_\_

**Name (type or print):** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:**\_\_\_\_\_

|





*In order for an Interconnection Request to be considered a valid request, it must:*

- (a) Be accompanied by a deposit of \$50,000.00 that is provided electronically and which may be refundable in accordance with Section 3.3.1 of the LGIP;*
- (b) For Capacity Network Resource Interconnection Service, include documentation demonstrating Site Control. If for Network Resource Interconnection Service, demonstrate Site Control or post an additional deposit of \$10,000.00. If the Interconnection Customer with an Interconnection Request for Network Resource Interconnection Service demonstrates Site Control within the cure period specified in Section 3.3.1 of the LGIP, the additional deposit of \$10,000.00 shall be refundable (An Interconnection Customer does not need to demonstrate Site Control for an Interconnection Request for a modification to its existing Large Generating Facility where the Interconnection Customer has certified that it has Site Control and that the proposed modification does not require additional real property);*
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures; and*
- (d) Include all information required on the Interconnection Request form and attachments thereto; and*
- (e) Include the deposit and all information required for Long Lead Facility treatment, if such treatment is requested in accordance with Section 3.2.3 of the LGIP.*

*The Interconnection Request must be submitted to the System Operator via the Interconnection Request Tracking Tool or IRTT, a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website.*

Attachment A (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

The technical data required below must be submitted no later than the date of execution of the System Impact Study Agreement pursuant to Section 7.2 of the LGIP.

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

Kva	°F	Voltage
Power Factor		
Speed (RPM)		Connection (e.g. Wye)
Short Circuit Ratio		Frequency, Hertz
Stator Amperes at Rated Kva		Field Volts
Max Turbine MW	°F	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 90 ° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 50° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)

Temperature (°F)

Attachment A (page 2)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 20° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 0° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H	=	kW sec/kVA
Moment-of-Inertia, WR <sup>2</sup>	=	lb. ft. <sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	<b>DIRECT AXIS</b>	<b>QUADRATURE AXIS</b>
Synchronous – saturated	X <sub>dv</sub>	X <sub>qv</sub>
Synchronous – unsaturated	X <sub>di</sub>	X <sub>qi</sub>
Transient – saturated	X' <sub>dv</sub>	X' <sub>qv</sub>
Transient – unsaturated	X' <sub>di</sub>	X' <sub>qi</sub>
Subtransient – saturated	X'' <sub>dv</sub>	X'' <sub>qv</sub>
Subtransient – unsaturated	X'' <sub>di</sub>	X'' <sub>qi</sub>
Negative Sequence – saturated	X <sub>2v</sub>	

Negative Sequence – unsaturated       $X_{2i}$

Attachment A (page 3)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

**FIELD TIME CONSTANT DATA (SEC)**

Zero Sequence – saturated	$X_{0v}$	
Zero Sequence – unsaturated	$X_{0i}$	
Leakage Reactance	$X_{lm}$	
Open Circuit	$T'_{qo}$	$T'_{do}$
Three-Phase Short Circuit Transient	$T'_{d3}$	$T'_q$
Line to Line Short Circuit Transient	$T'_{d2}$	
Line to Neutral Short Circuit Transient	$T'_{d1}$	
Short Circuit Subtransient	$T''_d$	$T''_q$
Open Circuit Subtransient	$T''_{do}$	$T''_{qo}$

**ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit	$T_{a3}$
Line to Line Short Circuit	$T_{a2}$
Line to Neutral Short Circuit	$T_{a1}$

NOTE: If requested information is not applicable, indicate by marking “N/A.”

**MW CAPABILITY AND PLANT CONFIGURATION**  
**LARGE GENERATING FACILITY DATA**  
**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive	R1		
Negative	R2		
Zero	R0		
Rotor Short Time Thermal Capacity $I^2t$	=		
Field Current at Rated kVA, Armature Voltage and PF	=	amps	
Field Current at Rated kVA and Armature Voltage, 0 PF		amps	
Three Phase Armature Winding Capacitance	=	microfarad	
Field Winding Resistance	=	ohms	°C
Armature Winding Resistance (Per Phase)	=	ohms	°C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

**GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity	Self-cooled/Maximum Nameplate
	/ Kva
Voltage Ratio	Generator side/System side/Tertiary
	/ kV
Winding Connections	Generator side/System Side/Tertiary (Delta or Wye)
	/
Fixed Taps Available	
Present Tap Setting	

**IMPEDANCE**

Positive	Z1 (on self-cooled kVA rating)	%	X/R
Zero	Z0 (on self-cooled kVA rating)	%	X/R

#### **EXCITATION SYSTEM DATA**

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (“PSS”) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

#### **GOVERNOR SYSTEM DATA**

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

#### **WIND AND INVERTER-BASED GENERATORS**

A completed Attachment A-1 Supplementary Wind and Inverter-Based Generating Facility Form to this Attachment A, must be supplied for all Interconnection Requests for wind and inverter-based Generating Facilities.

#### **MODEL REQUIREMENTS**

For all Generating Facility types: A completed, fully functioning, public (*i.e.*, non-proprietary, non-confidential) Siemens PTI’s (“PSSE”) power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow (“PSLF”) data sheet , must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device then they

shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.



Attachment A (page 7)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

A PSCAD model for all wind and inverter-based Generating Facilities must be supplied with this Attachment A. If a PSCAD model is deemed required for other Generating Facility types at the Scoping Meeting, such PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the ~~Scoping Meeting date or the~~ executed Interconnection System Impact Study Agreement ~~(whichever is later)~~. A benchmarking analysis, consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time PSCAD model is submitted.

**INDUCTION GENERATORS:**

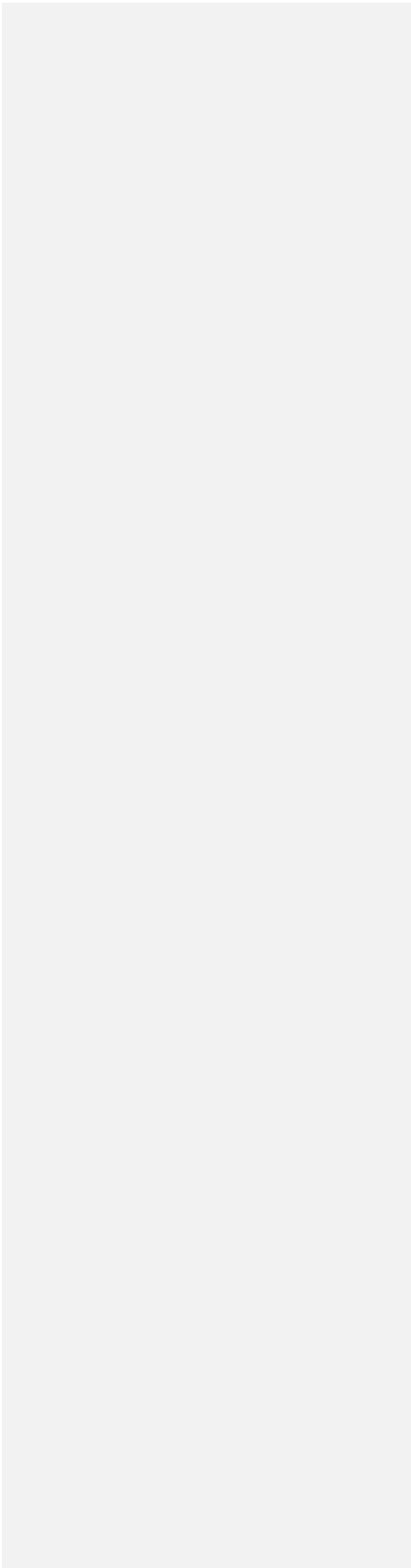
- (\*) Field Volts:
- (\*) Field Amperes:
- (\*) Motoring Power (kW):
- (\*) Neutral Grounding Resistor (If Applicable):
- (\*)  $I_2^2t$  or K (Heating Time Constant):
- (\*) Rotor Resistance:
- (\*) Stator Resistance:
- (\*) Stator Reactance:
- (\*) Rotor Reactance:
- (\*) Magnetizing Reactance:
- (\*) Short Circuit Reactance:
- (\*) Exciting Current:
- (\*) Temperature Rise:
- (\*) Frame Size:
- (\*) Design Letter:
- (\*) Reactive Power Required In Vars (No Load):
- (\*) Reactive Power Required In Vars (Full Load):
- (\*) Total Rotating Inertia, H: Per Unit on KVA Base

Note: Please consult System Operator prior to submitting the Interconnection Request to determine if the information designated by (\*) is required.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment A to the Interconnection Request is true and accurate.

For Interconnection Customer:\_\_\_\_\_Date:\_\_\_\_\_



## **SUPPLEMENTARY WIND AND INVERTER-BASED GENERATING FACILITY DATA FORM**

1. Attach a Geographic Map Demonstrating the Project Layout and its Interconnection to the Power Grid. (Specify the name of the attachment here)

2. Attach a Bus-Breaker Based One-line Diagram (The diagram should include each of the individual unit generators, generator number, rating and terminal voltage.) (Specify the name of the attachment here)

### **2.1 Collection system detail impedance sheet**

If a collector system is used, attach a collector system data sheet in accordance with the one-line diagram attached above. The data sheet should include: the type, length  $Z_0$ ,  $Z_1$  and  $X_c/B$  of each circuit (feeder and collector string).

Specify the name of the attachment here: \_\_\_\_\_

### **2.2 Collection system aggregate (equivalent) model data sheet**

Attach an aggregate (equivalent) collection system data sheet. The data table should include: the type, length,  $Z_0$ ,  $Z_1$  and  $X_c/B$  of the equivalent circuits (feeders and collector strings).

Specify the name of the attachment here: \_\_\_\_\_

Attachment A-1 (page 2)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

3. Summary of the Unit Models in the wind or inverter-based generating facility *(List all different unit models in the facility)*

Manufacturer Model	Type of this WTG* (if applicable)	Generator Unit Numbers in the field	Number(s) of these Units	Maximum Output of this Unit (MW)	Total MW

**Formatted:** Line spacing: single

**Formatted:** Line spacing: single

**Formatted:** Line spacing: single

**Formatted:** Line spacing: single

- \* Type 1 – Cage rotor induction generators  
 Type 2 – Induction generators with variable rotor resistance  
 Type 3 – Doubly -fed asynchronous generators with rotor-side converter  
 Type 4 – Full-power converter interface

*Repeat the following sections from [64](#) to [14-12](#) for each different unit model.*

Attachment A-1 (page 3)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

4. Unit Detail Information

Unit Manufacturer Model	
Terminal Voltage	
Rating of Each Unit (MVA)	
Maximum Gross Electrical Output (MW)	
Minimum Gross Electrical Output(MW)	
Lagging Reactive Power Limit at Rated Real Power Output (MVAR)	
Leading Reactive Power Limit at Rated Real Power Output (MVAR)	
Lagging Reactive Power Limit at Zero Real Power Output (MVAR)	
Leading Reactive Power Limit at Zero Real Power Output (MVAR)	
Station Service Load(MW, MVAR)	
Minimum short circuit ratio(SCR) requirement by manufacturer	
On which bus the minimum SCR is required by manufacturer	
What voltage level the minimum SCR is required by manufacturer	
Positive sequence Xsource	
Zero sequence Xsource	

Attachment A-1 (page 4)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

5. Unit GSU – \_\_\_\_\_

Nameplate rating(MVA)	
Total number of the GSUs	
Voltages, generator side/system side	
Winding connections, low voltage/high voltage	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the GSU operate as an LTC?	
Desired voltage control range if LTC	
Tap adjustment time (Tap switching delay + switching time) if LTC	
Desired tap position if applicable	
Impedance, Z1, X/R ratio	
Impedance, Z0, X/R ratio	

6. Low Voltage Ride Through(LVRT) – \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

Does each Unit have LVRT capability?

Yes\_\_ No\_\_

If yes, please provide:

6.1 Unit LVRT mode activation and release condition:

When operating at maximum real power, what is the Unit terminal voltage for LVRT mode activation? \_\_\_\_\_

When operating at maximum real power, what is the Unit terminal voltage for releasing LVRT mode after it is activated? \_\_\_\_\_

If there is different LVRT activation and release logic, please state here \_\_\_\_\_

- 6.2 A wind or other inverter-based generating facility technical manual from the manufacturer including description of LVRT functionality:

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

- 6.3 Does the wind or other inverter-based generating facility technical manual attached above include a reactive power capability curve?

Yes\_\_ No\_\_

***If no, attach the file and specify the name of the attachment here:***

\_\_\_\_\_

7. Low Voltage Protection (considering LVRT functionality)

(Specify the Manufacturer Model of this Unit)

Low Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

8. High Voltage Protection - \_\_\_\_\_ (Specify the Manufacturer Model of this Unit)



Attachment A-1 (page 6)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

High Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

9. Low Frequency Protection - \_\_\_\_\_ (Specify the Manufacturer Model of this Unit)

Low Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

10. High Frequency Protection - \_\_\_\_\_ (Specify the Manufacturer Model of this Unit)

High Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

Please make sure the settings in sections [87](#) through [10](#) comply with NERC and NPCC standards for generator protection relays.

Attachment A-1 (page 7)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

11. Unit Reactive Power Control - \_\_\_\_ (Specify the Manufacturer Model of this Unit)

11.1 What are the options for the Unit reactive power control (check all available)?

- \_\_\_\_ Control the voltage at the Unit terminal  
\_\_\_\_ Control constant power factor at the Unit terminal  
\_\_\_\_ Control constant power factor at the low side of the station main transformer  
\_\_\_\_ Control constant power factor at the high side of the station main transformer  
\_\_\_\_ Control voltage at the low side of the station main transformer  
\_\_\_\_ Control voltage at the high side of the station main transformer  
\_\_\_\_ Other options. Please describe if select others \_\_\_\_\_

11.2 In all the control options selected above, please list the options in which the Unit is able to control its terminal voltage to prevent low/high voltage tripping.

\_\_\_\_\_

11.3 What is the desired control mode from the selected options above? Specify the control plan in this mode. For example: control voltage at which bus to what schedule.

\_\_\_\_\_

12. Wind or inverter-based generating facility Model

(All model files provided ~~in section 13~~ under this section 12 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)

12.1 Power flow model

- 12.1.1 A \*.RAW file including **aggregated/equivalent** wind or inverter-based generating facility power flow model with appropriate parameters and settings.

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.1.2 A \*.RAW file including **detailed** wind or inverter-based generating facility power flow model with appropriate parameters and settings. (*Optional*)

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

12.2 Dynamic simulation model

*(Please note that the dynamic model must match the aggregated/equivalent power flow model provided above. Attach the following information for each of the models.)*

- 12.2.1 Wind or inverter-based generating facility Model \_\_\_\_\_ (Please Specify the Manufacturer Model)

- 12.2.2 A compiled PSS/E dynamic model for the turbines (a \*.LIB or \*.OBJ file)

*Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.2.3 A dynamic data file with appropriate parameters and settings for the turbines (typically a \*.DYN file)

*Attach the \*.DYN file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.2.4 PSS/E wind or inverter-based generating facility model user manual for the WTG

*Attach and specify the name of the attachment here:*

\_\_\_\_\_

*Repeat the above sections from 6 to [4.12](#) for each different wind or inverter-based generating facility model.*

13. Power Plant Controller

Will the wind or inverter-based generating facility be equipped with power plant controller, which has the ability to centrally control the output of the units? Yes\_\_ No\_\_  
If yes, please provide:

- 13.1 -Manufacturer model of the power plant controller

\_\_\_\_\_

- 13.2 What are the reactive power control strategy options of the power plant controller?

- 13.3 Which of the control option stated above is being used in current operation?

\_\_\_\_\_

Attachment A-1 (page 10)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

- 13.4 Is the power plant controller able to control the unit terminal voltages to prevent low/high voltage tripping?

Yes\_\_ No\_\_

Please provide the park controller technical manual from the manufacturer

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

14. Station Transformer

Transformer Name	
Nameplate ratings (MVA)	
Total number of the main transformer(s)	
Voltage, High/Low/Tertiary (kV)	
Winding connections, High/Low Tertiary	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the transformer operate as a LTC?	
Desired voltage control range if LTC	

Attachment A-1 (page 11)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

Tap adjustment time (Tap switching delay + switching time) if LTC		
Desired tap position if applicable		
Tap adjustment time (Tap switching delay + switching time)		
Impedance $Z_1$ , X/R ratio	$Z_{1HL}$	X/R
	$Z_{1HT}$	X/R
	$Z_{1TL}$	X/R
Impedance $Z_0$ , X/R ratio	$Z_{0HL}$	X/R
	$Z_{0HT}$	X/R
	$Z_{0TL}$	X/R

15. Dynamic Simulation Model for the Power Plant Controller(s) (if applicable )

*(All model files provided ~~in section 16~~ under this section 15 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

- 15.1 A compiled PSS/E dynamic model for the power plant controller(s) (a \*.LIB or \*.OBJ file)

**Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:**

\_\_\_\_\_

- 15.2 A dynamic data file with appropriate parameters and settings for the power plant controller(s) (typically a \*.DYN file).

**Please set the parameters in accordance with the currently used control mode.**

**Attach the \*.DYN file and specify the name of the attachment here:**

- 15.3 [-PSS/E model user manual for the power plant controller\(s\)](#)

*Attach the manual and specify the name of the attachment or specify the name of the attachment here:* \_\_\_\_\_

16. Capacitors and Reactors

Please provide necessary modeling data for all the capacitors and reactors belong to the facility, including: size, basic electrical parameters, connecting bus, switched or fixed, etc.

17. [Dynamic Device\(s\)](#)

*(All model files provided ~~in section 18~~ under this section 17 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

- 17.1 Provide necessary modeling data file for all the dynamic devices belong to the facility.

Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:

\_\_\_\_\_

- 17.2 A dynamic data file containing the parameters for the units (typically a \*.DYR file).

Set the parameters in accordance with the desired control mode.

Attach the \*.DYR file and specify the name of the attachment here:

\_\_\_\_\_

18. Collection System/Transformer Tap-Setting Design

Attach a collection system/transformer tap-setting design calculations, consistent with the requirements in the ISO New England Planning Procedures, that identify the calculations to support the proposed tap settings for the unit step-up transformers and the station step-up transformers.

Attached the design document and specify the name of the attachment here:

---

19. Additional Information

Are there any special features available to be implemented to the wind or inverter-based generating facility? Such as weak grid interconnection solutions, etc.

Specify the available features here:

---

***Insert the technical manual for each of the features listed above as objects (display as icons) or specify the name of the attachment here:***

---

20. [Provide](#) PSCAD Model and Documentation for the wind or inverter-based generating facility, the Power Plant Controller(s) and Other Dynamic Devices for the wind or inverter-based generating facility.

***ISO will determine how much PSCAD work is needed from the wind or inverter-based generating facility based on its interconnection system conditions.***



Attachment A-2  
To Attachment A of Appendix 1  
Cluster System Impact Study  
Application Form

**CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM**

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Large Generating Facility in a Cluster Interconnection System Impact Study pursuant to Section 4.2.3.2.2 of this LGIP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:

a. Project Name: \_\_\_\_\_

b. Queue Position: \_\_\_\_\_

c. Is the Interconnection Request contractually associated with an Interconnection Request for an Elective Transmission Upgrade? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, identify Queue Position of the associated Interconnection Request and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_

2. Initial Cluster Participation Deposit as specified in Section 4.2.3.2.2

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment B (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

The technical data required below must be submitted no later than the date of execution of the Feasibility Study Agreement pursuant to Section 6.1 of the LGIP.

**LARGE GENERATING FACILITY DATA**

**UNIT RATING**

kVA	°F	Phase to Phase Voltage, kV
Rated Power Factor		
Speed (RPM)		Connection (e.g. Wye)
Short Circuit Ratio		Frequency, Hertz
Stator Amperes at Rated, kVA		Field Volts
Max Turbine MW	°F	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 50°F OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**DATA (PER UNIT-RATED KVA AND RATED VOLTAGE)**

Saturated Reactance

Direct axis positive sequence	$X''_{dv}$	_____
negative sequence	$X''_{2v}$	_____
zero sequence	$X''_{0v}$	_____

Attachment B (page 2)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Resistance

Generator AC resistance  $R_a$  \_\_\_\_\_  
negative sequence  $R_2$  \_\_\_\_\_  
zero sequence  $R_0$  \_\_\_\_\_

Time Constant (seconds)

Three-phase short circuit armature time constant  $T_{a3}$  \_\_\_\_\_

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

**GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity Self-cooled/Maximum Nameplate  
/ kVA

Voltage Ratio Generator side/System side/Tertiary  
/ kV

Winding Connections Generator side/system side /Tertiary  
(Delta or Wye)  
/

Fixed Taps Available

Present Tap Setting

**IMPEDANCE**

**For 2-Winding Transformers**

Positive	Z1 (on self-cooled kVA rating)	%	X/R
Zero	Z0 (on self-cooled kVA rating)	%	X/R

**IMPEDANCE**

**For 3-winding transformers**

Positive	Z1 <sub>H-L</sub> (on self-cooled kVA rating)	_____ %	X/R _____
	Z1 <sub>H-T</sub> (on self-cooled kVA rating)	_____ %	X/R _____
	Z1 <sub>L-T</sub> (on self-cooled kVA rating)	_____ %	X/R _____
Zero	Z0 <sub>H-L</sub> (on self-cooled kVA rating)	_____ %	X/R _____
	Z0 <sub>H-T</sub> (on self-cooled kVA rating)	_____ %	X/R _____
	Z0 <sub>L-T</sub> (on self-cooled kVA rating)	_____ %	X/R _____

**FEEDER IMPEDANCE (Per Unit)**

**From GSU to Point of Interconnection**

Positive	R1 _____ + j X1 _____ on 100 MVA base
----------	---------------------------------------

Zero R0 \_\_\_\_\_ + j X0 \_\_\_\_\_ on 100 MVA base

Attachment B (page 4)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: \_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

Inverter manufacturer, model name, number, and version:

List of adjustable setpoints for the protective equipment or software:

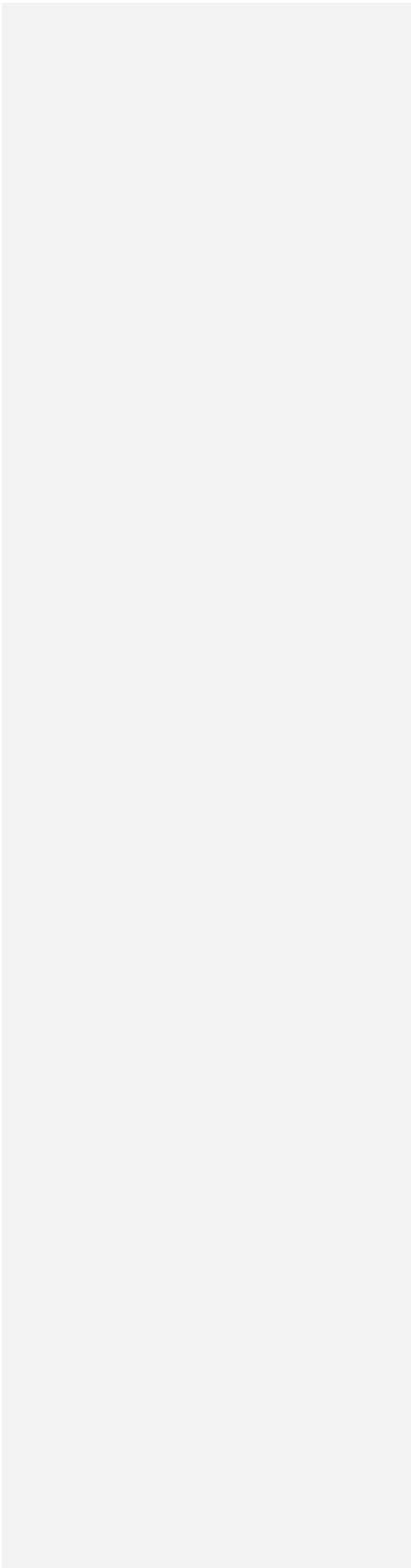
For all generator types: A completed fully functioning, public (*i.e.*, non-proprietary, non-confidential) Siemens PTI's ("PSSE") power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow ("PSLF") data sheet, must be supplied with this Attachment B. If additional public data sheets are more appropriate to the proposed device then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Feasibility Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. User-models will not be accepted.

~~A PSCAD model shall be provided pursuant to Sections 3.3.4 and 7.2 of the LGIP for all wind and inverter based generating facilities or if deemed required at the Scoping Meeting. A benchmarking analysis, consistent with the requirements the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model shall be provided~~

### Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment B to the Interconnection Request is true and accurate.

For Interconnection Customer:\_\_\_\_\_Date:\_\_\_\_\_



**APPENDIX 2**  
**INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection

Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).

- 2.0 Interconnection Customer elects and System Operator shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of the LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in Attachment B to the Interconnection Request, as may be modified as the result of the Scoping Meeting. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information depending on whether the Feasibility Study consisted of [\(a\)](#) a power flow, including thermal analysis and voltage analysis, and short circuit analysis, or [\(b\)](#) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility’s interconnection given recent study experience and as discussed at the Scoping Meeting:
  - preliminary identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the



limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;

- preliminary identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;
- ~~or, a~~ preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Large Generating Facility as identified within the scope of the analysis performed as part of the study;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, preliminary description and non-binding estimated cost of and the time to construct the facilities required to interconnect the Large Generating Facility to the New England Transmission System and to address the identified short circuit and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2 of the LGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

In accordance with the LGIP, in performing the Interconnection Feasibility Study, System Operator and Interconnecting Transmission Owner shall coordinate with each other and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study and the development of this Interconnection Feasibility Study Agreement and its attachment(s). Interconnecting Transmission Owner's and System Operator's good faith estimate for the time of completion of the Interconnection Feasibility Study Agreement is [insert date].

The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection Feasibility Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection Feasibility Study System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

- 7.0 Miscellaneous.

- 7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the

information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

- 7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

- 7.3 Force Majeure, Liability and Indemnification.

- 7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the

System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

- 7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or an Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or an Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.

- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.

- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

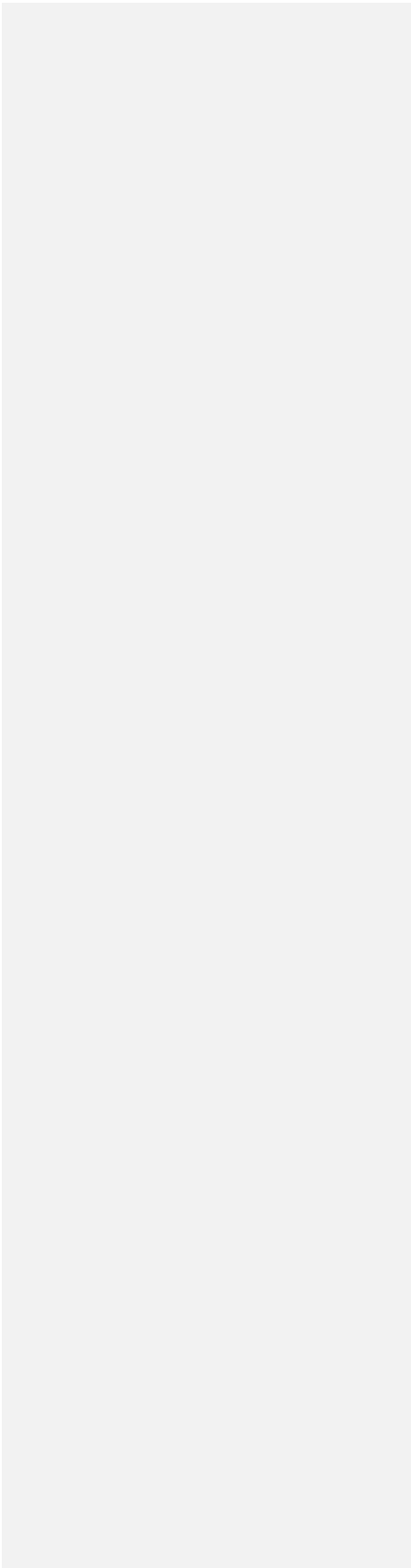
Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:





**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

**APPENDIX 3**  
**INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System;

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study (the “Feasibility Study”) and provided the results of said study to the Interconnection Customer, or Interconnection Customer has requested that the Feasibility Study be completed as part of the System Impact Study pursuant to Section 6.1 of the LGIP, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”)(This recital is to be omitted if Interconnection Customer has elected to forego the Interconnection Feasibility Study); and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study to assess the impact of

interconnecting the Large Generating Facility to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedure (“LGIP”).
- 2.0 Interconnection Customer elects and System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of the LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, and the technical information provided by Interconnection Customer in Attachment A to the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact Study report shall provide the following information:

- identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection;
- initial review of grounding requirements and electric system protection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- description and non-binding, good faith estimated cost of and the time to construct the facilities required to interconnect the Large Generating Facility to the Administered Transmission System and to address the identified short circuit, instability, and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.4 of the LGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

6.0 The Interconnection Customer is providing a deposit equal to:

- i. the greater of 100 percent of the estimated cost of the Interconnection System Impact Study or \$250,000;  
or
- ii. the lower of 100 percent of the estimated cost of the Interconnection System Impact Study or \$50,000, if the Interconnection Customer is providing herewith either:
  - (a) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or

(b) evidence acceptable to the System Operator of At-Risk Expenditures (excluding study costs) totaling at least the amounts of money described in (i) above.

or

iii the lower of 100 percent of the estimated costs of the study or \$50,000 if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection System Impact Study and the development of this Interconnection System Impact Study Agreement and its attachment(s) and the LGIA. Interconnecting Transmission Owner's and System Operator's good faith estimate for the times of commencement and completion of the Interconnection System Impact Study is [insert dates].

The total estimated cost of the performance of the Interconnection System Impact Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection System Impact Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the

work to be conducted on the Interconnection System Impact Study each month. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

In accordance with the LGIP, in performing the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the

content of the Interconnection System Impact Study, or the conclusions of the Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System

Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, an Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds



or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a

third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

Attachment A  
To Appendix 3  
Interconnection System Impact  
Study Agreement

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, subject to any modifications in accordance with Section 4.4 of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

**APPENDIX 4**  
**INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated ; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System; and

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Interconnection Facilities Study consistent with Section 8.0 of the LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Large Generating Facility to the Administered Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 The Interconnection Customer is providing a deposit equal to:
  - i. the greater of 25 percent of the estimated cost of the Interconnection Facilities Study or \$250,000;  
or
  - ii. the greater of 100 percent of the estimated monthly cost of the Interconnection Facilities Study Agreement or \$100,000, if the Interconnection Customer can provide either:

- (a) evidence of application for all Major Permits, as defined in Section III.13.1.1.2.2(a) of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or
- (b) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amount of the money in (i) above, not including the At-Risk Expenditures demonstrated with the Interconnection System Impact Study Agreement, if applicable.

or

- iii. the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection Facilities Study and the development of this Interconnection Facilities Study Agreement and its attachment(s) and the LGIA. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

The total estimated cost of the performance of the Interconnection Facilities Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_. Any difference between the deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Interconnection Facilities Study, System Operator and

Interconnecting Transmission Owner shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study. System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice. In accordance with the LGIP, in performing the Interconnection Facilities Study, Interconnecting Transmission Owner and System Operator shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

6.0 Miscellaneous.

- 6.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.
- 6.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or



otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study.

Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 6.3 Force Majeure, Liability and Indemnification.

6.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

6.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its

gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 6.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by

Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 6.4 Third-Party Beneficiaries. Without limiting Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 6.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 6.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.

- 6.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 6.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 6.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 6.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 6.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 6.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 6.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

6.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

Attachment A  
To Appendix 4  
Interconnection Facilities  
Study Agreement

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE  
INTERCONNECTION FACILITIES STUDY**

Interconnection Customer elects (check one):

- ☐ +/- 20 percent cost estimate contained in the Interconnection Facilities Study report.
- ☐ +/- 10 percent cost estimate contained in the Interconnection Facilities Study report.

Interconnecting Transmission Owner and System Operator shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE  
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing New England Transmission System station. Number of generation connections:

On the one line indicate the generation capacity attached at each metering location. (Maximum load on Current Transformer/Power Transformer ("CT/PT"))

On the one line indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes \_\_\_\_\_ No \_\_\_\_\_

(Please indicate on one line).

What type of control system or Power Line Carrier ("PLC") will be located at the Interconnection

Customer's Large Generating Facility?

What protocol does the control system or PLC use?

Attachment B (page 2)  
Appendix 4  
Interconnection Facilities  
Study Agreement

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Interconnecting Transmission Owner's transmission line.

Tower number observed in the field. (Painted on tower leg)\*

Number of third party easements required for transmission lines\*:

\* To be completed in coordination with System Operator and Interconnecting Transmission Owner.

Is the Large Generating Facility in Interconnecting Transmission Owner's service area?

Yes \_\_\_\_ No \_\_\_\_ Local provider:

Please provide proposed schedule dates:

Begin Construction Date:

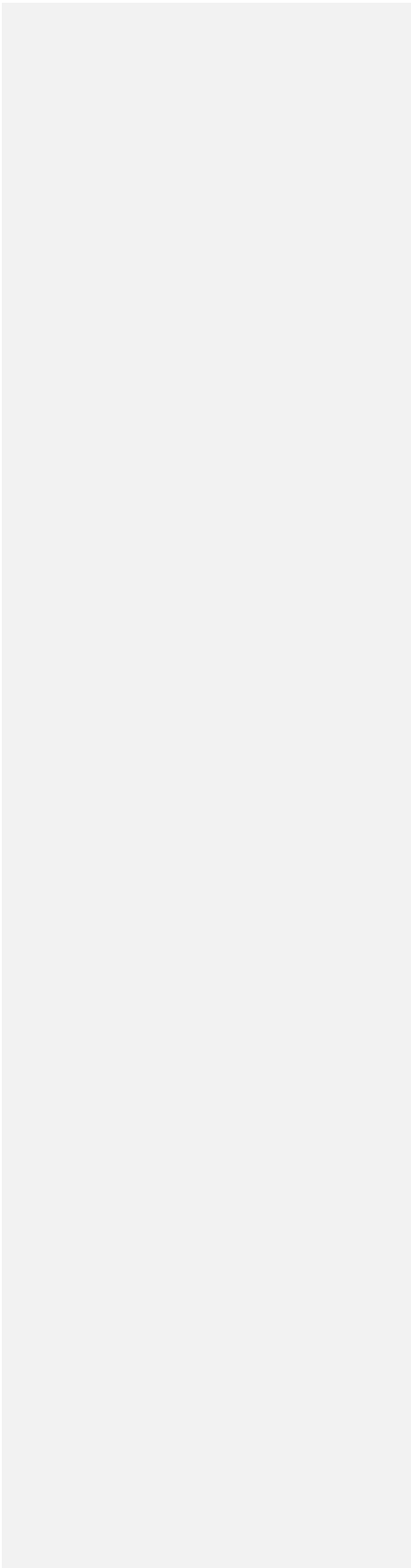
Generator step-up transformer Date:



Receives back feed power Date

Generation Testing Date:

Commercial Operation Date:



**APPENDIX 5**  
**OPTIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish an interconnection to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to System Operator an Interconnection Request; and

**WHEREAS**, on or after the date when the Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that the System Operator and Interconnecting Transmission Owner prepare an Optional Interconnection Study.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Optional Interconnection Study consistent with Section 10.0 of the LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by the Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Interconnecting Transmission Owner’s Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based up on the assumptions specified by the Interconnection Customer in Attachment A.  
In accordance with the LGIP, in performing the Optional Interconnection Study, the System Operator shall coordinate with Interconnecting Transmission Owner and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.
- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. Interconnecting Transmission Owner’s and System Operator’s good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].

The total estimated cost of the performance of the Optional Interconnection Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Optional Interconnection Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Optional Interconnection Study. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of invoice.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Optional Interconnection Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Optional Interconnection Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Optional Interconnection Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of

merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Optional Interconnection Study, the content of the Optional Interconnection Study, or the conclusions of the Optional Interconnection Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection

Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owners under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members,

employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Optional Interconnection Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Optional Interconnection Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located, without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed

severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instances; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.



7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

Attachment A

Appendix 5

Optional Interconnection

Study Agreement

**ASSUMPTIONS USED IN CONDUCTING  
THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by Interconnection Customer consistent with Section 10 of the LGIP.]

**APPENDIX 6**  
**LARGE GENERATOR INTERCONNECTION**  
**AGREEMENT**

**TABLE OF CONTENTS**

Article 1	Definitions
Article 2	Effective Date, Term and Termination
Article 3	Regulatory Filings
Article 4	Scope of Service
Article 5	Interconnection Facilities Engineering, Procurement, and Construction
Article 6	Testing and Inspection
Article 7	Metering
Article 8	Communications
Article 9	Operations
Article 10	Maintenance
Article 11	Performance Obligation
Article 12	Invoice
Article 13	Emergencies
Article 14	Regulatory Requirements and Governing Law
Article 15	Notices
Article 16	Force Majeure
Article 17	Default
Article 18	Indemnity, Consequential Damages and Insurance
Article 19	Assignment
Article 20	Severability
Article 21	Comparability
Article 22	Confidentiality
Article 23	Environmental Releases
Article 24	Information Requirements

Article 25	Information Access and Audit Rights
Article 26	Subcontractors
Article 27	Disputes
Article 28	Representations, Warranties and Covenants
Article 29	Omitted
Article 30	Miscellaneous

### **THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT**

("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with a Large Generating Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnecting Transmission Owner"). Under this Agreement, the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, System Operator is the central dispatching agency provided for under the Transmission Operating Agreement ("TOA") which has responsibility for the operation of the New England Control Area from the System Operator control center and the administration of the Tariff; and

**WHEREAS**, Interconnecting Transmission Owner is the owner or possessor of an interest in the Administered Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and

**WHEREAS**, System Operator, Interconnection Customer and Interconnecting Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

## **ARTICLE 1. DEFINITIONS**

The definitions contained in this Article 1 and those definitions embedded in an Article of this Agreement are intended to apply in the context of the generator interconnection process provided for in Schedule 22 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of generator interconnections under Schedule 22. Capitalized terms in Schedule 22 that are not defined in this Article 1 shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**At-Risk Expenditure** shall mean money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** shall have the meaning specified in Section 2.3 of the Large Generator Interconnection Procedures ("LGIP").

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability data bases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** shall mean that portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** shall mean: (i) in the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 5.2.3



of this LGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 5.2.3, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Large Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the

Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or

damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Engineering & Procurement ("E&P") Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.*

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such

term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** shall mean a Transmission Owner that owns, leases or otherwise possesses an interest in, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing, a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Large Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Generating Facility with the Administered Transmission System under the Standard Large Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** (a) shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of an existing Generating Facility; (iv) make a Material Modification to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System; (v) commence participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying

Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** shall mean the service provided by System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Standard Large Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the



deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**IRS** shall mean the Internal Revenue Service.

**Large Generating Facility** shall mean a Generating Facility having a maximum gross capability at or above zero degrees F of more than 20 MW.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff..

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2(a) of the Tariff.

**Material Modification** shall mean (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in ~~Attachment A-Appendix 1, Attachment A (and Attachment A-1, if applicable)~~ to the Interconnection Request or to the interconnection configuration, requested by the

Interconnection Customer that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Initial Synchronization Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; or (iv) except as provided in Section 3.2.3.4 of the LGIP, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6 of the LGIP, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource ("NR")** shall mean the portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability (“NR Capability”)** shall mean the maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 5.2.4 of this LGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 5.2.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Large Generating Facility to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a "higher-queued" Interconnection Request shall mean one that has been received by the System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as "lower-queued."

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably

expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for which new interconnection is sought; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for which new interconnection is sought; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for which new interconnection is sought; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for which new interconnection is sought; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in this Schedule 22 to the Tariff.

**Standard Large Generator Interconnection Procedures (“LGIP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in this Schedule 22 to the Tariff.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this LGIP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This LGIA shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner shall promptly and jointly file this LGIA with the Commission upon execution in accordance with Section 11.3 of the LGIP and Article 3.1, if required.

**2.2 Term of Agreement.** This LGIA, subject to the provisions of Article 2.3, and by mutual agreement of the Parties, shall remain in effect for a period of \_\_\_\_\_ years from the Effective Date (*term to be specified in individual Agreement, but in no case should the term be less than ten (10) years from the Effective Date or such other longer period as the Interconnection Customer may request*) and shall be automatically renewed for each successive one-year period thereafter.

### **2.3 Termination Procedures.**

**2.3.1 Written Notice.** This LGIA may be terminated by the Interconnection Customer, subject to continuing obligations of this LGIA and the Tariff, after giving the System Operator and Interconnecting Transmission Owner ninety (90) Calendar Days advance written notice, or by System Operator or Interconnecting Transmission Owner notifying the

Commission after a Generating Facility retires pursuant to the Tariff, provided that if an Interconnection Customer exercises its right to terminate on ninety (90) Calendar Days, any reconnection would be treated as a new interconnection request; or this LGIA may be terminated by Interconnecting Transmission Owner or System Operator by notifying the Commission after the Generating Facility permanently ceases Commercial Operation.

**2.3.2 Default.** Each Party may terminate this LGIA in accordance with Article 17.

Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing, if applicable, with the Commission of a notice of termination of this LGIA, which notice has been accepted for filing by the Commission. Termination of the LGIA shall not supersede or alter any requirements for deactivation or retirement of a generating unit under ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**2.4 Termination Costs.** If a Party elects to terminate this LGIA pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party(ies), as of the date of such Party's(ies') receipt of such notice of termination, that are the responsibility of such Party(ies) under this LGIA. In the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by the Commission:

**2.4.1** With respect to any portion of the Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades to the extent covered by this LGIA, that have not yet been constructed or installed, the Interconnecting Transmission Owner shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment

obligations with respect to such materials, equipment, and contracts, and the Interconnecting Transmission Owner shall deliver such material and equipment, and, if necessary, and to the extent possible, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Interconnecting Transmission Owner for any or all such costs of materials or equipment not taken by Interconnection Customer, either (i) in the case of overpayment, Interconnecting Transmission Owner shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by the Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts, or (ii) in the case of underpayment, Interconnection Customer shall promptly pay such amounts still due plus any costs, including penalties incurred by Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which the Interconnecting Transmission Owner has incurred expenses and has not been reimbursed by the Interconnection Customer.

- 2.4.2 Interconnecting Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Interconnecting Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.



**2.5 Disconnection.** Upon termination of this LGIA, Interconnection Service shall terminate and, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from a non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

**2.6 Survival.** This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party(ies) pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS**

**3.1 Filing.** The System Operator and Interconnecting Transmission Owner shall jointly file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required, in accordance with Section 11.3 of the LGIP. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this LGIA, or any amendment thereto, the Interconnection Customer shall reasonably cooperate with the System Operator and Interconnecting Transmission Owner with respect to such filing and to provide any information reasonably requested by the System Operator and/or the Interconnecting Transmission Owner needed to comply with applicable regulatory requirements.

### **ARTICLE 4. SCOPE OF SERVICE**

**4.1 Interconnection Product Options.** Interconnection Customer has selected the following (checked) type(s) of Interconnection Service:

Check: ☐ NR for NR Interconnection Service (NR Capability Only)

☐ CNR for CNR Interconnection Service (CNR Capability and NR Capability)

**4.1.1 Capacity Network Resource Interconnection Service (CNR Interconnection Service).**

**4.1.1.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which all other Capacity Network Resources are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Large Generating Facility to be designated as a Capacity Network Resource, to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNR Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as all other existing Capacity Network Resources, and to be studied as a Capacity Network Resource on the assumption that such a designation will occur.

**4.1.2 Network Resource Interconnection Service (NR Interconnection Service).**

**4.1.2.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which all other Network Resources are interconnected under the NC Interconnection Standard.

NR Interconnection Service allows the Interconnection Customer's Large Generating Facility to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of a Large Generating Facility that has been designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, unless pursuant to a new Interconnection Request for CNR Interconnection Service.

- 4.2 Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the LGIA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.
- 4.4 No Transmission Delivery Service.** The execution of this LGIA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.
- 4.5 Transmission Delivery Service Implications.** CNR Interconnection Service and NR Interconnection Service allow the Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on the New England

Transmission System as a Capacity Network Resource or Network Resource, up to the net CNR Capability or NR Capability, respectively, on the same basis as all other existing Capacity Network Resources and Network Resources interconnected to the New England Transmission System, and to be studied as a Capacity Network Resource or a Network Resource on the assumption that such a designation will occur. Although CNR Interconnection Service and NR Interconnection Service do not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Large Generating Facility in the same manner as it accesses Capacity Network Resources and Network Resources. A Large Generating Facility receiving CNR Interconnection Service or NR Interconnection Service may also be used to provide Ancillary Services, in accordance with the Tariff and Market Rule 1, after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Capacity Network Resource or Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Capacity Network Resource or as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all Generating Facilities that are similarly situated.

CNR Interconnection Service and NR Interconnection Service do not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures for the New England Transmission System in the same manner as other Capacity Network Resources or Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that the Interconnection Customer's Large Generating Facility be designated as a Capacity Network Resource or as a Network Resource by a Network Service Customer under the Tariff or that the Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as either a Capacity Network Resource or a Network Resource, it must do so pursuant to the Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining CNR Interconnection Service or NR Interconnection Service, as long as the Large Generating Facility has not been deemed to be retired, any future transmission service request for delivery from the Large Generating Facility on the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Capacity Network Resource or Network Resource, and regardless of changes in ownership of the Large Generating Facility. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the Large Generating Facility outside the New England Transmission System, or if the unit has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

**4.6 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.4. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING,  
PROCUREMENT, AND CONSTRUCTION**

**5.1 Options.** Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall specify the In-Service Date, Initial Synchronization Date, and Commercial Operation Date as specified in the Interconnection Request or as subsequently revised pursuant to Section 4.4 of the LGIP; and select either Standard Option or Alternate Option set forth below for completion of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as set forth in Appendix A, and such dates and selected option shall be set forth in Appendix B (Milestones). In accordance with Section 8 of the LGIP and unless otherwise mutually agreed, the Alternate Option is not an available option if the Interconnection Customer waived the Interconnection Facilities Study.

**5.1.1 Standard Option.** The Interconnecting Transmission Owner shall design, procure, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B (Milestones). The Interconnecting Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Interconnecting Transmission Owner reasonably expects that it will not be able to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the specified dates, the Interconnecting Transmission Owner shall promptly provide written notice to the Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by Interconnection Customer are acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume

responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities by the designated dates.

If Interconnecting Transmission Owner subsequently fails to complete Interconnecting Transmission Owner's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B (Milestones); Interconnecting Transmission Owner shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable System Operator refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by Interconnection Customer are not acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. The System Operator, Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to the LGIA. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If the Interconnection Customer elects not to exercise its option under Article 5.1.3 (Option to Build), Interconnection Customer shall so notify Interconnecting Transmission Owner within thirty (30) Calendar Days, and the Parties

shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection Customer) pursuant to which Interconnecting Transmission Owner is responsible for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Interconnecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades pursuant to 5.1.1 (Standard Option).

**5.2 General Conditions Applicable to Option to Build.** If Interconnection Customer assumes responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) the Interconnection Customer shall engineer, procure equipment, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Interconnecting Transmission Owner;
- (2) Interconnection Customer's engineering, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Interconnecting Transmission Owner would be subject in the engineering, procurement or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Interconnecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;



- (4) prior to commencement of construction, Interconnection Customer shall provide to Interconnecting Transmission Owner a schedule for construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Interconnecting Transmission Owner;
- (5) at any time during construction, Interconnecting Transmission Owner shall have the right to gain unrestricted access to the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
- (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Interconnecting Transmission Owner, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) the Interconnection Customer shall indemnify the Interconnecting Transmission Owner for claims arising from the Interconnection Customer's construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 (Indemnity);
- (8) the Interconnection Customer shall transfer control of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the Interconnecting Transmission Owner;
- (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Interconnecting Transmission Owner;
- (10) Interconnecting Transmission Owner shall approve and accept for operation and maintenance the Interconnecting Transmission Owner's Interconnection Facilities and Stand

Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Interconnecting Transmission Owner “as built” drawings, information, and any other documents that are reasonably required by Interconnecting Transmission Owner to assure that the Interconnection Facilities and Stand Alone Network Upgrades are built to the standards and specifications required by Interconnecting Transmission Owner.

**5.3 Liquidated Damages.** The actual damages to the Interconnection Customer, in the event the Interconnecting Transmission Owner’s Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Interconnecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer’s fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Interconnecting Transmission Owner to the Interconnection Customer in the event that Interconnecting Transmission Owner does not complete any portion of the Interconnecting Transmission Owner’s Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades, in the aggregate, for which Interconnecting Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades for which the Interconnecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Interconnecting Transmission Owner to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure

performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Interconnecting Transmission Owner's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless the Interconnection Customer would have been able to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Interconnecting Transmission Owner's delay; (2) the Interconnecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with the Interconnecting Transmission Owner or any cause beyond Interconnecting Transmission Owner's reasonable control or reasonable ability to cure, including but not limited to, actions by the System Operator that cause delays and/or delays in licensing, permitting or consents where the Interconnecting Transmission Owner has pursued such licenses, permits or consents in good faith; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

- 5.4 Power System Stabilizers.** If a Power System Stabilizer is required to be installed on the Large Generating Facility for the purpose of maintaining system stability, the Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the System Operator and Interconnecting Transmission Owner, and consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator and Interconnecting Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service

or not capable of automatic operation, the Interconnection Customer shall immediately notify the System Operator and Interconnecting Transmission Owner, or their designated representative. The requirements of this paragraph shall not apply to non-synchronous power production equipment.

**5.5 Equipment Procurement.** If responsibility for construction of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades is to be borne by the Interconnecting Transmission Owner, then the Interconnecting Transmission Owner shall commence design of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** The Interconnecting Transmission Owner has completed the Facilities Study pursuant to the Facilities Study Agreement;

**5.5.2** The Interconnecting Transmission Owner has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.5.3** The Interconnection Customer has provided security to the Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.6 Construction Commencement.** The Interconnecting Transmission Owner shall commence construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades;
- 5.6.3** The Interconnecting Transmission Owner has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B (Milestones); and
- 5.6.4** The Interconnection Customer has provided security to Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.7 Work Progress.** The Interconnection Customer and the Interconnecting Transmission Owner shall keep each Party informed, by written quarterly progress reports, as to the progress of their respective design, procurement and construction efforts in order to meet the dates specified in Appendix B (Milestones). Any Party may also, at any other time, request a written progress report from the other Parties. If, at any time, the Interconnection Customer determines that the completion of the Interconnecting Transmission Owner's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer, upon the System Operator's approval that the change in the In-Service Date will not constitute a Material Modification pursuant to Section 4.4 of the LGIP, will provide written notice to the Interconnecting Transmission Owner of such later date upon which the completion of the Interconnecting Transmission Owner's Interconnection Facilities will be required.

**5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with the New England Transmission System, and shall work diligently and in good faith to make any necessary design changes.

**5.9 Limited Operation.** If any of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the

Commercial Operation Date of the Large Generating Facility, System Operator and the Interconnecting Transmission Owner shall, up on the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. System Operator and Interconnecting Transmission Owner shall permit Interconnection Customer to operate the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Interconnection Customer's Interconnection Facilities ("ICIF").** Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.10.1 Large Generating Facility Specifications.** Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Interconnecting Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Interconnecting Transmission Owner shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Interconnecting Transmission Owner's Review.** Interconnecting Transmission Owner's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by

Interconnecting Transmission Owner, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner.

**5.10.3 ICIF Construction.** The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Interconnecting Transmission Owner “as-built” drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relay AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer’s step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facilities. The Interconnection Customer shall provide Interconnecting Transmission Owner specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.11 Interconnecting Transmission Owner’s Interconnection Facilities Construction.** The Interconnecting Transmission Owner’s Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnecting Transmission Owner shall deliver to the Interconnection Customer the following “as-built” drawings, information and documents for the Interconnecting Transmission Owner’s Interconnection Facilities. The appropriate drawings and relay diagrams shall be included in Appendix A of this LGIA. The System Operator will obtain operational control of the Interconnecting Transmission Owner’s Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities pursuant to the TOA.

**5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at the incremental cost to another Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents if allowed under the applicable agency agreement, that are necessary to enable the Access Party solely to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Administered Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the New England Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

**5.13 Lands of Other Property Owners.** If any part of the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall at Interconnection Customer's expense use Reasonable Efforts, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property. Notwithstanding the foregoing, the Interconnecting Transmission Owner shall not be obligated to exercise eminent domain authority in a manner inconsistent with Applicable Laws and Regulations or when an Interconnection Customer is authorized under Applicable Laws and Regulations to exercise eminent domain on its own behalf.

**5.14 Permits.** System Operator, Interconnecting Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations



that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Interconnecting Transmission Owner shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Interconnecting Transmission Owner's own, or an Affiliate's generation.

**5.15 Early Construction of Base Case Facilities.** Interconnection Customer may request Interconnecting Transmission Owner to construct, and Interconnecting Transmission Owner shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Administered Transmission System, which are included in the Base Case of the Facilities Study for the Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date. The Interconnection Customer shall reimburse the Interconnecting Transmission Owner for all costs incurred related to early construction to the extent such costs are not recovered from other Interconnection Customers included in the base case.

**5.16 Suspension.** Interconnection Customer reserves the right, upon written notice to Interconnecting Transmission Owner and System Operator, to suspend at any time all work by Interconnecting Transmission Owner associated with the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that the New England Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the System Operator's and Interconnecting Transmission Owner's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Interconnecting Transmission Owner (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New England Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Interconnecting Transmission Owner cannot reasonably avoid; provided, however, that

prior to canceling or suspending any such material, equipment or labor contract, Interconnecting Transmission Owner shall obtain Interconnection Customer's authorization to do so. Interconnecting Transmission Owner shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Interconnecting Transmission Owner required under this LGIA pursuant to this Article 5.16, and has not requested Interconnecting Transmission Owner to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Interconnecting Transmission Owner and System Operator, if no effective date is specified. A suspension under this Article 5.16 does not automatically permit an extension of the In-Service Date, the Initial Synchronization Date or the Commercial Operation Date. A request for extension of such dates is subject to Section 4.4.5 of the LGIP. Notwithstanding the extensions permitted under Section 4.4.5 of the LGIP, the three-year period shall in no way result in an extension of the In-Service Date, the Initial Synchronization Date or the Commercial Operation Date that exceeds seven (7) years from the date of the Interconnection Request; otherwise, this LGIA shall be deemed terminated.

## **5.17 Taxes.**

**5.17.1 Payments Not Taxable.** The Parties intend that all payments or property transfers made by any Party for the installation of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior

to the transmission of the electricity on the New England Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Interconnecting Transmission Owner for the Interconnecting Transmission Owner's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Interconnecting Transmission Owner's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Interconnecting Transmission Owner's request, Interconnection Customer shall provide Interconnecting Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Interconnecting Transmission Owner represents and covenants that the cost of the Interconnecting Transmission Owner's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon Interconnecting Transmission Owner.** Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Interconnecting Transmission Owner from the cost consequences of any current tax liability imposed against Interconnecting Transmission Owner as the result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this LGIA, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Interconnecting Transmission Owner.

The Interconnecting Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Interconnecting Transmission Owner has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Interconnecting Transmission Owner to report payments or property as income subject to taxation; provided, however, that Interconnecting Transmission Owner may require Interconnection Customer to provide security, in a form reasonably acceptable to Interconnecting Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Interconnecting Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Interconnecting Transmission Owner of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period, and the applicable statute of limitation, as it may be extended by the Interconnecting Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Interconnecting Transmission Owner, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Interconnecting Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by Interconnecting Transmission Owner as a result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this LGIA (without regard to any payments

under this Article 5.17) (the “Gross Income Amount”) over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the “Present Value Depreciation Amount”), plus (2) an additional amount sufficient to permit the Interconnecting Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1). For this purpose, (i) Current Taxes shall be computed based on Interconnecting Transmission Owner composite federal and state tax rates at the time the payments or property transfers are received and Interconnecting Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the “Current Tax Rate”), and (ii) the Present Value Depreciation Amount shall be computed by discounting Interconnecting Transmission Owner’s anticipated tax depreciation deductions as a result of such payments or property transfers by Interconnecting Transmission Owner current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer’s liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer’s estimated tax liability in the event taxes are imposed shall be stated in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer’s request and expense, Interconnecting Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Interconnecting Transmission Owner under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer’s knowledge. Interconnecting Transmission Owner and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Interconnecting Transmission Owner shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Interconnecting Transmission Owner shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within ten (10) years from the date on which the relevant Interconnecting Transmission Owner's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenant contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Interconnecting Transmission Owner retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Interconnecting Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Interconnecting Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Interconnecting Transmission Owner shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Interconnecting Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Interconnecting Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Interconnecting Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other

contest, including the selection of counsel and compromise or settlement of the claim, but Interconnecting Transmission Owner shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Interconnecting Transmission Owner may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Interconnecting Transmission Owner, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Interconnecting Transmission Owner for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Interconnecting Transmission Owner which holds that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Interconnecting Transmission Owner in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this LGIA is not taxable to

Interconnecting Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Interconnecting Transmission Owner are not subject to federal income tax, or (d) if Interconnecting Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Interconnecting Transmission Owner pursuant to this LGIA, Interconnecting Transmission Owner shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amounts paid by Interconnection Customer to Interconnecting Transmission Owner for such taxes which Interconnecting Transmission Owner did not submit to the taxing authority, interest calculated in accordance with the methodology set forth in the Commission's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Interconnecting Transmission Owner refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Interconnecting Transmission Owner, any refund or credit Interconnecting Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Interconnecting Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Interconnecting Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Interconnecting Transmission Owner will remit such amount promptly to Interconnection Customer only after and to the extent that Interconnecting Transmission Owner has received a tax refund, credit or



offset from any Governmental Authority for any applicable overpayment of income tax related to the Interconnecting Transmission Owner's Interconnection Facilities.

The intent of this provision is to leave Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Interconnecting Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Interconnecting Transmission Owner for which Interconnection Customer may be required to reimburse Interconnecting Transmission Owner under the terms of this LGIA. Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, Interconnecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Interconnecting Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Interconnecting Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Interconnecting Transmission Owner.

**5.18 Tax Status.** Each Party shall cooperate with the others to maintain the other Party's(ies') tax status. Nothing in this LGIA is intended to adversely affect any Interconnecting Transmission

Owner's tax-exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

## **5.19 Modification.**

**5.19.1 General.** Either Interconnection Customer or Interconnecting Transmission Owner may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, the facilities of any Affected Parties, or the New England Transmission System, that Party shall provide to the other Parties and any Affected Party: (i) sufficient information regarding such modification so that the other Party(ies) may evaluate the potential impact of such modification prior to commencement of the work; and (ii) such information as may be required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party(ies) at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed. Notwithstanding the foregoing, no Party shall be obligated to proceed with a modification that would constitute a Material Modification and therefore require an Interconnection Request under the LGIP, except as provided under and pursuant to the LGIP.

In the case of Large Generating Facility or Interconnection Customer's Interconnection Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Interconnecting Transmission Owner shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades necessitated by

such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Interconnecting Transmission Owner makes to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System to facilitate the interconnection of a third party to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System, or to provide transmission service to a third party under the Tariff, except as provided for under the Tariff or any other applicable tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

**6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Interconnecting Transmission Owner shall test Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Interconnection Customer and Interconnecting Transmission Owner shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, as may be necessary to ensure the continued interconnection of the Large Generating Facility to the Administered Transmission System in a safe and reliable manner. The Interconnection Customer and Interconnecting Transmission Owner each shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's(ies') facilities, at the requesting Party's expense, as may be in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator shall also have the right to require reasonable additional testing of the other Party's (ies') facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 6.3 Right to Observe Testing.** Each Party shall notify the System Operator and other Party(ies) in advance of its performance of tests of its Interconnection Facilities. The other Party(ies) has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's(ies') tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's(ies') System Protection Facilities and other protective equipment; and (iii) review the other Party's(ies') maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. Each Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Parties. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be governed by Article 22.

## ARTICLE 7. METERING

- 7.1 General.** Each Party shall comply with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding metering. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment. Unless the System Operator otherwise agrees, the Interconnection Customer shall be responsible for installing and maintaining compatible metering and communications equipment to accurately account for the capacity and energy being transmitted under this Tariff and to communicate the information to the System Operator. Unless otherwise agreed, such equipment shall remain the property of the Interconnecting Transmission Owner.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Interconnecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Interconnecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** Interconnecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards and the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 7.4 Testing of Metering Equipment.** Interconnecting Transmission Owner shall inspect and test all Interconnecting Transmission Owner-owned Metering Equipment upon installation and thereafter as specified in the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have

representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than the values specified within ISO New England Operating Documents, or successor documents, from the measurement made by the standard meter used in the test, the Interconnecting Transmission Owner shall adjust the measurements, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 7.5 Metering Data.** At Interconnection Customer's expense, metered data shall be telemetered to one or more locations designated by System Operator and Interconnecting Transmission Owner. The hourly integrated metering established in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, used to transmit Megawatt hour ("MWh") per hour data by electronic means and the Watt-hour meters equipped with kilowatt-hour ("kwh") or MWh registers to be read at month's end shall be the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection. Instantaneous metering is required for all Generators in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 8. COMMUNICATIONS**

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with the System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer or Interconnecting Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by System Operator and Interconnecting

Transmission Owner through use of a dedicated point-to-point data circuit(s). The communication protocol for the data circuit(s) shall be specified by System Operator and Interconnecting Transmission Owner. All information required by the ISO New England Operating Documents, or successor documents, must be telemetered directly to the location(s) specified by System Operator and Interconnecting Transmission Owner.

Each Party will promptly advise the other Party(ies) if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party(ies). The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

- 8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

- 8.4 Provision of Data from an Intermittent Power Resource.** The Interconnection Customer whose Generating Facility is an Intermittent Power Resource shall provide meteorological and forced outage data to the System Operator to the extent necessary for the System Operator's development and deployment of power production forecasts for that class of Intermittent Power Resources. The Interconnection Customer with an Intermittent Power Resource having wind as the energy source, at a minimum, will be required to provide the System Operator with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with an Intermittent Power Resource having solar as the energy source, at a minimum, will be required to provide the System Operator with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The System Operator and Interconnection Customer whose Generating Facility is an Intermittent Power Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power product forecast. The Interconnection Customer whose Generating Facility is an Intermittent Power Resource also shall submit data to the System Operator regarding all forced outages to the extent necessary for the System Operator's development and deployment of power production forecasts for that class of Intermittent Power Resources. The exact specifications of the meteorological and forced outage data to be provided

by the Interconnection Customer to the System Operator, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Intermittent Power Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the System Operator. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

## **ARTICLE 9. OPERATIONS**

- 9.1 General.** Each Party shall comply with applicable provisions of ISO New England Operating Documents, Reliability Standards, or successor documents, regarding operations. Each Party shall provide to the other Party(ies) all information that may reasonably be required by the other Party(ies) to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Control Area Notification.** Before Initial Synchronization Date, the Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner in writing in accordance with ISO New England Operating Documents, Reliability Standards, or successor documents. If the Interconnection Customer elects to have the Large Generating Facility dispatched and operated from a remote Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs and ISO New England Operating Documents, Reliability Standards, or successor documents, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area for dispatch and operations.
- 9.3 Interconnecting Transmission Owner and System Operator Obligations.** Interconnecting Transmission Owner and System Operator shall cause the Interconnecting Transmission Owner's



Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA and ISO New England Operating Documents, Reliability Standards, or successor documents. Interconnecting Transmission Owner or System Operator may provide operating instructions to Interconnection Customer consistent with this LGIA, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Interconnecting Transmission Owner's and System Operator's operating protocols and procedures as they may change from time to time. Interconnecting Transmission Owner and System Operator will consider changes to their operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA and ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.5 Start-Up and Synchronization.** The Interconnection Customer is responsible for the proper start-up and synchronization of the Large Generating Facility to the New England Transmission System in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6 Reactive Power.**

**9.6.1 Power Factor Design Criteria.**

**9.6.1.1 Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility and all generating units comprising the Large Generating Facility, as applicable, to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, unless the System Operator or Interconnecting Transmission Owner has established

different requirements that apply to all synchronous (and non-wind non-synchronous generators as specified in Appendix G, Section A.ii.4 to the LGIA) generators in the Control Area on a comparable basis and in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.1.2 Non-Synchronous Generation.** The power factor design criteria requirements applicable to non-synchronous Generating Facilities shall be as specified in in Appendix G to the LGIA. The Low Voltage Ride-Through Capability requirements applicable to wind and inverter-based Generating Facilities shall be as specified in Appendix G to the LGIA.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has synchronized the Large Generating Facility to the New England Transmission System, Interconnection Customer shall operate the Large Generating Facility at the direction of System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding voltage schedules in accordance with such requirements.

**9.6.2.1 Voltage Regulators.** The Interconnection Customer must keep and maintain a voltage regulator on all generating units comprising a Large Generating Facility in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. All Interconnection Customers that have, or are required to have, automatic voltage regulation shall normally operate the Large Generating Facility with its voltage regulators in automatic operation.

It is the responsibility of the Interconnection Customer to maintain the voltage regulator in good operating condition and promptly report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.

**9.6.2.2 Governor Control.** The Interconnection Customer is obligated to provide and maintain a functioning governor on all generating units comprising the Large Generating Facility in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.2.3 System Protection.** The Interconnection Customer shall install and maintain protection systems in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.3 Payment for Reactive Power.**

Interconnection Customers shall be compensated for Reactive Power service in accordance with Schedule 2 of the Section II of the Tariff.

**9.7 Outages and Interruptions.**

**9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's(ies') facilities as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.1.2 Outage Schedules.** Outage scheduling, and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.2 Interruption of Service.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

**9.7.3 Under-Frequency and Over Frequency Conditions.** Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with System Operator and Interconnecting Transmission Owner in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall install at Interconnection Customer's expense, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, any System Protection Facilities that may be required on

the Interconnecting Transmission Owner Interconnection Facilities or the New England Transmission System as a result of the interconnection of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities.

**9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.4** Each Party's protective relay design shall allow for tests required in Article 6.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.5 Requirements for Protection.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the New England Transmission System not otherwise isolated by Interconnecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New England Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the New England Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer

shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the New England Transmission System could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.** A Party's facilities shall not cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Party(ies) with a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Administered Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Interconnecting Transmission Owner's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon

the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to the Commission for resolution.

- 9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or the New England Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 10. MAINTENANCE**

- 10.1 Interconnecting Transmission Owner and Customer Obligations.** Interconnecting Transmission Owner and Interconnection Customer shall each maintain that portion of its respective facilities that are part of the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 10.2 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and

such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Interconnecting Transmission Owner's Interconnection Facilities, Stand Alone Network Upgrades, Network Upgrades and Distribution Upgrades.

## **ARTICLE 11. PERFORMANCE OBLIGATION**

- 11.1 Interconnection Customer's Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at its sole expense.
- 11.2 Interconnecting Transmission Owner's Interconnection Facilities.** Interconnecting Transmission Owner shall design, procure, construct, install, own and/or control the Interconnecting Transmission Owner's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades, and to the extent provided by Article 5.1, Stand Alone Network Upgrades, and Distribution Upgrades described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades). The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer.
- 11.4 Cost Allocation; Compensation; Rights; Affected Systems**
- 11.4.1 Cost Allocation.** Cost allocation of Generator Interconnection Related Upgrades shall be in accordance with Schedule 11 of Section II of the Tariff.



**11.4.2 Compensation.** Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its Generator Interconnection Related Upgrade shall be determined in accordance with Sections II and III of the Tariff.

**11.4.3 Rights.** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

**11.4.4 Special Provisions for Affected Systems.** The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Generating Facility.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of an Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Interconnecting Transmission Owner in accordance with Section 7 of Schedule 11 of the Tariff. In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.** If System Operator or Interconnecting Transmission Owner requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.4.1 of this LGIA, Interconnection Customer shall be compensated pursuant to the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.** Interconnection Customer shall be compensated for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the New England Transmission System during an Emergency Condition in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 12. INVOICE**

**12.1 General.** Each Party shall submit to the other Party (ies), on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party (ies) under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within six months after completion of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, Interconnecting Transmission Owner shall provide an invoice of the final cost of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades and

shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Interconnecting Transmission Owner shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice. Interconnection Customer shall pay to Interconnecting Transmission Owner any amount by which the actual payment by Interconnection Customer for estimated costs falls short of the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by any Party will not constitute a waiver of any rights or claims the other Party(ies) may have under this LGIA.

**12.4 Disputes.** In the event of a billing dispute between Interconnecting Transmission Owner and Interconnection Customer, Interconnecting Transmission Owner shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Interconnecting Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Interconnecting Transmission Owner may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in the Commission's Regulations at 18 CFR § 35.19a(a)(2)(iii).

## **ARTICLE 13. EMERGENCIES**

- 13.1 Obligations.** Each Party shall comply with the Emergency Condition procedures of the System Operator in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 13.2 Notice.** Interconnecting Transmission Owner or System Operator as applicable shall notify Interconnection Customer and System Operator or Interconnecting Transmission Owner as applicable, promptly when it becomes aware of an Emergency Condition that affects the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Interconnecting Transmission Owner and System Operator promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Interconnecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.
- 13.3 Immediate Action.** Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Interconnecting Transmission Owner and System Operator, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by the Interconnecting Transmission Owner or the System Operator or otherwise regarding the New England Transmission System.
- 13.4 System Operator's and Interconnecting Transmission Owner's Authority.**

**13.4.1 General.** System Operator or Interconnecting Transmission Owner may take whatever actions or inactions with regard to the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the New England Transmission System or Interconnecting Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. System Operator and Interconnecting Transmission Owner may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of System Operator's and Interconnecting Transmission Owner's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.4.2 Reduction and Disconnection.** System Operator and Interconnecting Transmission Owner may reduce Interconnection Service or disconnect the Large Generating Facility or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. These rights are

separate and distinct from any right of curtailment of the System Operator and Interconnecting Transmission Owner pursuant to the Tariff. When the System Operator and Interconnecting Transmission Owner can schedule the reduction or disconnection in advance, System Operator and Interconnecting Transmission Owner shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. System Operator and Interconnecting Transmission Owner shall coordinate with the Interconnection Customer in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the System Operator and Interconnecting Transmission Owner. Any reduction or disconnection shall continue only for so long as reasonably necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the New England Transmission System to their normal operating state as soon as practicable in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 13.5 Interconnection Customer Authority.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents and the LGIA and the LGIP, the Interconnection Customer may take whatever actions or inactions with regard to the Large Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.

- 13.6 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this LGIA, a Party shall not be liable to another Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

- 14.1 Regulatory Requirements.** Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended. To the extent that a condition arises that could result in Interconnection Customer's inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, the Parties shall engage in good faith negotiations to address the condition so that such result will not occur and so that this LGIA can be performed.

**14.2 Governing Law.**

- 14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- 14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- 14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **ARTICLE 15. NOTICES**

- 15.1 General.** Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by a Party to another Party and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F (Addresses for Delivery of Notices and Billings).  
A Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.
- 15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.
- 15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another Party and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.
- 15.4 Operations and Maintenance Notice.** Each Party shall notify the other Party(ies) in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **ARTICLE 16. FORCE MAJEURE**

- 16.1 Force Majeure.**
- 16.1.1** Economic hardship is not considered a Force Majeure event.



**16.1.2** A Party shall not be considered to be in Default with respect to any obligation hereunder (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party(ies) in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **ARTICLE 17. DEFAULT**

### **17.1 Default.**

**17.1.1 General.** No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act or omission of the other Party(ies). Upon a Breach, the non-Breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party(ies) shall have the right to terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this LGIA.

## **ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

**18.1 Indemnity.** Each Party shall at all times indemnify, defend, and save the other Party(ies) harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party’s(ies’) action or inactions of their obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by an indemnified Party.

**18.1.1 Indemnified Person.** If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party

contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in

the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in which event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the Liquidated Damages heretofore described, in no event shall a Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** The Interconnecting Transmission Owner and the Interconnection Customer shall, at their own expense, maintain in force throughout the period of this LGIA, and until released by the other Party (ies), the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available

and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death, and property damage.

- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party(ies), its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only

one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9** Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program, provided that such Party's senior secured debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article, it shall notify the other Party (ies) that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

**18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

#### **ARTICLE 19. ASSIGNMENT**

**19.1 Assignment.** This LGIA may be assigned by any Party only with the written consent of the other Parties; provided that the Parties may assign this LGIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that the Interconnection Customer shall have the right to assign this LGIA, without the consent of the Interconnecting Transmission Owner or System Operator, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and System Operator of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the Interconnecting Transmission Owner and System Operator of the date and particulars of any such exercise of assignment right(s), including providing the Interconnecting Transmission Owner with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

#### **ARTICLE 20. SEVERABILITY**

**20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or

covenant of this LGIA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Interconnecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to another prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by a Party, the other Party(ies) shall provide, in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.



**22.1.1 Term.** During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party(ies) that it no longer is confidential.

**22.1.3 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or are considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under this LGIA or its regulatory requirements.

**22.1.7 Order of Disclosure.** If a court or a Governmental Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.** Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party(ies), use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party(ies)) or return to the other Party(ies), without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party(ies).

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Parties shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR. section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this LGIA prior

to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the LGIA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

- 22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Parties’ Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **ARTICLE 23. ENVIRONMENTAL RELEASES**

- 23.1** Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation

activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any Governmental Authorities addressing such events.

#### **ARTICLE 24. INFORMATION REQUIREMENTS**

- 24.1 Information Acquisition.** Subject to any applicable confidentiality restrictions, including but not limited to, codes of conduct, each Party shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by System Operator and Interconnecting Transmission Owner.** The initial information submission by System Operator and Interconnecting Transmission Owner shall occur no later than one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date and shall include information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Parties. On a monthly basis Interconnecting Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date. Interconnection Customer shall submit a completed copy of the Large Generating Facility data

requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Interconnecting Transmission Owner and System Operator for the Interconnection Feasibility Study, Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Interconnecting Transmission Owner and System Operator standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is different from what was originally provided to Interconnecting Transmission Owner pursuant to the Interconnection Study Agreement between Interconnecting Transmission Owner and Interconnection Customer, then the System Operator will review it and conduct appropriate studies, as needed, at the Interconnection Customer's cost, to determine the impact on the New England Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

**24.4 Information Supplementation.** Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information and "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that

mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to the Interconnecting Transmission Owner for each individual generating unit in a station.

The Interconnection Customer shall provide the Interconnecting Transmission Owner and System Operator with any information changes due to proposed equipment replacement, repair, or adjustment. Interconnecting Transmission Owner shall provide the Interconnection Customer and System Operator with any information changes due to proposed equipment replacement, repair or adjustment in the directly connected substation or any adjacent Interconnecting Transmission Owner-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information in accordance with Article 5.19 of this Agreement.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Parties information that is in the possession of the disclosing Party and is necessary in order for the other Party(ies) to: (i) verify the costs incurred by the disclosing Party for which the other Party(ies) are responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.
- 25.2 Reporting of Non-Force Majeure Events.** Each Party (the "notifying Party") shall notify the other Party (ies) when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing,

notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory Breach of this LGIA.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party(ies), to audit at its own expense the other Party's(ies') accounts and records pertaining to a Party's performance or a Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's(ies') costs, calculation of invoiced amounts, the efforts to allocate responsibility for the provision of reactive support to the New England Transmission System, the efforts to allocate responsibility for interruption or reduction of generation on the New England Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

**25.4 Audit Rights Periods.**

**25.4.1 Audit Rights Period for Construction-Related Accounts and Records.** Accounts and records related to the design, engineering, procurement, and construction of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four (24) months following Interconnecting Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four (24) months after the auditing Party's receipt of an invoice giving rise to such cost obligations;



and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four (24) months after the event for which the audit is sought.

- 25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party(ies) together with those records from the audit which support such determination.

## **ARTICLE 26. SUBCONTRACTORS**

- 26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.
- 26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **ARTICLE 27. DISPUTES**

- 27.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide

the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

**27.2 External Arbitration Procedures.** Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree up on a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail

**27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction.

The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel; or (2) a pro rata share of the cost of a single arbitrator chosen by the Parties.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

**28.1.2 Authority.** Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

#### **ARTICLE 29. [OMITTED]**

#### **ARTICLE 30. MISCELLANEOUS**

**30.1 Binding Effect.** This LGIA and the rights and obligations hereof shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**30.2 Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

**30.3 Rules of Interpretation.** This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any

Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix of this LGIA, or such Section of the LGIP or such Appendix of the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**30.4 Entire Agreement.** Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. Except for the ISO New England Operating Documents, Applicable Reliability Standards, any applicable tariffs, related facilities agreements, or successor documents, there are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this LGIA.

**30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

**30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by a Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this LGIA. Termination or Default of this LGIA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this LGIA shall, if requested, be provided in writing.

**30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

**30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.** Consistent with Section 11.3 of the LGIP, Interconnecting Transmission Owner and System Operator shall have the right to make unilateral filings with the Commission to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this LGIA pursuant

to section 206 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Parties and to participate fully in any proceeding before the Commission in which such modifications may be considered. In the event of disagreement on terms and conditions of the LGIA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to Interconnecting Transmission Owner's position on such terms and conditions. Nothing in this LGIA shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.** This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

**IN WITNESS WHEREOF,** the Parties have executed this LGIA in triplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**ISO New England Inc. (System Operator)**

By:

Title:

Date:

**[Insert Name of] (Interconnecting Transmission Owner)**

By:

Title:

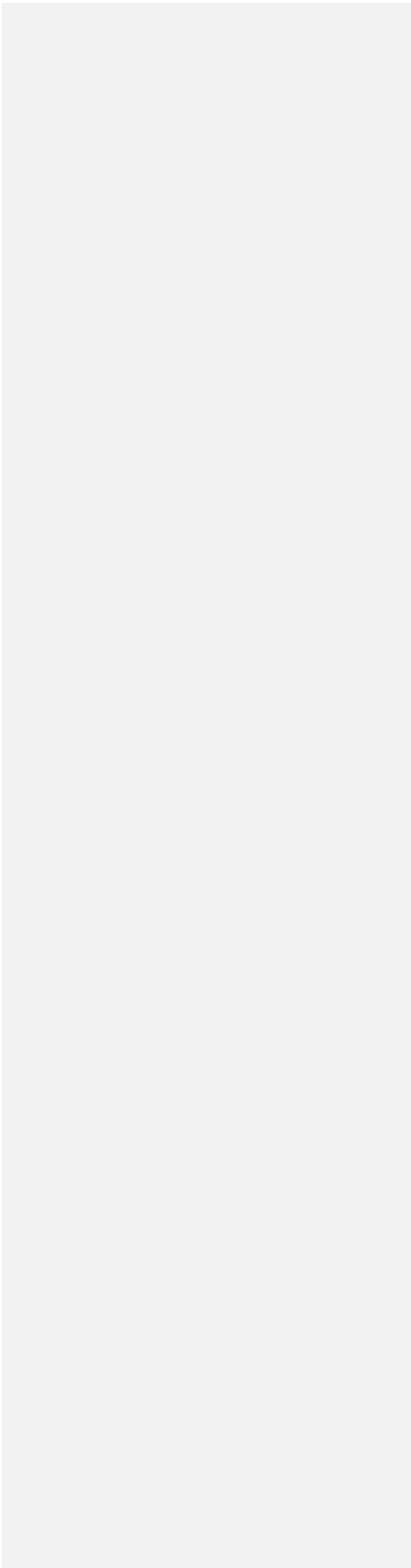
Date:

**[*Insert name of*] (Interconnection Customer)**

By:

Title:

Date:





## **APPENDICES TO LGIA**

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings
Appendix G	Interconnection Requirements for a Wind Generating Plant

## APPENDIX A TO LGIA

### Interconnection Facilities, Network Upgrades and Distribution Upgrades

#### 1. Interconnection Facilities:

- a. **Point of Interconnection and Point of Change of Ownership.** The Point of Interconnection shall be at the point where *[insert description of location]*. See Appendix A-*[insert]*, which drawing is attached hereto and made part hereof.

The Point of Change of Ownership shall be at the point where *[insert description of location]*. See Appendix A – *[insert]*, which drawing is attached hereto and made part hereof.

If not located at the Point of Interconnection, the metering point(s) shall be located at: *[insert location]*.

- b. **Interconnection Customer's Interconnection Facilities (including metering equipment).** The Interconnection Customer shall construct *[insert Interconnection Customer's Interconnection Facilities]*. See Appendix A-*[insert]*.
- c. **Interconnecting Transmission Owner's Interconnection Facilities (including metering equipment).** The Interconnecting Transmission Owner shall construct *[insert Interconnecting Transmission Owner's Interconnection Facilities, [including any Cluster Enabling Transmission Upgrades](#)]*. See Appendix –*[insert]*.

#### 2. Network Upgrades:

- a. **Stand Alone Network Upgrades.** *[insert Stand Alone Network Upgrades]*.

- b. **Other Network Upgrades.** *[insert Other Network Upgrades, [including any Cluster Enabling Transmission Upgrades](#)].*

3. **Distribution Upgrades.** *[insert Distribution Upgrades]*

4. **Affected System Upgrades.** *[insert Affected System Upgrades]*

5. **Contingency Upgrades List:**

a. **Long Lead Facility-Related Upgrades.** The Interconnection Customer's Large Generating Facility is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the LGIP. Pursuant to Section 4.1 of the LGIP, the Interconnection Customer shall be responsible for the following upgrades in the event that the Long Lead Facility achieves Commercial Operation and obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert list of upgrades]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this LGIA in accordance with Article 17.1, and the System Operator will initiate all necessary steps to terminate this LGIA, in accordance with Article 2.3.

b. **Other Contingency Upgrades.** *[e.g., list of upgrades associated with higher queued Interconnection Requests with LGIAs prior to this LGIA and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Large Generating Facility.]*

- 6. Post-Forward Capacity Auction Re-study Upgrade Obligations.** *[insert any change in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation through a Forward Capacity Auction.]*

## APPENDIX B TO LGIA

### Milestones

- 1. Selected Option Pursuant to Article 5.1:** Interconnection Customer selects the *[insert]*.  
Options as described in Articles 5.1.*[insert]*, 5.1.*[insert]*, and 5.1.*[insert]* ] shall not apply to this LGIA.
- 2. Milestones and Other Requirements for all Large Generating Facilities:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the LGIP and this LGIA. The referenced section of the LGIP or article of the LGIA should be reviewed by each Party to understand the requirements of each milestone.

Item No.	Milestone Description	Responsible Party	Date	LGIP/LGIA Reference
1	Provide evidence of continued Site Control to System Operator, or \$250,000 non-refundable deposit to Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.1 of LGIP
2	Provide evidence of one or more milestones specified in § 11.3 of LGIP	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.2 of LGIP
3	Commit to a schedule for payment of upgrades	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.2 of LGIP
4	Provide either (1) evidence of Major Permits or (2) refundable deposit to Interconnecting Transmission Owner	Interconnection Customer	If (1) Within 15 BD of final LGIA receipt or if (2) At time of LGIA execution	§ 11.3.1.2 of LGIP

5	Provide certificate of insurance	Interconnection Customer and Interconnecting Transmission Owner	Within 10 Calendar Days of execution of LGIA	§ 18.3.9 of LGIA
6	Provide siting approval for Generating Facility and Interconnection Facilities to Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of LGIP
7A	Receive Governmental Authority approval for any facilities requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of LGIA
7B	Obtain necessary real property rights and rights-of-way for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.2 of LGIA
7C	Provide to Interconnecting Transmission Owner written authorization to proceed with design, equipment procurement and construction	Interconnection Customer	As may be agreed to by the Parties	§ 5.5.2 and § 5.6.3 of LGIA
7D	Provide quarterly written	Interconnection	15 Calendar Days	§ 5.7 of LGIA

	progress reports	Customer and Interconnecting Transmission Owner	after the end of each quarter beginning the quarter that includes the date for Milestone 7C and ending when the entire Large Generating Facility and all required Interconnection Facilities and Network Upgrades are in place	
8	Provision of Security to Interconnecting Transmission Owner pursuant to Section 11.5 of LGIA	Interconnection Customer	At least 30 Calendar Days prior to design, procurement and construction	§§ 5.5.3 and 5.6.4 of LGIA
9	Provision of Security Associated with Tax Liability to Interconnecting Transmission Owner pursuant to Section 5.17.3 of LGIA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of LGIA
10	Commit to the ordering of long lead time material for Interconnection Facilities and Network Upgrades	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of LGIP

11A	Provide initial design, engineering and specification for Interconnection Customer's Interconnection Facilities to Interconnecting Transmission Owner	Interconnection Customer	180 Calendar Days prior to Initial Synchronization Date	§ 5.10.1 of LGIA § 7.5 of LGIP
11B	Provide comments on initial design, engineering and specification for Interconnection Customer's Interconnection Facilities	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of LGIA § 7.5 of LGIP
12A	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities to Interconnecting Transmission Owner	Interconnection Customer	90 Calendar Days prior to Initial Synchronization Date	§ 5.10.1 of LGIA § 7.5 of LGIP
12B	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of LGIA § 7.5 of LGIP
13	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of LGIA
14	Provide protective relay settings to Interconnecting	Interconnection Customer	At least 90 Calendar Days	§§ 5.10.1 of LGIA



	Transmission Owner for coordination and verification		prior to Initial Synchronization Date	
15	Commencement of construction of Interconnection Facilities	Interconnecting Transmission Owner	As may be agreed to by the Parties	§ 5.6 of LGIA
16	Submit updated data “as purchased”	Interconnection Customer	No later than 180 Calendar Days prior to Initial Synchronization Date	§ 24.3 of LGIA
17	In Service Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of LGIP, § 5.1 of LGIA
18	Initial Synchronization Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of LGIP
19	Submit supplemental and/or updated data – “as built/as-tested”	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of LGIA
20	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of LGIP
21	Deliver to Interconnection	Interconnecting	If requested,	§ 5.11 of LGIA

	Customer “as built” drawings, information and documents regarding Interconnecting Transmission Owner’s Interconnection Facilities	Transmission Owner	within 120 Calendar Days after Commercial Operation Date	
22	Provide Interconnection Customer final cost invoices	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner Interconnection Facilities and Network Upgrades	§ 12.2 of LGIA

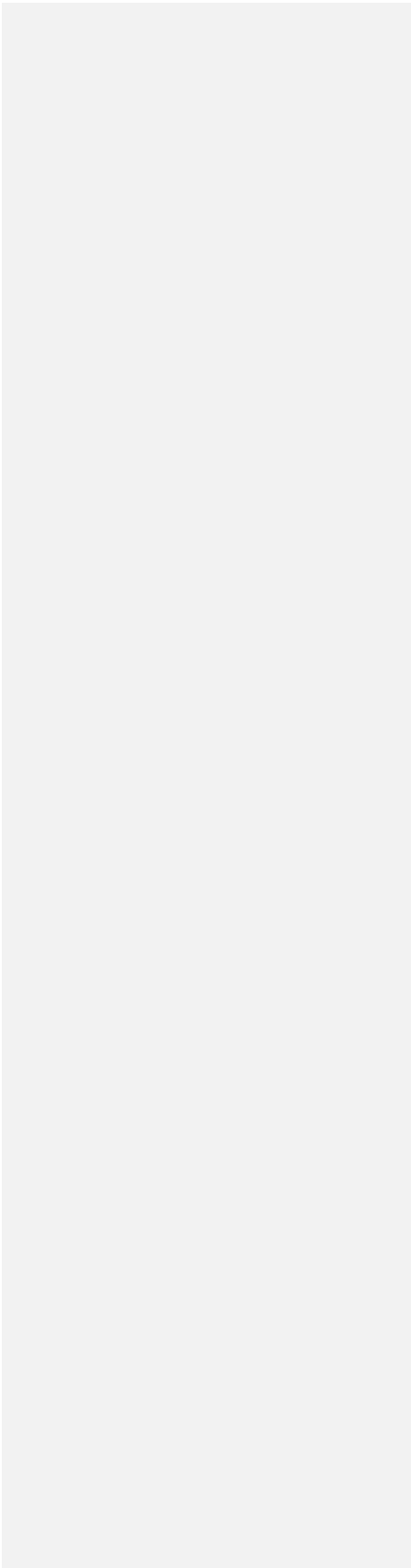
**3. Milestones Applicable Solely for CNR Interconnection Service and Long Lead Facility**

**Treatment.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNR Interconnection Service and/or Long Lead Facility Treatment:

Item No.	Milestone Description	Responsible Party	Date	LGIP/LGIA Reference
1	If Long Lead Facility, all dates by which Critical Path Schedule upgrades will be submitted to System Operator (end date for New Capacity Show of Interest Submission)	Interconnection Customer		§ 3.2.3 of LGIP

2	If Long Lead Facility, dates by which Long Lead Facility Deposits will be provided to System Operator (each deadline for which New Generating Capacity Resource would be required to provide financial assurance under § III.13.1.9 of the Tariff)	Interconnection Customer		§ 3.2.3 of LGIP
3	If Long Lead Facility, Capacity Commitment Period (not to exceed the Commercial Operation Date)	Interconnection Customer		§ 1 and 3.2 of LGIP
4	Submit necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of LGIP
5	Participate in a CNR Group Study	Interconnection Customer		§ 3.2.1.3 of LGIP
6	Qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of LGIP
7	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a	System Operator		§ 3.2.1.3 of LGIP

	Capacity Supply Obligation			
--	----------------------------	--	--	--



## APPENDIX C TO LGIA

### Interconnection Details

#### 1. Description of Interconnection:

Interconnection Customer shall install a [insert] MW facility, rated at [insert]MW gross and [insert] MW net, with all studies performed at or below these outputs. The Generating Facility is comprised of [insert] units in a [insert description of facility type - combined cycle, wind farm, etc.] rated at: [insert] MW each, and will located at [insert location].

The Large Generating Facility shall receive:

Network Resource Interconnection Service for the NR Capability at a level not to exceed [insert gross and net] MW for Summer, and [insert gross and net] MW for Winter.

Capacity Network Resource Interconnection Service for: (i) the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer and [insert gross and net at or above 0 degrees F] MW for Winter; and (ii) the CNR Capability at [insert net] MW for Summer and [insert net] MW for Winter, which shall not exceed [insert the maximum net MW electrical output of the Generating Facility at an ambient temperature at or above 90 degrees F for summer and at or above 20 degrees F for winter.]

#### 2. Detailed Description of Generating Facility and Generator Step-Up Transformer, if applicable:

Generator Data	
Number of Generators	
Manufacturer	

Model	
Designation of Generator(s)	
Excitation System Manufacturer	
Excitation System Model	
Voltage Regulator Manufacturer	
Voltage Regulator Model	
<b>Generator Ratings</b>	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 90 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 50 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 20 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above zero Degrees F	
Station Service Load For Each Unit	
Overexcited Reactive Power at Rated MVA and Rated Power Factor	
Underexcited Reactive Power at Rated MVA and Rated Power Factor	
<b>Generator Short Circuit and Stability Data</b>	
Generator MVA rating	
Generator AC Resistance	
Subtransient Reactance (saturated)	
Subtransient Reactance (unsaturated)	
Transient Reactance (saturated)	

Negative sequence reactance	
<b>Transformer Data</b>	
Number of units	
Self Cooled Rating	
Maximum Rating	
Winding Connection (LV/LV/HV)	
Fixed Taps	
Z1 primary to secondary at self cooled rating	
Z1 primary to tertiary at self cooled rating	
Z1 secondary to tertiary at self cooled rating	
Positive Sequence X/R ratio primary to secondary	
Z0 primary to secondary at self cooled rating	
Z0 primary to tertiary at self cooled rating	
Z0 secondary to tertiary at self cooled rating	
Zero Sequence X/R ratio primary to tertiary	

### **3. Meteorological and Forced Outage Data Requirements for a Generating Facility that is an Intermittent Power Resource:**

An Interconnection Customer whose Generating Facility is an Intermittent Power Resource having wind as the energy resource (referred to here-in as “Wind Plant”) will be required to provide the following meteorological and forced outage data to the System Operator in the manner specified in the ISO New England Operating Documents. Capitalized terms in this Appendix C.3 that are not defined in Section 1 of the Agreement shall have the meanings specified in the ISO New England Operating Documents.

#### **A. Static Plant Data**

Below are the static plant data requirements that describe the physical layout of the Wind Plant and any associated meteorological equipment as well as data relevant to the design and operation of the Wind Plant. The static plant data must be supplied to the System Operator in the manner specified in the ISO

New England Operating Documents. The Interconnection Customer must keep the static plant data current and must inform the System Operator of any proposed data points changes.

1) Wind Plant:

- a) Wind Turbine tower center coordinates (i.e., latitude and longitude in WGS84 DD-MM-SS.SS using GPS WAAS, or comparable, methodology) and ground elevation of turbines (in meters, to one decimal place).
- b) Number of turbines.
- c) Turbine model(s) including IEC wind class.
- d) Density dependent turbine nominal power curves for each type of turbine in the plant for standard test conditions (e.g., air density equaling  $1.225 \text{ kg/m}^3$ ) and for three additional values of density (for which the density values must be supplied): one power curve for normal operation at the long-term average density expected for the plant and one power curve each for normal operation at approximately 85% (+/-10%) and approximately 115% (+/-10%), respectively of the expected long-term average Wind Plant air density.
- e) Hub height(s) (in meters to one decimal place).
- f) Maximum plant nameplate capacity (in MW to two decimal places).
- g) Cut-in wind speed(s) and time constants (if any, e.g., wind speed must be above 3.4 m/s for at least 5 minutes, etc.).
- h) Cut-out wind speed(s) and time constants (if any).
- i) Cut back in wind speed(s) and time constants (if any).
- j) Cold temperature cutoff threshold(s) (in Degrees C to one decimal place).
- k) High temperature cutoff threshold(s) (in Degrees C to one decimal place).
- l) Any cold weather operation packages and their effects on wind turbine operational envelope (e.g. blade and/or gearbox heaters, etc. that extends cold temperature cut-out to below xx degrees, etc.).
- m) Wind turbine icing behavior:
  - i. Triggers for icing related shutdowns (e.g., temperatures, relative humidities, out-of-balance conditions, etc.).
  - ii. Triggers for release from icing related shutdowns (e.g., manual reset, temperatures, hysteresis, etc.).
- n) For all plant wind speed and direction measuring devices (i.e., nacelle-level wind measuring devices):



- i. Equipment type (i.e., model specifications and operating principle e.g. make and model type, measurement heights) and calibration curves and/or reports.
- ii. Dimensions and/or site plan of any nearby potential obstructions that would substantially reduce the quality of the data and the mitigation measures employed (e.g., diagram of location with respect to the nacelle and rotor).
- o) Descriptions of any permitting or administrative restrictions such as requirements to reduce or to cease power production during certain hours or during certain events or wind conditions.
- p) For model training purposes, any available historical information required by the wind power forecaster regarding plant power output, plant meteorological conditions, and conditions that may have caused power output to be below theoretical maximum power output given the experienced wind speeds may also be required to be provided.

2) Met gathering station(s):

- a. Center of structure(s) coordinates (using the same method listed above for turbine in the Wind Plant) and ground elevation of met station(s).
- b. Equipment type (i.e., model specifications and operating principle e.g. make and model type, measurement heights).
- c. Dimensions and/or site plan of any nearby potential obstructions that would substantially reduce the quality of the data (e.g., met-tower dimensions and profile) and the mitigation measures employed (e.g. mounting arm dimensions and orientations).

## **B. Real-Time Data**

Below [are](#) the real-time operational and meteorological data requirements for Wind Plant operators that must be provided to the System Operator. The real-time operational and meteorological data must be electronically and automatically transmitted to the System Operator over a secure network using the protocol specified in the ISO New England Operating Documents. This information is required with a high degree of accuracy and reliability.

1) Availability:

The Wind Plant operator's real-time data transfer process and data gathering equipment shall be designated to operate at all times.

2) Required Data:

a) At a minimum, nacelle-level wind speed and wind direction measurements must be provided from the highest wind turbine (i.e., wind turbine hub elevation in terms of elevation above mean sea level) and a minimum of one wind turbine at the maximal value of each of the four true cardinal directions (i.e., the farthest true North, South, East, and West) in each Wind Turbine Group within the plant. Additionally, the wind turbine nearest the capacity-weighted centroid of the Wind Plant must also report wind speeds and directions. If any wind turbine within a Wind Turbine Group satisfies more than one of these conditions then it may be used to fulfill all conditions that it satisfies (e.g., if the highest wind turbine in a Wind Turbine Group is also the farthest North and the farthest East, it may be used to supply data for all three of these categories). Where more than one turbine satisfies these conditions, preference should be given to those turbines that will be least affected by Wind Plant wake effect from the prevailing wind direction(s). Finally, where a Wind Turbine Group contains 10 or less wind turbines only the nacelle-level data from the highest wind turbine nacelle is required. The locations of wind turbines with nacelle-level equipment providing data must be referenced to the Static Plant Data supplied locations.

b) Ambient temperature, air pressure and relative humidity must be measured, at a minimum, at one location within the plant (preferably as near to the capacity-weighted centroid of the Wind Plant as possible) whose height above ground may be in the range of 2 m to 10 m (or up to 30 m above mean sea level for offshore Wind Plants) and the measurement height above ground (or mean sea level for offshore Wind Plants) must be stated to within 10 cm.

3) Frequency

Minimum frequencies of the real-time data Wind Plant operators must provide are specified in the ISO New England Operating Documents.

**C. Outage Coordination**

Wind Plants shall submit daily outages in advance to perform routine maintenance work, which in many cases may have no effect on their overall MW capability. Therefore:

- 1) All Wind Plants must submit Wind Plant Future Availability to the System Operator.
- 2) If the Wind Plant does not have a Capacity Supply Obligation in accordance with Market Rule 1, Section III of the Tariff, and is not a Qualified Generator Reactive Resource, only Wind Plant Future Availability must be reported to the System Operator.
- 3) Any Wind Plant that does have a Capacity Supply Obligation in accordance with Market Rule 1, Section III of the Tariff, or that is a Qualified Generator Reactive Resource, must report Wind Plant Future Availability, and also submit an outage request to the System Operator only when the outage will derate the plant to the point that the available nameplate is less than its Capacity Supply Obligation and/or Qualified VARs.

**4. Other Description of Interconnection Plan and Facilities:**

*[Insert any other description relating to the Generating Facility, including, but not limited to switchyard, protection equipment, step-up transformer to the extent not described in Appendix A.]*

## **APPENDIX D TO LGIA**

### **Security Arrangements Details**

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New England Transmission System reliability and operational security. The Commission will expect System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the Critical Infrastructure Protection Committee and, eventually, best practice recommendations from NERC. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

## APPENDIX E TO LGIA

### Commercial Operation Date

This Appendix E is a part of the LGIA between System Operator Interconnecting Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]  
[to be supplied]

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Large Generating Facility

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of Unit No. \_\_\_\_\_. This letter confirms that [Interconnection Customer] commenced commercial operation of Unit No. \_\_\_\_\_ at the Large Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **APPENDIX F TO LGIA**

### **Addresses for Delivery of Notices and Billings Notices:**

System Operator:

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

### **Billings and Payments:**

System Operator:

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.

One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

**Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

System Operator:

Facsimile: (413) 540-4203

E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

With copy to:

Facsimile: (413) 535-4024

E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*



DUNS Numbers:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner: [To be supplied]

## **APPENDIX G TO LGIA**

### **Interconnection Requirements For A Wind and Inverter-Based Generating Facilities**

Appendix G sets forth requirements and provisions specific to wind and inverter-based Generating Facilities. All other requirements of this LGIA continue to apply to wind and inverter-based Generating Facility interconnections.

#### **A. Technical Standards Applicable to Wind and Inverter-Based Generating Facility**

##### **i. Low Voltage Ride-Through (LVRT) Capability**

Wind and inverter-based Generating Facilities shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

#### **Transition Period LVRT Standard**

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the System Operator and Interconnecting Transmission Owner. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9

cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual wind generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT. Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual wind generator units that are replaced are required to meet the Appendix G LVRT Standard.

#### **Post-transition Period LVRT Standard**

All wind Generating Facilities subject to FERC Order No. 661 and not covered by the transition period described above , as well as inverter-based Generating Facilities must meet the following requirements:

1. Wind and inverter-based Generating Facilities are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9

cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind or inverter-based Generating Facility substation location, as determined by and documented by the System Operator and Interconnecting Transmission Owner. The maximum clearing time the wind or inverter-based Generating Facility shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind or inverter-based Generating Facility may disconnect from the transmission system. Wind and inverter-based Generating Facilities shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind or inverter-based Generating Facility GSU.

2. This requirement does not apply to faults that would occur between the wind or inverter-based Generating Facility terminals and the high side of the GSU.
3. Wind and inverter-based Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind and inverter-based Generating Facilities may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator) within the wind or inverter-based Generating Facility or by a combination of generator performance and additional equipment.
5. Existing individual wind generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual wind generator units that are replaced are required to meet the Appendix G LVRT Standard.

**ii. Power Factor Design Criteria (Reactive Power)**

1. A newly interconnecting non-synchronous Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commences after October 5, 2016 shall maintain dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, at continuous rated power output, measured at the high-side of the station transformer or at the Point of the Interconnection if there is no station transformer. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors (provided the use of such capacitors is solely for the purpose of offsetting collector system losses and is found to meet all of the requirements specified in the Interconnection System Impact Study), or a combination of the two.
2. A wind Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced after April 17, 2016 but before October 5, 2016 shall maintain dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, at continuous rated power output, measured at the high-side of the station transformer or at the Point of Interconnection if there is no station transformer.
3. A wind Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced before April 17, 2016 shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Interconnection System Impact Study shows that such a requirement is necessary to ensure safety or reliability. For a wind Generating Facility for which the Interconnection System Impact Study commences before April 17, 2016, the power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the System Operator and Interconnecting Transmission Owner, or a combination of the two.

4. A non-wind non-synchronous Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced before October 5, 2016 shall meet the power factor requirements of Article 9.6.1.1 of the LGIA.
5. The Interconnection Customer shall not disable power factor equipment while the wind Generating Facility is in operation.
6. Wind Generating Facilities shall also be able to provide sufficient additional dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Interconnection System Impact Study shows this to be required for system safety or reliability.

**iii. Supervisory Control and Data Acquisition (SCADA) Capability**

Wind and inverter-based Generating Facilities shall provide SCADA capability to transmit data and receive instructions from the System Operator and Local Control Center to protect system reliability. The System Operator, Interconnecting Transmission Owner and the wind or inverter-based Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed wind or inverter-based Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

**APPENDIX 7**  
**INTERCONNECTION PROCEDURES FOR WIND GENERATION**

Appendix 7 sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

**A. Special Procedures Applicable to Wind Generating Plants**

The wind generating plant Interconnection Customer, in completing the Interconnection Request required by Section 3.3 of this LGIP, may provide to the System Operator a set of preliminary electrical design specifications depicting the wind generating plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind generating plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind generating plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the System Operator to complete the Interconnection System Impact Study.

**SCHEDULE 23**

**SMALL GENERATOR**  
**INTERCONNECTION PROCEDURES**



## TABLE OF CONTENTS

### **Section 1. Application**

- 1.1 Applicability
- 1.2 Pre-Application
- 1.3 Interconnection Request
- 1.4 Site Control
- 1.5 Queue Position
- 1.6 Procedures for Transition
- 1.7 Type of Interconnection Service
- 1.8 Withdrawal

### **Section 2. Fast Track Process**

- 2.1 Applicability
- 2.2 Initial Review
- 2.3 Customer Options Meeting
- 2.4 Supplemental Review

### **Section 3. Study Process**

- 3.1 Applicability
- 3.2 Scoping Meeting
- 3.3 Interconnection Feasibility Study
- 3.4 Interconnection System Impact Study
- 3.5 Interconnection Facilities Study

### **Section 4. Provisions that Apply to All Interconnection Requests**

- 4.1 Reasonable Efforts
- 4.2 Disputes
- 4.3 Interconnection Metering
- 4.4 Commissioning
- 4.5 Confidentiality
- 4.6 Comparability
- 4.7 Record Retention
- 4.8 SGIA
- 4.9 Coordination with Affected Systems
- 4.10 Evaluation of a Small Generating Facility Interconnection Request

Attachment 1 – Glossary of Terms

Attachment 2 – Small Generator Interconnection Request

Attachment 3 – Certification Codes and Standards

Attachment 4 – Certification of Small Generator Equipment Packages

Attachment 5 – 10 kW Inverter Process

Attachment 6 – Interconnection Feasibility Study Agreement

Attachment 7 – Interconnection System Impact Study Agreement

Attachment 8 – Interconnection Facilities Study Agreement

EXHIBIT 1 - Small Generator Interconnection Agreement (SGIA)

## **SECTION 1. APPLICATION**

### **1.1 Applicability**

1.1.1 The Small Generator Interconnection Procedures (“SGIP”) and Small Generator Interconnection Agreement (“SGIA”) shall apply to Interconnection Requests, as defined in Attachment 1, pertaining to Small Generating Facilities, except that the SGIP and SGIA shall not apply to: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer’s site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility’s owner intent is to sell 100% of the Qualifying Facility’s output to its interconnected electric utility. In the event the SGIP and SGIA do not apply, the Interconnection Customer shall follow the applicable state tariff, rules or procedures regarding generator interconnections.

A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) to the Interconnecting Transmission Owner’s Distribution System that is part of the Administered Transmission System shall be evaluated under the section 2 Fast Track Process if the eligibility requirements of section 2.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) (solely as a Network Resource) shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 2.1, or does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 3 Study Process.

1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures. To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for the purposes of generator interconnections under this Schedule 23. Capitalized terms in Schedule 23 that are not defined in Attachment 1 or the body of these procedures shall have the meanings specified in Section I.2.2 of the Tariff.

1.1.3 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to May 9, 2006.

1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the System Operator's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The System Operator shall respond within fifteen (15) Business Days.

1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects all ISOs/RTOs, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

1.1.6 References in these procedures to interconnection agreement are to the SGIA.

## **1.2 Pre-Application**

1.2.1 The System Operator shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The names, telephone numbers, and e-mail addresses of the System Operator's contact employees or offices shall be made available on the System Operator's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Administered Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The System Operator shall comply with reasonable requests for such information.

1.2.2 In addition to the information described in section 1.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form to the System

Operator along with a non-refundable fee of \$500 for a pre-application report on a proposed project at a specific site. Within two (2) Business Days of receiving the pre-application report request form, the System Operator shall provide a copy of the pre-application request form to the Interconnecting Transmission Owner. The System Operator in conjunction with the Interconnecting Transmission Owner shall provide the pre-application data described in section 1.2.3 to the Interconnection Customer within twenty (20) Business Days of receipt of the completed request form and payment of the \$500 fee. The pre-application report produced by the System Operator in conjunction with the Interconnecting Transmission Owner is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Administered Transmission System. The written pre-application report request form shall include the information in sections 1.2.2.1 through 1.2.2.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

1.2.2.1 Project contact information, including name, address, phone number, and email address.

1.2.2.2 Project location (street address with nearby cross streets and town)

1.2.2.3 Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.

1.2.2.4 Generator Type (e.g., solar, wind, combined heat and power, etc.)

1.2.2.5 Size (alternating current kW)

1.2.2.6 Single or three phase generator configuration

1.2.2.7 Stand-alone generator (no onsite load, not including station service – Yes or No?)

1.2.2.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.

1.2.3 Using the information provided in the pre-application report request form in section 1.2.2., the System Operator in conjunction with the Interconnecting Transmission Owner will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. The selection by the System Operator in conjunction with the Interconnecting Transmission Owner does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. The Interconnecting Transmission Owner shall be responsible for determining whether the proposed Point of Interconnection is on a distribution facility that is subject to the Tariff. If the pre-application report request form seeks information about a Point of Interconnection that is on a distribution facility that is not subject to the Tariff, the Interconnection

Customer shall follow the applicable state tariff, rules or procedures regarding generator interconnections.

Subject to section 1.2.4, the pre-application report will include the following information:

1.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.

1.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.

1.2.3.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.

1.2.3.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).

1.2.3.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.

1.2.3.6 Nominal distribution circuit voltage at the proposed Point of Interconnection.

1.2.3.7 Approximate circuit distance between the proposed Point of Interconnection and the substation.

1.2.3.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 2.4.4.1.1 below and absolute minimum load, when available.

1.2.3.9 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area.

Identify whether the substation has a load tap changer.

1.2.3.10 Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.

1.2.3.11 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

1.2.3.12 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.

1.2.3.13 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

1.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the System Operator or the Interconnecting Transmission Owner to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the System Operator in conjunction with the Interconnecting Transmission Owner cannot complete all or some of a pre-application report due to lack of available data, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on “available capacity” pursuant to section 1.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the System Operator in conjunction with the Interconnecting Transmission Owner shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

### **1.3 Interconnection Request**

#### **1.3.1 Initiating an Interconnection Request**

To initiate and establish a valid Interconnection Request, the Interconnection Customer shall submit all of the following to the System Operator in the manner specified in the Interconnection Request contained in Attachment 2 to this SGIP: (i) the processing fee or deposit specified in the Interconnection Request, (ii) a completed Interconnection Request in the form of Attachment 2, and (iii) documentation of Site Control in the form specified in Section 1.4 of this SGIP.

The Interconnection Customer must submit a separate Interconnection Request for each site. The Interconnection Customer must comply with the requirements specified in this Section 1.3.1 for each Interconnection Request even when more than one request is submitted for a single site. ~~its completed Interconnection Request in the form of Attachment 2 to this SGIP, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be submitted to the System Operator in the manner specified in Attachment 2.~~

#### **1.3.2 Acknowledgement of Interconnection Request**

The Interconnection Request shall be date and time stamped upon receipt. The System Operator shall acknowledge original date and time stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date and time stamp for the purposes of any

~~timetable in these procedures. The Interconnection Customer shall be notified of receipt of the Interconnection Request by the System Operator within three (3) Business Days of receipt of the request and attach a copy of the Interconnection Request to the acknowledgement.~~

~~Within three (3) Business Days of receiving the Interconnection Request, the System Operator shall provide a copy of the Interconnection Request to the Interconnecting Transmission Owner. If such request is to interconnect to a distribution facility, the Interconnecting Transmission Owner shall be responsible for determining whether the distribution facility is subject to the Tariff. ving the Interconnection Request.~~

### **1.3.3 Deficiencies in Interconnection Request**

~~An Interconnection Request will not be considered a valid request until all items in Section 1.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the requirements set forth in Section 1.3.1, the System Operator shall notify the Interconnection Customer within ten (10) Business Days of the reasons for such failure and that the Interconnection Request does not constitute a valid request. receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the System Operator shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within will have ten (10) Business Days after receipt of the such notice to submit the listed information or to request an extension of time to provide such information. Failure by Interconnection Customer to comply with this Section 1.3.3 shall be treated in accordance with Section 1.8. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the System Operator.~~

~~The Interconnection Customer must submit a separate Interconnection Request for each site. The Interconnection Customer must comply with the requirements specified in this Section 1.3 for each Interconnection Request even when more than one request is submitted for a single site.~~

~~1.3.1 Within three (3) Business Days of receiving the Interconnection Request, the System Operator shall provide a copy of the Interconnection Request to the Interconnecting Transmission Owner. The System~~



~~Operator, in consultation with the Interconnecting Transmission Owner, shall determine whether the Interconnection Request is complete or incomplete. If such request is to interconnect to a distribution facility, the Interconnecting Transmission Owner shall be responsible for determining whether the distribution facility is subject to the Tariff.~~

1.3.2-4 All fees or deposits that must be submitted to the System Operator under this SGIP, must be delivered to the System Operator's [bank account](#) by electronic transfer within the period specified in the respective provision. [A deposit will not be considered received until it is in the System Operator's bank account.](#)

#### **1.4 Site Control**

Documentation of site control must be submitted with the Interconnection Request. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. Site control may be demonstrated through:

1.4.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

1.4.2 An option to purchase or acquire an easement, a license or a leasehold interest in the site for such purpose; or

1.4.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or

1.4.4 Filed applications for required permits to site on federal or state property.

#### **1.5 Queue Position**

1.5.1 **General.** The System Operator shall assign a Queue Position based upon the date- and time-stamp of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of information on the application form in Attachment 2 to this SGIP, and Interconnection Customer provides such information in accordance with Section 1.3.3, then the System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally submitted.

~~—~~Except as otherwise provided in this Section 1.5, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be included in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and ~~(iv)~~ the cost responsibility for the ~~h~~Interconnection ~~f~~Facilities and upgrades necessary to accommodate the Interconnection Request. The System Operator shall maintain a single queue. At the System Operator's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 1.5.3 of this SGIP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

1.5.2 **Order of Interconnection Requests in the CNR Group Study.** Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance with Section III.13.1.1.2 of the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3 of Schedule 22 of Section II of the Tariff. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity

Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and

upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Attachment 2 to the SGIA for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

### **1.5.3 Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Small Generating Facility.

#### **1.5.3.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator has determined that none of the Interconnection Requests identified in (a) of this Section 1.5.3.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at 115 kV AC or HVDC.

#### **1.5.3.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 1.5.3.1 of this SGIP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 1.5.3.1 of this SGIP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will

be suspended, and they will proceed under Section 1.5.3 of this SGIP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 1.5.3.1 of this SGIP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated system upgrades, in accordance with this SGIP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 1.5.3.1 shall submit the technical data called for in Attachment 2 (including Attachment A, if applicable) to this SGIP to support the conduct of the CRPS.

#### **1.5.3.3 Cluster Interconnection System Impact Study.**

##### **1.5.3.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry deadline for the CSIS (the "Cluster Entry Deadline") to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

##### **1.5.3.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 1.5.1 of this SGIP, shall be eligible to be studied together in the CSIS.

**1.5.3.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 1.8;

- (ii) request that the System Operator re-assign the Interconnection Customer's Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 1.5.3.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 1.5.3.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 1.5.3.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.

#### **1.5.3.3.2.2. CSIS Entry Requirements.**

An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 1.5.3.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator, a completed Cluster System Impact Study Application in the form specified in Attachment 2, Attachment A-1 to this SGIP requesting the inclusion of the Interconnection Request in the CSIS:

**(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.** If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection

System Impact Study Agreement in accordance with this Section 1.5.3.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS.

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Attachment 2 (including Attachment A, if applicable), and a refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 3.4.2 of this SGIP.

**(3) Cluster Participation Deposit.** By the Cluster Entry Deadline, Interconnection Customer must also submit to the System Operator an initial Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report. Cost allocation of the CETU and associated upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 1.8 of this SGIP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the cluster is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 1.8, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 1.5.3.3.3.2 of this SGIP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25)

percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 1.8, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Section 3.4.5 and Section 3.5.4 of this SGIP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 4.8 of this SGIP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting Transmission Owner the deposit specified in Section 4.8 of this SGIP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **1.5.3.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**1.5.3.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the CRPS as potentially enabled by the CETU. The Interconnection Requests will be included in the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 1.5.1 of this SGIP, relative to other eligible Interconnection Requests.

**1.5.3.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity



of megawatts identified as potentially enabled by the CETU in the final CRPS report having been exhausted in queue order under Section 1.5.3.3.3.1, (i) the Cluster Participation Deposit for the CSIS will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more Interconnection Requests after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.

**1.5.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 1.5.3.3.3.1 of this SGIP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Small Generating Facility (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 1.5.3.3.2 of this SGIP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**1.5.3.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 1.5.3.3.4, the CSIS shall be conducted in accordance with Sections 3.4.3 and 3.4.4 of this SGIP. The Study Case developed for the CSIS shall also include the CETU and associated system upgrades identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New

England Transmission System under the NC Interconnection Standard consistent with Section 1.7.2 of this SGIP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 3.4.3 of this SGIP except for analysis associated with an Interconnection Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**1.5.3.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 3.4.6 of this SGIP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 1.5.3.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

#### **1.5.3.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this SGIP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

##### **1.5.3.4.1 Cluster Interconnection Facilities Study Entry Requirements.**

An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 3.5.1 of this SGIP.

**1.5.3.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 3.5.2 and 3.5.3 of this SGIP based on a +/- 20 percent good faith cost estimate.

**1.5.3.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 3.5.5 of this SGIP, a re-study of the CFAC is required due to the withdrawal of an Interconnection Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 1.5.3.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain consistent with the megawatt quantity(ies) considered in the final CRPS report.

**1.5.3.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 3.5.3 of this SGIP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report. Cost allocation of the CETU and associated upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 1.5.3.4.4 will be fully refunded (with interest to be calculated in accordance with Section 1.8 of this SGIP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 1.5.3.3.2.2(3)(v), (vi), or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

1.5.3-4 **Transferability of Queue Position.** An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee's contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

1.5.4-5 **Modifications.** Any modification to the Interconnection Request, including the information provided in the attachments, and to the machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the System Operator, in consultation with the Interconnecting Transmission Owner, and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the change are undertaken. An Interconnection Customer may decrease the electrical output of a proposed Small Generating Facility after the Cluster Entry Deadline specified in Section 1.5.3.3.1 of this SGIP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline. A request to: (1) increase the energy capability or capacity capability output of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP shall require a new Interconnection Request for the incremental increase and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis; and (2) change from NR Interconnection Service to CNR Interconnection Service, at any time, shall require a new Interconnection Request for CNR Interconnection Service and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis.

Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service has until the Forward Capacity Auction for which the associated Capacity Commitment Period begins less than seven (7) years from the date of the original Interconnection Request for CNR Interconnection Service to clear the entire megawatt amount for which the CNR Interconnection Service was requested (or as that amount has been modified in accordance with this Section 1.5.45). A

new Interconnection Request for CNR Interconnection Service will be required for the Generating Facility to participate in any subsequent auctions.

## **1.6 Procedures for Transition**

**1.6.1 Queue Position for Pending Requests.** Any Interconnection Customer assigned a Queue Position prior to ~~April 17, 2016~~November 1, 2017 shall retain that Queue Position subject to Section 1.6 of the SGIP.

1.6.1.1 If an Interconnection Study Agreement has not been executed prior to November 1, 2017~~April 17, 2016~~, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this SGIP in effect on November 1, 2017~~April 17, 2016~~ (or as revised thereafter).

1.6.1.2 If an Interconnection Study Agreement has been executed prior to November 1, 2017~~April 17, 2016~~, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to November 1, 2017~~April 17, 2016~~, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the SGIP in effect on November 1, 2017~~April 17, 2016~~. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 1.5.3.3.2 of this SGIP within thirty (30) Calendar Days from the later of November 1, 2017 or the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure.

~~If the Interconnection Study has not commenced, within sixty (60) Calendar Days from April 17, 2016, Interconnection Customer shall submit an updated Interconnection Request, together with completed~~

~~attachments and models required therein to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the Interconnection Study. Updates to the Interconnection Request and attachments thereto will be subject to review pursuant to Section 1.5.4 of this SGIP. Notwithstanding any other provision in this SGIP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) Calendar Days, the Interconnection Request shall be deemed withdrawn.~~

**1.6.2 Transition Period.** To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an SGIA has neither been executed nor submitted to the Commission for approval prior to ~~April 17, 2016~~ November 1, 2017), Interconnecting Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the SGIP in effect as of November 1, 2017 ~~April 17, 2016~~ (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request” herein shall mean any Interconnection Request, on November 1, 2017 ~~April 17, 2016~~: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related SGIA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding Interconnection Request as of the effective date of this SGIP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this SGIP.

**1.6.3 One-Time Election for CNR Interconnection Service at Queue Position Assigned Prior to February 1, 2009.** An Interconnection Customer with an outstanding Interconnection Request will be eligible to make a one-time election to be considered for CNR Interconnection Service at the Queue Position assigned prior to February 1, 2009. The Interconnection Customer’s one-time election must be made by the end of the New Generating Capacity Show of Interest Submission Window for the fourth Forward Capacity Auction. Interconnection Customers requesting CNR Interconnection Service will be required to comply with the requirements for CNR Interconnection Service set forth in Section 1.7.1. Interconnection Customers requesting CNR Interconnection Service that have not received a completed Interconnection System Impact Study may request a preliminary, non-binding, analysis of potential

upgrades that may be necessary for the fourth Forward Capacity Auction – the prompt or near-term auction – pursuant to Sections 3.3.2 or 3.4.3, whichever is applicable.

#### 1.6.4 **Grandfathering.**

1.6.4.1 An Interconnection Customer's Generating Facility that is interconnected pursuant to an Interconnection Agreement executed or submitted to the Commission for approval prior to February 1, 2009, will maintain its status as a Network Resource with Network Resource Interconnection Service eligible to participate in the New England Markets, in accordance with the requirements of Market Rule 1, Section III of the Tariff, up to the megawatt amount specified in the Interconnection Agreement, subject to the Interconnection Customer satisfying all requirements set forth in the Interconnection Agreement and this SGIP. If the Generating Facility does not meet the criteria set forth in Section 1.6.4.3 of this SGIP, the Interconnection Customer will be eligible to make a one-time election, pursuant to Section 1.6.3, for Capacity Network Resource treatment without submitting a new Interconnection Request; however, the Interconnection Customer will be required to comply with the requirements for CNR Interconnection Service set forth in Section 1.7.1. Upon completion of the requirements to obtain CNR Interconnection Service, the Interconnection Customer's Interconnection Agreement shall be amended to conform to the SGIA in Exhibit 1 of this SGIP.

1.6.4.2 An Interconnection Customer's Generating Facility governed by an Interconnection Agreement either executed or filed with the Commission in unexecuted form prior to August 1, 2008, shall maintain the Queue Position assigned as of August 1, 2008, and be eligible to participate in the New England Markets, in accordance with the requirements in Market Rule 1, Section III of the Tariff, as in effect as of August 1, 2008, so long as the Interconnection Customer complies with all of the requirements specified in the Interconnection Agreement, including achieving the milestones associated with At-Risk Expenditures, subject to Section 1.5.45 of this SGIP.

1.6.4.3 All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a CNR and obtain CNR Interconnection Service, in accordance with this SGIP, up to the CNR Capability of the resource. The grandfathered CNR Capability for these resources shall be equal to the megawatt amount established pursuant to the following hierarchy:

- (a) First, the megawatt amount specified in an Interconnection Agreement (whether executed or filed in unexecuted form with the Commission).
- (b) Second, in the absence of an Interconnection Agreement with a specified megawatt amount, the megawatt amount specified in an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision).
- (c) Third, in the absence of an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) with a specified megawatt amount, as determined by the System Operator based on the documented historic capability of the Generating Facility.

Where a resource has both an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision), the lower megawatt amount will govern until the resource completes the applicable process(es) under the Tariff for obtaining the higher megawatt amount. The absence of an Interconnection Agreement or an approval pursuant to Section I.3.9 (or its predecessor provision) specifying a megawatt amount shall be confirmed by an affidavit executed by a corporate officer of the resource attesting that the resource does not have an Interconnection Agreement and/or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) that specifies a megawatt amount.

Where the governing document (as determined by the hierarchy set forth in 1.6.4.3) specifies a megawatt amount at an ambient temperature consistent with the definition of CNR Capability, the grandfathered CNR Capability shall be equal to that amount.

Where the governing document (as determined by the hierarchy set forth in Section 1.6.4.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of CNR Capability.

Where the implementation of this Section 1.6.4.3 results in a CNR Capability that is different than previously had been identified, the revised CNR Capability will be applied commencing with the next Forward Capacity Auction qualification process (after the revised CNR Capability value is identified), which is initiated by the Show of Interest Window in accordance with Section III.13 of the Tariff. The revised CNR Capability will continue to govern until the resource completes the applicable process(es) for obtaining the higher megawatt amount.



1.6.4.4 All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a NR and obtain NR Interconnection Services in accordance with this SGIP, up to the NR Capability of the resource. The grandfathered NR Capability shall be determined pursuant to the hierarchy set forth in Section 1.6.4.3.

Where the governing document (as described by the hierarchy set forth in Section 1.6.4.3) of a resource for which a temperature-adjustment curve is used for the claimed capability verification, as set forth in the ISO New England Manuals, specifies a megawatt amount at an ambient temperature, the grandfathered NR Capability shall be equal to a temperature-adjusted value consistent with the definition of NR Capability.

Where the governing document (as determined by the hierarchy set forth in Section 1.6.4.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of NR Capability.

## **1.7 Type of Interconnection Services**

At the time the Interconnection Request is submitted, the Interconnection Customer must request either CNR Interconnection Service or NR Interconnection Service, as described in Sections 1.7.1 and 1.7.2 below. An Interconnection Customer that meets the requirements to obtain CNR Interconnection Service shall obtain NR Interconnection Service up to the NR Capability upon completion of all requirements for NR Interconnection Service, including all necessary upgrades. Upon completion of all requirements for the CNR Interconnection Service, the Interconnection Customer shall also receive CNR Interconnection Service for CNR Capability. An Interconnection Customer that meets the requirements to obtain NR Interconnection Service shall receive NR Interconnection Service for the Interconnection Customer's Generating Facility NR Capability.

### **1.7.1 Capacity Network Resource Interconnection Service**

1.7.1.1 **The Product.** The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which CNRs are

interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Small Generating Facility to be designated as a CNR, and to participate in the New England Markets, in accordance with the Tariff, up to the CNR Capability or as otherwise provided in the Tariff, on the same basis as existing CNRs, and to be studied as a CNR on the assumption that such a designation will occur.

**1.7.1.2 The Studies.** All Interconnection Studies for CNR Interconnection Service shall assure that the Interconnection Customer's Small Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System. The CNR Group Study for CNR Interconnection Service shall assure that the Interconnection Customer's Small Generating Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispach of other CNRs and Elective Transmission Upgrades with CNR Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The Interconnection Request may also be studied with the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

**1.7.1.3 Milestones for CNR Interconnection Service.** In addition to the requirements set forth in this SGIP, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service shall complete the following milestones prior to receiving CNR Interconnection Service for the CNR Capability, such milestones to be specified in Attachment 4 of the SGIA as either completed or to be completed: (i) submit the necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date (except as modified by Agreement with the System Operator pursuant to Section 1.5.4-5 of this SGIP), in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Generating Facility's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction, as applicable, through which the Interconnection Customer received a Capacity Supply Obligation. With respect to (iv) above,

if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this SGIP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an SGIA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this SGIP shall be subject to re-study. The Attachments to the SGIA shall be amended (pursuant to Article 12.2 of the SGIA) to reflect CNR Capability and the results of the re-study.

#### **1.7.2 Network Resource Interconnection Service**

**1.7.2.1 The Product.** The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which Network Resources are interconnected under the NC Interconnection Standard. NR Interconnection Service allows the Interconnection Customer's Small Generating Facility to participate in the New England Markets in accordance with the provisions of Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as other Network Resources. Notwithstanding the above, the portion of a Small Generating Facility that has been designated solely as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

**1.7.2.2 The Studies.** The Interconnection Studies for an Network Resource shall assure that the Interconnection Customer's Small Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NR Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions.

However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnecting Transmission Owner why the study of non-peak load conditions is required for reliability purposes.

1.7.2.3 Milestones for NR Interconnection Service. An Interconnection Customer with an Interconnection Request for NR Interconnection Service shall complete the requirements in this SGIP prior to receiving NR Interconnection Service.

## **1.8 Withdrawal**

1.8.1 The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to the Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to adhere to all requirements of this SGIP, except as provided in Section 4.2 (Disputes), the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this SGIP, upon receipt of such written notice, if the Interconnection Customer wishes to dispute the withdrawal notice, the Interconnection Customer shall have fifteen (15) Business Days, unless otherwise provided elsewhere in this SGIP, in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue dispute resolution, and the System Operator shall notify the Interconnecting Transmission Owner and any Affected Parties of the same.

1.8.2 Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during dispute resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of dispute resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to the System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any interconnection study data or results.

1.8.3 The System Operator shall update the OASIS Queue Position posting. The System Operator and Interconnecting Transmission Owner shall: (i) arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred; or (ii) arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments. In the event of such withdrawal, the System Operator, subject to the confidentiality provisions of Section 4.5 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

## **SECTION 2. FAST TRACK PROCESS**

### **2.1 Applicability**

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Distribution System that is part of the Administered Transmission System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track screens in section 2.2.1 below or the Supplemental Review screens in section 2.4.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than or equal to 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the System Operator in conjunction with the Interconnecting

Transmission Owner has to have reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline <sup>1</sup> and $\leq 2.5$ Electrical Circuit Miles from Substation <sup>2</sup>
$< 5$ kV	$\leq 500$ kW	$\leq 500$ kW
$\geq 5$ kV and $< 15$ kV	$\leq 2$ MW	$\leq 3$ MW
$\geq 15$ kV and $< 30$ kV	$\leq 3$ MW	$\leq 4$ MW
$\geq 30$ kV and $< 69$ kV	$\leq 4$ MW	$\leq 5$ MW

1. For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

2. An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.2.

## 2.2 Initial Review

Within fifteen (15) Business Days after the System Operator notifies the Interconnection Customer it has received a complete Interconnection Request, the System Operator in conjunction with the Interconnecting Transmission Owner shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the determinations under the screens.

### 2.2.1 Screens

2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Interconnecting Transmission Owner's Distribution System that is subject to the Tariff.

2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is

that portion of an Interconnecting Transmission Owner's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW.

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Interconnecting Transmission Owner's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Interconnecting Transmission Owner on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved for Network Resource interconnection Service and the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer an executable SGIA within five (5) Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the System Operator in conjunction with the Interconnecting Transmission Owner determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer an executable SGIA within five (5) Business Days after the determination. If the Interconnection Request is for Capacity Network Resource Interconnection Service, the Interconnection Customer must also comply with the milestones for CNR Interconnection Service specified in Section 1.7.1.3 of the SGIP.

2.2.4 If the proposed interconnection fails the screens, but the System Operator in conjunction with the Interconnecting Transmission Owner, does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power



quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

### **2.3 Customer Options Meeting**

If the System Operator in conjunction with the Interconnecting Transmission Owner determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the System Operator shall notify the Interconnection Customer of that determination within five (5) Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of such determination, the System Operator shall offer to convene a customer options meeting with the Interconnection Customer and Interconnecting Transmission Owner to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the determination, or at the customer options meeting:

2.3.1 The Interconnecting Transmission Owner shall offer to perform facility modifications or minor modifications to the Interconnecting Transmission Owner's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Interconnecting Transmission Owner's electric system. If the Interconnection Customer agrees to pay for the modifications to the Interconnecting Transmission Owner's electric system, the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer with an executable SGIA within ten (10) Business Days of the customer options meeting; or

2.3.2 The System Operator shall offer to perform a supplemental review in accordance with section 2.4 and provide a non-binding good faith estimate of the costs of such review; or

2.3.3 The System Operator shall obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 3 Study Process.

### **2.4 Supplemental Review**

2.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit to the System Operator for the estimated costs of the supplemental review in the amount of the System Operator's and Interconnecting Transmission Owner's good faith estimate of the costs of such review, both within fifteen (15) Business Days of the offer. If the written agreement and deposit have not been received by the System Operator within that timeframe, the Interconnection Request shall continue to be evaluated under the section 3 Study Process unless it is withdrawn by the Interconnection Customer.

2.4.2 The Interconnection Customer must specify the order in which the System Operator in conjunction with the Interconnecting Transmission Owner will complete the screens in section 2.4.4.

2.4.3 The Interconnection Customer shall be responsible for the System Operator's and the Interconnecting Transmission Owner's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the System Operator and Interconnecting Transmission Owner will return such excess within twenty (20) Business Days of the invoice without interest.

2.4.4 Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the System Operator shall (1) in conjunction with the Interconnecting Transmission Owner, perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the System Operator's and Interconnecting Transmission Owner's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the System Operator shall notify the Interconnection Customer following the failure of any of the screens, or if the System Operator in conjunction with the Interconnecting Transmission Owner is unable to perform the screen in section 2.4.4.1, within two (2) Business Days of making such determination to request Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section 2.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility under section 3; or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

2.4.4.1 Minimum Load Screen: Where twelve (12) months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility ) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the System Operator in conjunction with the Interconnecting Transmission Owner shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 2.4.4.

2.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 2.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

2.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Interconnecting Transmission Owner's electric system will be considered as part of the aggregate generation.

2.4. 4.1.3 The System Operator and the Interconnecting Transmission Owner will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

2.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

2.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The System Operator in conjunction

with the Interconnecting Transmission Owner shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

2.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

2.4.4.3.2 Whether the loading along the line section is uniform or even.

2.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.

2.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

2.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

2.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

2.4.5 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the Interconnection Request shall be approved and the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer with an executable SGIA within the timeframes established in sections 2.4.5.1 and 2.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the section 3 Study Process consistent with section 2.4.5.3 below.

2.4.5.1 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above and does not require construction of facilities by the Interconnecting Transmission Owner on its own system, the SGIA shall be provided within ten (10) Business Days after the notification of the supplemental review results.

2.4.5.2 If the interconnection facilities or minor modifications to the Interconnecting Transmission Owner's system are required for the proposed interconnection to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Interconnecting Transmission Owner's electric system, the SGIA, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the Interconnection Customer within fifteen (15) Business Days after receiving written notification of the supplemental review results.

2.4.5.3 If the proposed interconnection would require more than the interconnection facilities or minor modifications to the Interconnecting Transmission Owner's system to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the System Operator shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the section 3 Study Process unless the Interconnection Customer withdraws its Small Generating Facility.

## **SECTION 3. STUDY PROCESS**

### **3.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Administered Transmission System if the Small Generating Facility is no larger than 20 MW and does not meet the eligibility requirements of section 2.1 or does not pass the Fast Track Process or the 10 kW Inverter Process.

### **3.2 Scoping Meeting**

3.2.1 A scoping meeting will be held within ten (10) Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The System Operator, the Interconnecting Transmission Owner, the Interconnection Customer and the Affected Party(ies) will bring to the meeting personnel, including system engineers and other resources as may be reasonably required

to accomplish the purpose of the meeting. Before participating in a scoping meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on the OASIS an advance notice of its intent to do so.

3.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request, including: (i) the estimated timeline for completing all applicable Interconnection Studies, (ii) exchange pertinent information including any transmission data that would reasonably be expected to impact interconnection options, (iii) analyze such information, and (iv) determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. A PSCAD model is required for all wind and inverter-based Small Generating Facilities. If a PSCAD model is required for other Small Generating Facility types, the Parties shall discuss this at the Scoping Meeting. The Parties shall discuss whether the System Operator should perform an Interconnection Feasibility Study or proceed directly to an Interconnection System Impact Study, or an Interconnection Facilities Study, or an SGIA.

If the Interconnection Customer provides the technical data called for in Attachment 2 ([including Attachment A, if applicable](#)) to this SGIP with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

[Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS.](#) Within five (5) Business Days following the scoping meeting, the Interconnection Customer shall notify the System Operator, in writing: (i) whether it wants the Interconnection Feasibility Study to be completed, as a separate and distinct study or as part of the Interconnection System Impact Study, (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternative study scopes is being selected pursuant to Section 3.3.2, and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement (Attachment 6), or the Interconnection System Impact Study Agreement (Attachment 7) if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

3.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested an Interconnection Feasibility Study must return the executed Interconnection Feasibility Study Agreement (or Interconnection System Impact

Study Agreement if the Interconnection Customer elected not to pursue the Interconnection Feasibility Study), within fifteen (15) Business Days.

### **3.3 Interconnection Feasibility Study**

**3.3.1 Interconnection Feasibility Study Agreement.** Within five (5) Business Days following the Interconnection Customer's request for an Interconnection Feasibility Study, the System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement signed by the System Operator and Interconnecting Transmission Owner, including an outline of the scope of the Interconnection Feasibility Study and a non-binding good faith estimate of the cost to perform the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). No later than fifteen (15) Business Days after its receipt of the Interconnection Feasibility Study Agreement, the Interconnection Customer shall execute and deliver the agreement, including completed attachments, to System Operator and the Interconnecting Transmission Owner, together with the refundable deposit of the lesser of 50 percent of the good faith estimated Interconnection Feasibility Study costs or earnest money of \$1,000. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). [For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.](#) Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study [or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS](#) shall be paid by or refunded to the Interconnection Customer. The System Operator and/or Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Feasibility Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. System Operator shall continue to hold any amounts on deposits

until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.3.2 Scope of Interconnection Feasibility Study.** The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information. The Interconnection Feasibility Study will consider the Base Cases as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement. The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient



analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Small Generating Facility as identified within the scope of the analysis performed as part of the study.

To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 3.3, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

**3.3.3 Interconnection Feasibility Study Procedures.** The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than thirty (30) Business Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection Feasibility Study Agreement, study deposit and required technical data in accordance with Section 3.3.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

**3.3.4 Meeting with Parties.** Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

~~If the feasibility study shows no potential for adverse system impacts, the System Operator shall send the Interconnection Customer an Interconnection Facilities Study Agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, an executable SGIA shall be tendered to the Interconnection Customer within five (5) Business Days of the provision of the Interconnection Feasibility Study report. If no Interconnection System Impact Study of the Administered Transmission System is required, as a result of the Interconnection Feasibility Study, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the Interconnection Feasibility Study, a distribution system impact study must be performed. The System Operator shall send the Interconnection Customer a distribution system impact study agreement within fifteen (15) Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no Interconnection Feasibility Study is to be performed.~~

**3.3.5 Re-Study.** If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resources(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take not longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement. The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

### **3.4 Interconnection System Impact Study**

3.4.1 **Interconnection System Impact Study Agreement.** Within five (5) Business Days following the Interconnection Feasibility Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe to perform the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA.

3.4.2 **Execution of Interconnection System Impact Study Agreement.** The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement, including completed attachments, to the System Operator no later than fifteen (15) Business Days after its receipt along with (1) demonstration of Site Control, (2) a refundable deposit of 50 percent of the good faith estimated cost for the transmission portion of the Interconnection System Impact Study and 100 percent of the good faith estimated cost for the distribution portion of the Interconnection System Impact Study, and (3) a PSCAD model if one was determined to be needed at the Scoping Meeting; provided that if a PSCAD model was determined to be needed for the non-wind or non-inverter-based Small Generating Facility at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the ~~date of the Scoping Meeting or the execution of the System Impact Study Agreement (whichever is later)~~ to provide the PSCAD model. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection System Impact Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer. The System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for

the costs of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the SGIA. In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster.

The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the transmission portion of the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.4.3 Scope of Interconnection System Impact Study.** The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNR Interconnection Request that elected to waive the Interconnection Feasibility Study may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement. The Interconnection System Impact Study will consist

of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses, such as electromagnetic transient analysis, that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility, (ii) a non-binding good faith estimated time to construct, (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 3.4.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

**3.4.4 Interconnection System Impact Study Procedures.** The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within forty-five (45) Business Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site Control is required, and required technical data in accordance with Section 3.4.2. [If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within the times specified in this Section 3.4.4.](#) At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact

Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

Except in the case of a CSIS, the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Attachment 2 of this SGIP and any attachments thereto, and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications unless the changes require a new Interconnection Request in accordance with Section 1.5.4-5 of this SGIP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

**3.4.5 Meeting with Parties.** Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study. Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study.

If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the SGIA: (i) Siting approval for the Generating Facility and Interconnection Facilities; (ii) Engineering of Interconnection Facilities approved by Interconnecting Transmission Owner; (iii) Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Initial Synchronization Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

**3.4.6 Re-Study.** If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resources(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

**3.4.7 Operational Readiness.** The System Operator shall, as close to the Interconnection Customer's actual Synchronization Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System with the addition of the Interconnection Customer's Generating Facility. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer. The

System Operator is not obligated to perform the operational analyses described in this Section 3.4.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting Transmission Owner determines that interconnection of the Interconnection Customer's Generating Facility to the Administered Transmission System is remote and speculative.

### **3.5 Interconnection Facilities Study**

**3.5.1 Interconnection Facilities Study Agreement.** [Except as otherwise provided in Section 1.5.3.4 of this SGIP,](#) the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection and proceed with a SGIA in accordance with the requirements specified in Section 4.8. If the Interconnection Customer elects to proceed with an Interconnection Facilities Study, the System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Attachment 8 to this SGIP simultaneously with the delivery of the Interconnection System Impact Study report to the Interconnection Customer. The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA. Within five (5) Business Days following the Interconnection Customer's Interconnection System Impact Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer the Interconnection Facilities Study Agreement along with a non-binding good faith estimate of the cost to perform the Interconnection Facilities Study. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement, including completed attachments, to the System Operator within thirty (30) Business Days after its receipt, together with the required refundable deposit of the non-binding good faith estimated costs for the Interconnection Facilities Study. ~~The Interconnection Customer may request an extension of the deadline, not to exceed sixty (60) Business Days, by which to return the executed Interconnection Facilities Study Agreement.~~ Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer. The System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Interconnection Facilities Study, the study agreement and its attachment(s) and the SGIA. [In the case of Clustering, CFAC costs that are associated with an individual](#)



Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.5.2 Scope of Interconnection Facilities Study.** The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost, (ii) identify configurations of required facilities, and (iii) identify time requirements for construction and installation of required facilities. Design for any required Interconnection Facilities and/or Network Upgrades shall also be performed under the Interconnection Facilities Study. The Interconnection Customer, the System Operator, the Interconnecting Transmission Owner, and the Affected Party(ies), if any, may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design shall be reviewed and may be modified prior to acceptance by the Interconnecting Transmission Owner, under the provisions of the Interconnection Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the System Operator and/or the Interconnecting Transmission Owner shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the

Interconnection Customer to obtain any independent design and cost estimates for any necessary facilities.

**3.5.3 Interconnection Facilities Study Procedures.** The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: forty-five (45) Business Days if upgrades are necessary, or thirty (30) Business Days if upgrades are not necessary. [If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 3.5.3.](#)

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required. The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Business Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection

Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities report. Upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer or to any non-market affiliate of the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of this SGIP and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

**3.5.4 Meeting with Parties.** Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study. Within thirty (30) Business Days of receipt of the study results, the Interconnection Customer shall provide written notice whether it agrees to pay for the Interconnection Facilities and upgrades identified in the Interconnection Facilities Study. An executable SGIA shall be tendered by the System Operator in conjunction with the Interconnecting Transmission Owner to the Interconnection Customer within five (5) Business Days of receipt of such agreement.

**3.5.5 Re-Study.** If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resources(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall so notify the

Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

#### **SECTION 4. PROVISIONS THAT APPLY TO ALL INTERCONNECTION REQUESTS**

##### **4.1 Reasonable Efforts**

The System Operator and Interconnecting Transmission Owner shall make Reasonable Efforts to meet all time frames provided in these procedures unless the System Operator, the Interconnecting Transmission Owner and the Interconnection Customer agree to a different schedule. If the System Operator or Interconnecting Transmission Owner cannot meet a deadline provided herein, it shall notify the other Parties, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

##### **4.2 Disputes**

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

4.2.2 In the event of a dispute, the Party initiating the dispute resolution process shall provide the other Party(ies) with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two (2) Business Days after receipt of the Notice, any Party may contact the Commission's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for its own costs and its pro rata share of any costs paid to the neutral party and any associated common negotiating costs.

4.2.6 If none of the Parties elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then each Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of these procedures.

#### **4.3 Interconnection Metering**

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Commission, state, or local regulatory requirements and with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **4.4 Commissioning**

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards.

4.4.1 The System Operator and the Interconnecting Transmission Owner must be given at least five (5) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

#### **4.5 Confidentiality**

4.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party(ies) that is clearly marked or otherwise designated "Confidential." For purposes of these procedures all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such. Confidential information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an SGIA.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party (ies) and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party (ies) as it employs to protect its own Confidential Information.

4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

4.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to these procedures, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party(ies) when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **4.6 Comparability**

The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The System Operator and Interconnecting Transmission Owner shall use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all

Interconnection Customers, whether the Small Generating Facility is owned or operated by the Interconnecting Transmission Owner, its subsidiaries or affiliates, or others.

#### **4.7 Record Retention**

The System Operator shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

#### **4.8 SGIA**

In accordance with Section 3, the System Operator and the Interconnecting Transmission Owner shall tender to the Interconnection Customer a draft SGIA, together with draft attachments completed to the extent practicable. The Interconnection Customer shall return the Interconnection Customer specific information required to complete the form SGIA, including the attachments, within fifteen (15) Business Days. Within five (5) Business Days, the System Operator and the Interconnecting Transmission Owner shall issue a final draft of the SGIA to the Interconnection Customer.

The Interconnection Customer and the Interconnecting Transmission Owner shall have fifteen (15) Business Days or another mutually agreeable timeframe to sign three (3) originals of the SGIA and return them to the System Operator, who will send an original fully executed SGIA to Interconnecting Transmission Owner and Interconnection Customer, or the Interconnection Customer shall request that an unexecuted SGIA be filed with the Commission. If the Interconnection Customer does not sign the SGIA, or ask that it be filed unexecuted within thirty (30) Business Days after its receipt of the final draft of the SGIA, the Interconnection Request shall be deemed withdrawn. After the SGIA is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the SGIA.

The Interconnection Customer, the Interconnecting Transmission Owner and the System Operator shall be Parties to the SGIA.

Within fifteen (15) Business Days after receipt of the final SGIA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation

Deposit in accordance with Section 1.5.3.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final SGIA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by the fifteenth Business Day after receipt of the final SGIA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

#### **4.9 Coordination with Affected Systems**

The System Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The System Operator will include such Affected System operators in all meetings held with the Interconnection Customer as required by the SGIP. The Interconnection Customer will cooperate with the System Operator and the Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies). The System Operator



shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Parties.

#### **4.10 Evaluation of a Small Generating Facility Interconnection Request**

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total energy capability or capacity capability of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System. However, if the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the System Operator's and Interconnecting Transmission Owner's agreement, with such agreement not to be unreasonably withheld, that the manner in which the Interconnection Customer proposes to implement such a limit will not adversely affect the safety and reliability of the Administered Transmission System. If the System Operator and the Interconnecting Transmission Owner do not agree with the manner in which the Interconnection Customer proposes to implement the limit, then the Interconnection Request must be withdrawn or revised to specify the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System without such limitations. Furthermore, nothing in this section shall prevent the System Operator from considering an output higher than the limited output, if appropriate, when evaluating system protection impacts.

## Glossary of Terms

**10 kW Inverter Process** – The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

**Administered Transmission System** – The PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Affected Party**– The entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** – Any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** – With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**At-Risk Expenditure** – Money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** – Base power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists provided by System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements; such databases and lists shall include all generation projects and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. Base Cases also include data provided by the Interconnection Customer, where applicable, to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** – The criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** – That portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** – (i) In the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the

Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 1.6.4.3 of this SGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 1.6.4.3, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** – The study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Small Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 1.5.3.1 have

been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 1.5.3.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 1.5.3.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 1.5.3.3.2.2 and 1.5.3.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 1.5.3.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** – The status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** – For a unit, the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Standard Small Generator Interconnection Agreement.

**Distribution System** – The Interconnecting Transmission Owner’s facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators

or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Fast Track Process** – The procedure for evaluating an Interconnection Request for a certified Small Generating Facility that meets the eligibility requirements of section 2.1 and includes the section 2 screens, customer options meeting, and optional supplemental review.

**Generating Facility** – The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Initial Synchronization Date** – The date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** – The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner's Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** – A Transmission Owner that owns, leases or otherwise possesses an interest, or a Non-Incumbent Transmission Developer [that is not a Participating Transmission Owner](#) that is constructing a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Small Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

[\*\*Interconnecting Transmission Owner's Interconnection Facilities\*\* shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Attachment 2 to the Standard Small](#)

Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** – Any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Small Generating Facility with the Administered Transmission System under the Standard Small Generator Interconnection Procedures.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Attachment 2 of the Standard Small Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** – The Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** – A study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 3.5.2 of the Standard Small Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** – The form of agreement contained in Attachment 8 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** – A preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 3.3 of the Standard Small Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection Feasibility Study Agreement** – The form of agreement contained in Attachment 6 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** – The Interconnection Request shall mean an Interconnection Customer's request, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP; (iv) make a modification to the operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected to the Administered Transmission System; (v) commence participation in the wholesale markets by, an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric



energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** – The service provided by the System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Small Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** – Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Small Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** – Any of the following agreements: The Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, and the Interconnection Facilities Study Agreement attached to the Standard Small Generator Interconnection Procedures.

**Interconnection System Impact Study** – An engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Small Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the

Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection System Impact Study Agreement** – The form of agreement contained in Attachment 7 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**Network Capability Interconnection Standard (“NC Interconnection Standard”)** – The minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource (“NR”)** – The portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability (“NR Capability”)** – The maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 1.6.4.4 of this SGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 1.6.4.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard.

An Interconnection Customer's NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** – Additions, modifications, and upgrades to the New England Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Administered Transmission System to accommodate the interconnection with the Small Generating Facility to the Administered Transmission System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – A written notice of a dispute or claim that arises out of or in connection with the Standard Small Generator Interconnection Agreement or its performance.

**Party**– The System Operator, Interconnecting Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Administered Transmission System.

**Queue Position** – The order of a valid request in the New England Control Area, relative to all other pending valid requests in the New England Control Area, that is established based upon the date and time of receipt of the valid Interconnection Request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the SGIP or SGIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – A Generating Facility having a maximum gross capability at or above zero degrees F of 20 MW or less.

**Stand Alone Network Upgrades** – Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Attachment 2 to the Standard Small Generator Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 3.3.2 and 3.4.3 of this SGIP.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, Interconnection Feasibility Study, Interconnection System Impact Study, and Interconnection Facilities Study.

**Tariff** - The System Operator's or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

**Trial Operation** – The period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Upgrades** – The required additions and modifications to the Administered Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**SMALL GENERATOR INTERCONNECTION REQUEST  
(Application Form)**

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP Section 1.4, documentation of Site Control must be submitted with the Interconnection Request, except where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the proposed modifications do not require additional real property.

\_\_\_\_\_ Site Control is not provided because the proposed modification is to the Interconnection Customer's existing Small Generating Facility and, by checking this option, the Interconnection Customer certifies that it has Site Control and that the proposed modification does not require additional real property.

**Preamble and Instructions**

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection that is subject to this SGIP must submit this Interconnection Request to the System Operator via the Interconnection Request Tracking Tool or IRTT, a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$4.50/kW (minimum of \$300 and maximum of \$7,500). The kW are the maximum gross kW of the Small Generating Facility. The Fast Track Process is limited to a Small Generating Facility that meets the eligibility requirements of section 2.1 and certain codes, standards and certification requirements.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall

submit to the System Operator a non-refundable deposit of \$2,500 towards the cost of the scoping meeting, the development of the interconnection study agreements, interconnection studies, and development of the SGIA. [For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the non-refundable deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.](#)

**Interconnection Customer Information**

**Proposed Project Name:** \_\_\_\_\_

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

ISO Customer ID# (if available): \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    ☐ New Small Generating Facility  
                              ☐ Capacity addition to or modification of an existing Small Generating Facility  
                              ☐ Commencement of participation in the wholesale markets by an existing Small Generating Facility  
                              ☐ A change from Network Resource Interconnection Service to Capacity Network Resource Interconnection Service

If capacity addition to or modification of an existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

If the capacity addition increases the maximum gross megawatt electrical output at an ambient temperature of 20 degrees F of the Generating Facility to more than 20 MW, the Interconnection Customer shall apply under Schedule 22.

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes ☐ No ☐

To Supply Power to the Interconnection Customer? Yes ☐ No ☐

To Supply Power to Others? Yes ☐ No ☐

Is the Interconnection Request for:

Service Type (check one):

\_\_\_\_\_Capacity Network Resource Interconnection Service (energy capability and capacity capability ) or

\_\_\_\_\_Network Resource Interconnection Service (energy capability only)

A retail customer interconnecting a new Small Generating Facility that will produce electric energy to be consumed only on the retail customer's site? Yes\_\_\_\_\_No\_\_\_\_\_

A Qualifying Facility where 100% of the output will be sold to its host utility?

Yes\_\_\_\_\_No\_\_\_\_\_

An Interconnection Customer interconnecting a new Small Generating Facility that plans to participate in the wholesale markets? Yes\_\_\_\_\_No\_\_\_\_\_

An existing Small Generating Facility commencing participation in the wholesale markets?

Yes\_\_\_\_\_No\_\_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider)

\_\_\_\_\_  
(Existing Account Number)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_



### Small Generating Facility Information

Interconnection Customer's Requested Initial Synchronization Date:

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

Interconnection Customer's Requested Commercial Operation Date: \_\_\_\_\_

Proposed Point of Interconnection: \_\_\_\_\_

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: \_\_\_ Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_ Other (state type) \_\_\_\_\_

Prime Mover: \_\_\_ Fuel Cell \_\_\_ Recip Engine \_\_\_ Gas Turb \_\_\_ Steam Turb  
\_\_\_ Microturbine \_\_\_ PV \_\_\_ Other

Type of Generator: \_\_\_ Synchronous \_\_\_ Induction \_\_\_ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

Will the generator have energy storage capacity? Yes \_\_\_ No \_\_\_

If Yes, describe the energy storage device and specifications:

---



---



---

Provide the maximum output of each generator including each energy storage device: \_\_

**Generating Facility Capacity (MW):**

	Maximum Net MW Electrical Output	Maximum Gross MW Electrical Output
At 90 degrees F or higher		
At 50 degrees F or higher		
At 20 degrees F or higher		
At zero degrees F or higher		

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? \_\_Yes \_\_No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_ \_\_\_Single phase \_\_\_Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

#### Model Requirements

For all generation types: A completed, fully functioning, public (*i.e.*, non-proprietary or non-confidential) Siemens PTI's ("PSSE") power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow ("PSLF") data sheet, must be supplied with this Interconnection Request. If additional public data sheets are more appropriate to the proposed device then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.

A PSCAD model for all wind and inverter-based Small Generating Facilities must be supplied with this Interconnection Request. If a PSCAD model is deemed required for other Generating Facility types at the Scoping Meeting, such PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of ~~the Scoping Meeting date or~~ the executed Interconnection System Impact Study Agreement ~~(whichever is later)~~. A benchmarking analysis consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time the PSCAD model is submitted.

#### Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Generator AC resistance  $R_a$ : \_\_\_\_\_

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2 t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the System Operator prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_ Yes \_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_ Yes \_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_ single phase \_\_\_ three phase? Size: \_\_\_\_\_ kVA

Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_ Volts \_\_\_ Delta \_\_\_ Wye \_\_\_ Wye Grounded

Transformer Secondary: \_\_\_ Volts \_\_\_ Delta \_\_\_ Wye \_\_\_ Wye Grounded

Transformer Tertiary: \_\_\_ Volts \_\_\_ Delta \_\_\_ Wye \_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

**General Information**

Enclose two copies of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Are two copies of One-Line Diagram Enclosed? \_\_\_\_ Yes \_\_\_\_ No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_Yes \_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_Yes \_\_\_No

#### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

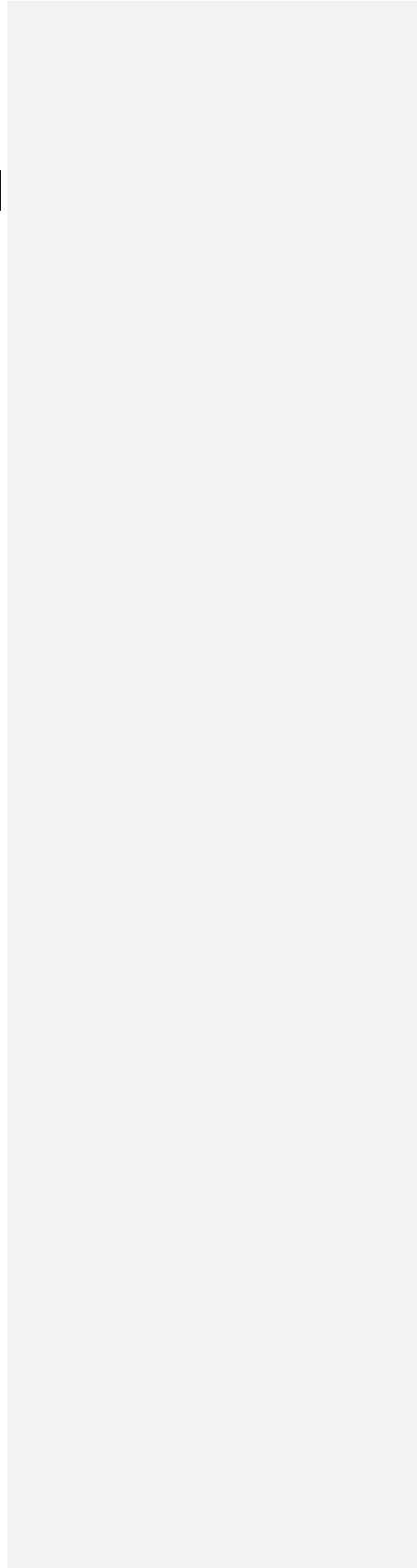
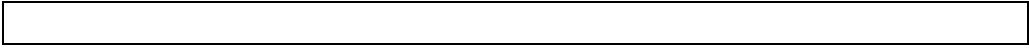
For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

In order for a Small Generator Interconnection Request to be considered a valid request, it must:

- (a) Be accompanied by the applicable deposit that is provided electronically and which shall be non-refundable;
- (b) Include documentation of Site Control, if applicable;
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures;
- (d) Include two copies, signed and stamped by a licensed Professional Engineer, of the site electrical one-line diagram; and
- (e) Include all information and data required on the Interconnection Request form and any attachments thereto.

The Interconnection Request must be submitted to the System Operator via the Interconnection Request Tracking Tool or IRTT.





## Attachment A to Interconnection Request Form

### SUPPLEMENTARY WIND AND INVERTER-BASED GENERATING FACILITY DATA FORM

1. Attach a Geographic Map Demonstrating the Project Lay out and its Interconnection to the Power Grid. (Specify the name of the attachment here)

2. Attach a Bus-Breaker Based One-line Diagram (The diagram should include each of the individual wind unit, generator number, rating and terminal voltage.) (Specify the name of the attachment here)

- 2.1 Collection system detail impedance sheet

If a collector system is used, attach a collector system data sheet in accordance with the one-line diagram attached above. The data sheet should include: the type, length  $Z_0$ ,  $Z_1$  and  $X_c/B$  of each circuit (feeder and collector string).

Specify the name of the attachment here: \_\_\_\_\_

- 2.2 Collection system aggregate (equivalent) model data sheet

Attach an aggregate (equivalent) collection system data sheet. The data table should include: the type, length,  $Z_0$ ,  $Z_1$  and  $X_c/B$  of the equivalent circuits (feeders and collector strings).

Specify the name of the attachment here: \_\_\_\_\_

3. Summary of the Unit Models in the wind or inverter-based generating facility *(List all different unit models in the facility)*

Manufacturer Model	Type of this WTG* (if applicable)	Generator Unit Numbers in the field	Number(s) of these Units	Maximum Output of this Unit (MW)	Total MW


- \* Type 1 – Cage rotor induction generators  
 Type 2 – Induction generators with variable rotor resistance  
 Type 3 – Doubly -fed asynchronous generators with rotor-side converter  
 Type 4 – Full-power converter interface

*Repeat the following sections from [64](#) to [14-12](#) for each different unit model.*

#### 4. Unit Detail Information

Unit Manufacturer Model	
Terminal Voltage	
Rating of Each Unit (MVA)	
Maximum Gross Electrical Output (MW)	
Minimum Gross Electrical Output (MW)	
Lagging Reactive Power Limit at Rated Real Power Output (MVAR)	
Leading Reactive Power Limit at Rated Real Power Output (MVAR)	
Lagging Reactive Power Limit at Zero Real Power Output (MVAR)	
Leading Reactive Power Limit at Zero Real Power Output (MVAR)	
Station Service Load (MW, MVAR)	
Minimum short circuit ratio (SCR) requirement by manufacturer	
On which bus the minimum SCR is required by manufacturer	
What voltage level the minimum SCR is required by manufacturer	
Positive sequence X <sub>source</sub>	
Zero sequence X <sub>source</sub>	

5. Unit GSU – \_\_\_\_\_

Nameplate rating (MVA)	
Total number of the GSUs	
Voltages, generator side/system side	
Winding connections, low voltage/high voltage	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the GSU operate as an LTC?	
Desired voltage control range if LTC	
Tap adjustment time (Tap switching delay + switching time) if LTC	
Desired tap position if applicable	
Impedance, Z1, X/R ratio	
Impedance, Z0, X/R ratio	

6. Low Voltage Ride Through(LVRT) – \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

Does each Unit have LVRT capability?

Yes\_\_ No\_\_

If yes, please provide:

6.1 Unit LVRT mode activation and release condition:

When operating at maximum real power, what is the Unit terminal voltage for LVRT mode activation? \_\_\_\_\_

When operating at maximum real power, what is the Unit terminal voltage for releasing LVRT mode after it is activated? \_\_\_\_\_

If there is different LVRT activation and release logic, please state here \_\_\_\_\_

- 6.2 A wind or inverter-based generating facility technical manual from the manufacturer including description of LVRT functionality:

*Attach the file and specify the name of the attachment here:*

\_\_\_\_\_

- 6.3 Does the wind or inverter-based generating facility technical manual attached above include a reactive power capability curve?

Yes\_\_ No\_\_

*If no, attach the file and specify the name of the attachment here:*

\_\_\_\_\_

7. Low Voltage Protection (considering LVRT functionality)

(Specify the Manufacturer Model of this Unit)

Low Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

8. High Voltage Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

High Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

9. Low Frequency Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

Low Frequency Setting (Hz)	Relay Pickup Time (Seconds)

--	--

\*Add more rows in the table as needed

10. High Frequency Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

High Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

**Please make sure the settings in sections [87](#) through [140](#) comply with NERC and NPCC standards for generator protection relays.**

11. Unit Reactive Power Control - \_\_\_\_ (Specify the Manufacturer Model of this Unit)

11.1 What are the options for the Unit reactive power control (check all available)?

- \_\_\_\_Control the voltage at the Unit terminal
- \_\_\_\_Control constant power factor at the Unit terminal
- \_\_\_\_Control constant power factor at the low side of the station main transformer
- \_\_\_\_Control constant power factor at the high side of the station main transformer
- \_\_\_\_Control voltage at the low side of the station main transformer
- \_\_\_\_Control voltage at the high side of the station main transformer
- \_\_\_\_Other options. Please describe if select others

\_\_\_\_\_

11.2 In all the control options selected above, please list the options in which the Unit is able to control its terminal voltage to prevent low/high voltage tripping.

\_\_\_\_\_

11.3 What is the desired control mode from the selected options above? Specify the control plan in this mode. For example: control voltage at which bus to what schedule.

\_\_\_\_\_

12. Wind or inverter-based generating facility Model

(All model files provided [under this section 12 in section 13](#) should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)

12.1 Power flow model

- 12.1.1 A \*.RAW file including **aggregated/equivalent** wind or inverter-based generating facility power flow model with appropriate parameters and settings.

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.1.2 A \*.RAW file including **detailed** wind or inverter-based generating facility power flow model with appropriate parameters and settings. (Optional)

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

12.2 Dynamic simulation model

*(Please note that the dynamic model must match the aggregated/equivalent power flow model provided above. Attach the following information for each of the models.)*

- 12.2.1 Wind or inverter-based generating facility Model \_\_\_\_\_(Please Specify the Manufacturer Model)

- 12.2.2 A compiled PSS/E dynamic model for the turbines (a \*.LIB or \*.OBJ file)

*Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:*

\_\_\_\_\_

12.2.3 A dynamic data file with appropriate parameters and settings for the turbines (typically a \*.DYN file)

*Attach the \*.DYN file and specify the name of the attachment here:*

\_\_\_\_\_

12.2.4 PSS/E wind or inverter-based generating facility model user manual for the WTG

*Attach ~~the~~ and specify the name of the attachment here:*

\_\_\_\_\_

*Repeat the above sections from 6 to ~~14~~12 for each different wind or inverter-based generating facility model.*

13. Power Plant Controller

Will the wind or inverter-based generating facility be equipped with power plant controller, which has the ability to centrally control the output of the units?

Yes\_\_ No\_\_

If yes, please provide:

13.1 Manufacturer model of the power plant controller

\_\_\_\_\_

13.2 What are the reactive power control strategy options of the power plant controller?

13.3 Which of the control option stated above is being used in current operation?

\_\_\_\_\_

13.3 Is the power plant controller able to control the unit terminal voltages to prevent low/high voltage tripping?

Yes\_\_ No\_\_

Please provide the park controller technical manual from the manufacturer

*Attach the file and specify the name of the attachment here:*

\_\_\_\_\_



14. Station Transformer

Transformer Name		
Nameplate ratings (MVA)		
Total number of the main transformer(s)		
Voltages, High/Low/Tertiary (kV)		
Winding connections, High/Low/Tertiary		
Available tap positions on high voltage side		
Available tap positions on low voltage side		
Will the transformer operate as a LTC?		
Desired voltage control range if LTC		
Tap adjustment time (Tap switching delay + switching time) if LTC		
Desired tap position if applicable		
Tap adjustment time (Tap switching delay + switching time)		
Impedance $Z_1$ , X/R ratio	$Z_{1HL}$	X/R
	$Z_{1HT}$	X/R
	$Z_{1TL}$	X/R
Impedance $Z_0$ , X/R ratio	$Z_{0HL}$	X/R
	$Z_{0HT}$	X/R
	$Z_{0TL}$	X/R

15. Dynamic Simulation Model for the Power Plant Controller(s) (if applicable )

*-(All model files provided under this section 15~~in section 16~~ should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

15.1 A compiled PSS/E dynamic model for the power plant controller(s) (a \*.LIB or \*.OBJ file)

*Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:*

\_\_\_\_\_

- 15.2 A dynamic data file with appropriate parameters and settings for the power plant controller(s) (typically a \*.DYR file).

*Please set the parameters in accordance with the currently used control mode.*

*Attach the \*.DYR file and specify the name of the attachment here:*

\_\_\_\_\_

- 15.32 PSS/E model user manual for the power plant controller(s)

*Attach the manual and specify the name of the attachment or specify the name of the attachment here:* \_\_\_\_\_

16. Capacitors and Reactors

Please provide necessary modeling data for all the capacitors and reactors belong to the facility, including: size, basic electrical parameters, connecting bus, switched or fixed, etc.

17. Dynamic Device(s)

*(All model files provided ~~in section 18~~ under this section 17 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

- 17.1 Provide necessary modeling data file for all the dynamic devices belong to the facility.

Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:

\_\_\_\_\_

- 17.2 A dynamic data file containing the parameters for the units (typically a \*.DYR file).

Set the parameters in accordance with the desired control mode.

Attach the \*.DYR file and specify the name of the attachment here:

\_\_\_\_\_

18. Collection System/Transformer Tap-Setting Design

Attach a collection system/transformer tap-setting design calculations, consistent with the requirements in the ISO New England Planning Procedures, that identify the calculations to support the proposed tap settings for the unit step-up transformers and the station step-up transformers.

Attach the design document and specify the name of the attachment here:

---

19. Additional Information

Are there any special features available to be implemented to the wind or inverter-based generating facility? Such as weak grid interconnection solutions, etc.  
Specify the available features here:

---

***Insert the technical manual for each of the features listed above as objects (display as icons) or specify the name of the attachment here:*** \_\_\_\_\_

20. [Provide](#) PSCAD Model and Documentation for the wind or inverter-based generating facility, the Power Plant Controller(s) and Other Dynamic Devices for the wind or inverter-based generating facility.

***ISO will determine how much PSCAD work is needed from the wind or inverter-based generating facility based on its interconnection system conditions.***

**CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM**

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Small Generating Facility in a Cluster Interconnection System Impact Study pursuant to Section 1.5.3.3.2.2 of this SGIP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:

a. Project Name: \_\_\_\_\_

b. Queue Position: \_\_\_\_\_

c. Is the Interconnection Request contractually associated with another Interconnection Request for an Elective Transmission Upgrade? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, identify Queue Position of the associated Interconnection Request and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_

2. Initial Cluster Participation Deposit as specified in Section 1.5.3.3.2.2.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

### **Attachment 3**

#### **Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

## **Attachment 4**

### **Certification of Small Generator Equipment Packages**

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.



### **10 kW Inverter Process**

#### **Solely applicable for Network Resource Interconnection Service**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the System Operator.
- 2.0 The System Operator acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The System Operator in conjunction with the Interconnecting Transmission Owner evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The System Operator in conjunction with the Interconnecting Transmission Owner verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The System Operator has 15 Business Days to complete this process. Unless the System Operator in conjunction with the Interconnecting Transmission Owner determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the System Operator approves the Application and returns it to the Customer. Note to Customer: Please check with the System Operator before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the System Operator. Prior to parallel operation, the System Operator and Interconnecting Transmission Owner may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The System Operator in conjunction with the Interconnecting Transmission Owner notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Interconnecting Transmission Owner has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Interconnecting Transmission Owner is obligated to complete this witness test within ten Business Days of the

receipt of the Certificate of Completion. If the Interconnecting Transmission Owner does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the System Operator and the Interconnecting Transmission Owner, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

**Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.4, documentation of Site Control must be submitted with the Interconnection Request, except where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

### Small Generating Facility Information

Location (if different from above): \_\_\_\_\_

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

Is the Interconnection Request for:

A retail customer interconnecting a new Small Generating Facility that will produce electric energy to be consumed only on the retail customer's site? Yes \_\_\_\_\_ No \_\_\_\_\_

A Qualifying Facility where 100% of the output will be sold to its host utility?  
Yes \_\_\_\_\_ No \_\_\_\_\_

An Interconnection Customer interconnecting a new Small Generating Facility that plans to participate in the wholesale markets? Yes \_\_\_\_\_ No \_\_\_\_\_

An existing Small Generating Facility commencing participation in the wholesale markets?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐

Turbine ☐ Other \_\_\_\_\_

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐

Fuel Oil ☐ Other (describe) \_\_\_\_\_

Is the equipment UL1741 Listed? Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Interconnecting Transmission Owner has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

**Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Contingent Approval to Interconnect the Small Generating Facility  
(For Internal use only)**

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Interconnecting Transmission Owner Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Interconnecting Transmission Owner waives inspection/witness test? Yes\_\_\_No\_\_\_

System Operator Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

### **Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Small Generating Facility (if different from above):

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Interconnecting Transmission Owner: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local

building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert System Operator and Interconnecting Transmission Owner information below):

Name: \_\_\_\_\_

System Operator: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Name: \_\_\_\_\_

Interconnecting Transmission Owner:

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

---

**Approval to Energize the Small Generating Facility**

**(For Internal use only)**

Energizing the Small Generating Facility is approved contingent up on the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Interconnecting Transmission Owner Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

System Operator Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Terms and Conditions for Interconnecting an Inverter-Based  
Small Generating Facility No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the System Operator approves the Interconnection Request (the "Application") and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Interconnecting Transmission Owner's (the "Company") electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the System Operator and the Company, and
- 2.3 The Company has either:
  - 2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to



the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

### **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### **4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

### **5.0 Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

#### 6.0 **Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

#### 7.0 **Insurance**

The Parties agree to follow all applicable insurance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

#### 8.0 **Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

#### 9.0 **Termination**

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

9.2 By providing written notice to the Company and the System Operator.

9.3 By the Company or the System Operator

9.4 If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

10.0 **Permanent Disconnection**

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility .

11.0 **Survival Rights**

This Agreement shall continue in effect after termination to the extent necessary to allow or require any Party to fulfill rights or obligations that arose under the Agreement.

12. **Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the System Operator and the Company .

**Attachment 6**

**Interconnection Feasibility Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, ("Interconnection Customer,") and ISO New  
England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System  
Operator"), and \_\_\_\_\_, a \_\_\_\_\_  
existing under the laws of the State of \_\_\_\_\_,  
("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and  
Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Small Generating Facility or generating  
capacity addition to an existing Small Generating Facility consistent with the Interconnection Request  
completed by Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the  
Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested the System Operator and Interconnecting  
Transmission Owner to perform an Interconnection Feasibility Study to assess the feasibility of  
interconnecting the proposed Small Generating Facility with the facilities that are part of the  
Interconnecting Transmission Owner's Administered Transmission System, and of any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the  
Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the  
meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures

(“SGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).

- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection Feasibility Study consistent the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the Interconnection Feasibility Study may be extended by agreement of the Parties.
- 5.0 In performing the study, the System Operator and Interconnecting Transmission Owner shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the Interconnection Feasibility Study.
- 6.0 The Interconnection Feasibility Study report shall provide the following analyses depending on whether the Feasibility Study consisted of: (a) a power flow, including thermal analysis and voltage analysis, and short circuited analysis, or (b) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the interconnection of the Small Generating Facility as proposed given recent study experience and as discussed at the Scoping Meeting:

6.1 Initial identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;

6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;

6.3 ~~or, as appropriate~~ Preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Small Generating Facility as identified within the scope of the analysis performed as part of the study;

6.34 If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection; ~~and~~

6.45 If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, description and non-binding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues and length of time that would be necessary to construct the facilities; ~~and~~ and

6.56 To the extent the Interconnection Customer requested a preliminary analysis as described in Section 3.3.2 of the SGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

7.0 The Interconnection Feasibility Study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for

reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.

- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit, paid to the System Operator, of the lesser of 50 percent of good faith estimated Interconnection Feasibility Study costs or earnest money of \$1,000 shall be required from the Interconnection Customer.
- 10.0 Once the Interconnection Feasibility Study is completed, an Interconnection Feasibility Study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the Interconnection Feasibility Study must be completed and the Interconnection Feasibility Study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct an Interconnection Feasibility Study.
- 11.0 The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$ [insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted. 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator shall refund such excess within 30 calendar days of the invoice without interest.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator shall refund such excess within 30 calendar days of the invoice without interest
- 13.0 Miscellaneous.
  - 13.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

13.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

13.3 Force Majeure, Liability and Indemnification.

13.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

13.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System



Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorney's fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 13.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case

of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement ("TOA") or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 13.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 13.2 and 13.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall not be deemed third party beneficiaries of Sections 13.2 and 13.3.
- 13.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 13.5, shall continue in effect for a term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.

- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.
- 13.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 13.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 13.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 13.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 13.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other

failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

- 13.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 13.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 13.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 13.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the

hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

13.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

13.16 Reservation of Rights. Subject to the TOA, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]**

**[Insert name of Interconnection Customer]**

\_\_\_\_\_  
Signed \_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title \_\_\_\_\_

\_\_\_\_\_  
Signed \_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title \_\_\_\_\_

**[Insert name of Interconnecting Transmission Owner]\**

\_\_\_\_\_  
Signed \_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title \_\_\_\_\_

**Attachment A to  
Interconnection Feasibility Study Agreement**

**Assumptions Used in Conducting the Interconnection Feasibility Study**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the scoping meeting held on \_\_\_\_\_:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
  
  
  
  
  
  
  
  
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer, System Operator and Interconnecting Transmission Owner.

### Interconnection System Impact Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_,  
("Interconnection Customer,") and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System Operator"), and  
\_\_\_\_\_, a \_\_\_\_\_  
existing under the laws of the State of \_\_\_\_\_,  
("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Administered Transmission System;

**WHEREAS**, the System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the Interconnection Feasibility Study.); and

**WHEREAS**, the Interconnection Customer has requested the System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study(s) to assess the impact of interconnecting the Small Generating Facility with the facilities that are part of the Interconnecting Transmission Owner's Administered Transmission System, and of any Affected Systems.



**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of an Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 An Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study and the technical information provided by Interconnection Customer in the Interconnection Request. The System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 An Interconnection System Impact Study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. An Interconnection System Impact Study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. An Interconnection System Impact Study shall provide a list of facilities that are required as a result

of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.

- 6.0 A distribution Interconnection System Impact Study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of an Interconnection System Impact Study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon an Interconnection System Impact Study that covers potential adverse system impacts on their electric systems, and the System Operator and Interconnecting Transmission Owner have 20 additional Business Days to complete an Interconnection System Impact Study requiring review by Affected Systems.
- 8.0 If the System Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the Interconnection System Impact Study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced.
  - 8.1 Are directly interconnected with the Administered Transmission System; or
  - 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 8.3 Have a pending higher queued Interconnection Request to interconnect with the Administered Transmission System.
- 9.0 A distribution Interconnection System Impact Study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission Interconnection System Impact Study, if required, shall

be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties.

- 10.0 A deposit of the equivalent of the good faith estimated cost of a distribution Interconnection System Impact Study shall be paid to the System Operator by the Interconnection Customer; and the one half the good faith estimated cost of a transmission Interconnection System Impact Study shall be paid to the System Operator by the Interconnection Customer.
- 11.0 The total estimated cost of the performance of the Interconnection System Impact Study consists of \$[insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator or Interconnecting Transmission Owner, as applicable, shall refund such excess within 30 calendar days of the invoice without interest.
- 13.0 Miscellaneous.
- 13.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.
- 13.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or

used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the content of the Interconnection System Impact Study, or the conclusions of the Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 13.3 Force Majeure, Liability and Indemnification.

13.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

13.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its

gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 13.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds

or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 13.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 13.2 and 13.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall not be deemed third party beneficiaries of Sections 13.2 and 13.3.
- 13.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 13.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_(where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

- 13.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.
- 13.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 13.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 13.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 13.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 13.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

- 13.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 13.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 13.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 13.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 13.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.



13.16 Reservation of Rights. Subject to the TO Agreement, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]**      **[Insert name of Interconnection Customer]**

_____ Signed _____ Name (Printed): _____ _____ Title _____	_____ Signed _____ Name (Printed): _____ _____ Title _____
--	--

**[Insert name of Interconnecting Transmission Owner]**

\_\_\_\_\_  
Signed \_\_\_\_\_  
Name (Printed): \_\_\_\_\_  
\_\_\_\_\_  
Title \_\_\_\_\_

**Attachment A to System  
Impact Study Agreement**

**Assumptions Used in Conducting the System Impact Study**

The Interconnection System Impact Study shall be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer, System Operator and Interconnecting Transmission Owner.

**Attachment 8**

**Interconnection Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, ("Interconnection Customer,") and ISO New  
England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System  
Operator"), and  
\_\_\_\_\_, a \_\_\_\_\_  
existing under the laws of the State of \_\_\_\_\_,  
("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and  
Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or  
generating capacity addition to an existing Small Generating Facility consistent with the Interconnection  
Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the  
Administered Transmission System;

**WHEREAS**, the System Operator and Interconnecting Transmission Owner have completed an  
Interconnection System Impact Study and provided the results of said study to the Interconnection  
Customer; and

**WHEREAS**, the Interconnection Customer has requested the System Operator and Interconnecting  
Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the  
equipment, engineering, procurement and construction work needed to implement the conclusions of the  
Interconnection System Impact Study in accordance with Good Utility Practice to physically and  
electrically connect the Small Generating Facility with the facilities that are part of the Interconnecting

Transmission Owner's Administered Transmission System.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the "Tariff").
- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause an Interconnection Facilities Study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study(s). The Interconnection Facilities Study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Interconnecting Transmission Owner's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The System Operator and Interconnecting Transmission Owner may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit, paid to the System Operator, of the good faith estimated Interconnection Facilities Study costs shall be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the Interconnection Facilities Study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are

necessary, and the required facilities are limited to Interconnection Facilities, the Interconnection Facilities Study must be completed within 30 Business Days.

- 8.0 Once the Interconnection Facilities Study is completed, an Interconnection Facilities Study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the Interconnection Facilities Study must be completed and the Interconnection Facilities Study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct an Interconnection Facilities Study.
- 9.0 The total estimated cost of the performance of the Interconnection Facility Study consists of \$ [insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator or Interconnecting Transmission Owner, as applicable, shall refund such excess within 30 calendar days of the invoice without interest.
- 11.0 Miscellaneous.
  - 11.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.
  - 11.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly,

beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

## 11.2 Force Majeure, Liability and Indemnification.

11.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

11.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection

Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorney's fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 11.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by



Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 11.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 11.2 and 11.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall not be deemed third party beneficiaries of Sections 11.2 and 11.3.
- 11.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 11.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 11.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek

changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

- 11.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.
- 11.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 11.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 11.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 11.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 11.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an

interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

- 11.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 11.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 11.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 11.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

11.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

11.16 Reservation of Rights. Subject to the TOA, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]**

**[Insert name of Interconnection Customer]**

\_\_\_\_\_  
Signed \_\_\_\_\_

\_\_\_\_\_  
Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

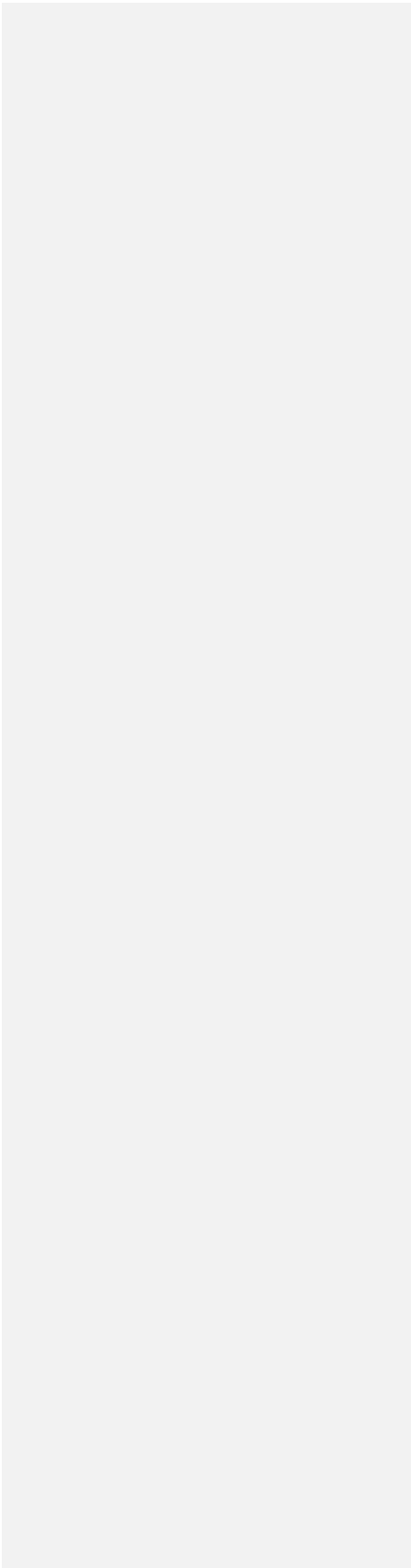
Name (Printed): \_\_\_\_\_

\_\_\_\_\_  
Title \_\_\_\_\_

\_\_\_\_\_  
Title \_\_\_\_\_

**[Insert name of Interconnecting Transmission Owner]**

\_\_\_\_\_  
Signed \_\_\_\_\_  
Name (Printed): \_\_\_\_\_  
\_\_\_\_\_  
Title \_\_\_\_\_



**Attachment A to  
Interconnection Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer  
with the Interconnection Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location.  
(Maximum load on Current Transformer/Power Transformer ("CT/PT"))

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

One set of metering is required for each generation connection to the new ring bus or existing  
Transmission Provider station. Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the  
total plant generation? Yes \_\_\_\_\_ No \_\_\_\_\_  
(Please indicate on the one-line diagram).

What type of control system or Power Line Carrier ("PLC") will be located at the Small Generating  
Facility?

\_\_\_\_\_  
  
\_\_\_\_\_

What protocol does the control system or PLC use?

---

---

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to Administered Transmission System.

---

Tower number observed in the field. (Painted on tower leg)\*:

---

Number of third party easements required for transmission lines\*:

---

\* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_ If No, please provide name of local provider:

---

Please provide the following proposed schedule dates:

Begin Construction Date: \_\_\_\_\_

Generator step-up transformers  
receive back feed power Date: \_\_\_\_\_

Generation Testing Date: \_\_\_\_\_

Commercial Operation Date: \_\_\_\_\_



**STANDARD SMALL GENERATOR  
INTERCONNECTION AGREEMENT (SGIA)**

## **TABLE OF CONTENTS**

### **Article. 1. Scope and Limitations of Agreement**

- 1.1 Applicability
- 1.2 Purpose
- 1.3 No Agreement to Purchase or Deliver Power
- 1.4 Limitations
- 1.5 Responsibilities of the Parties
- 1.6 Parallel Operation Obligations
- 1.7 Metering
- 1.8 Reactive Power
- 1.9 Capitalized Term
- 1.10 Scope of Service

### **Article. 2. Inspection, Testing, Authorization, and Right of Access**

- 2.1 Equipment Testing and Inspection
- 2.2 Authorization Required Prior to Parallel Operation
- 2.3 Right of Access

### **Article. 3. Effective Date, Term, Termination, and Disconnection**

- 3.1 Effective Date
- 3.2 Term of Agreement
- 3.3 Termination
- 3.4 Temporary Disconnection
  - 3.4.1 Emergency Conditions
  - 3.4.2 Routine Maintenance, Construction, and Repair
  - 3.4.3 Forced Outages
  - 3.4.4 Adverse Operating Effects
  - 3.4.5 Modification of the Small Generating Facility
  - 3.4.6 Reconnection

### **Article. 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

- 4.1 Interconnection Facilities
- 4.2 Distribution Upgrades

### **Article. 5. Cost Responsibility for Network Upgrades**

- 5.1 Applicability
- 5.2 Network Upgrades
- 5.3 Special Provisions for Affected Systems
- 5.4 Rights Under Other Agreements

**Article.6. Billing, Payment, Milestones, and Financial Security**

- 6.1 Billing and Payment Procedures and Final Accounting
- 6.2 Milestones
- 6.3 Financial Security Arrangements

**Article. 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

- 7.1 Assignment
- 7.2 Limitation of Liability
- 7.3 Indemnity
- 7.4 Consequential Damages
- 7.5 Force Majeure
- 7.6 Default

**Article. 8. Insurance Requirements**

- 8.1 General Liability
- 8.2 Insurer Requirements and Endorsements
- 8.3 Evidence of Insurance
- 8.4 Self Insurance
- 8.5 Interconnecting Transmission Owner Insurance

**Article. 9. Confidentiality**

**Article. 10. Disputes**

**Article. 11. Taxes**

**Article. 12. Miscellaneous**

- 12.1 Governing Law, Regulatory Authority, and Rules
- 12.2 Amendment
- 12.3 No Third-Party Beneficiaries
- 12.4 Waiver
- 12.5 Entire Agreement
- 12.6 Multiple Counterparts
- 12.7 No Partnership
- 12.8 Severability

- 12.9 Security Arrangements
- 12.10 Environmental Releases
- 12.11 Subcontractors
- 12.12 Reservation of Rights

**Article. 13. Notices**

- 13.1 General
- 13.2 Billing and Payment
- 13.3 Alternative Forms of Notice
- 13.4 Designated Operating Representative
- 13.5 Changes to the Notice Information

**Article. 14. Signatures**

Attachments to SGIA

Attachment 1 – Glossary of Terms

Attachment 2 – Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment

Attachment 3 – One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

Attachment 4 – Milestones

Attachment 5 – Additional Operating Requirements for the New England Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs

Attachment 6 – Interconnecting Transmission Owner's Description of its Upgrades and Best Estimate of Upgrade Costs

Attachment 7 – Commercial Operation Date

**THIS STANDARD SMALL GENERATOR INTERCONNECTION AGREEMENT ("Agreement")**

is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with a Small Generating Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnecting Transmission Owner"). Under this Agreement the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

In consideration of the mutual covenants set forth herein, the Parties agree as follows

**Article 1. Scope and Limitations of Agreement**

**1.1 Applicability:**

This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.

**1.2 Purpose**

This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Interconnecting Transmission Owner's facilities that are part of the Administered Transmission System.

**1.3 No Agreement to Purchase or Deliver Power**

This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection

Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Party.

#### 1.4 Limitations

Nothing in this Agreement is intended to affect any other agreement between the Parties.

#### 1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Interconnecting Transmission Owner shall construct, operate, and maintain its transmission facilities and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the

Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Interconnecting Transmission Owner and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the New England Transmission System [or Interconnecting Transmission Owner's transmission facilities], personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

- 1.5.6 The System Operator, with input from the Interconnecting Transmission Owner, shall coordinate with all Affected Systems to support the interconnection.
- 1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to Article 2.1 of this Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Interconnecting Transmission Owner's automatic load-shed program. The System Operator and Interconnecting Transmission Owner shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The term "frequency ride

through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The term “voltage ride through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis.

#### 1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to the ISO New England Operating Documents, and the Operating Requirements set forth in Attachment 5 of this Agreement.

#### 1.7 Metering

The Interconnection Customer shall be responsible for the Interconnecting Transmission Owner’s reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachment 2 of this Agreement. The Interconnection Customer’s metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

#### 1.8 Reactive Power

##### 1.8.1 Power Factor Design Criteria



1.8.1.1 Synchronous Generation. The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, unless the System Operator or Interconnecting Transmission Owner has established different requirements that apply to all similarly situated synchronous (and non-wind non-synchronous generators as specified in Appendix G, Section A.ii.4, to the LGIA) generators on a comparable basis and in accordance with Operating Requirements.

1.8.1.2 Non-Synchronous Generation. Generating Facilities shall be subject to the power factor design criteria specified in Appendix G to the LGIA. Wind and inverter-based Generating Facilities shall be subject to the Low Voltage Ride-Through Capability requirements specified in Appendix G to the LGIA.

1.8.2 Interconnection Customers shall be compensated for reactive power service in accordance with Schedule 2 of the Tariff.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement. Capitalized terms in Schedule 23 that are not defined in the Glossary of Terms shall have the meanings specified in Sections I.2.2. of the Tariff.

1.10 Scope of Service

1. 10.1 Interconnection Product Options. Interconnection Customer has selected the following (checked) type of Interconnection Service:

\_\_\_\_\_ NR for NR Interconnection Service (NR Capability Only)

\_\_\_\_\_ CNR for CNR Interconnection Service (NR Capability and CNR Capability)

1.10.1.1 Capacity Network Resource Interconnection Service (CNR Interconnection Service)

- (a) The Product. The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which all other CNRs are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Small Generating Facility to be designated as a CNR to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNR Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as all other existing Capacity Network Resources, and to be studied as a Capacity Network Resource on the assumption that such a designation will occur.

1.10.1.2 Network Resource Interconnection Service (NR Interconnection Service).

- (a) The Product. The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which all other Network Resources are interconnected under the NC Interconnection Standard.

NR Interconnection Service allows the Interconnection Customer's Small Generating Facility to participate in the New England Markets, in accordance with Market Rule, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of a Small Generating Facility that has been designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13

of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

- 1.10.1.3 **Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Small Generating Facility at the Point of Interconnection.
- 1.10.1.4 **Performance Standards.** Each Party shall perform all of its obligations under this SGIA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this SGIA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the SGIA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.
- 1.10.1.5 **No Transmission Service Delivery.** The execution of this SGIA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.
- 1.10.1.6 **Transmission Delivery Service Implications.** CNR Interconnection Service and NR Interconnection Service allow the Interconnection Customer's Small Generating Facility to be designated by any Network Customer under the Tariff on the New England Transmission System as a Capacity Network Resource or Network Resource, up to the net CNR Capability or NR Capability, respectively, on the same basis as all other existing Capacity Network Resources and Network Resources interconnected to the New

England Transmission System, and to be studied as a Capacity Network Resource or a Network Resource on the assumption that such a designation will occur. Although CNR Interconnection Service and NR Interconnection Service do not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Small Generating Facility in the same manner as it accesses Capacity Network Resources and Network Resources. A Small Generating Facility receiving CNR Interconnection Service or NR Interconnection Service may also be used to provide Ancillary Services, in accordance with the Tariff and Market Rule 1, after technical studies and/or periodic analyses are performed with respect to the Small Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Capacity Network Resource or Network Resource. However, if an Interconnection Customer's Small Generating Facility has not been designated as a Capacity Network Resource or as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all Generating Facilities that are similarly situated.

CNR Network Interconnection Service and NR Interconnection Service do not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Small Generating Facility to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Small Generating Facility shall be subject to the applicable congestion management procedures for the New England Transmission System in the same manner as other Capacity Network Resources or Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that the Interconnection Customer's Small Generating

Facility be designated as a Capacity Network Resource or as a Network Resource by a Network Customer under the Tariff or that the Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Small Generating Facility as either a Capacity Network Resource or a Network Resource, it must do so pursuant to the Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining CNR Interconnection Service or NR Interconnection Service, as long as the Small Generating Facility has not been deemed to be retired, any future transmission service request for delivery from the Small Generating Facility on the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Small Generating Facility be undertaken, regardless of whether or not such Small Generating Facility is ever designated by a Network Customer as a Capacity Network Resource or Network Resource and regardless of changes in ownership of the Small Generating Facility. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the Small Generating Facility outside the New England Transmission System, or if the unit has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

## **Article 2. Inspection, Testing, Authorization, and Right of Access**

### **2.1 Equipment Testing and Inspection**

- 2.1.1. The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the System Operator and the Interconnecting Transmission Owner of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day.

The Interconnecting Transmission Owner may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Interconnecting Transmission Owner a written test report when such testing and inspection is completed.

- 2.1.2 The Interconnecting Transmission Owner shall provide the Interconnection Customer and the System Operator written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Interconnecting Transmission Owner of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

- 2.2.1 The Interconnecting Transmission Owner [and System Operator] shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Interconnecting Transmission Owner shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Interconnecting Transmission Owner shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
- 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the New England Transmission System [or Interconnecting Transmission Owner's transmission facilities] without prior written authorization of the Interconnecting Transmission Owner. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

- 2.3.1 Upon reasonable notice, the Interconnecting Transmission Owner may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Interconnecting Transmission Owner at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.
- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Interconnecting Transmission Owner shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.
- 2.3.3 Each Party shall be responsible for its own costs associated with following this article.

### **Article 3. Effective Date, Term, Termination, and Disconnection**

#### **3.1 Effective Date**

This Agreement shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner shall promptly file this Agreement with the Commission upon execution, if required.

#### **3.2 Term of Agreement**

This Agreement shall become effective on the Effective Date and by mutual agreement of the Parties shall remain in effect for a period of \_\_\_\_ years, (Term to be specified in individual Agreements, but in no case should the term be less than ten years from the Effective Date or such other longer period as the Interconnection Customer may request) and shall be automatically

renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

### 3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with the Commission of a notice of termination of this Agreement (if required), which notice has been accepted for filing by the Commission.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the System Operator and Interconnecting Transmission Owner 20 Business Days written notice.

3.3.2 Each Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

### 3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

#### 3.4.1 Emergency Conditions



“Emergency Condition” shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, the Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer’s Interconnection Facilities. The System Operator and the Interconnecting Transmission Owner may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility in accordance with applicable provisions of the Operating Requirements. The System Operator and Interconnecting Transmission Owner shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer’s operation of the Small Generating Facility. The Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the New England Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Parties’ facilities and operations, its anticipated duration, and the necessary corrective action.

### 3.4.2 Routine Maintenance, Construction, and Repair

3.4.2.1 Outage Authority and Coordination. The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection

Facilities or Network Upgrades that may impact the other Party's(ies') facilities as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

3.4.2.2 Outage Schedules. Outage scheduling and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

3.4.2.3 Interruption of Service. In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

#### 3.4.3 Forced Outages

During any forced outage, the Interconnecting Transmission Owner [and the System Operator] may suspend interconnection service to effect immediate repairs on the New England Transmission System. The Interconnecting Transmission Owner shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Interconnecting Transmission Owner shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

#### 3.4.4 Adverse Operating Effects

The Interconnecting Transmission Owner shall notify the Interconnection Customer and the System Operator as soon as practicable if, based on Good Utility Practice, operation

of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the New England Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Interconnecting Transmission Owner may disconnect the Small Generating Facility. The Interconnecting Transmission Owner shall provide the Interconnection Customer and the System Operator with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

#### 3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from: (1) the Interconnecting Transmission Owner before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Interconnecting Transmission Owner's Interconnection Facilities; and (2) the System Operator before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the New England Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the System Operator's or the Interconnecting Transmission Owner's, as appropriate, prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

#### 3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the New England Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

### **Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

#### 4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Interconnecting Transmission Owner shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Interconnecting Transmission Owner.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Interconnecting Transmission Owner's Interconnection Facilities.

#### 4.2 Distribution Upgrades

The Interconnecting Transmission Owner shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Interconnecting Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer. The Interconnection Customer shall be responsible for its share of all reasonable expenses, associated with operating, maintaining, repairing, and replacing such Distribution Upgrades, except to the extent that a retail tariff of, or an agreement with, the Interconnecting Transmission Owner or its distribution company affiliate, if appropriate, provides otherwise.

### **Article 5. Cost Responsibility for Network Upgrades**

#### 5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades, including Stand Alone Network Upgrades.

## 5.2 Network Upgrades

The Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Interconnecting Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Interconnecting Transmission Owner elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer.

5.2.1.1 Cost Allocation. Cost allocation of Generator Interconnection Related Upgrades shall be in accordance with Schedule 11 of Section II of the Tariff.

5.2.1.2 Compensation. Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its Generator Interconnection Related Upgrade shall be determined in accordance with Sections II and III of the Tariff.

## 5.3 Special Provisions for Affected Systems

The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Small Generating Facility.

## 5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result

of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

## **Article 6. Billing, Payment, Milestones, and Financial Security**

### **6.1 Billing and Payment Procedures and Final Accounting**

6.1.1 The Interconnecting Transmission Owner shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Interconnecting Transmission Owner's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Interconnecting Transmission Owner for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Interconnecting Transmission Owner shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Interconnecting Transmission Owner within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Interconnecting Transmission Owner shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

### **6.2 Milestones**

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by

agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party(ies) of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

### 6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Interconnecting Transmission Owner's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Interconnecting Transmission Owner in accordance with Section 7 of Schedule 11 of the Tariff. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Interconnecting Transmission Owner's Interconnection Facilities and Upgrades. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Interconnecting Transmission Owner and must specify a reasonable expiration date.

## **Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnection Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

#### 7.1 Assignment

This Agreement may be assigned by a Party upon 15 Business Days prior written notice and opportunity to object by the other Parties; provided that:

- 7.1.1 The Parties may assign this Agreement without the consent of the other Parties to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the other Parties of any such assignment.
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Interconnecting Transmission Owner or the System Operator, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and the System Operator of any such assignment.
- 7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

#### 7.2 Limitation of Liability



Each Party's liability to the other Party (ies) for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall a Party be liable to another Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

### 7.3 Indemnity

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.
- 7.3.2 Each Party shall at all times indemnify, defend, and hold the other Parties harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's(ies') action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall

notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

#### 7.4 Consequential Damages

Other than as expressly provided for in this Agreement, in no event shall a Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

#### 7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party(ies), either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party(ies) informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this

Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## **7.6     Default**

7.6.1   No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party(ies). Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2   If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party(ies) shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

## **Article 8.     **Insurance Requirements****

### **8.1     General Liability**

The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment

being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Interconnecting Transmission Owner, except that the Interconnection Customer shall show proof of insurance to the Interconnecting Transmission Owner no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

## 8.2 Insurer Requirements and Endorsements

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in the state where the interconnection is located having a Best Rating of "A-". In addition, all insurance shall, (a) include Interconnecting Transmission Owner and System Operator as additional insureds; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Interconnecting Transmission Owner and System Operator shall not incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to Interconnecting Transmission Owner and System Operator prior to cancellation, termination, or material change of such insurance; provided that to the extent the Interconnection Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy, the Interconnection Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Interconnecting Transmission Owner and System Operator as required above.

If the requirement of clause (a) in the paragraph above prevents Interconnection Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnection Customer's written notice to Interconnecting Transmission Owner and System Operator, the requirements of clause (a) shall be waived.

## 8.3 Evidence of Insurance

Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnection Customer.

The Interconnection Customer is responsible for providing the Interconnecting Transmission Owner and the System Operator with evidence of insurance in compliance with this Tariff on an annual basis.

Prior to the Interconnecting Transmission Owner commencing work on Interconnection Facilities, Network Upgrades and Distribution Upgrades, the Interconnection Customer shall have its insurer furnish to the Interconnecting Transmission Owner and the System Operator certificates of insurance evidencing the insurance coverage required above. The Interconnection Customer shall notify and send to the Interconnecting Transmission Owner and the System Operator a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Transmission Owner and the System Operator may at their discretion require the Interconnection Customer to maintain tail coverage for three years on all policies written on a "claims-made" basis.

#### 8.4 Self Insurance

If Interconnection Customer is a company with a self-insurance program established in accordance with commercially acceptable risk management practices, Interconnection Customer may comply with the following in lieu of the above requirements as reasonably approved by the Interconnecting Transmission Owner and the System Operator:

- Interconnection Customer shall provide to Interconnecting Transmission Owner and System Operator, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.
- If Interconnection Customer ceases to self-insure to the standards required hereunder, or if Interconnection Customer is unable to provide continuing evidence of Interconnection Customer's financial ability to self-insure, Interconnection Customer agrees to promptly obtain the coverage required under Article 8.1.

#### 8.5 Interconnecting Transmission Owner Insurance

The Interconnecting Transmission Owner agrees to maintain general liability insurance or self-insurance consistent with the Interconnecting Transmission Owner's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Interconnecting Transmission Owner's liabilities undertaken pursuant to this Agreement.

#### **Article 9. Confidentiality**

- 9.1 Confidential Information shall include without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, and any confidential and/or proprietary information provided by a Party to the another Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party(ies) and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
- 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party(ies) as it employs to protect its own Confidential Information.
- 9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or

proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

- 9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this Agreement prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party(ies) to this Agreement when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **Article 10. Disputes**

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, a Party shall provide the other Party(ies) with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, any Party may contact the Commission's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical

expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for its pro-rata share of any costs paid to neutral third-parties.
- 10.6 If no Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then each Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with Commission policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other to maintain the other Party's(ies') tax status. Nothing in this Agreement is intended to adversely affect the Interconnecting Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

#### **Article 12. Miscellaneous**

##### **12.1 Governing Law, Regulatory Authority, and Rules**

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

##### **12.2 Amendment**



The Parties may amend this Agreement by a written instrument duly executed by the Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.1 Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, there are no other agreements,

representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

#### 12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

#### 12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

#### 12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

#### 12.9 Security Arrangements

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects the System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric

reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

#### 12.10 Environmental Releases

Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any governmental authorities addressing such events.

#### 12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

Consistent with Section 4.8 of Schedule 23, the Interconnecting Transmission Owner and the System Operator shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party(ies) and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**Article 13. Notices**

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

[To be supplied]

If to the Interconnecting Transmission Owner:

[To be supplied]

If to the System Operator:

ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: 413-540-4203

With a copy to:

Billing Department

ISO New England Inc.

One Sullivan Road

Holyoke, MA 01040-2841

### 13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner [To be supplied]

System Operator: ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: 413-540-4203

With a copy to:

Billing Department

ISO New England Inc.

One Sullivan Road

Holyoke, MA 01040-2841

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by a Party to the other Party(ies) and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

If to the Interconnecting Transmission Owner:

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

If to the System Operator:

Phone: \_\_\_\_\_ Fax: 413-540-4203

E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

With a copy to:

Billing Department

Facsimile: (413) 535-4024

E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

[To be supplied]

Interconnecting Transmission Owner's Operating Representative:

[To be supplied]

System Operator's Operating Representative:

ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: (413) 540-4203

E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

DUNS Numbers:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner: [To be supplied]

### 13.5 Changes to the Notice Information

A Party may change this information by giving five Business Days written notice prior to the effective date of the change.

**Article 14. Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

| *[Insert name of]* (Interconnecting Transmission Owner)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

| *[Insert name of]* (Interconnection Customer)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

| **ISO New England Inc.** (System Operator)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



## **ATTACHMENTS TO SGIA**

Attachment 1	Glossary of Terms
Attachment 2	Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment
Attachment 3	One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment and Upgrades
Attachment 4	Milestones
Attachment 5	Additional Operating Requirements for the New England Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs
Attachment 6	Interconnecting Transmission Owner's Description of its Upgrades, and Best Estimates of Upgrade Costs
Attachment 7	Commercial Operation Date

## Glossary of Terms

**Administered Transmission System** – The PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Affected Party**– The entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** – Any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** – With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Standards** – The requirements and guidelines of NERC, NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Systems.

**At-Risk Expenditure** – Money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (1) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and survey, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** – Base power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists provided by System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements; such databases and lists shall include all generation projects and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. Base Cases also include data provided by the Interconnection Customer, where applicable, to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** – The criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources and Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** – That portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** -- (i) In the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff for Summer<sup>2</sup>, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, [and, if applicable, as specified in a](#)

[filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff,](#)

net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, ~~and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff,~~ or (ii) in the case of a Generating Facility that meets the criteria under Section 1.6.4.3 of the Small Generator Interconnection Procedures (“SGIP”), the total megawatt amount determined pursuant to the hierarchy established in Section 1.6.4.3, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** – The study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Small Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** [shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 1.5.3.1 have](#)

been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFS”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 1.5.3.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 1.5.3.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 1.5.3.3.2.2 and 1.5.3.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 1.5.3.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** – The status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** – The date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Attachment 7 to the Standard Small Generator Interconnection Agreement.

**Default** – The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

**Distribution System** – The Interconnecting Transmission Owner’s facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Interconnecting Transmission Owner’s Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer’s wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Generating Facility** – The Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

**Initial Synchronization Date** – The date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** – The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** – A Transmission Owner that owns, leases or otherwise possesses an interest in, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing a portion of the Administered Transmission System at the Point

of Interconnection and shall be a Party to the Standard Small Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Attachment 2 to the Standard Small Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** – Any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Small Generating Facility with the Administered Transmission System under the Standard Small Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Attachment 2 of the Standard Small Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** – The Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** – A study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network

Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 3.5 of the Standard Small Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** – The form of agreement contained in Attachment 8 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** – A preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 3.3 of the Standard Small Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection Feasibility Study Agreement** – The form of agreement contained in Attachment 6 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** – The Interconnection Request (a) shall mean an Interconnection Customer's request, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capacity or capacity capability of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP; (iv) make a modification to the operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected to the Administered Transmission System; (v) commence



participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** – The service provided by the System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Small Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** – Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Small Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** – Any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, and the Interconnection Facilities Study Agreement attached to the Standard Small Generator Interconnection Procedures.

**Interconnection System Impact Study** – An engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Small Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the

Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and 3.4.

**Interconnection System Impact Study Agreement** – The form of agreement contained in Attachment 7 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**Network Capability Interconnection Standard (“NC Interconnection Standard”)**– The minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource (“NR”)** – The portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability (“NR Capability”)** – The maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 1.6.4.4 of this SGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 1.6.4.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** – Additions, modifications, and upgrades to the New England Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Administered Transmission System to accommodate the interconnection of the Small Generating Facility with the Administered Transmission System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – A written notice of a dispute or claim that arises out of or in connection with the Standard Small Generator Interconnection Agreement or its performance.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to System Operator or the Interconnecting Transmission Owner’s requirements, including those set forth in the Small Generator Interconnection Agreement, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**Party**– The System Operator, Interconnecting Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Administered Transmission System.

**Queue Position** – The order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – A Generating Facility having a maximum gross capability at or above zero degrees F of 20 MW or less.

**Stand Alone Network Upgrades** – Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Attachment 2 to the Standard Small Generator Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 3.3.2 and 3.4.3 of this SGIP.

**Study Process** – [The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, Interconnection Feasibility Study, Interconnection System Impact Study, and Interconnection Facilities Study.](#)

**Tariff** – The System Operator's or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

**Trial Operation** – The period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Upgrades** – The required additions and modifications to the Administered Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Description and Costs of the Small Generating Facility,  
Interconnection Facilities, and Metering Equipment**

*Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Interconnecting Transmission Owner. The Interconnecting Transmission Owner will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.*

**I. DESCRIPTION OF MAJOR COMPONENTS**

**A. Small Generating Facility**

**(1) Description of Small Generating Facility.**

[insert]

**(2) The Small Generating Facility shall receive:**

- \_\_\_ Network Resource Interconnection Service for the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer, and [insert gross and net at or above 0 degrees F] MW for Winter.
- \_\_\_ Capacity Network Resource Interconnection Service for: (a)(i) the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer and [insert gross and net at or above 0 degrees F] MW for Winter; and (ii) the CNR Capability at [insert net] MW for Summer and [insert net] MW for Winter, which shall not exceed [insert the maximum net MW electrical output of the Generating Facility at an ambient temperature at or above 90 degrees F for summer and at or above 20 degrees F for winter].

- (3) Detailed Description of Small Generating Facility and Generator Step-Up Transformer, if applicable:

Generator Data	
Number of Generators	
Manufacturer	
Model	
Designation of Generator(s)	
Excitation System Manufacturer	
Excitation System Model	
Voltage Regulator Manufacturer	
Voltage Regulator Model	
Generator Ratings	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 90 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 50 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 20 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above zero Degrees F	
Station Service Load For Each Unit	
Overexcited Reactive Power at Rated MVA and Rated Power Factor	
Underexcited Reactive Power at Rated MVA and Rated Power Factor	

Generator Short Circuit and Stability Data	
Generator MVA rating	
Generator AC Resistance	
Subtransient Reactance (saturated)	
Subtransient Reactance (unsaturated)	
Transient Reactance (saturated)	
Negative sequence reactance	
Transformer Data	
Number of units	
Self Cooled Rating	
Maximum Rating	
Winding Connection (LV/LV/HV)	
Fixed Taps	
Z1 primary to secondary at self cooled rating	
Z1 primary to tertiary at self cooled rating	
Z1 secondary to tertiary at self cooled rating	
Positive Sequence X/R ratio primary to secondary	
Z0 primary to secondary at self cooled rating	
Z0 primary to tertiary at self cooled rating	
Z0 secondary to tertiary at self cooled rating	
Zero Sequence X/R ratio primary to	

tertiary	
----------	--

B. Interconnection Facilities

*[insert]*

C. Metering Equipment

*[insert]*

D. Other Components

*[insert]*

II. INTERCONNECTION EQUIPMENT OWNERSHIP, OPERATION AND MAINTENANCE

A. Point of Change of Ownership; Point of Interconnection

*[insert]*

B. Description of Responsibilities

*[insert]*

III. PRICING ESTIMATES

A. Interconnection Facilities

*[insert]*

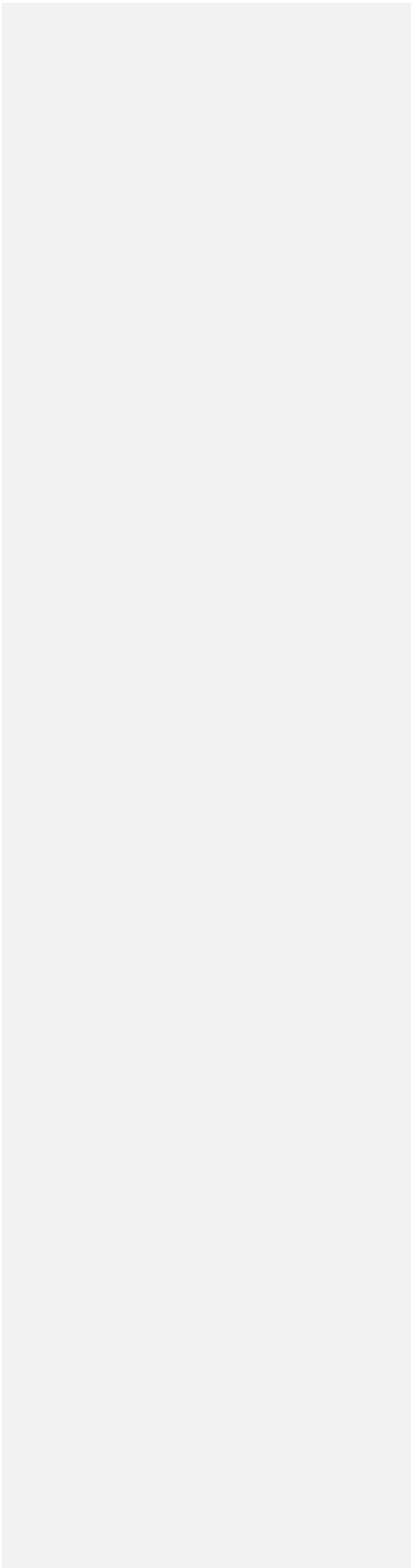
B. Metering Equipment

*[insert]*



C.      Operation and Maintenance

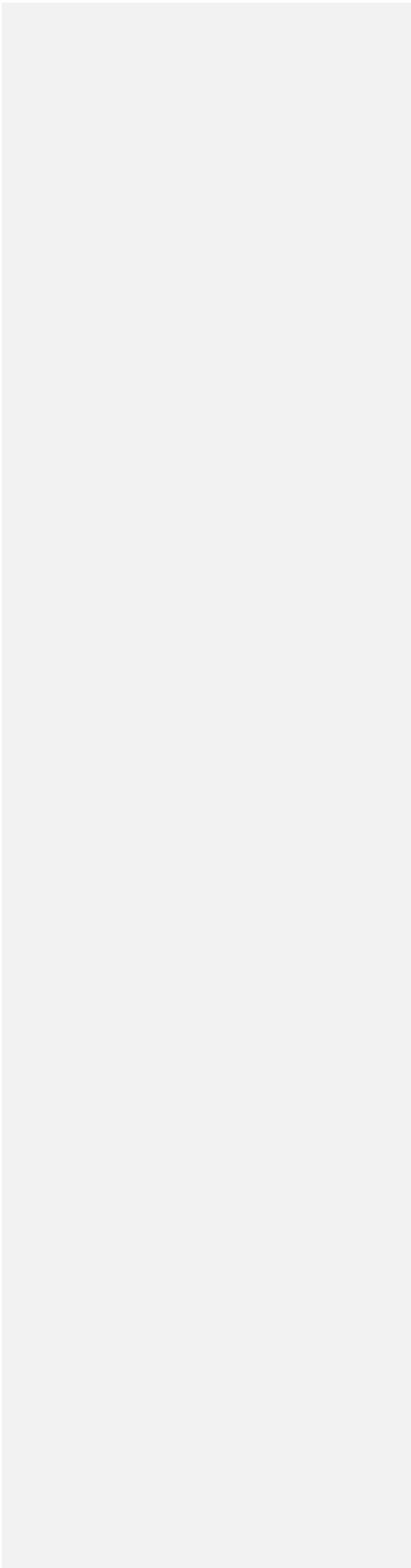
[*insert*]



**Attachment 3**

**One-line Diagram Depicting the Small Generating Facility, Interconnection  
Facilities, Metering Equipment, and Upgrades**

[*insert*]



**Attachment 4****Milestones**

- 1. Milestones and Other Requirements:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the SGIP and this SGIA. The referenced section of the SGIP or article of the SGIA should be reviewed to understand the requirements of each milestone.

<b>Item No.</b>	<b>Milestone Description</b>	<b>Responsible Party</b>	<b>Date</b>	<b>SGIP/SGIA Reference</b>
1	Submit updated data “as purchased”	Interconnection Customer	No later than 180 Calendar Days prior to Initial Synchronization Date	
2	Submit supplemental and/or updated data “as built/as-tested”	Interconnection Customer	Prior to Commercial Operation Date	
3	Provide quarterly written progress reports	Interconnection Customer and Interconnecting Transmission Owner	15 Calendar Days after the end of each quarter beginning the quarter that includes the date for Milestone #3 below and ending when the entire Small Generating	

			Facility and all required Interconnection Facilities and Network Upgrades are in place	
4	Deliver to Transmission Owner “as built” drawings, information and documents regarding Interconnection Customer’s Interconnection Facility	Interconnection Customer	If requested, within 120 Calendar Days after Commercial Operation date	

**2. Milestones Applicable If Facilities Study Has Been Waived by Interconnection Customer:**

Item No.	Milestone Description	Responsible Party	Date	SGIP/SGIA Reference
1	Siting approval for the Generating Facility and Interconnection Facilities	Interconnection Customer	As agreed to by the Parties	SGIP § 3.4.5(i)
2	Engineering of Interconnection Facilities approved by Interconnecting Transmission Owner	Interconnection Customer	As agreed to by the Parties	SGIP § 3.4.5(ii)
3	Commit to the	Interconnection	As agreed to by	SGIP § 3.4.5(iii)

	ordering of long lead time material for Interconnection Facilities and system upgrades	Customer	the Parties	
4	In-Service Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	
5	Initial Synchronization Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	SGIP § 3.4.5(iv)
6	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	SGIP § 3.4.5(v)

- 3. Milestones Applicable Solely for CNR Interconnection Service.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNR Interconnection Service:

Item #	Milestone	Responsible Party	Date	SGIP/SGIA Reference
1	Submit necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		1.7.1.3(i)
2	Participate in a CNR Group Study	Interconnection		1.7.1.3(ii)

		Customer; System Operator		
3	Qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		1.7.1.3(iii)
4	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction, Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a Capacity Supply Obligation	System Operator		1.7.1.3(iv)

**Attachment 5**

**Additional Operating Requirements for the  
New England Transmission System and Affected Systems Needed to Support  
the Interconnection Customer's Needs**

*The Interconnecting Transmission Owner shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the New England Transmission System.*

**I. OPERATING REQUIREMENTS**

*[Insert]*

## Attachment 6

### **Interconnecting Transmission Owner's Description of its Upgrades and Best Estimate of Upgrade Costs**

*The Interconnecting Transmission Owner shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Interconnecting Transmission Owner shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.*

#### **I. DESCRIPTION OF UPGRADES**

##### **A. Distribution Upgrades**

[Insert]

##### **B. Network Upgrades**

[Insert]

(1) Stand Alone Network Upgrades

(2) Other Network Upgrades

##### **C. Affected System Upgrades**

[Insert]

##### **D. Contingency Upgrades**

(1) Long Lead Facility-Related Upgrades. The Interconnection Customer's Small Generating Facility is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the LGIP. Pursuant to Section 4.1 of the LGIP, the Interconnection Customer



shall be responsible for the following upgrades in the event that the Long Lead Facility achieves Commercial Operation and obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert list of upgrades]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this SGIA in accordance with Article 7, and the System Operator will initiate all necessary steps to terminate this SGIA, in accordance with Article 3.

(2) Other Contingency Upgrades. *[e.g., list of upgrades associated with higher queued Interconnection Requests with SGIA's prior to this SGIA and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Small Generating Facility.]*

E. Post-Forward Capacity Auction Re-study Upgrade Obligations.

*[Insert any changes in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation in accordance with the Tariff.]*

**Attachment 7**

**Commercial Operation Date**

This Attachment 7 is a part of the SGIA between System Operator, Interconnecting Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Small Generating Facility

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of Unit No. \_\_\_\_.  
This letter confirms that [Interconnection Customer] commenced commercial operation  
of Unit No. \_\_\_\_ at the Small Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

**SCHEDULE 25**

**ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION PROCEDURES**

## TABLE OF CONTENTS

SECTION 1.	DEFINITIONS
SECTION 2.	SCOPE, APPLICATION AND TIME REQUIREMENTS
2.1	Application of Elective Transmission Upgrade Interconnection Procedures
2.2	Comparability
2.3	Base Case Data
2.4	No Applicability to Transmission Service
2.5	Treatment of Elective Transmission Upgrades for Transmission, Operations, and Scheduling Purposes
2.6	Time Requirements
SECTION 3.	INTERCONNECTION REQUESTS
3.1	General
3.2	Type of Interconnection Services and Long Lead Time Facility Treatment
3.3	Valid Interconnection Request
3.4	OASIS Posting
3.5	Coordination with Affected Systems
3.6	Withdrawal
SECTION 4.	QUEUE POSITION
4.1	General
4.2	Reserved
4.3	Transferability of Queue Position
4.4	Modifications
SECTION 5.	PROCEDURES FOR TRANSITION
5.1	Queue Position for Pending Requests
5.2	Reserved
5.3	New System Operator or Interconnecting Transmission Owner
SECTION 6.	INTERCONNECTION FEASIBILITY STUDY
6.1	Interconnection Feasibility Study Agreement
6.2	Scope of Interconnection Feasibility Study
6.3	Interconnection Feasibility Study Procedures
6.4	Re-Study
SECTION 7.	INTERCONNECTION SYSTEM IMPACT STUDY

7.1	Interconnection System Impact Study Agreement
7.2	Execution of Interconnection System Impact Study Agreement
7.3	Scope of Interconnection System Impact Study
7.4	Interconnection System Impact Study Procedures
7.5	Meeting with Parties
7.6	Re-Study
7.7	Operational Readiness
SECTION 8.	INTERCONNECTION FACILITIES STUDY
8.1	Interconnection Facilities Study Agreement
8.2	Scope of Interconnection Facilities Study
8.3	Interconnection Facilities Study Procedures
8.4	Meeting with Parties
8.5	Re-Study
SECTION 9.	ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT
SECTION 10.	OPTIONAL INTERCONNECTION STUDY
10.1	Optional Interconnection Study Agreement
10.2	Scope of Optional Interconnection Study
10.3	Optional Interconnection Study Procedures
10.4	Meeting with Parties
10.5	Interconnection Agreement Developed Based on Optional Interconnection Study
SECTION 11.	ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT (ETU IA)
11.1	Tender
11.2	Negotiation
11.3	Evidence to be Provided by Interconnection Customer; Execution and Filing of ETU IA
11.4	Commencement of Interconnection Activities
11.5	Other Regulatory Arrangements
SECTION 12.	CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES
12.1	Schedule
12.2	Construction Sequencing
SECTION 13.	MISCELLANEOUS
13.1	Confidentiality

- 13.2 Delegation of Responsibility
- 13.3 Obligation for Study Costs
- 13.4 Third Parties Conducting Studies
- 13.5 Disputes
- 13.6 Local Furnishing Bonds

## **APPENDICES TO ETU INTERCONNECTION PROCEDURES**

APPENDIX 1 INTERCONNECTION REQUEST

APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT

APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 6 ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT

## **SECTION I. DEFINITIONS.**

The definitions contained in this section are intended to apply in the context of the Elective Transmission Upgrade interconnection process provided for in this Schedule 25 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of Elective Transmission Upgrade interconnections under this Schedule 25. Capitalized terms in Schedule 25 that are not defined in this Section I shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.



**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability databases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Elective Transmission Upgrade Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Elective Transmission Upgrade Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resource or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Import Capability (“CNI Capability”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission

Facility, the aggregate highest megawatt amount of Capacity Supply Obligation obtained by the Import Capacity Resource(s) associated with the External Elective Transmission Upgrade, net of any megawatt reductions, in accordance with Section III.13 of the Tariff. The Capacity Network Import Capability shall be the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Capacity Capability Interconnection Standard and shall not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures.

**Capacity Network Import Interconnection Service (“CNI Interconnection Service”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s Capacity Network Import Interconnection Service shall be for the megawatt of Capacity Network Import Capability. Capacity Network Import Interconnection Service does not in and of itself convey transmission service.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of an ETU Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of an Elective Transmission Upgrade that has commenced transmitting electricity, excluding performance during Trial Operation.

**Commercial Operation Date** shall mean the date on which the Elective Transmission Upgrade commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Elective Transmission Upgrade Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Elective Transmission Upgrade Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Elective Transmission Upgrade. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Elective Transmission Upgrade Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Elective Transmission Upgrade ("ETU")** shall mean a new Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnecting to the Administered Transmission System, or an upgrade to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is part of or interconnected to the Administered Transmission System for which the Interconnection Customer has agreed to pay all of the costs of said Elective Transmission Upgrade and of any additions or modifications to the Administered Transmission System that are required to accommodate the Elective Transmission Upgrade. An Elective Transmission Upgrade is not a Generator Interconnection Related Upgrade, a Regional Transmission Upgrade, or a Market Efficiency Transmission Upgrade.

**Elective Transmission Upgrade Interconnection Agreement ("ETU IA")** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade, that is included in this Schedule 25 to Section II of the Tariff.

**Elective Transmission Upgrade Interconnection Procedures (“ETU IP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade that are included in this Schedule 25 to Section II of the Tariff.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Elective Transmission Upgrade or Interconnection Customer’s Interconnection Facilities.

**Engineering & Procurement (“E&P”) Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**External Elective Transmission Upgrade (“External ETU”)** shall mean an Elective Transmission Upgrade that interconnects the New England Control Area with another Control Area.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of Section II to the Tariff.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities.

**Interconnecting Transmission Owner** shall mean Transmission Owner that owns, leases or otherwise possesses an interest in the portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Elective Transmission Upgrade Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator, and may refer to one or more Transmission Owners in the case of an Internal Elective Transmission Upgrade.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole

use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Elective Transmission Upgrade with the Administered Transmission System under the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Elective Transmission Upgrade Interconnection Agreement, that are separate and distinct from the Elective Transmission Upgrade and are located between the Elective Transmission Upgrade and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Elective Transmission Upgrade and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Elective Transmission Upgrade with the Administered Transmission System. The scope of the study is defined in Section 8 of the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Elective Transmission Upgrade to the Administered Transmission System, the scope of which is described in Section 6 of the Elective Transmission Upgrade Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Elective Transmission Upgrade Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Elective Transmission Upgrade to the Administered Transmission System; (ii) make a Material Modification to an Elective Transmission Upgrade with an outstanding Interconnection Request; (iii) increase the capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System; (iv) make a Material Modification to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected with the Administered Transmission System; or (v) change from NI Interconnection Service to CNI Interconnection Service for an Elective Transmission Upgrade that is eligible to request such services. Interconnection Request shall not include a request to interconnect to a transmission facility that is not part of the Administered Transmission System.



**Interconnection Service** shall mean the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include Capacity Network Import Interconnection Service or Network Import Interconnection Service.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Elective Transmission Upgrade Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to Elective Transmission Upgrade Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection of an Elective Transmission Upgrade on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Elective Transmission Upgrade were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Elective Transmission Upgrade Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection System Impact Study.

**Internal Elective Transmission Upgrade (“Internal ETU”)** shall mean an Elective Transmission Upgrade that interconnects solely within the New England Control Area.

**IRS** shall mean the Internal Revenue Service.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively,

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Elective Transmission Upgrade Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in [Appendix 1](#), Attachment A to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility, or Other

Transmission Facility that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Trial Operation Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed pursuant to the Elective Transmission Upgrade Interconnection Agreement, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Import Capability ("NI Capability")** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Network Capability Interconnection Standard and shall be for an amount not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures. The Network Import Capability shall be equal to or greater than the Capacity Network Import Capability.

**Network Import Interconnection Service ("NI Interconnection Service")** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade to the Administered Transmission System in accordance with the Network

Capability Interconnection Standard. An Interconnection Customer's Network Import Interconnection Service shall be solely for the megawatt amount of the Network Import Capability. Network Import Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Elective Transmission Upgrade to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Elective Transmission Upgrade Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities connect to the Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point(s), as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests

for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Elective Transmission Upgrade Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property where the Elective Transmission Upgrade’s terminal locations will be located at the Point of Interconnection within the New England Control Area.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Elective Transmission Upgrade Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this ETU IP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Elective Transmission Upgrade and (2) the Elective Transmission Upgrade from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Elective Transmission Upgrade prior to Commercial Operation.

**Trial Operation Date** shall mean the date upon which the Elective Transmission Upgrade begins Trial Operation.

## **SECTION 2. SCOPE, APPLICATION AND TIME REQUIREMENTS.**

### **2.1 Application of Elective Transmission Upgrade Interconnection Procedures.**

The ETU IP and ETU IA shall apply to Interconnection Requests pertaining to Elective Transmission Upgrades. Except as expressly provided in the ETU IP and ETU IA, nothing in the ETU IP or ETU IA shall be construed to limit the authority or obligations that the Interconnecting Transmission Owner or System Operator, as applicable, has with regard to ISO New England Operating Documents.

### **2.2. Comparability.**

The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this ETU IP. The System Operator and Interconnecting Transmission Owner will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the ETU is owned by the Interconnecting Transmission Owner, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall provide Base Case power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists upon request to the Interconnection Customer and any third party consultant retained by the Interconnection Customer. For the purpose of this provision, Base Case Data may include the electromagnetic transient network model that does not include proprietary electromagnetic transient equipment models. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy as well as any other applicable requirement under Applicable Laws and Regulations regulating disclosure or confidentiality of such information. System Operator is permitted to require that the Interconnection Customer or third party consultant sign a confidentiality agreement before the release of information governed by Section 13.1 or the ISO New England Information Policy, or the release of any other information that is commercially sensitive or Critical Energy Infrastructure Information. Such databases and lists, hereinafter referred to as Base Cases, shall include all generation and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. The Interconnection Customer, where applicable, shall provide Base Case Data to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

### **2.4 No Applicability to Transmission Service.**

Nothing in this ETU IP shall constitute a request for, nor the provision of, any service except for Interconnection Service, including but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

## **2.5 Treatment of Elective Transmission Upgrades for Transmission, Operations, and Scheduling Purposes.**

All ETUs must be categorized as PTF, Non-PTF, MTF or OTF. External ETUs will be treated for transmission, operations and scheduling purposes by the System Operator in a manner consistent with similarly situated PTF, Non-PTF, MTF or OTF under the Tariff. Internal ETUs will be operated and scheduled by the System Operator without recognition of physical transmission rights.

## **2.6 Time Requirements.**

Parties that must perform a specific obligation under a provision of the ETU IP or ETU IA within a specified time period shall use Reasonable Efforts to complete such obligation within the applicable time period. A Party may, in the exercise of reasonable discretion and within the time period set forth by the applicable procedure or agreement, request that the relevant Party consent to a mutually agreeable alternative time schedule, such consent not to be unreasonably withheld.

# **SECTION 3. INTERCONNECTION REQUESTS.**

## **3.1 General.**

To initiate an Interconnection Request, an Interconnection Customer must comply with all of the requirements set forth in Section 3.3.1. The Interconnection Customer shall submit a separate Interconnection Request(s) for each Elective Transmission Upgrade of a: (a) specific technology to be interconnected at a designated Point of Interconnection for a specific capability; or (b) specific objective to facilitate the operation of specific Generating Facility(ies), including achieving CNR Interconnection Service, to increase transfer capability between two specific endpoints, or another specific and clearly defined discrete objective that the ISO, at its sole discretion, determines that it is appropriate to propose in a single Interconnection Request. The Interconnection Customer must comply with the requirements specified in Section 3.3.1 for each Interconnection Request even when more than one request is submitted.

Within three (3) Business Days after its receipt of a valid Interconnection Request, System Operator shall submit a copy of the Interconnection Request to Interconnecting Transmission Owner.

At Interconnection Customer's option, System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in



accordance with applicable codes of conduct and confidentiality requirements, will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

All deposits that must be submitted to the System Operator under this ETU IP, must be delivered to the System Operator's [bank account](#) by electronic transfer within the period specified in the respective provision. [A deposit will not be considered received until it is in the System Operator's bank account.](#)

### **3.2 Type of Interconnection Services and Long Lead Time Facility Treatment.**

Interconnection Service for all Elective Transmission Upgrades is the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include CNI Interconnection Service or NI Interconnection Service. An External ETU Merchant Transmission Facility or Other Transmission Facility is a controllable facility if it employs technology that, in the judgment of the System Operator, enables full control over the direction and amount of power flow on the Elective Transmission Upgrade without adjusting the dispatch of resources within or outside of the New England Control Area, and can be scheduled, curtailed and operated independently from any other interface that interconnects the New England Control Area with another Control Area.

An External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility seeking to import capacity and/or energy into the New England Control Area must select either CNI Interconnection Service or NI Interconnection Service at the time the Interconnection Request is submitted, as described in Sections 3.2.1 and 3.2.2 below. An Interconnection Customer that meets the requirements to obtain CNI Interconnection Service shall obtain NI Interconnection Service up to the NI Capability upon completion of all requirements for NI Interconnection Service, including all necessary

upgrades. Upon completion of all requirements for the CNI Interconnection Service, the Interconnection Customer shall also receive CNI Interconnection Service for CNI Capability. An Interconnection Customer that meets the requirements to obtain NI Interconnection Service shall receive NI Interconnection Service for the Interconnection Customer's NI Capability. At the time the Interconnection Request is submitted, the Interconnection Customer may also request Long Lead Facility treatment in accordance with Section 3.2.3.

Interconnection Studies for Elective Transmission Upgrades shall assure that the Interconnection Customer's Elective Transmission Upgrade interconnects to the Administered Transmission System consistent with the objectives specified in the ETU Interconnection Request and in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Elective Transmission Upgrade.

### **3.2.1 Capacity Network Import Interconnection Service.**

#### **3.2.1.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the CC Interconnection Standard. CNI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to enable the participation of an Import Capacity Resource in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the CNI Capability or as otherwise provided in the Tariff.

#### **3.2.1.2 The Studies.**

All Interconnection Studies for CNI Interconnection Service shall assure that the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the

facility. The CNR Group Study for CNI Interconnection Service shall assure that the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispach of other Capacity Network Resources and Elective Transmission Upgrades with CNI Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.1.3 Milestones for Capacity Network Import Interconnection Service.**

In addition to the requirements set forth in this ETU IP, an Interconnection Customer with an Interconnection Request for CNI Interconnection Service or its counterparty (i.e., Import Capacity Resource) as required shall complete the following milestones prior to receiving CNI Interconnection Service for the CNI Capability, such milestones to be specified in Appendix B of the ETU IA, as either completed or to be completed: (i) submit the necessary requests for participation in the Forward Capacity Auction associated with the Elective Transmission Upgrade's Commercial Operation Date (except as modified pursuant to Sections 3.2.3 or 4.4 of the ETU IP) in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Elective Transmission Upgrade's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer's counterparty received a Capacity Supply Obligation. With respect to (iv) above, if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this ETU IP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an ETU IA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this ETU IP shall be subject to

re-study. The Appendices to the ETU IA shall be amended (pursuant to Article 30 of the ETU IA) to reflect CNI Capability and the results of the re-study.

### **3.2.2 Network Import Interconnection Service.**

#### **3.2.2.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect a controllable Merchant Transmission Facility or Other Transmission Facility External ETU under the NC Interconnection Standard. Notwithstanding the above, the portion of a controllable Merchant Transmission Facility or Other Transmission Facility External ETU that has been interconnected under the NC Interconnection Standard cannot be used to support an Import Capacity Resource's participation in the Forward Capacity Market under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNI Interconnection Service.

#### **3.2.2.2 The Studies.**

The Interconnection Studies for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall assure that the Interconnection Customer's External ETU satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.2.3 Milestones for Network Import Interconnection Service.**

An Interconnection Customer with an Interconnection Request for NI Interconnection Service shall complete the requirements in this ETU IP prior to receiving NI Interconnection Service.

### **3.2.3 Long Lead Time Facility Treatment.**

#### **3.2.3.1 Treatment of Long Lead Facility.**

Long Lead Facilities receive the treatment described herein in connection with the associated request of the Interconnection Customer for CNR Interconnection Service for its Large Generating Facility or CNI Interconnection Service for its External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility. Long Lead Facility treatment provides for the Interconnection Customer's Generating Facility or controllable Merchant Transmission Facility or Other Transmission Facility External ETU, after the completion of the Interconnection System Impact Study, to be modeled in the Base Cases for the next CNR Group Study to determine whether the Long Lead Facility would have qualified or enabled the qualification of an Import Capacity Resource to participate in the Forward Capacity Auction associated with that CNR Group Study, in accordance with Section III.13.1.2 of the Tariff, but for the Long Lead Facility's development cycle (which shall include development of required transmission upgrades). If the Long Lead Facility is deemed to qualify or have enabled an associated Import Capacity Resource to qualify, the Long Lead Facility shall be included in the re-study pursuant to Section 3.2.1.3(iv) in order to determine the facilities and upgrades that would be necessary in order to accommodate the Interconnection Request of the Long Lead Facility, and for which costs the Interconnection Customer must be responsible. In order to maintain Long Lead Facility status, the Interconnection Customer must commit to the completion of these facilities and upgrades in time to allow the Long Lead Facility to achieve its Commercial Operation Date by the start of the associated Capacity Commitment Period. In addition, the Long Lead Facility will be treated as a New Generating Capacity Resource in the case of a Generating Facility or as if an Import Capacity Resource associated with the Long Lead Facility cleared in the case of an External ETU for the sole purpose of inclusion of the Long Lead Facility in the CNR Group Studies for the Forward Capacity Auctions that precede the Forward Capacity Auction for the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation. If an earlier-queued Generating Facility seeking CNR Interconnection Service or an Import Capacity Resource associated with an Elective Transmission Upgrade that is seeking CNI Interconnection Service obtains a Capacity Supply Obligation in a Forward Capacity Auction prior to or simultaneous with the Forward Capacity Auction in which the Long Lead Facility or its contractual counterparty in the case of an Elective Transmission Upgrade obtains a Capacity Supply Obligation, the Long Lead Facility will be re-studied in order to determine whether any additional facilities and upgrades to those identified prior to the CNR Group Study must be completed, at

the Interconnection Customer's cost, prior to its Commercial Operation Date. A Long Lead Facility's cost responsibility for the facilities necessary to accommodate the Interconnection Request shall not be impacted by a Generating Facility or an External ETU with a Queue Position lower than the Long Lead Facility or its counterparty in the case of an External ETU that clears in a Forward Capacity Auction, in accordance with Section III.13.2 of the Tariff, prior to the clearance of the Long Lead Facility.

#### **3.2.3.2 Request for Long Lead Facility Treatment.**

An Interconnection Customer requesting CNR Interconnection Service for its proposed Generating Facility or CNI Interconnection Service for its proposed controllable Merchant Transmission Facility or Other Transmission Facility External ETU, which the Interconnection Customer projects to have a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) may elect or request Long Lead Facility treatment in the following manner:

(a) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service of 100 MW or more may elect Long Lead Facility treatment at the time the Interconnection Request is submitted, together with the critical path schedule and deposits required in Section 3.2.3.3.

(b) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service under 100 MW at may request Long Lead Facility treatment by submitting a written request to the System Operator for its review and approval, explaining why the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU cannot achieve Commercial Operation by the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for Long Lead Facility treatment is made), together with the critical path schedule and deposits required in Section 3.2.3.3. In reviewing the request, the System Operator shall evaluate the feasibility of the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU achieving Commercial Operation to meet an earlier Capacity Commitment Period based on the information provided in the request and the critical path schedule submitted pursuant to Section 3.2.3.3, in a manner

similar to that performed under Section III.13.3.2 of the Tariff. Within forty-five (45) Business Days after its receipt of the request for Long Lead Facility treatment, the System Operator shall notify the Interconnection Customer in writing whether the request has been granted or denied. If the System Operator determines that the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU can achieve a Commercial Operation Date prior to the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction, the Interconnection Customer's request shall be denied. The dispute resolution provisions of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU are not available for disputes or claims associated with the ISO's determination to deny an Interconnection Customer's request for Long Lead Facility treatment.

(c) An Interconnection Customer that did not request Long Lead Facility treatment at the time the Interconnection Request was submitted, may thereafter submit a request for treatment as a Long Lead Facility, together with the critical path schedule and deposits required in Section 3.2.3.3 and, if applicable, a request for an extension of the Commercial Operation Date specified in the Interconnection Request in accordance with Sections 4.4.4 and 4.4.5. A request for Long Lead Facility treatment that is submitted after the initial Interconnection Request will not be eligible to participate in any Forward Capacity Auction prior to the Forward Capacity Auction associated with the extended Commercial Operation Date. The Long Lead Facility will be modeled in the Base Cases for the CNR Study Group associated with the near term Forward Capacity Auction unless that CNR Study Group is underway, in which case the Long Lead Facility will be modeled in the next CNR Study Group.

### **3.2.3.3 Critical Path Schedule and Deposits for Long Lead Facility Treatment.**

At the time an Interconnection Customer submits an election or request for Long Lead Facility treatment, the Interconnection Customer must submit, together with the request:

(1) **Critical Path Schedule.** A critical path schedule, in writing, for the Long Lead Facility (with a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) that meets the requirements set forth in Section III.13.1.1.2.2.2 of the Tariff. The Interconnection Customer must submit annually, in writing, an updated critical path schedule to the System Operator by the closing deadline of each New Capacity Show of

Interest Submission Window that precedes the Forward Capacity Auction associated with the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation, prior to the inclusion of the Long Lead Facility in the Base Case for the CNR Group Study associated with the corresponding New Capacity Show of Interest Submission Window. With its annual update, for each critical path schedule milestone achieved since the submission of the previous critical path schedule update, the Interconnection Customer must include in the critical path update documentation demonstrating that the milestone has been achieved by the date indicated and as otherwise described in the critical path schedule.

**(2) Long Lead Facility Deposits.**

**(a) Deposits.** In addition to the deposits required elsewhere in the LGIP in the case of a Generating Facility or the ETUP IP for External ETU, at the time of its request for Long Lead Facility treatment, in accordance with Section 3.2.3.3, and by each deadline for which a New Generating Capacity Resource is required to provide financial assurance under Section III.13.1.9.1 of the Tariff, the Interconnection Customer must provide a separate deposit in the amount of  $0.25 * (\text{Forward Capacity Auction Starting Price } (\$/\text{kW-mo}) / 2) * \text{requested CNR Capacity or CNI Capacity}$ . For each calculation of the deposit, the System Operator shall use the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction at the time of that calculation, pursuant to Section III.13.2.4 of the Tariff, or the Forward Capacity Auction Starting Price for the previous Forward Capacity Auction in the case where the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction has not yet been calculated. The total amount of deposits shall not exceed the Non-Commercial Capacity Financial Assurance Amount that the Long Lead Facility would be required to provide if the Long Lead Facility or its counterparty cleared in the upcoming Forward Capacity Auction, in accordance with Section III.13.1.9.1 of the Tariff. The Long Lead Facility deposits will be fully refunded (with interest to be calculated in accordance with Section 3.6) (i) if the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days of the Scoping Meeting or of the completion of the System Impact Study (including restudy of the System Impact Study), pursuant to Section 7, or (ii) once the Long Lead Facility or its counterparty clears in a Forward Capacity Auction.



**(b) Reductions.** Ten (10) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) after the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear in the Forward Capacity Auction that follows the first Forward Capacity Auction for which the Long Lead Facility or its counterparty could qualify based on the Commercial Operation Date specified in the initial critical path schedule for the Long Lead Facility. An additional five (5) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) following each subsequent Forward Capacity Auction in which the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear such Forward Capacity Auction, not to exceed the maximum period allowed under Sections 3.3.1, 4.4.4 and 4.4.5. The non-refundable portions of the deposits shall be credited to the revenue requirements under Schedule 1 of Section IV of the Tariff.

#### **3.2.3.4 Withdrawal and Refunds After Expenditures for Upgrades.**

An Interconnection Customer that provides documentation in the critical path schedule update to be submitted in accordance with Section 3.2.3.3(1), showing expenditures of the required amounts for upgrades identified in the Interconnection Studies for the Long Lead Facility, may submit a withdrawal of the Interconnection Request for the Long Lead Facility, in accordance with Section 3.6, at any time up to thirty (30) Calendar Days, after the Long Lead Facility's or its counterparty's failure to clear in any Forward Capacity Auction. In such instance, the Interconnection Customer shall receive a refund from the System Operator of the Long Lead Facility deposits (with interest to be calculated in accordance with Section 3.6) as adjusted pursuant to 3.2.3.3(2), if appropriate, and from the Interconnecting Transmission Owner a refund of the payments for the upgrades that exceed the costs incurred by the Interconnecting Transmission Owner. If the Interconnection Customer withdraws only its election or request for Long Lead Facility treatment, such withdrawal will be considered a Material Modification and the Long Lead Facility will lose its Queue Position unless its withdrawal occurs within one of the thirty (30)-day periods described in Section 3.2.3.3(2) of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU.

#### **3.2.3.5 Additional Requirements to Maintain Long Lead Facility Treatment.**

An Interconnection Customer with a Long Lead Facility must begin payment as required by the transmission expenditure schedule for the transmission upgrade costs that have been identified in the pertinent Interconnection Studies. The Interconnection Request for CNI Interconnection Service shall be deemed withdrawn under Section 3.6 if the Interconnection Customer fails to comply with the requirements for Long Lead Facility treatment, including the milestones specified in Section 3.2.1.4. In this circumstance, the conditions specified in an Interconnection Agreement for a Generating Facility seeking CNR Interconnection Service or External ETU seeking CNI Interconnection Service that had an Interconnection Request of a Queue Position lower than the Long Lead Facility, but cleared (in the case of the Elective Transmission Upgrade, the Import Capacity Resource) in a Forward Capacity Auction prior to the Long Lead Facility, shall be removed.

#### **3.2.3.6 Participation in Earlier Forward Capacity Auctions.**

An Interconnection Customer with a Long Lead Facility may, without loss of Queue Position, elect to participate in an earlier Forward Capacity Auction than originally anticipated, but only if the election to accelerate is made to the System Operator in writing within thirty (30) Calendar Days of the Scoping Meeting or within thirty (30) Calendar Days of the completion of the System Impact Study (but before the Long Lead Facility and the results of the associated System Impact Study are incorporated into the Base Cases). Otherwise, such an election shall be considered a Material Modification.

### **3.3 Valid Interconnection Request.**

#### **3.3.1 Initiating an Interconnection Request.**

To initiate ~~and establish~~ a valid Interconnection Request, Interconnection Customer must submit all of the following to the System Operator in the manner specified in Appendix 1 Interconnection Request to this ETU IP: (i) an initial deposit of \$50,000, (ii) a completed application in the form of Appendix 1, (iii) all information and deposits required under Section 3.2, and (iv) demonstration of Site Control or a posting of an additional deposit of \$10,000 in lieu of Site Control for all Interconnection Request except those requesting CNI Interconnection Service, in which case Site Control is required. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility, or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification to existing Pool

Transmission Facility that is not owned by the Interconnection Customer. The portions of the deposit of \$50,000 that have not been applied as provided in this Section 3.3.1 shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in relative order with any other Interconnection Request also requesting to be re-queued pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit of \$50,000 (and any study-related deposits, if any have been submitted) shall be applied toward the re-queued Interconnection Request's initial deposit of \$50,000 and any remaining balance will be refunded, or (iv) if the Interconnection Customer executes an ETU IA. Otherwise, any unused balance of the deposit of \$50,000 shall be non-refundable and applied on a pro-rata basis to offset costs incurred by Interconnection Customers with lower Queue Positions that are subject to re-study, as determined by the System Operator in accordance with the provisions of this ETU IP, as a result of the withdrawal of an Interconnection Request with a higher Queue Position.

The deposit of \$50,000 shall be applied toward the costs incurred by the System Operator associated with the Interconnection Request and Long Lead Facility treatment, as well as, the costs of the Interconnection Feasibility Study and/or the Interconnection System Impact Study, including the cost of developing the study agreements and their attachments, and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit of \$50,000 also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.

If, in the case of a request that is not for CNI Interconnection Service, the Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.3.3 after submitting its Interconnection Request, the additional deposit of \$10,000 shall be refundable; otherwise, that deposit shall be applied as provided in Section 3.1, including toward the costs of any Interconnection Studies pursuant to the Interconnection Request, the cost of developing the study agreement(s) and associated attachment(s), and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing

the cost estimates in support of the CRPS. The portions of the deposit of \$10,000 that have not been applied as provided in this Section 3.3.1 also shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit shall be applied toward the re-queued Interconnection Request in lieu of Site Control for NR Interconnection Service, or (iv) if the Interconnection Customer executes an ETU IA.

The expected Trial Operation Date of the new Elective Transmission Upgrade, or the increase in capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility interconnected to the Administered Transmission System, or of the implementation of a Material Modification to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System shall not exceed seven (7) years from the date the Interconnection Request is received by the System Operator, unless the Interconnection Customer demonstrates that such time required to actively engineer, permit and construct the new Elective Transmission Upgrade or increase in capability of the existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility interconnected to the Administered Transmission System or implement the Material Modification to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System will take longer than the seven year period. Upon such demonstration, the Trial Operation Date may succeed the date the Interconnection Request is received by the System Operator by a period of greater than seven (7) years so long as the Interconnection Customer, System Operator, and Interconnecting Transmission Owner agree; such agreement shall not be unreasonably withheld.

Within sixty (60) days of submitting an Interconnection Request to the System Operator, the Interconnection Customer with a request for an External ETU, shall provide evidence that it has submitted a valid request with the other Control Area to which it seeks to interconnect. Notwithstanding any other provision in this ETU IP, if such evidence is not provided within a period not to exceed sixty (60) days, the Interconnection Request will immediately be deemed withdrawn.

### **3.3.2 Acknowledgment of Interconnection Request.**

System Operator shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement. With the System Operator's acknowledgement of a valid Interconnection Request, the System Operator shall provide to the Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2 or an Interconnection System Impact Study Agreement in the form of Appendix 3.

### **3.3.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid [Interconnection Request](#) until all items in Section 3.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, the System Operator shall notify the Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

### **3.3.4 Scoping Meeting.**

Within ten (10) Business Days after receipt of a valid Interconnection Request, System Operator shall establish a date agreeable to Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, for a Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be (i) to discuss the estimated timeline for completing all applicable Interconnection Studies, and alternative interconnection options, (ii) to exchange pertinent information including any transmission data that would reasonably be expected to impact such interconnection options, (iii) to analyze such information, (iv) to determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. If a PSCAD model is required, the Parties shall discuss this at the Scoping Meeting. If the Interconnection Customer provided the technical data called for in Appendix 1,

Attachment A with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

The Parties will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) information regarding general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. The Parties will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 6.1, and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS, W Within five (5) Business Days following the Scoping Meeting Interconnection Customer shall notify the System Operator, in writing, (i) whether it wants the Interconnection Feasibility Study to be completed as a separate and distinct study or as part of the Interconnection System Impact Study; (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternative study scopes is being selected pursuant to Section 6.2; and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

### **3.4 OASIS Posting.**

The System Operator will maintain on its OASIS a list of all Interconnection Requests in its Control Area. The list will identify, for each Interconnection Request: (i) the maximum net summer and winter megawatt electrical output; (ii) the location by county and state of the Point of Interconnection; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected Trial Operation Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested (i.e., CNI Interconnection Service or NI Interconnection Service); and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Elective Transmission Upgrade to be constructed (e.g., Internal ETU, External ETU, controllable, non-controllable); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except

in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes an ETU IA or requests that the System Operator and Interconnecting Transmission Owner jointly file an unexecuted ETU IA with the Commission. Before participating in a Scoping Meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on OASIS an advance notice of its intent to do so. The System Operator shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to the System Operator's OASIS site subsequent to the meeting between the System Operator, Interconnecting Transmission Owner, and Interconnection Customer to discuss the applicable study results. The System Operator shall also post any known deviations in the Elective Transmission Upgrade's Trial Operation Date.

### **3.5 Coordination with Affected Systems.**

The System Operator will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected Parties and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this ETU IP. The System Operator will include such Affected Parties in all meetings held with the Interconnection Customer as required by this ETU IP. The Interconnection Customer will cooperate with the System Operator and Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies).

The System Operator shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Party(ies).

### **3.6 Withdrawal.**

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to

adhere to all requirements of this ETU IP, except as provided in Section 13.5 (Disputes), the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this ETU IP, Upon receipt of such written notice, if the Interconnection Customer wishes to dispute the withdrawal notice, the Interconnection Customer shall have fifteen (15) Business Days, unless otherwise provided elsewhere in this ETU IP, in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue Dispute Resolution, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

The System Operator shall update the OASIS Queue Position posting. Except as otherwise provided elsewhere in this ETU IP, the System Operator and the Interconnecting Transmission Owner shall arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations, or arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations. In the event of such withdrawal, System Operator, subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.



## SECTION 4. QUEUE POSITION.

### 4.1 General.

System Operator shall assign a Queue Position based up on the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form in Appendix 1 to this ETU IP, and Interconnection Customer provides such information in accordance with Section 3.3.3, then System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally ~~filed~~submitted.

Except as otherwise provided in this Section 4.1, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be eligible for inclusion in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and (iv)~~iv~~ the cost responsibility for the facilities and upgrades necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is lower queued.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 4.2 of this ETU IP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

#### 4.1.1 Order of Interconnection Requests in the CNR Group Study.

Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification

for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance with Section III.13.1.1.2 of the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Appendix A to the Interconnection Agreement for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

#### **4.2 ~~Reserved~~ Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based up on the electrical remoteness of the proposed Elective Transmission Upgrade.

##### **4.2.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator determined that none of the Interconnection Requests identified in (a) of this Section 4.2.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure at or above 115 kV AC or HVDC. An Interconnection Request for an Internal ETU that the System Operator identifies as potentially eligible to take the place of a CETU will be eligible to participate in a CSIS.

#### **4.2.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 4.2.1 of this ETU IP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 4.2.1 of this ETU IP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will be suspended and they will proceed under Section 4.2 of this ETU IP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 4.2.1 of this ETU IP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated upgrades, in accordance with this ETU IP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 4.2.1 shall submit the technical data called for in Appendix 1, Attachment A, to support the conduct of the CRPS.

#### **4.2.3 Cluster Interconnection System Impact Study.**

##### **4.2.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry deadline for the CSIS (the "Cluster Entry Deadline") to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

##### **4.2.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 4.1 of this ETU IP, shall be eligible to be studied together in the CSIS.

**4.2.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 3.6;
- (ii) request that the System Operator re-assign the Interconnection Customer's Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 4.2.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 4.2.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 4.2.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.

#### **4.2.3.2.2 CSIS Entry Requirements**

An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 4.2.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator a completed Cluster System Impact Study Application in the form specified in Appendix 1, Attachment A-1, of this ETU IP requesting the inclusion of the Interconnection Request in the CSIS;

**(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.** If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection System Impact Study Agreement in accordance with this Section 4.2.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS.

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Appendix 1, Attachment A, and a refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 7.2 of this ETU IP.

**(3) Cluster Participation Deposit for the CSIS.** By the Cluster Entry Deadline, Interconnection Customer also must submit to the System Operator an initial Cluster Participation Deposit equal to: (a) for an External ETU, five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report, or (b) for an Internal ETU, the lesser of \$1,000,000 or five (5) percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the initial Cluster Participation Deposit is due. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this ETU IP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the CSIS is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed

to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 4.2.3.3.2 of this ETU IP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25) percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Sections 7.5 and 8.3 of this ETU IP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS or CFAC remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this ETU IP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this ETU IP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.2.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**4.2.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the

final CRPS report as potentially enabled by the CETU. The Interconnection Requests will be included in the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 4.1 of this ETU IP, relative to other eligible Interconnection Requests.

**4.2.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity of megawatts identified as potentially enabled by the CETU in the final CRPS report having been exhausted in queue order under Section 4.2.3.3.1, (i) the initial Cluster Participation Deposit will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more Interconnection Request after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.

**4.2.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 4.2.3.3.1 of this ETU IP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Elective Transmission Upgrade (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 4.2.3.2 of this ETU IP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**4.2.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 4.2.3.4, the CSIS shall be conducted in accordance with Sections 7.3 and 7.4 of this ETU IP. The



Study Case developed for the CSIS shall also include the CETU and associated system upgrades identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New England Transmission System under the NC Interconnection Standard consistent with Section 3.2.2 of this ETU IP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 7.3 of this ETU IP except for analysis associated with an Interconnection Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**4.2.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 7.6 of this ETU IP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

#### **4.2.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this ETU IP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

**4.2.4.1 Cluster Interconnection Facilities Study Entry Requirements.** An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 8.1 of this ETU IP.

**4.2.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 8.2 and 8.3 of this ETU IP based on a +/- 20 percent good faith cost estimate.

**4.2.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 8.5 of this ETU IP, a re-study of the CFAC is required due to the withdrawal of an Interconnection Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

**4.2.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 8.3 of this ETU IP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to: (a) for an External ETU, five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report, or (b) for an Internal ETU, the lesser of \$1,000,000 or five (5) percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the additional Cluster Participation Deposit is due. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 4.2.4.4 will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this ETU IP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 4.2.3.2.2(3)(v), (vi) or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Elective Transmission Upgrade identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee's contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

#### **4.4 Modifications.**

The Interconnection Customer shall submit to System Operator and Interconnecting Transmission Owner, in writing, modifications to any information provided in the Interconnection Request, including its attachments. The Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1 or 4.4.4, or are determined not to be Material Modifications pursuant to Section 4.4.2. The System Operator will notify the Interconnecting Transmission Owner, and, when System Operator deems it appropriate in accordance with applicable codes of conduct and confidentiality requirements, it will notify any Affected Party of such modifications.

A new Interconnection Request shall be required to: (1) increase the capability of an Elective Transmission Upgrade above that specified in an Interconnection Request, or an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission); (2) change from NI Interconnection Service to CNI Interconnection Service, in which case a new Interconnection Request for CNI Interconnection Service shall be required; or (3) change the objective specified in an Interconnection Request. Such new Interconnection Request will receive the lowest Queue Position available at the time the Interconnection Request is submitted for purposes of cost allocation and study analysis. Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNI Interconnection Service has until the Forward Capacity Auction for which the associated Capacity

Commitment Period begins less than seven (7) years (or the years agreed to pursuant to Section 3.3.1 or Section 4.4.5) from the date of the original Interconnection Request for CNI Interconnection Service for an Import Capacity Resource(s) associated with its Elective Transmission Upgrade to clear the entire megawatt amount for which CNI Interconnection Service was requested. A new Interconnection Request for CNI Interconnection Service will be required for the Elective Transmission Upgrade to enable the participation of an Import Capacity Resource in any subsequent auctions.

During the course of the Interconnection Studies, either the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes do not constitute a Material Modification and are acceptable to the Parties, such acceptance not to be unreasonably withheld, System Operator and the Interconnecting Transmission Owner shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

**4.4.1** Prior to the commencement of the Interconnection System Impact Study, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent in the capability of the proposed project; (b) modifying the technical parameters associated with the Elective Transmission Upgrade technology or characteristics; and (c) modifying the interconnection configuration.

Notwithstanding the foregoing, an Interconnection Customer may decrease the electrical output of a proposed Elective Transmission Upgrade after the Cluster Entry Deadline specified in Section 4.2.3.1 of this ETU IP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline.

**4.4.2** Prior to making any modification other than those specifically permitted by Sections 4.4.1 and 4.4.4, Interconnection Customer may first request that the System Operator and Interconnecting Transmission Owner evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, the System Operator in consultation with the Interconnecting Transmission Owner, and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall evaluate,

at the Interconnection Customer's cost, the proposed modifications prior to making them and the System Operator will inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.3** Upon receipt of Interconnection Customer's request for modification that does not constitute a Material Modification and therefore is permitted under this Section 4.4, the System Operator in consultation with the Interconnecting Transmission Owner and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall commence and perform any necessary additional studies as soon as practicable, but in no event shall the System Operator, Interconnecting Transmission Owner, or Affected Party commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

**4.4.4** Extensions of less than three (3) cumulative years in the Commercial Operation Date, In-Service Date or Trial Operation Date of the Elective Transmission Upgrade to which the Interconnection Request relates are not material and should be handled through construction sequencing, provided that the extension(s) do not exceed seven (7) years from the date the Interconnection Request was received by the System Operator.

**4.4.5** Extensions of three (3) or more cumulative years in the Commercial Operation Date, In-Service Date or Trial Operation Date of the Elective Transmission Upgrade to which the Interconnection Request relates or any extension of a duration that results in the Trial Operation Date exceeding the date the Interconnection Request was received by the System Operator by seven (7) or more years is a Material Modification unless the Interconnection Customer demonstrates to the System Operator due diligence in pursuit of permitting, licensing and construction of the Elective Transmission Upgrade to meet the Commercial Operation Date, In-Service Date or Trial Operation Date provided in the Interconnection Request. Such demonstration shall be based on evidence to be provided by the Interconnection Customer of accomplishments in permitting, licensing, and construction in an effort to meet the Commercial Operation Date, In-Service Date or Trial Operation Date provided in this Interconnection Request. Such

evidence may include filed documents, records of public hearings, governmental agency findings, documentation of actual construction progress, including the previous four (4) months. If the evidence demonstrates that the Interconnection Customer did not undertake reasonable efforts to meet the Commercial Operation Date, In-Service Date or Trial Operation Date specified in the Interconnection Request, or demonstrates that reasonable efforts were not undertaken until four (4) months prior to the request for extension, the request for extension shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed Material Modification or proceed with a new Interconnection Request for such modification.

## **SECTION 5. PROCEDURES FOR TRANSITION.**

### **5.1 Rules for Establishing Queue Position for Interconnection Requests Pending Prior to February 16, 2015.**

**5.1.1** An Interconnection Customer with a request for Elective Transmission Upgrade submitted prior to February 16, 2015, shall be assigned a Queue Position pursuant to the following provisions.

**5.1.1.1** If the Interconnection Customer's Elective Transmission Upgrade has received an approval pursuant to Section I.3.9 of the Tariff prior to February 16, 2015:

**5.1.1.1.1** The Interconnection Request shall be assigned a Queue Position based on the date of the Elective Transmission Upgrade's approval pursuant to Section I.3.9 of the Tariff and shall be respected by all Interconnection Requests with a lower Queue Position than the Elective Transmission Upgrade's assigned Queue Position. The assigned Queue Position for an Interconnection Request of an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for NI Interconnection Service. Within sixty (60) days from February 16, 2015, the Interconnection Customer must: (a) proceed as directed in Section 8 of this ETU IP, and (b) submit a deposit of \$47,500 for the difference between the former Elective Transmission Upgrade application deposit (*i.e.*, \$ 2,500) and the new Elective Transmission Upgrade Interconnection Request deposit (*i.e.*, \$50,000) to be applied toward the costs of developing the ETU IA. Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request will be deemed withdrawn.

**5.1.1.1.2** The Interconnection Request shall be assigned a placeholder to establish a separate Queue Position for CNI Interconnection Service if the Interconnection Customer proposing an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility submits a valid Interconnection Request for CNI Interconnection Service within sixty (60) days from February 16, 2015. The Interconnection Customer's Interconnection Request for CNI Interconnection Service may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. The placeholder for such Queue Position shall be at the bottom of the queue as of February 16, 2015, in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.1.2. Notwithstanding any other provision in this ETU IP, if a valid Interconnection Request for CNI Interconnection Service is not submitted within a period not to exceed sixty (60) days from February 16, 2015, the placeholder Queue Position shall be deemed withdrawn.

**5.1.1.2** If the Interconnection Customer's Elective Transmission Upgrade has not received an approval pursuant to Section I.3.9 of the Tariff prior to February 16, 2015:

**5.1.1.2.1** An Interconnection Request with a System Impact Study Agreement that has been executed prior to February 16, 2015, and has been recognized by the System Operator as actively under study, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.1.2 and in relative order based on the date of the former Elective Transmission Upgrade application submitted pursuant to Section II.47.5 of the Tariff, with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.1. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer indicates in its updated Interconnection Request that it only seeks NI Interconnection Service. The System Impact Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effect on February 16, 2015 (or as revised thereafter), including potential re-study to accommodate the revised queue. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall submit: (a) an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in

coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, completion of the System Impact Study, and (b) a deposit of \$250,000 minus any amounts already paid to the System Operator for estimated costs of the System Operator and the Interconnecting Transmission Owner to be applied toward the costs of the remaining study work and development of the ETU IA. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include in its updated Interconnection Request a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

**5.1.1.2.2** An Interconnection Customer with a System Impact Study Agreement that has been executed prior to February 16, 2015, but is not recognized by the System Operator as actively under study, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.2.1 and in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.2. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer indicates in its updated Interconnection Request that it only seeks NI Interconnection Service. The System Impact Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effective on February 16, 2015 (or as revised thereafter), including potential re-study to accommodate the revised queue. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall submit: (a) an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the System Impact Study, and (b) \$250,000 to be applied toward the costs of the System Impact Study and development of the ETU IA. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include in its updated Interconnection Request a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4



and 4.4.5. Notwithstanding any other provision in this ETU IA, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

**5.1.1.2.3** An Interconnection Customer that does not have an executed System Impact Study Agreement prior to February 16, 2015, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.2.2 and in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.3. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer provides written notification to the System Operator that it seeks only NI Interconnection Service. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall: (a) submit an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the Interconnection Studies, (b) submit a deposit of \$47,500 for the difference between the former Elective Transmission Upgrade application deposit (*i.e.*, \$ 2,500) and the new Elective Transmission Upgrade Interconnection Request deposit (*i.e.*, \$50,000) to be applied toward the costs of the Interconnection Studies and development of the ETU IA, and (c) proceed as directed in Section 6 of this ETU IP. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. Interconnection Studies shall be processed in accordance with the version of the ETU IP in effective on February 16, 2015 (or as revised thereafter). Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

## **5.2 Transition Rules for Pending Interconnection Requests After February 16, 2015.**

**5.2.1** Any Interconnection Customer assigned a Queue Position prior to ~~November, 1 2017~~April 17, 2016, shall retain that Queue Position subject to Section 4.4 of this ETU IP.

**5.2.1.1** If an Interconnection Study Agreement has not been executed prior to ~~November 1, 2017~~April 17, 2016, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this ETU IP in effect on ~~November 1, 2017~~April 17, 2016 (or as revised thereafter).

**5.2.1.2** If an Interconnection Study Agreement has been executed prior to ~~November 1, 2017~~April 17, 2016 and is actively under study, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to ~~November 1, 2017~~April 17, 2016, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effect on ~~November 1, 2017~~April 17, 2016. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 4.2.3.2 of this ETU IP within thirty (30) Calendar Days from the later of November 1, 2017 or the issuance of the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure. ~~If the Interconnection Study has not commenced, within sixty (60) Calendar Days from April 17, 2016, Interconnection Customer shall submit an updated Interconnection Request together with completed attachments and models required therein to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the Interconnection Study. Updates to the Interconnection Request and attachments thereto will be subject to review pursuant to Section 4.4 of this ETU IP. Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) Calendar Days, the Interconnection Request shall be deemed withdrawn.~~

**5.2.2** Transition Period. To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an ETU IA has neither

been executed nor submitted to the Commission for approval prior to ~~November 1, 2017~~~~April 17, 2016~~, Interconnecting Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the ETU IP in effect as of ~~November 1, 2017~~~~April 17, 2016~~ (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request” herein shall mean any Interconnection Request, on ~~November 1, 2017~~~~April 17, 2016~~: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related ETU IA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding Interconnection Request as of the effective date of this ETU IP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this ETU IP.

### **5.3 New System Operator or Interconnecting Transmission Owner.**

If the System Operator transfers operational control of the New England Transmission System to a successor System Operator during the period when an Interconnection Request is pending, the System Operator shall transfer to the successor System Operator any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this ETU IP shall be paid by or refunded to the Interconnection Customer, as appropriate. The System Operator shall coordinate with the successor System Operator to complete any Interconnection Study, as appropriate, that the System Operator has begun but has not completed.

If the Interconnecting Transmission Owner transfers ownership of its transmission facilities to a successor transmission owner during the period when an Interconnection Request is pending, and System Operator in conjunction with Interconnecting Transmission Owner has tendered a draft ETU IA to the Interconnection Customer but the Interconnection Customer has not either executed the ETU IA or requested the filing of an unexecuted ETU IA with the Commission, unless otherwise provided, the Interconnection Customer must complete negotiations with the successor transmission owner.

## **SECTION 6. INTERCONNECTION FEASIBILITY STUDY.**

## **6.1 Interconnection Feasibility Study Agreement.**

Except as otherwise provided in Section 4.2.3.4 of this ETU IP, The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study under this Section 6, or as part of the Interconnection System Impact Study under Section 7. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the System Operator's and Interconnecting Transmission Owner's receipt from the Interconnection Customer of its designation of the Point(s) of Interconnection and of the type of study to be performed pursuant to Section 3.3.4, System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). No later than thirty (30) Calendar Days after its receipt of the Interconnection Feasibility Study Agreement, (a) the Interconnection Customer shall execute and deliver the agreement to System Operator and the Interconnecting Transmission Owner, (b) the Interconnection Customer shall also deliver the refundable deposit for the Interconnection Feasibility Study to the System Operator, and (c) the technical data called for in Appendix 1, Attachment B. The deposit for the study shall be 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise

provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold any amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection Feasibility Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment [A or B, depending on the scope elected pursuant to Section 3.3.1](#). If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection Feasibility Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection Feasibility Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection Feasibility Study Agreement or deposit.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to the Parties, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

## **6.2 Scope of Interconnection Feasibility Study.**

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information.

The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNI Interconnection Service Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement. The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities, and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade’s interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of a non-binding good faith order of magnitude

estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Elective Transmission Upgrade as identified within the scope of the analysis performed as part of the study. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

### **6.3 Interconnection Feasibility Study Procedures.**

The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection Feasibility Study Agreement, study deposit and required technical data in accordance with Section 6.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator with input from the Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow and short circuit databases that have been developed for the Interconnection Feasibility Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **6.3.1 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

#### **6.4 Re-Study.**

If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-designation of the Point of Interconnection pursuant to Section 6.1, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take not longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement.

The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

### **SECTION 7. INTERCONNECTION SYSTEM IMPACT STUDY.**

#### **7.1 Interconnection System Impact Study Agreement.**

If the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the



requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the Interconnection Feasibility Study results meeting, or subsequent to the Scoping Meeting within five (5) Business Days following the receipt of designation of the Point(s) of Interconnection and type of study to be performed pursuant to Section 3.3.4, if the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe for commencing and completing the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA.

## **7.2 Execution of Interconnection System Impact Study Agreement.**

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after its receipt along with a demonstration of Site Control and the technical data called for in Appendix 1, Attachment A, and the Interconnection Customer shall also deliver a refundable deposit. An Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification of an existing Pool Transmission Facility that is not owned by the Interconnection Customer. If a PSCAD model was determined to be needed for the Elective Transmission Upgrade at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the ~~date of the Scoping Meeting or the~~ date execution of the System Impact Study Agreement ~~(whichever is later)~~ to provide the PSCAD model. The deposit for the study shall be the greater of 100 percent of the estimated cost of the study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection System Impact Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the ETU IA. In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. If the Interconnection Customer elects the deposit described in (ii) above, the System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection System Impact Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A; provided that if a PSCAD model was determined to be needed at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the execution of the System Impact Study Agreement to provide the PSCAD model.

If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, the System Operator shall notify the Interconnection

Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting or the Interconnection Feasibility Study, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to each Party, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement or Interconnection System Impact Study depending on whether Interconnection Customer requested that the Interconnection Feasibility Study be completed as a separate and distinct study or as part of the Interconnection System Impact Study, as specified pursuant to Section 3.3.4, shall be the substitute.

### **7.3 Scope of Interconnection System Impact Study.**

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNI Interconnection Service Interconnection Request may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential

upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses, such as electromagnetic transient analysis, that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct; (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environment work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

#### **7.4 Interconnection System Impact Study Procedures.**

The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site

Control is required, and required technical data in accordance with Section 7.2. If System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within the times specified in this Section 7.4.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated start date if the study has not commenced and completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide all supporting documentation, work papers and relevant Study Case power flow, short circuit and stability databases that have been developed for the Interconnection System Impact Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

Except in the case of a CSIS, the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Appendix 1 and Attachment A, and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications provided they meet the requirements of Section 4.4.1 of this ETU IP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing

updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

#### **7.5 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study.

Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. [Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study.](#) If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the ETU IA: (i) Siting process and approval schedule for the Elective Transmission Upgrade and Interconnection Facilities; (ii) Engineering of Interconnection Facilities and Elective Transmission upgrade approved by Interconnecting Transmission Owner; (iii) Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Trial Operation Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

#### **7.6 Re-Study.**

If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) re-

designation of the Point of Interconnection pursuant to Section 7.2, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing.

Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

#### **7.7 Operational Readiness.**

The System Operator shall, as close to the Interconnection Customer's actual Trial Operation Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System with the addition of the Interconnection Customer's Elective Transmission Upgrade. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer.

The System Operator is not obligated to perform the operational analyses described in this Section 7.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting Transmission Owner determines that interconnection of the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System is remote and speculative.

### **SECTION 8. INTERCONNECTION FACILITIES STUDY.**

#### **8.1 Interconnection Facilities Study Agreement.**

Except as otherwise provided in Section 4.2.4 of this ETU IP, the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection, which means that the

Interconnection Customer may enter into E&P Agreements under Section 9 if it had not already done so, and shall enter into an ETU IA in accordance with the requirements specified in Section 11.

If the Interconnection Customer waives the Interconnection Facilities Study, the Interconnection Customer, subject to the specific terms of the E&P Agreements, assumes all risks and shall pay all costs associated with equipment, engineering, procurement and construction work covered by the Interconnection Facilities Study as described in Section 8.2 below.

The System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this ETU IP simultaneously with the delivery of the Interconnection System Impact Study to the Interconnection Customer.

The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA. Within three (3) Business Days following the Interconnection System Impact Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer a non-binding good faith estimate of the cost for completing the Interconnection Facilities Study in accordance with requirements specified in Section 8.3. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator within thirty (30) Calendar Days after its receipt, together with the required technical data and the refundable deposit for the Interconnection Facilities Study. In accordance with Section 8.3, the Interconnection Customer shall specify in Attachment A to the Interconnection Facilities Study Agreement whether it wants no more than a +/- 20 percent or a +/- 10 percent good faith cost estimate contained in the report. The deposit for the study shall be the greater of twenty-five percent of the estimated cost of the study or \$250,000.

Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the



Interconnection Facilities Study, the study agreement and its attachment(s) and the ETU IA. In the case of Clustering, CFAC costs that are associated with an individual Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost to the accuracy specified by the Interconnection Customer pursuant to Section 8.3, (ii) identify, configurations of required facilities and (iii) identify time requirements for construction and installation of required facilities.

## **8.3 Interconnection Facilities Study Procedures.**

The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and

Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent good faith cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if the Interconnection Customer requests a +/- 10 percent good faith cost estimate. Such cost estimates either individually or in the aggregate will be provided in the final study report. [If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 8.3.](#)

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required.

The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report.

~~In such circumstances, u~~Upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality / disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **8.4 Meeting with Parties.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study.

#### **8.5 Re-Study.**

If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

### **SECTION 9. ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT.**

Prior to executing an ETU IA, an Interconnection Customer may request, in order to advance the implementation of its interconnection, and the Interconnecting Transmission Owner and any Affected Party shall offer the Interconnection Customer, an E&P Agreement that authorizes the Interconnecting Transmission Owner and any Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the Interconnecting Transmission Owner or any Affected Party shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the ETU IP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or Trial Operation Date. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer, including a deposit of 100 percent of the estimated engineering and study costs, and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or an E&P Agreement is terminated by any Party, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the Interconnecting Transmission Owner or the Affected Party that is a party to an E&P Agreement may elect: (i) to take title to the equipment, in which event the Interconnecting Transmission Owner or relevant Affected Party shall refund the Interconnection Customer any amounts paid by the Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **SECTION 10. OPTIONAL INTERCONNECTION STUDY.**

### **10.1 Optional Interconnection Study Agreement.**

On or after the date when the Interconnection Customer receives Interconnection System Impact Study report and no later than five (5) Business Days after the study results meeting to review the report, the Interconnection Customer may request in writing, and the System Operator in coordination with the Interconnecting Transmission Owner shall perform, an Optional Interconnection Study. The request shall describe the assumptions that the Interconnection Customer wishes the System Operator to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, the System Operator shall provide to the Interconnecting Transmission Owner and the Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that the Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify the Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case, and (iii) specify the System Operator's and Interconnecting Transmission Owner's estimate of the cost of the Optional Interconnection Study. To the extent known by the System Operator, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. The Optional Interconnection Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Optional Interconnection Study, including the cost of developing the study agreement and its attachment(s). Notwithstanding the above, the System Operator and Interconnecting Transmission Owner shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

The Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the required technical data and the refundable deposit for the Optional Interconnection Study to the System Operator. The deposit for the study shall be 100 percent of the estimated cost of the study. Any difference between the study deposit and the actual cost of the Optional Interconnection Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Optional Interconnection Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Optional

Interconnection Study and the study agreement and its attachments(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

#### **10.2 Scope of Optional Interconnection Study.**

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The System Operator shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

The Optional Interconnection Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis, and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner.

#### **10.3 Optional Interconnection Study Procedures.**

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to the System Operator and Interconnecting Transmission Owner within ten (10) Business Days of the Interconnection Customer receipt of the Optional Interconnection Study Agreement. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed-upon time period specified within the Optional Interconnection Study Agreement. If the System Operator and Interconnecting Transmission Owner are unable to complete the Optional Interconnection Study within such time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide

the Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **10.4 Meeting with Parties.**

Within ten (10) Business Days of providing an Optional Interconnection Study report to Interconnection Customer, System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Optional Interconnection Study.

#### **10.5 Interconnection Agreement Developed Based on Optional Interconnection Study.**

If the ETU IA for an Elective Transmission Upgrade is based on the results of an Optional Interconnection Study, the ETU IA shall reflect the conditions studied and any obligations that may involve: (i) additional studies if such conditions change, (ii) operational limits, or (iii) financial support for transmission upgrades.

### **SECTION 11. ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT (ETU IA).**

#### **11.1 Tender.**

Interconnection Customer shall tender comments or provide notice, in writing, to the System Operator and Interconnecting Transmission Owner that the Interconnection Customer has no comments on the draft Interconnection Facilities Study report or on the draft Interconnection System Impact Study report if the Interconnection Customer waived the Interconnection Facilities Study, within thirty (30) Calendar Days of receipt of the report. Except as provided in the E&P Agreement or any mutual agreement by the entities that would be Parties to the ETU IA, the System Operator shall initiate the development of the ETU IA process within fifteen (15) Calendar Days after the comments are submitted or waived, by

tendering to the Interconnection Customer a draft ETU IA, together with draft appendices completed by the System Operator, in conjunction with the Interconnecting Transmission Owner to the extent practicable. The draft ETU IA shall be in the form of the System Operator's Commission-approved standard form ETU IA which is in Appendix 6 to Schedule 25. The Interconnection Customer shall return the Interconnection Customer specific information required to complete the form of ETU IA, including the appendices, in Appendix 6 of Schedule 25 that the Interconnection Customer is willing to execute within thirty (30) Calendar Days after receipt of the draft from the System Operator.

## **11.2 Negotiation.**

Notwithstanding Section 11.1, at the request of the Interconnection Customer, the System Operator and Interconnecting Transmission Owner shall begin negotiations with the Interconnection Customer concerning the appendices to the ETU IA at any time after the Interconnection Facilities Study is complete or after the Interconnection System Impact Study is complete if the Interconnection Customer intends to waive the Interconnection Facilities Study. The System Operator, Interconnection Customer, and Interconnecting Transmission Owner shall negotiate concerning any disputed provisions of the appendices to the draft ETU IA for not more than sixty (60) Calendar Days after tender by the System Operator of the draft ETU IA pursuant to Section 11.1. If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft ETU IA pursuant to Section 11.1 and request submission of the unexecuted ETU IA with the Commission or initiate Dispute Resolution procedures pursuant to Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted ETU IA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed the ETU IA, requested filing of an unexecuted ETU IA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of by the System Operator of the draft ETU IA pursuant to Section 11.1, it shall be deemed to have withdrawn its Interconnection Request. The System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer a final ETU IA within fifteen (15) Business Days after the mutually agreed completion of the negotiation process.

## **11.3 Evidence to be Provided by Interconnection Customer; Execution and Filing of ETU IA.**

### **11.3.1 Evidence to be Provided by Interconnection Customer.**



**11.3.1.1 Site Control.** Within fifteen (15) Business Days after receipt of the final ETU IA, the Interconnection Customer shall provide (A) to the System Operator, reasonable evidence of continued Site Control, or (B) to the Interconnecting Transmission Owner posting of \$250,000 non-refundable additional security, which shall be applied toward future construction costs. If multiple Interconnecting Transmission Owners, the \$250,000 non-refundable additional security shall be distributed evenly among them. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility, or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification of an existing Pool Transmission Facility that is not owned by the Interconnection Customer.

**11.3.1.2 Development Milestones.** Within fifteen (15) Business Days after receipt of the final ETU IA, the Interconnection Customer also shall provide to the System Operator reasonable evidence that one or more of the following milestones in the development of the Elective Transmission Upgrade, to be elected by the Interconnection Customer, has been achieved: (i) the submission of filings for regulatory siting; (ii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Elective Transmission Upgrade; (iii) execution of an agreement regarding the use of the Elective Transmission Upgrade; (iv) application for environmental or land use permit.

At the same time, the Interconnection Customer with an Interconnection Request that was not studied using Clustering, shall commit to a schedule for the payment of upgrades identified in the Interconnection Studies or an E&P Agreement and either: (A) provide evidence of approvals for all Major Permits for the Elective Transmission Upgrade, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, or (B) provide to the Interconnecting Transmission Owner, in the form acceptable to the Interconnecting Transmission Owner, a refundable deposit ~~to the Interconnecting Transmission Owner at execution of the ETU IA~~, of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades identified in the Interconnection Studies or an E&P Agreement, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made ~~at time of ETU IA execution~~ within the fifteenth Business Day after receipt of the final ETU IA. If the Interconnection Customer selects option (B) above, it shall also commit in the ETU

IA to the achievement of: (i) milestones for the completion of Major Permit approvals, and (ii) in the case of a CNR Interconnection Request, milestones to align the ETU IA with the fulfillment of terms outlined in Section III.13 of the Tariff for participation in the Forward Capacity Market.

Within fifteen (15) Business Days after receipt of the final ETU IA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation Deposit in accordance with Section 4.2.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final ETU IA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by the fifteenth Business Day after receipt of the final ETU IA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

**11.3.2 Execution and Filing of ETU IA.** Within fifteen (15) Business Days after receipt of the final ETU IA, (i) the Interconnection Customer and Interconnecting Transmission Owner shall execute three (3) originals of the tendered ETU IA, and return them to the System Operator, who will send an original to Interconnecting Transmission Owner and Interconnection Customer; or (ii) the Interconnection Customer shall request in writing that the System Operator and the Interconnecting Transmission Owner

jointly file with the Commission an ETU IA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered ETU IA (if it does not conform with a Commission-approved standard form of interconnection agreement) or the request to file an unexecuted ETU IA, the System Operator and Interconnecting Transmission Owner, in accordance with Section 11.3.3 or Section 11.3.4, as appropriate, shall jointly file the ETU IA with the Commission, together with its explanation of any matters as to which the System Operator, Interconnection Customer or Interconnecting Transmission Owner disagree and support for the costs that the Interconnecting Transmission Owner proposes to charge to the Interconnection Customer under the ETU IA. An unexecuted ETU IA should contain terms and conditions deemed appropriate by the System Operator and Interconnecting Transmission Owner for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted ETU IA, they may proceed pending Commission action.

With respect to the interconnection of an Interconnection Customer under Schedule 25, the ETU IA shall be a three-party agreement among the Interconnecting Transmission Owner, the System Operator and the Interconnection Customer. If the Interconnecting Transmission Owner, System Operator and Interconnection Customer agree to the terms and conditions of a specific ETU IA, or any amendments to such an ETU IA, then the System Operator and Interconnecting Transmission Owner shall jointly file the executed ETU IA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act. To the extent the Interconnecting Transmission Owner, System Operator and Interconnection Customer cannot agree to proposed variations from the standard form of ETU IA in Appendix 6 or cannot otherwise agree to the terms and conditions of the ETU IA for such Elective Transmission Upgrade, or any amendments to such an ETU IA, then the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted ETU IA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act and shall identify the areas of disagreement in such filing, provided that, in the event of disagreement on terms and conditions of the ETU IA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of the Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on such terms and conditions.

**11.3.3** The Interconnecting Transmission Owner, acting on its own or jointly with the System Operator, may initiate a filing to amend this ETU IP and the standard form of ETU IA in Appendix 6 under Section 205 of the Federal Power Act and shall include in such filing the views of System Operator, provided that the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on any financial obligations of the Interconnecting Transmission Owner or the Interconnection Customer(s), and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets.

**11.4 Commencement of Interconnection Activities.**

If the Interconnection Customer executes the final ETU IA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall perform their respective obligations in accordance with the terms of the ETU IA, subject to modification by the Commission. Upon submission of an unexecuted ETU IA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall promptly comply with the unexecuted ETU IA, subject to modification by the Commission.

**11.5 Other Regulatory Arrangements.**

Prior to achieving Commercial Operation, the Elective Transmission Upgrade must be under the Operational Authority of the System Operator pursuant to a Transmission Operating Agreement and establish a schedule under the ISO OATT pursuant to which service will be offered over the Elective Transmission Upgrade.

**SECTION 12. CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES.**

**12.1 Schedule.**

The Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party shall negotiate in good faith concerning a schedule for the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades.

**12.2 Construction Sequencing.**

**12.2.1 General.** In general, the Trial Operation Date of an Interconnection Customer seeking interconnection to the Administered Transmission System will determine the sequence of construction of Network Upgrades.

**12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.** An Interconnection Customer with an executed or unexecuted, but filed with the Commission, ETU IA, in order to maintain its Trial Operation Date, may request that the Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such Trial Operation Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the Interconnection Customer that is seeking interconnection to the Administered Transmission System, in time to support such Trial Operation Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party; (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The Interconnecting Transmission Owner or appropriate Affected Party will refund to the Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the ETU IA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that the Interconnecting Transmission Owner or appropriate Affected Party has not refunded to the Interconnection Customer. Payment by that entity with a contractual obligation to construct such Network Upgrades shall be due on the date that it would have been due had there been no request for advance construction. The Interconnecting Transmission Owner or appropriate Affected Party shall forward to the Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to the Interconnection Customer. The Interconnecting Transmission Owner or appropriate Affected Party then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the ETU IA.

**12.2.3 Advancing Construction of Network Upgrades that are Part of the Regional System Plan of the System Operator.**

An Interconnection Customer with an ETU IA, in order to maintain its Trial Operation Date, may request that Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such Trial Operation Date and (ii) would otherwise not be completed, pursuant to the Regional System Plan, in time to support such Trial Operation Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party any associated expediting costs.

**12.2.4 Amended Interconnection System Impact Study.** An Interconnection System Impact Study will be amended to determine the facilities necessary to support the requested Trial Operation Date. This amended study will include those transmission and Generating Facilities that are expected to be in service on or before the requested Trial Operation Date. The ETU IA will also be amended to reflect the results of the Amended Interconnection System Impact Study and any changes in obligations, including financial support, of the Parties.

**SECTION 13. MISCELLANEOUS.**

**13.1 Confidentiality.**

Confidential Information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an ETU IA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by any Party, the other Party(ies) shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**13.1.1 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the ETU IA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the ETU IA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

**13.1.2 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

**13.1.3 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**13.1.4 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**13.1.5 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under these procedures or its regulatory requirements.

**13.1.6 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of the ETU IA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**13.1.7 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.



**13.1.8 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the ETU IP, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR. section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the ETU IA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules, regulations and Section 13.1.

**13.1.9** Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this ETU IP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Party’s(ies’) Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**13.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

**13.1.11** The System Operator and Interconnecting Transmission Owner shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time when Confidential Information is no longer needed.

**13.2 Delegation of Responsibility.**

The System Operator and Interconnecting Transmission Owner, or any Affected Party may use the services of subcontractors as it deems appropriate to perform its obligations under this ETU IP. The Party using the services of a subcontractor shall remain primarily liable to the Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this ETU IP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

**13.3 Obligation for Study Costs.**

The System Operator and the Interconnecting Transmission Owner shall charge, and the Interconnection Customer shall pay, the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to the Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. The Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. The System Operator and Interconnecting Transmission Owner shall not be obligated to perform or continue to perform any studies unless the Interconnection Customer has paid all undisputed amounts in compliance herewith.

**13.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) the Interconnection Customer receives notice pursuant to Sections 6.3, 7.4, 8.3 or 10.3 that the System Operator or Interconnecting Transmission Owner will not complete an Interconnection Study within the applicable timeframe for such

Interconnection Study, or (iii) the Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then the Interconnection Customer may request, which request will not be unreasonably denied, that the System Operator and Interconnecting Transmission Owner utilize a third party consultant reasonably acceptable to the System Operator, Interconnection Customer, Interconnecting Transmission Owner and any appropriate Affected Party, to perform such Interconnection Study under the direction of the System Operator or Interconnecting Transmission Owner as applicable. At other times, System Operator or Interconnecting Transmission Owner may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of the Interconnection Customer, or on its own volition. In all cases, use of a third party consultant shall be in accord with Article 26 of the ETU IA (Subcontractors) and limited to situations where the System Operator or Interconnecting Transmission Owner determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's pending Interconnection Request and not interfere with the System Operator and Interconnecting Transmission Owner's progress on Interconnection Studies for other pending Interconnection Requests. In cases where the Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, the Interconnection Customer, System Operator and Interconnecting Transmission Owner shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. The System Operator and Interconnecting Transmission Owner shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon the Interconnection Customer's request subject to the confidentiality provision in Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. In any case, such third party contract may be entered into with the System Operator, Interconnection Customer, or Interconnecting Transmission Owner at the System Operator and Interconnecting Transmission Owner's discretion. In the case of (iii) the Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this ETU IP, Article 26 of the ETU IA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if the System Operator and Interconnecting Transmission Owner were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes.

The System Operator and Interconnecting Transmission Owner shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

### **13.5 Disputes.**

**13.5.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with the ETU IA, the ETU IP, or their performance, such Party (the “Disputing Party”) shall provide the other Party(ies) with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s(ies’) receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, after thirty (30) Calendar Days, then (i) in the case of disputes arising out of or in conjunction with the ETU IA, the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted ETU IA, or amendment thereto, with the Commission in accordance with Section 11.3.4, or (ii) in the case of disputes arising out of or in connection with any other matter regarding the administration of the ETU IP, the System Operator may terminate the Interconnection Request and the Interconnection Customer may seek relief pursuant to Section 206 of the Federal Power Act. Each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Schedule 25.

**13.5.2 External Arbitration Procedures.** Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial

Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

**13.5.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons for such decision. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the ETU IA and ETU IP and shall have no power to modify or change any provision of the ETU IA and ETU IP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**13.5.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three-member panel and one-third of any associated arbitration costs; or (2) one-third the cost of the single arbitrator jointly chosen by the Parties and one-third of any associated arbitration costs.

## **13.6 Local Furnishing Bonds.**

**13.6.1 Facilities Financed by Local Furnishing Bonds.** This provision is applicable only to interconnections associated with facilities financed for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this ETU IA and ETU IP, the Interconnecting Transmission Owner shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this ETU IA and ETU IP if the provision of such Interconnection Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance the Interconnecting Transmission Owner's facilities that would be used in providing such Interconnection Service.

**13.6.2 Alternative Procedures for Requesting Interconnection Service.** If the Interconnecting Transmission Owner determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receiving notice of the Interconnection Request. The Interconnection Customer thereafter may renew its Interconnection Request using the process specified in the Tariff.

## **APPENDICES TO ETU IP**

- APPENDIX 1 INTERCONNECTION REQUEST FOR ELECTIVE TRANSMISSION UPGRADE
- APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT
- APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT
- APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT
- APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT
- APPENDIX 6 ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT

**APPENDIX 1**  
**INTERCONNECTION REQUEST**  
**FOR ELECTIVE TRANSMISSION UPGRADE**

The undersigned Interconnection Customer submits this request to interconnect its Elective Transmission Upgrade (“ETU”) to the Administered Transmission System under Schedule 25 – Elective Transmission Upgrade Interconnection Procedures (“ETU IP”) of Section II to the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”). Capitalized terms have the meanings specified in the Tariff.

---

---

**PROJECT INFORMATION**

Proposed Project Name: \_\_\_\_\_

1) Description of the ETU objective (*select one of a, b, c, d, or e*):

a. \_\_\_\_ Addition of a specific technology:

i) Type of new facility (*check all applicable*):

\_\_\_\_ DC \_\_\_\_ AC \_\_\_\_ controllable \_\_\_\_ non-controllable \_\_\_\_ Other (Explain):

ii) Address(es) or Location(s) of the ETU (including Town/City, County & State or a map detailing such information):

iii) Location(s) of the proposed Point(s) of Interconnection and associated terminals:



**iv) Transmission transfer capability, including:**

- (1) Energy transfer capability and direction(s) of flow**
- (2) Capacity transfer capability and direction(s) of flow**
- (3) Other:**

**v) Indicate whether the study should consider:**

- (1) Both directions of flow**
- (2) One direction of flow only**
- (3) Explain:**

**b. \_\_\_\_ Modification to existing PTF, MTF or OTF that is part of or interconnected to the Administered Transmission System. Explain.**

**c. \_\_\_\_ Specific performance objective associated with specific Generating Facility(ies)/resources:**

**i) Identify Generating Facility(ies)/resources, including Queue Positions:**

ii) Identify the specific performance goals/objectives of the ETU (e.g., energy integration):

d. \_\_\_\_ Increase in transfer capability between points, including:

- i) Transfer points (from/to)
- ii) Energy transfer capability increase and direction(s) of flow
- iii) Capacity transfer capability increase and direction(s) of flow
- iv) Other

e. \_\_\_\_ Other specific and clearly described discrete objective:

2) Projected Dates:

- a. Commercial Operation: \_\_\_\_\_
- b. Trial Operation: \_\_\_\_\_
- c. In-Service: \_\_\_\_\_

3) This request is for (*check either Internal ETU or External ETU options*):

- a. \_\_\_\_ An **Internal ETU** (*check one of i or ii*):

i) \_\_\_\_ The interconnection of proposed new (*check one*):

(1) \_\_\_\_ PTF;

(2) \_\_\_\_ OTF or MTF.

ii) \_\_\_\_ A modification to, an increase in the transmission capability of, or other specific proposed objective associated with (*check one*):

(1) \_\_\_\_ existing internal PTF;

(2) \_\_\_\_ existing internal MTF or OTF that is interconnected to the Administered Transmission System.

b. \_\_\_\_ An External ETU (*check i or ii or iii and specify the other Control Area interconnecting to \_\_\_\_\_*)

i) \_\_\_\_ The interconnection of proposed new (*check one*):

(1) \_\_\_\_ PTF;

(2) \_\_\_\_ OTF or MTF.

ii) \_\_\_\_ A modification to, an increase in the transmission capability of, or other specific proposed objective associated with (*check one*):

(1) \_\_\_\_ existing external PTF

(2) \_\_\_\_ existing external MTF or OTF.

iii) \_\_\_\_ A change from NI Interconnection Service to CNI Interconnection Service for a controllable MTF or OTF (no physical change to facilities).

4) For External controllable OTF or MTF in the importing direction, applicant requests (*check one*):

a. \_\_\_\_NI Interconnection Service (i.e., energy only): \_\_\_\_ MW

b. \_\_\_\_CNI Interconnection Service (i.e., capacity and energy): \_\_\_\_ MW

i) If CNI Interconnection Service, does the Interconnection Customer request Long Lead Facility treatment? \_\_\_\_Yes or \_\_\_\_No

If yes, provide to ISO-NE, together with this Interconnection Request, the Long Lead Facility deposit and other required information as specified in Section 3.2.3 of the ETU IP, including a justification for Long Lead Facility treatment.

5) Evidence of Site Control (*check one*):

a. \_\_\_\_If for CNI Interconnection Service, Site Control is included with this Interconnection Request form, as required.

b. \_\_\_\_If for NI Interconnection Service (*check one*):

i) \_\_\_\_Site Control is provided with this Interconnection Request form.

ii) \_\_\_\_In lieu of evidence of Site Control, a \$10,000 deposit is provided with this Interconnection Request form (refundable within the cure period as described in Section 3.3.3 of the ETU IP).

iii) \_\_\_\_Site Control is not provided because the proposed modification is either: a) to existing MTF, OTF or PTF and by checking this option, the Interconnection Customer certifies that the proposed modification does not require additional real property, or b) to PTF and the Interconnection Customer does not own such PTF.

6) This Interconnection Customer requests (*check one*):

a. \_\_\_\_An Interconnection Feasibility Study to be completed as a separate and distinct study,  
or

b. \_\_\_\_An Interconnection System Impact Study with the Feasibility Study to be performed as the first step of the study.

- c. If seeking CNI Interconnection Service, does the Interconnection Customer request a preliminary non-binding, analysis to identify potential upgrades that may be necessary to qualify resources for participation in a Forward Capacity Auction? \_\_\_\_Yes or \_\_\_\_No

*Note: The above selection of a or b is not required as part of the initial Interconnection Request; however, the Interconnection Customer shall select either option and may revise this selection up to within five (5) Business Days following the Scoping Meeting.*

7) The ETU technical data specified within the applicable attachment to this form (*check one*):

- a. \_\_\_\_ Is included with the submittal of this Interconnection Request.
- b. \_\_\_\_ Will be provided on or before the execution and return of the Feasibility Study Agreement (Attachment B) or the System Impact Study Agreement (Attachment A), as applicable.
- 
- 

#### **CUSTOMER INFORMATION**

	<u>Interconnection Customer</u>	<u>Customer Representative</u>
<b>Company Name:</b>		
<b>Address:</b> (PO Box)		
(Street)		
(City, State, ZIP)		
<b>Phone:</b>		
<b>FAX:</b>		
<b>Email:</b>		

ISO Customer ID# (if available): \_\_\_\_\_

---

---

This Interconnection Request is submitted by:

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

---

---

*In order for an Interconnection Request to be considered a valid request, it must:*

- (a) Be accompanied by a deposit of \$50,000.00 that is provided electronically and which may be refundable in accordance with Section 3.3.1 of the ETU IP;*
- (b) For CNI Interconnection Service, include documentation demonstrating Site Control. If for NI Interconnection Service, demonstrate Site Control or post an additional deposit of \$10,000. If the Interconnection Customer with an Interconnection Request for NI Interconnection Service demonstrates Site Control within the cure period specified in Section 3.3.3 of the ETU IP, the additional deposit of \$10,000 shall be refundable (An Interconnection Customer does not need to demonstrate Site Control for an Interconnection Request for a modification to its existing PTF, MTF or OTF facility where the Interconnection Customer has certified that it has Site Control and that the proposed modification does not require additional real property);*
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures;*
- (d) Include a one-line diagram of the facilities (2 copies);*
- (e) Include all information required on the Interconnection Request form and any attachments thereto; and*
- (f) Include the deposit and all information required for Long Lead Facility treatment, if such treatment is requested in accordance with Section 3.2.3 of the ETU IP.*

*In addition, within sixty (60) days of submitting an Interconnection Request to the System Operator, the Interconnection Customer with a request for an External ETU, shall provide evidence that it has submitted a valid request with the other Control Area to which it seeks to interconnect.*

---

---

All Interconnection Requests must be sent to the System Operator [via the Interconnection Request Tracking Tool or IRTT](#), a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website, [by any of the following methods:](#)

By Mail to:

ISO New England Inc.

1 Sullivan Road

Holyoke MA 01040-2841

Attention: Transmission Strategy & Services

By FAX to:

413 540-4203

Attention: Transmission Strategy & Services

By Email to:

IRTT@iso-ne.com

***ISO New England Inc. Use***

Date Elective Transmission Upgrade Request Received: \_\_\_\_\_

Received By: \_\_\_\_\_

☐ Deficient

Date Cured: \_\_\_\_\_

Date Deemed Valid Application: \_\_\_\_\_

Deemed Valid By: \_\_\_\_\_

Attachment A (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

The technical data required below must be submitted no later than the date of execution of the System Impact Study Agreement pursuant to Section 7.2 of the ETU IP. Submit additional data sheets as necessary.

**ELECTIVE TRANSMISSION UPGRADES:**

<b>GEOGRAPHIC MAP</b>
Geographic map which clearly illustrates the location of the proposed Elective Transmission Upgrade facilities and which includes the location of the proposed Point(s) of Interconnection and a specific transmission line or transmission cable route if applicable.
<b>ONE LINE DIAGRAM</b>
Detailed one-line diagram of the proposed Elective Transmission Upgrades facilities showing the connectivity between all new proposed equipment (i.e., circuit breakers, instrument transformers, surge arresters, transformers, shunt-connected capacitor banks, shunt-connected reactors, dynamic reactive power supply systems, transmission lines, etc.) and the proposed bus configuration at the Point(s) of Interconnection. Equipment grounding configuration should be depicted on the one-line (i.e., for transformers show winding and grounding arrangement)
<b>PROPOSED POINT(S) OF INTERCONNECTION</b> <i>(include additional points as necessary)</i>
Point of Interconnection A:
Voltage Level: _____kV



Point of Interconnection B:

Attachment A (page 2)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Voltage Level: _____ Kv
Point of Interconnection C:
Voltage Level: _____ kV
<b>AC TRANSMISSION LINE DATA</b>  <i>(include data for segments between the POI and converter station(s) as necessary)</i>
Transmission line length: _____ Miles
AC transmission tower design illustrating tower type, conductor type, number of conductors per bundle, spacing of conductors within bundle, phase spacing between conductors or conductor bundles, and conductor or conductor bundle clearances.
Voltage level: _____ kV
Transmission line MVA base: _____ MVA
Positive sequence impedances on transmission line MVA base: R: _____ p.u.    X: _____ p.u.    B: _____ p.u.
Zero sequence impedances on transmission line MVA base): R: _____ p.u.    X: _____ p.u.    B: _____ p.u.
Line Rating: Normal/LTE/STE Rating _____ MVA / _____ MVA / _____ MVA

Attachment A (page 3)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

<b>TRANSFORMER DATA</b>  <i>(include data for converter station power transformer(s) as necessary)</i>
Transformer Rating: OA/FA/FOA Rating _____ MVA / _____ MVA / _____ MVA
Voltage Ratio: High-side/Low-side/Tertiary _____ kV / _____ kV / _____ kV
Winding Connections (Delta, Wye, or Wye-Grounded): High-side Winding / Low-side Winding / Tertiary Winding _____ / _____ / _____
Fixed or Variable Taps:
Tap Range:
Two-Winding Transformer Impedances: Positive Sequence Impedance on transformer OA MVA base: _____ % _____ X/R Zero Sequence Impedance on transformer OA MVA base: _____ % _____ X/R
Three-Winding Transformer Impedances:
Positive Sequence Impedance on transformer OA MVA base Z <sub>HL</sub> (on self-cooled MVA rating) _____ %, X/R _____ Z <sub>HT</sub> (on self-cooled MVA rating) _____ %, X/R _____ Z <sub>LT</sub> (on self-cooled MVA rating) _____ %, X/R _____

Attachment A (page 4)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Zero Sequence Impedance on transformer OA MVA base  $Z_{0_{HL}}$ (on self-cooled MVA rating) _____ %, X/R _____ $Z_{0_{HT}}$ (on self-cooled MVA rating) _____ %, X/R _____ $Z_{0_{LT}}$ (on self-cooled MVA rating) _____ %, X/R _____
<b>FIXED OR SWITCHED SHUNT CAPACITOR BANK DATA</b>
Capacitor Bank Rating: _____ MVar
Positive sequence susceptance on capacitor bank rating base: B: _____ p.u.
Zero sequence susceptance on capacitor bank rating base: B: _____ p.u.
<b>FIXED OR SWITCHED SHUNT REACTOR DATA</b>
Nameplate Reactor Rating: _____ MVar
Positive sequence susceptance on reactor rating base: B: _____ p.u.
Zero sequence susceptance on reactor rating base: B: _____ p.u.
<b>DYNAMIC SHUNT REACTIVE SUPPLY SYSTEM</b>
Device Type (i.e., SVC, STATCOM, etc.):
Reactive power supply reference point:
Maximum leading reactive power supply capability: _____ MVar

Attachment A (page 5)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Maximum lagging reactive power supply capability: _____ MVar
<b>DC TRANSMISSION SYSTEMS (LINE-COMMUTATED CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW    _____ MVA
Minimum power transmission capacity: _____ MW
Maximum power transmission ramp rate: _____ MW/min
Point-to-point or back-to-back transmission:
Monopolar or bipolar transmission configuration:
Unidirectional or bidirectional power transmission: (identify rectifier station for detail to be submitted below):
Rated DC voltage: _____ kV
Rated DC current: _____ A
Power controlling converter station and real power reference location:
Converter station losses (including auxiliary power demand) at nameplate power: <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>Rectifier: _____ kW</span> <span>Inverter: _____ kW</span> </div>
Transmission line or cable losses at nameplate power: _____ kW
Nominal rectifier firing angle (alpha): _____ deg

Nominal inverter extinction angle (gamma): \_\_\_\_\_ deg

Attachment A (page 6)

To Appendix I

Interconnection Request

Technical Data Required For

Interconnection System Impact Study

Converter station total reactive power supply (including filtering system) at nameplate active power:

Rectifier: \_\_\_\_\_ MVar      Inverter: \_\_\_\_\_ MVar

Number of switched filter or reactive power supply devices:

Rectifier: \_\_\_\_\_      Inverter: \_\_\_\_\_

Size of largest switched filter or reactive power supply device:

Rectifier: \_\_\_\_\_ MVar      Inverter: \_\_\_\_\_ MVar

DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.

DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.

Pole conductor resistance at maximum operating temperature: \_\_\_\_\_ ohms

DMNR conductor resistance at maximum operating temperature : \_\_\_\_\_ ohms

**DC TRANSMISSION SYSTEMS (VOLTAGE SOURCE CONVERTER TECHNOLOGY)**

Nameplate power transmission capacity: \_\_\_\_\_ MW      \_\_\_\_\_ MVA

Point-to-point or back-to-back transmission:

Attachment A (page 7)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Transmission configuration (i.e., mono-pole, bi-pole or other):
Unidirectional or bidirectional power transmission: (identify rectifier station for detail to be submitted below):
Maximum power transmission ramp rate: _____ MW/min
Rated DC voltage: _____ kV
Rated DC current: _____ A
Real power controlling converter and reference location:
Converter station losses (including auxiliary power demand) at nameplate power: _____ kW
Transmission line or cable losses at nameplate power: _____ kW
Passive filter size:  <div style="display: flex; justify-content: space-between;"> <span>Rectifier:</span> <span>Fixed: _____ MVar   Switched at de-block: _____ MVar</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Inverter:</span> <span>Fixed: _____ MVar   Switched at de-block: _____ MVar</span> </div>
Maximum converter station leading reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:  <div style="display: flex; justify-content: space-between;"> <span>Rectifier: _____ MVar</span> <span>Inverter: _____ MVar</span> </div>

Attachment A (page 8)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

<p>Maximum converter station lagging reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:</p> <p style="text-align: center;">Rectifier: _____ MVar      Inverter: _____ MVar</p>
<p>Provide reactive capability curve.</p>
<p>DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.</p>
<p>DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.</p>
<p>Pole conductor resistance at maximum operating temperature: _____ ohms</p>
<p><b>POWER SYSTEM SIMULATION MODELS</b></p>
<p>Completed, fully -functioning, public (<i>i.e.</i>, non-proprietary or non-confidential) Siemens PTI's ("PSS/E") power flow models or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flows ("PSLF") data sheet, must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device, then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.</p> <p>If a PSCAD model is deemed required at the Scoping Meeting, then the PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the <del>Scoping Meeting date or the</del> executed Interconnection System Impact Study Agreement <del>(whichever is later)</del>. A benchmarking analysis, consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at</p>



the time PSCAD model is submitted.

**OTHER TRANSMISSION FACILITY DATA**

System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Facilities Study.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment A to the Interconnection Request is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

|

Attachment A-1  
To Attachment A of Appendix 1  
Cluster System Impact Study

Application Form

**CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM**

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Elective Transmission Upgrade in a Cluster Interconnection System Impact Study pursuant to Section 4.2.3.2.2 of this ETU IP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:

a. Project Name: \_\_\_\_\_

b. Queue Position: \_\_\_\_\_

c. Is the Interconnection Request contractually associated with an Interconnection Request for a Generating Facility? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, identify Queue Position of the associated Interconnection Request

and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_

2. Initial Cluster Participation Deposit as specified in Section 4.2.3.2.2

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment B (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

The technical data required below must be submitted no later than the date of execution of the Feasibility Study Agreement pursuant to Section 6.1 of the ETU IP. Submit additional data sheets as necessary.

**ELECTIVE TRANSMISSION UPGRADES:**

<b>GEOGRAPHIC MAP</b>
Geographic map which clearly illustrates the location of the proposed Elective Transmission Upgrade facilities and which includes the location of the proposed Point(s) of Interconnection and a conceptual transmission line or transmission cable route if applicable.
<b>ONE LINE DIAGRAM</b>
Conceptual one-line diagram of the proposed Elective Transmission Upgrades facilities showing the connectivity between all new proposed equipment (i.e., circuit breakers, transformers, shunt-connected capacitor banks, shunt-connected reactors, dynamic reactive power supply systems, transmission lines, etc.) and the proposed bus configuration at the Point(s) of Interconnection.
<b>PROPOSED POINT(S) OF INTERCONNECTION</b> <i>(include additional points as necessary)</i>
Point of Interconnection A:
Voltage Level: _____kV
Point of Interconnection B:
Voltage Level: _____kV

Attachment B (page 2)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Point of Interconnection C:
Voltage Level: _____kV
<b>AC TRANSMISSION LINE DATA</b>  <i>(include data for segments between the POI and converter station(s) as necessary)</i>
Estimated transmission line length: _____Miles
Conceptual AC transmission tower design illustrating tower type, conductor type, number of conductors per bundle, spacing of conductors within bundle, phase spacing between conductors or conductor bundle spacing, and conductor or conductor bundle clearances.
Voltage level: _____kV
Transmission line MVA base: _____MVA
Estimated positive sequence impedances on transmission line MVA base: R: _____ p.u.    X: _____ p.u.    B: _____ p.u.
Estimated zero sequence impedances on transmission line MVA base): R: _____ p.u.    X: _____ p.u.    B: _____ p.u.
Line Rating: Normal/LTE/STE Rating _____ MVA / _____ MVA / _____ MVA

Attachment B (page 3)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

<b>TRANSFORMER DATA</b> <i>(include data for converter station power transformer(s) as necessary)</i>
Estimated Transformer Rating: OA/FA/FOA Rating _____ MVA / _____ MVA / _____ MVA
Voltage Ratio: High-side/Low-side/Tertiary _____ kV / _____ kV / _____ kV
Winding Connections (Delta, Wye, or Wye-Grounded): High-side Winding / Low-side Winding / Tertiary Winding _____ / _____ / _____
Fixed or Variable Taps:
Estimated Tap Range:
Estimated Two-Winding Transformer Impedances: Positive Sequence Impedance on transformer OA MVA base: _____ % _____ X/R Zero Sequence Impedance on transformer OA MVA base: _____ % _____ X/R
Estimated Three-Winding Transformer Impedances:
Positive Sequence Impedance on transformer OA MVA base Z <sub>1<sub>HL</sub></sub> (on self-cooled MVA rating) _____ %, X/R _____ Z <sub>1<sub>HT</sub></sub> (on self-cooled MVA rating) _____ %, X/R _____ Z <sub>1<sub>LT</sub></sub> (on self-cooled MVA rating) _____ %, X/R _____

Attachment B (page 4)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Zero Sequence Impedance on transformer OA MVA base  $Z_{0_{H-L}}$ (on self-cooled MVA rating) _____ %, X/R _____ $Z_{0_{H-T}}$ (on self-cooled MVA rating) _____ %, X/R _____ $Z_{0_{L-T}}$ (on self-cooled MVA rating) _____ %, X/R _____
<b>FIXED OR SWITCHED SHUNT CAPACITOR BANK DATA</b>
Capacitor Bank Rating: _____ MVar
Estimated positive sequence susceptance on capacitor bank rating base: B: _____ p.u.
Estimated zero sequence susceptance on capacitor bank rating base: B: _____ p.u.
<b>FIXED OR SWITCHED SHUNT REACTOR DATA</b>
Nameplate Reactor Rating: _____ MVar
Estimated positive sequence susceptance on reactor rating base: B: _____ p.u.
Estimated zero sequence susceptance on reactor rating base: B: _____ p.u.
<b>DYNAMIC SHUNT REACTIVE SUPPLY SYSTEM</b>
Device Type (i.e., SVC, STATCOM, etc.):
Reactive power supply reference point:
Maximum leading reactive power supply capability: _____ MVar

Attachment B (page 5)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Maximum lagging reactive power supply capability: _____ MVar
<b>DC TRANSMISSION SYSTEMS (LINE-COMMUTATED CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW    _____ MVA
Minimum power transmission capacity: _____ MW
Maximum power transmission ramp rate: _____ MW/min
Point-to-point or back-to-back transmission:
Monopolar or bipolar transmission configuration:
Unidirectional or bidirectional power transmission: (identify rectifier station for detail to be submitted below):
Rated DC voltage: _____ kV
Rated DC current: _____ A
Power controlling converter station and real power reference location:
Estimated converter station losses (including auxiliary power demand) at nameplate power: Rectifier: _____ kW Inverter: _____ kW
Estimated transmission line or cable losses at nameplate power: _____ kW
Nominal rectifier firing angle (alpha): _____ deg

Attachment B (page 6)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Nominal inverter extinction angle ( $\gamma$ ): _____ deg
Estimated converter station total reactive power supply (including filtering system) at nameplate active power:  Rectifier: _____ MVar      Inverter: _____ MVar
Estimated number of switched filter or reactive power supply devices:  Rectifier: _____      Inverter: _____
Estimated size of largest switched filter or reactive power supply device:  Rectifier: _____ MVar      Inverter: _____ MVar
Conceptual DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.
Conceptual DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.
Estimated pole conductor resistance at maximum operating temperature: _____ ohms
Estimated DMNR conductor resistance at maximum operating temperature : _____ ohms
<b>DC TRANSMISSION SYSTEMS (VOLTAGE SOURCE CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW      _____ MVA
Point-to-point or back-to-back transmission:



Attachment B (page 7)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Transmission configuration (i.e., mono-pole, bi-pole or other):
Unidirectional or bidirectional power transmission: (identify rectifier station for detail to be submitted below):
Maximum power transmission ramp rate: _____MW/min
Rated DC voltage: _____ kV
Rated DC current: _____ A
Real power controlling converter and reference location:
Estimated converter station losses (including auxiliary power demand) at nameplate power: _____ kW
Estimated transmission line or cable losses at nameplate power: _____kW
Estimated passive filter size:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier: Fixed: ____MVar Switched at de-block: ____MVar</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Inverter: Fixed: ____MVar Switched at de-block: ____MVar</span> </div>
Estimated maximum converter station leading reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier: _____ MVar</span> <span>Inverter: _____ MVar</span> </div>

Attachment B (page 8)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

<p>Estimated maximum converter station lagging reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:</p> <p style="text-align: center;">Rectifier: _____ MVar      Inverter: _____ MVar</p>
<p>Provide reactive capability curve.</p>
<p>Conceptual DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.</p>
<p>Conceptual DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.</p>
<p>Estimated pole conductor resistance at maximum operating temperature: _____ ohms</p>
<p><b>POWER SYSTEM SIMULATION MODELS</b></p>
<p>Completed, fully-functioning public (<i>i.e.</i>, non-proprietary or non-confidential) Siemens PTI's PSS/E power flow models or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flows ("PSLF") data sheet, must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device, then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.</p> <p style="color: blue; text-decoration: underline;">If a PSCAD model is deemed required at the Scoping Meeting, then the PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the Scoping Meeting date or the executed Interconnection System Impact Study Agreement (whichever is later). A benchmarking analysis, consistent with the requirements in the ISO New England Planning Procedures, confirming</p>

~~acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time PSCAD model is submitted.~~

#### OTHER TRANSMISSION FACILITY DATA

System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study .

#### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment B to the Interconnection Request is true and accurate.

For Interconnection Customer:\_\_\_\_\_ Date:\_\_\_\_\_

**APPENDIX 2**  
**INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Up grade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Up grade to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner(s) to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Elective Transmission Up grade to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of the ETU IP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in Attachment B to the Interconnection Request, as may be modified as the result of the Scoping Meeting. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the ETU IP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the ETU IP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information depending on whether the Feasibility Study consisted of (a) a power flow, including thermal analysis and voltage analysis, and short circuit analysis, or (b) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade’s interconnection given recent study experience and as discussed at the Scoping Meeting:
- preliminary identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the

limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade's interconnection given recent study experience and as discussed at the Scoping Meeting;

- preliminary identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade's interconnection given recent study experience and as discussed at the Scoping Meeting;
- ~~or, a~~ preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Elective Transmission Upgrade as identified within the scope of the analysis performed as part of the study;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, preliminary description and non-binding estimated cost of and the time to construct the facilities required to interconnect the Elective Transmission Upgrade to the Administered Transmission System and to address the identified short circuit and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2 of the ETU IP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

In accordance with the ETU IP, in performing the Interconnection Feasibility Study, System Operator and Interconnecting Transmission Owner shall

coordinate with each other and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study and the development of this Interconnection Feasibility Study Agreement and its attachment(s). Interconnecting Transmission Owner's and System Operator's good faith estimate for the time of completion of the Interconnection Feasibility Study Agreement is [insert date].

The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_. Any difference between the deposit and the actual cost of the Interconnection Feasibility Study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Interconnection Feasibility Study System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

- 7.0 Miscellaneous.

- 7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.



7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or an Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or an Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorney's fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or

Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.

- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the

Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based up on the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

### APPENDIX 3

#### INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

#### RECITALS

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Up grade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Up grade to the Administered Transmission System;

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study (the “Feasibility Study”) and provided the results of said study to the Interconnection Customer, or Interconnection Customer has requested that the Feasibility Study be completed as part of the System Impact Study pursuant to Section 6.1 of the ETU IP, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”)(This recital is to be omitted if Interconnection Customer has elected to forego the Interconnection Feasibility Study); and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study to assess the impact of interconnecting the Elective Transmission Up grade to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedure (“ETU IP”).
- 2.0 Interconnection Customer elects and System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of the ETU IP in accordance with the Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, and the technical information provided by Interconnection Customer in Attachment A to the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the ETU IP. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection;
  - identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection;



- initial review of grounding requirements and electric system protection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- description and non-binding, good faith estimated cost of and the time to construct the facilities required to interconnect the Elective Transmission Upgrade to the Administered Transmission System and to address the identified short circuit, instability, and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.4 of the ETU IP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

6.0 The Interconnection Customer is providing a deposit equal to the greater of 100 percent of the estimated cost of the Interconnection System Impact Study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection System Impact Study and the development of this Interconnection System Impact Study Agreement and its attachment(s) and the ETU IA. Interconnecting Transmission Owner's and System Operator's good faith estimate for the times of commencement and completion of the Interconnection System Impact Study is [insert dates].

The total estimated cost of the performance of the Interconnection System Impact Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection System Impact Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study each month.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

In accordance with the ETU IP, in performing the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

#### 7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or

profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the content of the Interconnection System Impact Study, or the conclusions of the Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission

Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, an Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the

indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.

- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attachment A  
To Appendix 3  
Interconnection System Impact  
Study Agreement

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, subject to any modifications in accordance with Section 4.4 of the ETU IP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]



**APPENDIX 4**  
**INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Upgrade to the Administered Transmission System; and

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Elective Transmission Upgrade to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Interconnection Facilities Study consistent with Section 8.0 of the ETU IP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Elective Transmission Upgrade to the Administered Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 The Interconnection Customer is providing a deposit equal to the greater of 25 percent of the estimated cost of the Interconnection Facilities Study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection Facilities Study and the development of this Interconnection Facilities Study Agreement and its attachment(s) and the ETU IA. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

The total estimated cost of the performance of the Interconnection Facilities Study consists of \$\_\_\_\_\_ which is comprised of the System Operator’s estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner’s estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Interconnection Facilities Study, System Operator and Interconnecting Transmission Owner shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study. System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice. In accordance with the ETU IP, in performing the Interconnection Facilities Study, Interconnecting Transmission Owner and System Operator shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

6.0 Miscellaneous.

- 6.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.
- 6.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of

law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study.

Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 6.3 Force Majeure, Liability and Indemnification.

6.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

6.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection

Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 6.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds

or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 6.4 Third-Party Beneficiaries. Without limiting Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 6.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 6.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 6.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

- 6.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 6.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 6.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 6.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 6.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 6.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 6.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.





**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attachment A  
To Appendix 4  
Interconnection Facilities  
Study Agreement

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE  
INTERCONNECTION FACILITIES STUDY**

Interconnection Customer elects (check one):

- ☐ +/- 20 percent cost estimate contained in the Interconnection Facilities Study report.
- ☐ +/- 10 percent cost estimate contained in the Interconnection Facilities Study report.

Interconnecting Transmission Owner and System Operator shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE  
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the Elective Transmission Upgrade, including terminal facilities. For staged projects, please indicate future equipment, etc.

One set of metering is required for each ETU connection to the new ring bus or existing New England Transmission System station. Number of connections:

On the one line indicate the required capacity attached at each metering location. (Maximum load on Current Transformer/Power Transformer ("CT/PT"))

On the one line indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the ETU side of the metering require that each meter set be designed for the total ETU capacity? Yes \_\_\_\_\_ No \_\_\_\_\_

(Please indicate on one line).

What type of control system or Power Line Carrier ("PLC") will be located at the Interconnection Customer's ETU?

What protocol does the control system or PLC use?

Attachment B (page 2)  
Appendix 4  
Interconnection Facilities  
Study Agreement

Please provide a 7.5-minute quadrangle of the site. Sketch the facility, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from facility to interconnection station:

Line length from interconnection station to Interconnecting Transmission Owner's transmission line.

Tower number observed in the field. (Painted on tower leg)\*

Number of third party easements required for transmission lines\*:

\* To be completed in coordination with System Operator and Interconnecting Transmission Owner.

Is the ETU in Interconnecting Transmission Owner's service area?

Yes \_\_\_\_ No \_\_\_\_ Local provider:

Please provide proposed schedule dates:

Begin Construction Date:

First Operation Date:

Commercial Operation Date:

**APPENDIX 5**  
**OPTIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish an interconnection to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to System Operator an Interconnection Request; and

**WHEREAS**, on or after the date when the Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that the System Operator and Interconnecting Transmission Owner prepare an Optional Interconnection Study.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Optional Interconnection Study consistent with Section 10.0 of the ETU IP to be performed in accordance with the Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by the Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Interconnecting Transmission Owner’s Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the assumptions specified by the Interconnection Customer in Attachment A.  
In accordance with the ETU IP, in performing the Optional Interconnection Study, the System Operator shall coordinate with Interconnecting Transmission Owner and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.
- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. Interconnecting Transmission Owner’s and System Operator’s good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].

The total estimated cost of the performance of the Optional Interconnection Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Optional Interconnection Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Optional Interconnection Study. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of invoice.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Optional Interconnection Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Optional Interconnection Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Optional Interconnection Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Optional Interconnection Study, the content of

the Optional Interconnection Study, or the conclusions of the Optional Interconnection Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the



directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owners under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The

liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Optional Interconnection Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Optional Interconnection Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located, without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.

- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instances; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attachment A

Appendix 5

Optional Interconnection

Study Agreement

**ASSUMPTIONS USED IN CONDUCTING  
THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by Interconnection Customer consistent with Section 10 of the ETU IP.]

**APPENDIX 6**  
**ELECTIVE TRANSMISSION UPGRADE**  
**INTERCONNECTION AGREEMENT**

**TABLE OF CONTENTS**

Article 1	Definitions
Article 2	Effective Date, Term and Termination
Article 3	Regulatory Filings
Article 4	Scope of Service
Article 5	Interconnection Facilities Engineering, Procurement, and Construction
Article 6	Testing and Inspection
Article 7	Metering
Article 8	Communications
Article 9	Operations
Article 10	Maintenance
Article 11	Performance Obligation
Article 12	Invoice
Article 13	Emergencies
Article 14	Regulatory Requirements and Governing Law
Article 15	Notices
Article 16	Force Majeure
Article 17	Default
Article 18	Indemnity, Consequential Damages and Insurance
Article 19	Assignment
Article 20	Severability
Article 21	Comparability
Article 22	Confidentiality
Article 23	Environmental Releases
Article 24	Information Requirements
Article 25	Information Access and Audit Rights
Article 26	Subcontractors

Article 27	Disputes
Article 28	Representations, Warranties and Covenants
Article 29	Omitted
Article 30	Miscellaneous

**THIS ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT**

(“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ (“Interconnection Customer” with an Elective Transmission Upgrade Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Under this Agreement the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a “Party” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, System Operator is the central dispatching agency provided for under the Transmission Operating Agreement (“TOA”) which has responsibility for the operation of the New England Control Area from the System Operator control center and the administration of the Tariff; and

**WHEREAS**, Interconnecting Transmission Owner is the owner or possessor of an interest in the Administered Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Elective Transmission Upgrade identified in Appendix C to this Agreement; and

**WHEREAS**, System Operator, Interconnection Customer and Interconnecting Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Elective Transmission Upgrade to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Elective Transmission Upgrade Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.



## **ARTICLE 1. DEFINITIONS**

The definitions contained in this Article 1 and those definitions embedded in an Article of this Agreement are intended to apply in the context of the Elective Transmission Upgrade interconnection process provided for in Schedule 25 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of Elective Transmission Upgrade interconnections under Schedule 25. Capitalized terms in Schedule 25 that are not defined in this Article 1 shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability databases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Elective Transmission Upgrade Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Elective Transmission Upgrade Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resource or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Import Capability (“CNI Capability”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the aggregate highest megawatt amount of Capacity Supply Obligation obtained by the Import Capacity Resource(s) associated with the External Elective Transmission Upgrade, net of any megawatt reductions, in accordance with Section III.13 of the Tariff. The Capacity Network Import Capability shall be the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Capacity Capability Interconnection Standard and shall not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures.

**Capacity Network Import Interconnection Service (“CNI Interconnection Service”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s Capacity Network Import Interconnection Service shall be for the megawatt of Capacity Network Import Capability. Capacity Network Import Interconnection Service does not in and of itself convey transmission service.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of an ETU Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster

Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of an Elective Transmission Upgrade that has commenced transmitting electricity, excluding performance during Trial Operation.

**Commercial Operation Date** shall mean the date on which the Elective Transmission Upgrade commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Elective Transmission Upgrade Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Elective Transmission Upgrade Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Elective Transmission Upgrade. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Elective Transmission Upgrade Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Elective Transmission Upgrade ("ETU")** shall mean a new Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnecting to the Administered Transmission System, or an upgrade to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is part of or interconnected to the Administered Transmission System for which the Interconnection Customer has agreed to pay all of the costs of said Elective Transmission Upgrade and of any additions or modifications to the Administered Transmission System that are required to accommodate the Elective Transmission Upgrade. An Elective Transmission Upgrade is not a Generator Interconnection Related Upgrade, a Regional Transmission Upgrade, or a Market Efficiency Transmission Upgrade.

**Elective Transmission Upgrade Interconnection Agreement ("ETU IA")** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade, that is included in this Schedule 25 to Section II of the Tariff.

**Elective Transmission Upgrade Interconnection Procedures (“ETU IP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade that are included in this Schedule 25 to Section II of the Tariff.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Elective Transmission Upgrade or Interconnection Customer’s Interconnection Facilities.

**Engineering & Procurement (“E&P”) Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**External Elective Transmission Upgrade (“External ETU”)** shall mean an Elective Transmission Upgrade that interconnects the New England Control Area with another Control Area.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of Section II to the Tariff.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities.

**Interconnecting Transmission Owner** shall mean Transmission Owner that owns, leases or otherwise possesses an interest in the portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Elective Transmission Upgrade Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator, and may refer to one or more Transmission Owners in the case of an Internal Elective Transmission Upgrade.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole

use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Elective Transmission Upgrade with the Administered Transmission System under the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Elective Transmission Upgrade Interconnection Agreement, that are separate and distinct from the Elective Transmission Upgrade and are located between the Elective Transmission Upgrade and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Elective Transmission Upgrade and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Elective Transmission Upgrade with the Administered Transmission System. The scope of the study is defined in Section 8 of the Elective Transmission Upgrade Interconnection Procedures.



**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Elective Transmission Upgrade to the Administered Transmission System, the scope of which is described in Section 6 of the Elective Transmission Upgrade Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Elective Transmission Upgrade Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Elective Transmission Upgrade to the Administered Transmission System; (ii) make a Material Modification to an Elective Transmission upgrade with an outstanding Interconnection Request; (iii) increase the capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System; (iv) make a Material Modification to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected with the Administered Transmission System; or (v) change from NI Interconnection Service to CNI Interconnection Service for an Elective Transmission Upgrade that is eligible to request such services. Interconnection Request shall not include a request to interconnect to a transmission facility that is not part of the Administered Transmission System.

**Interconnection Service** shall mean the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include Capacity Network Import Interconnection Service or Network Import Interconnection Service.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Elective Transmission Upgrade Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to Elective Transmission Upgrade Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection of an Elective Transmission Upgrade on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Elective Transmission Upgrade were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Elective Transmission Upgrade Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection System Impact Study.

**Internal Elective Transmission Upgrade (“Internal ETU”)** shall mean an Elective Transmission Upgrade that interconnects solely within the New England Control Area.

**IRS** shall mean the Internal Revenue Service.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively,

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Elective Transmission Upgrade Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in [Appendix 1](#), Attachment A to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility, or Other

Transmission Facility that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Trial Operation Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed pursuant to the Elective Transmission Upgrade Interconnection Agreement, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Import Capability ("NI Capability")** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Network Capability Interconnection Standard and shall be for an amount not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures. The Network Import Capability shall be equal to or greater than the Capacity Network Import Capability.

**Network Import Interconnection Service ("NI Interconnection Service")** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade to the Administered Transmission System in accordance with the Network

Capability Interconnection Standard. An Interconnection Customer's Network Import Interconnection Service shall be solely for the megawatt amount of the Network Import Capability. Network Import Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Elective Transmission Upgrade to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Elective Transmission Upgrade Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities connect to the Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point(s), as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests

for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Elective Transmission Upgrade Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property where the Elective Transmission Upgrade’s terminal locations will be located at the Point of Interconnection within the New England Control Area.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Elective Transmission Upgrade Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this ETU IP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Elective Transmission Upgrade and (2) the Elective Transmission Upgrade from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Elective Transmission Upgrade prior to Commercial Operation.

**Trial Operation Date** shall mean the date upon which the Elective Transmission Upgrade begins Trial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This ETU IA shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner, shall promptly and jointly file this ETU IA with the Commission upon execution in accordance with Section 11.3 of the ETU IP and Article 3.1, if required.

**2.2 Term of Agreement.** This ETU IA, subject to the provisions of Article 2.3, and by mutual agreement of the Parties, shall remain in effect for a period of \_\_\_\_\_ years from the Effective Date (*term to be specified in individual Agreement, but in no case should the term be less than ten (10) years from the Effective Date or such other longer period as the Interconnection Customer may request*) and shall be automatically renewed for each successive one-year period thereafter.

**2.3 Termination Procedures.**

**2.3.1 Written Notice.** This ETU IA may be terminated by the Interconnection Customer, subject to continuing obligations of this ETU IA and the Tariff, after giving the System Operator and Interconnecting Transmission Owner ninety (90) Calendar Days advance written notice, or by System Operator or Interconnecting Transmission Owner notifying the Commission after the Elective Transmission Upgrade retires pursuant to the Tariff, provided that if an Interconnection Customer exercises its right to terminate on ninety (90) Calendar Days, any reconnection would be treated as a new interconnection request; or this ETU IA may be terminated by Interconnecting Transmission Owner or System Operator by notifying the Commission after the Elective Transmission Upgrade permanently ceases Commercial Operation.

**2.3.2 Default.** Each Party may terminate this ETU IA in accordance with Article 17. Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing, if applicable, with the Commission of a notice of termination of this ETU IA, which notice has been accepted for filing by the Commission. Termination of the ETU IA shall not supersede or alter any requirements for deactivation or retirement of an Elective Transmission Upgrade under ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**2.4 Termination Costs.** If a Party elects to terminate this ETU IA pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party(ies), as of the date of such Party's(ies') receipt of such notice of termination, that are the



responsibility of such Party(ies) under this ETU IA. In the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this ETU IA, unless otherwise ordered or approved by the Commission:

- 2.4.1 With respect to any portion of the Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades to the extent covered by this ETU IA, that have not yet been constructed or installed, the Interconnecting Transmission Owner shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Interconnecting Transmission Owner shall deliver such material and equipment, and, if necessary, and to the extent possible, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Interconnecting Transmission Owner for any or all such costs of materials or equipment not taken by Interconnection Customer, either (i) in the case of overpayment, Interconnecting Transmission Owner shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by the Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts, or (ii) in the case of underpayment, Interconnection Customer shall promptly pay such amounts still due plus any costs, including penalties incurred by Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.
- If an Interconnection Customer terminates this ETU IA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which the Interconnecting Transmission Owner has incurred expenses and has not been reimbursed by the Interconnection Customer.

2.4.2 Interconnecting Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Interconnecting Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this ETU IA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

**2.5 Disconnection.** Upon termination of this ETU IA, Interconnection Service shall terminate and, the Parties will take all appropriate steps to disconnect the Elective Transmission Upgrade from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from a non-terminating Party's Default of this ETU IA or such non-terminating Party otherwise is responsible for these costs under this ETU IA.

**2.6 Survival.** This ETU IA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this ETU IA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this ETU IA was in effect; and to permit each Party to have access to the lands of the other Party(ies) pursuant to this ETU IA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS**

**3.1 Filing.** The System Operator and Interconnecting Transmission Owner shall jointly file this ETU IA (and any amendment hereto) with the appropriate Governmental Authority, if required, in accordance with Section 11.3 of the ETU IP. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this ETU IA, or any amendment thereto, the

Interconnection Customer shall reasonably cooperate with the System Operator and Interconnecting Transmission Owner with respect to such filing and to provide any information reasonably requested by the System Operator and/or the Interconnecting Transmission Owner needed to comply with applicable regulatory requirements.

#### **ARTICLE 4. SCOPE OF SERVICE**

- 4.1 Interconnection Product Options.** Interconnection Customer with an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility (import direction) has selected the following (checked) type(s) of Interconnection Service:

Check: ☐ NI Interconnection Service (NI Capability Only)

☐ CNI Interconnection Service (CNI Capability and NI Capability)

**4.1.1 Capacity Network Import Interconnection Service (CNI Interconnection Service).**

**4.1.1.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the CC Interconnection Standard. CNI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to enable the participation of an Import Capacity Resource in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNI Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff.

**4.1.2 Network Import Interconnection Service (NI Interconnection Service).**

**4.1.2.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the NC Interconnection Standard. NI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the NI Capacity or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility that has been interconnected under the NC Interconnection Standard cannot be used to support an Import Capacity Resource's(s') participation in the Forward Capacity Market under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNI Interconnection Service.

- 4.2 Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Elective Transmission Upgrade at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this ETU IA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this ETU IA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the ETU IA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.
- 4.4 No Transmission Delivery Service.** The execution of this ETU IA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity

service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

**4.5 Transmission Delivery Service Implications.** Interconnection Service allows the Interconnection Customer's Elective Transmission Upgrade to be interconnected to the Administered Transmission System. Although Interconnection Service does not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Elective Transmission Upgrade. An Elective Transmission Upgrade may also be used to provide Ancillary Services, in accordance with the Tariff, after technical studies and/or periodic analyses are performed with respect to the Elective Transmission Upgrade's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Elective Transmission Upgrade. However, an Interconnection Customer's Elective Transmission Upgrade cannot be required to provide Ancillary Services except to the extent such requirements extend to all Elective Transmission Upgrades that are similarly situated.

Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver electricity to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Elective Transmission Upgrade shall be subject to the applicable congestion management procedures for the New England Transmission System.

Once an Interconnection Customer satisfies the requirements for obtaining Interconnection Service, as long as the Elective Transmission Upgrade has not been deemed to be retired, any future transmission service request for delivery of electricity from the Elective Transmission Upgrade to the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Elective Transmission Upgrade be undertaken, and regardless of changes in ownership of the Elective Transmission Upgrade. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the

Elective Transmission Upgrade outside the New England Transmission System, or if the Elective Transmission Upgrade has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

**4.6 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this ETU IA are set forth in Article 9.6 and Article 13.4. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING,  
PROCUREMENT, AND CONSTRUCTION**

**5.1 Options.** Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall specify the In-Service Date, Trial Operation Date, and Commercial Operation Date as specified in the Interconnection Request or as subsequently revised pursuant to Section 4.4 of the ETU IP; and select either Standard Option or Alternate Option set forth below for completion of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as set forth in Appendix A, and such dates and selected option shall be set forth in Appendix B (Milestones). In accordance with Section 8 of the ETU IP and unless otherwise mutually agreed, the Alternate Option is not an available option if the Interconnection Customer waived the Interconnection Facilities Study.

**5.1.1 Standard Option.** The Interconnecting Transmission Owner shall design, procure, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B (Milestones). The Interconnecting Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Interconnecting Transmission Owner reasonably expects that it will not be able to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the specified dates, the Interconnecting Transmission Owner shall promptly provide written notice to the Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by Interconnection Customer are acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities by the designated dates.

If Interconnecting Transmission Owner subsequently fails to complete Interconnecting Transmission Owner's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Trial Operation Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B (Milestones); Interconnecting Transmission Owner shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable System Operator refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by Interconnection Customer are not acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. The System Operator, Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to the ETU IA. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If the Interconnection Customer elects not to exercise its option under Article 5.1.3 (Option to Build), Interconnection Customer shall so notify Interconnecting Transmission Owner within thirty (30) Calendar Days, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection



Customer) pursuant to which Interconnecting Transmission Owner is responsible for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Interconnecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades pursuant to 5.1.1 (Standard Option).

**5.2 General Conditions Applicable to Option to Build.** If Interconnection Customer assumes responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) the Interconnection Customer shall engineer, procure equipment, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Interconnecting Transmission Owner;
- (2) Interconnection Customer's engineering, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Interconnecting Transmission Owner would be subject in the engineering, procurement or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Interconnecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;
- (4) prior to commencement of construction, Interconnection Customer shall provide to Interconnecting Transmission Owner a schedule for construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Interconnecting Transmission Owner;

(5) at any time during construction, Interconnecting Transmission Owner shall have the right to gain unrestricted access to the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Interconnecting Transmission Owner, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(7) the Interconnection Customer shall indemnify the Interconnecting Transmission Owner for claims arising from the Interconnection Customer's construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 (Indemnity);

(8) the Interconnection Customer shall transfer control of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the Interconnecting Transmission Owner;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Interconnecting Transmission Owner;

(10) Interconnecting Transmission Owner shall approve and accept for operation and maintenance the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Interconnecting Transmission Owner "as built" drawings, information, and any other documents that are reasonably required by Interconnecting Transmission Owner to assure that the Interconnection Facilities and Stand Alone Network

Upgrades are built to the standards and specifications required by Interconnecting Transmission Owner.

**5.3 Liquidated Damages.** The actual damages to the Interconnection Customer, in the event the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Interconnecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Interconnecting Transmission Owner to the Interconnection Customer in the event that Interconnecting Transmission Owner does not complete any portion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to  $\frac{1}{2}$  of 1 percent per day of the actual cost of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, in the aggregate, for which Interconnecting Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which the Interconnecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Interconnecting Transmission Owner to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this ETU IA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Interconnecting Transmission Owner's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to transmit power from the Elective Transmission Upgrade on the specified dates, unless the Interconnection Customer would have been able to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to transmit power from the Elective Transmission Upgrade, but for

Interconnecting Transmission Owner's delay; (2) the Interconnecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other Interconnection Customer who has entered into an ETU IA with the Interconnecting Transmission Owner or any cause beyond Interconnecting Transmission Owner's reasonable control or reasonable ability to cure, including, but not limited to, actions by the System Operator that cause delays and/or delays in licensing, permitting or consents where the Interconnecting Transmission Owner has pursued such licenses, permits or consents in good faith; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

**5.4 Power System Stabilizers.** If a Power System Stabilizer or other frequency damping control equipment is required to be installed on the Elective Transmission Upgrade for the purpose of maintaining system stability, the Interconnection Customer shall procure, install, maintain and operate such equipment in accordance with the guidelines and procedures established by the System Operator and Interconnecting Transmission Owner, and consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator and Interconnecting Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers or other frequency damping control equipment, subject to the design and operating limitations of the Elective Transmission Upgrade. If the Elective Transmission Upgrade's Power System Stabilizers or other frequency damping control equipment are removed from service or not capable of automatic operation, the Interconnection Customer shall immediately notify the System Operator and Interconnecting Transmission Owner, or their designated representative.

**5.5 Equipment Procurement.** If responsibility for construction of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades is to be borne by the Interconnecting Transmission Owner, then the Interconnecting Transmission Owner shall commence design of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** The Interconnecting Transmission Owner has completed the Facilities Study pursuant to the Facilities Study Agreement;

**5.5.2** The Interconnecting Transmission Owner has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.5.3** The Interconnection Customer has provided security to the Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.6 Construction Commencement.** The Interconnecting Transmission Owner shall commence construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

**5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades;

**5.6.3** The Interconnecting Transmission Owner has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.6.4** The Interconnection Customer has provided security to Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.7 Work Progress.** The Interconnection Customer and the Interconnecting Transmission Owner shall keep each Party informed, by written quarterly progress reports, as to the progress of their

respective design, procurement and construction efforts in order to meet the dates specified in Appendix B (Milestones). Any Party may also, at any other time, request a written progress report from the other Parties. If, at any time, the Interconnection Customer determines that the completion of the Interconnecting Transmission Owner's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer, upon the System Operator's approval that the change in the In-Service Date will not constitute a Material Modification pursuant to Section 4.4 of the ETU IP, will provide written notice to the Interconnecting Transmission Owner of such later date upon which the completion of the Interconnecting Transmission Owner's Interconnection Facilities will be required.

**5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with the New England Transmission System, and shall work diligently and in good faith to make any necessary design changes.

**5.9 Limited Operation.** If any of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Elective Transmission Upgrade, System Operator and the Interconnecting Transmission Owner shall, upon the request and at the expense of Interconnection Customer, perform operating studies to determine the extent to which the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this ETU IA. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the operating studies and permit Interconnection Customer to operate the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Elective Transmission Upgrade ("ETU") and Interconnection Customer's Interconnection Facilities ("ICIF").** Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.10.1 Elective Transmission Upgrade Specifications.** Interconnection Customer shall submit initial specifications for the ETU and ICIF, including System Protection Facilities, to Interconnecting Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Trial Operation Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Trial Operation Date. Interconnecting Transmission Owner shall review such specifications to ensure that the ETU and ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Interconnecting Transmission Owner's Review.** Interconnecting Transmission Owner's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the ETU or the ICIF. Interconnection Customer shall make such changes to the ETU or the ICIF as may reasonably be required by Interconnecting Transmission Owner, in accordance with Good Utility Practice, to ensure that the ETU and ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner.

**5.10.3 ETU and ICIF Construction.** The ETU and ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Interconnecting Transmission Owner "as-built" drawings, information and documents for the ETU and ICIF, such as: a one-line diagram, a site plan showing the ETU and the ICIF, plan and elevation drawings showing the layout of the ETU and ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the ETU and the ICIF, and the impedances (determined by factory tests) for any associated transformers. The Interconnection Customer shall provide Interconnecting Transmission Owner specifications for any and all controls, automatic

voltage regulating equipment or controls, ETU control and protection settings, transformer tap settings, and communications, if applicable.

- 5.11 Interconnecting Transmission Owner's Interconnection Facilities Construction.** The Interconnecting Transmission Owner's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnecting Transmission Owner shall deliver to the Interconnection Customer "as-built" drawings, information and documents for the Interconnecting Transmission Owner's Interconnection Facilities. The appropriate drawings and relay diagrams shall be included in Appendix A of this ETU IA. The System Operator will obtain operational control of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities pursuant to the TOA.
- 5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at the incremental cost to another Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents if allowed under the applicable agency agreement, that are necessary to enable the Access Party solely to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Elective Transmission Upgrade with the Administered Transmission System; (ii) operate and maintain the Elective Transmission Upgrade, the Interconnection Facilities and the New England Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this ETU IA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.
- 5.13 Lands of Other Property Owners.** If any part of the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Interconnecting Transmission Owner, the



Interconnecting Transmission Owner shall at Interconnection Customer's expense use Reasonable Efforts, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property. Notwithstanding the foregoing, the Interconnecting Transmission Owner shall not be obligated to exercise eminent domain authority in a manner inconsistent with Applicable Laws and Regulations or when an Interconnection Customer is authorized under Applicable Laws and Regulations to exercise eminent domain on its own behalf.

**5.14 Permits.** System Operator, Interconnecting Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Interconnecting Transmission Owner shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Interconnecting Transmission Owner's own, or an Affiliate's generation or transmission facilities, if any.

**5.15 Early Construction of Base Case Facilities.** Interconnection Customer may request Interconnecting Transmission Owner to construct, and Interconnecting Transmission Owner shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Administered Transmission System, which are included in the Base Case of the Facilities Study for the Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date. The Interconnection Customer shall reimburse the Interconnecting Transmission Owner for all costs incurred related to early construction to the extent such costs are not recovered from other Interconnection Customers included in the base case.

**5.16 Suspension.** Interconnection Customer reserves the right, upon written notice to Interconnecting Transmission Owner and System Operator, to suspend at any time all work by Interconnecting Transmission Owner associated with the construction and installation of Interconnecting

Transmission Owner's Interconnection Facilities and/or Network Upgrades required under this ETU IA with the condition that the New England Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the System Operator's and Interconnecting Transmission Owner's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Interconnecting Transmission Owner (i) has incurred pursuant to this ETU IA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New England Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Interconnecting Transmission Owner cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Interconnecting Transmission Owner shall obtain Interconnection Customer's authorization to do so. Interconnecting Transmission Owner shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Interconnecting Transmission Owner required under this ETU IA pursuant to this Article 5.16, and has not requested Interconnecting Transmission Owner to recommence the work required under this ETU IA on or before the expiration of three (3) years following commencement of such suspension, this ETU IA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Interconnecting Transmission Owner and System Operator, if no effective date is specified. A suspension under this Article 5.16 does not automatically permit an extension of the In-Service Date, the Trial Operation Date or the Commercial Operation Date. A request for extension of such dates is subject to Section 4.4.5 of the ETU IP. Notwithstanding the extensions permitted under Section 4.4.5 of the ETU IP, the three-year period shall in no way result in an extension of the In-Service Date, the Trial Operation Date or the Commercial Operation Date that exceeds seven (7) years from the date of the Interconnection Request; otherwise, this ETU IA shall be deemed terminated.

## **5.17 Taxes.**

**5.17.1 Payments Not Taxable.** The Parties intend that all payments or property transfers made by any Party for the installation of the Interconnecting Transmission Owner's

Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity transmitted on the Elective Transmission Upgrade will pass to another party prior to the transmission of the electricity on the New England Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Interconnecting Transmission Owner for the Interconnecting Transmission Owner's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Interconnecting Transmission Owner's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Elective Transmission Upgrade. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Interconnecting Transmission Owner's request, Interconnection Customer shall provide Interconnecting Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Interconnecting Transmission Owner represents and covenants that the cost of the Interconnecting Transmission Owner's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon Interconnecting Transmission Owner.** Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Interconnecting Transmission

Owner from the cost consequences of any current tax liability imposed against Interconnecting Transmission Owner as the result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Interconnecting Transmission Owner.

The Interconnecting Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this ETU IA unless (i) Interconnecting Transmission Owner has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Interconnecting Transmission Owner to report payments or property as income subject to taxation; provided, however, that Interconnecting Transmission Owner may require Interconnection Customer to provide security, in a form reasonably acceptable to Interconnecting Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Interconnecting Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Interconnecting Transmission Owner of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period, and the applicable statute of limitation, as it may be extended by the Interconnecting Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Interconnecting Transmission Owner, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount

equal to (1) the current taxes imposed on Interconnecting Transmission Owner (“Current Taxes”) on the excess of (a) the gross income realized by Interconnecting Transmission Owner as a result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA (without regard to any payments under this Article 5.17) (the “Gross Income Amount”) over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the “Present Value Depreciation Amount”), plus (2) an additional amount sufficient to permit the Interconnecting Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1). For this purpose, (i) Current Taxes shall be computed based on Interconnecting Transmission Owner composite federal and state tax rates at the time the payments or property transfers are received and Interconnecting Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the “Current Tax Rate”), and (ii) the Present Value Depreciation Amount shall be computed by discounting Interconnecting Transmission Owner’s anticipated tax depreciation deductions as a result of such payments or property transfers by Interconnecting Transmission Owner current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer’s liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer’s estimated tax liability in the event taxes are imposed shall be stated in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer’s request and expense, Interconnecting Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer’s knowledge. Interconnecting Transmission Owner and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Interconnecting Transmission Owner shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Interconnecting Transmission Owner shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within ten (10) years from the date on which the relevant Interconnecting Transmission Owner's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenant contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this ETU IA terminates and Interconnecting Transmission Owner retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Interconnecting Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Interconnecting Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Interconnecting Transmission Owner shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Interconnecting Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Interconnecting Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Interconnecting Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but

Interconnecting Transmission Owner shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Interconnecting Transmission Owner may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Interconnecting Transmission Owner, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Interconnecting Transmission Owner for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Interconnecting Transmission Owner which holds that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this ETU IA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Interconnecting Transmission Owner in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this ETU IA is not taxable to Interconnecting Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Interconnecting Transmission Owner are not subject to federal income tax,

or (d) if Interconnecting Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Interconnecting Transmission Owner pursuant to this ETU IA, Interconnecting Transmission Owner shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amounts paid by Interconnection Customer to Interconnecting Transmission Owner for such taxes which Interconnecting Transmission Owner did not submit to the taxing authority, interest calculated in accordance with the methodology set forth in the Commission's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Interconnecting Transmission Owner refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Interconnecting Transmission Owner, any refund or credit Interconnecting Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Interconnecting Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Interconnecting Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Interconnecting Transmission Owner will remit such amount promptly to Interconnection Customer only after and to the extent that Interconnecting Transmission Owner has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the Interconnecting Transmission Owner's Interconnection Facilities.



The intent of this provision is to leave Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Interconnecting Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Interconnecting Transmission Owner for which Interconnection Customer may be required to reimburse Interconnecting Transmission Owner under the terms of this ETU IA. Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, Interconnecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Interconnecting Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Interconnecting Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Interconnecting Transmission Owner.

**5.18 Tax Status.** Each Party shall cooperate with the others to maintain the other Party's(ies') tax status. Nothing in this ETU IA is intended to adversely affect any Interconnecting Transmission Owner's tax-exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

**5.19 Modification.**

**5.19.1 General.** Either Interconnection Customer or Interconnecting Transmission Owner may undertake modifications to its facilities. If a Party plans to undertake a modification that

reasonably may be expected to affect the other Party's facilities, the facilities of any Affected Parties, or the New England Transmission System, that Party shall provide to the other Parties and any Affected Party: (i) sufficient information regarding such modification so that the other Party(ies) may evaluate the potential impact of such modification prior to commencement of the work; and (ii) such information as may be required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Elective Transmission Upgrade. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party(ies) at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed. Notwithstanding the foregoing, no Party shall be obligated to proceed with a modification that would constitute a Material Modification and therefore require an Interconnection Request under the ETU IP, except as provided under and pursuant to the ETU IP.

In the case of Elective Transmission Upgrade or Interconnection Customer's Interconnection Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Interconnecting Transmission Owner shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this ETU IA and Good Utility Practice.

**5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Interconnecting Transmission

Owner makes to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System to facilitate the interconnection of a third party to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System, or to provide transmission service to a third party under the Tariff, except as provided for under the Tariff or any other applicable tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Elective Transmission Upgrade or Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Interconnecting Transmission Owner shall test Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall transmit test energy to or from the Elective Transmission Upgrade only if it has arranged for the transfer of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Interconnection Customer and Interconnecting Transmission Owner shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, as may be necessary to ensure the continued interconnection of the Elective Transmission Upgrade to the Administered Transmission System in a safe and reliable manner. The Interconnection Customer and Interconnecting Transmission Owner each shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's(ies') facilities, at the requesting Party's expense, as may be in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator shall also have the right to

require reasonable additional testing of the other Party's (ies') facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 6.3 Right to Observe Testing.** Each Party shall notify the System Operator and other Party(ies) in advance of its performance of tests of its Elective Transmission Upgrade and Interconnection Facilities. The other Party(ies) has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's(ies') tests and/or inspection of any of its System Protection Facilities and other protective equipment; (ii) review the settings of the other Party's(ies') System Protection Facilities and other protective equipment; and (iii) review the other Party's(ies') maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. Each Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Parties. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be governed by Article 22.

## ARTICLE 7. METERING

- 7.1 General.** Interconnection Customer and Interconnecting Transmission Owner shall comply with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding metering. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment. Unless the System Operator otherwise agrees, the Interconnection Customer shall be responsible for installing and maintaining compatible metering and communications equipment to accurately account for the capacity and energy being transmitted under this Tariff and to communicate the information to the System Operator. Unless otherwise agreed, such equipment shall remain the property of the Interconnecting Transmission Owner.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Interconnecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this ETU IA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Interconnecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** Interconnection Customer and Interconnecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards and the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 7.4 Testing of Metering Equipment.** Interconnection Customer and Interconnecting Transmission Owner shall inspect and test all of their respectively owned Metering Equipment upon installation and thereafter as specified in the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnection Customer and Interconnecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and may have representatives present at the test or inspection. If at any time Metering Equipment is

found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than the values specified within ISO New England Operating Documents, or successor documents, from the measurement made by the standard meter used in the test, the Interconnection Customer and the Interconnecting Transmission Owner shall adjust the measurements of their respective equipment, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 7.5 Metering Data.** At Interconnection Customer's expense, metered data shall be telemetered to one or more locations designated by System Operator and Interconnecting Transmission Owner. The hourly integrated metering established in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, used to transmit Megawatt hour ("MWh") per hour data by electronic means and the Watt-hour meters equipped with kilowatt-hour ("kwh") or MWh registers to be read at month's end shall be the official measurement of the amount of energy transmitted from the Elective Transmission Upgrade to the Point of Interconnection. Instantaneous metering is required in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 8. COMMUNICATIONS**

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with the System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 8.2 Remote Terminal Unit.** Prior to the Trial Operation Date of the Elective Transmission Upgrade, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer or Interconnecting Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by System Operator and Interconnecting Transmission Owner through use of a dedicated point-to-point data circuit(s). The communication protocol for the data circuit(s) shall be specified by System Operator and Interconnecting Transmission

Owner. All information required by the ISO New England Operating Documents, or successor documents, must be telemetered directly to the location(s) specified by System Operator and Interconnecting Transmission Owner.

Each Party will promptly advise the other Party(ies) if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party(ies). The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

- 8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

- 8.4 Reserved.**

## **ARTICLE 9. OPERATIONS**

- 9.1 General.** Each Party shall comply with applicable provisions of ISO New England Operating Documents, Reliability Standards, or successor documents, regarding operations. Each Party shall provide to the other Party(ies) all information that may reasonably be required by the other Party(ies) to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

- 9.2 Control Area Notification.** Before Trial Operation Date, the Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner in writing in accordance with ISO New England Operating Documents, Reliability Standards, or successor documents. If the Interconnection Customer elects to have the Elective Transmission Upgrade dispatched and operated from a remote Control Area other than the Control Area in which the Elective Transmission Upgrade is physically located, and if permitted to do so by the relevant transmission tariffs and ISO New England Operating Documents, Reliability Standards, or successor documents, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this ETU IA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Elective Transmission Upgrade in the other Control Area for dispatch and operations.

**9.3 Interconnecting Transmission Owner and System Operator Obligations.** Interconnecting Transmission Owner and System Operator shall cause the Interconnecting Transmission Owner's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this ETU IA and ISO New England Operating Documents, Reliability Standards, or successor documents. Interconnecting Transmission Owner or System Operator may provide operating instructions to Interconnection Customer consistent with this ETU IA, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Interconnecting Transmission Owner's and System Operator's operating protocols and procedures as they may change from time to time. Interconnecting Transmission Owner and System Operator will consider changes to their operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this ETU IA and ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.5 Start-Up and Trial Operation.** The Interconnection Customer is responsible for the proper start-up and Trial Operation of the Elective Transmission Upgrade as part of the New England Transmission System in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6 Reactive Power.**

**9.6.1 Power Factor Design Criteria.** Interconnection Customer shall design the Elective Transmission Upgrade and Interconnection Facilities that are capable of voltage control to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging or any reactive power or power factor requirement specified in the Interconnection System Impact Study for the Elective Transmission Upgrade, unless the System Operator or Interconnecting Transmission Owner has established different



requirements that apply to all similar-situated facilities in the Control Area on a comparable basis and in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has commenced Trial Operation of the Elective Transmission Upgrade to the New England Transmission System, Interconnection Customer shall operate the Elective Transmission Upgrade at the direction of System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding voltage schedules in accordance with such requirements.

**9.6.2.1 Voltage Regulating Equipment.** The Interconnection Customer must keep and maintain voltage regulating equipment on all voltage-controlling elements of the Elective Transmission Upgrade and Interconnection Facilities any voltage control requirements specified in the Interconnection System Impact Study and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. All Interconnection Customers that have, or are required to have, voltage regulating equipment shall normally operate the voltage regulating equipment in automatic operation.

It is the responsibility of the Interconnection Customer to maintain the voltage regulating equipment and function in good operating condition and promptly report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.

**9.6.2.2 Governor Control.** The Interconnection Customer is obligated to provide and maintain a functioning governor or frequency regulation on all elements of the Elective Transmission Upgrade and Interconnection Facilities that are capable of frequency regulation in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

It is the responsibility of the Interconnection Customer to maintain the frequency regulating equipment and function in good operating condition and promptly report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.

**9.6.2.3 System Protection.** The Interconnection Customer shall install and maintain protection systems in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.3 Payment for Reactive Power.**

Interconnection Customers shall be compensated for Reactive Power service in accordance with Schedule 2 of the Section II of the Tariff.

**9.7 Outages and Interruptions.**

**9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's(ies') facilities as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.1.2 Outage Schedules.** Outage scheduling, and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.2 Interruption of Service.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

**9.7.3 Under-Frequency and Over Frequency Conditions.** Interconnection Customer shall implement under-frequency and over-frequency protection set points for the Elective Transmission Upgrade and the Interconnection Facilities as required by the applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Elective Transmission Upgrade response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with System Operator and Interconnecting Transmission Owner in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall install at Interconnection Customer's expense, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, any System Protection Facilities that may be required on the Interconnecting Transmission Owner Interconnection Facilities or the New England Transmission System as a result of the interconnection of the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities.

**9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.4** Each Party's protective relay design shall allow for tests required in Article 6.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.5 Requirements for Protection.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Elective Transmission Upgrade to any short circuit occurring on the New England Transmission System not otherwise isolated by Interconnecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New England Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Elective Transmission Upgrade and the New England Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Elective Transmission Upgrade and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Elective Transmission Upgrade and Interconnection Customer's other equipment if conditions on the New England Transmission System

could adversely affect the Elective Transmission Upgrade. Relays and other equipment that protect for other conditions such as over- or under-frequency, over- or under-voltage, and overloads shall be coordinated with the protective requirements of the New England Transmission System.

**9.7.6 Power Quality.** A Party's facilities shall not cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Party(ies) with a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Elective Transmission Upgrade to the Administered Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Interconnecting Transmission Owner's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs

associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to the Commission for resolution.

- 9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Elective Transmission Upgrade or the New England Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 10. MAINTENANCE**

- 10.1 Interconnecting Transmission Owner and Customer Obligations.** Interconnecting Transmission Owner and Interconnection Customer shall each maintain that portion of its respective facilities that are part of the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 10.2 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Interconnecting Transmission Owner's Interconnection Facilities, Stand Alone Network Upgrades, Network Upgrades and Distribution Upgrades.

## ARTICLE 11. PERFORMANCE OBLIGATION

- 11.1 Interconnection Customer's Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at its sole expense.
- 11.2 Interconnecting Transmission Owner's Interconnection Facilities.** Interconnecting Transmission Owner shall design, procure, construct, install, own and/or control the Interconnecting Transmission Owner's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades, and to the extent provided by Article 5.1, Stand Alone Network Upgrades, and Distribution Upgrades described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades). The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer.
- 11.4 Cost Allocation; Compensation; Rights; Affected Systems**
- 11.4.1 Cost Allocation.** Cost allocation of ETU ~~Interconnection~~ ~~\*Related~~ ~~upgrades~~ ~~Upgrades~~ shall be in accordance with Schedules 11 and 12 of Section II of the Tariff.
- 11.4.2 Compensation.** Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its ETU and associated system upgrades shall be determined in accordance with Sections II and III of the Tariff.
- 11.4.3 Rights.** Notwithstanding any other provision of this ETU IA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm

transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

**11.4.4 Special Provisions for Affected Systems.** The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Elective Transmission Upgrade.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of an Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Interconnecting Transmission Owner in accordance with the Tariff. In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.** If System Operator or Interconnecting Transmission Owner requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.4.1 of this ETU IA, Interconnection Customer shall be compensated pursuant to the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.



**11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.**

Interconnection Customer shall be compensated for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the New England Transmission System during an Emergency Condition in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**ARTICLE 12. INVOICE**

**12.1 General.** Each Party shall submit to the other Party(ies), on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party(ies) under this ETU IA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within six months after completion of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, Interconnecting Transmission Owner shall provide an invoice of the final cost of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Interconnecting Transmission Owner shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice. Interconnection Customer shall pay to Interconnecting Transmission Owner any amount by which the actual payment by Interconnection Customer for estimated costs falls short of the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by any Party will not constitute a waiver of any rights or claims the other Party(ies) may have under this ETU IA.

**12.4 Disputes.** In the event of a billing dispute between Interconnecting Transmission Owner and Interconnection Customer, Interconnecting Transmission Owner shall continue to provide Interconnection Service under this ETU IA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Interconnecting Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Interconnecting Transmission Owner may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in the Commission's Regulations at 18 CFR § 35.19a(a)(2)(iii).

### **ARTICLE 13. EMERGENCIES**

**13.1 Obligations.** Each Party shall comply with the Emergency Condition procedures of the System Operator in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**13.2 Notice.** Interconnecting Transmission Owner or System Operator as applicable shall notify Interconnection Customer and System Operator or Interconnecting Transmission Owner as applicable, promptly when it becomes aware of an Emergency Condition that affects the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Interconnecting Transmission

Owner and System Operator promptly when it becomes aware of an Emergency Condition that affects the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Interconnecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

**13.3 Immediate Action.** Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Interconnecting Transmission Owner and System Operator, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by the Interconnecting Transmission Owner or the System Operator or otherwise regarding the New England Transmission System.

**13.4 System Operator's and Interconnecting Transmission Owner's Authority.**

**13.4.1 General.** System Operator or Interconnecting Transmission Owner may take whatever actions or inactions with regard to the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the New England Transmission System or Interconnecting Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities. System Operator and Interconnecting Transmission Owner may, on the basis of technical considerations and equipment capabilities, require the Elective Transmission Upgrade to mitigate an

Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Elective Transmission Upgrade; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of System Operator's and Interconnecting Transmission Owner's operating instructions concerning Elective Transmission Upgrade real power and reactive power output within the manufacturer's design limitations of the Elective Transmission Upgrade's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.4.2 Reduction and Disconnection.** System Operator and Interconnecting Transmission Owner may reduce Interconnection Service or disconnect the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. These rights are separate and distinct from any right of curtailment of the System Operator and Interconnecting Transmission Owner pursuant to the Tariff. When the System Operator and Interconnecting Transmission Owner can schedule the reduction or disconnection in advance, System Operator and Interconnecting Transmission Owner shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. System Operator and Interconnecting Transmission Owner shall coordinate with the Interconnection Customer in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the System Operator and Interconnecting Transmission Owner. Any reduction or disconnection shall continue only for so long as reasonably necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The Parties shall cooperate with each other to restore the Elective Transmission Upgrade, the Interconnection Facilities, and the

New England Transmission System to their normal operating state as soon as practicable in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**13.5 Interconnection Customer Authority.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents and the ETU IA and the ETU IP, the Interconnection Customer may take whatever actions or inactions with regard to the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.

**13.6 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this ETU IA, a Party shall not be liable to another Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

**14.1 Regulatory Requirements.** Each Party's obligations under this ETU IA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this ETU IA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended. To the extent that a condition arises that could result in Interconnection Customer's inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company

Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, the Parties shall engage in good faith negotiations to address the condition so that such result will not occur and so that this ETU IA can be performed.

#### **14.2 Governing Law.**

**14.2.1** The validity, interpretation and performance of this ETU IA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

**14.2.2** This ETU IA is subject to all Applicable Laws and Regulations.

**14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

### **ARTICLE 15. NOTICES**

**15.1 General.** Unless otherwise provided in this ETU IA, any notice, demand or request required or permitted to be given by a Party to another Party and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F (Addresses for Delivery of Notices and Billings).  
A Party may change the notice information in this ETU IA by giving five (5) Business Days written notice prior to the effective date of the change.

**15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.

**15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another Party and not required by this Agreement to be given in writing may be so given by

telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

- 15.4 Operations and Maintenance Notice.** Each Party shall notify the other Party(ies) in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **ARTICLE 16. FORCE MAJEURE**

### **16.1 Force Majeure.**

**16.1.1** Economic hardship is not considered a Force Majeure event.

**16.1.2** A Party shall not be considered to be in Default with respect to any obligation hereunder (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party(ies) in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **ARTICLE 17. DEFAULT**

### **17.1 Default.**

**17.1.1 General.** No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this ETU IA or the result of an act or omission of the other Party(ies). Upon a Breach, the non-Breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party(ies) shall have the right to terminate this ETU IA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this ETU IA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this ETU IA.

## **ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

**18.1 Indemnity.** Each Party shall at all times indemnify, defend, and save the other Party(ies) harmless from any and all damages, losses, claims, including claims and actions relating to injury



to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's(ies') action or inactions of their obligations under this ETU IA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by an indemnified Party.

**18.1.1 Indemnified Person.** If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances,

the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party.

Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in which event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the Liquidated Damages heretofore described, in no event shall a Party be liable under any provision of this ETU IA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** The Interconnecting Transmission Owner and the Interconnection Customer shall, at their own expense, maintain in force throughout the period of this ETU IA, and until released by the other Party(ies), the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

- 18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death, and property damage.
- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party(ies), its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this ETU IA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration

for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this ETU IA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this ETU IA.
- 18.3.9** Within ten (10) days following execution of this ETU IA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this ETU IA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program, provided that such Party's senior secured debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article, it shall notify the other Party (ies) that it meets the requirements to self-insure and that its self-insurance

program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

- 18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this ETU IA.

#### **ARTICLE 19. ASSIGNMENT**

- 19.1 Assignment.** This ETU IA may be assigned by any Party only with the written consent of the other Parties; provided that the Parties may assign this ETU IA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this ETU IA; and provided further that the Interconnection Customer shall have the right to assign this ETU IA, without the consent of the Interconnecting Transmission Owner or System Operator, for collateral security purposes to aid in providing financing for the Elective Transmission Upgrade, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and System Operator of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the Interconnecting Transmission Owner and System Operator of the date and particulars of any such exercise of assignment right(s), including providing the Interconnecting Transmission Owner with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this ETU IA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

#### **ARTICLE 20. SEVERABILITY**

- 20.1 Severability.** If any provision in this ETU IA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such

determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this ETU IA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Interconnecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to another prior to the execution of this ETU IA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by a Party, the other Party(ies) shall provide, in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**22.1.1 Term.** During the term of this ETU IA, and for a period of three (3) years after the expiration or termination of this ETU IA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this ETU IA; or (6) is required, in accordance with Article 22.1.7 of the ETU IA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this ETU IA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party(ies) that it no longer is confidential.

**22.1.3 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or are considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this ETU IA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other

Party(ies) of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under this ETU IA or its regulatory requirements.

**22.1.7 Order of Disclosure.** If a court or a Governmental Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of this ETU IA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.** Upon termination of this ETU IA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party(ies), use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party(ies)) or return to the other



Party(ies), without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party (ies).

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Parties shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR. section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this ETU IA, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this ETU IA prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the ETU IA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests

from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

- 22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this ETU IA (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this ETU IA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Parties’ Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **ARTICLE 23. ENVIRONMENTAL RELEASES**

- 23.1** Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Elective Transmission Upgrade or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## ARTICLE 24. INFORMATION REQUIREMENTS

- 24.1 Information Acquisition.** Subject to any applicable confidentiality restrictions, including, but not limited to, codes of conduct, each Party shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by System Operator and Interconnecting Transmission Owner.** The initial information submission by System Operator and Interconnecting Transmission Owner shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation Date and shall include information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Parties. On a monthly basis Interconnecting Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation Date. Interconnection Customer shall submit a completed copy of the Elective Transmission Upgrade data requirements contained in Appendix 1 to the ETU IP. It shall also include any additional information provided to Interconnecting Transmission Owner and System Operator for the Interconnection Feasibility Study, Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Elective Transmission Upgrade design or expected performance data. Information submitted for stability models shall be compatible with Interconnecting Transmission Owner and System Operator standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is different from what was originally provided to Interconnecting Transmission Owner pursuant to the Interconnection Study Agreement between Interconnecting Transmission Owner and Interconnection Customer, then the System Operator will review it and conduct appropriate studies, as needed, at the Interconnection Customer's cost, to determine the impact on the New England Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

- 24.4 Information Supplementation.** Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Elective Transmission Upgrade information and "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Elective Transmission Upgrade as required by Good Utility Practice to verify proper operation of the Elective Transmission Upgrade's voltage regulation capability, and of other automatic controls for which the Elective Transmission Upgrade is reliant upon for acceptable performance, as described and requested by the System Operator. Documentation of the test results will be provided to the System Operator.

The Interconnection Customer shall provide the Interconnecting Transmission Owner and System Operator with any information changes due to proposed equipment replacement, repair, or adjustment. Interconnecting Transmission Owner shall provide the Interconnection Customer and System Operator with any information changes due to proposed equipment replacement, repair or adjustment in the directly connected substation or any adjacent Interconnecting Transmission Owner-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information in accordance with Article 5.19 of this Agreement.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Parties information that is in the possession of the disclosing Party and is necessary in order for the other Party(ies) to: (i) verify the costs incurred by the disclosing Party for which the other

Party(ies) are responsible under this ETU IA; and (ii) carry out its obligations and responsibilities under this ETU IA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this ETU IA.

**25.2 Reporting of Non-Force Majeure Events.** Each Party (the “notifying Party”) shall notify the other Party(ies) when the notifying Party becomes aware of its inability to comply with the provisions of this ETU IA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory Breach of this ETU IA.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this ETU IA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party(ies), to audit at its own expense the other Party’s(ies’) accounts and records pertaining to a Party’s performance or a Party’s satisfaction of obligations under this ETU IA. Such audit rights shall include audits of the other Party’s(ies’) costs, calculation of invoiced amounts, the efforts to allocate responsibility for the provision of reactive support to the New England Transmission System, the efforts to allocate responsibility for interruption or reduction of generation on the New England Transmission System, and each Party’s actions in an Emergency Condition. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party’s performance and satisfaction of obligations under this ETU IA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

**25.4 Audit Rights Periods.**

**25.4.1 Audit Rights Period for Construction-Related Accounts and Records.** Accounts and records related to the design, engineering, procurement, and construction of Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four (24) months following

Interconnecting Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of all obligations under this ETU IA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four (24) months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four (24) months after the event for which the audit is sought.

**25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party(ies) together with those records from the audit which support such determination.

## **ARTICLE 26. SUBCONTRACTORS**

**26.1 General.** Nothing in this ETU IA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this ETU IA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this ETU IA in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.

**26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this ETU IA. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this ETU IA. Any applicable obligation imposed by this ETU IA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **ARTICLE 27. DISPUTES**

- 27.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with this ETU IA or its performance, such Party (the "disputing Party") shall provide the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this ETU IA.
- 27.2 External Arbitration Procedures.** Any arbitration initiated under this ETU IA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail

- 27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this ETU IA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding up on the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.
- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel; or (2) a pro rata share of the cost of a single arbitrator chosen by the Parties.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

- 28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Elective Transmission Upgrade, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this ETU IA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this ETU IA.
- 28.1.2 Authority.** Such Party has the right, power and authority to enter into this ETU IA, to become a Party hereto and to perform its obligations hereunder. This ETU IA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance



with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this ETU IA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this ETU IA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this ETU IA, and it will provide to any Governmental Authority notice of any actions under this ETU IA that are required by Applicable Laws and Regulations.

## **ARTICLE 29. [OMITTED]**

## **ARTICLE 30. MISCELLANEOUS**

**30.1 Binding Effect.** This ETU IA and the rights and obligations hereof shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**30.2 Conflicts.** In the event of a conflict between the body of this ETU IA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this ETU IA shall prevail and be deemed the final intent of the Parties.

**30.3 Rules of Interpretation.** This ETU IA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this ETU IA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this ETU IA), document, instrument or tariff means such

agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this ETU IA or such Appendix of this ETU IA, or such Section of the ETU IP or such Appendix of the ETU IP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this ETU IA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**30.4 Entire Agreement.** Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this ETU IA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this ETU IA. Except for the ISO New England Operating Documents, Applicable Reliability Standards, any applicable tariffs, related facilities agreements, or successor documents, there are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this ETU IA.

**30.5 No Third Party Beneficiaries.** This ETU IA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

**30.6 Waiver.** The failure of a Party to this ETU IA to insist, on any occasion, upon strict performance of any provision of this ETU IA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by a Party of its rights with respect to this ETU IA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this ETU IA. Termination or Default of this ETU IA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this ETU IA shall, if requested, be provided in writing.

**30.7 Headings.** The descriptive headings of the various Articles of this ETU IA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this ETU IA.

**30.8 Multiple Counterparts.** This ETU IA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.** The Parties may by mutual agreement amend this ETU IA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this ETU IA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this ETU IA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.** Consistent with Section 11.3 of the ETU IP, Interconnecting Transmission Owner and System Operator shall have the right to make unilateral filings with the Commission to modify this ETU IA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this ETU IA pursuant to section 206 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder; provided that each Party shall

have the right to protest any such filing by the other Parties and to participate fully in any proceeding before the Commission in which such modifications may be considered. In the event of disagreement on terms and conditions of the ETU IA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to Interconnecting Transmission Owner's position on such terms and conditions. Nothing in this ETU IA shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.** This ETU IA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

**IN WITNESS WHEREOF**, the Parties have executed this ETU IA in triplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**ISO New England Inc. (System Operator)**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

***[Insert Name of (Interconnecting Transmission Owner(s))***

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

***[Insert name of] (Interconnection Customer)***

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **APPENDICES TO ETU IA**

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings

## APPENDIX A TO ETU IA

### Interconnection Facilities, Network Upgrades and Distribution Upgrades

#### 1. Interconnection Facilities:

##### a. Point(s) of Interconnection

List and identify each Point of Interconnection (*e.g.*, first, second, etc.)

The Point of Interconnection for the first terminal location shall be at the point where *[insert description of the first location internal to New England Control Area]*. See Appendix A-1, which drawing is attached hereto and made part hereof.

The Point of Interconnection for the second terminal location shall be at the point where *[insert description of the second location internal to New England Control Area or the location external to New England Control Area]*. See Appendix A-2, which drawing is attached hereto and made part hereof.

##### b. Point(s) of Change of Ownership

List and identify the Point of Change of Ownership for each Point of Interconnection (*e.g.*, first, second, etc.)

The Point of Change of Ownership for the first terminal location shall be at the point where *[insert description of the first location internal to New England Control Area]*. See Appendix A-1, which drawing is attached hereto and made part hereof.

The Point of Change of Ownership for the second terminal location shall be at the point where *[insert description of the second location internal to New England Control Area or the location external to New England Control Area]*. See Appendix A-2, which drawing is attached hereto and made part hereof.

**c. Metering**

List and identify the metering point for each Point of Interconnection (*e.g.*, first, second, etc.)

The metering point for the first terminal location shall be located at where *[insert description of the first location internal to New England Control Area]*. See Appendix A-1, which drawing is attached hereto and made part hereof.

The metering point for the second terminal location shall be located at where *[insert description of the second location internal to New England Control Area or the location external to New England Control Area]*. See Appendix A-2, which drawing is attached hereto and made part hereof.

**d. Interconnection Customer's Interconnection Facilities (including metering equipment).**

List and identify the Interconnection Customer's Interconnection Facilities for each Point of Interconnection (*e.g.*, first, second, etc.)

The Interconnection Customer's Interconnection Facilities for the first terminal location shall include *[insert Interconnection Customer's Interconnection Facilities]*. See Appendix A-1.

The Interconnection Customer's Interconnection Facilities for the second terminal location shall include *[insert Interconnection Customer's Interconnection Facilities for the second terminal location]*. See Appendix A-2.

**e. Interconnecting Transmission Owner's Interconnection Facilities (including metering equipment).**



List and identify the Interconnecting Transmission Owner's Interconnection Facilities for each Point of Interconnection (e.g., first, second, etc.)

The Interconnecting Transmission Owner's Interconnection Facilities for the first terminal location shall include [insert Interconnecting Transmission Owner's Interconnection Facilities, including any Cluster Enabling Transmission Upgrades, for the first terminal location]. See Appendix –1.

The Interconnecting Transmission Owner's Interconnection Facilities for the second terminal location shall include [insert Interconnecting Transmission Owner's Interconnection Facilities for the second terminal location]. See Appendix –2.

## 2. Network Upgrades:

- a. **Stand Alone Network Upgrades.** [insert Stand Alone Network Upgrades associated with the first terminal location]
- b. **Other Network Upgrades.** [insert Other Network Upgrades, including any Cluster Enabling Transmission Upgrades, associated with the first terminal location].
- c. **Stand Alone Network Upgrades.** [insert Stand Alone Network Upgrades associated with the second terminal position if it is internal to the New England Control Area, list all Network Upgrades for terminal locations external to New England Control Area as Affected System Upgrades].
- d. **Other Network Upgrades.** [insert Other Network Upgrades associated with the second terminal position if it is internal to New England Control Area, list all Network Upgrades for terminal locations external to New England Control Area as Affected System Upgrades].

## 3. Distribution Upgrades.

- a. [insert Distribution Upgrades associated with the first terminal position]
- b. [insert Distribution Upgrades associated with the second terminal position if it is internal to New England Control Area, list all Distribution Upgrades for terminal locations external to New England Control Area as Affected System Upgrades]

**4. Affected System Upgrades.**

- a. *[insert Affected System Upgrades associated with the first terminal position]*
- b. *[insert Affected System Upgrades associated with the second terminal position]*

**5. Contingency Upgrades List:**

**a. Long Lead Facility-Related Upgrades.**

The Interconnection Customer's Elective Transmission Upgrade is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the ETU IP. Pursuant to Section 4.1.1 of the ETU IP, the Interconnection Customer shall be responsible for the following upgrades in the event that the Long Lead Facility achieves Commercial Operation and its counterparty obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's associated counterparty's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this ETU IA in accordance with Article 17.1, and the System Operator will initiate all necessary steps to terminate this ETU IA, in accordance with Article 2.3.

- b. Other Contingency Upgrades.** *[e.g., list of upgrades associated with higher queued Interconnection Requests and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Elective Transmission Upgrade]*

- c. Post-Forward Capacity Auction Re-study Upgrade Obligations.** *[insert any change in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation through a Forward Capacity Auction]*

## APPENDIX B TO ETU IA

### Milestones

- 1. Selected Option Pursuant to Article 5.1:** Interconnection Customer selects the *[insert]*. Options as described in Articles 5.1.*[insert]*, 5.1.*[insert]*, and 5.1.*[insert]* shall not apply to this ETU IA.
- 2. Milestones and Other Requirements for all Elective Transmission Upgrades:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the ETU IP and this ETU IA. The referenced section of the ETU IP or article of the ETU IA should be reviewed by each Party to understand the requirements of each milestone.

Item No.	Milestone Description	Responsible Party	Date	ETU IP/ETU IA Reference
1	Provide evidence of continued Site Control to System Operator, or \$250,000 non-refundable deposit to the Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final ETU IA receipt	§ 11.3.1.1 of ETU IP
2	Provide evidence of one or more milestones specified in § 11.3 of ETU IP to the System Operator and to the Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final ETU IA receipt	§ 11.3.1.2 of ETU IP
3	Commit to a schedule for payment of	Interconnection Customer	Within 15 BD of final ETU IA	§ 11.3.1.2 of ETU IP

	upgrades to the Interconnecting Transmission Owner		receipt	
4	Provide either (1) evidence of Major Permits to the System Operator and the Interconnecting Transmission Owner or (2) a refundable deposit to the Interconnecting Transmission Owner	Interconnection Customer	If (1) Within 15 BD of final ETU IA receipt or if (2) At time of ETU IA execution	§ 11.3.1.2 of ETU IP
5	Provide certificate of insurance to each Party	Interconnection Customer and Interconnecting Transmission Owner	Within 10 Calendar Days of execution of ETU IA	§ 18.3.9 of ETU IA
6A	Provide siting process approval schedule for the Elective Transmission Upgrade to System Operator and Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
6B	Provide siting process approval schedule for Interconnection Customer's Interconnection Facilities at the first terminal location to System Operator and	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP

	Interconnecting Transmission Owner			
6C	Provide siting process approval schedule for Interconnection Customer's Interconnection Facilities at the second terminal location to System Operator and Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
7A	Receive Governmental Authority approvals for a the Elective Transmission Upgrade facilities requiring regulatory approval	Interconnection Customer	If needed, as may be agreed to by the Parties	
7B	Receive Governmental Authority approvals for any facilities associated with the first terminal location requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of ETU IA
7C	Receive Governmental Authority approvals for any facilities associated with the second terminal location requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of ETU IA
8A	Obtain necessary real	Interconnection Customer	If needed, as	§ 5.6.2 of

	property rights and rights-of-way associated with the first terminal location for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	and/or Interconnecting Transmission Owner	may be agreed to by the Parties	ETU IA
8B	Obtain necessary real property rights and rights-of-way associated with the second terminal location for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.2 of ETU IA
9A	Provide to Interconnecting Transmission Owner associated with the first terminal position written authorization to proceed with design, equipment procurement	Interconnection Customer	As may be agreed to by the Parties	§ 5.6.3 of ETU IA

	and construction			
9B	Provide to owner associated with the second terminal position written authorization to proceed with design, equipment procurement and construction	Interconnection Customer	As may be agreed to by the Parties	§ 5.6.3 of ETU IA
10	Provide quarterly written progress reports	Interconnection Customer and Interconnecting Transmission Owner	15 Calendar Days after the end of each quarter beginning the quarter that includes earlier of the dates for Milestones 9A or 9B and ending when the entire Elective Transmission Upgrade and all required Interconnection Facilities and Network Upgrades are in place	§ 5.7 of ETU IA
11A	Provision of Security associated with the first terminal position to the	Interconnection Customer	At least 30 Calendar Days prior to design,	§§ 5.5.3 and 5.6.4 of ETU IA

	Interconnecting Transmission Owner pursuant to Section 11.5 of ETU IA		procurement and construction	
11B	Provision of Security associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner pursuant to Section 11.5 of ETU IA	Interconnection Customer	At least 30 Calendar Days prior to design, procurement and construction	§§ 5.5.3 and 5.6.4 of ETU IA
12A	Provision of Security Associated with Tax Liability associated with the first terminal position to Interconnecting Transmission Owner pursuant to Section 5.17.3 of ETU IA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of ETU IA
12B	Provision of Security Associated with Tax Liability associated with the second terminal position, if it is internal to ISO-NE, to Interconnecting Transmission Owner pursuant to Section 5.17.3 of ETU IA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of ETU IA



13A	Commit to the ordering of long lead time material for Interconnection Facilities and Network Upgrades associated with the first terminal position	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
13B	Commit to the ordering of long lead time material for Interconnection Facilities and Network Upgrades associated with the second terminal position, if it is internal to ISO-NE	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
14A	Provide initial design, engineering and specification for the Elective Transmission Upgrade	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
14B	Provide initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to the Interconnecting	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP

	Transmission Owner			
C	Provide initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15A	Provide comments on initial design, engineering and specification for the Elective Transmission Upgrade	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15B	Provide comments on initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15C	Provide comments on initial design, engineering and	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of

	specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE			ETU IP
16A	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to Interconnecting Transmission Owner(s)	Interconnection Customer	90 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
16B	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to Interconnecting Transmission Owner(s)	Interconnection Customer	90 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
16C	Provide final design, engineering and	Interconnection Customer	90 Calendar Days prior to	§ 5.10.1 of ETU IA

	specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner		Trial Operation Date	§ 7.5 of ETU IP
17A	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
17B	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
17C	Provide comments on final design,	Interconnecting Transmission Owner	Within 30 Calendar Days	§ 5.10.1 of ETU IA

	engineering and specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE		of receipt	§ 7.5 of ETU IP
18A	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of ETU IA
18B	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of ETU IA

19A	Provide protective relay settings associated with the first terminal position to the Interconnecting Transmission Owner for coordination and verification	Interconnection Customer	At least 90 Calendar Days prior to Trial Operation Date	§§ 5.10.1 of ETU IA
19B	Provide protective relay settings associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner for coordination and verification	Interconnection Customer	At least 90 Calendar Days prior to Trial Operation Date	§§ 5.10.1 of ETU IA
20A	Commencement of construction of Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner(s)	As may be agreed to by the Parties	§ 5.6 of ETU IA
20B	Commencement of construction of Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE	Interconnecting Transmission Owner(s)	As may be agreed to by the Parties	§ 5.6 of ETU IA
21	Submit up dated data “as purchased”	Interconnection Customer	No later than 180 Calendar	§ 24.3 of ETU IA

			Days prior to Trial Operation Date	
22A	In Service Date of first terminal position	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of ETU IP, § 5.1 of ETU IA
22B	In Service Date of second terminal position	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of ETU IP, § 5.1 of ETU IA
23	Trial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of ETU IP
24A	Submit supplemental and/or updated data – “as built/as-tested” associated with first terminal position	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of ETU IA
24B	Submit supplemental and/or updated data – “as built/as-tested” associated with second terminal position	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of ETU IA
25	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of ETU IP

			modified	
26A	Deliver to Interconnection Customer “as built” drawings, information and documents regarding Interconnecting Transmission Owner’s Interconnection Facilities associated with first terminal position	Interconnecting Transmission Owner	If requested, within 120 Calendar Days after Commercial Operation Date	§ 5.11 of ETU IA
26B	Deliver to Interconnection Customer “as built” drawings, information and documents regarding Interconnecting Transmission Owner’s Interconnection Facilities associated with the second terminal position	Interconnecting Transmission Owner	If requested, within 120 Calendar Days after Commercial Operation Date	§ 5.11 of ETU IA
27A	Provide Interconnection Customer final cost invoices associated with first terminal position	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner	§ 12.2 of ETU IA



			Interconnection Facilities and Network Up grades	
27B	Provide Interconnection Customer final cost invoices associated with the second terminal position, if it is internal to ISO-NE	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner Interconnection Facilities and Network Up grades	§ 12.2 of ETU IA

**3. Milestones Applicable Solely for CNI Interconnection Service and Long Lead Facility**

**Treatment.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNI Interconnection Service and/or Long Lead Facility Treatment:

Item No.	Milestone Description	Responsible Party	Date	ETU IP/ETU IA Reference
1	If Long Lead Facility, all dates by which Critical Path Schedule up grades will be submitted to System Operator (end date for New Capacity Show of Interest Submission)	Interconnection Customer		§ 3.2.3 of ETU IP
2	If Long Lead Facility, dates by which Long Lead Facility Deposits will be provided to System Operator (each	Interconnection Customer		§ 3.2.3 of ETU IP

	deadline for which New Generating Capacity Resource would be required to provide financial assurance under § III.13.1.9 of the Tariff)			
3	If Long Lead Facility, Capacity Commitment Period (not to exceed the Commercial Operation Date)	Interconnection Customer		§ 1 and 3.2 of ETU IP
4	Counterparty to submit necessary requests for participation in the Forward Capacity Auction associated with the Elective Transmission Upgrade's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of ETU IP
5	Participate in a CNR Group Study	Interconnection Customer		§ 3.2.1.3 of ETU IP
6	Counterparty to qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of ETU IP
7	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer's counterparty received a Capacity Supply Obligation	System Operator		§ 3.2.1.3 of ETU IP

## **APPENDIX C TO ETU IA**

### **Interconnection Details**

#### **1. Description of Interconnection:**

This Interconnection Agreement is for an *(insert either Internal ETU or External ETU description from Article 1 of Appendix I)*

The ETU consists of *(insert description from Article 2 of Appendix I)*:

The External Elective Transmission Upgrade that is controllable Merchant Transmission Facility or Other Transmission Facility shall receive *(enter N/A for other ETUs)*:

Network Import Interconnection Service solely for the NI Capability of *[insert amount]* MWs.

Capacity Network Import Interconnection Service for: (i) the NI Capability of *[insert amount]* MWs; and (ii) the CNI Capability of *[insert amount]* MWs.

#### **2. Detailed Description of the Elective Transmission Upgrade:**

*[Insert any other description relating to the Elective Transmission Upgrade, including updates to all the technical data included on Attachment A to Appendix I.]*

#### **3. Other Description of Interconnection Plan and Facilities associated with the Elective Transmission Upgrade:**

**4. Other Description of Interconnection Plan and Facilities associated with the first interconnection location:**

**5. Other Description of Interconnection Plan and Facilities associated with the second interconnection location:**

## **APPENDIX D TO ETU IA**

### **Security Arrangements Details**

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New England Transmission System reliability and operational security. The Commission will expect System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the Critical Infrastructure Protection Committee and, eventually, best practice recommendations from NERC. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

**APPENDIX E TO ETU IA**  
**Commercial Operation Date**

This Appendix E is a part of the ETU IA between System Operator Interconnecting, Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]  
[to be supplied]

Transmission Strategy & Services  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Elective Transmission Upgrade

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of [Elective Transmission Upgrade]. This letter confirms that [Interconnection Customer] commenced commercial operation of [Elective Transmission Upgrade], effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **APPENDIX F TO ETU IA**

### **Addresses for Delivery of Notices and Billings Notices:**

System Operator:

Transmission Strategy & Services  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

### **Billings and Payments:**

System Operator:

Transmission Strategy & Services  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:  
*[To be supplied.]*

Interconnection Customer:  
*[To be supplied.]*

**Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

System Operator:  
Facsimile: (413) 540-4203  
E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

With copy to:  
Facsimile: (413) 535-4024  
E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

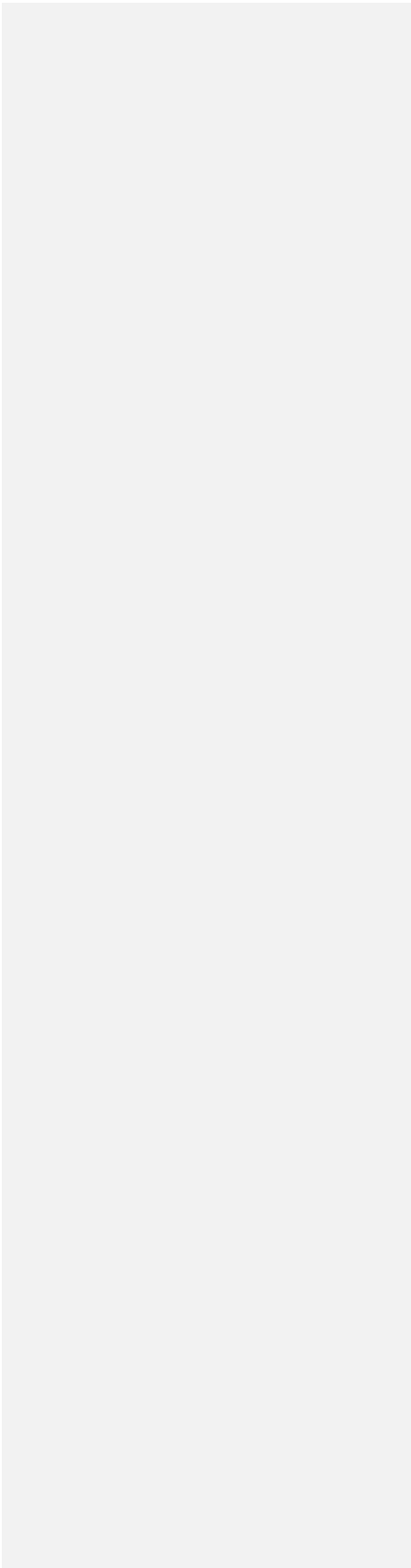
Interconnecting Transmission Owner:  
*[To be supplied.]*

Interconnection Customer:  
*[To be supplied.]*

DUNS Numbers:  
Interconnection Customer: [To be supplied]



Interconnecting Transmission Owner: [To be supplied]



**ATTACHMENT K**  
**REGIONAL SYSTEM PLANNING PROCESS**

**TABLE OF CONTENTS**

1. Overview
  - 1.1 Enrollment
  - 1.2 A List of Entities Enrolled in the Planning Region
2. Planning Advisory Committee
  - 2.1 Establishment
  - 2.2 Role of Planning Advisory Committee
  - 2.3 Membership
  - 2.4 Procedures
    - (a) Notice of Meetings
    - (b) Frequency of Meetings
    - (c) Availability of Meeting Materials
    - (d) Access to Planning-Related Materials that Contain CEII
  - 2.5 Local System Planning Process
3. RSP: Principles, Scope, and Contents
  - 3.1 Description of RSP
  - 3.2 Baseline of RSP
  - 3.3 RSP Planning Horizon and Parameters
  - 3.4 Other RSP Principles
  - 3.5 Market Responses in RSP
  - 3.6 The RSP Project List
    - (a) Elements of the Project List
    - (b) Periodic Updating of RSP Project List
    - (c) Project List Updating Procedures and Criteria
    - (d) Posting of LSP Project Status

4. Procedures for the Conduct of Needs Assessments, Treatment of Market Responses and Evaluation of Proposed Solutions
  - 4.1 Non-Applicability of Section 4.1 through 4.3: Needs Assessments
    - (a) Triggers for Needs Assessments
    - (b) Requests by Stakeholders for Needs Assessments for Economic Considerations
    - (c) Conduct of a Needs Assessment for Rejected De-List Bids
    - (d) Notice of Initiation of Needs Assessments
    - (e) Preparation of Needs Assessments
    - (f) Treatment of Market Solutions in Needs Assessment
    - (g) Needs Assessment Support
    - (h) Input from the Planning Advisory Committee
    - (i) Publication of Needs Assessment and Response Thereto
    - (j) Requirements for Use of Solution Studies Rather than Competitive Process for Projects Based on Year of Need
  - 4.2 Evaluation of Regulated Transmission Solutions in Solutions Studies, Where Competitive Solution Process of Section 4.3 Is Not Applicable
    - (a) Evaluation and Development of Regulated Transmission Solutions in Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades
    - (b) Notice of Initiation of a Solutions Study
    - (c) Classification of Regulated Transmission Solutions as Market Efficiency Transmission Upgrades or Reliability Transmission Upgrades
    - (d) Identification of the Preferred Solution and Inclusion of Results of Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades in the RSP
  - 4.3 Competitive Solution Process for Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades
    - (a) Preliminary Solicitation of Alternatives
    - (b) Public Notice Initiating Competitive Solution Process
    - (b) Use and Control of Right of Way
    - (c) Information Required for Phase One Proposals; Study Deposit; Timing
    - (d) LSP Coordination

- (e) Preliminary Review by the ISO
  - (f) Proposal Deficiencies: Further Information
  - (g) Listing of Qualifying Phase One Proposals
  - (h) Information Required for Phase Two Solutions;  
Identification and Reporting of Preliminary Preferred Phase Two Solution
  - (i) Reimbursement of Phase Two Solution Costs; Collection and Refund of ISO  
Study Costs
  - (j) Inclusion of Preferred Phase Two Solution in RSP and/or RSP Project List
  - (k) Milestone Schedules
- 4A. Public Policy Transmission Studies; Public Policy Transmission Upgrades
- 4A.1 NESCOE Requests for Public Policy Transmission Studies
- 4A.1.1 Study of Federal Public Policy Requirements Not Identified by NESCOE; Local  
Public Policy Requirements
- 4A.2 Preparation for Conduct of Public Policy Transmission Studies; Stakeholder  
Input
- 4A.3 Public Policy Transmission Studies; Stakeholder Input
- (a) Conduct of Public Policy Transmission Studies; Stakeholder Input
  - (b) Treatment of Market Solutions in Public Policy Transmission Studies
- 4A.4 Response to Public Policy Transmission Studies
- 4A.5 Stage One Proposals
- (a) Information Required for Stage One Proposals
  - (b) LSP Coordination
  - (c) Preliminary Review by ISO
  - (d) Proposal Deficiencies; Further Information
  - (e) List of Qualifying Stage One Proposals; NESCOE Response
- 4A.6 Reimbursement of Stage One Proposal and Stage Two Solution Costs; Collection and  
Refund of ISO Study Costs
- 4A.7 Information Required for Stage Two Solutions; Identification and Reporting of  
Preliminary Preferred Stage Two Solution
- 4A.8 Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP  
Project List; Milestone Schedules; Removal From RSP Project List

- (a) Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List
  - (b) Milestone Schedules
  - (c) Removal from RSP Project List
- 4A.9 Local Public Policy Transmission Upgrades
- 4B. Qualified Transmission Project Sponsors
  - 4B.1 Periodic Evaluation of Applications
  - 4B.2 Information To Be Submitted
  - 4B.3 Review of Qualifications
  - 4B.4 List of Qualified Transmission Project Sponsors; Annual Certification
- 5. Supply of Information and Data Required for Regional System Planning
- 6. Regional, Local and Interregional Coordination
  - 6.1 Regional Coordination
  - 6.2 Local Coordination
  - 6.3 Interregional Coordination
- 7. Procedures for Development and Approval of the RSP
  - 7.1 Initiation of RSP
  - 7.2 Draft RSP; Public Meeting
  - 7.3 Action by the ISO Board of Directors on RSP; Request for Alternative Proposals
    - (a) Action by ISO Board of Directors on RSP
    - (b) Requests for Alternative Proposals
- 8. Obligations of PTOs to Build; PTOs' Obligations, Conditions and Rights
- 9. Merchant Transmission Facilities
  - 9.1 General
  - 9.2 Operation and Integration
  - 9.3 Control and Coordination

10. Cost Responsibility for Transmission Upgrades
11. Allocation of ARR's
12. Dispute Resolution Procedures
  - 12.1 Objective
  - 12.2 Confidential Information and CEII Protections
  - 12.3. Eligible Parties
  - 12.4 Scope
    - (a) Reviewable Determinations
    - (b) Material Adverse Impact
  - 12.5 Notice and Comment
  - 12.6 Dispute Resolution Procedures
    - (a) Resolution Through the Planning Advisory Committee
    - (b) Resolution Through Informal Negotiations
    - (c) Resolution Through Alternative Dispute Resolution
  - 12.7 Notice of Dispute Resolution Process Results
13. Rights Under The Federal Power Act
14. Annual Assessment of Transmission Transfer Capability
15. Procedures for the Conduct of Cluster Enabling Transmission Upgrades Regional Planning Study

APPENDIX 1 – ATTACHMENT K – LOCAL: LOCAL SYSTEM PLANNING PROCESS

APPENDIX 2 – LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION

APPENDIX 3 – LIST OF QUALIFIED TRANSMISSION PROJECT SPONSORS

## **1. Overview**

This Attachment describes the regional system planning process conducted by the ISO, as well as the coordination with transmission-owning entities in, or other entities interconnected to, the New England Transmission System and neighboring systems to ensure the reliability of the New England Transmission System and compliance with national and regional planning standards, criteria and procedures, while accounting for market performance, economic, environmental, and other considerations, as may be agreed upon from time to time. The New England Transmission System is comprised of PTF, Non-PTF, OTF and MTF within the New England Control Area that is under the ISO's operational authority or control pursuant to the ISO Tariff and/or various transmission operating agreements. This Attachment describes the regional system planning process for the PTF conducted by the ISO, and local system planning process conducted by the PTOs, pursuant to their responsibilities defined in the Tariff, the various transmission operating agreements and this Attachment. Additional details regarding the regional system planning process are also provided in the ISO New England Planning Procedures and ISO New England Operating Procedures, which are available on the ISO's website.

The ISO shall conduct the regional system planning process for the PTF in coordination with the transmission-owning entities in, or other entities interconnected to, the New England Transmission System and neighboring systems, consistent with the rights and obligations defined in the Tariff, applicable transmission operating agreements and this Attachment. As described in this Attachment's Section 6 and Appendix 1, entitled "Attachment K -Local System Planning Process", the PTOs are responsible for the Local System Planning ("LSP") process for the Non-PTF in the New England Transmission System. As also described in Section 6, and pursuant to the Tariff and/or transmission operating agreements, the OTOs and MTOs are required to participate in the ISO's regional system planning process for reliability purposes and to perform and/or support studies of the impact of regional system planning projects on their respective OTF and MTF.

The regional system planning process described in this Attachment provides for the ISO to undertake assessments of the needs of the PTF system on a systemwide or specific area basis. These assessments shall be referred to as Needs Assessments, as described in Section 4.1 of this Attachment. The ISO shall incorporate market responses that have met the criteria specified in Section 4.1(f) of this Attachment into the Needs Assessments, Public Policy Transmission Studies or the Regional System Plan ("RSP"),

described below. Where market responses incorporated into the Needs Assessments or Public Policy Transmission Studies do not eliminate or address the needs identified by the ISO in Needs Assessments, Public Policy Transmission Studies or the RSP, the ISO shall develop or evaluate, pursuant to Sections 4.2(b) or 4.3 of this Attachment, as applicable, regulated transmission solutions proposed in response to the needs identified by the ISO.

Pursuant to Sections 3 and 7 of this Attachment, the ISO shall develop the RSP for approval by the ISO Board of Directors following stakeholder input through the Planning Advisory Committee established pursuant to Section 2 of this Attachment. The RSP is a compilation of the regional system planning process activities conducted by the ISO. The RSP shall address needs of the PTF system determined by the ISO through Needs Assessments initiated and updated on an ongoing basis by the ISO to: (i) account for changes in the PTF system conditions; (ii) ensure reliability of the PTF system; (iii) comply with national and regional planning standards, criteria and procedures; and (iv) account for market performance, economic, environmental and other considerations as may be agreed upon from time to time.

As more fully described in Section 3 of this Attachment, the RSP shall identify:

- (i) PTF system reliability and market efficiency needs,
- (ii) the requirements and characteristics of the types of resources that may satisfy PTF system reliability and market efficiency needs to provide stakeholders an opportunity to develop and propose efficient market responses to meet the needs identified in Needs Assessments;
- (iii) regulated transmission solutions to meet the needs identified in Needs Assessments where market responses do not address such needs or additional transmission infrastructure may be required to comply with national and regional planning standards, criteria and procedures or provide market efficiency benefits in accordance with Attachment N of this OATT; and
- (iv) those projects identified through the procedures described in Section 4A of this Attachment K.



In addition, the RSP shall also provide information on a broad variety of power system requirements that serves as input for reviewing the design of the markets and the overall economic performance of the system. The RSP shall also describe the coordination of the ISO's regional system plans with regional, local and inter-area planning activities.

Pursuant to Section 3.6 of this Attachment, the ISO shall also develop, maintain and post on its website a cumulative list reflecting the regulated transmission solutions proposed in response to Needs Assessments (the "RSP Project List"). The RSP Project List shall be a cumulative representation of the regional transmission planning expansion efforts ongoing in New England.

### **1.1 Enrollment**

For purposes of participating as a transmission provider in the New England transmission planning region pursuant to this Attachment K, and distinct from Transmission Providers as defined in Section I of this Tariff, an entity chooses to enroll by executing (or having already executed) a: (i) transmission operating agreement with the ISO, or (ii) a Market Participant Service Agreement coupled with a written notification to the ISO that the entity desires to be a transmission provider in the New England region. Such enrollment in the transmission planning region is not necessary to participate in the Planning Advisory Committee, which is open to any entity as described in Section 2.3 of this Attachment K.

### **1.2 A List of Entities Enrolled in the Planning Region**

A list of entities enrolled in the transmission planning region as transmission providers as described in Section 1.1. above, is included as Appendix 2 of this Attachment K.

## **2. Planning Advisory Committee**

### **2.1 Establishment**

A Planning Advisory Committee shall be established by the ISO to perform the functions set forth in Section 2.2 of this Attachment. It shall have a Chair and Secretary, who shall be appointed by the chief executive officer of the ISO or his or her designee. Before appointing an individual to the position of the Chair or Secretary, the ISO shall notify the Planning Advisory Committee of the proposed assignment and, consistent with its personnel practices, provide any other information about the individual reasonably requested by the Planning Advisory Committee. The chief executive officer of the ISO or his or her designee shall consider the input of the members of the Planning Advisory Committee in selecting

removing or replacing such officers. The Planning Advisory Committee shall be advisory only and shall have no formal voting protocol.

The ISO may form subcommittees that, at the discretion of the ISO, may report to the Planning Advisory Committee.

## **2.2 Role of Planning Advisory Committee**

The Planning Advisory Committee may provide input and feedback to the ISO concerning the regional system planning process, including the development of and review of Needs Assessments, the conduct of Solutions Studies, the development of the RSP, and updates to the RSP Project List. Specifically, the Planning Advisory Committee serves to review and provide input and comment on: (i) the development of the RSP, (ii) assumptions for studies, (iii) the results of Needs Assessments, Solutions Studies, and competitive solutions developed pursuant to Section 4.3 of this Attachment, ~~and~~ (iv) potential market responses to the needs identified by the ISO in a Needs Assessment or the RSP, and (v) Cluster Enabling Transmission Upgrades Regional Planning Studies. The Planning Advisory Committee, with the assistance of and in coordination with the ISO, serves also to identify and prioritize requests for Economic Studies to be performed by the ISO, and provides input and feedback to the ISO concerning the conduct of Economic Studies and Public Policy Transmission Studies, including the criteria and assumptions for such studies. Based on input and feedback related to the regional system planning process provided by the Planning Advisory Committee to the ISO, the ISO shall consult with the appropriate NEPOOL technical committees, including but not limited to, the Markets, Reliability and Transmission Committees, on issues and concerns identified by the Planning Advisory Committee as requiring further investigation and consideration of potential changes to ISO New England Operating Documents.

## **2.3 Membership**

Any entity, including State regulators or agencies and NESCOE, as specified in Attachment N of the OATT, may designate a member to the Planning Advisory Committee by providing written notice to the Secretary of that Committee identifying the name of the entity represented by the member and the member's name, address, telephone number, facsimile number and electronic mail address. The entity may remove or replace such member at any time by written notice to the Secretary of the Planning Advisory Committee.

## **2.4 Procedures**

### **(a) Notice of Meetings**

Prior to the beginning of each year, the ISO shall list on the ISO Calendar, which is available on the ISO's website, the proposed meeting dates for the Planning Advisory Committee for each month of the year. Prior to a Planning Advisory Committee meeting, the ISO shall provide notice to the Planning Advisory Committee by electronic email with the date, time, format for the meeting (i.e., in person or teleconference), and the purpose for the meeting.

### **(b) Frequency of Meetings**

Meetings of the Planning Advisory Committee shall be held as frequently as necessary to serve the purposes stated in Section 2.2 of this Attachment and as further specified elsewhere in this Attachment, generally expected to be no less than four (4) times per year.

### **(c) Availability of Meeting Materials**

The ISO shall post materials for Planning Advisory Committee meetings on the Planning Advisory Committee section on the ISO's website prior to meetings. The materials for the Planning Advisory Committee meetings shall be made available to the members of the Planning Advisory Committee subject to protections warranted by confidentiality requirements of the ISO New England Information Policy set forth in Attachment D of the ISO Tariff and Critical Energy Infrastructure Information ("CEII") policy as further described in Section 2.4(d) of this Attachment.

### **(d) Access to Planning-Related Materials that Contain CEII**

CEII is defined as specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure (physical or virtual) that:

- (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
- (ii) Could be useful to a person in planning an attack on critical infrastructure;

- (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
- (iv) Does not simply give the location of critical infrastructure.

CEII pertains to existing and proposed system and assets, whether physical or virtual, the incapacity or destruction of which would negatively affect security, economic security, public health or safety, or any combination of those matters. CEII does not include information that is otherwise publicly available. Simplified maps and general information on engineering, vulnerability, or design that relate to production, generation, transportation, transmission or distribution of energy shall not constitute CEII.

Planning-related materials determined to be CEII will be posted on the ISO's password-protected website. To obtain access to planning-related materials determined to be CEII, the entity seeking to obtain such access must contact the ISO's Customer Service department. Authorized Market Participants or their representatives, such as consultants, are bound by the ISO New England Information Policy and will be able to access CEII materials through the ISO's password-protected website. State and federal governmental agency employees and their consultants will be able to access such materials through the ISO's password-protected website upon submittal of a signed non-disclosure agreement, which is available on the ISO's website. Personnel of the ERO, NPCC, other regional transmission organizations or independent system operators, and transmission owners from neighboring regions will be able to access CEII materials pursuant to governing agreements, rules and protocols. All external requests by other persons for planning-related materials determined to be CEII shall be recorded and tracked by ISO's Customer Services staff. Such requestors will be able to obtain access to CEII documents filed with the Commission pursuant to the Commission's regulations governing access to CEII. To the extent a requestor seeks access to planning-related material that is not filed with the Commission, such requestor shall comply with the requirements provided in the CEII procedures of the ISO, available on the ISO's website, prior to receiving access to CEII information. Upon compliance with the ISO's CEII procedures, the ISO shall grant the requestor access to the planning-related CEII document through direct distribution or access to the ISO password-protected website.

## **2.5 Local System Planning Process**

The LSP process described in Appendix 1 to this Attachment applies to the transmission system planning for the Non-PTF in the New England Transmission System. The PTOs will utilize interested members of the Planning Advisory Committee for advisory stakeholder input in the LSP process that will meet, as needed, at the conclusion of, or independent of, scheduled Planning Advisory Committee meetings. The LSP meeting agenda and meeting materials will be developed by representatives of the pertinent PTOs and PTO representatives will chair the LSP meeting. The ISO will post the LSP agenda and materials for LSP.

## **3. RSP: Principles, Scope, and Contents**

### **3.1 Description of RSP**

The ISO shall develop the RSP based on periodic comprehensive assessments (conducted not less than every third year) of the PTF systemwide needs to maintain the reliability of the New England Transmission System while accounting for market efficiency, economic, environmental, and other considerations, as agreed upon from time to time. The ISO shall update the RSP to reflect the results of ongoing Needs Assessments conducted pursuant to Section 4.1 of this Attachment. The RSP shall also account for projected improvements to the PTF that are needed to maintain system reliability in accordance with national and regional standards and the operation of efficient markets under a set of planning assumptions.

The RSP shall, among other things:

- (i) describe, in a consolidated manner, the assessment of the PTF system needs, the results of such assessments, and the projected improvements;
- (ii) provide the projected annual and peak demands for electric energy for a five-to ten-year horizon, the needs for resources over this period and how such resources are expected to be provided;
- (iii) specify the physical characteristics of the physical solutions that can meet the needs defined in the Needs Assessments and include information on market responses that can address them; and

- (iv) provide sufficient information to allow Market Participants to assess the quantity, general locations, operating characteristics and required availability criteria of the type of incremental supply or demand-side resources, or merchant transmission projects, that would satisfy the identified needs or that may serve to modify, offset or defer proposed regulated transmission upgrades.

The RSP shall also include a description of proposed regulated transmission solutions that, based on the Solutions Studies described in Section 4.2 of this Attachment and the competitive solution process described in Section 4.3 of this Attachment, may meet the needs identified in the Needs Assessments. To this end, as further described in Section 3.6 below, the ISO shall develop and maintain a RSP Project List, a cumulative listing of proposed regulated transmission solutions classified, to the extent known, as Reliability Transmission Upgrades, Market Efficiency Transmission Upgrades, and Public Policy Transmission Upgrades (which, for the foregoing types of upgrades, may include the portions of Interregional Transmission Projects located within the New England Control Area) and of External Transmission Projects. The RSP shall also provide reasons for any new regulated transmission solutions or Transmission Upgrades included in the RSP Project List, any change in status of a regulated transmission solution or Transmission Upgrade in the RSP Project List, or for any removal of regulated transmission solutions or Transmission Upgrades from the RSP Project List that are known as of that time.

Each RSP shall be built upon the previous RSP.

### **3.2 Baseline of RSP**

The RSP shall account for: (i) all projects that have met milestones, including market responses and regulated transmission solutions (e.g., planned demand-side projects, generation and transmission projects and Elective Transmission Upgrades) as determined by the ISO, in collaboration with the Planning Advisory Committee, pursuant to Sections 4.1, 4.2 and 4.3 of this Attachment; and (ii) the requirements for system operation and restoration services, not including the development of a system operations or restoration plan, which is outside the scope of the regional system planning process.

### **3.3 RSP Planning Horizon and Parameters**

The RSP shall be based on a five-to ten-year planning horizon, and reflect five-to ten-year capacity and load forecasts.

The RSP shall conform to: Good Utility Practice; applicable Commission compliance requirements related to the regional system planning process; applicable reliability principles, guidelines, criteria, rules, procedures and standards of the ERO, NPCC, and any of their successors; planning criteria adopted and/or developed by the ISO; Transmission Owner criteria, rules, standards, guides and policies developed by the Transmission Owner for its facilities consistent with the ISO planning criteria, the applicable criteria of the ERO and NPCC; local transmission planning criteria; and the ISO New England Planning Procedures and ISO New England Operating Procedures, as they may be amended from time to time (collectively, the “Planning and Reliability Criteria”).

The revisions to this Attachment K submitted to comply with FERC’s Order No. 1000 shall not apply to any Proposed or Planned project included in an RSP approved by the ISO Board of Directors (or in an RSP Project List update) prior to the effective date of the Order No. 1000 compliance filing of the ISO and the PTOs, unless the ISO is re-evaluating the solution design for such project as of that effective date, or subsequently determines that the solution design for such project requires re-evaluation.

### **3.4 Other RSP Principles**

The RSP shall be designed and implemented to: (i) avoid unnecessary duplication of facilities; (ii) identify facilities that are necessary to meet Planning and Reliability Criteria; (iii) avoid the imposition of unreasonable costs upon any Transmission Owner, Transmission Customer or other user of a transmission facility; (iv) take into account the legal and contractual rights and obligations of the Transmission Owners and the transmission-related legal and contractual rights and obligations of any other entity; (v) provide for coordination with existing transmission systems and with appropriate inter-area and local expansion plans; and (vi) properly coordinate with market responses, including, but not limited to generation, merchant transmission and demand-side responses.

### **3.5 Market Responses in RSP**

Market responses shall include investments in resources (e.g., demand-side projects, generation and distributed generation) and Elective Transmission Upgrades and shall be evaluated by the ISO, in consultation with the Planning Advisory Committee, pursuant to Sections 4.1(f) and 7 of this Attachment.

In developing the RSP, the ISO shall account for market responses: (i) proposed by Market Participants as addressing needs (and any critical time constraints for addressing such needs) identified in an RSP, Needs Assessment, or Public Policy Transmission Study; and (ii) that have proved to be viable by meeting the criteria specified in Section 4.1(f) or 4A.3(b) of this Attachment, as applicable.

Specifically, market responses that are identified to the ISO and are determined by the ISO, in consultation with the Planning Advisory Committee, to be sufficient to alleviate the need for a particular regulated transmission solution or Transmission Upgrade, based on the criteria specified in the pertinent Needs Assessment or RSP, and are judged by the ISO to be achievable within the required time period, shall be reflected in the next RSP and/or in a new or updated Needs Assessment. That particular regulated transmission solution or Transmission Upgrade may continue to be included in the appropriate category on the RSP Project List (as described in Section 3.6 below), subject to the ISO having the flexibility to indicate that the project should proceed at a later date or it may be removed if it is determined to be no longer needed. If the market response does not fully address the defined needs, or if additional transmission infrastructure is required to facilitate the efficient operation of the market, the RSP shall also include that particular regulated transmission solution or Transmission Upgrade, subject to the ISO having the flexibility to indicate that the Transmission Upgrade or regulated transmission solution should proceed at a later date and be modified, if necessary.

### **3.6 The RSP Project List**

#### **(a) Elements of the RSP Project List**

The RSP Project List shall identify regulated transmission solutions proposed in response to the needs identified in a RSP or Needs Assessments conducted pursuant to Section 4.1 of this Attachment, and shall identify Public Policy Transmission Upgrades identified pursuant to Section 4A of this Attachment. The RSP Project List shall identify the proposed regulated transmission solutions separately as a Reliability Transmission Upgrade, a Market Efficiency Transmission Upgrade, or a Public Policy Transmission Upgrade.



With regard to Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, the following subcategories will be utilized to indicate the status of each proposed regulated transmission solution in the evaluation process. These subcategories include: (i) Concept; (ii) Proposed; (iii) Planned; (iv) Under Construction; and (v) In-Service. A Public Policy Transmission Upgrade will be identified in the RSP Project List as (i) Proposed; (ii) Planned; (iii) Under Construction; or (iv) In-Service.

The regulated transmission solution subcategories are defined as follows:

- (i) For purposes of Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, “Concept” shall include a transmission project that is being considered by its proponent as a potential solution to meet a need identified by the ISO in a Needs Assessment or the RSP, but for which there is little or no analysis available to support the transmission project.
- (ii) For purposes of Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, “Proposed” shall include a regulated transmission solution that (a) has been proposed in response to a specific need identified by the ISO in a Needs Assessment or the RSP and (b) has been evaluated or further defined and developed in a Solutions Study, as specified in Section 4.2(a) of this Attachment, or in the competitive solutions process specified in Section 4.3 of this Attachment, such that there is significant analysis that supports a determination by the ISO, as communicated to the Planning Advisory Committee, that the proposed regulated transmission solution would likely meet the need identified by the ISO in a Needs Assessment or the RSP, but has not received approval by the ISO under Section I.3.9 of the Tariff.

For purposes of Public Policy Transmission Upgrades, “Proposed” means that the ISO has included the project in the RSP Project List pursuant to the procedures described in Section 4A of this Attachment K, but that the project has not yet been approved by the ISO under Section I.3.9 of the Tariff.

(iii) “Planned” shall include a Transmission Upgrade that has met the requirements for a Proposed project and has been approved by the ISO under Section I.3.9 of the Tariff.

(iv) “Under Construction” shall include a Transmission Upgrade that has received the approvals required under the Tariff and engineering and construction is underway.

(v) “In Service” shall include a Transmission Upgrade that has been placed in commercial operation.

The RSP Project List shall also list External Transmission Projects for which cost allocation and, if applicable, operating agreements have been accepted by the Commission, and indicate whether such External Transmission Projects are proposed, under construction or in service.

Each Reliability Transmission Upgrade and Market Efficiency Transmission Upgrade shall be cross-referenced to the specific systemwide or area needs identified in a Needs Assessment or RSP. Each proposed Public Policy Transmission Upgrade shall be cross-referenced in the RSP Project List to a specific Public Policy Transmission Study.

For completeness, the RSP Project List shall also include Elective Transmission Upgrades and transmission facilities (as determined under the ISO interconnection process specified in this OATT) to be built to accommodate new generation, and Elective Transmission Upgrades that have satisfied the requirements of this OATT.

An Interregional Transmission Project developed pursuant to Section 6.3 of this Attachment K may displace a regional Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade on the RSP Project List where the ISO has determined that the Interregional Transmission Project is a more efficient or cost-effective solution. In the case of an Interregional Transmission Project that could meet the needs met by a Public Policy Transmission Upgrade, the associated Public Policy Transmission Upgrade may be removed from the RSP Project List in the circumstances described, and using the procedures specified, in Section 4A of Attachment K.

**(b) Periodic Updating of RSP Project List**

The RSP Project List will be updated by the ISO periodically by adding, removing or revising regulated transmission solutions or Transmission Upgrades in consultation with the Planning Advisory Committee and, as appropriate, the Reliability Committee.

Updating of the RSP Project List shall be considered an update of the RSP to be reflected in the next RSP, as appropriate, pursuant to Section 3.1 of this Attachment.

**(c) RSP Project List Updating Procedures and Criteria**

As part of the periodic updating of the RSP Project List, the ISO: (i) shall modify (in accordance with the provisions of this Attachment) regulated transmission solutions or Transmission Upgrades to reflect changes to the PTF system configurations, including ongoing investments by Market Participants or other stakeholders; (ii) may add to and classify accordingly, regulated transmission solutions; (iii) may remove from the RSP Project List regulated transmission solutions or Transmission Upgrades previously identified in the RSP Project List if the ISO determines that the need for the proposed regulated transmission solution or the approved Transmission Upgrade no longer exists or is no longer feasible; and (iv) may remove from the RSP Project List regulated transmission solutions or Transmission Upgrades that have been displaced by an Interregional Transmission Project in the circumstances described in Section 3.6(a) of this Attachment. With regard to (iii) above, this may include a removal of a regulated transmission solution or Transmission Upgrade because a market response meeting the need reaches the maturity specified in Section 4.1(f) of this Attachment and has been determined, pursuant to Section 4.1(f) of this Attachment, to meet the need described in the pertinent Needs Assessment, Public Policy Transmission Study or RSP, as applicable. In doing so, the ISO shall consult with and consider the input from the Planning Advisory Committee and, as appropriate, the Reliability Committee. In addition, the ISO shall remove from the RSP Project List any Public Policy Transmission Upgrade if the ISO determines, with input from the Planning Advisory Committee, that the need to which the Public Policy Transmission Upgrade responds no longer exists.

If a regulated transmission solution or Transmission Upgrade is removed from the RSP Project List by the ISO, the entity responsible for the construction of the regulated transmission solution or Transmission Upgrade shall be reimbursed for any costs prudently incurred or prudently committed to be incurred (plus a reasonable return on investment at existing Commission-approved ROE levels) in connection with the planning, designing, engineering, siting, permitting, procuring and other preparation for construction, and/or construction of the regulated transmission solution or Transmission Upgrade proposed for removal from the RSP Project List. The provisions of Schedule 12 of this OATT shall apply to any cost reimbursement under this Section. Prior to finalizing the RSP, the ISO shall provide the Planning Advisory Committee with written information explaining the reasons for any removal under this Section.

**(d) Posting of LSP Project Status**

Each PTO will be individually responsible for publicly posting and updating the status of its respective LSP and the transmission projects arising therefrom on its company website. The ISO's posting of the RSP Project Lists will include links to each PTO's specific LSP posting to be provided to the ISO by the PTOs.

**4. Procedures for the Conduct of Needs Assessments, Treatment of Market Responses and Evaluation of Regulated Transmission Solutions**

**4.1 Non-Applicability of Sections 4.1 through 4.3; Needs Assessments**

The reliability planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a reliability need. The market efficiency planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a market efficiency need. The public policy planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a public policy need. For needs identified initially as reliability, market efficiency or public policy needs, the collateral benefits of potential solutions to those needs shall not change the planning process applicable to those identified needs; notwithstanding the foregoing, the ISO shall report its views as to whether a project or preferred solution may also satisfy identified reliability needs of the system as described in Sections 4A.5(e) or 4A.7, respectively, of this Attachment K. Sections 4.1 through 4.3 of this Attachment are not applicable to the planning of Public Policy Transmission Upgrades, which is governed instead by Section 4A of this Attachment.

On a regular and ongoing basis, the ISO, in coordination with the PTOs and the Planning Advisory Committee, shall conduct assessments (i.e., Needs Assessments) of the adequacy of the PTF system, as a whole or in part, to maintain the reliability of such facilities while promoting the operation of efficient wholesale electric markets in New England. A Needs Assessment shall analyze whether the PTF in the New England Transmission System: (i) meet applicable reliability standards; (ii) have adequate transfer capability to support local, regional, and inter-regional reliability; (iii) support the efficient operation of the wholesale electric markets; (iv) are sufficient to integrate new resources and loads on an aggregate or regional basis; or (v) otherwise examine various aspects of its performance and capability. A Needs Assessment shall also identify: (i) the location and nature of any potential problems with respect to the PTF and (ii) situations that significantly affect the reliable and efficient operation of the PTF along with any critical time constraints for addressing the needs of the PTF to facilitate the development of market responses and to initiate the pursuit of regulated transmission solutions.

**(a) Triggers for Needs Assessments**

The ISO, in coordination with the PTOs and the Planning Advisory Committee, shall perform Needs Assessments, inter alia, if:

- (i) a need for additional transfer capability is identified by the ISO in its ongoing evaluation of the PTF's adequacy and performance;
- (ii) a need for additional transfer capability is identified as a result of an ERO and/or NPCC reliability assessment or more stringent publicly available local reliability criteria, if any;
- (iii) constraints or available transfer capability limitations that are identified possibly as a result of generation additions or retirements, evaluation of load forecasts or proposals for the addition of transmission facilities in the New England Control Area;
- (iv) as requested by a stakeholder pursuant to the provisions of Section 4.1(b) of this Attachment; or
- (v) as otherwise deemed appropriate by the ISO as warranting such an assessment.

**(b) Requests by Stakeholders for Needs Assessments for Economic Considerations**

The ISO's stakeholders may request the ISO to initiate a Needs Assessment to examine situations where potential regulated transmission solutions or market responses or investments could result in (i) a net reduction in total production cost to supply system load based on the factors specified in Attachment N of this OATT, (ii) reduced congestion, or (iii) the integration of new resources and/or loads on an aggregate or regional basis (an "Economic Study").

Requests for Economic Studies shall be submitted, considered and prioritized as follows:

- (i) By no later than April 1 of each year, any stakeholder may submit to the ISO for public posting on the ISO's website a request for an Economic Study.
- (ii) The ISO shall thereafter add any of its own proposals for Economic Studies. The ISO shall also develop a rough work scope and cost estimate for all requested Economic Studies, and develop preliminary prioritization based on the ISO's perceived regional and/or, as coordinated with the applicable neighboring system, inter-area benefits to assist stakeholders in the prioritization of Economic Studies.
- (iii) By no later than May 1 of each year, the ISO shall provide the foregoing information to the Planning Advisory Committee, and a Planning Advisory Committee meeting shall be held at which Economic Study proponents will provide an explanation of their request.
- (iv) By no later than June 1 of each year, the ISO shall hold a meeting of the Planning Advisory Committee for the members of the Planning Advisory Committee to discuss, identify and prioritize, as further facilitated by the ISO's preparation of a straw priority list to be further discussed at such meeting, up to two (2) Economic Studies (the costs of which will be recovered by the ISO pursuant to Section IV.A of the Tariff) to be performed by the ISO in a given year taking into consideration their impact on the ISO budget and other priorities. The ISO may consider performing up to three (3) Economic Studies if a Public Policy Transmission Study will not be concurrently performed.

- (v) The ISO and the Planning Advisory Committee may agree to hold additional meetings to further discuss and resolve any issue concerning the substance of the Economic Studies themselves and/or their prioritization.
- (vi) If the Planning Advisory Committee, after discussions between the Planning Advisory Committee and ISO management, is not able to prioritize the Economic Studies to be performed by the ISO in a given year, any member of the Planning Advisory Committee must submit a request for Regional Planning Dispute Resolution Process pursuant to Section 12 of this Attachment, such request to be submitted no later than August 30, to resolve the issues concerning the substance of the Economic Studies themselves and/or their prioritization.
- (vii) The ISO will issue a notice to the Planning Advisory Committee detailing the prioritization of the Economic Studies as identified by the Planning Advisory Committee or, if a request for Regional Planning Dispute Resolution Process is submitted pursuant to Section 4.1.(b)(vi), as determined through that Process.

The foregoing timelines are subject to adjustment as determined by the ISO in coordination with the Planning Advisory Committee. The ISO will provide periodic updates on the status of Economic Studies to the Planning Advisory Committee.

Economic Study requests not within the three studies identified in Section 4.1(b)(iv) to be performed in a given year may be requested and paid for by the study proponent.

**(c) Conduct of a Needs Assessment for Rejected De-List Bids**

- (i) Where a Needs Assessment is underway for an area affected by a rejected Permanent De-List Bid or Retirement De-List Bid, the Needs Assessment will represent the resource with the rejected Permanent De-List Bid or Retirement De-List Bid as being interconnected, but unavailable for reliability purposes in the base representation being used to assess the system to identify reliability needs that must be addressed.

- (ii) Where there is not a Needs Assessment underway for an area affected by a rejected Permanent De-List Bid or Retirement De-List Bid, the ISO will initiate a Needs Assessment for that area.
- (iii) In the case of a rejected Static De-List Bid or Dynamic De-List Bid, the ISO may as warranted, with advisory input from the Reliability Committee, examine the unavailability of the resource(s) with the rejected bid as a sensitivity in a Needs Assessment, or examine the unavailability of the resource(s) in the base representation in a Needs Assessment. The ISO may as warranted, with advisory input from the Reliability Committee, initiate a Needs Assessment for the purpose of modeling rejected Static De-List Bids or Dynamic De-List Bids where the ISO believes that the initiation of such a study is warranted.
- (iv) Prior to the start of each New Capacity Show of Interest Submission Window, the ISO shall present to the Reliability Committee the status of any prior rejected Dynamic De-List Bids, Static De-List Bids, Permanent De-List Bids or Retirement De-List Bids being studied in the regional system planning process.

**(d) Notice of Initiation of Needs Assessments**

Prior to its commencement, the ISO shall provide notice of the initiation of a Needs Assessment to the Planning Advisory Committee consistent with Section 2 of this Attachment.

**(e) Preparation of Needs Assessment**

Needs Assessments may examine resource adequacy, transmission adequacy, projected congestion levels and other relevant factors as may be agreed upon from time to time. Needs Assessments shall also consider the views, if any, of the Planning Advisory Committee, State regulators or agencies, NESCOE, the Market Advisor to the ISO Board of Directors, and the ISO Board of Directors. A corresponding assessment shall be performed by the PTOs to identify any needs relating to the Non-PTF transmission facilities (of whatever voltage) that could affect the provision of Regional Transmission Service over the PTF.

**(f) Treatment of Market Solutions in Needs Assessments**



The ISO shall reflect proposed market responses in the regional system planning process. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), and Elective Transmission Upgrades.

Specifically, the ISO shall incorporate or update information regarding resources in Needs Assessments that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract. The ISO will model out-of-service all submitted Retirement De-List Bids and submitted Permanent De-List Bids and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction. With respect to (ii) or (iii) above, the proponent of the market response shall inform the ISO, in writing, of its selection or its assumption of financially binding obligations, respectively. The ISO shall incorporate or update information regarding a proposed Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff. In the case where the Elective Transmission Upgrades are proposed in conjunction with the interconnection of a resource, these Elective Transmission Upgrades shall be considered at the same time as the proposed resource is considered in the Needs Assessment provided that the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff.

**(g) Needs Assessment Support**

For the development of the Needs Assessments, the ISO will coordinate with the PTOs and the Planning Advisory Committee to support the ISO's performance of Needs Assessments. To facilitate this support, the ISO will post on its website the models, files, cases, contingencies, assumptions and other information used to perform Needs Assessments. The ISO may establish requirements that any PTO or member of the Planning Advisory Committee must satisfy in order to access certain information used to perform Needs Assessments, due to ISO New England

Information Policy and CEII constraints. The ISO may ask PTOs or Planning Advisory Committee members with special expertise to provide technical support or perform studies required to assess one or more potential needs that will be considered in the Needs Assessments process. These entities will provide, and the ISO will post on its website, the models, files, cases, contingencies, assumptions and other information used by those entities to perform studies. The ISO will post the draft results of any such Needs Assessment studies on its website. The ISO will convene meetings open to any representative of an entity that is a member of the Planning Advisory Committee to facilitate input on draft Needs Assessments studies and the inputs to those studies prior to the ISO's completion of a draft Needs Assessment report to be reviewed by the entire Planning Advisory Committee pursuant to Section 4.1(i) of this Attachment. All provisions of this subsection (g) relating to the provision and sharing of information shall be subject to the ISO-NE Information Policy.

**(h) Input from the Planning Advisory Committee**

Meetings of the Planning Advisory Committee shall be convened to identify additional considerations relating to a Needs Assessment that were not identified in support of initiating the assessment, and to provide input on the Needs Assessment's scope, assumptions and procedures, consistent with the responsibilities of the Planning Advisory Committee as set forth in Section 2.2 of this Attachment.

**(i) Publication of Needs Assessment and Response Thereto**

The ISO shall report the results of Needs Assessments to the Planning Advisory Committee, subject to CEII constraints. Needs Assessments containing CEII will be posted on the ISO's password-protected website consistent with Section 2.4(d) of this Attachment. Needs Assessments will identify high-level functional requirements and characteristics for regulated transmission solutions and market responses that can meet the needs described in the assessment. The ISO will also present the Needs Assessments in appropriate market forums to facilitate market responses. Where the ISO forecasts that a solution is needed to solve reliability criteria violations in three years or less from the completion of a Needs Assessment (unless the solution to the Needs Assessment will likely be a Market Efficiency Transmission Upgrade), and the requirements of Section 4.1(j) of this Attachment have been met or where there is only one Phase One Proposal or Stage One Proposal submitted in response to a public notice issued under

Sections 4.3(a) or 4A.5(a) of this Attachment, respectively, or only one proposed solution that is selected to move on to Phase Two or Stage Two, the ISO will evaluate the adequacy of proposed regulated solutions by performing Solutions Studies, as described in Section 4.2 of this Attachment. Where the solution to a Needs Assessment will likely be a Market Efficiency Transmission Upgrade, or where the forecast year of need for a solution that is likely to be a Reliability Transmission Upgrade is more than three years from the completion of a Needs Assessment, the ISO will conduct a solution process based on a two-stage competition, as described in Section 4.3 of this Attachment.

**(j) Requirements for Use of Solution Studies Rather than Competitive Process for Projects Based on Year of Need**

The following requirements must be met in order for the ISO to use Solution Studies in the circumstances described in Section 4.1(i) based on the solution's year of need:

- (i) The ISO shall separately identify and post on its website an explanation of the reliability criteria violations and system conditions that the region has a time-sensitive need to solve within three years of the completion of the relevant Needs Assessment. The explanation shall be in sufficient detail to allow stakeholders to understand the need and why it is time-sensitive.
- (ii) In deciding whether to utilize Solutions Studies, such that the regulated transmission solution will be developed through a process led by the ISO and built by the PTO(s), the ISO shall:
  - (A) Provide to the Planning Advisory Committee and post on its website a full and supported written description explaining the decision to designate a Participating Transmission Owner as the entity responsible for construction and ownership of the reliability project, including an explanation of other transmission or non-transmission options that the region considered but concluded would not sufficiently address the immediate reliability need, and the circumstances that generated the reliability need and an explanation of why that reliability need was not identified earlier.

- (B) Provide a 30-day period during which comments from stakeholders on the posted description may be sent to the ISO, which comments will be posted on the website, as well.
- (iii) The ISO shall maintain and post on its website a list of prior year designations of all projects in the limited category of transmission projects for which the PTO(s) was designated as the entity responsible for construction and ownership of the project following the performance of Solution Studies. The list must include the project's need-by date and the date the PTO(s) actually energized the project, i.e., placed the project into service. The ISO shall file such list with the Commission as an informational filing in January of each calendar year covering the designations of the prior calendar year, when applicable.

#### **4.2 Evaluation of Regulated Transmission Solutions in Solutions Studies, Where Competitive Solution Process of Section 4.3 Is Not Applicable**

The procedures described in this Section 4.2 shall be utilized for the evaluation of regulated transmission solutions for reliability and market efficiency needs where the requirements of Sections 4.1(i) and/or (j) of this Attachment are satisfied. Otherwise, the procedures of Section 4.3 shall be utilized for that purpose.

##### **(a) Evaluation and Development of Regulated Transmission Solutions in Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades**

In the case of Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades, the ISO, in coordination with the proponents of regulated transmission solutions and other interested or affected stakeholders, shall conduct or participate in studies ("Solutions Studies") to evaluate whether proposed regulated transmission solutions meet the PTF system needs identified in Needs Assessments. The ISO, in coordination with affected stakeholders shall also identify regulated transmission projects for addressing the needs identified in Needs Assessments.

The ISO may form ISO-led targeted study groups to conduct Solutions Studies. Such study groups will include representatives of the proponents of regulated transmission solutions and

other interested or affected stakeholders. Through this process, the ISO may identify the solutions for the region that offer the best combination of electrical performance, cost, future system expandability, and feasibility to meet a need identified in a Needs Assessment in the required time frame. These solutions may differ from a transmission solution proposed by a transmission owner.

Proponents of regulated transmission proposals in response to Needs Assessments shall also identify any LSP plans that require coordination with their regulated transmission proposals addressing the PTF system needs.

**(b) Notice of Initiation of a Solutions Study**

The ISO shall provide notice of the initiation and scope of a Solutions Study to the Planning Advisory Committee.

**(c) Classification of Regulated Transmission Solutions as Market Efficiency Transmission Upgrades or Reliability Transmission Upgrades**

As described in Section 3.1 and 3.6(a) of this Attachment, proposed regulated transmission solutions determined by the ISO, in consultation with the Planning Advisory Committee, to address needs identified in Needs Assessments shall be classified as a Reliability Transmission Upgrade and/or a Market Efficiency Transmission Upgrade pursuant to the standards set forth in Attachment N of this OATT.

**(d) Identification of the Preferred Solution and Inclusion of Results of Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades in the RSP**

The results of Solutions Studies related to Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades will be reported to the Planning Advisory Committee. After receiving feedback from the Planning Advisory Committee, the ISO will identify the preferred solution. The ISO will inform the appropriate Transmission Owners in writing regarding the identification of the preferred solution.

Once identified, the preferred solution, as appropriate, will be reflected (with an overview of why the solution is preferred) in the RSP and/or its Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

#### **4.3 Competitive Solution Process for Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades**

##### **(a) Public Notice Initiating Competitive Solution Process**

The ISO will issue a public notice with respect to each Needs Assessment for which, pursuant to Section 4.1(i) of this Attachment, a competitive solution process will be utilized. The notice will indicate that Qualified Transmission Project Sponsors may submit Phase One Proposals offering solutions that comprehensively address the identified needs.

A PTO or PTOs shall submit an individual or joint Phase One Proposal as a Backstop Transmission Solution for any need that would be solved by a project located within or connected to its/their existing electric system, and which it/they would therefore have an obligation to build under Schedule 3.09(a) of the TOA. Such PTOs may recover the costs of preparing Phase One Proposals in accordance with the mechanisms reflected in the OATT and the terms of the TOA.

A member of the Planning Advisory Committee that is not a Qualified Transmission Project Sponsor but would like the ISO to consider a Phase One Proposal reflecting its concept for a project in response to a Needs Assessment (that is, a project that is “unsponsored”) must, before the deadline for the submission of Phase One Proposals, identify a Qualified Transmission Project Sponsor willing to submit a corresponding Phase One Proposal and Phase Two Proposal (and to develop and construct the project, if selected in the competitive process) in order for the unsponsored project to be submitted in response to an ISO solicitation in Phase One. Upon request by the pertinent Planning Advisory Committee member for assistance in identifying a sponsor, the ISO shall post on its website and distribute to the Planning Advisory Committee a notice that solicits expressions of interest by Qualified Transmission Project Sponsors for sponsorship of the member’s conceptual project. All expressions of interest shall include a

detailed explanation of why the Qualified Transmission Project Sponsor is best qualified to construct, own and operate the unsponsored project. If only one Qualified Transmission Project Sponsor expresses interest, the ISO shall designate it as the project sponsor. If more than one Qualified Transmission Project Sponsor expresses interest, the Planning Advisory Committee member shall select the sponsor. In either case, the designated sponsor shall thereafter comply with the requirements of this Attachment K and the ISO Tariff with respect to the project. If no Qualified Transmission Project Sponsor expresses interest, the unsponsored project may not be submitted in Phase One.

**(b) Use and Control of Right of Way**

Neither the submission of a project by a Qualified Transmission Project Sponsor nor the selection by the ISO of a project submitted by a Qualified Transmission Project Sponsor for inclusion in the RSP Project List shall alter a PTO's use and control of an existing right of way, the retention, modification, or transfer of which remain subject to the relevant law or regulation, including property or contractual rights, that granted the right-of-way. Nothing in the processes described in this Attachment K requires a PTO to relinquish any of its rights-of-way in order to permit a Qualified Transmission Project Sponsor to develop, construct or own a project.

**(c) Information Required for Phase One Proposals; Study Deposit; Timing**

**Phase One Proposals shall provide the following information:**

- (i) a detailed description of the proposed solution, in the manner specified by the ISO, including an identification of the proposed route for the solution and technical details of the project;
- (ii) a detailed explanation of how the proposed solution addresses the identified need;
- (iii) the proposed schedule, including key high-level milestones, for development, siting, procurement of real estate rights, permitting, construction and completion of the proposed solution;

- (iv) right, title, and interest in rights of way, substations, and other property or facilities, if any, that would contribute to the proposed solution or the means and timeframe by which such would be obtained; and
- (v) the estimated lifecycle cost of the proposed solution, including a high-level itemization of the components of the cost estimate.

With each proposal, the Qualified Transmission Project Sponsor must include payment of a \$100,000 study deposit per submitted proposal to support the cost of Phase One and Phase Two study work by the ISO. The deposit of \$100,000 shall be applied towards the costs incurred by the ISO associated with the study of the Phase One and Phase Two proposal.

Phase One Proposals must be submitted by the deadline specified in the posting by the ISO of the public notice described in Section 4.3(a) of this Attachment, which shall not be less than 60 days from the posting date of the notice. The ISO may reject submittals which are insufficient or not adequately supported.

**(d) LSP Coordination**

Sponsors of Phase One Proposals shall also identify any LSP plans that require coordination with their proposals.

**(e) Preliminary Review by ISO**

If the sole Phase One Proposal in response to a given Needs Assessment has been submitted by PTO(s), proposing a project that would be located within or connected to its/their existing electric system, the ISO shall proceed under Section 4.2(a)-(d) of this Attachment, rather than pursuant to the procedures set forth in the remainder of this Section 4.3.

If more than one Phase One Proposal has been submitted in response to the public notice described in Section 4.3(a) of this Attachment K, the ISO shall perform a preliminary feasibility review of each proposal to determine whether the proposed solution:



- (i) provides sufficient data and that the data is of sufficient quality to satisfy Section 4.3(c) of this Attachment;
- (ii) appears to satisfy the needs described in the Needs Assessment;
- (iii) is technically practicable and indicates possession of, or an approach to acquiring, the necessary rights of way, property and facilities that will make the proposal reasonably feasible in the required timeframe; and
- (iv) is eligible to be constructed only by an existing PTO in accordance with Schedule 3.09(a) of the TOA because the proposed solution is an upgrade to existing PTO facilities, or because the costs of the proposed solution are not eligible for regional cost allocation under the OATT and will be allocated only to the local customers of a PTO.

**(f) Proposal Deficiencies; Further Information**

If the ISO identifies any minor deficiencies in meeting the requirements of Section 4.3(a) in the information provided in connection with a proposed Phase One Proposal, the ISO will notify the Phase One Proposal sponsor and provide an opportunity for the sponsor to cure the deficiencies within the timeframe specified by the ISO. Upon request, sponsors of Phase One Proposals shall provide the ISO with additional information reasonably necessary for the ISO's evaluation of the proposed solutions. This identification and notification will occur prior to the publication by the ISO of any Phase One Proposals. In providing information under this subsection (f), or in Phase Two, the sponsor may not modify its project materially or submit a new project, but instead may clarify its project. Phase Two Proposals reflecting a material modification to a Phase One Proposal or representing a new project will be rejected.

**(g) Listing of Qualifying Phase One Proposals**

For each Needs Assessment, the ISO will provide the Planning Advisory Committee with, and post on the ISO's website, a listing of Phase One Proposals that meet the criteria of Section 4.3(c). A meeting of the Planning Advisory Committee will be held thereafter in order to solicit stakeholder input on the listing, and the listed proposals. The ISO with input from the Planning Advisory Committee may exclude projects from the list, and from consideration in Phase Two,

based on a determination that the project is not competitive with other projects that have been submitted in terms of cost, electrical performance, future system expandability, or feasibility. Information on Phase One Proposals containing CEII will be posted on the ISO's protected website consistent with Section 2.4(d) of this Attachment. The ISO may amend its listing based on stakeholder input. The ISO shall post on its website an explanation of why it has determined to exclude a Phase One Proposal from consideration in Phase Two.

**(h) Information Required for Phase Two Solutions; Identification and Reporting of Preliminary Preferred Phase Two Solution**

Qualified Transmission Project Sponsors of projects reflected on the final listing developed pursuant to Section 4.3(g) of this Attachment shall provide the following information in their proposed Phase Two Solutions:

- (i) updates of the information provided in Phase One Proposals, or a certification that the information remains current and correct;
- (ii) list of required major Federal, State and local permits;
- (iii) description of construction sequencing, a conceptual plan for the anticipated transmission and generation outages necessary to construct the Phase Two Solution and their respective durations, and possible constraints;
- (iv) project schedule, with additional detail compared with Phase One Proposals, as specified by the ISO;
- (v) detailed cost component itemization and life-cycle costs;
- (vi) design standards to be used;
- (vii) description of the authority the sponsor has to acquire necessary rights of way;
- (viii) experience of the sponsor in acquiring rights of way;

- (ix) status of acquisition of right, title, and interest in rights of way, substations, and other property or facilities, if any, that are necessary for the proposed solution;
- (x) detailed explanation of project feasibility and potential constraints and challenges;
- (xi) description of the means by which the sponsor proposes to satisfy state legal or regulatory requirements for siting, constructing, owning and operating transmission projects; and
- (xii) detailed explanation of potential future expandability.

Phase Two Solutions must be submitted to the ISO by the deadline specified in the posting of the final listing (following stakeholder input) of Phase One Proposals described in Section 4.3(g).

The deadline for submittal of Phase Two Solutions shall not be less than 60 days from the posting date of the final listing. The ISO may reject Phase Two Solution submittals which are insufficient or not adequately supported.

The ISO will identify the project that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe as the preliminary preferred Phase Two Solution in response to each Needs Assessment. The ISO will report the preliminary preferred Phase Two Solution, together with explanatory materials, to the Planning Advisory Committee and seek stakeholder input on the preliminary preferred solution.

**(i) Reimbursement of Phase Two Solution Costs; Collection and Refund of ISO Study Costs**

Qualified Transmission Project Sponsors whose projects are listed pursuant to Section 4.3(g) for review as Phase Two Solutions shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff (and, as applicable, the TOA and NTDOA), all prudently incurred costs associated with developing a Phase Two Solution. PTOs shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff, all prudently incurred study costs and costs associated with developing any upgrades or modifications to such PTOs' existing facilities necessary to facilitate the development of a listed project proposed by any other Qualified Transmission Project Sponsor.

Any difference between a Qualified Transmission Project Sponsor's study deposit and the actual

cost of the Phase One and Phase Two studies for a project shall be paid by or refunded to the Qualified Transmission Project Sponsor, as appropriate, with interest calculated in accordance with Section 35.19a(a)(2) of the FERC regulations. Any refund payment shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any invoice to collect funds in addition to the deposit shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any disputes arising from the study process shall be addressed under the dispute resolution process specified in Section I.6 of the ISO Tariff.

**(j) Inclusion of Preferred Phase Two Solution in RSP and/or RSP Project List**

Following receipt of stakeholder input, the ISO will identify the preferred Phase Two Solution (with an overview of why the solution is preferred) by a posting on its website. The ISO's identification will select the project that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe. The ISO will also notify the Qualified Transmission Project Sponsor that proposed the preferred Phase Two Solution that its project has been selected for development. The ISO will include the project as a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade, as appropriate, in the RSP and/or its Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

**(k) Milestone Schedules**

Within 30 Business Days of its receiving notification pursuant to Section 4.3(j) of this Attachment, the Qualified Transmission Project Sponsor shall submit to the ISO (and shall update periodically) a schedule that indicates the dates by which applications for siting and other approvals necessary to develop and construct the project by the required in-service date shall be submitted. Within 30 Business Days of its receiving all necessary siting and other approvals, the Qualified Transmission Project Sponsor shall submit to the ISO its acceptance of responsibility to proceed with the project, and a schedule acceptable to the ISO of dates by which typical project construction phases will be completed. The Qualified Transmission Project Sponsor shall submit to the ISO on a monthly basis thereafter, until the project is placed into service, a report that provides updated information, as specified by the ISO, showing the progress of the project.

If the ISO finds, after consultation with a non-PTO Qualified Transmission Project Sponsor, that the sponsor is failing to pursue approvals or construction in a reasonably diligent fashion, or that the sponsor is unable to proceed with the project due to forces beyond its reasonable control, the ISO shall request the applicable PTO(s) to implement the Backstop Transmission Solution, and prepare a report explaining why it has reassigned the project. If the Qualified Transmission Project Sponsor that is failing or unable to proceed is a PTO, the ISO shall prepare a report consistent with the provisions of Section 1.1(e) of Schedule 3.09(a) of the Transmission Operating Agreement, including the ISO's proposed course of action. If prepared with respect to a Qualified Transmission Project Sponsor that is not a PTO, the report shall include a report from that sponsor. The ISO shall file its report (whether with respect to a PTO or non-PTO Qualified Transmission Project Sponsor) with the Commission.

#### **4A. Public Policy Transmission Studies; Public Policy Transmission Upgrades**

##### **4A.1 NESCOE Requests for Public Policy Transmission Studies**

No less often than every three years, by January 15 of that year, the ISO will post a notice indicating that members of the Planning Advisory Committee may, no later than 45 days after the posting of the notice: (i) provide NESCOE, via the process described below, with input regarding state and federal Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and regarding particular transmission needs driven by those Public Policy Requirements, and (ii) provide the ISO with input regarding local (e.g., municipal and county) Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and regarding particular transmission needs driven by those Public Policy Requirements. A meeting of the Planning Advisory Committee may be held for this purpose. Members of the Planning Advisory Committee shall direct all such input related to state, federal, and local Public Policy Requirements that drive transmission needs to the ISO and the ISO will post such input on the ISO's website. By no later than May 1 of that year, NESCOE may submit to the ISO in writing a request for a new Public Policy Transmission Study, or an update of a previously conducted study. The request will identify the Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and may identify particular NESCOE-identified public policy-related transmission needs as well. Along with any such request, NESCOE will provide the ISO with a written explanation

of which transmission needs driven by state or federal Public Policy Requirements the ISO will evaluate for potential solutions in the regional planning process, including why other suggested transmission needs will not be evaluated. The ISO will post the NESCOE request and explanation on the ISO's website. If NESCOE does not provide that listing of identified transmission needs (which may consist of a NESCOE statement of its determination that no transmission needs are driven by state or federal Public Policy Requirements identified during the stakeholder process) and that explanation (which may consist of a NESCOE explanation of why no transmission needs are driven by state or federal Public Policy Requirements identified during the stakeholder process), the ISO will note on its website that a NESCOE listing and explanation have not been provided. In that circumstance, the ISO will determine subsequently (after opportunity for Planning Advisory Committee input), and post on its website an explanation of, which transmission needs driven by state or federal Public Policy Requirements the ISO will evaluate in the regional planning process, including why other suggested transmission needs will not be evaluated.

#### **4A.1.1 Study of Federal Public Policy Requirements Not Identified by NESCOE; Local Public Policy Requirements**

If a stakeholder believes that a federal Public Policy Requirement that may drive transmission needs relating to the New England Transmission System has not been appropriately addressed by NESCOE, it may file with the ISO, no later than 15 days after the posting of NESCOE's explanation as described in Section 4A.1 of this Attachment, a written request that explains the stakeholder's reasoning and that seeks reconsideration by the ISO of NESCOE's position regarding that requirement. The ISO will post the stakeholder's written request on the ISO's website. Where the ISO agrees with a stated stakeholder position, or on its own finding, the ISO may perform an evaluation under Sections 4A.2 through 4A.4 of this Attachment of a federal Public Policy Requirement not otherwise identified by NESCOE. The ISO will post on its website an explanation of those transmission needs driven by federal Public Policy Requirements not identified by NESCOE that will be evaluated for potential transmission solutions in the regional system planning process, and why other suggested transmission needs driven by federal Public Policy Requirements not identified by NESCOE will not be evaluated. In addition, the ISO will post on its website an explanation of those transmission needs driven by local Public Policy Requirements that will be evaluated for potential transmission solutions in the regional

system planning process, and why other suggested transmission needs driven by local Public Policy Requirements will not be evaluated.

#### **4A.2 Preparation for Conduct of Public Policy Transmission Studies; Stakeholder Input**

Upon receipt of the NESCOE request, or as the result of the ISO's consideration of a federal or local Public Policy Requirement pursuant to Section 4A.1.1, the ISO will prepare and post on its website a proposed scope for the Public Policy Transmission Study, and associated parameters and assumptions (including resource assumptions), and provide the foregoing to the Planning Advisory Committee by no later than September 1 of the request year. A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit stakeholder input for consideration by the ISO on the study's scope, parameters and assumptions.

#### **4A.3 Public Policy Transmission Studies**

##### **(a) Conduct of Public Policy Transmission Studies; Stakeholder Input**

With input from Planning Advisory Committee and potentially impacted PTOs, the ISO will perform the initial phase of the Public Policy Transmission Study to develop a rough estimate of the costs and benefits of high-level concepts that could meet transmission needs driven by Public Policy Requirements. The study's results will be posted on the ISO's website, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input on the results of the initial phase of the study, and the scope, parameters and assumptions (including resource assumptions) for any follow-on phase of the study. The ISO may – as a follow-on phase of the Public Policy Transmission Study – perform more detailed analysis and engineering work on the high-level concepts.

##### **(b) Treatment of Market Solutions in Public Policy Transmission Studies**

The ISO shall reflect proposed market responses in the Public Policy Transmission Study. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), Merchant Transmission Facilities and Elective Transmission Upgrades.

Specifically, the ISO shall incorporate in the Public Policy Transmission Study information regarding resources that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually

bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract. With respect to (ii) or (iii) above, the proponent of the market response shall inform the ISO, in writing, of its selection or its assumption of financially binding obligations, respectively. The ISO shall incorporate information regarding a proposed Merchant Transmission Facility or Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Merchant Transmission Facility or Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), and a commercial operation date has been ascertained, with the exception of Elective Transmission Upgrades that are proposed in conjunction with the interconnection of a resource, which shall be considered at the same time as the proposed resource is considered in the Public Policy Transmission Study.

#### **4A.4 Response to Public Policy Transmission Studies**

The results of the Public Policy Transmission Study will be provided to the Planning Advisory Committee and posted on the ISO's website, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input for the ISO on those results, including any updates from the states on any methods by which they are satisfying their respective Public Policy Requirements included in the Public Policy Transmission Study. The ISO's costs of performing the Public Policy Transmission Study described in Section 4A.3 will be collected by the ISO pursuant to Schedule 1 of Section IV.A of the Tariff. Any prudently incurred PTO costs for assistance requested by the ISO to support the Public Policy Transmission Study will be recovered by the applicable PTO(s) in accordance with Attachment F and Schedule 21 of the Tariff.

The ISO will evaluate the input from the Planning Advisory Committee and provide the results of the Public Policy Transmission Study to Qualified Transmission Project Sponsors for their use in preparing Stage One Proposals to develop, build and operate one or more projects consistent with the general design requirements identified by the ISO in the study.

#### **4A.5 Stage One Proposals**

##### **(a) Information Required for Stage One Proposals**



The ISO will post on its website a notice inviting, for each high-level general project concept identified by the ISO pursuant to Section 4A.3(a) above, Qualified Transmission Project Sponsors to submit (by the deadline specified in the public notice, which shall be not less than 60 days from the date of posting the public notice) a Stage One Proposal providing the following information:

- (i) a detailed description of the proposed solution, in the manner specified by the ISO, including an identification of the proposed route for the solution and technical details of the project;
- (ii) a detailed explanation of how the proposed solution addresses the identified need;
- (iii) the proposed schedule, including key high-level milestones, for development, siting, procurement of real estate rights, permitting, construction and completion of the proposed solution;
- (iv) right, title, and interest in rights of way, substations, and other property or facilities, if any, that would contribute to the proposed solution or the means and timeframe by which such would be obtained; and
- (v) the estimated lifecycle cost of the proposed solution, including a high-level itemization of the components of the cost estimate.

A member of the Planning Advisory Committee that is not a Qualified Transmission Project Sponsor but would like the ISO to consider a Stage One Proposal reflecting its concept for a project in response to a Public Policy Transmission Study (that is, a project that is “unsponsored”) must identify a Qualified Transmission Project Sponsor willing to submit a corresponding Stage One Proposal and Stage Two Proposal (and to develop and construct the project, if selected in the competitive process) in order for the unsponsored project to be submitted in response to an ISO solicitation in Stage One. Upon request of the pertinent Planning Advisory Committee member for assistance in identifying a sponsor, the ISO shall post on its website and distribute to the Planning Advisory Committee a notice that solicits expressions of interest by Qualified Transmission Project Sponsors for sponsorship of the member’s conceptual project. All expressions of interest shall include a detailed explanation of why the Qualified Transmission Project Sponsor is best qualified to construct, own and operate the unsponsored project. If only one Qualified Transmission Project Sponsor expresses interest, the ISO shall designate it as the

project sponsor. If more than one Qualified Transmission Project Sponsor expresses interest, the Planning Advisory Committee member shall select the sponsor. In either case, the designated sponsor shall thereafter comply with the requirements of this Attachment K and the ISO Tariff with respect to the project. If no Qualified Transmission Project Sponsor expresses interest, the unsponsored project may not be submitted in Stage One.

With each proposal, the Qualified Transmission Project Sponsor must include payment of a \$100,000 study deposit per submitted project to support the cost of Stage One and Stage Two study work by the ISO. The deposit of \$100,000 shall be applied towards the costs incurred by the ISO associated with the study of the Stage One and Stage Two proposal.

**(b) LSP Coordination**

Sponsors of Stage One Proposals shall also identify any LSP plans that require coordination with their proposals.

**(c) Preliminary Review by ISO**

Upon receipt of Stage One Proposals, the ISO shall perform a preliminary feasibility review of each proposal to determine whether the proposed solution:

- (i) provides sufficient data and that the data is of sufficient quality to satisfy Section 4A.5(a);
- (ii) appears to satisfy the needs driven by Public Policy Requirements, as reflected in the Public Policy Transmission Study;
- (iii) is technically practicable and indicates possession of, or an approach to acquiring, the necessary rights of way, property and facilities that will make the proposal reasonably feasible in the required timeframe; and;
- (iv) is eligible to be constructed only by an existing PTO in accordance with Schedule 3.09(a) of the TOA because the proposed solution is an upgrade to existing PTO facilities or because the costs of the proposed solution are not eligible for regional cost allocation under the OATT and will be allocated only to the local customers of a PTO.

**(d) Proposal Deficiencies; Further Information**

If the ISO identifies any deficiencies (compared with the requirements of Section 4A.5(a)) in the information provided in connection with a proposed Stage One Proposal, the ISO will notify the Stage One Proposal sponsor and provide an opportunity for the sponsor to cure the deficiencies within the timeframe specified by the ISO. Upon request, sponsors of Stage One Proposals shall provide the ISO with additional information reasonably necessary for the ISO's evaluation of the proposed solutions. This identification and notification will occur prior to the publication by the ISO of any Stage One Proposals. In providing information under this subsection (d), or in Stage Two, the sponsor may not modify its project materially or submit a new project, but instead may clarify its project. Stage Two Proposals reflecting a material modification to a Stage One Proposal or representing a new project will be rejected.

**(e) List of Qualifying Stage One Proposals**

The ISO will provide the Planning Advisory Committee with, and post on the ISO's website, a list of Stage One Proposals that meet the criteria of Section 4A.5(c). A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input for the ISO on that list. The ISO shall also indicate whether any of the projects may also satisfy identified reliability needs of the system. The ISO with input from the Planning Advisory Committee may exclude projects from the list, and from consideration in Stage Two, based on a determination that the project is not competitive with other projects that have been submitted in terms of cost, electrical performance, future system expandability, or feasibility. Information on Stage One Proposals containing CEII will be posted on the ISO's protected website consistent with Section 2.4(d) of this Attachment. The ISO may amend its listing based on stakeholder input.

**4A.6 Reimbursement of Stage One Proposal and Stage Two Solution Costs; Collection and Refund of ISO Study Costs**

Qualified Transmission Project Sponsors that are requested by NESCOE in writing or by one or more states' governors or regulatory authorities directly to submit a Stage One Proposal shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff and the TOA, their prudently incurred costs from the Regional Network Load of the states identified by NESCOE in the written communication as having made the request or from the Regional Network Load of the states that made the request directly. Stage One Proposal costs shall otherwise not be subject to recovery under the ISO Tariff.

Qualified Transmission Project Sponsors whose projects are listed by the ISO pursuant to Section 4A.5(e) shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff and, as applicable, the TOA and NTDOA, all prudently incurred costs associated with developing a Stage Two Solution. PTOs shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff, all prudently incurred study costs and costs associated with developing any upgrades or modifications to such PTOs' existing facilities necessary to facilitate the development of a listed project proposed by any other Qualified Transmission Project Sponsor.

Any difference between a Qualified Transmission Project Sponsor's study deposit and the actual cost of the Stage One and Stage Two studies for a project shall be paid by or refunded to the Qualified Transmission Project Sponsor, as appropriate, with interest calculated in accordance with Section 35.19a(a)(2) of the FERC regulations. Any refund payment shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any invoice to collect funds in addition to the deposit shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any disputes arising from the study process shall be addressed under the dispute resolution process specified in Section I.6 of the Tariff.

#### **4A.7 Information Required for Stage Two Solutions; Identification and Reporting of Preliminary Preferred Stage Two Solution**

Qualified Transmission Project Sponsors of projects listed pursuant to Section 4A.5(e) of this Attachment shall provide the following information in their proposed Stage Two Solutions:

- (i) updates of the information provided in Stage One Proposals, or a certification that the information remains current and correct;
- (ii) list of required major Federal, State and local permits;
- (iii) description of construction sequencing, a conceptual plan for the anticipated transmission and generation outages necessary to construct the Stage Two Solution and their respective durations, and possible constraints;

- (iv) project schedule, with additional detail compared with Stage One Proposals, as specified by the ISO;
- (v) detailed cost component itemization and life-cycle costs;
- (vi) design standards to be used;
- (vii) description of the authority the sponsor has to acquire necessary rights of way;
- (viii) experience of the sponsor in acquiring rights of way;
- (ix) status of acquisition of right, title, and interest in rights of way, substations, and other property or facilities, if any, that are necessary for the proposed solution;
- (x) detailed explanation of project feasibility and potential constraints and challenges;
- (xi) description of the means by which the sponsor proposes to satisfy state legal or regulatory requirements for siting, constructing, owning and operating transmission projects; and
- (xii) detailed explanation of potential future expandability.

Stage Two Solutions must be submitted to the ISO by the deadline specified in the posting of the final listing (following stakeholder input) of Phase One Proposals described in Section 4A.5(e). The deadline for submittal of Stage Two Solutions shall not be less than 60 days from the posting date of the final listing. The ISO may reject Stage Two Solution submittals which are insufficient or not adequately supported.

The ISO will report the preliminary preferred Stage Two Solution(s), along with its views as to whether the preferred solution(s) also satisfies identified reliability needs of the system, to the Planning Advisory Committee and seek stakeholder input on the preliminary preferred solutions.

#### **4A.8 Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List; Milestone Schedules; Removal from RSP Project List**

##### **(a) Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List**

Following receipt of stakeholder input, the ISO will identify the preferred Stage Two Solution (with an overview of why the solution is preferred) by a posting on its website. The ISO's identification will select the project that best addresses the identified Public Policy Requirement while utilizing the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe. The ISO will also notify the Qualified Transmission Project Sponsor that proposed the preferred Stage Two Solution that its project has been selected for development, and include the project as a Public Policy Transmission Upgrade in the Regional System Plan and RSP Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional Public Policy Transmission Upgrades are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

##### **(b) Milestone Schedules**

Within 30 Business Days of its receiving notification pursuant to Section 4A.8(a) of this Attachment, the Qualified Transmission Project Sponsor shall submit to the ISO (and shall update periodically) a schedule that indicates the dates by which applications for siting and other approvals necessary to develop and construct the project by the required in-service date shall be submitted. Within 30 Business Days of its receiving all necessary siting and other approvals, the Qualified Transmission Project Sponsor shall submit to the ISO its acceptance of responsibility to proceed with the project, and a schedule acceptable to the ISO of dates by which typical project construction phases will be completed. The Qualified Transmission Project Sponsor shall submit to the ISO on a monthly basis thereafter, until the project is placed into service, a report that provides updated information (as specified by the ISO) showing the progress of the project.

If the ISO finds, after consultation with a non-PTO Qualified Transmission Project Sponsor, that the sponsor is failing to pursue approvals or construction in a reasonably diligent fashion, or that the sponsor is unable to proceed with the project due to forces beyond its reasonable control, the ISO shall, after consultation with the Planning Advisory Committee, prepare a report, including a proposed course of action. If the Qualified Transmission Project Sponsor that is failing or unable to proceed is a PTO, the ISO shall, after consultation with the Planning Advisory Committee, prepare a report consistent with the provisions of Section 1.1(e) of Schedule 3.09(a) of the Transmission Operating Agreement, including the ISO's proposed course of action. The proposed course of action may include, for example, a consideration and selection of another Stage Two Proposal relating to the pertinent Public Policy Requirement, or the re-solicitation of Stage One Proposals to meet the pertinent Public Policy Requirement. If prepared with respect to a Qualified Transmission Project Sponsor that is not a PTO, the report shall include a report from that sponsor. The ISO shall file its report (whether with respect to a PTO or a non-PTO Qualified Transmission Project Sponsor) with the Commission.

**(c) Removal from RSP Project List**

If a Public Policy Transmission Upgrade is removed from the RSP Project List by the ISO pursuant to Section 3.6(c), the entity responsible for the construction of the Public Policy Transmission Upgrade shall be reimbursed for any costs prudently incurred or prudently committed to be incurred (plus a reasonable return on investment at existing Commission-approved ROE levels) in connection with the planning, designing, engineering, siting, permitting, procuring and other preparation for construction, and/or construction of that Public Policy Transmission Upgrade.

**4A.9 Local Public Policy Transmission Upgrades**

The costs of Local Public Policy Transmission Upgrade(s) that are required in connection with the construction of a Public Policy Transmission Upgrade approved for inclusion in the Regional System Plan in accordance with Section 4A.8 shall be allocated in accordance with Schedule 21 of the ISO OATT.

## **4B. Qualified Transmission Project Sponsors**

### **4B.1 Periodic Evaluation of Applications**

The ISO will periodically evaluate applications submitted by an entity that seeks to qualify as a sponsor of a proposed Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade.

### **4B.2 Information To Be Submitted**

The application to be submitted to the ISO by an entity desiring to be a Qualified Transmission Project Sponsor will include the following information:

- (i) the current and expected capabilities of the applicant to finance and construct a Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade and operate and maintain it for the life of the project;
- (ii) the financial resources of the applicant;
- (iii) the technical and engineering qualifications and experience of the applicant;
- (iv) if applicable, the previous record of the applicant regarding construction and maintenance of transmission facilities;
- (v) demonstrated capability of the applicant to adhere to construction, maintenance and operating Good Utility Practices, including the capability to respond to outages;
- (vi) the ability of the applicant to comply with all applicable reliability standards; and
- (vii) demonstrated ability of the applicant to meet development and completion schedules.

### **4B.3 Review of Qualifications**

The ISO shall review each application for completeness. The ISO will notify each applicant within 30 calendar days of receipt of such application whether the application is complete, or identify any deficiencies in provision of the information required by Section 4B.2 of this Attachment. An applicant notified of deficiencies must provide any remedial information within 30 calendar days of the receipt of such notice. Thereafter, the ISO will determine whether the applicant is physically, technically, legally, and financially capable of constructing a Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade in a timely and competent manner, and operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project,



and use its best efforts to inform the applicant within 90 days from the date on which it has a completed application on file with the ISO whether it has met all of these criteria. A PTO determined by the ISO to meet all of these criteria will be deemed a Qualified Transmission Project Sponsor. A non-PTO entity determined by the ISO to meet all of these criteria will, upon its execution of the Non-incumbent Transmission Developer Operating Agreement (in the form specified in Attachment O of the OATT) and the Market Participant Service Agreement, be deemed a Qualified Transmission Project Sponsor.

#### **4B.4 List of Qualified Transmission Project Sponsors; Annual Certification**

Qualified Transmission Project Sponsors are listed in Appendix 3 of this Attachment K. Each Qualified Transmission Project Sponsor shall submit to the ISO annually a certification that the information initially submitted in response to Section 4B.2 of this Attachment K has not changed adversely in a material fashion, or (if a material adverse change has occurred in the intervening year) submit instead a new application for qualification as a project sponsor. In the latter case, the entity shall not be a Qualified Transmission Project Sponsor unless and until the ISO approves its new application.

### **5. Supply of Information and Data Required for Regional System Planning**

The Transmission Owners, Generator Owners, Transmission Customers, Market Participants and other entities requesting transmission or interconnection service or proposing the integration of facilities to PTF in the New England Transmission System or alternatives to such facilities, and stakeholders requesting a Needs Assessment pursuant to Section 4.1 of this Attachment, shall supply, as required by the Tariff, the Participants Agreement, MPSAs, applicable transmission operating agreements, and/or other existing agreements, protocols and procedures, or upon request by the ISO, and subject to required CEII and confidentiality protections as specified in Section 2.4 of this Attachment, any information (including cost estimates) and data that is reasonably required to prepare an RSP or to perform a Needs Assessment or Solutions Study.

### **6. Regional, Local and Interregional Coordination**

#### **6.1 Regional Coordination**

The ISO shall conduct the regional system planning process for the PTF in coordination with the transmission-owning entities in, or other entities interconnected to, the New England Transmission

System consistent with the rights and obligations defined in the ISO OATT, applicable transmission operating agreements or protocols, and/or this Attachment. Pursuant to Section II.49 of this OATT and Sections 3.02, 3.05 and 3.09 of the TOA, the ISO has Operating Authority or control over all PTF and Non-PTF within the New England Control Area, which are utilized for the provision of transmission service under this OATT. The ISO also has Operating Authority or control over the United States portions of the HVDC ties to Quebec and over Merchant Transmission Facilities and Other Transmission Facilities, pursuant to this OATT or applicable transmission operating agreements or protocols. The ISO, however, is not responsible for the planning of the Non-PTF, OTF and MTF. As provided in Section 6.2 and Appendix 1 of this Attachment, the PTOs are responsible for the planning of the Non-PTF and coordinating such planning efforts with the ISO. Pursuant to the OATT and/or applicable transmission operating agreements or protocols, the transmission owners of OTF and MTF are required to participate in the ISO's regional system planning process and perform and/or support studies of the impacts of regional system projects on their respective facilities.

## **6.2 Local Coordination**

The regional system planning process shall be conducted and the RSP shall be developed in coordination with the local system plans of the PTOs. In accordance with the TOA and OATT provisions identified in Section 6.1 of this Attachment, the PTOs have responsibility for planning Non-PTF. The PTOs conduct planning of Non-PTF using the LSP process outlined in Section 2.5 and Appendix 1 of this Attachment, in coordination with the ISO, other entities interconnected with the New England Transmission System, Transmission Customers and stakeholders, and in accordance with the provisions in the TOA, the OATT and the Planning and Reliability Criteria. The openness and transparency of the LSP process is intended to be consistent with the regional system planning process.

## **6.3 Interregional Coordination**

The regional system planning process shall be conducted and the RSP shall be developed in coordination with the similar plans of the surrounding ISOs/RTOs and Control Areas pursuant to the Northeastern Planning Protocol and other agreements with neighboring systems (including entities that are not Parties to the Northeastern Planning Protocol) and NPCC.

**(a) Interregional Coordination and Cost Allocation Among ISO, New York Independent System Operator, Inc. (“NYISO”) and PJM Interconnection, L.L.C. (“PJM”) Under Order No. 1000**

Pursuant to Section 7 of the Northeastern Planning Protocol (which is posted on the web at [www.iso-ne.com/static-assets/documents/2015/07/northeastern\\_protocol\\_dmeast.doc](http://www.iso-ne.com/static-assets/documents/2015/07/northeastern_protocol_dmeast.doc), the Joint ISO/RTO Planning Committee (“JIPC”) reviews regional needs and solutions identified in the regional planning processes of the ISO, NYISO and PJM in order to identify, with input from the Interregional Planning Stakeholder Advisory Committee (“IPSAC”), the potential for Interregional Transmission Projects that could meet regional needs more efficiently or cost-effectively than regional transmission projects. All members of the Planning Advisory Committee shall be considered IPSAC members. The JIPC will coordinate studies deemed necessary to allow the effective consideration by the regions, in the same general timeframe, of a proposed Interregional Transmission Project in comparison to regional transmission solutions. Any stakeholder may propose in the New England planning process, for evaluation under Section 4.2, 4.3, or 4A (as applicable) of Attachment K, an Interregional Transmission Project (or project concept) that may be more efficient or cost-effective than a regional transmission solution. If a proposed Interregional Transmission Project is approved in each region in which the project is located, the corresponding New England regional transmission project(s) will be displaced in the circumstances described in Section 3.6(a) of this Attachment, and the costs of the Interregional Transmission Project will be allocated among the regions based on the formula provided in Schedule 15 of this OATT, or in accordance with another funding arrangement filed with and accepted by the Commission. The amount of the costs of an Interregional Transmission Project allocated as the responsibility of New England pursuant to the methodology referenced in Section 6.3(a) of this Attachment shall be allocated within New England as specified in Schedule 15 of the ISO OATT.

**(b) Other Interregional Assessments and Other Interregional Transmission Projects**

Interregional system assessments and/or interregional system expansion planning studies may be performed periodically by the ISO with Planning Authorities who are not parties to the Northeastern Planning Protocol, or with the JIPC pursuant to Section 6 of the Northeastern Planning Protocol, or both. The ISO shall convene periodic meetings of the Planning Advisory Committee (which may be combined with meetings of the IPSAC), to provide input and feedback

to the ISO concerning such assessments and studies. To the extent that an Interregional Transmission Project is agreed to by ISO and by another region (not a Party to the Northeastern Planning Protocol) in which a portion of the project is located, the related cost allocation and operating agreements will be filed with the Commission (and, as applicable, with Canadian jurisdictional agencies) in accordance with existing filing rights.

## **7. Procedures for Development and Approval of the RSP**

### **7.1 Initiation of RSP**

No less often than once every three years, the ISO shall initiate an effort to develop its RSP and solicit input on regional system needs for the RSP from the Planning Advisory Committee. The Planning Advisory Committee shall meet to perform its respective functions in connection with the preparation of the RSP, as specified in Section 2 of this Attachment. The ISO shall issue the periodic planning reports that support the RSP, such as Needs Assessments, as those reports are completed.

### **7.2 Draft RSP; Public Meeting**

The ISO shall provide a draft of the RSP to the Planning Advisory Committee and input from that Committee shall be received and considered in preparing and revising subsequent drafts. The ISO shall post the draft RSP and provide notice to the Planning Advisory Committee of a meeting to review the draft RSP as specified in Section 2.2 of this Attachment.

After the ISO has provided a draft of the RSP to the Planning Advisory Committee, the ISO shall issue a second draft of the RSP to be presented by the ISO staff to the ISO Board of Directors for approval. The draft RSP shall incorporate the results of any Needs Assessment, and corresponding Solutions Studies, performed since the last RSP was approved. A subcommittee of that Board shall hold a public meeting, at their discretion, to receive input directly and to discuss any proposed revisions to the RSP. The final recommended RSP shall be presented to the ISO Board of Directors and shall be acted on by the ISO Board of Directors within 60 days of receipt. The foregoing timeframes are subject to adjustment as determined by the ISO in coordination with the Planning Advisory Committee.

### **7.3 Action by the ISO Board of Directors on RSP; Request for Alternative Proposals**

#### **(a) Action by ISO Board of Directors on RSP**

The ISO Board of Directors may approve the recommended draft RSP as submitted, modify the RSP or remand all or any portion of it back with guidance for development of a revised recommendation. The Board of Directors may consider the RSP in executive session, and shall consider in its deliberations the views of the subcommittee of the Board of Directors reflecting the public meeting held pursuant to Section 7.2 of this Attachment. In considering whether to approve the draft RSP, the Board of Directors may, if it finds a proposed Reliability Benefit Upgrade not to be viable, or if no Reliability Benefit Upgrade has been proposed, direct the ISO staff to meet with the affected load serving entities and State entities in order to develop an interim solution. Should that effort fail, and as a last resort, the Board of Directors may direct the ISO to issue a Request For Alternative Proposal ("RFAP"), subject to the procedures described below, and may withhold approval of the draft RSP, or portions thereof, pending the results of that RFAP and any Commission action on any resulting jurisdictional contract or funding mechanism. The ISO shall provide a written explanation as to any subsequent changes or modification made in the final version of the RSP.

**(b) Requests For Alternative Proposals**

- (i) The RFAP shall seek generation, demand-side and merchant transmission alternatives that can be implemented rapidly and provide substantial reliability benefits over the period solicited in the RFAP, and normally will focus on an interim ("gap") solution until an identified Reliability Transmission Upgrade has been placed in-service. The ISO will file a proposed RFAP with the Commission for approval at least 60 days prior to its issuance. The filing shall explain why the issuance of an RFAP is necessary.
- (ii) The ISO staff shall provide the Board of Directors and subject to confidentiality requirements, the Planning Advisory Committee with an analysis of the alternatives offered in response to the RFAP, and provide a recommendation together with a funding mechanism reflecting input from the Planning Advisory Committee.
- (iii) The ISO may enter into contracts awarded pursuant to an RFAP process, and/or propose a funding mechanism. Bidders that are awarded contracts through the RFAP process shall file those contracts with the Commission for approval of the rates to be charged thereunder to the extent that such contracts are for services that are jurisdictional

to the Commission. The ISO shall file related or separate funding mechanisms with the Commission as well. All other contracts entered into pursuant to an RFAP shall be filed with the Commission for informational purposes.

(iv) The Board of Directors will reflect the results of the RFAP process in the approved RSP.

#### **8. Obligations of PTOs to Build; PTOs' Obligations, Conditions and Rights**

In accordance with the TOA, PTOs designated by the ISO as the appropriate entities to construct and own or finance Transmission Upgrades included in the RSP shall construct and own or finance such facilities or enter into appropriate contracts to fulfill such obligations. In the event that a PTO: (i) does not construct or indicates in writing that it does not intend to construct a Transmission Upgrade included in the RSP; or (ii)

demonstrates that it has failed (after making a good faith effort) to obtain necessary approvals or property rights under applicable law, the ISO shall promptly file with the Commission a report on the results of the planning process, which report shall include a report from the PTO responsible for the planning, design or construction of such No. 3 Open Access Transmission Tariff Section II – Attachment K – Regional System Planning Process Transmission Upgrade, in order to permit the Commission to determine what action, if any, it should take.

In connection with regional system planning, the ISO will not propose to impose on any PTO obligations or conditions that are inconsistent with the explicit provisions of the TOA or deprive any PTO of any of the rights set forth in the TOA.

Subject to necessary approvals and compliance with Section 2.06 of the TOA, nothing in this OATT shall affect the right of any PTO to expand or modify its transmission facilities in the New England Transmission System on its own initiative or in response to an order of an appropriate regulatory authority. Such expansions or modifications shall conform with: (a) Good Utility Practice; (b) applicable reliability principles, guidelines, criteria, rules, procedures and standards of national, regional, and local reliability councils that may be in existence; and (c) the ISO and relevant PTO criteria, rules, standards, guides and policies. The ISO reserves its right to challenge the permitting of such expansions or modifications.

## **9. Merchant Transmission Facilities**

### **9.1 General**

Subject to compliance with the requirements of the Tariff and any other applicable requirements with respect to the interconnection of bulk power facilities with the New England Transmission System, any entity shall have the right to propose and construct the addition of transmission facilities ("Merchant Transmission Facilities"), none of the costs of which shall be covered under the cost allocation provisions of this OATT. Any such Merchant Transmission Facilities shall be subject to the requirements of Section 9.2 of this Attachment. In performing studies in connection with the RSP, the prospect that proposed Merchant Transmission Facilities will be completed shall be accounted for as will the prospect that proposed generating units will be completed.

### **9.2 Operation and Integration**

All Merchant Transmission Facilities shall be subject to: (i) an agreement to transfer to the ISO operational control authority over any facilities which constitute part of the Merchant Transmission Facilities that are to be integrated with, or that will affect, the New England Transmission System; and (ii) taking such other action as may be required to make the facility available for use as part of the New England Transmission System.

### **9.3 Control and Coordination**

Until such time as a Merchant Transmission Owner has transferred operational control over its Merchant Transmission Facilities to the ISO pursuant to Section 9.2(i), all such Merchant Transmission Facilities shall be subject to the operational control, scheduling and maintenance coordination of the System Operator in accordance with the Tariff.

## **10. Cost Responsibility for Transmission Upgrades**

The cost responsibility for each upgrade, modification or addition to the transmission system in New England that is included with the status of "Planned" in the RSP Project List as defined in Section 3.6 of this Attachment shall be determined in accordance with Schedule 12 of this OATT.

## **11. Allocation of ARRs**

The allocation of ARRs in connection with Transmission Upgrades is addressed in Section III.C.8 of the Tariff.

## **12. Dispute Resolution Procedures**

### **12.1 Objective**

Section 12 of this Attachment sets forth a dispute resolution process (the “Regional Planning Dispute Resolution Process”) through which regional transmission planning-related disputes may be resolved as expeditiously as possible.

### **12.2 Confidential Information and CEII Protections**

All information disclosed in the course of the Regional Planning Dispute Resolution Process shall be subject to the protection of confidential information and CEII consistent with the ISO New England Information Policy and CEII policy.

### **12.3 Eligible Parties**

Any member of the Planning Advisory Committee that has been adversely affected by a Reviewable Determination, defined in Section 12.4(a) of this Attachment, with respect to the regional system planning process described in this Attachment is eligible to raise its dispute, as appropriate, under this Dispute Resolution Process (“Disputing Party”).

### **12.4 Scope**

In order to ensure that the regional transmission planning process set forth under this Attachment moves expeditiously forward, the scope of issues that may be subject to the Regional Planning Dispute Resolution Process under this Section 12 shall be limited to certain key procedural and substantive decisions made by the ISO within its authority as specified in documents on file with the Commission. That is, decisions not subject to resolution within the jurisdiction of the Commission are not within the scope of the Regional Planning Dispute Resolution Process. Examples of matters not within the scope of the Regional Planning Dispute Resolution Process include planning to serve retail native load or state siting issues. Additionally, the Tariff already explicitly provides specific dispute resolution procedures for various matters. To this end, any matter regarding the review and approval of applications pursuant to Section I.3.9 of the Tariff, which is subject to the dispute resolution process under Section I.6 of the Tariff, shall not be within the scope of this Regional Planning Dispute Resolution Process. Similarly, any



matter regarding Transmission Cost Allocation shall be governed by the dispute resolution process under Schedule 12 of the OATT, and shall be outside the scope of this Regional Planning Dispute Resolution Process.

**(a) Reviewable Determinations**

The determinations that may be subject to the Regional Planning Dispute Resolution Process under this Section 12 that include certain procedural and substantive challenges that may arise at limited designated key decision points in the regional transmission planning process for PTF. Procedural challenges will be limited to whether or not the steps taken up to a designated key decision point conform to the requirements set forth in this Attachment. Substantive challenges will be limited to whether or not a determination or conclusion rendered at a designated key decision point was supported by adequate basis in fact.

The designated key decision points for Reviewable Determinations shall be limited to the following:

- (i) Results of a Needs Assessment conducted and communicated by the ISO to the Planning Advisory Committee as specified in Section 4.1 of this Attachment;
- (ii) Updates to the RSP Project List, including adding, removing or revising regulated transmission solutions included thereunder, as presented at the Planning Advisory Committee and as specified in Section 3.6 of this Attachment;
- (iii) Results of Solutions Studies conducted and communicated by the ISO to the Planning Advisory Committee as specified in Section 4.2 of this Attachment;
- (iv) Consideration of market responses in Needs Assessments as specified in Section 4.1(f) of this Attachment;
- (v) Substance of Economic Studies to be conducted by the ISO in a given year as specified in Section 4.1(b) of this Attachment; and

- (vi) Prioritization of Economic Studies to be performed in a given year where the Planning Advisory Committee is not able to prioritize them as specified in Section 4.1(b) of this Attachment.

**(b) Material Adverse Impact**

In order to prevail in a challenge to a procedural-based Reviewable Determination, the Disputing Party must show that the alleged procedural error had a material adverse impact on the determination or conclusion. In order to prevail in a challenge to a substantive-based Reviewable Determination, the Disputing Party must show that either (i) the determination is based on incorrect data or assumptions or (ii) incorrect analysis was performed by the ISO, and (iii) as a result the ISO made an incorrect decision or determination.

**12.5 Notice and Comment**

A Disputing Party aggrieved by a Reviewable Determination shall have fifteen (15) calendar days upon learning of the Reviewable Determination following the ISO's presentation of such Reviewable Determination at the Planning Advisory Committee to request dispute resolution by giving notice to the ISO ("Request for Dispute Resolution"). A Request for Dispute Resolution shall be in writing and shall be addressed to the ISO's Chair of the Planning Advisory Committee and, as appropriate, the affected Transmission Owner. Within three (3) Business Days of the receipt by the ISO of a Request for Dispute Resolution, the ISO shall prepare and distribute to all members of the Planning Advisory Committee a notice of the Request for Dispute Resolution including, subject to the protection of Confidential Information and CEII, the specifics of the Request for Dispute Resolution and providing the name of an ISO representative to whom any comments may be sent. Any member of the Planning Advisory Committee may submit to the ISO's designated representative, on or before the tenth (10th) Business Day following the date the ISO distributes the notice of the Request for Dispute Resolution, written comments to the ISO with respect to the Request for Dispute Resolution. The party filing the Request for Dispute Resolution may respond to any such comments by submitting a written response to the ISO's designated representative and to the commenting party on or before the fifteenth (15th) Business Day following the date the ISO distributes the notice of the Request for Dispute Resolution. The ISO may, but is not required to, consider any written comments.

**12.6 Dispute Resolution Procedures**

**(a) Resolution Through the Planning Advisory Committee**

The Planning Advisory Committee shall discuss and resolve any dispute arising under this Attachment involving a Reviewable Determination, as defined in Section 12.4 of this Attachment, between and among the ISO, the Disputing Party, and, as appropriate, the affected Transmission Owner (collectively, "Parties") (excluding applications for rate changes or other changes to the Tariff, or to any Service Agreement entered into under the Tariff, which shall be presented directly to the Commission for resolution).

**(b) Resolution Through Informal Negotiations**

To the extent that the Planning Advisory Committee is not able to resolve a dispute arising under this Attachment involving a Reviewable Determination, as defined in Section 12.4 of this Attachment, between and among the ISO, the Disputing Party, and, as appropriate, the affected Transmission Owner, such dispute shall be the subject of good-faith negotiations among the Parties. Each Party shall designate a fully authorized senior representative for resolution on an informal basis as promptly as practicable.

**(c) Resolution Through Alternative Dispute Resolution**

In the event the designated representatives are unable to resolve the dispute through informal negotiation within thirty (30) days, or such other period as the Parties may agree upon, by mutual agreement of the Parties, such dispute may be submitted to mediation or any other form of alternative dispute resolution upon the agreement of all Parties to participate in such mediation or other alternative dispute resolution process. Such form of alternative dispute resolution shall not include binding arbitration.

If a Party identifies exigent circumstances reasonably requiring expedited resolution of the dispute, such Party may file a Complaint with the Commission or seek other appropriate redress before a court of competent jurisdiction.

**12.7 Notice of Dispute Resolution Process Results**

Within three (3) Business Days following the resolution of a dispute pursuant to either Section 12.6(b) or Section 12.6(c) of this Attachment, the ISO shall distribute to the Planning Advisory Committee a document reflecting the resolution.

### **13. Rights Under The Federal Power Act**

Nothing in this Attachment shall restrict the rights of any party to file a Complaint with the Commission under relevant provisions of the Federal Power Act.

### **14. Annual Assessment of Transmission Transfer Capability**

Each year, the ISO shall issue the results of the annual assessment of transmission transfer capability, conducted pursuant to applicable NERC, NPCC and ISO New England standards and criteria and the identification of potential future transmission system weaknesses and limiting facilities that could impact the transmission system's ability to reliably transfer energy in the planning horizon. Each annual assessment will identify those portions of the New England system, along with the associated interface boundaries, that should be considered in the assessment of Capacity Zones to be modeled in the Forward Capacity Market pursuant to ISO Tariff Section III.12. This report will be posted on the ISO website. Each annual assessment will model out-of-service all Non-Price Retirement Requests and Permanent De-List Bids as well as rejected for reliability Static De-List Bids and rejected for reliability Dynamic De-List Bids from the most recent Forward Capacity Auction.

### **15. Procedures for the Conduct of Cluster Enabling Transmission Upgrades Regional Planning Study**

The purpose of this Section 15 is to support the conduct of Interconnection Studies under the Interconnection Procedures set forth in Schedules 22, 23 and 25 of Section II of the Tariff. Other than Section 2 of this Attachment K regarding the responsibilities of the Planning Advisory Committee and this Section 15, none of the other provisions in this Attachment K apply to the conduct of the Cluster Enabling Transmission Upgrade Regional Planning Study or the results of the study.

#### **15.1 Notice of Initiation of Cluster Enabling Transmission Upgrade Regional Planning Study in Support of Cluster Studies under the Interconnection Procedures.**

Pursuant to Section 4.2.2 of Schedule 22, Section 1.5.3.2 of Schedule 23, and Section 4.2.2 of Schedule 25 of Section II of this Tariff, the ISO shall provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests. The cluster study process, known as Clustering, shall consist of two phases. This notice shall trigger the first phase of Clustering, during which the ISO shall conduct a Cluster Enabling Transmission Upgrade ("CETU") Regional Planning Study ("CRPS") (the cost of which will be recovered by the ISO pursuant to Section IV.A of the Tariff).

In the second phase of Clustering, the ISO shall conduct Interconnection System Impact Studies and Interconnection Facilities Studies in clusters pursuant to Schedules 22, 23 and 25 of Section II of the Tariff.

## **15.2 Preparation for Conduct of CRPS; Stakeholder Input**

The purpose of the CRPS shall be to identify the new transmission infrastructure and any associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests for which the conditions identified in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff have been triggered. The ISO will prepare and post on its website, consistent with Section 2.4(d) of this Attachment K, a proposed scope of the CRPS and associated parameters and assumptions, and provide the foregoing to the Planning Advisory Committee. A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit stakeholder input for consideration by the ISO on the CRPS's scope, parameters and assumptions, consistent with the responsibilities of the Planning Advisory Committee as set forth in Section 2.2 of this Attachment. As part of the CRPS's scope, the ISO will describe the circumstances that triggered the conditions in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff. In addition, the ISO will identify: (i) the Interconnection Requests, to be referenced by Queue Position, that are expected to be eligible to participate in the Cluster Interconnection System Impact Study, and (ii) the preliminary transmission upgrade concepts proposed to be considered in the CRPS. The preliminary transmission upgrade concepts may account for previously conducted transmission reinforcement studies and previously identified concepts for transmission upgrades in the relevant electrical area, including Elective Transmission Upgrades with Interconnection Requests pending in the interconnection queue prior to the initiation of the CRPS.

A member of the Planning Advisory Committee or an Interconnection Customer may make a written submission to the ISO, requesting that Clustering be considered for specific Interconnection Requests in the ISO New England interconnection queue. In response to such a request, the ISO will either develop a notice of initiation of a cluster pursuant to Section 15.1 of this Attachment K, or identify, in writing, to the Planning Advisory Committee why the conditions in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff have not been triggered.

### **15.3 Conduct of the CRPS**

The CRPS will consist of analyses performed under the conditions used in the conduct of an Interconnection System Impact Study under the Interconnection Procedures. The CRPS will consist of steady state thermal analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak-grid-related analyses. The ISO will use Reasonable Efforts to complete the CRPS within twelve (12) months from the notice of the cluster initiation to the Planning Advisory Committee. If less than two (2) Interconnection Requests identified pursuant to Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff remain in the interconnection queue prior to the completion of the CRPS, the ISO will terminate the CRPS.

### **15.4 Publication of the CRPS**

The ISO shall post a draft report of the CRPS to the Planning Advisory Committee, consistent with Section 2.4(d) of this Attachment K, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to discuss the results of the CRPS. A comment period will follow the Planning Advisory Committee meeting. The ISO will post on its website any comments received and the ISO's responses to those comments.

The CRPS report will provide:

- (i) a planning level description of the CETU(s) and a non-binding good faith order-of-magnitude estimate, developed by the applicable Transmission Owner(s), of the costs for the CETU(s);
- (ii) a list of other facilities that may be needed in addition to the CETU(s) and a non-binding good faith order-of-magnitude estimate, developed by the applicable Transmission Owner(s), of the costs for those facilities (the CRPS will not provide descriptions of expected Interconnection Facilities for specific Interconnection Requests in the cases where the Interconnection Facilities cannot be finalized until the actual Interconnection Requests that will be moving forward in the cluster are known);
- (iii) the approximate megawatt quantity (or quantities if more than one level of megawatt injection was studied in the CRPS) of resources that could be interconnected in a manner

that meets the Network Capability Interconnection Standard and the Capacity Capability Interconnection Standard in accordance with Schedules 22, 23 and 25 of Section II of the Tariff; and,

- (iv) a list of the Interconnection Requests, to be referenced by Queue Position, that at the sole discretion of the ISO are identified as eligible to participate in the Cluster Interconnection System Impact Study that will be conducted by the ISO in accordance with Section 4.2.3 of Schedule 22, Section 1.5.3.3 of Schedule 23, and Section 4.2.3 of Schedule 25 of Section II of the Tariff. The list shall include the expected cost allocation for the eligible Interconnection Requests, calculated in accordance with Schedule 11 of Section II of the Tariff.

The non-binding good faith order-of-magnitude estimates under Section 15.4(i)-(ii) of this Attachment will be developed by the applicable Transmission Owner(s), and the costs of developing such estimates shall be recovered as specified in Sections 3.3.1, 6.1 and 7.2 of Schedule 22, Section 3.3.1, 3.4.2, and Attachment 1 of Schedule 23, and Section 3.3.1, 6.1 and 7.2 of Schedule 25.

The posting, consistent with Section 2.4 (d) of this Attachment K, of the final CRPS report on the ISO website will trigger the Cluster Interconnection System Impact Study Entry Deadline specified in Section 4.2.3.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.3.1 of Schedule 25 of Section II of the Tariff. The Cluster Interconnection System Impact Study Entry Deadline shall be 30 days from the posting of the final CRPS report.

Notwithstanding any other provision in this Section 15, the final Maine Resource Integration Study shall be the first CRPS and will form the basis for the first Cluster Interconnection System Impact Study to be conducted in accordance with Section 4.2.3 of Schedule 22, Section 1.5.3.3 of Schedule 23, and Section 4.2.3 of Schedule 25 of Section II of the Tariff.

**ATTACHMENT K APPENDIX 1**  
**ATTACHMENT K -LOCAL**  
**LOCAL SYSTEM PLANNING PROCESS**



**APPENDIX 1**  
**ATTACHMENT K -LOCAL**  
**LOCAL SYSTEM PLANNING PROCESS**

**1. Local System Planning Process**

**1.1 General**

In circumstances where transmission system planning for Non-Pool Transmission Facilities (“Non-PTF”)<sup>1</sup>, including Local Public Policy Transmission Upgrades, is taking place in New England that is not incorporated into the RSP planning process, the following Local System Plan (“LSP”) process will be utilized for transmission planning purposes. The purpose of the LSP is to enable formal stakeholder input to planning for Non-PTF that is not incorporated into the RSP. The LSP shall ensure the opportunity for Planning Advisory Committee participation in the LSP process. The LSP will not be subject to approval by the ISO or the ISO Board under the RSP.

**1.2 Planning Advisory Committee Review**

The Planning Advisory Committee shall periodically provide input and feedback to the PTOs concerning the development of the LSP and the conduct of associated system enhancement and expansion studies. It is contemplated that LSP issues for identified local areas will be periodically addressed at the end of regularly scheduled Planning Advisory Committee meetings. Regular meetings of the Planning Advisory Committee shall be extended as necessary to serve the purposes of this section. Each PTO contemplating the addition of new Non-PTF will present its respective LSP to the Planning Advisory Committee not less than once per year. Not less than every three years, each PTO will post a notice as part of its LSP process indicating that members of the Planning Advisory Committee, NESCOE, or any state may provide the PTO with input regarding state and federal Public Policy Requirements identified as driving transmission needs relating to Non-PTF and regarding particular local transmission needs driven by Public Policy Requirements. The PTO will provide a written explanation, to be posted on the ISO website, of why suggested transmission needs driven by Public Policy Requirements will or will not be evaluated for potential solutions in the LSP planning process.

---

<sup>1</sup> For absence of doubt, the PTOs clarify that Non-PTF is meant to include Category B and Local Area Facilities as defined by the TOA.

### **1.3 Role of the PTOs**

Each PTO will be responsible for administering the LSP process pertaining to its own Non-PTF, including Local Public Policy Transmission Upgrades, by presenting LSP information to the Planning Advisory Committee, developing an appropriate needs analysis and addressing LSP needs within its local area. In developing its LSP, each PTO will ensure comparable treatment of similarly situated customers or potential customers and will take into consideration data, comments and specific requests supplied by the Planning Advisory Committee, Transmission Customers and other stakeholders. To the extent that generation and/or demand resources are identified that could impact planning for Non-PTF, each PTO will take such resources into account when developing the LSP for its facilities, consistent with Good Utility Practice. Each PTO will also be responsible for addressing issues or concerns arising out of Planning Advisory Committee review of its proposed LSP and posting its LSP and the LSP Project List.

### **1.4 Description of LSP**

The LSP shall describe the projected improvements to Non-PTF that are needed to maintain system reliability or as Local Public Policy Transmission Upgrades, and shall reflect the results of such reviews within the limited geographical areas that pertain to the LSP, as determined by each PTO (“LSP Needs Assessments”), and corresponding system planning and expansion studies. The LSP Needs Assessments will be coordinated with the RSP and include the information that the ISO-NE incorporates into the RSP plans, as applicable. The proponents of regulated transmission proposals in response to LSP Needs Assessments shall also identify any RSP plans that require coordination with their regulated transmission proposals addressing the Non-PTF system needs.

The LSP shall identify the planning process, criteria, data, and assumptions used to develop the LSP. To the extent the current LSP utilizes data, assumptions or criteria used by the ISO in the RSP, any such data, assumptions or criteria will also be identified in the LSP.

Each PTO shall consult with NESCOE and applicable states, local authorities and stakeholders to consider their views prior to including a Local Public Transmission Upgrade in its LSP, as described in Section 1.6.

Each PTO’s LSP will be made available on a website for review by the Planning Advisory Committee, Transmission Customers and other stakeholders, subject to the ISO New England Information Policy and

CEII restrictions or requirements. The ISO's posting of the RSP and the RSP Project List will include links to each PTO's specific LSP posting.

The LSP of a particular PTO shall be posted not less than 3 business days prior to its presentation by the PTO to the Planning Advisory Committee. The Planning Advisory Committee, Transmission Customers, and other stakeholders will have 30 days from the date of the PTO's presentation to the Planning Advisory Committee to provide any written comments for consideration by the PTO. The LSP shall specify the physical characteristics of the solutions that can meet the needs identified in the LSP. The LSP shall provide sufficient information to allow Market Participants to assess the quantity, general locations and operating characteristics of the type of incremental supply or demand-side resources, or merchant transmission projects, that would satisfy the identified needs or that may serve to modify, offset or defer proposed regulated transmission upgrades.

Each year's LSP shall be based upon the LSP completed in the prior year by either recertifying the results of the prior LSP or providing specific updates.

#### **1.5 Economic Studies**

To the extent that the ISO selects any Economic Studies pursuant to Section 4.1(b) of Attachment K or otherwise performs Economic Studies that will impact Non-PTF, the PTOs will coordinate with the ISO in the performance of such Economic Studies.

#### **1.6 Public Policy Studies**

As part of the LSP process, each PTO will evaluate potential transmission solutions on its Non-PTF system that are likely to be both efficient and cost-effective for meeting Public Policy Requirements.

##### **1.6A Process to Identify Public Policy Requirements Driving Non-PTF Transmission Needs**

Within six months of publication, each PTO will review the Public Policy Requirements posted by the ISO to determine and evaluate at a high level any public policy needs potentially driving transmission needs on their respective Non-PTF systems. Such evaluations will also include potential public policy needs suggested by third parties. Each PTO will review NESCOE's written explanation of which transmission needs driven by state or federal Public Policy Requirements will be evaluated by the ISO and why other suggested transmission needs will not be evaluated. If NESCOE does not provide a listing

of identified transmission needs and explanation, each PTO will review the ISO's explanations of which transmission needs driven by state or federal Public Policy Requirements will be evaluated by the ISO and why other suggested transmission needs will not be evaluated. In addition, each PTO will review the ISO's explanation of which transmission needs driven by local Public Policy Requirements will be evaluated in the regional system planning process and why other suggested transmission needs driven by local Public Policy requirements will not be evaluated. Each PTO will then determine if any of the posted state, federal or local Public Policy Requirements are driving a need on its Non-PTF transmission system and will include the non-PTF needs in its local planning process.

As part of the local planning process, each PTO will list the identified transmission needs on its non-PTF transmission system driven by state, federal, or local Public Policy Requirements that will be evaluated, and provide an explanation of why any identified transmission needs will not be evaluated as part of its LSP. The list will be posted in the PTO's LSP and presented at the annual PAC meeting. The PTO will seek input at the PAC meeting from stakeholders about whether further study is warranted to identify solutions for local transmission system needs and seek recommendations about whether to proceed with such studies. A stakeholder may provide written input on the list within 30 days from the date of presentation for consideration by the PTO. Each PTO will then confirm, or modify if appropriate, its determination of which identified transmission needs on its non-PTF transmission system driven by state, federal, or local Public Policy Requirements will be evaluated and which will not be evaluated, and revise its annual LSP accordingly. If the potential Non-PTF transmission needs identified would affect the Non-PTF facilities of more than one PTO, the affected PTOs will coordinate their efforts with other affected PTOs, as necessary.

#### **1.6B Procedure for Evaluating Potential Public Policy Solutions on the Non-PTF**

Once it has been determined that a non-PTF need driven by state, federal or local Public Policy Requirements will be evaluated, each PTO will prepare a scope and associated assumptions as part of a Public Policy Local Transmission Study. For those needs where a scope is available, a PTO may present the proposed scope for the Public Policy Local Transmission Study within its LSP and as part of its LSP presentation described in Section 1.6A. A stakeholder may provide written input to the scope within 30 days after the LSP presentation for the PTO to consider.

Each PTO will schedule a follow-up PAC meeting presentation for additional stakeholder input within 4 months after the PTO's LSP presentation as described in Section 1.6A if the proposed scope for a Public Policy Local Transmission Study was not included in its annual LSP presentation. Within 30 days after

the follow-up meeting, a stakeholder may provide written input to the scope for the PTO to consider. Subsequently, the PTO will determine the study scope for the Public Policy Local Transmission Study and revise its annual LSP.

In preparation of a Public Policy Local Transmission Study that will be presented to the PAC as part of the LSP for the following year, the PTO will undertake the following: First, the PTO will perform the initial phase of the Public Policy Local Transmission Study to develop an estimate of costs and benefits and post its preliminary results on a website. Second, the PTO will use good faith efforts to contact stakeholders and the appropriate state and/or local authorities informing them of the posting, requesting input on whether further study is warranted to identify solutions for local transmission system needs, and seeking recommendations about whether to proceed with further planning and construction of a Local Public Policy Transmission Upgrade. Each PTO will then make a determination of whether further study is warranted to identify solutions for local transmission system needs, or will select its final solution, and revise its annual LSP accordingly. If the potential Non-PTF transmission needs identified would affect the Non-PTF facilities of more than one PTO, the affected PTOs will coordinate their efforts with other affected PTOs, as necessary. Results of a Public Policy Local Transmission Study will be provided to the PAC as part of the LSP for the following year.

## **2. Posting of LSP Project List**

Each PTO shall develop, maintain and make available on a website, a cumulative listing of proposed regulated transmission solutions that may meet LSP needs (the “LSP Project List”). The LSP Project List will be updated at least annually. The LSP Project List shall also provide reasons for any new Non-PTF, including Local Public Policy Transmission Upgrades, any change in status of proposed Non-PTF, including Local Public Policy Transmission Upgrades, or any removal of proposed Non-PTF, including Local Public Policy Transmission Upgrades, from the LSP Project List. Each PTO will be individually responsible for publicly posting and updating the status of its respective LSP and the transmission projects arising therefrom on a website in a format comparable to the manner in which RSP plans and projects are posted on the RSP Project List. The ISO’s posting of the RSP and RSP Project List will include links to each PTO’s specific LSP Project List.

## **3. Posting of Assumptions and Criteria**

Each PTO will make available on a website the planning criteria and assumptions used in its current LSP. A link to each PTO’s planning criteria and assumptions will be posted on the ISO website.

#### **4. Cost Responsibility for Transmission Upgrades**

The cost responsibility for each upgrade, modification or addition to the transmission system in New England that is included in the LSP Project List of this Appendix 1 shall be determined in accordance with Schedule 21 of this OATT.

#### **5. LSP Dispute Resolution Procedures**

##### **5.1 Objective**

Section 5 of this Appendix 1 sets forth an LSP dispute resolution process (the "LSP Dispute Resolution Process") through which LSP-related transmission planning-related disputes may be resolved as expeditiously as possible.

##### **5.2 Confidential Information and CEII Protections**

All information disclosed in the course of the LSP Dispute Resolution Process shall be subject to the protection of confidential information and CEII consistent with the ISO New England Information Policy and CEII policy.

##### **5.3 Eligible Parties**

Any member of the Planning Advisory Committee that has been adversely affected by a PTO's Reviewable Determination with respect to the LSP transmission planning process described in this Appendix 1 is eligible to raise its dispute, as appropriate, under this LSP Dispute Resolution Process ("Disputing Party").

##### **5.4 Scope**

In order to ensure that the LSP transmission planning process set forth under this Appendix 1 moves expeditiously forward, the scope of issues that may be subject to the LSP Dispute Resolution Process under this Section 5 shall be limited to certain key procedural and substantive decisions made by the applicable PTO within its authority as specified in documents on file with the Commission. That is, decisions not subject to resolution within the jurisdiction of the Commission are not within the scope of this LSP Dispute Resolution Process. Examples of matters not within the scope of the LSP Dispute Resolution Process include planning to serve retail native load or state siting issues. Additionally, the

Tariff already explicitly provides specific dispute resolution procedures for various matters. To this end, any matter regarding the review and approval of applications pursuant to Section I.3.9 of the Tariff, which is subject to the dispute resolution process under Section I.6 of the Tariff, shall not be within the scope of this LSP Dispute Resolution Process. Similarly, any matter regarding Transmission Cost Allocation shall be governed by the dispute resolution process under Schedule 12 of the OATT, and shall be outside the scope of this LSP Dispute Resolution Process.

**(a) Reviewable Determinations:**

The LSP determinations made by the applicable PTO that may be subject to the LSP Dispute Resolution Process under this Section 5 ("Reviewable LSP Determination") shall include certain procedural and substantive challenges at designated key decision points during the LSP transmission planning process for Non-PTF, including Local Public Policy Transmission Upgrades ("Key LSP Decision Points"). Procedural challenges will be limited to whether or not the steps taken up to a Key LSP Decision Point conform to the requirements set forth in this Appendix 1. Substantive challenges will be limited to whether or not a determination or conclusion rendered at a Key LSP Decision Point was supported by adequate basis in fact. The Key LSP Decision Points shall be limited to the following:

- (i) Results of an LSP Needs Assessment conducted and communicated by a PTO to the Planning Advisory Committee as specified in this Appendix 1;
- (ii) Updates to the LSP Project List, including adding, removing or revising regulated Non-PTF transmission solutions included thereunder, as presented at the Planning Advisory Committee and as specified in this Appendix 1;
- (iii) Results of Non-PTF transmission solution studies, including any Local Public Policy Transmission Upgrade studies, conducted and communicated by the PTO to the Planning Advisory Committee as specified in this Appendix 1; and
- (iv) Consideration of market responses in LSP Needs Assessments as specified in this Appendix 1.

**(b) Material Adverse Impact**

In order to prevail in a challenge to a procedural-based Reviewable LSP Determination, the Disputing Party must show that the alleged procedural error had a material adverse impact on the determination or conclusion made by the applicable PTO. In order to prevail in a challenge to a substantive-based Reviewable LSP Determination, the Disputing Party must show that either (i) the determination is based on incorrect data or assumptions or (ii) incorrect analysis was performed by the PTO, and (iii) as a result thereof, the PTO made an incorrect decision or determination.

**5.5 Notice and Comment**

A Disputing Party aggrieved by a PTO's Reviewable LSP Determination shall have fifteen (15) calendar days upon learning of the Reviewable LSP Determination following the PTO's presentation of such LSP Reviewable Determination at the Planning Advisory Committee to request dispute resolution by giving notice to the Applicable PTO ("Request for LSP Dispute Resolution").

A Request for LSP Dispute Resolution shall be in writing and shall be provided to the applicable PTO and, as appropriate, other affected Transmission Owners. Within three (3) Business Days of the receipt by a PTO of a Request for Dispute Resolution, the PTO, in coordination with the ISO, shall prepare and distribute to all members of the Planning Advisory Committee a notice of the Request for Dispute Resolution including, subject to the protection of Confidential Information and CEII, the specifics of the Request for Dispute Resolution and providing the name of a PTO representative to whom any comments may be sent. Any member of the Planning Advisory Committee may submit to the PTO's designated representative, on or before the tenth (10th) Business Day following the date the PTO distributes the notice of the Request for Dispute Resolution, written comments to the PTO with respect to the Request for Dispute Resolution. The Disputing Party filing the Request for Dispute Resolution may respond to any such comments by submitting a written response to the PTO's designated representative and to the commenting party on or before the fifteenth (15th) Business Day following the date the PTO distributes the notice of the Request for Dispute Resolution. The PTO may, but is not required to, consider any written comments.

**5.6 Dispute Resolution Procedure**

**(a) Resolution Through the Planning Advisory Committee**



The Planning Advisory Committee shall discuss and resolve any LSP related dispute arising under this Appendix 1 involving a Reviewable LSP Determination, as defined in Section 5.4 of this Appendix 1, between and among the applicable PTO, the Disputing Party, and, as appropriate, other affected Transmission Owners and the ISO (collectively, “Parties”) (excluding applications for rate changes or other changes to the Tariff, or to any Service Agreement entered into under the Tariff, which shall be presented directly to the Commission for resolution).

**(b) Resolution Through Informal Negotiation**

To the extent that the Planning Advisory Committee is not able to resolve a dispute arising under this Appendix 1 involving a Reviewable LSP Determination, as defined in Section 5.4 of this Appendix 1, between and among the Parties, such dispute shall be the subject of good-faith negotiations among the Parties. Each Party shall designate a fully authorized senior representative for resolution on an informal basis as promptly as practicable.

**(c) Resolution Through Alternative Dispute Resolution**

In the event the designated representatives are unable to resolve the dispute through informal negotiations within thirty (30) days, or such other period as the Parties may agree upon, by mutual agreement of the Parties, such LSP related dispute may be submitted to mediation or any other form of alternative dispute resolution upon the agreement of all Parties to participate in such mediation or other alternative dispute resolution process. Such form of alternative dispute resolution shall not include binding arbitration.

If a Party identifies exigent circumstances reasonably requiring expedited resolution of the LSP related dispute, such Party may file a Complaint with the Commission or seek other appropriate redress before a court of competent jurisdiction

**5.7 Notice of Results of Dispute Resolution**

Within three (3) Business Days following the resolution of a dispute pursuant to either Section 5.6(b) or 5.6(c) of this Appendix 1, the PTO shall distribute to members of the Planning Advisory Committee a document reflecting the resolution.

**5.8 Rights under the Federal Power Act:**

Nothing in this Appendix 1 shall restrict the rights of any party to file a complaint with the Commission under relevant provisions of the Federal Power Act.

**ATTACHMENT K APPENDIX 2**  
**LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION**  
**ENTITIES**

## **APPENDIX 2**

### **ATTACHMENT K**

#### **LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION**

The entities listed in this Appendix 2 are those enrolled for the purpose of participating as a transmission provider in the New England transmission planning region pursuant to Attachment K as of the date the revisions to this Appendix 2 were filed with the Commission. The most current list of entities enrolled for the purpose of participating as a transmission provider in the New England transmission planning region pursuant to Attachment K is available on the ISO-NE website. This Appendix 2 will be updated to reflect any subsequent enrollments as part of unrelated OATT filings at the time ISO-NE undertakes such unrelated filings.

Town of Braintree Electric Light Department  
Central Maine Power Company  
The City of Chicopee Municipal Lighting Department  
The City of Holyoke Gas and Electric Department  
The Connecticut Light and Power Company  
Connecticut Municipal Electric Energy Cooperative  
Connecticut Transmission Municipal Electric Energy Cooperative  
Cross-Sound Cable Company, LLC  
Emera Maine  
Fitchburg Gas and Electric Light Company  
Green Mountain Power Corporation  
Hudson Light & Power Department  
Massachusetts Municipal Wholesale Electric Company  
Maine Electric Power Company  
Middleborough Gas and Electric Department  
New England Electric Transmission Corporation  
New England Energy Connection, LLC  
New England Hydro-Transmission Corporation

New England Hydro-Transmission Electric Company Inc.

New England Power Company

New Hampshire Electric Cooperative, Inc.

New Hampshire Transmission, LLC

Eversource Energy Service Company as agent for: The Connecticut Light and Power Company, NSTAR

Electric Company, Public Service Company of New Hampshire, and Western Massachusetts Electric

Company

Norwood Municipal Light Department

NSTAR Electric Company

Public Service Company of New Hampshire

Shrewsbury Electric & Cable Operations

Taunton Municipal Lighting Plant

Town of Reading Municipal Light Department

The United Illuminating Company

Unitil Energy Systems, Inc.

Vermont Electric Cooperative, Inc.

Vermont Electric Power Company, Inc.

Vermont Electric Transmission Company

Vermont Public Power Supply Authority

Vermont Transco LLC

Town of Wallingford CT Dept of Public Utilities – Electric Division

Western Massachusetts Electric Company

## **ATTACHMENT K APPENDIX 3**

### **LIST OF QUALIFIED TRANSMISSION PROJECT SPONSORS**

The entities listed in this Appendix 3 are those approved by ISO-NE as Qualified Transmission Project Sponsors as of the date the revisions to this Appendix 3 were filed with the Commission. The most current list of entities approved as Qualified Transmission Project Sponsors is available on the ISO-NE website. This Appendix 3 will be updated to reflect any subsequent enrollments as part of unrelated OATT filings at the time ISO-NE undertakes such unrelated filings.

Central Maine Power Company

The Connecticut Light and Power Company

Emera Maine

Eversource Energy Transmission Ventures, Inc.

Maine Electric Power Company

New England Energy Connection, LLC

New England Power Company

New Hampshire Transmission, LLC

NSTAR Electric Company

Public Service Company of New Hampshire

United Illuminating Company

Vermont Transco, LLC

Western Massachusetts Electric Company

## **I.2 Rules of Construction; Definitions**

### **I.2.1. Rules of Construction:**

In this Tariff, unless otherwise provided herein:

- (a) words denoting the singular include the plural and vice versa;
- (b) words denoting a gender include all genders;
- (c) references to a particular part, clause, section, paragraph, article, exhibit, schedule, appendix or other attachment shall be a reference to a part, clause, section, paragraph, or article of, or an exhibit, schedule, appendix or other attachment to, this Tariff;
- (d) the exhibits, schedules and appendices attached hereto are incorporated herein by reference and shall be construed with an as an integral part of this Tariff to the same extent as if they were set forth verbatim herein;
- (e) a reference to any statute, regulation, proclamation, ordinance or law includes all statutes, regulations, proclamations, amendments, ordinances or laws varying, consolidating or replacing the same from time to time, and a reference to a statute includes all regulations, policies, protocols, codes, proclamations and ordinances issued or otherwise applicable under that statute unless, in any such case, otherwise expressly provided in any such statute or in this Tariff;
- (f) a reference to a particular section, paragraph or other part of a particular statute shall be deemed to be a reference to any other section, paragraph or other part substituted therefor from time to time;
- (g) a definition of or reference to any document, instrument or agreement includes any amendment or supplement to, or restatement, replacement, modification or novation of, any such document, instrument or agreement unless otherwise specified in such definition or in the context in which such reference is used;
- (h) a reference to any person (as hereinafter defined) includes such person's successors and permitted assigns in that designated capacity;
- (i) any reference to "days" shall mean calendar days unless "Business Days" (as hereinafter defined) are expressly specified;
- (j) if the date as of which any right, option or election is exercisable, or the date upon which any amount is due and payable, is stated to be on a date or day that is not a Business Day, such right, option or election may be exercised, and such amount shall be deemed due and payable, on the next succeeding Business Day with the same effect as if the same was exercised or made on such date or day (without, in the case of any such payment, the payment or accrual of any interest or

other late payment or charge, provided such payment is made on such next succeeding Business Day);

- (k) words such as “hereunder,” “hereto,” “hereof” and “herein” and other words of similar import shall, unless the context requires otherwise, refer to this Tariff as a whole and not to any particular article, section, subsection, paragraph or clause hereof; and a reference to “include” or “including” means including without limiting the generality of any description preceding such term, and for purposes hereof the rule of *ejusdem generis* shall not be applicable to limit a general statement, followed by or referable to an enumeration of specific matters, to matters similar to those specifically mentioned.

### **I.2.2. Definitions:**

In this Tariff, the terms listed in this section shall be defined as described below:

**Actual Load** is the consumption at the Retail Delivery Point for the hour.

**Additional Resource Blackstart O&M Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Additional Resource Specified-Term Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Additional Resource Standard Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Administrative Costs** are those costs incurred in connection with the review of Applications for transmission service and the carrying out of System Impact Studies and Facilities Studies.

**Administrative Export De-List Bid** is a bid that may be submitted in a Forward Capacity Auction by certain Existing Generating Capacity Resources subject to a multi-year contract to sell capacity outside of the New England Control Area during the associated Capacity Commitment Period, as described in Section III.13.1.2.3.1.4 of Market Rule 1.

**Administrative Sanctions** are defined in Section III.B.4.1.2 of Appendix B of Market Rule 1.



**ADR Neutrals** are one or more firms or individuals identified by the ISO with the advice and consent of the Participants Committee that are prepared to act as neutrals in ADR proceedings under Appendix D to Market Rule 1.

**Advance** is defined in Section IV.A.3.2 of the Tariff.

**Affected Party**, for purposes of the ISO New England Billing Policy, is defined in Section 6.3.5 of the ISO New England Billing Policy.

**Affiliate** is any person or entity that controls, is controlled by, or is under common control by another person or entity. For purposes of this definition, "control" means the possession, directly or indirectly, of the authority to direct the management or policies of an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

**AGC** is automatic generation control.

**AGC SetPoint** is the desired output signal for a Resource providing Regulation that is produced by the AGC system as frequently as every four seconds.

**AGC SetPoint Deadband** is a deadband expressed in megawatts that is applied to changing values of the AGC SetPoint for generating units.

**Allocated Assessment** is a Covered Entity's right to seek and obtain payment and recovery of its share in any shortfall payments under Section 3.3 or Section 3.4 of the ISO New England Billing Policy.

**Alternative Dispute Resolution (ADR)** is the procedure set forth in Appendix D to Market Rule 1.

**Alternative Technology Regulation Resource** is any Resource eligible to provide Regulation that is not registered as a different Resource type.

**Ancillary Services** are those services that are necessary to support the transmission of electric capacity and energy from resources to loads while maintaining reliable operation of the New England Transmission System in accordance with Good Utility Practice.

**Announced Schedule 1 EA Amount, Announced Schedule 2 EA Amount, Announced Schedule 3 EA Amount** are defined in Section IV.B.2.2 of the Tariff.

**Annual Transmission Revenue Requirements** are the annual revenue requirements of a PTO's PTF or of all PTOs' PTF for purposes of the OATT shall be the amount determined in accordance with Attachment F to the OATT.

**Annualized FCA Payment** is used to determine a resource's availability penalties and is calculated in accordance with Section III.13.7.2.7.1.2(b) of Market Rule 1.

**Applicants**, for the purposes of the ISO New England Financial Assurance Policy, are entities applying for Market Participant status or for transmission service from the ISO.

**Application** is a written request by an Eligible Customer for transmission service pursuant to the provisions of the OATT.

**Asset** is a generating unit, interruptible load, a component of a demand response resource or load asset.

**Asset Registration Process** is the ISO business process for registering a physical load, generator, or tie-line for settlement purposes. The Asset Registration Process is posted on the ISO's website.

**Asset Related Demand** is a physical load that has been discretely modeled within the ISO's dispatch and settlement systems, settles at a Node and, except for pumped storage load, is made up of one or more individual end-use metered customers receiving service from the same point or points of electrical supply, with an aggregate average hourly load of 1 MW or greater during the 12 months preceding its registration.

**Asset Related Demand Bid Block-Hours** are Block-Hours assigned to the Lead Market Participant for each Asset Related Demand bid. Blocks of the bid in effect for each hour will be totaled to determine the daily quantity of Asset Related Demand Bid Block-Hours. In the case that a Resource has a Real-Time unit status of "unavailable" for an entire day, that day will not contribute to the quantity of Asset Related Demand Bid Block-Hours. However, if the Resource has at least one hour of the day with a unit status of "available," the entire day will contribute to the quantity of Asset Related Demand Bid Block-Hours.

**Asset-Specific Going Forward Costs** are the net costs of an asset that is part of an Existing Generating Capacity Resource, calculated for the asset in the same manner as the net costs of Existing Generating Capacity Resources as described in Section III.13.1.2.3.2.1.1.1 (for an asset with a Static De-List Bid or an Export Bid) or Section III.13.1.2.3.2.1.1.2 (for an asset with a Permanent De-List Bid or Retirement De-List Bid).

**Assigned Meter Reader** reports to the ISO the hourly and monthly MWh associated with the Asset. These MWh are used for settlement. The Assigned Meter Reader may designate an agent to help fulfill its Assigned Meter Reader responsibilities; however, the Assigned Meter Reader remains functionally responsible to the ISO.

**Auction Revenue Right (ARR)** is a right to receive FTR Auction Revenues in accordance with Appendix C of Market Rule 1.

**Auction Revenue Right Allocation (ARR Allocation)** is defined in Section 1 of Appendix C of Market Rule 1.

**Auction Revenue Right Holder (ARR Holder)** is an entity which is the record holder of an Auction Revenue Right (excluding an Incremental ARR) in the register maintained by the ISO.

**Audited Demand Reduction** is the seasonal claimed capability of a Demand Response Resource as established pursuant to Section III.13.6.1.5.4.

**Audited Full Reduction Time** is the Offered Full Reduction Time associated with the Demand Response Resource's most recent audit.

**Authorized Commission** is defined in Section 3.3 of the ISO New England Information Policy.

**Authorized Person** is defined in Section 3.3 of the ISO New England Information Policy.

**Automatic Response Rate** is the response rate, in MW/Minute, at which a Market Participant is willing to have a generating unit change its output while providing Regulation between the Regulation High Limit and Regulation Low Limit.

**Average Hourly Load Reduction** is either: (i) the sum of the Demand Resource's electrical energy reduction during Demand Resource On-Peak Hours in the month divided by the number of Demand Resource On-Peak Hours in the month; (ii) the sum of the Demand Resource's electrical energy reduction during Demand Resource Seasonal Peak Hours in the month divided by the number of Demand Resource Seasonal Peak Hours in the month; or (iii) in each Real-Time Demand Response Event Hour, the sum of the baseline electrical energy consumption less the sum of the actual electrical energy consumption of all of the Real-Time Demand Response Assets associated with the Real-Time Demand Response Resource as registered with the ISO as of the first day of the month; or (iv) in each Real-Time Emergency Generation Event Hour, the sum of the baseline electrical energy consumption less the sum of the actual electrical energy consumption of all of the Real-Time Emergency Generation Assets associated with the Real-time Emergency Generation Resource as registered with the ISO as of the first day of the month. The Demand Resource's electrical energy reduction and Average Hourly Load Reduction shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements, as described in Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Average Hourly Output** is either: (i) the sum of the Demand Resource's electrical energy output during Demand Resource On-Peak Hours in the month divided by the number of Demand Resource On-Peak Hours in the month; (ii) the sum of the Demand Resource's electrical energy output during Demand Resource Seasonal Peak Hours in the month divided by the number of Demand Resource Seasonal Peak Hours in the month; or (iii) in each Real-Time Demand Response Event Hour or Real-Time Emergency Generation Event Hour, the sum of the electrical energy output of all of the Real-Time Demand Response Assets or Real-Time Emergency Generation Assets associated with the Real-Time Demand Response Resource or Real-Time Emergency Generation Resource as registered with the ISO as of the first day of the month. Electrical energy output and Average Hourly Output shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements, as described in Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Average Monthly PER** is calculated in accordance with Section III.13.7.2.7.1.1.2(a) of Market Rule 1.

**Backstop Transmission Solution** is a solution proposed: (i) to address a reliability or market efficiency need identified by the ISO in a Needs Assessment reported by the ISO pursuant to Section 4.1(i) of Attachment K to the ISO OATT, (ii) by the PTO or PTOs with an obligation under Schedule 3.09(a) of

the TOA to address the identified need; and (iii) in circumstances in which the competitive solution process specified in Section 4.3 of Attachment K to the ISO OATT will be utilized.

**Bankruptcy Code** is the United States Bankruptcy Code.

**Bankruptcy Event** occurs when a Covered Entity files a voluntary or involuntary petition in bankruptcy or commences a proceeding under the United States Bankruptcy Code or any other applicable law concerning insolvency, reorganization or bankruptcy by or against such Covered Entity as debtor.

**Bilateral Contract (BC)** is any of the following types of contracts: Internal Bilateral for Load, Internal Bilateral for Market for Energy, and External Transactions.

**Bilateral Contract Block-Hours** are Block-Hours assigned to the seller and purchaser of an Internal Bilateral for Load, Internal Bilateral for Market for Energy and External Transactions; provided, however, that only those contracts which apply to the Real-Time Energy Market will accrue Block-Hours.

**Blackstart Capability Test** is the test, required by ISO New England Operating Documents, of a resource's capability to provide Blackstart Service.

**Blackstart Capital Payment** is the annual compensation, as calculated pursuant to Section 5.1, or as referred to in Section 5.2, of Schedule 16 to the OATT, for a Designated Blackstart Resource's Blackstart Equipment capital costs associated with the provision of Blackstart Service (excluding the capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart CIP Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 utilizing data from Table 6 of Appendix A to this Schedule 16, or as referred to in Section 5.2, of Schedule 16 to the OATT, for a Blackstart Station's costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service.

**Blackstart CIP O&M Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 to the OATT, utilizing data from Table 6 of Appendix A to this Schedule 16, for a Blackstart Station's operating and maintenance costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of the provision of Blackstart Service.

**Blackstart Equipment** is any equipment that is solely necessary to enable the Designated Blackstart Resource to provide Blackstart Service and is not required to provide other products or services under the Tariff.

**Blackstart O&M Payment** is the annual compensation, as calculated pursuant to Section 5.1 of Schedule 16 to the OATT, for a Designated Blackstart Resource's operating and maintenance costs associated with the provision of Blackstart Service (except for operating and maintenance costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart Owner** is the Market Participant who is authorized on behalf of the Generator Owner(s) to offer or operate the resource as a Designated Blackstart Resource and is authorized to commit the resource to provide Blackstart Service.

**Blackstart Service** is the Ancillary Service described in Section II.47 of the Tariff and Schedule 16 of the OATT, which also encompasses "System Restoration and Planning Service" under the predecessor version of Schedule 16.

**Blackstart Service Commitment** is the commitment by a Blackstart Owner for its resource to provide Blackstart Service and the acceptance of that commitment by the ISO, in the manner detailed in ISO New England Operating Procedure No. 11 – Designated Blackstart Resource Administration (OP 11), and which includes a commitment to provide Blackstart Service under a "Signature Page for Schedule 16 of the NEPOOL OATT" that was executed and in effect prior to January 1, 2013 for Category A Designated Blackstart Resources or a commitment to provide Blackstart Service established under Operating Procedure 11 – Designated Blackstart Resource Administration (OP11) for Category B Designated Blackstart Resources.

**Blackstart Service Minimum Criteria** are the minimum criteria that a Blackstart Owner and its resource must meet in order to establish and maintain a resource as a Designated Blackstart Resource.

**Blackstart Standard Rate Payment** is the formulaic rate of monthly compensation, as calculated pursuant to Section 5 of Schedule 16 to the OATT, paid to a Blackstart Owner for the provision of Blackstart Service from a Designated Blackstart Resource.

**Blackstart Station** is comprised of (i) a single Designated Blackstart Resource or (ii) two or more Designated Blackstart Resources that share Blackstart Equipment.

**Blackstart Station-specific Rate Payment** is the Commission-approved compensation, as calculated pursuant to Section 5.2 of Schedule 16 to the OATT, paid to a Blackstart Owner on a monthly basis for the provision of Blackstart Service by Designated Blackstart Resources located at a specific Blackstart Station.

**Blackstart Station-specific Rate Capital Payment** is a component of the Blackstart Station-specific Rate Payment that reflects a Blackstart Station's capital Blackstart Equipment costs associated with the provision of Blackstart Service (excluding the capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Blackstart Station-specific Rate CIP Capital Payment** is a component of the Blackstart Station-specific Rate Payment that reflects a Blackstart Station's capital costs associated with compliance with NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service.

**Block** is defined as follows: (1) With respect to Bilateral Contracts, a Bilateral Contract administered by the ISO for an hour; (2) with respect to Supply Offers administered by the ISO, a quantity with a related price for Energy (Supply Offers for Energy may contain multiple sets of quantity and price pairs for each hour); (3) with respect to Demand Bids administered by the ISO, a quantity with a related price for Energy (Demand Bids for Energy may contain multiple sets of quantity and price pairs for each hour); (4) with respect to Increment Offers administered by the ISO, a quantity with a related price for Energy (Increment Offers for Energy may contain multiple sets of quantity and price pairs for each hour); (5) with respect to Decrement Bids administered by the ISO, a quantity with a related price for Energy (Decrement Bids for Energy may contain multiple sets of quantity and price pairs for each hour); (6) with respect to Asset Related Demand bids administered by the ISO, a quantity with a related price for Energy (Asset Related Demand bids may contain multiple sets of quantity and price pairs for each hour); and (7) with respect to Demand Reduction Offers administered by the ISO, a quantity of reduced demand with a related price (for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Reduction Offers may contain multiple sets of quantity and price pairs for the day).

**Block-Hours** are the number of Blocks administered for a particular hour.

**Budget and Finance Subcommittee** is a subcommittee of the Participants Committee, the responsibilities of which are specified in Section 8.4 of the Participants Agreement.

**Business Day** is any day other than a Saturday or Sunday or ISO holidays as posted by the ISO on its website.

**Cancelled Start NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Capability Demonstration Year** is the one year period from September 1 through August 31.

**Capability Year** means a year's period beginning on June 1 and ending May 31.

**Capacity Acquiring Resource** is a resource that is seeking to acquire a Capacity Supply Obligation through a Capacity Supply Obligation Bilateral, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Balancing Ratio** is a ratio used in calculating the Capacity Performance Payment in the Forward Capacity Market beginning on June 1, 2018 pursuant to rules filed with the Commission on July 14, 2014.

**Capacity Capability Interconnection Standard** has the meaning specified in Schedule 22, Schedule 23, and Schedule 25 of the OATT.

**Capacity Clearing Price** is the clearing price for a Capacity Zone for a Capacity Commitment Period resulting from the Forward Capacity Auction conducted for that Capacity Commitment Period, as determined in accordance with Section III.13.2.7 of Market Rule 1.

**Capacity Clearing Price Floor** is described in Section III.13.2.7.

**Capacity Commitment Period** is the one-year period from June 1 through May 31 for which obligations are assumed and payments are made in the Forward Capacity Market.

**Capacity Cost (CC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.



**Capacity Export Through Import Constrained Zone Transaction** is defined in Section III.1.10.7(f)(i) of Market Rule 1.

**Capacity Load Obligation** is the quantity of capacity for which a Market Participant is financially responsible, equal to that Market Participant's Capacity Requirement (if any) adjusted to account for any relevant Capacity Load Obligation Bilaterals, as described in Section III.13.7.3.1 of Market Rule 1.

**Capacity Load Obligation Acquiring Participant** is a load serving entity or any other Market Participant seeking to acquire a Capacity Load Obligation through a Capacity Load Obligation Bilateral, as described in Section III.13.5.2 of Market Rule 1.

**Capacity Network Import Capability (CNI Capability)** is as defined in Section I of Schedule 25 of the OATT.

**Capacity Network Import Interconnection Service (CNI Interconnection Service)** is as defined in Section I of Schedule 25 of the OATT.

**Capacity Load Obligation Bilateral** is a bilateral contract through which a Market Participant may transfer all or a portion of its Capacity Load Obligation to another entity, as described in Section III.13.5 of Market Rule 1.

**Capacity Load Obligation Transferring Participant** is an entity that has a Capacity Load Obligation and is seeking to shed such obligation through a Capacity Load Obligation Bilateral, as described in Section III.13.5.2 of Market Rule 1.

**Capacity Network Resource (CNR)** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Capacity Network Resource Interconnection Service (CNR Interconnection Service)** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Capacity Performance Payment** is the performance-dependent portion of revenue received in the Forward Capacity Market beginning on June 1, 2018 pursuant to rules filed with the Commission on July 14, 2014.

**Capacity Rationing Rule** addresses whether offers and bids in a Forward Capacity Auction may be rationed, as described in Section III.13.2.6 of Market Rule 1.

**Capacity Requirement** is described in Section III.13.7.3.1 of Market Rule 1.

**Capacity Scarcity Condition** is a period during which performance is measured in the Forward Capacity Market, as described in the rules filed with the Commission on January 17, 2014, and accepted by the Commission on May 30, 2014.

**Capacity Supply Obligation** is an obligation to provide capacity from a resource, or a portion thereof, to satisfy a portion of the Installed Capacity Requirement that is acquired through a Forward Capacity Auction in accordance with Section III.13.2, a reconfiguration auction in accordance with Section III.13.4, or a Capacity Supply Obligation Bilateral in accordance with Section III.13.5.1 of Market Rule 1.

**Capacity Supply Obligation Bilateral** is a bilateral contract through which a Market Participant may transfer all or a part of its Capacity Supply Obligation to another entity, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Transfer Right (CTR)** is a financial right that entitles the holder to the difference in the Net Regional Clearing Prices between Capacity Zones for which the transfer right is defined, in the MW amount of the holder's entitlement.

**Capacity Transferring Resource** is a resource that has a Capacity Supply Obligation and is seeking to shed such obligation, or a portion thereof, through a Capacity Supply Obligation Bilateral, as described in Section III.13.5.1 of Market Rule 1.

**Capacity Value** is the value (in kW-month) of a Demand Resource for a month determined pursuant to Section III.13.7.1.5 of Market Rule 1.

**Capacity Zone** is a geographic sub-region of the New England Control Area as determined in accordance with Section III.12.4 of Market Rule 1.

**Capacity Zone Demand Curves** are the demand curves used in the Forward Capacity Market for a Capacity Zone as specified in Sections III.13.2.2.2 and III.13.2.2.3.

**Capital Funding Charge (CFC)** is defined in Section IV.B.2 of the Tariff.

**CARL Data** is Control Area reliability data submitted to the ISO to permit an assessment of the ability of an external Control Area to provide energy to the New England Control Area in support of capacity offered to the New England Control Area by that external Control Area.

**Category A Designated Blackstart Resource** is a Designated Blackstart Resource that has committed to provide Blackstart Service under a “Signature Page for Schedule 16 of the NEPOOL OATT” that was executed and in effect prior to January 1, 2013 and has not been converted to a Category B Designated Blackstart Resource.

**Category B Designated Blackstart Resource** is a Designated Blackstart Resource that is not a Category A Designated Blackstart Resource.

**Charge** is a sum of money due from a Covered Entity to the ISO, either in its individual capacity or as billing and collection agent for NEPOOL pursuant to the Participants Agreement.

**CLAIM10** is the value, expressed in megawatts, calculated pursuant to Section III.9.5.3 of the Tariff.

**CLAIM30** is the value, expressed in megawatts, calculated pursuant to Section III.9.5.3 of the Tariff.

**Claimed Capability Audit** is performed to determine the real power output capability of a Generator Asset.

**Cluster Enabling Transmission Upgrade (CETU)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Cluster Enabling Transmission Upgrade Regional Planning Study (CRPS)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Cluster Entry Deadline** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Cluster Interconnection System Impact Study (CSIS)** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Clustering** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**CNR Capability** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of the OATT.

**Coincident Peak Contribution** is a Market Participant's share of the New England Control Area coincident peak demand for the prior calendar year as determined prior to the start of each power year, which reflects the sum of the prior year's annual coincident peak contributions of the customers served by the Market Participant at each Load Asset in all Load Zones. Daily Coincident Peak Contribution values shall be submitted by the Assigned Meter Reader or Host Participant by the meter reading deadline to the ISO.

**Commercial Capacity**, for the purposes of the ISO New England Financial Assurance Policy, is defined in Section VII.A of that policy.

**Commission** is the Federal Energy Regulatory Commission.

**Commitment Period** is (i) for a Day-Ahead Energy Market commitment, a period of one or more contiguous hours for which a Resource is cleared in the Day-Ahead Energy Market, and (ii) for a Real-Time Energy Market commitment, the period of time for which the ISO indicates the Resource is being committed when it issues the Dispatch Instruction. If the ISO does not indicate the period of time for which the Resource is being committed in the Real-Time Energy Market, then the Commitment Period is the Minimum Run Time for an offline Resource and one hour for an online Resource.

**Common Costs** are those costs associated with a Station that are avoided only by the clearing of the Static De-List Bids, the Permanent De-List Bids, or the Retirement De-List Bids of all the Existing Generating Capacity Resources comprising the Station.

**Completed Application** is an Application that satisfies all of the information and other requirements of the OATT, including any required deposit.

**Compliance Effective Date** is the date upon which the changes in the predecessor NEPOOL Open Access Transmission Tariff which have been reflected herein to comply with the Commission's Order of April 20, 1998 became effective.

**Composite FCM Transaction** is a transaction for separate resources seeking to participate as a single composite resource in a Forward Capacity Auction in which multiple Designated FCM Participants provide capacity, as described in Section III.13.1.5 of Market Rule 1.

**Conditional Qualified New Resource** is defined in Section III.13.1.1.2.3(f) of Market Rule 1.

**Confidential Information** is defined in Section 2.1 of the ISO New England Information Policy, which is Attachment D to the Tariff.

**Confidentiality Agreement** is Attachment 1 to the ISO New England Billing Policy.

**Congestion** is a condition of the New England Transmission System in which transmission limitations prevent unconstrained regional economic dispatch of the power system. Congestion is the condition that results in the Congestion Component of the Locational Marginal Price at one Location being different from the Congestion Component of the Locational Marginal Price at another Location during any given hour of the dispatch day in the Day-Ahead Energy Market or Real-Time Energy Market.

**Congestion Component** is the component of the nodal price that reflects the marginal cost of congestion at a given Node or External Node relative to the reference point. When used in connection with Zonal Price and Hub Price, the term Congestion Component refers to the Congestion Components of the nodal prices that comprise the Zonal Price and Hub Price weighted and averaged in the same way that nodal prices are weighted to determine Zonal Price and averaged to determine the Hub Price.

**Congestion Cost** is the cost of congestion as measured by the difference between the Congestion Components of the Locational Marginal Prices at different Locations and/or Reliability Regions on the New England Transmission System.

**Congestion Paying LSE** is, for the purpose of the allocation of FTR Auction Revenues to ARR Holders as provided for in Appendix C of Market Rule 1, a Market Participant or Non-Market Participant Transmission Customer that is responsible for paying for Congestion Costs as a Transmission Customer paying for Regional Network Service under the Transmission, Markets and Services Tariff, unless such Transmission Customer has transferred its obligation to supply load in accordance with ISO New England System Rules, in which case the Congestion Paying LSE shall be the Market Participant supplying the transferred load obligation. The term Congestion Paying LSE shall be deemed to include, but not be limited to, the seller of internal bilateral transactions that transfer Real-Time Load Obligations under the ISO New England System Rules.

**Congestion Revenue Fund** is the amount available for payment of target allocations to FTR Holders from the collection of Congestion Cost.

**Congestion Shortfall** means congestion payments exceed congestion charges during the billing process in any billing period.

**Control Agreement** is the document posted on the ISO website that is required if a Market Participant's cash collateral is to be invested in BlackRock funds.

**Control Area** is an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

- (1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of the applicable regional reliability council or the North American Electric Reliability Corporation; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Coordinated External Transaction** is an External Transaction at an external interface for which the enhanced scheduling procedures in Section III.1.10.7.A are implemented. A transaction to wheel energy into, out of or through the New England Control Area is not a Coordinated External Transaction.

**Coordinated Transaction Scheduling** means the enhanced scheduling procedures set forth in Section III.1.10.7.A.

**Correction Limit** means the date that is one hundred and one (101) calendar days from the last Operating Day of the month to which the data applied. As described in Section III.3.6.1 of Market Rule 1, this will be the period during which meter data corrections must be submitted unless they qualify for submission as a Requested Billing Adjustment under Section III.3.7 of Market Rule 1.

**Cost of Energy Consumed (CEC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**Cost of Energy Produced (CEP)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**Cost of New Entry (CONE)** is the estimated cost of new entry (\$/kW-month) for a capacity resource that is determined by the ISO for each Forward Capacity Auction pursuant to Section III.13.2.4.

**Counterparty** means the status in which the ISO acts as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a Customer (including assignments involving Customers) involving sale to the ISO, and/or purchase from the ISO, of Regional Transmission Service and market and other products and services, and other transactions and assignments involving Customers, all as described in the Tariff.

**Covered Entity** is defined in the ISO New England Billing Policy.

**Credit Coverage** is third-party credit protection obtained by the ISO, in the form of credit insurance coverage, a performance or surety bond, or a combination thereof.

**Credit Qualifying** means a Rated Market Participant that has an Investment Grade Rating and an Unrated Market Participant that satisfies the Credit Threshold.

**Credit Threshold** consists of the conditions for Unrated Market Participants outlined in Section II.B.2 of the ISO New England Financial Assurance Policy.

**Critical Energy Infrastructure Information (CEII)** is defined in Section 3.0(j) of the ISO New England Information Policy, which is Attachment D to the Tariff.

**Current Ratio** is, on any date, all of a Market Participant's or Non-Market Participant Transmission Customer's current assets divided by all of its current liabilities, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Curtailement** is a reduction in the dispatch of a transaction that was scheduled, using transmission service, in response to a transfer capability shortage as a result of system reliability conditions.

**Customer** is a Market Participant, a Transmission Customer or another customer of the ISO.

**Data Reconciliation Process** means the process by which meter reconciliation and data corrections that are discovered by Governance Participants after the Invoice has been issued for a particular month or that are discovered prior to the issuance of the Invoice for the relevant month but not included in that Invoice or in the other Invoices for that month and are reconciled by the ISO on an hourly basis based on data submitted to the ISO by the Host Participant Assigned Meter Reader or Assigned Meter Reader.

**Day-Ahead** is the calendar day immediately preceding the Operating Day.

**Day-Ahead Adjusted Load Obligation** is defined in Section III.3.2.1(a)(iii) of Market Rule 1.

**Day-Ahead Congestion Revenue** is defined in Section III.3.2.1(f) of Market Rule 1.

**Day-Ahead Demand Reduction Obligation** is a cleared Demand Reduction Offer multiplied by one plus the percent average avoided peak distribution losses. For Capacity Commitment Periods commencing on or after June 1, 2018, Day-Ahead Demand Reduction Obligation is the hourly demand reduction amounts



of a Demand Response Resource scheduled by the ISO as a result of the Day-Ahead Energy Market, multiplied by one plus the percent average avoided peak distribution losses.

**Day-Ahead Energy Market** means the schedule of commitments for the purchase or sale of energy, payment of Congestion Costs, payment for losses developed by the ISO as a result of the offers and specifications submitted in accordance with Section III.1.10 of Market Rule 1 and purchase of demand reductions pursuant to Appendix III.E2 of Market Rule 1 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Day-Ahead Energy Market Congestion Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market Energy Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market Loss Charge/Credit** is defined in Section III.3.2.1(d) of Market Rule 1.

**Day-Ahead Energy Market NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead External Transaction Export and Decrement Bid NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead External Transaction Import and Increment Offer NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Day-Ahead Generation Obligation** is defined in Section III.3.2.1(a)(ii) of Market Rule 1.

**Day-Ahead Load Obligation** is defined in Section III.3.2.1(a)(i) of Market Rule 1.

**Day-Ahead Load Response Program** provides a Day-Ahead aspect to the Load Response Program. The Day-Ahead Load Response Program allows Market Participants with registered Load Response Program Assets to make energy reduction offers into the Day-Ahead Load Response Program concurrent with the Day-Ahead Energy Market.

**Day-Ahead Locational Adjusted Net Interchange** is defined in Section III.3.2.1(a)(iv) of Market Rule 1.

**Day-Ahead Loss Charges or Credits** is defined in Section III.3.2.1(h) of Market Rule 1.

**Day-Ahead Loss Revenue** is defined in Section III.3.2.1(g) of Market Rule 1.

**Day-Ahead Prices** means the Locational Marginal Prices resulting from the Day-Ahead Energy Market.

**DDP Dispatchable Resource** is any Dispatchable Resource that the ISO dispatches using Desired Dispatch Points in the Resource's Dispatch Instructions.

**Debt-to-Total Capitalization Ratio** is, on any date, a Market Participant's or Non-Market Participant Transmission Customer's total debt (including all current borrowings) divided by its total shareholders' equity plus total debt, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Decrement Bid** means a bid to purchase energy at a specified Location in the Day-Ahead Energy Market which is not associated with a physical load. An accepted Decrement Bid results in scheduled load at the specified Location in the Day-Ahead Energy Market.

**Default Amount** is all or any part of any amount due to be paid by any Covered Entity that the ISO, in its reasonable opinion, believes will not or has not been paid when due (other than in the case of a payment dispute for any amount due for transmission service under the OATT).

**Default Period** is defined in Section 3.3.h(i) of the ISO New England Billing Policy.

**Delivering Party** is the entity supplying capacity and/or energy to be transmitted at Point(s) of Receipt under the OATT.

**Demand Bid** means a request to purchase an amount of energy, at a specified Location, or an amount of energy at a specified price, that is associated with a physical load. A cleared Demand Bid in the Day-Ahead Energy Market results in scheduled load at the specified Location. Demand Bids submitted for use in the Real-Time Energy Market are specific to Dispatchable Asset Related Demands only.

**Demand Bid Block-Hours** are the Block-Hours assigned to the submitting Customer for each Demand Bid.

**Demand Designated Entity** is the entity designated by a Market Participant to receive Dispatch Instructions for Demand Response Resources, Real-Time Demand Response Resources and Real-Time Emergency Generation Resources in accordance with the provisions set forth in ISO New England Operating Procedure No. 14.

**Demand Reduction Offer** is an offer by a Market Participant with a Real-Time Demand Response Asset to reduce demand. For Capacity Commitment Periods commencing on or after June 1, 2018, Demand Reduction Offer is an offer by a Market Participant with a Demand Response Resource to reduce demand.

**Demand Reduction Threshold Price** is a minimum offer price calculated pursuant to Section III.E1.6 and Section III.E2.6.

**Demand Reduction Value** is the quantity of reduced demand calculated pursuant to Section III.13.7.1.5.3 of Market Rule 1.

**Demand Resource** is a resource defined as Demand Response Capacity Resources, On-Peak Demand Resources, Seasonal Peak Demand Resources, Real-Time Demand Response Resources, or Real-Time Emergency Generation Resources. Demand Resources are installed measures (i.e., products, equipment, systems, services, practices and/or strategies) that result in additional and verifiable reductions in end-use demand on the electricity network in the New England Control Area pursuant to Appendix III.E1 and Appendix III.E2 of Market Rule 1, or during Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, respectively. A Demand Resource may include a portfolio of measures aggregated together to meet or exceed the minimum Resource size requirements of the Forward Capacity Auction.

**Demand Resource Commercial Operation Audit** is an audit initiated pursuant to Section III.13.6.1.5.4.4.

**Demand Resource Forecast Peak Hours** are those hours, or portions thereof, in which, absent the dispatch of Real-Time Demand Response Resources, Dispatch Zone, Load Zone, or system-wide

implementation of the action of ISO New England Operating Procedure No. 4 where the ISO would have begun to allow the depletion of Thirty-Minute Operating Reserve is forecasted in the ISO's most recent next-day forecast.

**Demand Resource On-Peak Hours** are hours ending 1400 through 1700, Monday through Friday on non-Demand Response Holidays during the months of June, July, and August and hours ending 1800 through 1900, Monday through Friday on non-Demand Response Holidays during the months of December and January.

**Demand Resource Operable Capacity Analysis** means an analysis performed by the ISO estimating the expected dispatch hours of active Demand Resources given different assumed levels of Demand Resources clearing in the primary Forward Capacity Auction.

**Demand Resource Performance Incentives** means the additional monthly capacity payment that a Demand Resource may earn for producing a positive Monthly Capacity Variance in a period where other Demand Resources yield a negative monthly capacity variance.

**Demand Resource Performance Penalties** means the reduction in the monthly capacity payment to a Demand Resource for producing a negative Monthly Capacity Variance.

**Demand Resource Seasonal Peak Hours** are those hours in which the actual, real-time hourly load, as measured using real-time telemetry (adjusted for transmission and distribution losses, and excluding load associated with Exports and the pumping load associated with pumped storage generators) for Monday through Friday on non-Demand Response Holidays, during the months of June, July, August, December, and January, as determined by the ISO, is equal to or greater than 90% of the most recent 50/50 system peak load forecast, as determined by the ISO, for the applicable summer or winter season.

**Demand Response Asset** is an asset comprising the demand reduction capability of an individual end-use customer at a Retail Delivery Point or the aggregated demand reduction capability of multiple end use customers from multiple delivery points that meets the registration requirements in Section III.E2.2. The demand reduction of a Demand Response Asset is the difference between the Demand Response Asset's actual demand measured at the Retail Delivery Point, which could reflect Net Supply, at the time the Demand Response Resource to which the asset is associated is dispatched by the ISO, and its adjusted Demand Response Baseline.

**Demand Response Available** is the capability of the Demand Response Resource, in whole or in part, at any given time, to reduce demand in response to a Dispatch Instruction.

**Demand Response Baseline** is the expected baseline demand of an individual end-use metered customer or group of end-use metered customers or the expected output levels of the generation of an individual end-use metered customer whose asset is comprised of Distributed Generation as determined pursuant to Section III.8A or Section III.8B.

**Demand Response Capacity Resource** is one or more Demand Response Resources located within the same Dispatch Zone, that is registered with the ISO, assigned a unique resource identification number by the ISO, and participates in the Forward Capacity Market to fulfill a Market Participant's Capacity Supply Obligation pursuant to Section III.13 of Market Rule 1.

**Demand Response Holiday** is New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, and Christmas Day. If the holiday falls on a Saturday, the holiday will be observed on the preceding Friday; if the holiday falls on a Sunday, the holiday will be observed on the following Monday.

**Demand Response Regulation Resource** is a Real-Time Demand Response Resource eligible to provide Regulation.

**Demand Response Resource** is an individual Demand Response Asset or aggregation of Demand Response Assets within a Dispatch Zone that meets the registration requirements and participates in the Energy Market pursuant to Appendix III.E2 of Market Rule 1 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Demand Response Resource Notification Time** is the minimum time, from the receipt of a Dispatch Instruction, that it takes a Demand Response Resource that was not previously reducing demand to start reducing demand.

**Demand Response Resource Ramp Rate** is the average rate, expressed in MW per minute, at which the Demand Response Resource can reduce demand.

**Demand Response Resource Start-Up Time** is the time required from the time a Demand Response Resource that was not previously reducing demand starts reducing demand in response to a Dispatch Instruction and the time the resource achieves its Minimum Reduction.

**Designated Agent** is any entity that performs actions or functions required under the OATT on behalf of the ISO, a Transmission Owner, a Schedule 20A Service Provider, an Eligible Customer, or a Transmission Customer.

**Designated Blackstart Resource** is a resource that meets the eligibility requirements specified in Schedule 16 of the OATT, and may be a Category A Designated Blackstart Resource or a Category B Designated Blackstart Resource.

**Designated Entity** is the entity designated by a Market Participant to receive Dispatch Instructions for generation and/or Dispatchable Asset Related Demand in accordance with the provisions set forth in ISO New England Operating Procedure No. 14.

**Designated FCM Participant** is any Lead Market Participant, including any Provisional Member that is a Lead Market Participant, transacting in any Forward Capacity Auction, reconfiguration auctions or Capacity Supply Obligation Bilateral for capacity that is otherwise required to provide additional financial assurance under the ISO New England Financial Assurance Policy.

**Designated FTR Participant** is a Market Participant, including FTR-Only Customers, transacting in the FTR Auction that is otherwise required to provide additional financial assurance under the ISO New England Financial Assurance Policy.

**Desired Dispatch Point (DDP)** is the Dispatch Rate expressed in megawatts.

**Direct Assignment Facilities** are facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the OATT or a Generator Owner requesting an interconnection. Direct Assignment Facilities shall be specified in a separate agreement among the ISO, Interconnection Customer and Transmission Customer, as applicable, and the Transmission Owner whose transmission system is to be modified to include and/or interconnect with the Direct Assignment Facilities, shall be subject to applicable Commission requirements, and shall be paid for by the Customer in accordance with the applicable agreement and the Tariff.

**Directly Metered Assets** are specifically measured by OP-18 compliant metering as currently described in Section IV (Metering and Recording for Settlements) of OP-18. Directly Metered Assets include all Tie-Line Assets, all Generator Assets, as well as some Load Assets. Load Assets for which the Host Participant is not the Assigned Meter Reader are considered Directly Metered Assets. In addition, the Host Participant Assigned Meter Reader determines which additional Load Assets are considered Directly Metered Assets and which ones are considered Profiled Load Assets based upon the Host Participant Assigned Meter Reader reporting systems and process by which the Host Participant Assigned Meter Reader allocates non-PTF losses.

**Disbursement Agreement** is the Rate Design and Funds Disbursement Agreement among the PTOs, as amended and restated from time to time.

**Dispatch Instruction** means directions given by the ISO to Market Participants, which may include instructions to start up, shut down, raise or lower generation, curtail or restore loads from Demand Resources, change External Transactions, or change the status or consumption of a Dispatchable Asset Related Demand in accordance with the Supply Offer, Demand Bid, or Demand Reduction Offer parameters. Such instructions may also require a change to the operation of a Pool Transmission Facility. Such instructions are given through either electronic or verbal means.

**Dispatch Rate** means the control signal, expressed in dollars per MWh and/or megawatts, calculated and transmitted to direct the output, consumption or demand reduction level of each generating Resource, Dispatchable Asset Related Demand and Demand Response Resource dispatched by the ISO in accordance with the Offer Data.

**Dispatch Zone** means a subset of Nodes located within a Load Zone established by the ISO for each Capacity Commitment Period pursuant to Section III.13.1.4.6.1.

**Dispatchable Asset Related Demand** is any portion of an Asset Related Demand of a Market Participant that is capable of having its energy consumption modified in Real-Time in response to Dispatch Instructions has Electronic Dispatch Capability, and must be able to increase or decrease energy consumption between its Minimum Consumption Limit and Maximum Consumption Limit in accordance with Dispatch Instructions and must meet the technical requirements specified in the ISO New England Manuals. Pumped storage facilities may qualify as Dispatchable Asset Related Demand resources,

however, such resources shall not qualify as a capacity resource for both the generating output and dispatchable pumping demand of the facility.

**DARD Pump** is a Dispatchable Asset Related Demand that consists of all or part of the pumping load of a pumped storage generating Resource and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) is available for dispatch and manned or has automatic remote dispatch capability, and; (iv) is capable of receiving a start-up or shutdown Dispatch Instruction electronically.

**Dispatchable Resource** is any generating unit, Dispatchable Asset Related Demand, Demand Response Resource, Demand Response Regulation Resource or Alternative Technology Regulation Resource that, during the course of normal operation, is capable of receiving and responding to electronic Dispatch Instructions in accordance with the parameters contained in the Resource's Supply Offer, Demand Bid, Demand Reduction Offer or Regulation Service Offer. A Resource that is normally classified as a Dispatchable Resource remains a Dispatchable Resource when it is temporarily not capable of receiving and responding to electronic Dispatch Instructions.

**Dispute Representatives** are defined in 6.5.c of the ISO New England Billing Policy.

**Disputed Amount** is a Covered Entity's disputed amount due on any fully paid monthly Invoice and/or any amount believed to be due or owed on a Remittance Advice, as defined in Section 6 of the ISO New England Billing Policy.

**Disputing Party**, for the purposes of the ISO New England Billing Policy, is any Covered Entity seeking to recover a Disputed Amount.

**Distributed Generation** means generation resources directly connected to end-use customer load and located behind the end-use customer's meter, which reduce the amount of energy that would otherwise have been produced by other capacity resources on the electricity network in the New England Control Area during Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, provided that the aggregate nameplate capacity of the generation resource does not exceed 5 MW, or does not exceed the most recent annual non-coincident peak demand of the end-use metered customer at the location where the generation resource is directly connected, whichever is greater. Generation resources cannot



participate in the Forward Capacity Market or the Energy Markets as Demand Resources or Demand Response Resources, unless they meet the definition of Distributed Generation.

**Do Not Exceed (DNE) Dispatchable Generator** is any Generator Asset that is dispatched using Do Not Exceed Dispatch Points in its Dispatch Instructions and meets the criteria specified in Section III.1.11.3(e). Do Not Exceed Dispatchable Generators are Dispatchable Resources.

**Do Not Exceed Dispatch Point** is a Dispatch Instruction indicating a maximum output level that a DNE Dispatchable Generator must not exceed.

**DR Auditing Period** is the summer DR Auditing Period or winter DR Auditing Period as defined in Section III.13.6.1.5.4.3.1.

**Dynamic De-List Bid** is a bid that may be submitted by Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Forward Capacity Auction below the Dynamic De-List Bid Threshold, as described in Section III.13.2.3.2(d) of Market Rule 1.

**Dynamic De-List Bid Threshold** is the price specified in Section III.13.1.2.3.1.A of Market Rule 1 associated with the submission of Dynamic De-List Bids in the Forward Capacity Auction.

**EA Amount** is defined in Section IV.B.2.2 of the Tariff.

**Early Amortization Charge (EAC)** is defined in Section IV.B.2 of the Tariff.

**Early Amortization Working Capital Charge (EAWCC)** is defined in Section IV.B.2 of the Tariff.

**Early Payment Shortfall Funding Amount (EPSF Amount)** is defined in Section IV.B.2.4 of the Tariff.

**Early Payment Shortfall Funding Charge (EPSFC)** is defined in Section IV.B.2 of the Tariff.

**EAWW Amount** is defined in Section IV.B.2.3 of the Tariff.

**EBITDA-to-Interest Expense Ratio** is, on any date, a Market Participant's or Non-Market Participant Transmission Customer's earnings before interest, taxes, depreciation and amortization in the most recent fiscal quarter divided by that Market Participant's or Non-Market Participant Transmission Customer's expense for interest in that fiscal quarter, in each case as shown on the most recent financial statements provided by such Market Participant or Non-Market Participant Transmission Customer to the ISO.

**Economic Dispatch Point** is the output level or consumption level to which a Resource would have been dispatched, based on the Resource's Supply Offer or Demand Bid and the Real-Time Price, and taking account of any operating limits, had the ISO not dispatched the Resource to another Desired Dispatch Point.

**Economic Maximum Limit or Economic Max** is the maximum available output, in MW, of a resource that a Market Participant offers to supply in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the resource's Supply Offer. This represents the highest MW output a Market Participant has offered for a resource for economic dispatch. A Market Participant must maintain an up-to-date Economic Maximum Limit for all hours in which a resource has been offered into the Day-Ahead Energy Market or Real-Time Energy Market.

**Economic Minimum Limit or Economic Min** is (a) for Resources with an incremental heat rate, the maximum of: (i) the lowest sustainable output level as specified by physical design characteristics, environmental regulations or licensing limits; and (ii) the lowest sustainable output level at which a one MW increment increase in the output level would not decrease the incremental cost, calculated based on the incremental heat rate, of providing an additional MW of output, and (b) for Resources without an incremental heat rate, the lowest sustainable output level that is consistent with the physical design characteristics of the Resource and with meeting all environmental regulations and licensing limits, and (c) for Resources undergoing Facility and Equipment Testing or auditing, the level to which the Resource requests and is approved to operate or is directed to operate for purposes of completing the Facility and Equipment Testing or auditing, and (d) for Non-Dispatchable Resources the output level at which a Market Participant anticipates its Non-Dispatchable Resource will be available to operate based on fuel limitations, physical design characteristics, environmental regulations or licensing limits.

**Economic Study** is defined in Section 4.1(b) of Attachment K to the OATT.

**Effective Offer** is the set of Supply Offer values (or **Demand Bid values** in the case of DARD Pumps) that are used for NCPC calculation purposes as specified in Section III.F.1.a.

**EFT** is electronic funds transfer.

**Elective Transmission Upgrade** is defined in Section I of Schedule 25 of the OATT.

**Elective Transmission Upgrade Interconnection Customer** is defined in Schedule 25 of the OATT.

**Electric Reliability Organization (ERO)** is defined in 18 C.F.R. § 39.1.

**Electronic Dispatch Capability** is the ability to provide for the electronic transmission, receipt, and acknowledgment of data relative to the dispatch of generating units and Dispatchable Asset Related Demands and the ability to carry out the real-time dispatch processes from ISO issuance of Dispatch Instructions to the actual increase or decrease in output of Dispatchable Resources.

**Eligible Customer** is: (i) Any entity that is engaged, or proposes to engage, in the wholesale or retail electric power business is an Eligible Customer under the OATT. (ii) Any electric utility (including any power marketer), Federal power marketing agency, or any other entity generating electric energy for sale or for resale is an Eligible Customer under the OATT. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Owner with which that entity is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer) offer the unbundled transmission service or Local Delivery Service, or pursuant to a voluntary offer of such service by the Transmission Owner with which that entity is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer). (iii) Any end user taking or eligible to take unbundled transmission service or Local Delivery Service pursuant to a state requirement that the Transmission Owner with which that end user is directly interconnected or the distribution company having the service territory in which that entity is located (if that entity is a retail customer) offer the transmission service or Local Delivery Service, or pursuant to a voluntary offer of such service by the Transmission Owner with which that end user is directly interconnected, or the

distribution company having the service territory in which that entity is located (if that entity is a retail customer) is an Eligible Customer under the OATT.

**Eligible FTR Bidder** is an entity that has satisfied applicable financial assurance criteria, and shall not include the auctioneer, its Affiliates, and their officers, directors, employees, consultants and other representatives.

**Emergency** is an abnormal system condition on the bulk power systems of New England or neighboring Control Areas requiring manual or automatic action to maintain system frequency, or to prevent the involuntary loss of load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or a fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel; or a condition that requires implementation of Emergency procedures as defined in the ISO New England Manuals.

**Emergency Condition** means an Emergency has been declared by the ISO in accordance with the procedures set forth in the ISO New England Manuals and ISO New England Administrative Procedures.

**Emergency Energy** is energy transferred from one control area operator to another in an Emergency.

**Emergency Minimum Limit or Emergency Min** means the minimum generation amount, in MWs, that a generating unit can deliver for a limited period of time without exceeding specified limits of equipment stability and operating permits.

**EMS** is energy management system.

**End-of-Round Price** is the lowest price associated with a round of a Forward Capacity Auction, as described in Section III.13.2.3.1 of Market Rule 1.

**End User Participant** is defined in Section 1 of the Participants Agreement.

**Energy** is power produced in the form of electricity, measured in kilowatthours or megawatthours.

**Energy Administration Service (EAS)** is the service provided by the ISO, as described in Schedule 2 of Section IV.A of the Tariff.

**Energy Component** means the Locational Marginal Price at the reference point.

**Energy Efficiency** is installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy needed, while delivering a comparable or improved level of end-use service. Such measures include, but are not limited to, the installation of more energy efficient lighting, motors, refrigeration, HVAC equipment and control systems, envelope measures, operations and maintenance procedures, and industrial process equipment.

**Energy Imbalance Service** is the form of Ancillary Service described in Schedule 4 of the OATT.

**Energy Market** is, collectively, the Day-Ahead Energy Market and the Real-Time Energy Market.

**Energy Non-Zero Spot Market Settlement Hours** are hours for which the Customer has a positive or negative Real-Time System Adjusted Net Interchange as determined by the ISO settlement process for the Energy Market.

**Energy Offer Cap** is \$1,000/MWh.

**Energy Offer Floor** is negative \$150/MWh.

**Energy Transaction Units (Energy TUs)** are the sum for the month for a Customer of Bilateral Contract Block-Hours, Demand Bid Block-Hours, Asset Related Demand Bid Block-Hours, Supply Offer Block-Hours and Energy Non-Zero Spot Market Settlement Hours.

**Enrolling Participant** is the Market Participant that registers Customers for the Load Response Program.

**Equipment Damage Reimbursement** is the compensation paid to the owner of a Designated Blackstart Resource as specified in Section 5.5 of Schedule 16 to the OATT.

**Equivalent Demand Forced Outage Rate (EFORD)** means the portion of time a unit is in demand, but is unavailable due to forced outages.

**Estimated Capacity Load Obligation** is, for the purposes of the ISO New England Financial Assurance Policy, the Capacity Requirement from the latest available month, adjusted as appropriate to account for any relevant Capacity Load Obligation Bilaterals, HQICCs, and Self-Supplied FCA Resource designations for the applicable month.

**Establish Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.2.

**Excepted Transaction** is a transaction specified in Section II.40 of the Tariff for the applicable period specified in that Section.

**Existing Capacity Qualification Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**Existing Capacity Qualification Package** is information submitted for certain existing resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**Existing Capacity Resource** is any resource that does not meet any of the eligibility criteria to participate in the Forward Capacity Auction as a New Capacity Resource, and, subject to ISO evaluation, for the Forward Capacity Auction to be conducted beginning February 1, 2008, any resource that is under construction and within 12 months of its expected commercial operations date.

**Existing Capacity Retirement Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**Existing Capacity Retirement Package** is information submitted for certain existing resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**Existing Demand Resource** is a type of Demand Resource participating in the Forward Capacity Market, as defined in Section III.13.1.4.1.1 of Market Rule 1.

**Existing Generating Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.2.1 of Market Rule 1.

**Existing Import Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.3.1 of Market Rule 1.

**Expedited Study Request** is defined in Section II.34.7 of the OATT.

**Export-Adjusted LSR** is as defined in Section III.12.4(b)(ii).

**Export Bid** is a bid that may be submitted by certain resources in the Forward Capacity Auction to export capacity to an external Control Area, as described in Section III.13.1.2.3.1.3 of Market Rule 1.

**Exports** are Real-Time External Transactions, which are limited to sales from the New England Control Area, for exporting energy out of the New England Control Area.

**External Elective Transmission Upgrade (External ETU)** is defined in Section I of Schedule 25 of the OATT.

**External Market Monitor** means the person or entity appointed by the ISO Board of Directors pursuant to Section III.A.1.2 of Appendix A of Market Rule 1 to carry out the market monitoring and mitigation functions specified in Appendix A and elsewhere in Market Rule 1.

**External Node** is a proxy bus or buses used for establishing a Locational Marginal Price for energy received by Market Participants from, or delivered by Market Participants to, a neighboring Control Area or for establishing Locational Marginal Prices associated with energy delivered through the New England Control Area by Non-Market Participants for use in calculating Non-Market Participant Congestion Costs and loss costs.

**External Resource** means a generation resource located outside the metered boundaries of the New England Control Area.

**External Transaction** is the import of external energy into the New England Control Area by a Market Participant or the export of internal energy out of the New England Control Area by a Market Participant in the Day-Ahead Energy Market and/or Real-Time Energy Market, or the wheeling of external energy

through the New England Control Area by a Market Participant or a Non-Market Participant in the Real-Time Energy Market.

**External Transmission Project** is a transmission project comprising facilities located wholly outside the New England Control Area and regarding which an agreement has been reached whereby New England ratepayers will support all or a portion of the cost of the facilities.

**Facilities Study** is an engineering study conducted pursuant to the OATT by the ISO (or, in the case of Local Service or interconnections to Local Area Facilities as defined in the TOA, by one or more affected PTOs) or some other entity designated by the ISO in consultation with any affected Transmission Owner(s), to determine the required modifications to the PTF and Non-PTF, including the cost and scheduled completion date for such modifications, that will be required to provide a requested transmission service or interconnection on the PTF and Non-PTF.

**Facility and Equipment Testing** means operation of a Resource to evaluate the functionality of the facility or equipment utilized in the operation of the facility.

**Failure to Maintain Blackstart Capability** is a failure of a Blackstart Owner or Designated Blackstart Resource to meet the Blackstart Service Minimum Criteria or Blackstart Service obligations, but does not include a Failure to Perform During a System Restoration event.

**Failure to Perform During a System Restoration** is a failure of a Blackstart Owner or Designated Blackstart Resource to follow ISO or Local Control Center dispatch instructions or perform in accordance with the dispatch instructions or the Blackstart Service Minimum Criteria and Blackstart Service obligations, described within the ISO New England Operating Documents, during a restoration of the New England Transmission System.

**Fast Start Demand Response Resource** is a Demand Response Resource that meets the following criteria: (i) Minimum Reduction Time does not exceed one hour; (ii) Minimum Time Between Reductions does not exceed one hour; (iii) Demand Response Resource Start-Up Time plus Demand Response Resource Notification Time does not exceed 30 minutes; (iv) has personnel available to respond to Dispatch Instructions or has automatic remote response capability; and (v) is capable of receiving and acknowledging a Dispatch Instruction electronically.



**Fast Start Generator** means a generating unit that the ISO may dispatch within the hour through electronic dispatch and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes; (iv) available for dispatch and manned or has automatic remote dispatch capability; and (v) capable of receiving and acknowledging a start-up or shut-down dispatch instruction electronically.

**Fast Start Generator** means a generating unit that the ISO may dispatch within the hour through electronic dispatch and that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes; (iv) available for dispatch and manned or has automatic remote dispatch capability; and (v) capable of receiving and acknowledging a start-up or shut-down Dispatch Instruction electronically.

**FCA Cleared Export Transaction** is defined in Section III.1.10.7(f)(ii) of Market Rule 1.

**FCA Payment** is the monthly capacity payment for a resource whose offer has cleared in a Forward Capacity Auction as described in Section III.13.7.2.1.1(a) of Market Rule 1.

**FCA Qualified Capacity** is the Qualified Capacity that is used in a Forward Capacity Auction.

**FCM Capacity Charge Requirements** are calculated in accordance with Section VII.C of the ISO New England Financial Assurance Policy.

**FCM Charge Rate** is calculated in accordance with Section VII.C of the ISO New England Financial Assurance Policy.

**FCM Deposit** is calculated in accordance with Section VII.B.1 of the ISO New England Financial Assurance Policy.

**FCM Financial Assurance Requirements** are described in Section VII of the ISO New England Financial Assurance Policy.

**Final Forward Reserve Obligation** is calculated in accordance with Section III.9.8(a) of Market Rule 1.

**Financial Assurance Default** results from a Market Participant or Non-Market Participant Transmission Customer's failure to comply with the ISO New England Financial Assurance Policy.

**Financial Assurance Obligations** relative to the ISO New England Financial Assurance Policy are determined in accordance with Section III.A(v) of the ISO New England Financial Assurance Policy.

**Financial Transmission Right (FTR)** is a financial instrument that evidences the rights and obligations specified in Sections III.5.2.2 and III.7 of the Tariff.

**Firm Point-To-Point Service** is service which is arranged for and administered between specified Points of Receipt and Delivery in accordance with Part ILC of the OATT.

**Firm Transmission Service** is Regional Network Service, Through or Out Service, service for Excepted Transactions, firm MTF Service, firm OTF Service, and firm Local Service.

**Flexible DNE Dispatchable Generator** is any DNE Dispatchable Generator that meets the following criteria: (i) Minimum Run Time does not exceed one hour; (ii) Minimum Down Time does not exceed one hour; and (iii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes.

**Force Majeure** - An event of Force Majeure means any act of God, labor disturbance, act of the public enemy or terrorists, war, invasion, insurrection, riot, fire, storm or flood, ice, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond the control of the ISO, a Transmission Owner, a Schedule 20A Service Provider, or a Customer, including without limitation, in the case of the ISO, any action or inaction by a Customer, a Schedule 20A Service Provider, or a Transmission Owner, in the case of a Transmission Owner, any action or inaction by the ISO, any Customer, a Schedule 20A Service Provider, or any other Transmission Owner, in the case of a Schedule 20A Service Provider, any action or inaction by the ISO, any Customer, a Transmission Owner, or any other Schedule 20A Service Provider, and, in the case of a Transmission Customer, any action or inaction by the ISO, a Schedule 20A Service Provider, or any Transmission Owner.

**Forecast Hourly Demand Reduction** means the estimated maximum quantity of energy reduction (MWh), measured at the end-use customer meter that can be produced by a Real-Time Demand Response

Resource, or Real-Time Emergency Generation Resource, in each hour of an Operating Day. For a Real-Time Emergency Generation Asset that is metered at the generator and associated with a Real-Time Emergency Generation Resource, the Forecast Hourly Demand Reduction means the estimated maximum generator output (MWh) in each hour of an Operating Day.

**Formal Warning** is defined in Section III.B.4.1.1 of Appendix B of Market Rule 1.

**Formula-Based Sanctions** are defined in Section III.B.4.1.3 of Appendix B of Market Rule 1.

**Forward Capacity Auction (FCA)** is the annual descending clock auction in the Forward Capacity Market, as described in Section III.13.2 of Market Rule 1.

**Forward Capacity Auction Starting Price** is calculated in accordance with Section III.13.2.4 of Market Rule 1.

**Forward Capacity Market (FCM)** is the forward market for procuring capacity in the New England Control Area, as described in Section III.13 of Market Rule 1.

**Forward Reserve** means TMNSR and TMOR purchased by the ISO on a forward basis on behalf of Market Participants as provided for in Section III.9 of Market Rule 1.

**Forward Reserve Assigned Megawatts** is the amount of Forward Reserve, in megawatts, that a Market Participant assigns to eligible Forward Reserve Resources to meet its Forward Reserve Obligation as defined in Section III.9.4.1 of Market Rule 1.

**Forward Reserve Auction** is the periodic auction conducted by the ISO in accordance with Section III.9 of Market Rule 1 to procure Forward Reserve.

**Forward Reserve Auction Offers** are offers to provide Forward Reserve to meet system and Reserve Zone requirements as submitted by a Market Participant in accordance with Section III.9.3 of Market Rule 1.

**Forward Reserve Charge** is a Market Participant's share of applicable system and Reserve Zone Forward Reserve costs attributable to meeting the Forward Reserve requirement as calculated in accordance with Section III.9.9 of Market Rule 1.

**Forward Reserve Clearing Price** is the clearing price for TMNSR or TMOR, as applicable, for the system and each Reserve Zone resulting from the Forward Reserve Auction as defined in Section III.9.4 of Market Rule 1.

**Forward Reserve Credit** is the credit received by a Market Participant that is associated with that Market Participant's Final Forward Reserve Obligation as calculated in accordance with Section III.9.8 of Market Rule 1.

**Forward Reserve Delivered Megawatts** are calculated in accordance with Section III.9.6.5 of Market Rule 1.

**Forward Reserve Delivery Period** is defined in Section III.9.1 of Market Rule 1.

**Forward Reserve Failure-to-Activate Megawatts** are calculated in accordance with Section III.9.7.2(a) of Market Rule 1.

**Forward Reserve Failure-to-Activate Penalty** is the penalty associated with a Market Participant's failure to activate Forward Reserve when requested to do so by the ISO and is defined in Section III.9.7.2 of Market Rule 1.

**Forward Reserve Failure-to-Activate Penalty Rate** is specified in Section III.9.7.2 of Market Rule 1.

**Forward Reserve Failure-to-Reserve**, as specified in Section III.9.7.1 of Market Rule 1, occurs when a Market Participant's Forward Reserve Delivered Megawatts for a Reserve Zone in an hour is less than that Market Participant's Forward Reserve Obligation for that Reserve Zone in that hour. Under these circumstances the Market Participant pays a penalty based upon the Forward Reserve Failure-to-Reserve Penalty Rate and that Market Participant's Forward Reserve Failure-to-Reserve Megawatts.

**Forward Reserve Failure-to-Reserve Megawatts** are calculated in accordance with Section III.9.7.1(a) of Market Rule 1.

**Forward Reserve Failure-to-Reserve Penalty** is the penalty associated with a Market Participant's failure to reserve Forward Reserve and is defined in Section III.9.7.1 of Market Rule 1.

**Forward Reserve Failure-to-Reserve Penalty Rate** is specified in Section III.9.7.1(b)(ii) of Market Rule 1.

**Forward Reserve Fuel Index** is the index or set of indices used to calculate the Forward Reserve Threshold Price as defined in Section III.9.6.2 of Market Rule 1.

**Forward Reserve Heat Rate** is the heat rate as defined in Section III.9.6.2 of Market Rule 1 that is used to calculate the Forward Reserve Threshold Price.

**Forward Reserve Market** is a market for forward procurement of two reserve products, Ten-Minute Non-Spinning Reserve (TMNSR) and Thirty-Minute Operating Reserve (TMOR).

**Forward Reserve MWs** are those megawatts assigned to specific eligible Forward Reserve Resources which convert a Forward Reserve Obligation into a Resource-specific obligation.

**Forward Reserve Obligation** is a Market Participant's amount, in megawatts, of Forward Reserve that cleared in the Forward Reserve Auction and adjusted, as applicable, to account for bilateral transactions that transfer Forward Reserve Obligations.

**Forward Reserve Obligation Charge** is defined in Section III.10.4 of Market Rule 1.

**Forward Reserve Offer Cap** is \$9,000/megawatt-month.

**Forward Reserve Payment Rate** is defined in Section III.9.8 of Market Rule 1.

**Forward Reserve Procurement Period** is defined in Section III.9.1 of Market Rule 1.

**Forward Reserve Qualifying Megawatts** refer to all or a portion of a Forward Reserve Resource's capability offered into the Real-Time Energy Market at energy offer prices above the applicable Forward Reserve Threshold Price that are calculated in accordance with Section III.9.6.4 of Market Rule 1.

**Forward Reserve Resource** is a Resource that meets the eligibility requirements defined in Section III.9.5.2 of Market Rule 1 that has been assigned Forward Reserve Obligation by a Market Participant.

**Forward Reserve Threshold Price** is the minimum price at which assigned Forward Reserve Megawatts are required to be offered into the Real-Time Energy Market as calculated in Section III.9.6.2 of Market Rule 1.

**FTR Auction** is the periodic auction of FTRs conducted by the ISO in accordance with Section III.7 of Market Rule 1.

**FTR Auction Revenue** is the revenue collected from the sale of FTRs in FTR Auctions. FTR Auction Revenue is payable to FTR Holders who submit their FTRs for sale in the FTR Auction in accordance with Section III.7 of Market Rule 1 and to ARR Holders and Incremental ARR Holders in accordance with Appendix C of Market Rule 1.

**FTR Award Financial Assurance** is a required amount of financial assurance that must be maintained at all times from a Designated FTR Participant for each FTR awarded to the participant in any FTR Auctions. This amount is calculated pursuant to Section VI.C of the ISO New England Financial Assurance Policy.

**FTR Bid Financial Assurance** is an amount of financial assurance required from a Designated FTR Participant for each bid submission into an FTR auction. This amount is calculated pursuant to Section VI.B of the ISO New England Financial Assurance Policy.

**FTR Credit Test Percentage** is calculated in accordance with Section III.B.1(b) of the ISO New England Financial Assurance Policy.

**FTR Financial Assurance Requirements** are described in Section VI of the ISO New England Financial Assurance Policy.

**FTR Holder** is an entity that acquires an FTR through the FTR Auction to Section III.7 of Market Rule 1 and registers with the ISO as the holder of the FTR in accordance with Section III.7 of Market Rule 1 and applicable ISO New England Manuals.

**FTR-Only Customer** is a Market Participant that transacts in the FTR Auction and that does not participate in other markets or programs of the New England Markets. References in this Tariff to a “Non-Market Participant FTR Customers” and similar phrases shall be deemed references to an FTR-Only Customer.

**FTR Settlement Risk Financial Assurance** is an amount of financial assurance required by a Designated FTR Participant for each bid submission into an FTR Auction and for each bid awarded to the individual participant in an FTR Auction. This amount is calculated pursuant to Section VI.A of the ISO New England Financial Assurance Policy.

**GADS Data** means data submitted to the NERC for collection into the NERC’s Generating Availability Data System (GADS).

**Gap Request for Proposals (Gap RFP)** is defined in Section III.11 of Market Rule 1.

**Gas Day** means a period of 24 consecutive hours beginning at 0900 hrs Central Time.

**Generating Capacity Resource** means a New Generating Capacity Resource or an Existing Generating Capacity Resource.

**Generator Asset** is a generator that has been registered in accordance with the Asset Registration Process.

**Generator Imbalance Service** is the form of Ancillary Service described in Schedule 10 of the OATT.

**Generator Interconnection Related Upgrade** is an addition to or modification of the New England Transmission System (pursuant to Section II.47.1, Schedule 22 or Schedule 23 of the OATT) to effect the interconnection of a new generating unit or an existing generating unit whose energy capability or capacity capability is being materially changed and increased whether or not the interconnection is being effected to meet the Capacity Capability Interconnection Standard or the Network Capability Interconnection Standard. As to Category A Projects (as defined in Schedule 11 of the OATT), a Generator Interconnection Related Upgrade also includes an upgrade beyond that required to satisfy the

Network Capability Interconnection Standard (or its predecessor) for which the Generator Owner has committed to pay prior to October 29, 1998.

**Generator Owner** is the owner, in whole or part, of a generating unit whether located within or outside the New England Control Area.

**Good Utility Practice** means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather includes all acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act Section 215(a)(4).

**Governance Only Member** is defined in Section 1 of the Participants Agreement.

**Governance Participant** is defined in the Participants Agreement.

**Governing Documents**, for the purposes of the ISO New England Billing Policy, are the Transmission, Markets and Services Tariff and ISO Participants Agreement.

**Governing Rating** is the lowest corporate rating from any Rating Agency for that Market Participant, or, if the Market Participant has no corporate rating, then the lowest rating from any Rating Agency for that Market Participant's senior unsecured debt.

**Grandfathered Agreements (GAs)** is a transaction specified in Section II.45 for the applicable period specified in that Section.

**Grandfathered Intertie Agreement (GIA)** is defined pursuant to the TOA.

**Handy-Whitman Index of Public Utility Construction Costs** is the Total Other Production Plant index shown in the Cost Trends of Electric Utility Construction for the North Atlantic Region as published in the Handy-Whitman Index of Public Utility Construction Costs.



**Highgate Transmission Facilities (HTF)** are existing U. S.-based transmission facilities covered under the Agreement for Joint Ownership, Construction and Operation of the Highgate Transmission Interconnection dated as of August 1, 1984 including (1) the whole of a 200 megawatt high-voltage, back-to-back, direct-current converter facility located in Highgate, Vermont and (2) a 345 kilovolt transmission line within Highgate and Franklin, Vermont (which connects the converter facility at the U.S.-Canadian border to a Hydro-Quebec 120 kilovolt line in Bedford, Quebec). The HTF include any upgrades associated with increasing the capacity or changing the physical characteristics of these facilities as defined in the above stated agreement dated August 1, 1984 until the Operations Date, as defined in the TOA. The current HTF rating is a nominal 225 MW. The HTF are not defined as PTF. Coincident with the Operations Date and except as stipulated in Schedules, 9, 12, and Attachment F to the OATT, HTF shall be treated in the same manner as PTF for purposes of the OATT and all references to PTF in the OATT shall be deemed to apply to HTF as well. The treatment of the HTF is not intended to establish any binding precedent or presumption with regard to the treatment for other transmission facilities within the New England Transmission System (including HVDC, MTF, or Control Area Interties) for purposes of the OATT.

**Host Participant or Host Utility** is a Market Participant or a Governance Participant transmission or distribution provider that reconciles the loads within the metering domain with OP-18 compliant metering.

**Hourly Calculated Demand Resource Performance Value** means the performance of a Demand Resource during Real-Time Demand Response Event Hours and Real-Time Emergency Generation Event Hours for purposes of calculating a Demand Reduction Value pursuant to Sections III.13.7.1.5.7.3 and III.13.7.1.5.8.3.

**Hourly Charges** are defined in Section 1.3 of the ISO New England Billing Policy.

**Hourly PER** is calculated in accordance with Section III.13.7.2.7.1.1.1(a) of Market Rule 1.

**Hourly Real-Time Demand Response Resource Deviation** means the difference between the Average Hourly Load Reduction or Average Hourly Output of the Real-Time Demand Response Resource and the amount of load reduction or output that the Market Participant was instructed to produce pursuant to a Dispatch Instruction calculated pursuant to Section III.13.7.1.5.7.3.1.

**Hourly Real-Time Emergency Generation Resource Deviation** is calculated pursuant to Section III.13.7.1.5.8.3.1.

**Hourly Requirements** are determined in accordance with Section III.A(i) of the ISO New England Financial Assurance Policy.

**Hourly Shortfall NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Hub** is a specific set of pre-defined Nodes for which a Locational Marginal Price will be calculated for the Day-Ahead Energy Market and Real-Time Energy Market and which can be used to establish a reference price for energy purchases and the transfer of Day-Ahead Adjusted Load Obligations and Real-Time Adjusted Load Obligations and for the designation of FTRs.

**Hub Price** is calculated in accordance with Section III.2.8 of Market Rule 1.

**HQ Interconnection Capability Credit (HQICC)** is a monthly value reflective of the annual installed capacity benefits of the Phase I/II HVDC-TF, as determined by the ISO, using a standard methodology on file with the Commission, in conjunction with the setting of the Installed Capacity Requirement. An appropriate share of the HQICC shall be assigned to an IRH if the Phase I/II HVDC-TF support costs are paid by that IRH and such costs are not included in the calculation of the Regional Network Service rate. The share of HQICC allocated to such an eligible IRH for a month is the sum in kilowatts of (1)(a) the IRH's percentage share, if any, of the Phase I Transfer Capability times (b) the Phase I Transfer Credit, plus (2)(a) the IRH's percentage share, if any, of the Phase II Transfer Capability, times (b) the Phase II Transfer Credit. The ISO shall establish appropriate HQICCs to apply for an IRH which has such a percentage share.

**Import Capacity Resource** means an Existing Import Capacity Resource or a New Import Capacity Resource offered to provide capacity in the New England Control Area from an external Control Area.

**Inadvertent Energy Revenue** is defined in Section III.3.2.1(k) of Market Rule 1.

**Inadvertent Energy Revenue Charges or Credits** is defined in Section III.3.2.1(l) of Market Rule 1.

**Inadvertent Interchange** means the difference between net actual energy flow and net scheduled energy flow into or out of the New England Control Area.

**Increment Offer** means an offer to sell energy at a specified Location in the Day-Ahead Energy Market which is not associated with a physical supply. An accepted Increment Offer results in scheduled generation at the specified Location in the Day-Ahead Energy Market.

**Incremental ARR** is an ARR provided in recognition of a participant-funded transmission system upgrade pursuant to Appendix C of this Market Rule.

**Incremental ARR Holder** is an entity which is the record holder of an Incremental Auction Revenue Right in the register maintained by the ISO.

**Incremental Cost of Reliability Service** is described in Section III.13.2.5.2.5.2 of Market Rule 1.

**Independent Transmission Company (ITC)** is a transmission entity that assumes certain responsibilities in accordance with Section 10.05 of the Transmission Operating Agreement and Attachment M to the OATT, subject to the acceptance or approval of the Commission and a finding of the Commission that the transmission entity satisfies applicable independence requirements.

**Information Request** is a request from a potential Disputing Party submitted in writing to the ISO for access to Confidential Information.

**Initial Market Participant Financial Assurance Requirement** is calculated for new Market Participants and Returning Market Participants, other than an FTR-Only Customer or a Governance Only Member, according to Section IV of the ISO New England Financial Assurance Policy.

**Installed Capacity Requirement** means the level of capacity required to meet the reliability requirements defined for the New England Control Area, as described in Section III.12 of Market Rule 1.

**Interchange Transactions** are transactions deemed to be effected under Market Rule 1.

**Interconnecting Transmission Owner** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Interconnection Agreement** is the “Large Generator Interconnection Agreement”, the “Small Generator Interconnection Agreement”, or the “Elective Transmission Upgrade Interconnection Agreement” pursuant to Schedules 22, 23 or 25 of the ISO OATT or an interconnection agreement approved by the Commission prior to the adoption of the Interconnection Procedures.

**Interconnection Customer** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Interconnection Feasibility Study Agreement** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, or Section I of Schedule 25 of the OATT.

**Interconnection Procedure** is the “Large Generator Interconnection Procedures”, the “Small Generator Interconnection Procedures”, or the “Elective Transmission Upgrade Interconnection Procedures” pursuant to Schedules 22, 23, and 25 of the ISO OATT.

**Interconnection Request** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, or Section I of Schedule 25 of the OATT.

**Interconnection Rights Holder(s) (IRH)** has the meaning given to it in Schedule 20A to Section II of this Tariff.

**Interconnection System Impact Study Agreement** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23 and Section I of Schedule 25 of the OATT.

**Interest** is interest calculated in the manner specified in Section II.8.3.

**Interface Bid** is a unified real-time bid to simultaneously purchase and sell energy on each side of an external interface for which the enhanced scheduling procedures in Section III.1.10.7.A are implemented.

**Intermittent Power Resource** is a wind, solar, run of river hydro or other renewable resource that does not have control over its net power output.

**Intermittent Settlement Only Resource** is a Settlement Only Resource that is also an Intermittent Power Resource.

**Internal Bilateral for Load** is an internal bilateral transaction under which the buyer receives a reduction in Real-Time Load Obligation and the seller receives a corresponding increase in Real-Time Load Obligation in the amount of the sale, in MWs. An Internal Bilateral for Load transaction is only applicable in the Real-Time Energy Market.

**Internal Bilateral for Market for Energy** is an internal bilateral transaction for Energy which applies in the Day-Ahead Energy Market and Real-Time Energy Market or just the Real-Time Energy Market under which the buyer receives a reduction in Day-Ahead Adjusted Load Obligation and Real-Time Adjusted Load Obligation and the seller receives a corresponding increase in Day-Ahead Adjusted Load Obligation and Real-Time Adjusted Load Obligation in the amount of the sale, in MWs.

**Internal Elective Transmission Upgrade (Internal ETU)** is defined in Section I of Schedule 25 of the OATT.

**Internal Market Monitor** means the department of the ISO responsible for carrying out the market monitoring and mitigation functions specified in Appendix A and elsewhere in Market Rule 1.

**Interregional Planning Stakeholder Advisory Committee (IPSAC)** is the committee described as such in the Northeast Planning Protocol.

**Interregional Transmission Project** is a transmission project located within the New England Control Area and one or more of the neighboring transmission planning regions.

**Interruption Cost** is the amount, in dollars, that must be paid to a Market Participant each time the Market Participant's Demand Response Resource is scheduled or dispatched in the New England Markets to reduce demand.

**Investment Grade Rating**, for a Market (other than an FTR-Only Customer) or Non-Market Participant Transmission Customer, is either (a) a corporate investment grade rating from one or more of the Rating Agencies, or (b) if the Market Participant or Non-Market Participant Transmission Customer does not have a corporate rating from one of the Rating Agencies, then an investment grade rating for the Market

Participant's or Non-Market Participant Transmission Customer's senior unsecured debt from one or more of the Rating Agencies.

**Invoice** is a statement issued by the ISO for the net Charge owed by a Covered Entity pursuant to the ISO New England Billing Policy.

**Invoice Date** is the day on which the ISO issues an Invoice.

**ISO** means ISO New England Inc.

**ISO Charges**, for the purposes of the ISO New England Billing Policy, are both Non-Hourly Charges and Hourly Charges.

**ISO Control Center** is the primary control center established by the ISO for the exercise of its Operating Authority and the performance of functions as an RTO.

**ISO-Initiated Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.4.

**ISO New England Administrative Procedures** means procedures adopted by the ISO to fulfill its responsibilities to apply and implement ISO New England System Rules.

**ISO New England Billing Policy** is Exhibit ID to Section I of the Transmission, Markets and Services Tariff.

**ISO New England Filed Documents** means the Transmission, Markets and Services Tariff, including but not limited to Market Rule 1, the Participants Agreement, the Transmission Operating Agreement or other documents that affect the rates, terms and conditions of service.

**ISO New England Financial Assurance Policy** is Exhibit IA to Section I of the Transmission, Markets and Services Tariff.

**ISO New England Information Policy** is the policy establishing guidelines regarding the information received, created and distributed by Market Participants and the ISO in connection with the settlement, operation and planning of the System, as the same may be amended from time to time in accordance with

the provisions of this Tariff. The ISO New England Information Policy is Attachment D to the Transmission, Markets and Services Tariff.

**ISO New England Manuals** are the manuals implementing Market Rule 1, as amended from time to time in accordance with the Participants Agreement. Any elements of the ISO New England Manuals that substantially affect rates, terms, and/or conditions of service shall be filed with the Commission under Section 205 of the Federal Power Act.

**ISO New England Operating Documents** are the Tariff and the ISO New England Operating Procedures.

**ISO New England Operating Procedures** are the ISO New England Planning Procedures and the operating guides, manuals, procedures and protocols developed and utilized by the ISO for operating the ISO bulk power system and the New England Markets.

**ISO New England Planning Procedures** are the procedures developed and utilized by the ISO for planning the ISO bulk power system.

**ISO New England System Rules** are Market Rule 1, the ISO New England Information Policy, the ISO New England Administrative Procedures, the ISO New England Manuals and any other system rules, procedures or criteria for the operation of the New England Transmission System and administration of the New England Markets and the Transmission, Markets and Services Tariff.

**ITC Agreement** is defined in Attachment M to the OATT.

**ITC Rate Schedule** is defined in Section 3.1 of Attachment M to the OATT.

**ITC System** is defined in Section 2.2 of Attachment M to the OATT.

**ITC System Planning Procedures** is defined in Section 15.4 of Attachment M to the OATT.

**Joint ISO/RTO Planning Committee (JIPC)** is the committee described as such in the Northeastern Planning Protocol.

**Late Payment Account** is a segregated interest-bearing account into which the ISO deposits Late Payment Charges due from ISO Charges and interest owed from participants for late payments that are collected and not distributed to the Covered Entities, until the Late Payment Account Limit is reached, under the ISO New England Billing Policy and penalties collected under the ISO New England Financial Assurance Policy.

**Late Payment Account Limit** is defined in Section 4.2 of the ISO New England Billing Policy.

**Late Payment Charge** is defined in Section 4.1 of the ISO New England Billing Policy.

**Lead Market Participant**, for purposes other than the Forward Capacity Market, is the entity authorized to submit Supply Offers, Demand Bids or Demand Reduction Offers for a Resource and to whom certain Energy TUs are assessed under Schedule 2 of Section IV.A of the Tariff. For purposes of the Forward Capacity Market, the Lead Market Participant is the entity designated to participate in that market on behalf of an Existing Capacity Resource or a New Capacity Resource.

**Limited Energy Resource** means generating resources that, due to design considerations, environmental restriction on operations, cyclical requirements, such as the need to recharge or refill or manage water flow, or fuel limitations, are unable to operate continuously at full output on a daily basis.

**Load Asset** means a physical load that has been registered in accordance with the Asset Registration Process.

**Load Management** means installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that curtail electrical usage or shift electrical usage from Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, or Real-Time Demand Response Event Hours to other hours and reduce the amount of capacity needed, while delivering a comparable or acceptable level of end-use service. Such measures include, but are not limited to, energy management systems, load control end-use cycling, load curtailment strategies, chilled water storage, and other forms of electricity storage.

**Load Response Program** means the program implemented and administered by the ISO to promote demand side response as described in Appendix E to Market Rule 1.



**Load Response Program Asset** means one or more individual end-use metered customers that report load reduction and consumption, or generator output as a single set of values, are assigned an identification number, that participate in the Load Response Program and which encompass assets registered in the Real-Time Price Response Program or Real-Time Demand Response Assets, and are further described in Appendix E of Market Rule 1.

**Load Shedding** is the systematic reduction of system demand by temporarily decreasing load.

**Load Zone** is a Reliability Region, except as otherwise provided for in Section III.2.7 of Market Rule 1.

**Local Area Facilities** are defined in the TOA.

**Local Benefit Upgrade(s) (LBU)** is an upgrade, modification or addition to the transmission system that is: (i) rated below 115kV or (ii) rated 115kV or above and does not meet all of the non-voltage criteria for PTF classification specified in the OATT.

**Local Control Centers** are those control centers in existence as of the effective date of the OATT (including the CONVEX, REMVEC, Maine and New Hampshire control centers) or established by the PTOs in accordance with the TOA that are separate from the ISO Control Center and perform certain functions in accordance with the OATT and the TOA.

**Local Delivery Service** is the service of delivering electric energy to end users. This service is subject to state jurisdiction regardless of whether such service is provided over local distribution or transmission facilities. An entity that is an Eligible Customer under the OATT is not excused from any requirements of state law, or any order or regulation issued pursuant to state law, to arrange for Local Delivery Service with the Participating Transmission Owner and/or distribution company providing such service and to pay all applicable charges associated with such service, including charges for stranded costs and benefits.

**Local Network** is defined as the transmission facilities constituting a local network as identified in Attachment E, as such Attachment may be modified from time to time in accordance with the Transmission Operating Agreement.

**Local Network Load** is the load that a Network Customer designates for Local Network Service under Schedule 21 to the OATT.

**Local Network RNS Rate** is the rate applicable to Regional Network Service to effect a delivery to load in a particular Local Network, as determined in accordance with Schedule 9 to the OATT.

**Local Network Service (LNS)** is the network service provided under Schedule 21 and the Local Service Schedules to permit the Transmission Customer to efficiently and economically utilize its resources to serve its load.

**Local Point-To-Point Service (LPTP)** is Point-to-Point Service provided under Schedule 21 of the OATT and the Local Service Schedules to permit deliveries to or from an interconnection point on the PTF.

**Local Public Policy Transmission Upgrade** is any addition and/or upgrade to the New England Transmission System with a voltage level below 115kV that is required in connection with the construction of a Public Policy Transmission Upgrade approved for inclusion in the Regional System Plan pursuant to Attachment K to the ISO OATT or included in a Local System Plan in accordance with Appendix 1 to Attachment K.

**Local Resource Adequacy Requirement** is calculated pursuant to Section III.12.2.1.1.

**Local Second Contingency Protection Resources** are those Resources identified by the ISO on a daily basis as necessary for the provision of Operating Reserve requirements and adherence to NERC, NPCC and ISO reliability criteria over and above those Resources required to meet first contingency reliability criteria within a Reliability Region.

**Local Service** is transmission service provided under Schedule 21 and the Local Service Schedules thereto.

**Local Service Schedule** is a PTO-specific schedule to the OATT setting forth the rates, charges, terms and conditions applicable to Local Service.

**Local Sourcing Requirement (LSR)** is the minimum amount of capacity that must be located within an import-constrained Load Zone, calculated as described in Section III.12.2 of Market Rule 1.

**Local System Planning (LSP)** is the process defined in Appendix 1 of Attachment K to the OATT.

**Localized Costs** are the incremental costs resulting from a RTEP02 Upgrade or a Regional Benefit Upgrade or a Public Policy Transmission Upgrade that exceeds those requirements that the ISO deems reasonable and consistent with Good Utility Practice and the current engineering design and construction practices in the area in which the Transmission Upgrade is built. In making its determination of whether Localized Costs exist, the ISO will consider, in accordance with Schedule 12C of the OATT, the reasonableness of the proposed engineering design and construction method with respect to alternate feasible Transmission Upgrades and the relative costs, operation, timing of implementation, efficiency and reliability of the proposed Transmission Upgrade. The ISO, with advisory input from the Reliability Committee, as appropriate, shall review such Transmission Upgrade, and determine whether there are any Localized Costs resulting from such Transmission Upgrade. If there are any such costs, the ISO shall identify them in the Regional System Plan.

**Location** is a Node, External Node, Load Zone or Hub. For Capacity Commitment Periods commencing on or after June 1, 2018, the Location also is a Dispatch Zone.

**Locational Marginal Price (LMP)** is defined in Section III.2 of Market Rule 1. The Locational Marginal Price for a Node is the nodal price at that Node; the Locational Marginal Price for an External Node is the nodal price at that External Node; the Locational Marginal Price for a Load Zone or Reliability Region is the Zonal Price for that Load Zone or Reliability Region, respectively; and the Locational Marginal Price for a Hub is the Hub Price for that Hub. For Capacity Commitment Periods commencing on or after June 1, 2018, the Locational Marginal Price for a Dispatch Zone is the Zonal Price for that Dispatch Zone.

**Long Lead Time Facility (Long Lead Facility)** has the meaning specified in Section I of Schedule 22 and Schedule 25 of the OATT.

**Long-Term** is a term of one year or more.

**Long-Term Transmission Outage** is a long-term transmission outage scheduled in accordance with ISO New England Operating Procedure No. 3.

**Loss Component** is the component of the nodal LMP at a given Node or External Node on the PTF that reflects the cost of losses at that Node or External Node relative to the reference point. The Loss Component of the nodal LMP at a given Node on the non-PTF system reflects the relative cost of losses at that Node adjusted as required to account for losses on the non-PTF system already accounted for through tariffs associated with the non-PTF. When used in connection with Hub Price or Zonal Price, the term Loss Component refers to the Loss Components of the nodal LMPs that comprise the Hub Price or Zonal Price, which Loss Components are averaged or weighted in the same way that nodal LMPs are averaged to determine Hub Price or weighted to determine Zonal Price.

**Loss of Load Expectation (LOLE)** is the probability of disconnecting non-interruptible customers due to a resource deficiency.

**Lost Opportunity Cost (LOC)** is one of four forms of compensation that may be paid to resources providing VAR Service under Schedule 2 of the OATT.

**LSE** means load serving entity.

**Lump Sum Blackstart Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Lump Sum Blackstart Capital Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Lump Sum Blackstart CIP Capital Payment** is defined and calculated as specified in Section 5.4 of Schedule 16 to the OATT.

**Manual Response Rate** is the rate, in MW/Minute, at which the output of a Generator Asset is capable of changing.

**Marginal Loss Revenue Load Obligation** is defined in Section III.3.2.1(b)(v) of Market Rule 1.

**Marginal Reliability Impact** is the change, with respect to an increment of capacity supply, in expected unserved energy due to resource deficiency, as measured in hours per year.

**Market Credit Limit** is a credit limit for a Market Participant's Financial Assurance Obligations (except FTR Financial Assurance Requirements) established for each Market Participant in accordance with Section II.C of the ISO New England Financial Assurance Policy.

**Market Credit Test Percentage** is calculated in accordance with Section III.B.1(a) of the ISO New England Financial Assurance Policy.

**Market Efficiency Transmission Upgrade** is defined as those additions and upgrades that are not related to the interconnection of a generator, and, in the ISO's determination, are designed to reduce bulk power system costs to load system-wide, where the net present value of the reduction in bulk power system costs to load system-wide exceeds the net present value of the cost of the transmission addition or upgrade. For purposes of this definition, the term "bulk power system costs to load system-wide" includes, but is not limited to, the costs of energy, capacity, reserves, losses and impacts on bilateral prices for electricity.

**Market Participant** is a participant in the New England Markets (including a FTR-Only Customer) that has executed a Market Participant Service Agreement, or on whose behalf an unexecuted Market Participant Service Agreement has been filed with the Commission.

**Market Participant Financial Assurance Requirement** is defined in Section III of the ISO New England Financial Assurance Policy.

**Market Participant Obligations** is defined in Section III.B.1.1 of Appendix B of Market Rule 1.

**Market Participant Service Agreement (MPSA)** is an agreement between the ISO and a Market Participant, in the form specified in Attachment A or Attachment A-1 to the Tariff, as applicable.

**Market Rule 1** is ISO Market Rule 1 and appendices set forth in Section III of this ISO New England Inc. Transmission, Markets and Services Tariff, as it may be amended from time to time.

**Market Violation** is a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies.

**Material Adverse Change** is any change in financial status including, but not limited to a downgrade to below an Investment Grade Rating by any Rating Agency, being placed on credit watch with negative implication by any Rating Agency if the Market Participant or Non-Market Participant Transmission Customer does not have an Investment Grade Rating, a bankruptcy filing or other insolvency, a report of a significant quarterly loss or decline of earnings, the resignation of key officer(s), the sanctioning of the Market Participant or Non-Market Participant Transmission Customer or any of its Principles imposed by the Federal Energy Regulatory Commission, the Securities Exchange Commission, any exchange monitored by the National Futures Association, or any state entity responsible for regulating activity in energy markets; the filing of a material lawsuit that could materially adversely impact current or future financial results; a significant change in the Market Participant's or Non-Market Participant Transmission Customer's credit default spreads; or a significant change in market capitalization.

**Material Adverse Impact** is defined, for purposes of review of ITC-proposed plans, as a proposed facility or project will be deemed to cause a "material adverse impact" on facilities outside of the ITC System if: (i) the proposed facility or project causes non-ITC facilities to exceed their capabilities or exceed their thermal, voltage or stability limits, consistent with all applicable reliability criteria, or (ii) the proposed facility or project would not satisfy the standards set forth in Section I.3.9 of the Transmission, Markets and Services Tariff. This standard is intended to assure the continued service of all non-ITC firm load customers and the ability of the non-ITC systems to meet outstanding transmission service obligations.

**Maximum Capacity Limit** is the maximum amount of capacity that can be procured in an export-constrained Load Zone, calculated as described in Section III.12.2 of Market Rule 1, to meet the Installed Capacity Requirement.

**Maximum Consumption Limit** is the maximum amount, in MW, available from the Dispatchable Asset Related Demand for economic dispatch and is based on the physical characteristics as submitted as part of a Resource's Offer Data.

**Maximum Daily Consumption Limit** is the maximum amount of megawatt-hours that a DARD Pump is expected to be able to consume in the next Operating Day.

**Maximum Facility Load** is the most recent annual non-coincident peak demand or, if unavailable, an estimate of the annual non-coincident peak demand of a Real-Time Demand Response Asset or a Real-

Time Emergency Generation Asset, where the demand evaluated is established by adding actual metered demand and the output of all generators located behind the asset's end-use customer meter in the same time intervals.

**Maximum Generation** is the maximum generation output of a Real-Time Demand Response Asset comprised of Distributed Generation or the maximum generation output of a Demand Response Asset comprised of Distributed Generation.

**Maximum Interruptible Capacity** is an estimate of the maximum hourly demand reduction amount that a Real-Time Demand Response Asset, Real-Time Emergency Generation Asset or a Demand Response Asset can deliver. For assets that deliver demand reduction, the Maximum Interruptible Capacity is the asset's peak load less its uninterruptible load. For assets that deliver reductions through the use of generation, the Maximum Interruptible Capacity is the difference between the generator's maximum possible output and its expected output when not providing demand reduction. For assets that deliver demand reduction and Net Supply, the Maximum Interruptible Capacity is the asset's peak load plus Maximum Net Supply as measured at the Retail Delivery Point.

**Maximum Load** is the most recent annual non-coincident peak demand or, if unavailable, an estimate of the annual non-coincident peak demand, of a Demand Response Asset, Real-Time Demand Response Asset or Real-Time Emergency Generation Asset.

**Maximum Net Supply** is an estimate of the maximum hourly Net Supply for a Demand Response Asset as measured from the Demand Response Asset's Retail Delivery Point.

**Maximum Number of Daily Starts** is the maximum number of times that a DARD Pump or a generating Resource can be started in the next Operating Day under normal operating conditions.

**Maximum Reduction** is the maximum available demand reduction, in MW, of a Demand Response Resource that a Market Participant offers to deliver in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the Demand Response Resource's Demand Reduction Offer.

**Measure Life** is the estimated time a Demand Resource measure will remain in place, or the estimated time period over which the facility, structure, equipment or system in which a measure is installed continues to exist, whichever is shorter. Suppliers of Demand Resources comprised of an aggregation of

measures with varied Measures Lives shall determine and document the Measure Life either: (i) for each type of measure with a different Measure Life and adjust the aggregate performance based on the individual measure life calculation in the portfolio; or (ii) as the average Measure Life for the aggregated measures as long as the Demand Reduction Value of the Demand Resource is greater than or equal to the amount that cleared in the Forward Capacity Auction or reconfiguration auction for the entire Capacity Commitment Period, and the Demand Reduction Value for an Existing Demand Resource is not overstated in a subsequent Capacity Commitment Period. Measure Life shall be determined consistent with the Demand Resource's Measurement and Verification Plan, which shall be reviewed by the ISO to ensure consistency with the measurement and verification requirements of Market Rule 1 and the ISO New England Manuals.

**Measurement and Verification Documents** mean the measurement and verification documents described in Section 13.1.4.3.1 of Market Rule 1, which includes Measurement and Verification Plans, Updated Measurement and Verification Plans, Measurement and Verification Summary Reports, and Measurement and Verification Reference Reports.

**Measurement and Verification Plan** means the measurement and verification plan submitted by a Demand Resource supplier as part of the qualification process for the Forward Capacity Auction pursuant to the requirements of Section III.13.1.4.3 of Market Rule 1 and the ISO New England Manuals.

**Measurement and Verification Reference Reports** are optional reports submitted by Demand Resource suppliers during the Capacity Commitment Period subject to the schedule in the Measurement and Verification Plan and consistent with the schedule and reporting standards set forth in the ISO New England Manuals. Measurement and Verification Reference Reports update the prospective Demand Reduction Value of the Demand Resource project based on measurement and verification studies performed during the Capacity Commitment Period.

**Measurement and Verification Summary Report** is the monthly report submitted by a Demand Resource supplier with the monthly settlement report for the Forward Capacity Market, which documents the total Demand Reduction Values for all Demand Resources in operation as of the end of the previous month.

**MEPCO Grandfathered Transmission Service Agreement (MG TSA)** is a MEPCO long-term firm point-to-point transmission service agreement with a POR or POD at the New Brunswick border and a



start date prior to June 1, 2007 where the holder has elected, by written notice delivered to MEPCO within five (5) days following the filing of the settlement agreement in Docket Nos. ER07-1289 and EL08-56 or by September 1, 2008 (whichever is later), MGTSA treatment as further described in Section II.45.1.

**Merchant Transmission Facilities (MTF)** are the transmission facilities owned by MTOs, defined and classified as MTF pursuant to Schedule 18 of the OATT, over which the ISO shall exercise Operating Authority in accordance with the terms set forth in a MTOA or Attachment K to the OATT, rated 69 kV or above and required to allow energy from significant power sources to move freely on the New England Transmission System.

**Merchant Transmission Facilities Provider (MTF Provider)** is an entity as defined in Schedule 18 of the OATT.

**Merchant Transmission Facilities Service (MTF Service)** is transmission service over MTF as provided for in Schedule 18 of the OATT.

**Merchant Transmission Operating Agreement (MTOA)** is an agreement between the ISO and an MTO with respect to its MTF.

**Merchant Transmission Owner (MTO)** is an owner of MTF.

**Meter Data Error** means an error in meter data, including an error in Coincident Peak Contribution values, on an Invoice issued by the ISO after the completion of the data reconciliation process as described in the ISO New England Manuals and in Section III.3.8 of Market Rule 1.

**Meter Data Error RBA Submission Limit** means the date thirty 30 calendar days after the issuance of the Invoice containing the results of the data reconciliation process as described in the ISO New England Manuals and in Section III.3.6 of Market Rule 1.

**Metered Quantity For Settlement** is defined in Section III.3.2.1.1 of Market Rule 1.

**Minimum Consumption Limit** is the minimum amount, in MW, available from a Dispatchable Asset Related Demand that is not available for economic dispatch and is based on the physical characteristics as submitted as part of a Resource's Offer Data.

**Minimum Down Time** is the number of hours that must elapse after a Generator Asset or DARD Pump has been released for shutdown at or below its Economic Minimum Limit or Minimum Consumption Limit before the Generator Asset or DARD Pump can be brought online and be released for dispatch at its Economic Minimum Limit or Minimum Consumption Limit.

**Minimum Generation Emergency** means an Emergency declared by the ISO in which the ISO anticipates requesting one or more generating Resources to operate at or below Economic Minimum Limit, in order to manage, alleviate, or end the Emergency.

**Minimum Generation Emergency Credits** are those Real-Time Dispatch NCPC Credits calculated pursuant to Appendix F of Market Rule 1 for resources within a reliability region that are dispatched during a period for which a Minimum Generation Emergency has been declared.

**Minimum Reduction** is the minimum available demand reduction, in MW, of a Demand Response Resource that a Market Participant offers to deliver in the Day-Ahead Energy Market or Real-Time Energy Market, as reflected in the Demand Response Resource's Demand Reduction Offer.

**Minimum Reduction Time** is the minimum number of hours of demand reduction at or above the Minimum Reduction for which the ISO must dispatch a Demand Response Resource to reduce demand.

**Minimum Run Time** is the number of hours that a Generator Asset must remain online after it has been scheduled to reach its Economic Minimum Limit before it can be released for shutdown from its Economic Minimum Limit or the number of hours that must elapse after a DARD Pump has been scheduled to consume at its Minimum Consumption Limit before it can be released for shutdown.

**Minimum Time Between Reductions** is the minimum number of hours that a Market Participant requires between the time the Demand Response Resource receives a Dispatch Instruction from the ISO to not reduce demand and the time the Demand Response Resource receives a Dispatch Instruction from the ISO to reduce demand.

**Monthly Blackstart Service Charge** is the charge made to Transmission Customers pursuant to Section 6 of Schedule 16 to the OATT.

**Monthly Capacity Variance** means a Demand Resource's actual monthly Capacity Value established pursuant to Section III.13.7.1.5.1 of Market Rule 1, minus the Demand Resource's final Capacity Supply Obligation for the month.

**Monthly Peak** is defined in Section II.21.2 of the OATT.

**Monthly PER** is calculated in accordance with Section III.13.7.2.7.1.1.2(a) of Market Rule 1.

**Monthly Real-Time Generation Obligation** is the sum, for all hours in a month, at all Locations, of a Customer's Real-Time Generation Obligation, in MWhs.

**Monthly Real-Time Load Obligation** is the absolute value of a Customer's hourly Real-Time Load Obligation summed for all hours in a month, in MWhs.

**Monthly Regional Network Load** is defined in Section II.21.2 of the OATT.

**Monthly Statement** is the first weekly Statement issued on a Monday after the tenth of a calendar month that includes both the Hourly Charges for the relevant billing period and Non-Hourly Charges for the immediately preceding calendar month.

**MRI Transition Period** is the period specified in Section III.13.2.2.1.

**MUI** is the market user interface.

**Municipal Market Participant** is defined in Section II of the ISO New England Financial Assurance Policy.

**MW** is megawatt.

**MWh** is megawatt-hour.

**Native Load Customers** are the wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate its system to meet the reliable electric needs of such customers.

**NCPC Charge** means the charges to Market Participants calculated pursuant to Appendix F to Market Rule 1.

**NCPC Credit** means the credits to Market Participants calculated pursuant to Appendix F to Market Rule 1.

**Needs Assessment** is defined in Section 4.1 of Attachment K to the OATT.

**NEMA**, for purposes of Section III of the Tariff, is the Northeast Massachusetts Reliability Region.

**NEMA Contract** is a contract described in Appendix C of Market Rule 1 and listed in Exhibit 1 of Appendix C of Market Rule 1.

**NEMA Load Serving Entity (NEMA LSE)** is a Transmission Customer or Congestion Paying LSE Entity that serves load within NEMA.

**NEMA or Northeast Massachusetts Upgrade**, for purposes of Section II of the Tariff, is an addition to or modification of the PTF into or within the Northeast Massachusetts Reliability Region that was not, as of December 31, 1999, the subject of a System Impact Study or application filed pursuant to Section I.3.9 of the Transmission, Markets and Services Tariff; that is not related to generation interconnections; and that will be completed and placed in service by June 30, 2004. Such upgrades include, but are not limited to, new transmission facilities and related equipment and/or modifications to existing transmission facilities and related equipment. The list of NEMA Upgrades is contained in Schedule 12A of the OATT.

**NEPOOL** is the New England Power Pool, and the entities that collectively participated in the New England Power Pool.

**NEPOOL Agreement** is the agreement among the participants in NEPOOL.

**NEPOOL GIS** is the generation information system.

**NEPOOL GIS Administrator** is the entity or entities that develop, administer, operate and maintain the NEPOOL GIS.

**NEPOOL GIS API Fees** are the one-time on-boarding fees and annual maintenance fees charged to NEPOOL by the NEPOOL GIS Administrator for each NEPOOL Participant or Market Participant that accesses the NEPOOL GIS through an application programming interface pursuant to Rule 3.9(b) of the operating rules of the NEPOOL GIS.

**NEPOOL Participant** is a party to the NEPOOL Agreement.

**NERC** is the North American Electric Reliability Corporation or its successor organization.

**NESCOE** is the New England States Committee on Electricity, recognized by the Commission as the regional state committee for the New England Control Area.

**Net Commitment Period Compensation (NCPC)** is the compensation methodology for Resources that is described in Appendix F to Market Rule 1.

**Net CONE** is an estimate of the Cost of New Entry, net of the first-year non-capacity market revenues, for a reference technology resource type and is intended to equal the amount of capacity revenue the reference technology resource would require, in its first year of operation, to be economically viable given reasonable expectations of the first year energy and ancillary services revenues, and projected revenue for subsequent years.

**Net Regional Clearing Price** is described in Section III.13.7.3 of Market Rule 1.

**Net Supply** is energy injected at the Retail Delivery Point by a Demand Response Asset with Distributed Generation.

**Net Supply Limit** is the estimated portion of the offered Maximum Reduction of a Demand Response Resource that would be provided through Net Supply. The Net Supply Limit is calculated by multiplying the offered Maximum Reduction of the Demand Response Resource by the ratio of total Net Supply to

total demand reduction performance from the prior like Seasonal DR Audit of the Demand Response Assets that are mapped to the Demand Response Resource for the month.

**Network Capability Interconnection Standard** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Network Customer** is a Transmission Customer receiving RNS or LNS.

**Network Import Capability (NI Capability)** is defined in Section I of Schedule 25 of the OATT.

**Network Import Interconnection Service (NI Interconnection Service)** is defined in Section I of Schedule 25 of the OATT.

**Network Resource** is defined as follows: (1) With respect to Market Participants, (a) any generating resource located in the New England Control Area which has been placed in service prior to the Compliance Effective Date (including a unit that has lost its capacity value when its capacity value is restored and a deactivated unit which may be reactivated without satisfying the requirements of Section II.46 of the OATT in accordance with the provisions thereof) until retired; (b) any generating resource located in the New England Control Area which is placed in service after the Compliance Effective Date until retired, provided that (i) the Generator Owner has complied with the requirements of Sections II.46 and II.47 and Schedules 22 and 23 of the OATT, and (ii) the output of the unit shall be limited in accordance with Sections II.46 and II.47 and Schedules 22 and 23, if required; and (c) any generating resource or combination of resources (including bilateral purchases) located outside the New England Control Area for so long as any Market Participant has an Ownership Share in the resource or resources which is being delivered to it in the New England Control Area to serve Regional Network Load located in the New England Control Area or other designated Regional Network Loads contemplated by Section II.18.3 of the OATT taking Regional Network Service. (2) With respect to Non-Market Participant Transmission Customers, any generating resource owned, purchased or leased by the Non-Market Participant Transmission Customer which it designates to serve Regional Network Load.

**New Brunswick Security Energy** is defined in Section III.3.2.6A of Market Rule 1.

**New Capacity Offer** is an offer in the Forward Capacity Auction to provide capacity from a New Generating Capacity Resource, New Import Capacity Resource or New Demand Resource.

**New Capacity Qualification Deadline** is a deadline, specified in Section III.13.1.10 of Market Rule 1, for submission of certain qualification materials for the Forward Capacity Auction, as discussed in Section III.13.1 of Market Rule 1.

**New Capacity Qualification Package** is information submitted by certain new resources prior to participation in the Forward Capacity Auction, as described in Section III.13.1 of Market Rule 1.

**New Capacity Resource** is a resource (i) that never previously received any payment as a capacity resource including any capacity payment pursuant to the market rules in effect prior to June 1, 2010 and that has not cleared in any previous Forward Capacity Auction; or (ii) that is otherwise eligible to participate in the Forward Capacity Auction as a New Capacity Resource.

**New Capacity Show of Interest Form** is described in Section III.13.1.1.2.1 of Market Rule 1.

**New Capacity Show of Interest Submission Window** is the period of time during which a Project Sponsor may submit a New Capacity Show of Interest Form or a New Demand Resource Show of Interest Form, as described in Section III.13.1.10 of Market Rule 1.

**New Demand Resource** is a type of Demand Resource participating in the Forward Capacity Market, as defined in Section III.13.1.4.1.2 of Market Rule 1.

**New Demand Resource Qualification Package** is the information that a Project Sponsor must submit, in accordance with Section III 13.1.4.2.3 of Market Rule 1, for each resource that it seeks to offer in the Forward Capacity Auction as a New Demand Resource.

**New Demand Resource Show of Interest Form** is described in Section III.13.1.4.2 of Market Rule 1.

**New Demand Response Asset** is a Real-Time Demand Response Asset, Real-Time Emergency Generation Asset or Demand Response Asset that is registered with the ISO, has been mapped to a resource, is ready to respond, and has been included in the dispatch model of the remote terminal unit but does not have a winter audit value and a summer audit value.

**New Demand Response Asset Audit** is an audit of a New Demand Response Asset performed pursuant to Section III.13.6.1.5.4.8.

**New England Control Area** is the Control Area for New England, which includes PTF, Non-PTF, MTF and OTF. The New England Control Area covers Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and part of Maine (i.e., excluding the portions of Northern Maine and the northern portion of Eastern Maine which are in the Maritimes Control Area).

**New England Markets** are markets or programs for the purchase of energy, capacity, ancillary services, demand response services or other related products or services (including Financial Transmission Rights) that are delivered through or useful to the operation of the New England Transmission System and that are administered by the ISO pursuant to rules, rates, or agreements on file from time to time with the Federal Energy Regulatory Commission.

**New England System Restoration Plan** is the plan that is developed by ISO, in accordance with NERC Reliability Standards, NPCC regional criteria and standards, ISO New England Operating Documents and ISO operating agreements, to facilitate the restoration of the New England Transmission System following a partial or complete shutdown of the New England Transmission System.

**New England Transmission System** is the system of transmission facilities, including PTF, Non-PTF, OTF and MTF, within the New England Control Area under the ISO's operational jurisdiction.

**New Generating Capacity Resource** is a type of resource participating in the Forward Capacity Market, as described in Section III.13.1.1.1 of Market Rule 1.

**New Import Capacity Resource** is a type of resource participating in the Forward Capacity Market, as defined in Section III.13.1.3.4 of Market Rule 1.

**New Resource Offer Floor Price** is defined in Section III.A.21.2.

**NMPTC** means Non-Market Participant Transmission Customer.

**NMPTC Credit Threshold** is described in Section V.A.2 of the ISO New England Financial Assurance Policy.



**NMPTC Financial Assurance Requirement** is an amount of additional financial assurance for Non-Market Participant Transmission Customers described in Section V.D of the ISO New England Financial Assurance Policy.

**Nodal Amount** is node(s)-specific on-peak and off-peak proxy value to which an FTR bid or awarded FTR bid relates.

**Node** is a point on the New England Transmission System at which LMPs are calculated.

**No-Load Fee** is the amount, in dollars per hour, for a generating unit that must be paid to Market Participants with an Ownership Share in the unit for being scheduled in the New England Markets, in addition to the Start-Up Fee and price offered to supply energy, for each hour that the generating unit is scheduled in the New England Markets.

**Nominated Consumption Limit** is the consumption level specified by the Market Participant for a Dispatchable Asset Related Demand as adjusted in accordance with the provisions of Section III.13.7.3.1.3.

**Non-Commercial Capacity** is the capacity of a New Capacity Resource or an increment of an Existing Capacity Resource that is treated as a New Capacity Resource in the Forward Capacity Auction and that has not been declared commercial and has not had its capacity rating verified by the ISO.

**Non-Commercial Capacity Cure Period** is the time period described in Section VII.D of the ISO New England Financial Assurance Policy.

**Non-Commercial Capacity Financial Assurance Amount (Non-Commercial Capacity FA Amount)** is the financial assurance amount held on Non-Commercial Capacity cleared in a Forward Capacity Auction as calculated in accordance with Section VII.B.2 of the ISO New England Financial Assurance Policy.

**Non-Designated Blackstart Resource Study Cost Payments** are the study costs reimbursed under Section 5.3 of Schedule 16 of the OATT.

**Non-Dispatchable Resource** is any Resource that does not meet the requirements to be a Dispatchable Resource .

**Non-Hourly Charges** are defined in Section 1.3 of the ISO New England Billing Policy.

**Non-Hourly Requirements** are determined in accordance with Section III.A(ii) of the ISO New England Financial Assurance Policy, which is Exhibit 1A of Section I of the Tariff.

**Non-Incumbent Transmission Developer** is a Qualified Transmission Project Sponsor that: (i) is not currently a PTO; (ii) has a transmission project listed in the RSP Project List; and (iii) has executed a Non-Incumbent Transmission Developer Operating Agreement. “Non-Incumbent Transmission Developer” also includes a PTO that proposes the development of a transmission facility not located within or connected to its existing electric system; however, because such a PTO is a party to the TOA, it is not required to enter into a Non-Incumbent Transmission Developer Operating Agreement.

**Non-Incumbent Transmission Developer Operating Agreement (or NTDOA)** is an agreement between the ISO and a Non-Incumbent Transmission Developer in the form specified in Attachment O to the OATT that sets forth their respective rights and responsibilities to each other with regard to proposals for and construction of certain transmission facilities.

**Non-Intermittent Settlement Only Resource** is a Settlement Only Resource that is not an Intermittent Power Resource.

**Non-Market Participant** is any entity that is not a Market Participant.

**Non-Market Participant Transmission Customer** is any entity which is not a Market Participant but is a Transmission Customer.

**Non-Municipal Market Participant** is defined in Section II of the ISO New England Financial Assurance Policy.

**Non-PTF Transmission Facilities (Non-PTF)** are the transmission facilities owned by the PTOs that do not constitute PTF, OTF or MTF.

**Non-Qualifying** means a Market Participant that is not a Credit Qualifying Market Participant.

**Notice of RBA** is defined in Section 6.3.2 of the ISO New England Billing Policy.

**Notification Time** is the time required for a Generator Asset to synchronize to the system from the time a startup Dispatch Instruction is received from the ISO.

**Northeastern Planning Protocol** is the Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol on file with the Commission and posted on the ISO website at the following URL: [www.iso-ne.com/static-assets/documents/2015/07/northeastern\\_protocol\\_dmeast.doc](http://www.iso-ne.com/static-assets/documents/2015/07/northeastern_protocol_dmeast.doc).

**NPCC** is the Northeast Power Coordinating Council.

**Obligation Month** means a time period of one calendar month for which capacity payments are issued and the costs associated with capacity payments are allocated.

**Offer Data** means the scheduling, operations planning, dispatch, new Resource, and other data, including generating unit and Dispatchable Asset Related Demand, and for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Response Resource operating limits based on physical characteristics, and information necessary to schedule and dispatch generating and Dispatchable Asset Related Demand Resources, and for Capacity Commitment Periods commencing on or after June 1, 2018, Demand Response Resources for the provision of energy and other services and the maintenance of the reliability and security of the transmission system in the New England Control Area, and specified for submission to the New England Markets for such purposes by the ISO.

**Offered CLAIM10** is, for a generating Resource, a Supply Offer value between 0 and the CLAIM10 of the Resource that represents the amount of TMNSR available from the Resource from an off-line state, and, for a Dispatchable Asset Related Demand or Demand Response Resource that has not been dispatched, is a Demand Bid or Demand Reduction Offer value between 0 and the CLAIM10 of the Resource that represents the amount of TMNSR or TMSR available from the Resource.

**Offered CLAIM30** is a Supply Offer, Demand Bid or Demand Reduction Offer value between 0 and the CLAIM30 of a Resource that represents the amount of TMOR available from an off-line generating

Resource, or Dispatchable Asset Related Demand or Demand Response Resource that has not been dispatched.

**Offered Full Reduction Time** is the value calculated pursuant to Section III.13.6.1.5.4.6.

**On-Peak Demand Resource** is a type of Demand Resource and means installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy consumed during Demand Resource On-Peak Hours, while delivering a comparable or acceptable level of end-use service. Such measures include Energy Efficiency, Load Management, and Distributed Generation.

**Open Access Same-Time Information System (OASIS)** is the ISO information system and standards of conduct responding to requirements of 18 C.F.R. §37 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

**Open Access Transmission Tariff (OATT)** is Section II of the ISO New England Inc. Transmission, Markets and Services Tariff.

**Operating Authority** is defined pursuant to a MTOA, an OTOA, the TOA or the OATT, as applicable.

**Operating Data** means GADS Data, data equivalent to GADS Data, CARL Data, metered load data, or actual system failure occurrences data, all as described in the ISO New England Operating Procedures.

**Operating Day** means the calendar day period beginning at midnight for which transactions on the New England Markets are scheduled.

**Operating Reserve** means Ten-Minute Spinning Reserve (TMSR), Ten-Minute Non-Spinning Reserve (TMNSR) and Thirty-Minute Operating Reserve (TMOR).

**Operations Date** is February 1, 2005.

**OTF Service** is transmission service over OTF as provided for in Schedule 20.

**Other Transmission Facility (OTF)** are the transmission facilities owned by Transmission Owners, defined and classified as OTF pursuant to Schedule 20, over which the ISO shall exercise Operating Authority in accordance with the terms set forth in the OTOA, rated 69 kV or above, and required to allow energy from significant power sources to move freely on the New England Transmission System. OTF classification shall be limited to the Phase I/II HVDC-TF.

**Other Transmission Operating Agreements (OTOA)** is the agreement(s) between the ISO, an OTO and/or the associated service provider(s) with respect to an OTF, which includes the HVDC Transmission Operating Agreement and the Phase I/II HVDC-TF Transmission Service Administration Agreement. With respect to the Phase I/II HVDC-TF, the HVDC Transmission Operating Agreement covers the rights and responsibilities for the operation of the facility and the Phase I/II HVDC-TF Transmission Service Administration Agreement covers the rights and responsibilities for the administration of transmission service.

**Other Transmission Owner (OTO)** is an owner of OTF.

**Ownership Share** is a right or obligation, for purposes of settlement, to a percentage share of all credits or charges associated with a generating unit asset or Load Asset, where such unit or load is interconnected to the New England Transmission System.

**Participant Expenses** are defined in Section 1 of the Participants Agreement.

**Participant Required Balance** is defined in Section 5.3 of the ISO New England Billing Policy.

**Participant Vote** is defined in Section 1 of the Participants Agreement.

**Participants Agreement** is the agreement among the ISO, the New England Power Pool and Individual Participants, as amended from time to time, on file with the Commission.

**Participants Committee** is the principal committee referred to in the Participants Agreement.

**Participating Transmission Owner (PTO)** is a transmission owner that is a party to the TOA.

**Payment** is a sum of money due to a Covered Entity from the ISO.

**Payment Default Shortfall Fund** is defined in Section 5.1 of the ISO New England Billing Policy.

**Peak Energy Rent (PER)** is described in Section III.13.7.2.7.1 of Market Rule 1.

**PER Proxy Unit** is described in Section III.13.7.2.7.1 of Market Rule 1.

**Percent of Total Demand Reduction Value Complete** means the delivery schedule as a percentage of a Demand Resource's total Demand Reduction Value that will be or has been achieved as of specific target dates, as described in Section III.13 of Market Rule 1.

**Permanent De-list Bid** is a bid that may be submitted by an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource in the Forward Capacity Auction to permanently remove itself from the capacity market, as described in Section III.13.1.2.3.1.5 of Market Rule 1.

**Phase I Transfer Credit** is 40% of the HQICC, or such other fraction of the HQICC as the ISO may establish.

**Phase I/II HVDC-TF** is defined in Schedule 20A to Section II of this Tariff.

**Phase I/II HVDC-TF Transfer Capability** is the transfer capacity of the Phase I/II HVDC-TF under normal operating conditions, as determined in accordance with Good Utility Practice. The "Phase I Transfer Capability" is the transfer capacity under normal operating conditions, as determined in accordance with Good Utility Practice, of the Phase I terminal facilities as determined initially as of the time immediately prior to Phase II of the Phase I/II HVDC-TF first being placed in service, and as adjusted thereafter only to take into account changes in the transfer capacity which are independent of any effect of Phase II on the operation of Phase I. The "Phase II Transfer Capability" is the difference between the Phase I/II HVDC-TF Transfer Capability and the Phase I Transfer Capability.

Determinations of, and any adjustment in, Phase I/II HVDC-TF Transfer Capability shall be made by the ISO, and the basis for any such adjustment shall be explained in writing and posted on the ISO website.

**Phase One Proposal** is a first round submission, as defined in Section 4.3 of Attachment K of the OATT, of a proposal for a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade, as applicable, by a Qualified Transmission Project Sponsor.

**Phase II Transfer Credit** is 60% of the HQICC, or such other fraction of the HQICC as the ISO may establish.

**Phase Two Solution** is a second round submission, as defined in Section 4.3 of Attachment K of the OATT, of a proposal for a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Planning Advisory Committee** is the committee described in Attachment K of the OATT.

**Planning and Reliability Criteria** is defined in Section 3.3 of Attachment K to the OATT.

**Planning Authority** is an entity defined as such by the North American Electric Reliability Corporation.

**Point(s) of Delivery (POD)** is point(s) of interconnection where capacity and/or energy transmitted by a Transmission Customer will be made available to the Receiving Party under the OATT.

**Point of Interconnection** shall have the same meaning as that used for purposes of Schedules 22, 23 and 25 of the OATT.

**Point(s) of Receipt (POR)** is point(s) of interconnection where capacity and/or energy transmitted by a Transmission Customer will be made available by the Delivering Party under the OATT.

**Point-To-Point Service** is the transmission of capacity and/or energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under the OATT pursuant to Local Point-To-Point Service or OTF Service or MTF Service; and the transmission of capacity and/or energy from the Point(s) of Receipt to the Point(s) of Delivery under the OATT pursuant to Through or Out Service.

**Pool-Planned Unit** is one of the following units: New Haven Harbor Unit 1 (Coke Works), Mystic Unit 7, Canal Unit 2, Potter Unit 2, Wyman Unit 4, Stony Brook Units 1, 1A, 1B, 1C, 2A and 2B, Millstone

Unit 3, Seabrook Unit 1 and Waters River Unit 2 (to the extent of 7 megawatts of its Summer capability and 12 megawatts of its Winter capability).

**Pool PTF Rate** is the transmission rate determined in accordance with Schedule 8 to the OATT.

**Pool RNS Rate** is the transmission rate determined in accordance with paragraph (2) of Schedule 9 of Section II of the Tariff.

**Pool-Scheduled Resources** are described in Section III.1.10.2 of Market Rule 1.

**Pool Supported PTF** is defined as: (i) PTF first placed in service prior to January 1, 2000; (ii) Generator Interconnection Related Upgrades with respect to Category A and B projects (as defined in Schedule 11), but only to the extent not paid for by the interconnecting Generator Owner; and (iii) other PTF upgrades, but only to the extent the costs therefore are determined to be Pool Supported PTF in accordance with Schedule 12.

**Pool Transmission Facility (PTF)** means the transmission facilities owned by PTOs which meet the criteria specified in Section II.49 of the OATT.

**Poorly Performing Resource** is described in Section III.13.7.1.1.5 of Market Rule 1.

**Posting Entity** is any Market Participant or Non-Market Participant Transmission Customer providing financial security under the provisions of the ISO New England Financial Assurance Policy.

**Posture** means an action of the ISO to deviate from the jointly optimized security constrained economic dispatch for Energy and Operating Reserves solution for a Resource produced by the ISO's technical software for the purpose of maintaining sufficient Operating Reserve (both online and off-line) or for the provision of voltage or VAR support.

**Posturing Credits** are the Real-Time Posturing NCPC Credits for Generators (Other Than Limited Energy Resources) Postured for Reliability and the Real-Time Posturing NCPC Credit for Limited Energy Resources Postured for Reliability.



**Power Purchaser** is the entity that is purchasing the capacity and/or energy to be transmitted under the OATT.

**Principal** is (i) the sole proprietor of a sole proprietorship; (ii) a general partner of a partnership; (iii) a president, chief executive officer, chief operating officer or chief financial officer (or equivalent position) of an organization; (iv) a manager, managing member or a member vested with the management authority for a limited liability company or limited liability partnership; (v) any person or entity that has the power to exercise a controlling influence over an organization's activities that are subject to regulation by the Federal Energy Regulatory Commission, the Securities and Exchange Commission, the Commodity Futures Trading Commission, any exchange monitored by the National Futures Association, or any state entity responsible for regulating activity in energy markets; or (vi) any person or entity that: (a) is the direct owner of 10% or more of any class of an organization's equity securities; or (b) has directly contributed 10% or more of an organization's capital.

**Profiled Load Assets** include all Load Assets that are not directly metered by OP-18 compliant metering as currently described in Section IV (Metering and Recording for Settlements) of OP18, and some Load Assets that are measured by OP-18 compliant metering (as currently described in Section IV of OP-18) to which the Host Participant Assigned Meter Reader allocates non-PTF losses.

**Project Sponsor** is an entity seeking to have a New Generating Capacity Resource, New Import Capacity Resource or New Demand Resource participate in the Forward Capacity Market, as described in Section III.13.

**Proxy De-List Bid** is a type of bid used in the Forward Capacity Market.

**Provisional Member** is defined in Section I.68A of the Restated NEPOOL Agreement.

**PTO Administrative Committee** is the committee referred to in Section 11.04 of the TOA.

**Public Policy Requirement** is a requirement reflected in a statute enacted by, or a regulation promulgated by, the federal government or a state or local (e.g., municipal or county) government.

**Public Policy Transmission Study** is a study conducted by the ISO pursuant to the process set out in Section 4A.3 of Attachment K of the OATT, and consists of two phases: (i) an initial phase to produce a

rough estimate of the costs and benefits of concepts that could meet transmission needs driven by public policy requirements; and (ii) a follow-on phase designed to produce more detailed analysis and engineering work on transmission concepts identified in the first phase.

**Public Policy Local Transmission Study** is a study conducted by a PTO pursuant to the process set out in Section 1.6 of Attachment K Appendix 1 of the OATT, and consists of two phases: (i) an initial phase to produce an estimate of the costs and benefits of concepts that could meet transmission needs driven by public policy requirements; and (ii) a follow-on phase designed to produce more detailed analysis and engineering work on transmission concepts identified in the first phase.

**Public Policy Transmission Upgrade** is an addition and/or upgrade to the New England Transmission System that meets the voltage and non-voltage criteria for Public Policy Transmission Upgrade PTF classification specified in the OATT, and has been included in the Regional System Plan and RSP Project List as a Public Policy Transmission Upgrade pursuant to the procedures described in Section 4A of Attachment K of the OATT.

**Publicly Owned Entity** is defined in Section I of the Restated NEPOOL Agreement.

**Qualification Process Cost Reimbursement Deposit** is described in Section III.13.1.9.3 of Market Rule 1.

**Qualified Capacity** is the amount of capacity a resource may provide in the summer or winter in a Capacity Commitment Period, as determined in the Forward Capacity Market qualification processes.

**Qualified Generator Reactive Resource(s)** is any generator source of dynamic reactive power that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Non-Generator Reactive Resource(s)** is any non-generator source of dynamic reactive power that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Reactive Resource(s)** is any Qualified Generator Reactive Resource and/or Qualified Non-Generator Reactive Resource that meets the criteria specified in Schedule 2 of the OATT.

**Qualified Transmission Project Sponsor** is defined in Sections 4B.2 and 4B.3 of Attachment K of the OATT.

**Queue Position** has the meaning specified in Section I of Schedule 22, Attachment 1 to Schedule 23, and Section I of Schedule 25 of the OATT.

**Rapid Response Pricing Asset** is a Fast Start Generator, a Flexible DNE Dispatchable Generator, or a Dispatchable Asset Related Demand for which the Market Participant's Offer Data meets the following criteria: (i) Minimum Run Time does not exceed one hour; and (ii) cold Notification Time plus cold Start-Up Time does not exceed 30 minutes.

**Rapid Response Pricing Opportunity Cost** is the NCPC Credit described in Section III.F.2.3.10.

**Rated** means a Market Participant that receives a credit rating from one or more of the Rating Agencies, or, if such Market Participant is not rated by one of the Rating Agencies, then a Market Participant that has outstanding unsecured debt rated by one or more of the Rating Agencies.

**Rating Agencies** are Standard and Poor's (S&P), Moody's, and Fitch.

**RBA Decision** is a written decision provided by the ISO to a Disputing Party and to the Chair of the NEPOOL Budget and Finance Subcommittee accepting or denying a Requested Billing Adjustment within twenty Business Days of the date the ISO distributes a Notice of RBA, unless some later date is agreed upon by the Disputing Party and the ISO.

**Reactive Supply and Voltage Control Service** is the form of Ancillary Service described in Schedule 2 of the OATT.

**Real-Time** is a period in the current Operating Day for which the ISO dispatches Resources for energy and Regulation, designates Resources for Regulation and Operating Reserve and, if necessary, commits additional Resources.

**Real-Time Adjusted Load Obligation** is defined in Section III.3.2.1(b)(iii) of Market Rule 1.

**Real-Time Adjusted Load Obligation Deviation** is defined in Section III.3.2.1(c)(iii) of Market Rule 1.

**Real-Time Commitment NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Congestion Revenue** is defined in Section III.3.2.1(f) of Market Rule 1.

**Real-Time Demand Reduction Obligation** is a Real-Time demand reduction amount determined pursuant to Section III.E1.8 for Capacity Commitment Periods commencing prior to June 1, 2018, and Section III.E2.7 for Capacity Commitment Periods commencing on or after June 1, 2018.

**Real-Time Demand Resource Dispatch Hours** means those hours, or portions thereof, in which ISO New England Operating Procedure No. 4 is implemented and the ISO has begun to allow the depletion of Thirty-Minute Operating Reserve on a Dispatch Zone, Load Zone, or system-wide basis, and the ISO notifies the Market Participants with Real-Time Demand Response Resources of such hours.

**Real-Time Demand Response Asset** means one or more individual end-use metered customers that are located at a single Node, report load reduction and consumption, or generator output as a single set of values, are assigned a unique asset identification number by the ISO, and that participate in the Forward Capacity Market as part of a Market Participant's Real-Time Demand Response Resource.

**Real-Time Demand Response Event Hours** means hours when the ISO dispatches Real-Time Demand Response Resources in response to Real-Time Demand Resource Dispatch Hours, which may include Dispatch Zone, Load Zone, or system-wide dispatch of such resources.

**Real-Time Demand Response Resource** is a type of Demand Resource that is comprised of installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that: (i) curtail electrical usage in response to a Dispatch Instruction; and (ii) continue curtailing electrical usage until receiving Dispatch Instructions to restore electrical usage. Such measures include Load Management and Distributed Generation. The period of curtailment shall be consistent with Real-Time Demand Response Event Hours.

**Real-Time Dispatch NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Emergency Generation Asset** means one or more individual end-use metered customers that are located at a single Node, report load reduction and consumption, or generator output as a single set of values, are assigned a unique asset identification number by the ISO, and that participate in the Forward Capacity Market as part of a Market Participant's Real-Time Emergency Generation Resource.

**Real-Time Emergency Generation Event Hours** means those hours, or portions thereof, between 7 a.m. and 7 p.m. Monday through Friday, non-Demand Response Holidays in which the ISO dispatches Real-Time Emergency Generation Resources on a Dispatch Zone, Load Zone, or system-wide basis when deficient in Thirty-Minute Operating Reserve and when the ISO implements voltage reductions of five percent of normal operating voltage that require more than 10 minutes to implement.

**Real-Time Emergency Generation Resource** is Distributed Generation whose federal, state and/or local air quality permits, rules or regulations limit operation in response to requests from the ISO to the times when the ISO implements voltage reductions of five percent of normal operating voltage that require more than 10 minutes to implement. A Real-Time Emergency Generation Resource must be capable of: (i) curtailing its end-use electric consumption from the New England grid within 30 minutes of receiving a Dispatch Instruction; and (ii) continuing that curtailment until receiving a Dispatch Instruction to restore consumption.

**Real-Time Energy Market** means the purchase or sale of energy, purchase of demand reductions pursuant to Appendix III.E2 of Market Rule 1, payment of Congestion Costs, and payment for losses for quantity deviations from the Day-Ahead Energy Market in the Operating Day and designation of and payment for provision of Operating Reserve in Real-Time.

**Real-Time Energy Market Deviation Congestion Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market Deviation Energy Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market Deviation Loss Charge/Credit** is defined in Section III.3.2.1(e) of Market Rule 1.

**Real-Time Energy Market NCPC Credits** are the Real-Time Commitment NCPC Credit and the Real-Time Dispatch NCPC Credit.

**Real-Time External Transaction NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Generation Obligation** is defined in Section III.3.2.1(b)(ii) of Market Rule 1.

**Real-Time Generation Obligation Deviation** is defined in Section III.3.2.1(c)(ii) of Market Rule 1.

**Real-Time High Operating Limit** is the maximum output, in MW, of a resource that could be achieved, consistent with Good Utility Practice, in response to an ISO request for Energy under Section III.13.6.4 of Market Rule 1, for each hour of the Operating Day, as reflected in the resource's Offer Data. This value is based on real-time operating conditions and the physical operating characteristics and operating permits of the unit.

**Real-Time Load Obligation** is defined in Section III.3.2.1(b)(i) of Market Rule 1.

**Real-Time Load Obligation Deviation** is defined in Section III.3.2.1(c)(i) of Market Rule 1.

**Real-Time Locational Adjusted Net Interchange** is defined in Section III.3.2.1(b)(iv) of Market Rule 1.

**Real-Time Locational Adjusted Net Interchange Deviation** is defined in Section III.3.2.1(c)(iv) of Market Rule 1.

**Real-Time Loss Revenue** is defined in Section III.3.2.1(i) of Market Rule 1.

**Real-Time Loss Revenue Charges or Credits** are defined in Section III.3.2.1(m) of Market Rule 1.

**Real-Time NCP Load Obligation** is the maximum hourly value, during a month, of a Market Participant's Real-Time Load Obligation summed over all Locations, excluding exports, in kilowatts.

**Real-Time Price Response Program** is the program described in Appendix E to Market Rule 1.

**Real-Time Offer Change** is a modification to a Supply Offer pursuant to Section III.1.10.9(b).

**Real-Time Posturing NCPC Credit for Generators (Other Than Limited Energy Resources)**

**Postured for Reliability** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Posturing NCPC Credit for Limited Energy Resources Postured for Reliability** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time Prices** means the Locational Marginal Prices resulting from the ISO's dispatch of the New England Markets in the Operating Day.

**Real-Time Reserve Charge** is a Market Participant's share of applicable system and Reserve Zone Real-Time Operating Reserve costs attributable to meeting the Real-Time Operating Reserve requirement as calculated in accordance with Section III.10 of Market Rule 1.

**Real-Time Reserve Clearing Price** is the Real-Time TMSR, TMNSR or TMOR clearing price, as applicable, for the system and each Reserve Zone that is calculated in accordance with Section III.2.7A of Market Rule 1.

**Real-Time Reserve Credit** is a Market Participant's compensation associated with that Market Participant's Resources' Real-Time Reserve Designation as calculated in accordance with Section III.10 of Market Rule 1.

**Real-Time Reserve Designation** is the amount, in MW, of Operating Reserve designated to a Resource in Real-Time by the ISO as adjusted after-the-fact utilizing revenue quality meter data as described under Section III.10 of Market Rule 1.

**Real-Time Reserve Opportunity Cost** is defined in Section III.2.7A(b) of Market Rule 1.

**Real-Time Synchronous Condensing NCPC Credit** is an NCPC Credit calculated pursuant to Appendix F to Market Rule 1.

**Real-Time System Adjusted Net Interchange** means, for each hour, the sum of Real-Time Locational Adjusted Net Interchange for a Market Participant over all Locations, in kilowatts.

**Receiving Party** is the entity receiving the capacity and/or energy transmitted to Point(s) of Delivery under the OATT.

**Reference Level** is defined in Section III.A.5.7 of Appendix A of Market Rule 1.

**Regional Benefit Upgrade(s) (RBU)** means a Transmission Upgrade that: (i) is rated 115kV or above; (ii) meets all of the non-voltage criteria for PTF classification specified in the OATT; and (iii) is included in the Regional System Plan as either a Reliability Transmission Upgrade or an Market Efficiency Transmission Upgrade identified as needed pursuant to Attachment K of the OATT. The category of RBU shall not include any Transmission Upgrade that has been categorized under any of the other categories specified in Schedule 12 of the OATT (e.g., an Elective Transmission Upgrade shall not also be categorized as an RBU). Any upgrades to transmission facilities rated below 115kV that were PTF prior to January 1, 2004 shall remain classified as PTF and be categorized as an RBU if, and for so long as, such upgrades meet the criteria for PTF specified in the OATT.

**Regional Network Load** is the load that a Network Customer designates for Regional Network Service under Part II.B of the OATT. The Network Customer's Regional Network Load shall include all load designated by the Network Customer (including losses) and shall not be credited or reduced for any behind-the-meter generation. A Network Customer may elect to designate less than its total load as Regional Network Load but may not designate only part of the load at a discrete Point of Delivery. Where a Transmission Customer has elected not to designate a particular load at discrete Points of Delivery as Regional Network Load, the Transmission Customer is responsible for making separate arrangements under Part II.C of the OATT for any Point-To-Point Service that may be necessary for such non-designated load.

**Regional Network Service (RNS)** is the transmission service over the PTF described in Part II.B of the OATT, including such service which is used with respect to Network Resources or Regional Network Load that is not physically interconnected with the PTF.

**Regional Planning Dispute Resolution Process** is described in Section 12 of Attachment K to the OATT.



**Regional System Plan (RSP)** is the plan developed under the process specified in Attachment K of the OATT.

**Regional Transmission Service (RTS)** is Regional Network Service and Through or Out Service as provided over the PTF in accordance with Section II.B, Section II.C, Schedule 8 and Schedule 9 of the OATT.

**Regulation** is the capability of a specific Resource with appropriate telecommunications, control and response capability to respond to an AGC SetPoint.

**Regulation and Frequency Response Service** is the form of Ancillary Service described in Schedule 3 of the OATT. The capability of performing Regulation and Frequency Response Service is referred to as automatic generation control (AGC).

**Regulation Capacity** is the lesser of five times the Automatic Response Rate and one-half of the difference between the Regulation High Limit and the Regulation Low Limit of a Resource capable of providing Regulation.

**Regulation Capacity Requirement** is the amount of Regulation Capacity required to maintain system control and reliability in the New England Control Area as calculated and posted on the ISO website.

**Regulation Capacity Offer** is an offer by a Market Participant to provide Regulation Capacity.

**Regulation High Limit** is an offer parameter that establishes the upper bound for AGC SetPoints and is used in the determination of a Resource's Regulation Capacity.

**Regulation Low Limit** is an offer parameter that establishes the lower bound for AGC SetPoints and is used in the determination of a Resource's Regulation Capacity.

**Regulation Market** is the market described in Section III.14 of Market Rule 1.

**Regulation Service** is the change in output or consumption made in response to changing AGC SetPoints.

**Regulation Service Requirement** is the estimated amount of Regulation Service required to maintain system control and reliability in the New England Control Area as calculated and posted on the ISO website.

**Regulation Service Offer** is an offer by a Market Participant to provide Regulation Service.

**Related Person** is defined pursuant to Section 1.1 of the Participants Agreement.

**Related Transaction** is defined in Section III.1.4.3 of Market Rule 1.

**Reliability Administration Service (RAS)** is the service provided by the ISO, as described in Schedule 3 of Section IV.A of the Tariff, in order to administer the Reliability Markets and provide other reliability-related and informational functions.

**Reliability Committee** is the committee whose responsibilities are specified in Section 8.2.3 of the Participants Agreement.

**Reliability Markets** are, collectively, the ISO's administration of Regulation, the Forward Capacity Market, and Operating Reserve.

**Reliability Region** means any one of the regions identified on the ISO's website. Reliability Regions are intended to reflect the operating characteristics of, and the major transmission constraints on, the New England Transmission System.

**Reliability Transmission Upgrade** means those additions and upgrades not required by the interconnection of a generator that are nonetheless necessary to ensure the continued reliability of the New England Transmission System, taking into account load growth and known resource changes, and include those upgrades necessary to provide acceptable stability response, short circuit capability and system voltage levels, and those facilities required to provide adequate thermal capability and local voltage levels that cannot otherwise be achieved with reasonable assumptions for certain amounts of generation being unavailable (due to maintenance or forced outages) for purposes of long-term planning studies. Good Utility Practice, applicable reliability principles, guidelines, criteria, rules, procedures and standards of ERO and NPCC and any of their successors, applicable publicly available local reliability criteria, and the ISO System Rules, as they may be amended from time to time, will be used to define the

system facilities required to maintain reliability in evaluating proposed Reliability Transmission Upgrades. A Reliability Transmission Upgrade may provide market efficiency benefits as well as reliability benefits to the New England Transmission System.

**Remittance Advice** is an issuance from the ISO for the net Payment owed to a Covered Entity where a Covered Entity's total Payments exceed its total Charges in a billing period.

**Remittance Advice Date** is the day on which the ISO issues a Remittance Advice.

**Renewable Technology Resource** is a Generating Capacity Resource or an On-Peak Demand Resource that satisfies the requirements specified in Section III.13.1.1.1.7.

**Re-Offer Period** is the period that normally occurs between the posting of the of the Day-Ahead Energy Market results and 2:00 p.m. on the day before the Operating Day during which a Market Participant may submit revised Supply Offers, revised External Transactions, or revised Demand Bids associated with Dispatchable Asset Related Demands or, for Capacity Commitment Periods commencing on or after June 1, 2018, revised Demand Reduction Offers associated with Demand Response Resources.

**Replacement Reserve** is described in Part III, Section VII of ISO New England Operating Procedure No. 8.

**Request for Alternative Proposals (RFAP)** is the request described in Attachment K of the OATT.

**Requested Billing Adjustment (RBA)** is defined in Section 6.1 of the ISO New England Billing Policy.

**Required Balance** is an amount as defined in Section 5.3 of the Billing Policy.

**Reseller** is a MGTSA holder that sells, assigns or transfers its rights under its MGTSA, as described in Section II.45.1(a) of the OATT.

**Reserve Adequacy Analysis** is the analysis performed by the ISO to determine if adequate Resources are committed to meet forecasted load, Operating Reserve, and security constraint requirements for the current and next Operating Day.

**Reserve Constraint Penalty Factors (RCPFs)** are rates, in \$/MWh, that are used within the Real-Time dispatch and pricing algorithm to reflect the value of Operating Reserve shortages and are defined in Section III.2.7A(c) of Market Rule 1.

**Reserve Zone** is defined in Section III.2.7 of Market Rule 1.

**Reserved Capacity** is the maximum amount of capacity and energy that is committed to the Transmission Customer for transmission over the New England Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II.C or Schedule 18, 20 or 21 of the OATT, as applicable. Reserved Capacity shall be expressed in terms of whole kilowatts on a sixty-minute interval (commencing on the clock hour) basis, or, in the case of Reserved Capacity for Local Point-to-Point Service, in terms of whole megawatts on a sixty-minute interval basis.

**Resource** means a generating unit, a Dispatchable Asset Related Demand, an External Resource or an External Transaction or, for Capacity Commitment Periods commencing on or after June 1, 2018, a Demand Response Resource. For purposes of providing Regulation, Resource means a generating unit, a Dispatchable Asset Related Demand, a Demand Response Regulation Resource or an Alternative Technology Regulation Resource.

**Restated New England Power Pool Agreement (RNA)** is the Second Restated New England Power Pool Agreement, which restated for a second time by an amendment dated as of August 16, 2004 the New England Power Pool Agreement dated September 1, 1971, as the same may be amended and restated from time to time, governing the relationship among the NEPOOL members.

**Rest-of-Pool Capacity Zone** is a single Capacity Zone made up of the adjacent Load Zones that are neither export-constrained nor import-constrained.

**Rest of System** is an area established under Section III.2.7(d) of Market Rule 1.

**Retail Delivery Point** is the point on the transmission or distribution system at which the load of an end-use facility, which is metered and assigned a unique account number by the Host Participant, is measured to determine the amount of energy delivered to the facility from the transmission and distribution system. If an end-use facility is connected to the transmission or distribution system at more than one location, the

Retail Delivery Point shall consist of the metered load at each connection point, summed to measure the net energy delivered to the facility in each interval.

**Retirement De-List Bid** is a bid to retire an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource from all New England Markets, as described in Section III.13.1.2.3.1.5.

**Returning Market Participant** is a Market Participant, other than an FTR-Only Customer or a Governance Only Member, whose previous membership as a Market Participant was involuntarily terminated due to a Financial Assurance Default or a payment default and, since returning, has been a Market Participant for less than six consecutive months.

**Revenue Requirement** is defined in Section IV.A.2.1 of the Tariff.

**Reviewable Action** is defined in Section III.D.1.1 of Appendix D of Market Rule 1.

**Reviewable Determination** is defined in Section 12.4(a) of Attachment K to the OATT.

**RSP Project List** is defined in Section 1 of Attachment K to the OATT.

**RTEP02 Upgrade(s)** means a Transmission Upgrade that was included in the annual NEPOOL Transmission Plan (also known as the “Regional Transmission Expansion Plan” or “RTEP”) for the year 2002, as approved by ISO New England Inc.’s Board of Directors, or the functional equivalent of such Transmission Upgrade, as determined by ISO New England Inc. The RTEP02 Upgrades are listed in Schedule 12B of the OATT.

**RTO** is a regional transmission organization or comparable independent transmission organization that complies with Order No. 2000 and the Commission’s corresponding regulation.

**Same Reserve Zone Export Transaction** is defined in Section III.1.10.7(f)(iii) of Market Rule 1.

**Sanctionable Behavior** is defined in Section III.B.3 of Appendix B of Market Rule 1.

**Schedule, Schedules, Schedule 1, 2, 3, 4 and 5** are references to the individual or collective schedules to Section IV.A. of the Tariff.

**Schedule 20A Service Provider (SSP)** is defined in Schedule 20A to Section II of this Tariff.

**Scheduling Service**, for purposes of Section IV.A and Section IV.B of the Tariff, is the service described in Schedule 1 to Section IV.A of the Tariff.

**Scheduling, System Control and Dispatch Service**, for purposes of Section II of the Tariff, is the form of Ancillary Service described in Schedule 1 of the OATT.

**Seasonal Claimed Capability** is the summer or winter claimed capability of a generating unit or ISO-approved combination of units, and represent the maximum dependable load carrying ability of such unit or units, excluding capacity required for station use.

**Seasonal Claimed Capability Audit** is the audit performed pursuant to Section III.1.5.1.3.

**Seasonal DR Audit** is a seasonal audit of the demand response capability of a Demand Resource initiated pursuant to Section III.13.6.1.5.4.1.

**Seasonal Peak Demand Resource** is a type of Demand Resource and shall mean installed measures (e.g., products, equipment, systems, services, practices and/or strategies) on end-use customer facilities that reduce the total amount of electrical energy consumed during Demand Resource Seasonal Peak Hours, while delivering a comparable or acceptable level of end-use service. Such measures include Energy Efficiency, Load Management, and Distributed Generation.

**Section III.1.4 Transactions** are defined in Section III.1.4.2 of Market Rule 1.

**Section III.1.4 Conforming Transactions** are defined in Section III.1.4.2 of Market Rule 1.

**Security Agreement** is Attachment 1 to the ISO New England Financial Assurance Policy.

**Self-Schedule** is the action of a Market Participant in committing or scheduling its Resource, in accordance with applicable ISO New England Manuals, to provide service in an hour, whether or not in

the absence of that action the Resource would have been scheduled or dispatched by the ISO to provide the service. For a Generator Asset, Self-Schedule is the action of a Market Participant in committing or scheduling a Generator Asset to provide Energy in an hour at its Economic Minimum Limit, whether or not in the absence of that action the Generator Asset would have been scheduled or dispatched by the ISO to provide the Energy. For a Dispatchable Asset Related Demand, Self-Schedule is the action of a Market Participant in committing or scheduling a Dispatchable Asset Related Demand to consume Energy in an hour at its Minimum Consumption Limit, whether or not in the absence of that action the Dispatchable Asset Related Demand would have been scheduled or dispatched by the ISO to consume Energy. Demand Response Resources are not permitted to Self-Schedule.

**Self-Scheduled MW** is an amount, in megawatts, that is Self-Scheduled and is equal to: (i) a Generator Asset's Economic Minimum Limit; (ii) a Dispatchable Asset Related Demand's Minimum Consumption Limit.

**Self-Supplied FCA Resource** is described in Section III.13.1.6 of Market Rule 1.

**Senior Officer** means an officer of the subject entity with the title of vice president (or similar office) or higher, or another officer designated in writing to the ISO by that office.

**Service Agreement** is a Transmission Service Agreement or an MPSA.

**Service Commencement Date** is the date service is to begin pursuant to the terms of an executed Service Agreement, or the date service begins in accordance with the sections of the OATT addressing the filing of unexecuted Service Agreements.

**Services** means, collectively, the Scheduling Service, EAS and RAS; individually, a Service.

**Settlement Financial Assurance** is an amount of financial assurance required from a Designated FTR Participant awarded a bid in an FTR Auction. This amount is calculated pursuant to Section VI.D of the ISO New England Financial Assurance Policy.

**Settlement Only Resources** are generators of less than 5 MW or otherwise eligible for Settlement Only Resource treatment as described in ISO New England Operating Procedure No. 14 and that have elected

Settlement Only Resource treatment as described in the ISO New England Manual for Registration and Performance Auditing.

**Shortage Event** is defined in Section III.13.7.1.1.1 of Market Rule 1.

**Shortage Event Availability Score** is the average of the hourly availability scores for each hour or portion of an hour during a Shortage Event, as described in Section III.13.7.1.1.1.A of Market Rule 1.

**Shortfall Funding Arrangement**, as specified in Section 5.1 of the ISO New England Billing Policy, is a separate financing arrangement that can be used to make up any non-congestion related differences between amounts received on Invoices and amounts due for ISO Charges in any bill issued.

**Short-Term** is a period of less than one year.

**Significantly Reduced Congestion Costs** are defined in Section III.G.2.2 of Appendix G to Market Rule 1.

**SMD Effective Date** is March 1, 2003.

**Solutions Study** is described in Section 4.2(b) of Attachment K to the OATT.

**Special Constraint Resource (SCR)** is a Resource that provides Special Constraint Resource Service under Schedule 19 of the OATT.

**Special Constraint Resource Service** is the form of Ancillary Service described in Schedule 19 of the OATT.

**Specified-Term Blackstart Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 of the OATT, for a Designated Blackstart Resource's capital Blackstart Equipment costs associated with the provision of Blackstart Service (except for capital costs associated with adhering to NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).



**Stage One Proposal** is a first round submission, as defined in Sections 4A.5 of Attachment K of the OATT, of a proposal for a Public Policy Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Stage Two Solution** is a second round submission, as defined in Section 4A.5 of Attachment K of the OATT, of a proposal for a Public Policy Transmission Upgrade by a Qualified Transmission Project Sponsor.

**Standard Blackstart Capital Payment** is the annual compensation level, as calculated pursuant to Section 5.1 of Schedule 16 of the OATT, for a Designated Blackstart Resource's capital Blackstart Equipment costs associated with the provision of Blackstart Service (except for capital costs associated with adhering to NERC Critical Infrastructure Protection Reliability Standards as part of Blackstart Service).

**Start-of-Round Price** is the highest price associated with a round of a Forward Capacity Auction as described in Section III.13.2.3.1 of Market Rule 1.

**Start-Up Fee** is the amount, in dollars, that must be paid for a generating unit to Market Participants with an Ownership Share in the unit each time the unit is scheduled in the New England Markets to start-up.

**Start-Up Time** is the time it takes the Generator Asset, after synchronizing to the system, to reach its Economic Minimum Limit and, for dispatchable Generator Assets, be ready for further dispatch by the ISO.

**State Estimator** means the computer model of power flows specified in Section III.2.3 of Market Rule 1.

**Statements**, for the purpose of the ISO New England Billing Policy, refer to both Invoices and Remittance Advices.

**Static De-List Bid** is a bid that may be submitted by an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource in the Forward Capacity Auction to remove itself from the capacity market for a one year period, as described in Section III.13.1.2.3.1.1 of Market Rule 1.

**Station** is one or more Existing Generating Capacity Resources consisting of one or more assets located within a common property boundary.

**Station Going Forward Common Costs** are the net costs associated with a Station that are avoided only by the clearing of the Static De-List Bids, the Permanent De-List Bids or the Retirement De-List Bids of all the Existing Generating Capacity Resources comprising the Station.

**Station-level Blackstart O&M Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Station-level Specified-Term Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Station-level Standard Blackstart Capital Payment** is defined and calculated as specified in Section 5.1.2 of Schedule 16 to the OATT.

**Summer ARA Qualified Capacity** is described in Section III.13.4.2.1.2.1.1.1 of Market Rule 1.

**Summer Capability Period** means one of two time periods defined by the ISO for the purposes of rating and auditing resources. The time period associated with the Summer Capability Period is the period of June 1 through September 30.

**Summer Intermittent Reliability Hours** are defined in Section III.13.1.2.2.2.1(c) of Market Rule 1.

**Supplemental Availability Bilateral** is described in Section III.13.5.3.2 of Market Rule 1.

**Supplemental Capacity Resources** are described in Section III.13.5.3.1 of Market Rule 1.

**Supplemented Capacity Resource** is described in Section III.13.5.3.2 of Market Rule 1.

**Supply Offer** is a proposal to furnish energy at a Node or Regulation from a Resource that meets the applicable requirements set forth in the ISO New England Manuals submitted to the ISO by a Market Participant with authority to submit a Supply Offer for the Resource. The Supply Offer will be submitted pursuant to Market Rule 1 and applicable ISO New England Manuals, and include a price and

information with respect to the quantity proposed to be furnished, technical parameters for the Resource, timing and other matters. A Supply Offer is a subset of the information required in a Market Participant's Offer Data.

**Supply Offer Block-Hours** are Block-Hours assigned to the Lead Market Participant for each Supply Offer. Blocks of the Supply Offer in effect for each hour will be totaled to determine the quantity of Supply Offer Block-Hours for a given day. In the case that a Resource has a Real-Time unit status of "unavailable" for the entire day, that day will not contribute to the quantity of Supply Offer Block-Hours. However, if the Resource has at least one hour of the day with a unit status of "available," the entire day will contribute to the quantity of Supply Offer Block-Hours.

**Synchronous Condenser** is a generator that is synchronized to the grid but supplying no energy for the purpose of providing Operating Reserve or VAR or voltage support.

**System Condition** is a specified condition on the New England Transmission System or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm MTF or OTF Service on the MTF or the OTF using the curtailment priority pursuant to Section II.44 of the Tariff or Curtailment of Local Long-Term Firm Point-to-Point Transmission Service on the non-PTF using the curtailment priority pursuant to Schedule 21 of the Tariff. Such conditions must be identified in the Transmission Customer's Service Agreement.

**System Impact Study** is an assessment pursuant to Part II.B, II.C, II.G, Schedule 21, Schedule 22, Schedule 23, or Schedule 25 of the OATT of (i) the adequacy of the PTF or Non-PTF to accommodate a request for the interconnection of a new or materially changed generating unit or a new or materially changed interconnection to another Control Area or new Regional Network Service or new Local Service or an Elective Transmission Upgrade, and (ii) whether any additional costs may be required to be incurred in order to provide the interconnection or transmission service.

**System Operator** shall mean ISO New England Inc. or a successor organization.

**System-Wide Capacity Demand Curve** is the demand curve used in the Forward Capacity Market as specified in Section III.13.2.2.

**TADO** is the total amount due and owing (not including any amounts due under Section 14.1 of the RNA) at such time to the ISO, NEPOOL, the PTOs, the Market Participants and the Non-Market Participant Transmission Customers, by all PTOs, Market Participants and Non-Market Participant Transmission Customers.

**Tangible Net Worth** is the value, determined in accordance with international accounting standards or generally accepted accounting principles in the United States, of all of that entity's assets less the following: (i) assets the ISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (e.g., regulatory assets, restricted assets, and Affiliate assets), net of any matching liabilities, to the extent that the result of that netting is a positive value; (ii) derivative assets, net of any matching liabilities, to the extent that the result of that netting is a positive value; (iii) the amount at which the liabilities of the entity would be shown on a balance sheet in accordance with international accounting standards or generally accepted accounting principles in the United States; (iv) preferred stock; (v) non-controlling interest; and (vi) all of that entity's intangible assets (e.g., patents, trademarks, franchises, intellectual property, goodwill and any other assets not having a physical existence), in each case as shown on the most recent financial statements provided by such entity to the ISO.

**Technical Committee** is defined in Section 8.2 of the Participants Agreement.

**Ten-Minute Non-Spinning Reserve (TMNSR)** is the reserve capability of (1) a generating Resource that can be converted fully into energy within ten minutes from the request of the ISO (2) a Dispatchable Asset Related Demand that can be fully utilized within ten minutes from the request of the ISO to reduce consumption; or (3) a Demand Response Resource that can provide demand reduction within ten minutes from the request of the ISO.

.

**Ten-Minute Non-Spinning Reserve Service** is the form of Ancillary Service described in Schedule 6 of the OATT.

**Ten-Minute Spinning Reserve (TMSR)** is the reserve capability of (1) a generating Resource that is electrically synchronized to the New England Transmission System that can be converted fully into energy within ten minutes from the request of the ISO; (2) a Dispatchable Asset Related Demand pump that is electrically synchronized to the New England Transmission System that can reduce energy consumption to provide reserve capability within ten minutes from the request of the ISO; or (3) a

Demand Response Resource that can provide demand reduction within ten minutes from the request of the ISO for which none of the associated Demand Response Assets have a generator whose output can be controlled located behind the Retail Delivery Point other than emergency generators that cannot operate electrically synchronized to the New England Transmission System.

**Ten-Minute Spinning Reserve Service** is the form of Ancillary Service described in Schedule 5 of the OATT.

**Third-Party Sale** is any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Regional Network Load or Local Network Load under the Regional Network Service or Local Network Service, as applicable.

**Thirty-Minute Operating Reserve (TMOR)** means the reserve capability of (1) a generating Resource that can be converted fully into energy within thirty minutes from the request of the ISO (2) a Dispatchable Asset Related Demand that can be fully utilized within thirty minutes from the request of the ISO to reduce consumption; or (3) a Demand Response Resource that can provide demand reduction within thirty minutes from the request of the ISO.

**Thirty-Minute Operating Reserve Service** is the form of Ancillary Service described in Schedule 7 of the OATT.

**Through or Out Rate (TOUT Rate)** is the rate per hour for Through or Out Service, as defined in Section II.25.2 of the OATT.

**Through or Out Service (TOUT Service)** means Point-To-Point Service over the PTF provided by the ISO with respect to a transaction that goes through the New England Control Area, as, for example, a single transaction where energy or capacity is transmitted into the New England Control Area from New Brunswick and subsequently out of the New England Control Area to New York, or a single transaction where energy or capacity is transmitted into the New England Control Area from New York through one point on the PTF and subsequently flows over the PTF prior to passing out of the New England Control Area to New York, or with respect to a transaction which originates at a point on the PTF and flows over the PTF prior to passing out of the New England Control Area, as, for example, from Boston to New York.

**Tie-Line Asset** is a physical transmission tie-line, or an inter-state or intra-state border arrangement created according to the ISO New England Manuals and registered in accordance with the Asset Registration Process.

**Total Available Amount** is the sum of the available amount of the Shortfall Funding Arrangement and the balance in the Payment Default Shortfall Fund.

**Total Blackstart Capital Payment** is the annual compensation calculated under either Section 5.1 or Section 5.2 of Schedule 16 of the OATT, as applicable.

**Total Blackstart O&M Payment** is the annual compensation calculated under either Section 5.1 or 5.2 of Schedule 16 of the OATT, as applicable.

**Total Blackstart Service Payments** is monthly compensation to Blackstart Owners or Market Participants, as applicable, and as calculated pursuant to Section 5.6 of Schedule 16 to the OATT.

**Total Negative Hourly Demand Response Resource Deviation** means the absolute value of the sum of the negative Hourly Real-Time Demand Response Resource Deviations and negative Hourly Real-Time Emergency Generation Deviations from all Real-Time Demand Response Resources and Real-Time Emergency Generation Resources receiving Dispatch Instructions in the same hour in the same Dispatch Zone.

**Total Positive Hourly Demand Response Resource Deviation** means the sum of the positive Hourly Real-Time Demand Response Resource Deviations and positive Hourly Real-Time Emergency Generation Deviations from all Real-Time Demand Response Resources and Real-Time Emergency Generation Resources receiving Dispatch Instructions in the same hour in the same Dispatch Zone.

**Total System Capacity** is the aggregate capacity supply curve for the New England Control Area as determined in accordance with Section III.13.2.3.3 of Market Rule 1.

**Transaction Unit (TU)** is a type of billing determinant under Schedule 2 of Section IV.A of the Tariff used to assess charges to Customers.

**Transition Period:** The six-year period commencing on March 1, 1997.

**Transmission Charges**, for the purposes of the ISO New England Financial Assurance Policy and the ISO New England Billing Policy, are all charges and payments under Schedules 1, 8 and 9 of the OATT.

**Transmission Congestion Credit** means the allocated share of total Transmission Congestion Revenue credited to each holder of Financial Transmission Rights, calculated and allocated as specified in Section III.5.2 of Market Rule 1.

**Transmission Congestion Revenue** is defined in Section III.5.2.5(a) of Market Rule 1.

**Transmission Credit Limit** is a credit limit, not to be used to meet FTR Requirements, established for each Market Participant in accordance with Section II.D and each Non-Market Participant Transmission Customer in accordance with Section V.B.2 of the ISO New England Financial Assurance Policy.

**Transmission Credit Test Percentage** is calculated in accordance with Section III.B.1(c) of the ISO New England Financial Assurance Policy.

**Transmission Customer** is any Eligible Customer that (i) executes, on its own behalf or through its Designated Agent, an MPSA or TSA, or (ii) requests in writing, on its own behalf or through its Designated Agent, that the ISO, the Transmission Owner, or the Schedule 20A Service Provider, as applicable, file with the Commission, a proposed unexecuted MPSA or TSA containing terms and conditions deemed appropriate by the ISO (in consultation with the applicable PTO, OTO or Schedule 20A Service Provider) in order that the Eligible Customer may receive transmission service under Section II of this Tariff. A Transmission Customer under Section II of this Tariff includes a Market Participant or a Non-Market Participant taking Regional Network Service, Through or Out Service, MTF Service, OTF Service, Ancillary Services, or Local Service.

**Transmission Default Amount** is all or any part of any amount of Transmission Charges due to be paid by any Covered Entity that the ISO, in its reasonable opinion, believes will not or has not been paid when due.

**Transmission Default Period** is defined in Section 3.4.f of the ISO New England Billing Policy.

**Transmission Late Payment Account** is defined in Section 4.2 of the ISO New England Billing Policy.

**Transmission Late Payment Account Limit** is defined in Section 4.2 of the ISO New England Billing Policy.

**Transmission Late Payment Charge** is defined in Section 4.1 of the ISO New England Billing Policy.

**Transmission, Markets and Services Tariff (Tariff)** is the ISO New England Inc. Transmission, Markets and Services Tariff, as amended from time to time.

**Transmission Obligations** are determined in accordance with Section III.A(vi) of the ISO New England Financial Assurance Policy.

**Transmission Operating Agreement (TOA)** is the Transmission Operating Agreement between and among the ISO and the PTOs, as amended and restated from time to time.

**Transmission Owner** means a PTO, MTO or OTO.

**Transmission Provider** is the ISO for Regional Network Service and Through or Out Service as provided under Section II.B and II.C of the OATT; Cross-Sound Cable, LLC for Merchant Transmission Service as provided under Schedule 18 of the OATT; the Schedule 20A Service Providers for Phase I/II HVDC-TF Service as provided under Schedule 20A of the OATT; and the Participating Transmission Owners for Local Service as provided under Schedule 21 of the OATT.

**Transmission Requirements** are determined in accordance with Section III.A(iii) of the ISO New England Financial Assurance Policy.

**Transmission Security Analysis Requirement** shall be determined pursuant to Section III.12.2.1.2.

**Transmission Service Agreement (TSA)** is the initial agreement and any amendments or supplements thereto: (A) in the form specified in either Attachment A or B to the OATT, entered into by the Transmission Customer and the ISO for Regional Network Service or Through or Out Service; (B) entered into by the Transmission Customer with the ISO and PTO in the form specified in Attachment A to Schedule 21 of the OATT; (C) entered into by the Transmission Customer with an OTO or Schedule 20A Service Provider in the appropriate form specified under Schedule 20 of the OATT; or (D) entered



into by the Transmission Customer with a MTO in the appropriate form specified under Schedule 18 of the OATT. A Transmission Service Agreement shall be required for Local Service, MTF Service and OTF Service, and shall be required for Regional Network Service and Through or Out Service if the Transmission Customer has not executed a MPSA.

**Transmission Upgrade(s)** means an upgrade, modification or addition to the PTF that becomes subject to the terms and conditions of the OATT governing rates and service on the PTF on or after January 1, 2004. This categorization and cost allocation of Transmission Upgrades shall be as provided for in Schedule 12 of the OATT.

**UDS** is unit dispatch system software.

**Unconstrained Export Transaction** is defined in Section III.1.10.7(f)(iv) of Market Rule 1.

**Uncovered Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Uncovered Transmission Default Amounts** are defined in Section 3.4.f of the ISO New England Billing Policy.

**Unrated** means a Market Participant that is not a Rated Market Participant.

**Unsecured Covered Entity** is, collectively, an Unsecured Municipal Market Participant and an Unsecured Non-Municipal Covered Entity.

**Unsecured Municipal Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Municipal Market Participant** is defined in Section 3.3(h) of the ISO New England Billing Policy.

**Unsecured Municipal Transmission Default Amount** is defined in Section 3.4.f of the ISO New England Billing Policy.

**Unsecured Non-Municipal Covered Entity** is a Covered Entity that is not a Municipal Market Participant or a Non-Market Participant Transmission Customer and has a Market Credit Limit or Transmission Credit Limit of greater than \$0 under the ISO New England Financial Assurance Policy.

**Unsecured Non-Municipal Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Non-Municipal Transmission Default Amount** is defined in Section 3.3(i) of the ISO New England Billing Policy.

**Unsecured Transmission Default Amounts** are, collectively, the Unsecured Municipal Transmission Default Amount and the Unsecured Non-Municipal Transmission Default Amount.

**Updated Measurement and Verification Plan** is an optional Measurement and Verification Plan that may be submitted as part of a subsequent qualification process for a Forward Capacity Auction prior to the beginning of the Capacity Commitment Period of the Demand Resource project. The Updated Measurement and Verification Plan may include updated Demand Resource project specifications, measurement and verification protocols, and performance data as described in Section III.13.1.4.3.1.2 of Market Rule 1 and the ISO New England Manuals.

**VAR CC Rate** is the CC rate paid to Qualified Reactive Resources for VAR Service capability under Section IV.A of Schedule 2 of the OATT.

**VAR Payment** is the payment made to Qualified Reactive Resources for VAR Service capability under Section IV.A of Schedule 2 of the OATT.

**VAR Service** is the provision of reactive power voltage support to the New England Transmission System by a Qualified Reactive Resource or by other generators that are dispatched by the ISO to provide dynamic reactive power as described in Schedule 2 of the OATT.

**Virtual Requirements** are determined in accordance with Section III.A(iv) of the ISO New England Financial Assurance Policy.

**Volt Ampere Reactive (VAR)** is a measurement of reactive power.

**Volumetric Measure (VM)** is a type of billing determinant under Schedule 2 of Section IV.A of the Tariff used to assess charges to Customers under Section IV.A of the Tariff.

**Winter ARA Qualified Capacity** is described in Section III.13.4.2.1.2.1.1.2 of Market Rule 1.

**Winter Capability Period** means one of two time periods defined by the ISO for the purposes of rating and auditing resources. The time period associated with the Winter Capability Period is the period October 1 through May 31.

**Winter Intermittent Reliability Hours** are defined in Section III.13.1.2.2.2.2(c) of Market Rule 1.

**Year** means a period of 365 or 366 days, whichever is appropriate, commencing on, or on the anniversary of March 1, 1997. Year One is the Year commencing on March 1, 1997, and Years Two and higher follow it in sequence.

**Zonal Price** is calculated in accordance with Section III.2.7 of Market Rule 1

**SCHEDULE 11**  
**GENERATOR INTERCONNECTION RELATED UPGRADE AND ELECTIVE**  
**TRANSMISSION INTERCONNECTION RELATED UPGRADE COSTS**

- (1) Classification of Generating Projects. The treatment for purposes of this OATT of the Generator Interconnection Related Upgrade costs with respect to the facilities needed for the interconnection of a particular new or modified generating unit project in accordance with Section II.47 of this OATT depends on whether the project is a Category A Project, a Category B Project or a Category C Project, as follows:

- (a) A Category A Project is one whose Generator Owner committed to pay for upgrade costs on or after October 1, 1998 and prior to October 29, 1998 and has filed a petition with the Commission requesting that the costs associated with the interconnection of its generation project be determined in accordance with Schedule 11 of this OATT, as evidenced either by the filing of an executed Transmission Service Agreement or by the filing of an unexecuted Transmission Service Agreement.
- (b) A Category B Project is any one whose Generator Owner committed to pay for upgrade costs on or after October 29, 1998 and prior to June 22, 1999, as evidenced either by the filing of an executed Transmission Service Agreement or by the filing of an unexecuted Transmission Service Agreement. To the extent not otherwise covered by the preceding sentence, a Category B Project includes any one (other than a Category A Project) on which the Generator Owner had expended at least \$5,000,000, including amounts due under irrevocable commitments, as of June 22, 1999. Category B Projects are those projects listed as Category A Projects in Section 1(a) of this Schedule 11, but no longer qualify as Category A Projects, that had expended at least \$5,000,000 (including amounts due under irrevocable commitments) as of June 22, 1999, as reasonably determined by the ISO, as well as the following projects:

Sithe, Mystic Station Expansion

Sithe Edgar Station Expansion, Fore River

Sithe, West Medway

PG&E, Generating Lake Road Generating

PDC, Milford Power  
PDC, Meriden Power  
Reliant Energy, Hope Rhode Island  
IDC FPL, Bellingham  
Constellation, Merrimack (Nickel Hill) Energy Project  
SEI, Canal Re-powering  
ANP, Bellingham  
ANP, Blackstone  
Cabot, Island End  
Calpine, Westbrook Power  
HQ, Bucksport  
AES, Londonderry  
ConEd, Newington  
Mirant, Kendall Repowering Project

- (c) A Category C Project is any project which is not a Category A Project or a Category B Project.
- (2) Direct Interconnection Transmission Costs. Direct Interconnection Transmission Costs shall mean the cost of facilities constructed for sole use of the Generator Owner that are not PTF. One hundred percent of Direct Interconnection Transmission Costs shall be the responsibility of the Generator Owner whether the Generator Owner's project is a Category A Project, a Category B Project or a Category C Project.
- (3) Treatment of Category A Project Transmission Costs. The allocation of costs of Generator Interconnection Related Upgrades for Category A Projects will be determined as follows:
- (d) One-half of the Shared Amount (as defined below) of the capital cost of the PTF upgrade shall constitute Pool Supported PTF and be included in Annual Transmission Revenue Requirements under Attachment F to this OATT. The Generator Owner shall be obligated to pay, in addition to the Direct Interconnection Transmission Costs, the other half of the Shared Amount of the capital cost of the PTF upgrade and all of the capital costs in excess of the Shared Amount, and any applicable tax gross-up amounts, and such amounts to be paid by the Generator Owner shall not be included in Annual Transmission

Revenue Requirements under Attachment F to this OATT. Following completion of the construction or modification of the Generator Interconnection Related Upgrade, the Generator Owner shall be obligated to pay its pro rata share of all of the annual costs (including cost of capital, federal and state income taxes, O&M and A&G expenses, annual property taxes and other related costs) which are allocable to such upgrade, pursuant to the interconnection agreement with the individual PTO or its designee which is responsible for the construction or modification, and such agreement may be filed with the Commission by the PTO, either signed or unsigned, on its own or at the request of the Generator Owner.

- (e) In determining the cost responsibilities related to a Generator Interconnection Related Upgrade to PTF, the ISO may determine that all or a portion of the proposed facilities exceed regional system, regulatory or other public requirements. In such a case, the ISO shall determine the amount of the excess costs of the Generator Interconnection Related Upgrade which shall be borne by the entity which is responsible for requiring such excess costs, and the excess costs shall not be included in the calculation of the Shared Amount.
- (f) The Shared Amount of the capital cost of the Generator Interconnection Related Upgrade of PTF shall be initially determined as of the time that the System Impact Study agreement is executed by all parties and the Generator Owner has paid the cost of the study (such initial determination to be based on the estimated cost of the Generator Interconnection Related Upgrade, subject to later adjustment as set forth below) subject to truing up the KW element of the following formula upon completion of the Generator Interconnection Upgrade, and shall be the lesser of (1) the full actual capital cost of the Generator Interconnection Related Upgrade of PTF (excluding any costs which are determined to be excess costs in accordance with paragraph (b) above) or (2) the amount determined in accordance with the following formula:

$$P = (KW \times R \times 0.50) / C$$

in which:

P is the maximum amount to be shared;

KW in the case of a generating unit, is the actual demonstrated net capability of the new generating unit or increase in the capacity of an existing generating unit corrected to 50°F in kilowatts. If winter operating conditions are shown in the System Impact Study and/or application under Section 3.9 of Section I of the Transmission, Markets and Services Tariff to require additional transmission reinforcements beyond those reinforcements required for summer operating conditions, the net capability of the unit will be corrected to an ambient air temperature of 0°F;

R is the Pool PTF Rate in effect on the Compliance Effective Date, which is \$15.57 per kilowatt year, adjusted to reflect compliance with the April 5, 1999 Settlement Agreement, approved by the Commission by order dated July 30, 1999 in Docket Nos. OA97-237-000, et al.; and

C is the weighted average carrying charge factor of all of the PTOs which own PTF, determined, as of the Compliance Effective Date, in accordance with Attachment F to the OATT, which is 15.87 percent, adjusted to reflect compliance with the April 5, 1999 Settlement Agreement, approved by the Commission by order dated July 30, 1999 in Docket Nos. OA97-237-000, et al.

(g) All payments required hereunder shall be determined initially on an estimated basis, and then adjusted after the appropriate portion of the construction or modification costs has been reflected in OATT rates in the first adjustment of OATT rates after the upgrade has been placed in commercial operation.

(h) The provisions in this Section (3) with respect to allocation of costs for Generator Interconnection Related Upgrades of PTF for Category A projects are subject to further clarifications and/or modifications to reflect the outcome of proceedings in Commission Docket Nos. ER98-3853 (including any court appeals) and EL00-62-000, et al., and further Commission orders with respect thereto.

(4) Treatment of Category B Project Transmission Costs. The costs of Generator Interconnection Related Upgrades in connection with a Category B Project shall be allocated in the same way as Generator Interconnection Related Upgrades for Category A projects.

- (5) Treatment of Category C Project Transmission Costs. If a Generator Interconnection Related Upgrade or an Elective Transmission Upgrade Interconnection Related Upgrade (collectively, “Upgrade”) is required in order to satisfy the Capacity Capability Interconnection Standard or the Network Capability Interconnection Standard (or its predecessor standard) in connection with a Category C Project, the Generator Owner or Elective Transmission Upgrade Interconnection Customer (“ETU IC”), as applicable, shall be obligated to pay all of the cost of such Upgrade, including all Direct Interconnection Transmission Costs and any applicable tax gross-up amounts, to the extent such costs would not have been incurred but for the interconnection; provided that, if the ISO determines that a particular Upgrade provides benefits to the system as a whole as well as to particular parties, then the cost of such Upgrade shall be allocated in the same way as Reliability Transmission Upgrades. If the Upgrade consists of Interconnecting Transmission Owner’s Interconnection Facilities, Network Upgrades, or Distribution Upgrades, including a Cluster Enabling Transmission Upgrade, that were identified under Clustering and are not included in Direct Interconnection Transmission Costs, then the costs to be paid by each Generator Owner or ETU IC (that is not the ETU IC for an ETU that is taking the place of a CETU, or portion thereof, pursuant to Section 4.2.3.4 of Schedule 22, Section 1.5.3.3.3.4 of Schedule 23, or Section 4.2.3.4 of Schedule 25, Section II of the Tariff) with an Interconnection Request included in the cluster shall be the total costs of such Upgrade multiplied by the ratio of the Generator Owner or ETU IC’s respective distribution impact divided by the total distribution impact of the entire cluster based on the following distribution factor cost allocation methodology.

Distribution Factor Cost Allocation Methodology: The distribution factor is the measure of responsiveness or change in electrical loading on system facilities due to a change in electric power transfer from one part of the electric system to another, expressed in percent of the change in power transfer. The calculation of the distribution factor for each of the eligible Upgrades shall: (i) use the final CSIS Study Case for summer peak load conditions; (ii) use the pre-contingency condition (i.e., no contingencies will be modeled); and, (iii) be conducted using a transfer from the injection point associated with the respective Generator Owner or ETU IC’s facility to New England Control Area load. The distribution impact of each Generator Owner or ETU IC with an Interconnection Request included in the cluster shall be determined by multiplying the Generator Owner or ETU IC’s respective distribution factor, as calculated above, by the Summer Network Resource Capability in the case of a Generating Facility or the absolute



value of the higher of the requested bidirectional capability that results in a positive distribution factor in the case of an Elective Transmission Upgrade. The total distribution impact of the entire cluster shall be the sum of all of the individual distribution impacts for the Generator Owners and ETU ICs with Interconnection Requests included in the cluster.

Where cost allocation for an Upgrade identified under Clustering cannot be determined using the distribution factor cost allocation methodology (e.g., a dynamic reactive device), each Generator Owner or ETU IC with an Interconnection Request included in the cluster shall be obligated to pay the costs of such Upgrade based upon its pro rata megawatt share of the Interconnection Requests included in the cluster study to be determined using the Summer Network Resource Capability in the case of a Generating Facility and the absolute value of the higher of the requested bidirectional capability in the case of an Elective Transmission Upgrade.

Following completion of the construction or modification, the Generator Owner or ETU IC shall be obligated to pay all (or, in the case of an Upgrade identified under Clustering, its share) of the annual costs (including federal and state income taxes, O&M and A&G expenses, annual property taxes and other related costs) which are allocable to the Upgrade, pursuant to the interconnection agreement (or support agreement) with the individual PTO or its designee which is responsible for the construction or modification, and such agreement may be filed with the Commission by the PTO, either signed or unsigned, on its own or at the request of the Generator Owner or ETU IC.

A Generator Owner with a Generating Facility or ETU IC with an Elective Transmission Upgrade that achieves Commercial Operation within ten years of the In-Service Date of a Cluster Enabling Transmission Upgrade (to be referred to as a “Late Comer Project”) shall reimburse the entities (i.e., Generator Owner or ETU IC) that have contributed to the costs of the Cluster Enabling Transmission Upgrade by the amount of said entities’ corresponding reduction in Cluster Enabling Transmission Upgrade costs based on the comparison of the Cluster Enabling Transmission Upgrade cost allocation with and without the added Late Comer Project, if the Late Comer Project: (i) interconnects directly to the Cluster Enabling Transmission Upgrade, (ii) connects to a substation where the Cluster Enabling Transmission Upgrade terminates, or (iii) (a) is greater than five megawatt and is greater than one percent of the Cluster Enabling Transmission Upgrade normal rating, and (b) (1) has an impact on the Cluster Enabling

Transmission Upgrade that is greater than five percent of the Cluster Enabling Transmission Upgrade normal rating or (2) has a distribution factor on the Cluster Enabling Transmission Upgrade that is greater than or equal to 20 percent using the distribution factor methodology described above. A Generator Owner or ETU IC that has contributed to the costs of the Cluster Enabling Transmission Upgrade shall have the payments associated with the Cluster Enabling Transmission Upgrade adjusted based on the depreciation schedule that is being used for the Cluster Enabling Transmission Upgrade.

- (6) Treatment of Elective Transmission Upgrades for Generating Units. If a Generator Owner has requested an Elective Transmission Upgrade pursuant to Section II.47 of this OATT in connection with a new or materially changed generation unit, the Generator Owner shall be subject to the cost, credit assurance and contract obligations set forth in Section II.47 of this OATT and Schedule 12 to this OATT for Elective Transmission Upgrades.
- (7) Contract and Credit Requirements. If a Generator Interconnection Related Upgrade or an Elective Transmission Upgrade Interconnection Related Upgrade (collectively, "Upgrade") is required, the Generator Owner or Elective Transmission Upgrade Interconnection Customer ("ETU IC") requesting such upgrade, at the request of the PTO or its designee responsible for effecting the construction or modification, shall be obligated to pay to the PTO or its designee responsible for effecting the Upgrade an amount equal to its share of the estimated cost of the construction at one time or in monthly or other periodic installments, including, without limitation, all costs associated with acquiring land, rights of way easements, purchasing equipment and materials, installing, constructing, interconnecting, and testing the facilities; O&M and engineering costs; all related overheads; and any and all associated taxes and government fees. In addition to, or in lieu of said payment, the affected PTO or its designee may require the Generator Owner or ETU IC to provide, as security for its obligation to pay any unfunded balance of the construction costs, a letter of credit or other reasonable form of security acceptable to the PTO or its designee that will be responsible for the construction equivalent to the cost of the upgrade including taxes and consistent with relevant commercial practices, as established by the Uniform Commercial Code. As soon as reasonably practical, but in any event within 180 days after completion of the construction or modifications, or as otherwise mutually agreed, the PTO or its designee responsible for the construction or modification will determine the difference, if any, between the estimated cost already paid by the Generator Owner or ETU IC to the PTO or its designee responsible for the construction or modification and its share of the actual cost of the construction

or modification, and will either receive from the Generator Owner or ETU IC, with Interest (if the sum paid is insufficient) or pay to the Generator Owner or ETU IC, with Interest (if the sum paid is surplus) the difference; provided that if, at the time such determination is made, items of construction that remain to be completed and/or some construction costs have not been invoiced and paid, the PTO or its designee responsible for the construction or modification shall continue to be entitled to recover from the Generator Owner or ETU IC the Generator Owner or ETU IC's share of the costs of such remaining items and may retain a reserve to cover such items.

Furthermore, the PTO shall release any letter of credit or other security instrument received by the PTO, up to the amount allowed to be recovered through the PTO's Annual Transmission Revenue Requirement for Category A and B Projects, no later than sixty (60) days after the later of the reflection of such costs in the regional rates and the commercial operation of the Generating Facility or Elective Transmission Upgrade addition or modification. To the extent Upgrades, or any portion thereof, are completed in a calendar year, PTO will use their best efforts to reflect such facilities in their Annual Transmission Revenue Requirements calculated on the basis of that year. That portion of the construction or modification costs or deposit paid by the Generator Owner or ETU IC may, by mutual agreement of the PTO and the Generator Owner or ETU IC, either be retained by the PTO, or be refunded to the Generator Owner or ETU IC upon the Generator Owner or ETU IC executing a contract with the PTO obligating the Generator Owner or ETU IC to pay the PTO the ongoing transmission revenue requirement associated with its share of the Upgrade, including but not limited to cost of capital, federal and state income taxes, O&M and A&G costs, annual property taxes and all other related costs, and providing the PTO with an irrevocable letter of credit or other form of security acceptable to the PTO. In the event the Generator Owner or ETU IC's portion of the construction or modification costs is retained by the PTO or its designee in accordance with the preceding sentence, the Generator Owner or ETU IC will be obligated (i) to pay the federal and state income taxes required to be paid by the PTO with respect to the retained amount, and (ii) to pay annually its percentage of the O&M and A&G costs, annual property taxes and all other related costs, except for those costs required to be paid under (i) or any costs that are retained by the PTO in accordance with the interconnection agreement. If the Generator Owner or ETU IC for whatever reason goes out of business, or otherwise abandons its Generating Facility or Elective Transmission Upgrade project and the Upgrade has already been partially or completely constructed, the Generator Owner or ETU IC shall be responsible for all of the unrecovered ongoing costs of the upgrade that would not have been incurred but for the proposed generation or ETU project. Nothing contained herein shall prevent the PTO or its designee responsible for the construction or modification and the

Generator Owner or ETU IC from negotiating other methods for providing financial security associated with the cost of an upgrade deemed acceptable to the PTO or other entity. Subject to the foregoing, the interconnection and support agreements for an Upgrade may specify the basis for continued support of such upgrade in the event of the cancellation of the project due to a failure to obtain regulatory approvals or permits or required rights of way or other property, or action to terminate the project before its completion for whatever reason and any other matters.

Interest payable hereunder shall be calculated in accordance with Section II.8.3 of the OATT.

## **SCHEDULE 22**

### **LARGE GENERATOR INTERCONNECTION PROCEDURES**

## **TABLE OF CONTENTS**

SECTION 1.	DEFINITIONS
SECTION 2.	SCOPE, APPLICATION AND TIME REQUIREMENTS.
2.1	Application of Standard Large Generator Interconnection Procedures.
2.2	Comparability
2.3	Base Case Data
2.4	No Applicability to Transmission Service
2.5	Time Requirements
SECTION 3.	INTERCONNECTION REQUESTS
3.1	General
3.2	Type of Interconnection Services and Long Lead Time Facility Treatment
3.3	Valid Interconnection Request
3.4	OASIS Posting
3.5	Coordination with Affected Systems
3.6	Withdrawal
SECTION 4.	QUEUE POSITION
4.1	General
4.2	Clustering
4.3	Transferability of Queue Position
4.4	Modifications
SECTION 5.	PROCEDURES FOR TRANSITION
5.1	Queue Position for Pending Requests
5.2	Grandfathering
5.3	New System Operator or Interconnecting Transmission Owner
SECTION 6.	INTERCONNECTION FEASIBILITY STUDY
6.1	Interconnection Feasibility Study Agreement
6.2	Scope of Interconnection Feasibility Study
6.3	Interconnection Feasibility Study Procedures
6.4	Re-Study
SECTION 7.	INTERCONNECTION SYSTEM IMPACT STUDY

7.1	Interconnection System Impact Study Agreement
7.2	Execution of Interconnection System Impact Study Agreement
7.3	Scope of Interconnection System Impact Study
7.4	Interconnection System Impact Study Procedures
7.5	Meeting with Parties
7.6	Re-Study
7.7	Operational Readiness
SECTION 8.	INTERCONNECTION FACILITIES STUDY
8.1	Interconnection Facilities Study Agreement
8.2	Scope of Interconnection Facilities Study
8.3	Interconnection Facilities Study Procedures
8.4	Meeting with Parties
8.5	Re-Study
SECTION 9.	ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT
SECTION 10.	OPTIONAL INTERCONNECTION STUDY
10.1	Optional Interconnection Study Agreement
10.2	Scope of Optional Interconnection Study
10.3	Optional Interconnection Study Procedures
10.4	Meeting with Parties
10.5	Interconnection Agreement Developed Based on Optional Interconnection Study
SECTION 11.	STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)
11.1	Tender
11.2	Negotiation
11.3	Evidence to be Provided by Interconnection Customer; Execution and Filing of LGIA
11.4	Commencement of Interconnection Activities
SECTION 12.	CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES
12.1	Schedule
12.2	Construction Sequencing
SECTION 13.	MISCELLANEOUS
13.1	Confidentiality

- 13.2 Delegation of Responsibility
- 13.3 Obligation for Study Costs
- 13.4 Third Parties Conducting Studies
- 13.5 Disputes
- 13.6 Local Furnishing Bonds



## **APPENDICES TO LGIP**

APPENDIX 1 INTERCONNECTION REQUEST

APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT

APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 6 LARGE GENERATOR INTERCONNECTION AGREEMENT

APPENDIX 7 INTERCONNECTION PROCEDURES FOR WIND GENERATION

## **SECTION I. DEFINITIONS**

The definitions contained in this section are intended to apply in the context of the generator interconnection process provided for in this Schedule 22 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of generator interconnections under this Schedule 22. Capitalized terms in Schedule 22 that are not defined in this Section I shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**At-Risk Expenditure** shall mean money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability data bases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking

Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** shall mean that portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** shall mean: (i) in the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 5.2.3 of this LGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 5.2.3, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of

Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Large Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Engineering & Procurement ("E&P") Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin

engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning



and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner's Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** shall mean a Transmission Owner that owns, leases or otherwise possesses an interest, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing, a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Large Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Generating Facility with the Administered Transmission System under the Standard Large Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification,

addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements

of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of an existing Generation Facility; (iv) make a Material Modification to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System; (v) commence participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** shall mean the service provided by the System Operator, and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy

capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Standard Large Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**IRS** shall mean the Internal Revenue Service.

**Large Generating Facility** shall mean a Generating Facility having a maximum gross capability at or above zero degrees F of more than 20 MW.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in Appendix 1, Attachment A (and Attachment A-1, if applicable) to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Initial

Synchronization Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource ("NR")** shall mean the portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability ("NR Capability")** shall mean the maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that

meets the criteria under Section 5.2.4 of this LGIP, the NR Capability shall mean the total megawatt amount determined pursuant to Section 5.2.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Large Generating Facility to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer’s Interconnection Facilities connect to the Interconnecting Transmission Owner’s Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for which new interconnection is sought; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for which new interconnection is sought; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for which new



interconnection is sought; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for which new interconnection is sought; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in this Schedule 22 to the Tariff.

**Standard Large Generator Interconnection Procedures (“LGIP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in this Schedule 22 to the Tariff.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this LGIP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

## **SECTION 2. SCOPE, APPLICATION AND TIME REQUIREMENTS.**

### **2.1 Application of Standard Large Generator Interconnection Procedures.**

The LGIP and LGIA shall apply to Interconnection Requests pertaining to Large Generating Facilities. Except as expressly provided in the LGIP and LGIA, nothing in the LGIP or LGIA shall be construed to limit the authority or obligations that the Interconnecting Transmission Owner or System Operator, as applicable, has with regard to ISO New England Operating Documents.

### **2.2. Comparability.**

The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. The System Operator and Interconnecting Transmission Owner will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by the Interconnecting Transmission Owner, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall provide Base Case power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists upon request to the Interconnection Customer and any third party consultant retained by the Interconnection Customer. For the purposes of this provision, Base Case Data may include the electromagnetic transient network model that does not include proprietary electromagnetic transient equipment models. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy as well as any other applicable requirement under Applicable Laws and Regulations regulating disclosure or confidentiality of such information. System Operator is permitted to require that Interconnection Customer or the third party consultant sign a confidentiality agreement before the release of information governed by Section 13.1 or the ISO New England Information Policy, or the release of any other information that is commercially sensitive or Critical Energy Infrastructure Information. Such databases and lists, hereinafter referred to as Base Cases, shall include all generation projects and transmission

projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. The Interconnection Customer, where applicable, shall provide Base Case Data to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

#### **2.4 No Applicability to Transmission Service.**

Nothing in this LGIP shall constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

#### **2.5 Time Requirements.**

Parties that must perform a specific obligation under a provision of the Standard Large Generator Interconnection Procedure or Standard Large Generator Interconnection Agreement within a specified time period shall use Reasonable Efforts to complete such obligation within the applicable time period. A Party may, in the exercise of reasonable discretion and within the time period set forth by the applicable procedure or agreement, request that the relevant Party consent to a mutually agreeable alternative time schedule, such consent not to be unreasonably withheld.

### **SECTION 3. INTERCONNECTION REQUESTS.**

#### **3.1 General.**

To initiate an Interconnection Request, an Interconnection Customer must comply with all of the requirements set forth in Section 3.3.1. The Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. The Interconnection Customer must comply with the requirements specified in Section 3.3.1 for each Interconnection Request even when more than one request is submitted for a single site.

Within three (3) Business Days after its receipt of a valid Interconnection Request, System Operator shall submit a copy of the Interconnection Request to Interconnecting Transmission Owner.

At Interconnection Customer's option, System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

All deposits that must be submitted to the System Operator under this LGIP must be delivered to the System Operator's bank account by electronic transfer within the period specified in the respective provision. A deposit will not be considered received until it is in the System Operator's bank account.

### **3.2 Type of Interconnection Services and Long Lead Time Facility Treatment**

At the time the Interconnection Request is submitted, the Interconnection Customer must request either CNR Interconnection Service or NR Interconnection Service, as described in Sections 3.2.1 and 3.2.2 below. An Interconnection Customer that meets the requirements to obtain CNR Interconnection Service shall obtain NR Interconnection Service up to the NR Capability upon completion of all requirements for NR Interconnection Service, including all necessary upgrades. Upon completion of all requirements for the CNR Interconnection Service, the Interconnection Customer shall also receive CNR Interconnection Service for CNR Capability. An Interconnection Customer that meets the requirements to obtain NR Interconnection Service shall receive NR Interconnection Service for the Interconnection Customer's NR Capability. At the time the Interconnection Request is submitted, the Interconnection Customer may also request Long Lead Facility treatment in accordance with Section 3.2.3.

#### **3.2.1 Capacity Network Resource Interconnection Service**

##### **3.2.1.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which CNRs are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Large Generating Facility to be designated as a CNR, and to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the CNR Capability or as otherwise provided in the Tariff, on the same basis as existing CNRs, and to be studied as a CNR on the assumption that such a designation will occur.

#### **3.2.1.2 The Studies.**

All Interconnection Studies for CNR Interconnection Service shall assure that the Interconnection Customer's Large Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit. The CNR Group Study for CNR Interconnection Service shall assure that the Interconnection Customer's Large Generating Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other CNRs and Elective Transmission Upgrades with CNI Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.1.3 Milestones for CNR Interconnection Service.**

In addition to the requirements set forth in this LGIP, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service shall complete the following milestones prior to receiving CNR Interconnection Service for the CNR Capability, such milestones to be specified in Appendix B of the LGIA, as either completed or to be completed: (i) submit the necessary requests for

participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date (except as modified pursuant to Sections 3.2.3 or 4.4 of this LGIP), in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Generating Facility's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a Capacity Supply Obligation. With respect to (iv) above, if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this LGIP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an LGIA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this LGIP shall be subject to re-study. The Appendices to the LGIA shall be amended (pursuant to Article 30 of the LGIA) to reflect CNR Capability and the results of the re-study.

### **3.2.2 Network Resource Interconnection Service**

#### **3.2.2.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which Network Resources are interconnected under the NC Interconnection Standard. NR Interconnection Service allows the Interconnection Customer's Large Generating Facility to participate in the New England Markets, in accordance with the provisions of Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as other Network Resources. Notwithstanding the above, the portion of a Large Generating Facility that has been

designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

#### **3.2.2.2 The Studies.**

The Interconnection Studies for an Network Resource shall assure that the Interconnection Customer's Large Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.2.3 Milestones for NR Interconnection Service.**

An Interconnection Customer with an Interconnection Request for NR Interconnection Service shall complete the requirements in this LGIP prior to receiving NR Interconnection Service.

### **3.2.3 Long Lead Time Facility Treatment**

#### **3.2.3.1 Treatment of Long Lead Facilities.**

Long Lead Facilities receive the treatment described herein in connection with the associated request of the Interconnection Customer for CNR Interconnection Service for its Large Generating Facility or CNI Interconnection Service for its External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility. Long Lead Facility treatment provides for the Interconnection Customer's Generating Facility or controllable Merchant Transmission Facility or Other Transmission Facility External ETU, after the completion of the Interconnection System Impact Study, to be modeled in the Base Cases for the next CNR Group Study to determine whether the Long Lead Facility would have qualified or enabled the qualification of an Import Capacity Resource to participate in the Forward

Capacity Auction associated with that CNR Group Study, in accordance with Section III.13.1.2 of the Tariff, but for the Long Lead Facility's development cycle (which shall include development of required transmission upgrades). If the Long Lead Facility is deemed to qualify or have enabled an associated Import Capacity Resource to qualify, the Long Lead Facility shall be included in the re-study pursuant to Section 3.2.1.3(iv) in order to determine the facilities and upgrades that would be necessary in order to accommodate the Interconnection Request of the Long Lead Facility, and for which costs the Interconnection Customer must be responsible. In order to maintain Long Lead Facility status, the Interconnection Customer must commit to the completion of these facilities and upgrades in time to allow the Long Lead Facility to achieve its Commercial Operation Date by the start of the associated Capacity Commitment Period. In addition, the Long Lead Facility will be treated as a New Generating Capacity Resource in the case of a Generating Facility or as if an Import Capacity Resource associated with the Long Lead Facility cleared in the case of an External ETU for the sole purpose of inclusion of the Long Lead Facility in the CNR Group Studies for the Forward Capacity Auctions that precede the Forward Capacity Auction for the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation. If an earlier-queued Generating Facility seeking CNR Interconnection Service or an Import Capacity Resource associated with an Elective Transmission Upgrade that is seeking CNI Interconnection Service obtains a Capacity Supply Obligation in a Forward Capacity Auction prior to or simultaneous with the Forward Capacity Auction in which the Long Lead Facility or its contractual counterparty in the case of an Elective Transmission Upgrade obtains a Capacity Supply Obligation, the Long Lead Facility will be re-studied in order to determine whether any additional facilities and upgrades to those identified prior to the CNR Group Study must be completed, at the Interconnection Customer's cost, prior to its Commercial Operation Date. A Long Lead Facility's cost responsibility for the facilities necessary to accommodate the Interconnection Request shall not be impacted by a Generating Facility or an External ETU with a Queue Position lower than the Long Lead Facility or its counterparty in the case of an External ETU that clears in a Forward Capacity Auction, in accordance with Section III.13.2 of the Tariff, prior to the clearance of the Long Lead Facility.

### **3.2.3.2 Request for Long Lead Facility Treatment.**

An Interconnection Customer requesting CNR Interconnection Service for its proposed Generating Facility or CNI Interconnection Service for its proposed controllable Merchant Transmission Facility or Other Transmission Facility External ETU, which the Interconnection Customer projects to have a



development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) may elect or request Long Lead Facility treatment in the following manner:

**(a)** An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service equal to or greater than 100 MW may elect Long Lead Facility treatment at the time the Interconnection Request is submitted, together with the critical path schedule and deposits required in Section 3.2.3.3.

**(b)** An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service under 100 MW may request Long Lead Facility treatment by submitting a written request to the System Operator for its review and approval, explaining why the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU cannot achieve Commercial Operation by the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for Long Lead Facility treatment is made), together with the critical path schedule and deposits required in Section 3.2.3.3. In reviewing the request, the System Operator shall evaluate the feasibility of the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU achieving Commercial Operation to meet an earlier Capacity Commitment Period based on the information provided in the request and the critical path schedule submitted pursuant to Section 3.2.3.3, in a manner similar to that performed under Section III.13.3.2 of the Tariff. Within forty-five (45) Business Days after its receipt of the request for Long Lead Facility treatment, the System Operator shall notify the Interconnection Customer in writing whether the request has been granted or denied. If the System Operator determines that the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU can achieve a Commercial Operation Date prior to the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction, the Interconnection Customer's request shall be denied. The dispute resolution provisions of the LGIP in the case of a Generating Facility or the ETU IP for

an External ETU are not available for disputes or claims associated with the ISO's determination to deny an Interconnection Customer's request for Long Lead Facility treatment.

(c) An Interconnection Customer that did not request Long Lead Facility treatment at the time the Interconnection Request was submitted, may thereafter submit a request for treatment as a Long Lead Facility, together with the critical path schedule and deposits required in Section 3.2.3.3 and, if applicable, a request for an extension of the Commercial Operation Date specified in the Interconnection Request in accordance with Sections 4.4.4 and 4.4.5. A request for Long Lead Facility treatment that is submitted after the initial Interconnection Request will not be eligible to participate in any Forward Capacity Auction prior to the Forward Capacity Auction associated with the extended Commercial Operation Date. The Long Lead Facility will be modeled in the Base Cases for the CNR Study Group associated with the near term Forward Capacity Auction unless that CNR Study Group is underway, in which case the Long Lead Facility will be modeled in the next CNR Study Group.

### **3.2.3.3 Critical Path Schedule and Deposits for Long Lead Facility Treatment.**

At the time an Interconnection Customer submits an election or request for Long Lead Facility treatment, the Interconnection Customer must submit, together with the request:

**(1) Critical Path Schedule.** A critical path schedule, in writing, for the Long Lead Facility (with a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) that meets the requirements set forth in Section III.13.1.1.2.2.2 of the Tariff. The Interconnection Customer must submit annually, in writing, an updated critical path schedule to the System Operator by the closing deadline of each New Capacity Show of Interest Submission Window that precedes the Forward Capacity Auction associated with the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation, prior to the inclusion of the Long Lead Facility in the Base Case for the CNR Group Study associated with the corresponding New Capacity Show of Interest Submission Window. With its annual update, for each critical path schedule milestone achieved since the submission of the previous critical path schedule update, the Interconnection Customer must include in the

critical path update documentation demonstrating that the milestone has been achieved by the date indicated and as otherwise described in the critical path schedule.

**(2) Long Lead Facility Deposits.**

**(a) Deposits.** In addition to the deposits required elsewhere in the LGIP in the case of a Generating Facility or the ETU IP for External ETU, at the time of its request for Long Lead Facility treatment, in accordance with Section 3.2.3.3, and by each deadline for which a New Generating Capacity Resource is required to provide financial assurance under Section III.13.1.9.1 of the Tariff, the Interconnection Customer must provide a separate deposit in the amount of  $0.25 * (\text{Forward Capacity Auction Starting Price } (\$/\text{kW-mo}) / 2) * \text{requested CNR Capability or CNI Capability}$ . For each calculation of the deposit, the System Operator shall use the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction at the time of that calculation, pursuant to Section III.13.2.4 of the Tariff, or the Forward Capacity Auction Starting Price for the previous Forward Capacity Auction in the case where the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction has not yet been calculated. The total amount of deposits shall not exceed the Non-Commercial Capacity Financial Assurance Amount that the Long Lead Facility would be required to provide if the Long Lead Facility or its counterparty cleared in the upcoming Forward Capacity Auction, in accordance with Section III.13.1.9.1 of the Tariff. The Long Lead Facility deposits will be fully refunded (with interest to be calculated in accordance with Section 3.6) (i) if the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days of the Scoping Meeting or of the completion of the System Impact Study (including restudy of the System Impact Study), pursuant to Section 7, or (ii) once the Long Lead Facility or its counterparty clears in a Forward Capacity Auction.

**(b) Reductions.** Ten (10) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) after the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear in the Forward Capacity Auction that follows the first Forward Capacity Auction for which the Long Lead Facility or its

counterparty could qualify based on the Commercial Operation Date specified in the initial critical path schedule for the Long Lead Facility. An additional five (5) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) following each subsequent Forward Capacity Auction in which the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear such Forward Capacity Auction, not to exceed the maximum period allowed under Sections 3.3.1, 4.4.4 and 4.4.5. The non-refundable portions of the deposits shall be credited to the revenue requirements under Schedule 1 of Section IV of the Tariff.

#### **3.2.3.4 Withdrawal and Refunds After Expenditures for Upgrades.**

An Interconnection Customer that provides documentation in the critical path schedule update to be submitted in accordance with Section 3.2.3.3(1), showing expenditures of the required amounts for upgrades identified in the Interconnection Studies for the Long Lead Facility, may submit a withdrawal of the Interconnection Request for the Long Lead Facility, in accordance with Section 3.6, at any time up to thirty (30) Calendar Days, after the Long Lead Facility's or its counterparty's failure to clear in any Forward Capacity Auction. In such instance, the Interconnection Customer shall receive a refund from the System Operator of the Long Lead Facility deposits (with interest to be calculated in accordance with Section 3.6) as adjusted pursuant to 3.2.3.3(2), if appropriate, and from the Interconnecting Transmission Owner a refund of the payments for the upgrades that exceed the costs incurred by the Interconnecting Transmission Owner. If the Interconnection Customer withdraws only its election or request for Long Lead Facility treatment, such withdrawal will be considered a Material Modification and the Long Lead Facility will lose its Queue Position unless its withdrawal occurs within one of the thirty (30)-day periods described in Section 3.2.3.3(2) of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU.

#### **3.2.3.5 Additional Requirements to Maintain Long Lead Facility Treatment.**

An Interconnection Customer with a Long Lead Facility must begin payment as required by the transmission expenditure schedule for the transmission upgrade costs that have been identified in the pertinent Interconnection Studies. The Interconnection Request for CNR Interconnection Service shall be deemed withdrawn under Section 3.6 if the Interconnection Customer fails to comply with the

requirements for Long Lead Facility treatment, including the milestones specified in Section 3.2.1.4. In this circumstance, the conditions specified in an Interconnection Agreement for a Generating Facility seeking CNR Interconnection Service or External ETU seeking CNI Interconnection Service that had an Interconnection Request of a Queue Position lower than the Long Lead Facility, but cleared (in the case of the Elective Transmission Upgrade, the Import Capacity Resource) in a Forward Capacity Auction prior to the Long Lead Facility, shall be removed.

#### **3.2.3.6 Participation in Earlier Forward Capacity Auctions.**

An Interconnection Customer with a Long Lead Facility may, without loss of Queue Position, elect to participate in an earlier Forward Capacity Auction than originally anticipated, but only if the election to accelerate is made to the System Operator in writing within thirty (30) Calendar Days of the Scoping Meeting or within thirty (30) Calendar Days of the completion of the System Impact Study (but before the Long Lead Facility and the results of the associated System Impact Study are incorporated into the Base Cases). Otherwise, such an election shall be considered a Material Modification.

### **3.3 Valid Interconnection Request.**

#### **3.3.1 Initiating an Interconnection Request.**

To initiate and establish a valid Interconnection Request, Interconnection Customer must submit all of the following to the System Operator in the manner specified in Appendix 1 Interconnection Request to this LGIP: (i) an initial deposit of \$50,000, (ii) a completed application in the form of Appendix 1, (iii) all information and deposits required under Section 3.2, and (iv) in the case of a request for CNR Interconnection Service, demonstration of Site Control or, in the case of a request for NR Interconnection Service, demonstration of Site Control or a posting of an additional deposit of \$10,000. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The portions of the deposit of \$50,000 that have not been applied as provided in this Section 3.3.1 shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that

is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in relative order with any other Interconnection Request also requesting to be re-queued pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit of \$50,000 (and any study-related deposits, if any have been submitted) shall be applied toward the re-queued Interconnection Request's initial deposit of \$50,000 and any remaining balance will be refunded, or (iv) if the Interconnection Customer executes an LGIA. Otherwise, any unused balance of the deposit of \$50,000 shall be non-refundable and applied on a pro-rata basis to offset costs incurred by Interconnection Customers with lower Queue Positions that are subject to re-study, as determined by the System Operator in accordance with the provisions of this LGIP, as a result of the withdrawal of an Interconnection Request with a higher Queue Position.

The deposit of \$50,000 shall be applied toward the costs incurred by the System Operator associated with the Interconnection Request and Long Lead Facility treatment, as well as, the costs of the Interconnection Feasibility Study and/or the Interconnection System Impact Study, including the cost of developing the study agreements and their attachments, and the cost of developing the LGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit of \$50,000 also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.

If, in the case of a request for NR Interconnection Service, the Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.3.3 after submitting its Interconnection Request, the additional deposit of \$10,000 shall be refundable; otherwise, that deposit shall be applied as provided in Section 3.1, including, toward the costs of any Interconnection Studies pursuant to the Interconnection Request, the cost of developing the study agreement(s) and associated attachment(s), and the cost of developing the LGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. The portions of the deposit of \$10,000 that have not been applied as provided in this Section 3.3.1 also shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request,

pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit shall be applied toward the re-queued Interconnection Request in lieu of Site Control for NR Interconnection Service, or (iv) if the Interconnection Customer executes an LGIA.

The expected Initial Synchronization Date of the new Large Generating Facility, of the increase in capacity of the existing Generating Facility, or of the implementation of the Material Modification to the existing Generating Facility shall not exceed seven (7) years from the date the Interconnection Request is received by the System Operator, unless the Interconnection Customer demonstrates that such time required to actively engineer, permit and construct the new Large Generating Facility or increase in capacity of the existing Generating Facility or implement the Material Modification to the existing Generating Facility will take longer than the seven year period. Upon such demonstration, the Initial Synchronization Date may succeed the date the Interconnection Request is received by the System Operator by a period of greater than seven (7) years so long as the Interconnection Customer, System Operator, and Interconnecting Transmission Owner agree, such agreement shall not be unreasonably withheld.

### **3.3.2 Acknowledgment of Interconnection Request.**

System Operator shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement. With the System Operator's acknowledgement of a valid Interconnection Request, the System Operator shall provide to the Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2 or an Interconnection System Impact Study Agreement in the form of Appendix 3.

### **3.3.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid Interconnection Request until all items in Section 3.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the

requirements set forth in Section 3.3.1, the System Operator shall notify the Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

#### **3.3.4 Scoping Meeting.**

Within ten (10) Business Days after receipt of a valid Interconnection Request, System Operator shall establish a date agreeable to Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, for a Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be (i) to discuss the estimated timeline for completing all applicable Interconnection Studies, and alternative interconnection options, (ii) to exchange pertinent information including any transmission data that would reasonably be expected to impact such interconnection options, (iii) to analyze such information, (iv) to determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. A PSCAD model is required for all wind and inverter-based Large Generating Facilities. If a PSCAD model is required for other Large Generating Facility types, the Parties shall discuss this at the Scoping Meeting. If the Interconnection Customer provided the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable) with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

The Parties will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) information regarding general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. The Parties will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On



the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 6.1, and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS, within five (5) Business Days following the Scoping Meeting Interconnection Customer shall notify the System Operator, in writing, (i) whether it wants the Interconnection Feasibility Study to be completed as a separate and distinct study or as part of the Interconnection System Impact Study; (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternate study scopes is being selected pursuant to Section 6.2; and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

### **3.4 OASIS Posting.**

The System Operator will maintain on its OASIS a list of all Interconnection Requests in its Control Area. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected Initial Synchronization Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested (i.e., CNR Interconnection Service or NR Interconnection Service); and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes an LGIA or requests that the System Operator and Interconnecting Transmission Owner jointly file an unexecuted LGIA with the Commission. Before participating in a Scoping Meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on OASIS an advance notice of its intent to do so. The System Operator shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional

Interconnection Study reports shall be posted to the System Operator's OASIS site subsequent to the meeting between the System Operator, Interconnecting Transmission Owner, and Interconnection Customer to discuss the applicable study results. The System Operator shall also post any known deviations in the Large Generating Facility's Initial Synchronization Date.

### **3.5 Coordination with Affected Systems.**

The System Operator will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected Parties and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. The System Operator will include such Affected Parties in all meetings held with the Interconnection Customer as required by this LGIP. The Interconnection Customer will cooperate with the System Operator and Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies).

The System Operator shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Party(ies).

### **3.6 Withdrawal.**

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 13.5 (Disputes), the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this LGIP, upon receipt of such written notice,

the Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue Dispute Resolution, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

The System Operator shall update the OASIS Queue Position posting. Except as otherwise provided elsewhere in this LGIP, the System Operator and the Interconnecting Transmission Owner shall arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations, or arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations. In the event of such withdrawal, System Operator, subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

## **SECTION 4. QUEUE POSITION.**

### **4.1 General.**

System Operator shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form in Appendix 1 to this LGIP, and Interconnection Customer provides such information in accordance with Section 3.3.3, then System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally submitted.

Except as otherwise provided in this Section 4.1, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be eligible for inclusion in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and (iv) the cost responsibility for the facilities and upgrades necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is lower queued.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 4.2 of this LGIP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

#### **4.1.1 Order of Interconnection Requests in the CNR Group Study**

Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance

with Section III.13.1.1.2 of the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New

Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Appendix A to the Interconnection Agreement for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

#### **4.2 Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.

##### **4.2.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator determined that none of the Interconnection Requests identified in (a) of this Section

4.2.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at or above 115 kV AC or HVDC.

#### **4.2.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 4.2.1 of this LGIP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 4.2.1 of this LGIP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will be suspended and they will proceed under Section 4.2 of this LGIP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 4.2.1 of this LGIP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated system upgrades, in accordance with this LGIP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 4.2.1 shall submit the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable), to support the conduct of the CRPS.

#### **4.2.3 Cluster Interconnection System Impact Study.**

##### **4.2.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry

deadline for the CSIS (the “Cluster Entry Deadline”) to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

#### **4.2.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 4.1 of this LGIP, shall be eligible to be studied together in the CSIS.

**4.2.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 3.6;
- (ii) request that the System Operator re-assign the Interconnection Customer’s Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 4.2.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 4.2.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 4.2.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.



**4.2.3.2.2 CSIS Entry Requirements.** An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 4.2.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator a completed Cluster System Impact Study Application in the form specified in Appendix 1, Attachment A-2 of this LGIP, requesting the inclusion of the Interconnection Request in the CSIS;

**(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.**

If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection System Impact Study Agreement in accordance with this Section 4.2.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS. The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable), and a refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 7.2 of this LGIP.

**(3) Cluster Participation Deposit for the CSIS.** By the Cluster Entry Deadline, Interconnection Customer also must submit to the System Operator an initial Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report. Cost

allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this LGIP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the CSIS is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 4.2.3.3.2 of this LGIP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25) percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Sections 7.5 and 8.3 of this LGIP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS or CFAC remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this LGIP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this LGIP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in

Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.2.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**4.2.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the final CRPS report as potentially enabled by the CETU. The Interconnection Requests will be included in the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 4.1 of this LGIP, relative to other eligible Interconnection Requests.

**4.2.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity of megawatts identified as potentially enabled by the CETU in the final CRPS report having been exhausted in queue order under Section 4.2.3.3.1, (i) the initial Cluster Participation Deposit will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more such Interconnection Requests after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.

**4.2.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 4.2.3.3.1 of this LGIP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Large Generating Facility (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from

receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 4.2.3.2 of this LGIP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**4.2.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 4.2.3.4, the CSIS shall be conducted in accordance with Sections 7.3 and 7.4 of this LGIP. The Study Case developed for the CSIS shall also include the CETU and associated system upgrades identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New England Transmission System under the NC Interconnection Standard consistent with Section 3.2.2 of this LGIP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 7.3 of this LGIP except for analysis associated with an Interconnection Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**4.2.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 7.6 of this LGIP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection

Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

#### **4.2.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this LGIP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

**4.2.4.1 Cluster Interconnection Facilities Study Entry Requirements.** An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 8.1 of this LGIP.

**4.2.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 8.2 and 8.3 of this LGIP based on a +/- 20 percent good faith cost estimate.

**4.2.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 8.5 of this LGIP, a re-study of the CFAC is required due to the withdrawal of an Interconnection Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

**4.2.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 8.3 of this LGIP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 4.2.4 will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this LGIP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 4.2.3.2.2(3)(v), (vi), or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee's contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

### **4.4 Modifications.**

The Interconnection Customer shall submit to System Operator and Interconnecting Transmission Owner, in writing, modifications to any information provided in the Interconnection Request, including its

attachments. The Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1 or 4.4.4, or are determined not to be Material Modifications pursuant to Section 4.4.2. The System Operator will notify the Interconnecting Transmission Owner, and, when System Operator deems it appropriate in accordance with applicable codes of conduct and confidentiality requirements, it will notify any Affected Party of such modifications.

A request to: (1) increase the energy capability or capacity capability output of a Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to Section 5.2 of this LGIP shall require a new Interconnection Request for the incremental increase and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis; and (2) change from NR Interconnection Service to CNR Interconnection Service, at any time, shall require a new Interconnection Request for CNR Interconnection Service and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis. Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service has until the Forward Capacity Auction for which the associated Capacity Commitment Period begins less than seven (7) years (or the years agreed to pursuant to Section 3.3.1 or Section 4.4.5) from the date of the original Interconnection Request for CNR Interconnection Service to clear the entire megawatt amount for which CNR Interconnection Service was requested. A new Interconnection Request for CNR Interconnection Service will be required for the Generating Facility to participate in any subsequent auctions.

During the course of the Interconnection Studies, either the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes do not constitute a Material Modification and are acceptable to the Parties, such acceptance not to be unreasonably withheld, System Operator and the Interconnecting Transmission Owner shall modify the Point of Interconnection and/or configuration in accordance with

such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

**4.4.1** Prior to the commencement of the Interconnection System Impact Study, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed Large Generating Facility; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. Notwithstanding the foregoing, an Interconnection Customer may decrease the electrical output of a proposed Large Generating Facility after the Cluster Entry Deadline specified in Section 4.2.3.1 of this LGIP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline.

**4.4.2** Prior to making any modification other than those specifically permitted by Sections 4.4.1 and 4.4.4, Interconnection Customer may first request that the System Operator and Interconnecting Transmission Owner evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, the System Operator in consultation with the Interconnecting Transmission Owner, and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall evaluate, at the Interconnection Customer's cost, the proposed modifications prior to making them and the System Operator will inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.3** Upon receipt of Interconnection Customer's request for modification that does not constitute a Material Modification and therefore is permitted under this Section 4.4, the System Operator in consultation with the Interconnecting Transmission Owner and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall commence and perform any necessary additional studies as soon as



practicable, but in no event shall the System Operator, Interconnecting Transmission Owner, or Affected Party commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

**4.4.4** Extensions of less than three (3) cumulative years in the Commercial Operation Date, In-Service Date or Initial Synchronization Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing, provided that the extension(s) do not exceed seven (7) years from the date the Interconnection Request was received by the System Operator.

**4.4.5** Extensions of three (3) or more cumulative years in the Commercial Operation Date, In-Service Date or Initial Synchronization Date of the Large Generating Facility to which the Interconnection Request relates or any extension of a duration that results in the Initial Synchronization Date exceeding the date the Interconnection Request was received by the System Operator by seven (7) or more years is a Material Modification unless the Interconnection Customer demonstrates to the System Operator due diligence, including At-Risk Expenditures, in pursuit of permitting, licensing and construction of the Large Generating Facility to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date provided in the Interconnection Request. Such demonstration shall be based on evidence to be provided by the Interconnection Customer of accomplishments in permitting, licensing, and construction in an effort to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date provided in this Interconnection Request. Such evidence may include filed documents, records of public hearings, governmental agency findings, documentation of actual construction progress or documentation acceptable to the System Operator showing At-Risk Expenditure made previously, including the previous four (4) months. If the evidence demonstrates that the Interconnection Customer did not undertake reasonable efforts to meet the Commercial Operation Date, In-Service Date or Initial Synchronization Date specified in the Interconnection Request, or demonstrates that reasonable efforts were not undertaken until four (4) months prior to the request for extension, the request for extension shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed Material Modification or proceed with a new Interconnection Request for such modification.

## **SECTION 5. PROCEDURES FOR TRANSITION.**

### **5.1 Queue Position for Pending Requests.**

**5.1.1** Any Interconnection Customer assigned a Queue Position prior to November 1, 2017, shall retain that Queue Position subject to Section 4.4 of the LGIP.

**5.1.1.1** If an Interconnection Study Agreement has not been executed prior to November 1, 2017, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this LGIP in effect on November 1, 2017 (or as revised thereafter).

**5.1.1.2** If an Interconnection Study Agreement has been executed prior to November 1, 2017 and is actively under study, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to November 1, 2017, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the LGIP in effect on November 1, 2017. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 4.2.3.2 of this LGIP within thirty (30) Calendar Days from the later of November 1, 2017 or the issuance of the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure.

**5.1.2** Transition Period. To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an LGIA has neither been executed nor submitted to the Commission for approval prior to November 1, 2017), Interconnecting

Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the LGIP in effect as of November 1, 2017 (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request” herein shall mean any Interconnection Request, on November 1, 2017: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related LGIA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding Interconnection Request as of the effective date of this LGIP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this LGIP.

### **5.1.3 One-Time Election for CNR Interconnection Service at Queue Position Assigned Prior to February 1, 2009.**

An Interconnection Customer with an outstanding Interconnection Request will be eligible to make a one-time election to be considered for CNR Interconnection Service at the Queue Position assigned prior to February 1, 2009. The Interconnection Customer’s one-time election must be made by the end of the New Generating Capacity Show of Interest Submission Window for the fourth Forward Capacity Auction. The Interconnection Customer’s one-time election may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5.

Interconnection Customers requesting CNR Interconnection Service will be required to comply with the requirements for CNR Interconnection Service set forth in Section 3.2.1. Interconnection Customers requesting CNR Interconnection Service that have not received a completed Interconnection System Impact Study may request a preliminary, non-binding, analysis of potential upgrades that may be necessary for the fourth Forward Capacity Auction – the prompt or near-term auction – pursuant to Sections 6.3 or 7.3, whichever is applicable.

## **5.2 Grandfathering.**

**5.2.1** An Interconnection Customer's Generating Facility that is interconnected pursuant to an Interconnection Agreement executed or submitted to the Commission for approval prior to February 1, 2009, will maintain its status as a Network Resource with Network Resource Interconnection Service eligible to participate in the New England Markets, in accordance with the requirements of Market Rule 1, Section III of the Tariff, up to the megawatt amount specified in the Interconnection Agreement, subject to the Interconnection Customer satisfying all requirements set forth in the Interconnection Agreement and this LGIP. If the Generating Facility does not meet the criteria set forth in Section 5.2.3 of this LGIP, the Interconnection Customer will be eligible to make a one-time election, pursuant to Section 5.1.3, for Capacity Network Resource treatment without submitting a new Interconnection Request; however, the Interconnection Customer will be required to comply with the requirements for CNR Interconnection Service set forth in Section 3.2.1. Upon completion of the requirements to obtain CNR Interconnection Service, the Interconnection Customer's Interconnection Agreement shall be amended to conform to the LGIA in Appendix 6 of this LGIP.

**5.2.2** An Interconnection Customer's Generating Facility governed by an Interconnection Agreement either executed or filed with the Commission in unexecuted form prior to August 1, 2008, shall maintain the Queue Position assigned as of August 1, 2008, and be eligible to participate in the New England Markets, in accordance with the requirements in Market Rule 1, Section III of the Tariff, as in effect as of August 1, 2008, so long as the Interconnection Customer complies with all of the requirements specified in the Interconnection Agreement, including achieving the milestones associated with At-Risk Expenditures, subject to Section 4.4 of this LGIP.

**5.2.3** All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a CNR and obtain CNR Interconnection Service, in accordance with this LGIP, up to the CNR Capability of the resource. The grandfathered CNR Capability for these resources shall be equal to the megawatt amount established pursuant to the following hierarchy:

(a) First, the megawatt amount specified in an Interconnection Agreement (whether executed or filed in unexecuted form with the Commission).

(b) Second, in the absence of an Interconnection Agreement with a specified megawatt amount, the megawatt amount specified in an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision).

(c) Third, in the absence of an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) with a specified megawatt amount, as determined by the System Operator based on documented historic capability of the Generating Facility.

Where a resource has both an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision), the lower megawatt amount will govern until the resource completes the applicable process(es) under the Tariff for obtaining the higher megawatt amount. The absence of an Interconnection Agreement or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) specifying a megawatt amount shall be confirmed by an affidavit executed by a corporate officer of the resource attesting that the resource does not have an Interconnection Agreement and/or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) that specifies a megawatt amount.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) specifies a megawatt amount at an ambient temperature consistent with the definition of CNR Capability, the grandfathered CNR Capability shall be equal to that amount.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of CNR Capability.

Where the implementation of this Section 5.2.3 results in a CNR Capability that is different than previously had been identified, the revised CNR Capability will be applied commencing with the next Forward Capacity Auction qualification process (after the revised CNR Capability value is identified), which is initiated by the closing deadline of the Show of Interest Submission Window in accordance with Section III.13 of the Tariff. The revised CNR Capability will continue to govern until the resource completes the applicable process(es) for obtaining the higher megawatt amount.

**5.2.4** All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a NR and obtain NR Interconnection Service, in accordance with this LGIP, up to the NR Capability of the resource. The grandfathered NR Capability shall be determined pursuant to the hierarchy set forth in Section 5.2.3.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) of a resource for which a temperature-adjustment curve is used for the claimed capability verification, as set forth in the ISO New England Manuals, specifies a megawatt amount at an ambient temperature, the grandfathered NR Capability shall be equal to a temperature-adjusted value consistent with the definition of NR Capability.

Where the governing document (as determined by the hierarchy set forth in Section 5.2.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of NR Capability.

### **5.3 New System Operator or Interconnecting Transmission Owner.**

If the System Operator transfers operational control of the New England Transmission System to a successor System Operator during the period when an Interconnection Request is pending, the System Operator shall transfer to the successor System Operator any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The System Operator shall coordinate with the successor System Operator to complete any Interconnection Study, as appropriate, that the System Operator has begun but has not completed.

If the Interconnecting Transmission Owner transfers ownership of its transmission facilities to a successor transmission owner during the period when an Interconnection Request is pending, and System Operator in conjunction with Interconnecting Transmission Owner has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with the Commission, unless otherwise provided, the Interconnection Customer must complete negotiations with the successor transmission owner.

## **SECTION 6. INTERCONNECTION FEASIBILITY STUDY.**

### **6.1 Interconnection Feasibility Study Agreement.**

Except as otherwise provided in Section 4.2.3.4 of this LGIP, the Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study under this Section 6, or as part of the Interconnection System Impact Study under Section 7. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the System Operator's and Interconnecting Transmission Owner's receipt from the Interconnection Customer of its designation of the Point(s) of Interconnection and of the type of study to be performed pursuant to Section 3.3.4, System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). No later than thirty (30) Calendar Days after its receipt of the Interconnection Feasibility Study Agreement, (a) the Interconnection Customer shall execute and deliver the agreement to System Operator and the Interconnecting Transmission Owner, (b) the Interconnection Customer shall also deliver the refundable deposit for the Interconnection Feasibility Study to the System Operator, and (c) the technical data called for in Appendix 1, Attachment B. The deposit for the study shall be 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the

Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold any amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection Feasibility Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable) or Attachment B, depending on the scope elected pursuant to Section 3.3.1. If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection Feasibility Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection Feasibility Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection Feasibility Study Agreement or deposit.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to the Parties, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if the Parties



cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

## **6.2 Scope of Interconnection Feasibility Study.**

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information.

The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement.

The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities, and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable) with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Large Generating Facility as identified within the scope of the analysis performed as part of the study.

To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

### **6.3 Interconnection Feasibility Study Procedures.**

The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection Feasibility Study Agreement, study deposit and required technical data in accordance with Section 6.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period,

the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator with input from the Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow and short circuit databases that have been developed for the Interconnection Feasibility Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **6.3.1 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

#### **6.4 Re-Study.**

If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-designation of the Point of Interconnection pursuant to Section 6.1, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take not longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete

and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement.

The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

## **SECTION 7. INTERCONNECTION SYSTEM IMPACT STUDY.**

### **7.1 Interconnection System Impact Study Agreement.**

If the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the Interconnection Feasibility Study results meeting, or subsequent to the Scoping Meeting within five (5) Business Days following the receipt of designation of the Point(s) of Interconnection and type of study to be performed pursuant to Section 3.3.4, if the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe for commencing and completing the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA.

## **7.2 Execution of Interconnection System Impact Study Agreement.**

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after its receipt along with a demonstration of Site Control and the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable), and the Interconnection Customer shall also deliver a refundable deposit. An Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The deposit for the study shall be: (i) the greater of 100 percent of the estimated cost of the study or \$250,000; or (ii) the lower of 100 percent of the estimated costs of the study or \$50,000, if the Interconnection Customer can provide: (1) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, required in support of the Interconnection Request or written certification that Major Permits are not required, or (2) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amounts of money described in (i) above; or (iii) the lower of 100 percent of the estimated costs of the study or \$50,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection System Impact Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs

of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the LGIA. In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. If the Interconnection Customer elects the deposit described in (ii) above, the System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection System Impact Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A (and Attachment A-1, if applicable); provided that if a PSCAD model for a non-wind or non-inverter-based Large Generating Facility was determined to be needed at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the execution of the System Impact Study Agreement to provide the PSCAD model.

If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting or the Interconnection Feasibility Study, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or

any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to each Party, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement or Interconnection System Impact Study depending on whether Interconnection Customer requested that the Interconnection Feasibility Study be completed as a separate and distinct study or as part of the Interconnection System Impact Study, as specified pursuant to Section 3.3.4, shall be the substitute.

### **7.3 Scope of Interconnection System Impact Study.**

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, such as electromagnetic transient analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct; (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environment work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

#### **7.4 Interconnection System Impact Study Procedures.**

The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site Control is required, and required technical data in accordance with Section 7.2. If System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within the times specified in this Section 7.4.



At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated start date if the study has not commenced and completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow, short circuit and stability databases that have been developed for the Interconnection System Impact Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

Except in the case of a CSIS, the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Appendix 1 and Attachment A (and Attachment A-1, if applicable), and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications provided they meet the requirements of Section 4.4.1 of this LGIP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

## **7.5 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study.

Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study. If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the LGIA: (i) Siting approval for the Generating Facility and Interconnection Facilities; (ii) Engineering of Interconnection Facilities approved by Interconnecting Transmission Owner; (iii) Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Initial Synchronization Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

## **7.6 Re-Study.**

If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) re-designation of the Point of Interconnection pursuant to Section 7.2, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a

Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing.

Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

#### **7.7 Operational Readiness.**

The System Operator shall, as close to the Interconnection Customer's actual Synchronization Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System with the addition of the Interconnection Customer's Generating Facility. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer.

The System Operator is not obligated to perform the operational analyses described in this Section 7.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting Transmission Owner determines that interconnection of the Interconnection Customer's Generating Facility to the Administered Transmission System is remote and speculative.

### **SECTION 8. INTERCONNECTION FACILITIES STUDY.**

#### **8.1 Interconnection Facilities Study Agreement.**

Except as otherwise provided in Section 4.2.4 of this LGIP, the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection, which means that the

Interconnection Customer may enter into E&P Agreements under Section 9 if it had not already done so, and shall enter into an LGIA in accordance with the requirements specified in Section 11.

If the Interconnection Customer waives the Interconnection Facilities Study, the Interconnection Customer, subject to the specific terms of the E&P Agreements, assumes all risks and shall pay all costs associated with equipment, engineering, procurement and construction work covered by the Interconnection Facilities Study as described in Section 8.2 below.

The System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this LGIP simultaneously with the delivery of the Interconnection System Impact Study to the Interconnection Customer.

The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the LGIA. Within three (3) Business Days following the Interconnection System Impact Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer a non-binding good faith estimate of the cost for completing the Interconnection Facilities Study in accordance with requirements specified in Section 8.3. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator within thirty (30) Calendar Days after its receipt, together with the required technical data and the refundable deposit for the Interconnection Facilities Study. In accordance with Section 8.3, the Interconnection Customer shall specify in Attachment A to the Interconnection Facilities Study Agreement whether it wants no more than a +/- 20 percent or a +/- 10 percent good faith cost estimate contained in the report. The deposit for the study shall be either: (i) the greater of twenty-five percent of the estimated cost of the study or \$250,000; or (ii) the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Customer can provide: (1) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2 of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or (2) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amounts of money in (i)

above, not including the same At-Risk Expenditures demonstrated with the Interconnection System Impact Study Agreement, if applicable; or (iii) the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Interconnection Facilities Study, the study agreement and its attachment(s) and the LGIA. In the case of Clustering, CFAC costs that are associated with an individual Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades

necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost to the accuracy specified by the Interconnection Customer pursuant to Section 8.3, (ii) identify, configurations of required facilities and (iii) identify time requirements for construction and installation of required facilities.

### **8.3 Interconnection Facilities Study Procedures.**

The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent good faith cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if the Interconnection Customer requests a +/- 10 percent good faith cost estimate. Such cost estimates either individually or in the aggregate will be provided in the final study report. If the System Operator uses Clustering, the System Operator and the Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 8.3.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft

Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required.

The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **8.4 Meeting with Parties.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the

System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study.

## **8.5 Re-Study.**

If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

## **SECTION 9. ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT.**

Prior to executing an LGIA, an Interconnection Customer may request, in order to advance the implementation of its interconnection, and the Interconnecting Transmission Owner and any Affected Party shall offer the Interconnection Customer, an E&P Agreement that authorizes the Interconnecting Transmission Owner and any Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the Interconnecting Transmission Owner or any Affected Party shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer’s Queue Position or Initial Synchronization Date. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer, including a deposit of 100 percent of



the estimated engineering and study costs, and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or an E&P Agreement is terminated by any Party, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the Interconnecting Transmission Owner or the Affected Party that is a party to an E&P Agreement may elect: (i) to take title to the equipment, in which event the Interconnecting Transmission Owner or relevant Affected Party shall refund the Interconnection Customer any amounts paid by the Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **SECTION 10. OPTIONAL INTERCONNECTION STUDY.**

### **10.1 Optional Interconnection Study Agreement.**

On or after the date when the Interconnection Customer receives Interconnection System Impact Study report and no later than five (5) Business Days after the study results meeting to review the report, the Interconnection Customer may request in writing, and the System Operator in coordination with the Interconnecting Transmission Owner shall perform, an Optional Interconnection Study. The request shall describe the assumptions that the Interconnection Customer wishes the System Operator to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, the System Operator shall provide to the Interconnecting Transmission Owner and the Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that the Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify the Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case, and (iii) specify the System Operator's and Interconnecting Transmission Owner's estimate of the cost of the Optional Interconnection Study. To the extent known by the System Operator, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. The Optional Interconnection Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Optional Interconnection Study, including the cost of developing the study agreement and its attachment(s). Notwithstanding the above, the System Operator and Interconnecting Transmission Owner shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

The Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the required technical data and the refundable deposit for the Optional Interconnection Study to the System Operator. The deposit for the study shall be 100 percent of the estimated cost of the study. Any difference between the study deposit and the actual cost of the Optional Interconnection Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Optional Interconnection Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Optional Interconnection Study and the study agreement and its attachments(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **10.2 Scope of Optional Interconnection Study.**

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The System Operator shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

The Optional Interconnection Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis, and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner.

### **10.3 Optional Interconnection Study Procedures.**

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to the System Operator and Interconnecting Transmission Owner within ten (10) Business Days of the Interconnection Customer receipt of the Optional Interconnection Study Agreement. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed-upon time period specified within the Optional Interconnection Study Agreement. If the System Operator and Interconnecting Transmission Owner are unable to complete the Optional Interconnection Study within such time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such

information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **10.4 Meeting with Parties.**

Within ten (10) Business Days of providing an Optional Interconnection Study report to Interconnection Customer, System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Optional Interconnection Study.

#### **10.5 Interconnection Agreement Developed Based on Optional Interconnection Study.**

If the LGIA for a Large Generating Facility is based on the results of an Optional Interconnection Study, the LGIA shall reflect the conditions studied and any obligations that may involve: (i) additional studies if such conditions change, (ii) operational limits, or (iii) financial support for transmission upgrades.

### **SECTION 11. STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA).**

#### **11.1 Tender.**

Interconnection Customer shall tender comments or provide notice, in writing, to the System Operator and Interconnecting Transmission Owner that the Interconnection Customer has no comments on the draft Interconnection Facilities Study report or on the draft Interconnection System Impact Study report if the Interconnection Customer waived the Interconnection Facilities Study, within thirty (30) Calendar Days of receipt of the report. Except as provided in the E&P Agreement or any mutual agreement by the entities that would be Parties to the LGIA, the System Operator shall initiate the development of the LGIA process within fifteen (15) Calendar Days after the comments are submitted or waived, by tendering to the Interconnection Customer a draft LGIA, together with draft appendices completed by the System Operator, in conjunction with the Interconnecting Transmission Owner to the extent practicable. The draft LGIA shall be in the form of the System Operator's Commission-approved standard form LGIA which is in Appendix 6 to Schedule 22. The Interconnection Customer shall return the Interconnection

Customer specific information required to complete the form of LGIA, including the appendices, in Appendix 6 of Schedule 22 that the Interconnection Customer is willing to execute within thirty (30) Calendar Days after receipt of the draft from the System Operator.

## **11.2 Negotiation.**

Notwithstanding Section 11.1, at the request of the Interconnection Customer, the System Operator and Interconnecting Transmission Owner shall begin negotiations with the Interconnection Customer concerning the appendices to the LGIA at any time after the Interconnection Facilities Study is complete or after the Interconnection System Impact Study is complete if the Interconnection Customer intends to waive the Interconnection Facilities Study. The System Operator, Interconnection Customer, and Interconnecting Transmission Owner shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender by the System Operator of the draft LGIA pursuant to Section 11. If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 11.1 and request submission of the unexecuted LGIA with the Commission or initiate Dispute Resolution procedures pursuant to Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of by the System Operator of the draft LGIA pursuant to Section 11.1, it shall be deemed to have withdrawn its Interconnection Request. The System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer a final LGIA within fifteen (15) Business Days after the mutually agreed completion of the negotiation process.

## **11.3 Evidence to be Provided by Interconnection Customer; Execution and Filing of LGIA.**

### **11.3.1 Evidence to be Provided by Interconnection Customer.**

**11.3.1.1 Site Control.** Within fifteen (15) Business Days after receipt of the final LGIA, the Interconnection Customer shall provide (A) to the System Operator, reasonable evidence of continued Site Control, or (B) to the Interconnecting Transmission Owner, posting of \$250,000, non-refundable additional security, which shall be applied toward future construction costs. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Large Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property.

**11.3.1.2 Development Milestones.** Within fifteen (15) Business Days after receipt of the final LGIA, the Interconnection Customer also shall provide to the System Operator reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, to be elected by the Interconnection Customer, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Large Generating Facility; (v) application for an air, water, or land use permit.

At the same time, the Interconnection Customer with an Interconnection Request that was not studied using Clustering shall commit to a schedule for the payment of upgrades identified in the Interconnection Studies or an E&P Agreement, and either: (A) provide evidence of approvals for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, or (B) provide to the Interconnecting Transmission Owner, in the form acceptable to the Interconnecting Transmission Owner, a refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades identified in the Interconnection Studies or an E&P Agreement, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final LGIA. If the Interconnection Customer selects option (B) above, it shall also commit in the LGIA to the achievement of: (i) milestones for the completion of Major Permit approvals, and (ii) in the case of a CNR

Interconnection Request, milestones to align the LGIA with the fulfillment of terms outlined in Section III.13 of the Tariff for participation in the Forward Capacity Market.

Within fifteen (15) Business Days after receipt of the final LGIA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation Deposit in accordance with Section 4.2.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final LGIA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by the fifteenth Business Day after receipt of the final LGIA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

**11.3.2 Execution and Filing of LGIA.** Within fifteen (15) Business Days after receipt of the final LGIA, (i) the Interconnection Customer and Interconnecting Transmission Owner shall execute three (3) originals of the tendered LGIA and return them to the System Operator, who will send an original to Interconnecting Transmission Owner and Interconnection Customer; or (ii) the Interconnection Customer

shall request in writing that the System Operator and the Interconnecting Transmission Owner jointly file with the Commission an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered LGIA (if it does not conform with a Commission-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, the System Operator and Interconnecting Transmission Owner, in accordance with Section 11.3.3 or Section 11.3.4, as appropriate, shall jointly file the LGIA with the Commission, together with its explanation of any matters as to which the System Operator, Interconnection Customer or Interconnecting Transmission Owner disagree and support for the costs that the Interconnecting Transmission Owner proposes to charge to the Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by the System Operator and Interconnecting Transmission Owner for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending Commission action.

With respect to the interconnection of an Interconnection Customer under Schedule 22, the LGIA shall be a three-party agreement among the Interconnecting Transmission Owner, the System Operator and the Interconnection Customer. If Interconnecting Transmission Owner, System Operator and Interconnection Customer agree to the terms and conditions of a specific LGIA, or any amendments to such an LGIA, then the System Operator and Interconnecting Transmission Owner shall jointly file the executed LGIA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act. To the extent the Interconnecting Transmission Owner, System Operator and Interconnection Customer cannot agree to proposed variations from the standard form of LGIA in Appendix 6 or cannot otherwise agree to the terms and conditions of the LGIA for such Large Generating Unit, or any amendments to such an LGIA, then the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted LGIA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act and shall identify the areas of disagreement in such filing, provided that, in the event of disagreement on terms and conditions of the LGIA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of the Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets,



then the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on such terms and conditions.

**11.3.3** The Interconnecting Transmission Owner, acting on its own or jointly with the System Operator, may initiate a filing to amend this LGIP and the standard form of LGIA in Appendix 6 under Section 205 of the Federal Power Act and shall include in such filing the views of System Operator, provided that the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on any financial obligations of the Interconnecting Transmission Owner or the Interconnection Customer(s), and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets.

#### **11.4 Commencement of Interconnection Activities.**

If the Interconnection Customer executes the final LGIA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by the Commission. Upon submission of an unexecuted LGIA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall promptly comply with the unexecuted LGIA, subject to modification by the Commission.

### **SECTION 12. CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES.**

#### **12.1 Schedule.**

The Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party shall negotiate in good faith concerning a schedule for the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades.

#### **12.2 Construction Sequencing.**

**12.2.1 General.** In general, the Initial Synchronization Date of an Interconnection Customer seeking interconnection to the Administered Transmission System will determine the sequence of construction of Network Upgrades.

**12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.** An Interconnection Customer with an executed or unexecuted, but filed with the Commission, LGIA, in order to maintain its Initial Synchronization Date, may request that the Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such Initial Synchronization Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the Interconnection Customer that is seeking interconnection to the Administered Transmission System, in time to support such Initial Synchronization Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party; (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The Interconnecting Transmission Owner or appropriate Affected Party will refund to the Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that the Interconnecting Transmission Owner or appropriate Affected Party has not refunded to the Interconnection Customer. Payment by that entity with a contractual obligation to construct such Network Upgrades shall be due on the date that it would have been due had there been no request for advance construction. The Interconnecting Transmission Owner or appropriate Affected Party shall forward to the Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to the Interconnection Customer. The Interconnecting Transmission Owner or appropriate Affected Party then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

**12.2.3 Advancing Construction of Network Upgrades that are Part of the Regional System Plan of the System Operator.** An Interconnection Customer with an LGIA, in order to maintain its Initial Synchronization Date, may request that Interconnecting Transmission Owner or appropriate Affected

Party advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such Initial Synchronization Date and (ii) would otherwise not be completed, pursuant to the Regional System Plan, in time to support such Initial Synchronization Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party any associated expediting costs.

**12.2.4 Amended Interconnection System Impact Study.** An Interconnection System Impact Study will be amended to determine the facilities necessary to support the requested Initial Synchronization Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested Initial Synchronization Date. The LGIA will also be amended to reflect the results of the Amended Interconnection System Impact Study and any changes in obligations, including financial support, of the Parties.

## **SECTION 13. MISCELLANEOUS.**

### **13.1 Confidentiality.**

Confidential Information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by any Party, the other Party(ies) shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may

disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**13.1.1 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

**13.1.2 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

**13.1.3 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**13.1.4 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**13.1.5 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under these procedures or its regulatory requirements.

**13.1.6 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**13.1.7 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable

for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

**13.1.8 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR. section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the LGIA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules, regulations and Section 13.1.

**13.1.9** Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Party’s(ies’) Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in

writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**13.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

**13.1.11** The System Operator and Interconnecting Transmission Owner shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time when Confidential Information is no longer needed.

## **13.2 Delegation of Responsibility.**

The System Operator and Interconnecting Transmission Owner, or any Affected Party may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. The Party using the services of a subcontractor shall remain primarily liable to the Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

## **13.3 Obligation for Study Costs.**

The System Operator and the Interconnecting Transmission Owner shall charge, and the Interconnection Customer shall pay, the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to the Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. The Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. The System Operator and Interconnecting Transmission Owner shall not be obligated to perform or continue to perform any studies unless the Interconnection Customer has paid all undisputed amounts in compliance herewith.

### **13.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) the Interconnection Customer receives notice pursuant to Sections 6.3, 7.4 or 8.3 that the System Operator or Interconnecting Transmission Owner will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) the Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then the Interconnection Customer may request, which request will not be unreasonably denied, that the System Operator and Interconnecting Transmission Owner utilize a third party consultant reasonably acceptable to the System Operator, Interconnection Customer, Interconnecting Transmission Owner and any appropriate Affected Party, to perform such Interconnection Study under the direction of the System Operator or Interconnecting Transmission Owner as applicable. At other times, System Operator or Interconnecting Transmission Owner may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of the Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where the System Operator or Interconnecting Transmission Owner determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's pending Interconnection Request and not interfere with the System Operator and Interconnecting Transmission Owner's progress on Interconnection Studies for other pending Interconnection Requests.

In cases where the Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, the Interconnection Customer, System Operator and Interconnecting Transmission Owner shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. The System Operator and Interconnecting Transmission Owner shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon the Interconnection Customer's request subject to the confidentiality provision in Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. In any case, such third party contract may be entered into with the System Operator, Interconnection Customer, or Interconnecting Transmission Owner at the System Operator and Interconnecting



Transmission Owner's discretion. In the case of (iii) the Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if the System Operator and Interconnecting Transmission Owner were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes.

The System Operator and Interconnecting Transmission Owner shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

### **13.5 Disputes.**

**13.5.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "Disputing Party") shall provide the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, after thirty (30) Calendar Days, then (i) in the case of disputes arising out of or in conjunction with the LGIA, the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted LGIA, or amendment thereto, with the Commission in accordance with Section 11.3.4, or (ii) in the case of disputes arising out of or in connection with any other matter regarding the administration of the LGIP, the System Operator may terminate the Interconnection Request and the Interconnection Customer may seek relief pursuant to Section 206 of the Federal Power Act. Each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Schedule 22.

**13.5.2 External Arbitration Procedures.** Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

**13.5.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons for such decision. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**13.5.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three-member panel and one-third of any associated arbitration costs; or (2) one-third the cost of the single arbitrator jointly chosen by the Parties and one-third of any associated arbitration costs.

## **13.6 Local Furnishing Bonds.**

**13.6.1 Facilities Financed by Local Furnishing Bonds.** This provision is applicable only to interconnections associated with facilities financed for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, the Interconnecting Transmission Owner shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Interconnection Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance the Interconnecting Transmission Owner's facilities that would be used in providing such Interconnection Service.

**13.6.2 Alternative Procedures for Requesting Interconnection Service.** If the Interconnecting Transmission Owner determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receiving notice of the Interconnection Request. The Interconnection Customer thereafter may renew its Interconnection Request using the process specified in the Tariff.

## **APPENDICES TO LGIP**

APPENDIX 1 INTERCONNECTION REQUEST

APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT

APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 6 LARGE GENERATOR INTERCONNECTION AGREEMENT

**APPENDIX 1**  
**INTERCONNECTION REQUEST**

The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility to the Administered Transmission System under Schedule 22 - Large Generator Interconnection Procedures (“LGIP”) of the ISO New England Inc. Open Access Transmission Tariff (the “Tariff”). Capitalized terms have the meanings specified in the Tariff.

---

---

**PROJECT INFORMATION**

Proposed Project Name: \_\_\_\_\_

**1. This Interconnection Request is for (check one):**

- \_\_\_\_\_ A proposed new Large Generating Facility
- \_\_\_\_\_ An increase in the generating capacity or a modification that has the potential to be a Material Modification of an existing Generating Facility
- \_\_\_\_\_ Commencement of participation in the wholesale markets by an existing Generating Facility
- \_\_\_\_\_ A change from Network Resource Interconnection Service to Capacity Network Resource Interconnection Service

**2. The types of Interconnection Service requested:**

- \_\_\_\_\_ Network Resource Interconnection Service (energy capability only)
- \_\_\_\_\_ Capacity Network Resource Interconnection Service (energy capability and capacity capability)

**If Capacity Network Resource Interconnection Service, does Interconnection Customer request Long Lead Facility treatment? Check: \_\_\_\_ Yes or \_\_\_\_ No**

**If yes, provide, together with this Interconnection Request, the Long Lead Facility deposit and other required information as specified in Section 3.2.3 of the LGIP, including (if the Large Generating Facility will be less than 100 MW) a justification for Long Lead Facility treatment.**

**3. This Interconnection Customer requests (check one, selection is not required as part of the initial Interconnection Request):**

\_\_\_\_\_ **An Interconnection Feasibility Study to be completed as a separate and distinct study**

\_\_\_\_\_ **An Interconnection System Impact Study with the Feasibility Study to be performed as the first step of the study**

**(The Interconnection Customer shall select either option and may revise any earlier selection up to within five (5) Business Days following the Scoping Meeting.)**

**4. The Interconnection Customer shall provide the following information:**

**Address or Location of the Facility (including Town/City, County and State):**

---

---

---

**Approximate location of the proposed Point of Interconnection:**

---

**Type of Generating Facility to be Constructed:** \_\_\_\_\_

**Generating Facility Fuel Type:**

---

**Generating Facility Capacity (MW):**

	<b>Maximum Net MW Electrical Output</b>	<b>Maximum Gross MW Electrical Output</b>
<b>At or above 90 degrees F</b>		
<b>At or above 50 degrees F</b>		
<b>At or above 20 degrees F</b>		
<b>At or above 0 degrees F</b>		

**General description of the equipment configuration (# of units and GSUs):**

---

---

**Requested Commercial Operations Date:**

---

**Requested Initial Synchronization Date:**

---

**Requested In Service Date:**

---

**Evidence of Site Control (check one):**

\_\_\_\_\_ If for Capacity Network Resource Interconnection Service, Site Control is provided here with, as required.

\_\_\_\_\_ If for Network Resource Interconnection Service: (Check one)

\_\_\_ Is provided here with

\_\_\_ In lieu of evidence of Site Control, a \$10,000 deposit is provided (refundable within the cure period as described in Section 3.3.3 of the LGIP).

\_\_\_\_\_ Site Control is not provided because the proposed modification is to the Interconnection Customer's existing Large Generating Facility and, by checking this option, the Interconnection Customer certifies that it has Site Control and that the proposed modification does not require additional real property.

The technical data specified within the applicable attachment to this form (check one):

\_\_\_\_\_ Is included with the submittal of this Interconnection Request form

\_\_\_\_\_ Will be provided on or before the execution and return of the Feasibility Study Agreement (Attachment B) or the System Impact Study Agreement (Attachment A), as applicable

The ISO will post the Project Information on the ISO web site under "New Interconnections" and OASIS.

---

---

**CUSTOMER INFORMATION**

Company Name: \_\_\_\_\_

ISO Customer ID# (If available): \_\_\_\_\_

(Interconnection Customer)

Company Address:    PO Box No.:

\_\_\_\_\_



**Street Address:** \_\_\_\_\_

**City, State ZIP:** \_\_\_\_\_

**Company Representative: Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Company Representative's Company and Address (if different from above):**

**Company Name:** \_\_\_\_\_

**PO Box No.:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City, State ZIP:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **FAX:** \_\_\_\_\_ **e-mail:** \_\_\_\_\_

---

---

**This Interconnection Request is submitted by:**

**Authorized Signature:** \_\_\_\_\_

**Name (type or print):** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

*In order for an Interconnection Request to be considered a valid request, it must:*

- (a) Be accompanied by a deposit of \$50,000.00 that is provided electronically and which may be refundable in accordance with Section 3.3.1 of the LGIP;*
- (b) For Capacity Network Resource Interconnection Service, include documentation demonstrating Site Control. If for Network Resource Interconnection Service, demonstrate Site Control or post an additional deposit of \$10,000.00. If the Interconnection Customer with an Interconnection Request for Network Resource Interconnection Service demonstrates Site Control within the cure period specified in Section 3.3.1 of the LGIP, the additional deposit of \$10,000.00 shall be refundable (An Interconnection Customer does not need to demonstrate Site Control for an Interconnection Request for a modification to its existing Large Generating Facility where the Interconnection Customer has certified that it has Site Control and that the proposed modification does not require additional real property);*
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures; and*
- (d) Include all information required on the Interconnection Request form and attachments thereto; and*
- (e) Include the deposit and all information required for Long Lead Facility treatment, if such treatment is requested in accordance with Section 3.2.3 of the LGIP.*

*The Interconnection Request must be submitted to the System Operator via the Interconnection Request Tracking Tool or IRTT, a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website.*

**The technical data required below must be submitted no later than the date of execution of the System Impact Study Agreement pursuant to Section 7.2 of the LGIP.**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

Kva	°F	Voltage
Power Factor		
Speed (RPM)		Connection (e.g. Wye)
Short Circuit Ratio		Frequency, Hertz
Stator Amperes at Rated Kva		Field Volts
Max Turbine MW	°F	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 90° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 50° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 20° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (° F)	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 0° OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H	=	kW sec/kVA
Moment-of-Inertia, WR <sup>2</sup>	=	lb. ft. <sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	<b>DIRECT AXIS</b>	<b>QUADRATURE AXIS</b>
Synchronous – saturated	X <sub>dv</sub>	X <sub>qv</sub>
Synchronous – unsaturated	X <sub>di</sub>	X <sub>qi</sub>
Transient – saturated	X' <sub>dv</sub>	X' <sub>qv</sub>
Transient – unsaturated	X' <sub>di</sub>	X' <sub>qi</sub>
Subtransient – saturated	X'' <sub>dv</sub>	X'' <sub>qv</sub>
Subtransient – unsaturated	X'' <sub>di</sub>	X'' <sub>qi</sub>
Negative Sequence – saturated	X <sub>2v</sub>	
Negative Sequence – unsaturated	X <sub>2i</sub>	

**FIELD TIME CONSTANT DATA (SEC)**

Zero Sequence – saturated	X0v	
Zero Sequence – unsaturated	X0i	
Leakage Reactance	Xlm	
Open Circuit	T'qo	T'do
Three-Phase Short Circuit Transient	T'd3	T'q
Line to Line Short Circuit Transient	T'd2	
Line to Neutral Short Circuit Transient	T'd1	
Short Circuit Subtransient	T''d	T''q
Open Circuit Subtransient	T''do	T''qo

**ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit	Ta3
Line to Line Short Circuit	Ta2
Line to Neutral Short Circuit	Ta1

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION**  
**LARGE GENERATING FACILITY DATA**  
**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive	R1		
Negative	R2		
Zero	R0		
Rotor Short Time Thermal Capacity $I^2t$	=		
Field Current at Rated kVA, Armature Voltage and PF	=	amps	
Field Current at Rated kVA and Armature Voltage, 0 PF		amps	
Three Phase Armature Winding Capacitance	=	microfarad	
Field Winding Resistance	=	ohms	°C
Armature Winding Resistance (Per Phase)	=	ohms	°C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

# **GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity Self-cooled/Maximum Nameplate  
 / Kva

Voltage Ratio Generator side/System side/Tertiary  
 / kV

Winding Connections Generator side/System Side/Tertiary (Delta or Wye)  
 /

Fixed Taps Available

Present Tap Setting

## **IMPEDANCE**

Positive	Z1 (on self-cooled kVA rating)	%	X/R
Zero	Z0 (on self-cooled kVA rating)	%	X/R

### **EXCITATION SYSTEM DATA**

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (“PSS”) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### **GOVERNOR SYSTEM DATA**

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### **WIND AND INVERTER-BASED GENERATORS**

A completed Attachment A-1 Supplementary Wind and Inverter-Based Generating Facility Form to this Attachment A, must be supplied for all Interconnection Requests for wind and inverter-based Generating Facilities.

### **MODEL REQUIREMENTS**

For all Generating Facility types: A completed, fully functioning, public (*i.e.*, non-proprietary, non-confidential) Siemens PTI’s (“PSSE”) power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow (“PSLF”) data sheet, must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.



A PSCAD model for all wind and inverter-based Generating Facilities must be supplied with this Attachment A. If a PSCAD model is deemed required for other Generating Facility types at the Scoping Meeting, such PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the executed Interconnection System Impact Study Agreement. A benchmarking analysis, consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time PSCAD model is submitted.

**INDUCTION GENERATORS:**

- (\*) Field Volts:
- (\*) Field Amperes:
- (\*) Motoring Power (kW):
- (\*) Neutral Grounding Resistor (If Applicable):
- (\*)  $I_2^2 t$  or K (Heating Time Constant):
- (\*) Rotor Resistance:
- (\*) Stator Resistance:
- (\*) Stator Reactance:
- (\*) Rotor Reactance:
- (\*) Magnetizing Reactance:
- (\*) Short Circuit Reactance:
- (\*) Exciting Current:
- (\*) Temperature Rise:
- (\*) Frame Size:
- (\*) Design Letter:
- (\*) Reactive Power Required In Vars (No Load):
- (\*) Reactive Power Required In Vars (Full Load):
- (\*) Total Rotating Inertia, H: Per Unit on KVA Base

Note: Please consult System Operator prior to submitting the Interconnection Request to determine if the information designated by (\*) is required.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment A to the Interconnection Request is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

## **SUPPLEMENTARY WIND AND INVERTER-BASED GENERATING FACILITY DATA FORM**

1. Attach a Geographic Map Demonstrating the Project Layout and its Interconnection to the Power Grid. (Specify the name of the attachment here)

2. Attach a Bus-Breaker Based One-line Diagram (The diagram should include each of the individual unit generators, generator number, rating and terminal voltage.) ( Specify the name of the attachment here)

### 2.1 Collection system detail impedance sheet

If a collector system is used, attach a collector system data sheet in accordance with the one-line diagram attached above. The data sheet should include: the type, length  $Z_0$ ,  $Z_1$  and  $X_c/B$  of each circuit (feeder and collector string).

Specify the name of the attachment here: \_\_\_\_\_

### 2.2 Collection system aggregate (equivalent) model data sheet

Attach an aggregate (equivalent) collection system data sheet. The data table should include: the type, length,  $Z_0$ ,  $Z_1$  and  $X_c/B$  of the equivalent circuits (feeders and collector strings).

Specify the name of the attachment here: \_\_\_\_\_

Attachment A-1 (page 2)  
To Attachment A of Appendix 1  
Supplementary Wind  
and Inverter-Based  
Generating Facility Form

3. Summary of the Unit Models in the wind or inverter-based generating facility *(List all different unit models in the facility)*

Manufacturer Model	Type of this WTG* (if applicable)	Generator Unit Numbers in the field	Number(s) of these Units	Maximum Output of this Unit (MW)	Total MW

- \* Type 1 – Cage rotor induction generators  
 Type 2 – Induction generators with variable rotor resistance  
 Type 3 – Doubly-fed asynchronous generators with rotor-side converter  
 Type 4 – Full-power converter interface

***Repeat the following sections from 4 to 12 for each different unit model.***

4. Unit Detail Information

Unit Manufacturer Model	
Terminal Voltage	
Rating of Each Unit (MVA)	
Maximum Gross Electrical Output (MW)	
Minimum Gross Electrical Output(MW)	
Lagging Reactive Power Limit at Rated Real Power Output (MVAR)	
Leading Reactive Power Limit at Rated Real Power Output (MVAR)	
Lagging Reactive Power Limit at Zero Real Power Output (MVAR)	
Leading Reactive Power Limit at Zero Real Power Output (MVAR)	
Station Service Load(MW, MVAR)	
Minimum short circuit ratio(SCR) requirement by manufacturer	
On which bus the minimum SCR is required by manufacturer	
What voltage level the minimum SCR is required by manufacturer	
Positive sequence Xsource	
Zero sequence Xsource	

5. Unit GSU – \_\_\_\_\_

Nameplate rating(MVA)	
Total number of the GSUs	
Voltages, generator side/system side	
Winding connections, low voltage/high voltage	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the GSU operate as an LTC?	
Desired voltage control range if LTC	
Tap adjustment time (Tap switching delay + switching time) if LTC	
Desired tap position if applicable	
Impedance, Z1, X/R ratio	
Impedance, Z0, X/R ratio	

6. Low Voltage Ride Through(LVRT) – \_\_\_\_\_(*Specify the Manufacturer Model of this Unit*)

Does each Unit have LVRT capability?

Yes\_\_ No\_\_

If yes, please provide:

6.1 Unit LVRT mode activation and release condition:

When operating at maximum real power, what is the Unit terminal voltage for LVRT mode activation? \_\_\_\_\_

When operating at maximum real power, what is the Unit terminal voltage for releasing LVRT mode after it is activated? \_\_\_\_\_

If there is different LVRT activation and release logic, please state here \_\_\_\_\_

- 6.2 A wind or other inverter-based generating facility technical manual from the manufacturer including description of LVRT functionality:

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

- 6.3 Does the wind or other inverter-based generating facility technical manual attached above include a reactive power capability curve?

Yes\_\_ No\_\_

***If no, attach the file and specify the name of the attachment here:***

\_\_\_\_\_

7. Low Voltage Protection (considering LVRT functionality)

(Specify the Manufacturer Model of this Unit)

Low Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

8. High Voltage Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

High Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

9. Low Frequency Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

Low Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

10. High Frequency Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

High Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

Please make sure the settings in sections 7 through 10 comply with NERC and NPCC standards for generator protection relays.



11. Unit Reactive Power Control - \_\_\_\_ (Specify the Manufacturer Model of this Unit)

11.1 What are the options for the Unit reactive power control (check all available)?

- \_\_\_\_ Control the voltage at the Unit terminal
- \_\_\_\_ Control constant power factor at the Unit terminal
- \_\_\_\_ Control constant power factor at the low side of the station main transformer
- \_\_\_\_ Control constant power factor at the high side of the station main transformer
- \_\_\_\_ Control voltage at the low side of the station main transformer
- \_\_\_\_ Control voltage at the high side of the station main transformer
- \_\_\_\_ Other options. Please describe if select others \_\_\_\_\_

11.2 In all the control options selected above, please list the options in which the Unit is able to control its terminal voltage to prevent low/high voltage tripping.

\_\_\_\_\_

11.3 What is the desired control mode from the selected options above? Specify the control plan in this mode. For example: control voltage at which bus to what schedule.

\_\_\_\_\_

12. Wind or inverter-based generating facility Model

*(All model files provided under this section 12 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

12.1 Power flow model

- 12.1.1 A \*.RAW file including **aggregated/equivalent** wind or inverter-based generating facility power flow model with appropriate parameters and settings.

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.1.2 A \*.RAW file including **detailed** wind or inverter-based generating facility power flow model with appropriate parameters and settings. *(Optional)*

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

12.2 Dynamic simulation model

*(Please note that the dynamic model must match the aggregated/equivalent power flow model provided above. Attach the following information for each of the models.)*

- 12.2.1 Wind or inverter-based generating facility Model \_\_\_\_\_ (Please Specify the Manufacturer Model)

- 12.2.2 A compiled PSS/E dynamic model for the turbines (a \*.LIB or \*.OBJ file)

*Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.2.3 A dynamic data file with appropriate parameters and settings for the turbines (typically a \*.DYR file)

***Attach the \*.DYR file and specify the name of the attachment here:***

\_\_\_\_\_

- 12.2.4 PSS/E wind or inverter-based generating facility model user manual for the WTG

***Attach and specify the name of the attachment here:***

\_\_\_\_\_

***Repeat the above sections from 6 to 12 for each different wind or inverter-based generating facility model.***

13. Power Plant Controller

Will the wind or inverter-based generating facility be equipped with power plant controller, which has the ability to centrally control the output of the units? Yes\_\_ No\_\_

If yes, please provide:

- 13.1 Manufacturer model of the power plant controller

\_\_\_\_\_

- 13.2 What are the reactive power control strategy options of the power plant controller?

- 13.3 Which of the control option stated above is being used in current operation?

\_\_\_\_\_

13.4 Is the power plant controller able to control the unit terminal voltages to prevent low/high voltage tripping?

Yes\_\_ No\_\_

Please provide the park controller technical manual from the manufacturer

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

14. Station Transformer

Transformer Name	
Nameplate ratings (MVA)	
Total number of the main transformer(s)	
Voltage, High/Low/Tertiary (kV)	
Winding connections, High/Low Tertiary	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the transformer operate as a LTC?	
Desired voltage control range if LTC	

Tap adjustment time (Tap switching delay + switching time) if LTC		
Desired tap position if applicable		
Tap adjustment time (Tap switching delay + switching time)		
Impedance $Z_1$ , X/R ratio	$Z_{1H-L}$	X/R
	$Z_{1H-T}$	X/R
	$Z_{1T-L}$	X/R
Impedance $Z_0$ , X/R ratio	$Z_{0H-L}$	X/R
	$Z_{0H-T}$	X/R
	$Z_{0T-L}$	X/R

15. Dynamic Simulation Model for the Power Plant Controller(s) (if applicable )

*(All model files provided under this section 15 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

15.1 A compiled PSS/E dynamic model for the power plant controller(s) (a \*.LIB or \*.OBJ file)

***Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:***

\_\_\_\_\_

15.2 A dynamic data file with appropriate parameters and settings for the power plant controller(s) (typically a \*.DYR file).

***Please set the parameters in accordance with the currently used control mode.***

***Attach the \*.DYR file and specify the name of the attachment here:***

- 
- 15.3 PSS/E model user manual for the power plant controller(s)

***Attach the manual and specify the name of the attachment or specify the name of the attachment here:***\_\_\_\_\_

16. Capacitors and Reactors

Please provide necessary modeling data for all the capacitors and reactors belong to the facility, including: size, basic electrical parameters, connecting bus, switched or fixed, etc.

17. Dynamic Device(s)

***(All model files provided under this section 17 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)***

- 17.1 Provide necessary modeling data file for all the dynamic devices belong to the facility.

Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:

\_\_\_\_\_

- 17.2 A dynamic data file containing the parameters for the units (typically a \*.DYR file).

Set the parameters in accordance with the desired control mode.

Attach the \*.DYR file and specify the name of the attachment here:

\_\_\_\_\_

18. Collection System/Transformer Tap-Setting Design

Attach a collection system/transformer tap-setting design calculations, consistent with the requirements in the ISO New England Planning Procedures, that identify the calculations to support the proposed tap settings for the unit step-up transformers and the station step-up transformers.

Attached the design document and specify the name of the attachment here:

---

19. Additional Information

Are there any special features available to be implemented to the wind or inverter-based generating facility? Such as weak grid interconnection solutions, etc.  
Specify the available features here:

---

***Insert the technical manual for each of the features listed above as objects (display as icons) or specify the name of the attachment here:***

---

20. Provide PSCAD Model and Documentation for the wind or inverter-based generating facility, the Power Plant Controller(s) and Other Dynamic Devices for the wind or inverter-based generating facility.

***ISO will determine how much PSCAD work is needed from the wind or inverter-based generating facility based on its interconnection system conditions.***

### **CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM**

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Large Generating Facility in a Cluster Interconnection System Impact Study pursuant to Section 4.2.3.2.2 of this LGIP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:
  - a. Project Name: \_\_\_\_\_
  - b. Queue Position: \_\_\_\_\_
  - c. Is the Interconnection Request contractually associated with an Interconnection Request for an Elective Transmission Upgrade? Yes \_\_\_\_ No \_\_\_\_  
If yes, identify Queue Position of the associated Interconnection Request and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_
2. Initial Cluster Participation Deposit as specified in Section 4.2.3.2.2

#### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_



Attachment B (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

**The technical data required below must be submitted no later than the date of execution of the Feasibility Study Agreement pursuant to Section 6.1 of the LGIP.**

**LARGE GENERATING FACILITY DATA**

**UNIT RATING**

kVA	°F	Phase to Phase Voltage, kV
Rated Power Factor		
Speed (RPM)		Connection (e.g. Wye)
Short Circuit Ratio		Frequency, Hertz
Stator Amperes at Rated, kVA		Field Volts
Max Turbine MW	°F	

**GREATEST UNIT RATING AT AMBIENT TEMPERATURE OF 50°F OR ABOVE**

Gross Unit Rating (MW)	Gross Lagging (MVAR)
Net Unit Rating (MW)	Gross Leading (MVAR)
Station Service (MW)	Station Service (MVAR)
Temperature (°F)	

**DATA (PER UNIT-RATED KVA AND RATED VOLTAGE)**

Saturated Reactance

Direct axis positive sequence	$X''_{dv}$	_____
negative sequence	$X''_{2v}$	_____
zero sequence	$X''_{0v}$	_____

Resistance

Generator AC resistance  $R_a$       \_\_\_\_\_  
negative sequence  $R_2$       \_\_\_\_\_  
zero sequence       $R_0$       \_\_\_\_\_

Time Constant (seconds)

Three-phase short circuit armature time constant  $T_{a3}$       \_\_\_\_\_

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

**GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity	Self-cooled/Maximum Nameplate /      kVA
Voltage Ratio	Generator side/System side/Tertiary /      kV
Winding Connections (Delta or Wye)	Generator side/system side /Tertiary  /
Fixed Taps Available	
Present Tap Setting	

**IMPEDANCE**  
**For 2-Winding Transformers**

Positive	Z1 (on self-cooled kVA rating)	%	X/R
Zero	Z0 (on self-cooled kVA rating)	%	X/R

**IMPEDANCE**  
**For 3-winding transformers**

Positive	Z1 <sub>H-L</sub> (on self-cooled kVA rating)	_____% , X/R _____
	Z1 <sub>H-T</sub> (on self-cooled kVA rating)	_____% , X/R _____
	Z1 <sub>L-T</sub> (on self-cooled kVA rating)	_____% , X/R _____
Zero	Z0 <sub>H-L</sub> (on self-cooled kVA rating)	_____% , X/R _____
	Z0 <sub>H-T</sub> (on self-cooled kVA rating)	_____% , X/R _____
	Z0 <sub>L-T</sub> (on self-cooled kVA rating)	_____% , X/R _____

**FEEDER IMPEDANCE (Per Unit)**  
**From GSU to Point of Interconnection**

Positive	R1 _____ + j X1 _____ on 100 MVA base
Zero	R0 _____ + j X0 _____ on 100 MVA base

## **WIND GENERATORS**

Number of generators to be interconnected pursuant to this Interconnection Request: \_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

List of adjustable setpoints for the protective equipment or software:

For all generator types: A completed fully functioning, public (*i.e.*, non-proprietary, non-confidential) Siemens PTI's ("PSSE") power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow ("PSLF") data sheet, must be supplied with this Attachment B. If additional public data sheets are more appropriate to the proposed device then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Feasibility Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. User-models will not be accepted.

### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment B to the Interconnection Request is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX 2**  
**INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection

Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).

- 2.0 Interconnection Customer elects and System Operator shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of the LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in Attachment B to the Interconnection Request, as may be modified as the result of the Scoping Meeting. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information depending on whether the Feasibility Study consisted of (a) a power flow, including thermal analysis and voltage analysis, and short circuit analysis, or (b) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility’s interconnection given recent study experience and as discussed at the Scoping Meeting:
  - preliminary identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the

limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;

- preliminary identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Large Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;
- preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Large Generating Facility as identified within the scope of the analysis performed as part of the study;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, preliminary description and non-binding estimated cost of and the time to construct the facilities required to interconnect the Large Generating Facility to the New England Transmission System and to address the identified short circuit and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2 of the LGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

In accordance with the LGIP, in performing the Interconnection Feasibility Study, System Operator and Interconnecting Transmission Owner shall

coordinate with each other and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study and the development of this Interconnection Feasibility Study Agreement and its attachment(s). Interconnecting Transmission Owner's and System Operator's good faith estimate for the time of completion of the Interconnection Feasibility Study Agreement is [insert date].

The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_. Any difference between the deposit and the actual cost of the Interconnection Feasibility Study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Interconnection Feasibility Study System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

- 7.0 Miscellaneous.

- 7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.



7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection

Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or an Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or an Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities (“Losses”) by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.

7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a

term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.

- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.

- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:



**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

**APPENDIX 3**  
**INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System;

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study (the “Feasibility Study”) and provided the results of said study to the Interconnection Customer, or Interconnection Customer has requested that the Feasibility Study be completed as part of the System Impact Study pursuant to Section 6.1 of the LGIP, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”)(This recital is to be omitted if Interconnection Customer has elected to forego the Interconnection Feasibility Study); and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility to the Administered Transmission System, and any Affected Systems.



**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedure (“LGIP”).
- 2.0 Interconnection Customer elects and System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of the LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, and the technical information provided by Interconnection Customer in Attachment A to the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection;

- identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection;
- initial review of grounding requirements and electric system protection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- description and non-binding, good faith estimated cost of and the time to construct the facilities required to interconnect the Large Generating Facility to the Administered Transmission System and to address the identified short circuit, instability, and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.4 of the LGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

6.0 The Interconnection Customer is providing a deposit equal to:

- i. the greater of 100 percent of the estimated cost of the Interconnection System Impact Study or \$250,000;  
or
- ii. the lower of 100 percent of the estimated cost of the Interconnection System Impact Study or \$50,000, if the Interconnection Customer is providing herewith either:
  - (a) evidence of applications for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or

(b) evidence acceptable to the System Operator of At-Risk Expenditures (excluding study costs) totaling at least the amounts of money described in (i) above.

or

iii the lower of 100 percent of the estimated costs of the study or \$50,000 if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection System Impact Study and the development of this Interconnection System Impact Study Agreement and its attachment(s) and the LGIA. Interconnecting Transmission Owner's and System Operator's good faith estimate for the times of commencement and completion of the Interconnection System Impact Study is [insert dates].

The total estimated cost of the performance of the Interconnection System Impact Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection System Impact Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study each month.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

In accordance with the LGIP, in performing the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the content of the Interconnection System Impact Study, or the conclusions of the

Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the

enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, an Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the

indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a



third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

Interconnecting Transmission Owner

By:

By:

Title:

Title:

Date:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, subject to any modifications in accordance with Section 4.4 of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

**APPENDIX 4**  
**INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated ; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility to the Administered Transmission System; and

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Administered Transmission System.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Interconnection Facilities Study consistent with Section 8.0 of the LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Large Generating Facility to the Administered Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 The Interconnection Customer is providing a deposit equal to:
  - i. the greater of 25 percent of the estimated cost of the Interconnection Facilities Study or \$250,000;  
or
  - ii. the greater of 100 percent of the estimated monthly cost of the Interconnection Facilities Study Agreement or \$100,000, if the Interconnection Customer can provide either:

- (a) evidence of application for all Major Permits, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, required in support of the Interconnection Request, or provide certification that Major Permits are not required or
- (b) evidence acceptable to the System Operator of At-Risk Expenditures (excluding Interconnection Study costs) totaling at least the amount of the money in (i) above, not including the At-Risk Expenditures demonstrated with the Interconnection System Impact Study Agreement, if applicable.

or

- iii. the greater of 100 percent of one month's estimated study cost or \$100,000, if the Interconnection Request is for a modification to an existing Large Generating Facility that does not increase the energy capability or capacity capability of the Large Generating Facility.

The deposit shall be applied toward the cost of the Interconnection Facilities Study and the development of this Interconnection Facilities Study Agreement and its attachment(s) and the LGIA. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

The total estimated cost of the performance of the Interconnection Facilities Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection Facilities Study, System Operator and

Interconnecting Transmission Owner shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study. System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

In accordance with the LGIP, in performing the Interconnection Facilities Study, Interconnecting Transmission Owner and System Operator shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

6.0 Miscellaneous.

6.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

6.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or

otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 6.3 Force Majeure, Liability and Indemnification.

6.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

6.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its

gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 6.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by



Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 6.4 Third-Party Beneficiaries. Without limiting Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 6.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 6.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.

- 6.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 6.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 6.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 6.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 6.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 6.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 6.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

6.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

Interconnecting Transmission Owner

By:

By:

Title:

Title:

Date:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE  
INTERCONNECTION FACILITIES STUDY**

Interconnection Customer elects (check one):

- ☐ +/- 20 percent cost estimate contained in the Interconnection Facilities Study report.
- ☐ +/- 10 percent cost estimate contained in the Interconnection Facilities Study report.

Interconnecting Transmission Owner and System Operator shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE  
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing New England Transmission System station. Number of generation connections:

On the one line indicate the generation capacity attached at each metering location. (Maximum load on Current Transformer/Power Transformer (“CT/PT”))

On the one line indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes \_\_\_\_\_ No \_\_\_\_\_

(Please indicate on one line).

What type of control system or Power Line Carrier (“PLC”) will be located at the Interconnection Customer’s Large Generating Facility?

What protocol does the control system or PLC use?

Attachment B (page 2)  
Appendix 4  
Interconnection Facilities  
Study Agreement

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Interconnecting Transmission Owner's transmission line.

Tower number observed in the field. (Painted on tower leg)\*

Number of third party easements required for transmission lines\*:

\* To be completed in coordination with System Operator and Interconnecting Transmission Owner.

Is the Large Generating Facility in Interconnecting Transmission Owner's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_ Local provider:

Please provide proposed schedule dates:

Begin Construction Date:

Generator step-up transformer Date:

Receives back feed power Date

Generation Testing Date:

Commercial Operation Date:

**APPENDIX 5**  
**OPTIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”). Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish an interconnection to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to System Operator an Interconnection Request; and

**WHEREAS**, on or after the date when the Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that the System Operator and Interconnecting Transmission Owner prepare an Optional Interconnection Study.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:



- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Large Generator Interconnection Procedures (“LGIP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Optional Interconnection Study consistent with Section 10.0 of the LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by the Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Interconnecting Transmission Owner’s Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the assumptions specified by the Interconnection Customer in Attachment A.  
In accordance with the LGIP, in performing the Optional Interconnection Study, the System Operator shall coordinate with Interconnecting Transmission Owner and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.
- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. Interconnecting Transmission Owner’s and System Operator’s good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].

The total estimated cost of the performance of the Optional Interconnection Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Optional Interconnection Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Optional Interconnection Study. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of invoice.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Optional Interconnection Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Optional Interconnection Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Optional Interconnection Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of

merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Optional Interconnection Study, the content of the Optional Interconnection Study, or the conclusions of the Optional Interconnection Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection

Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owners under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members,

employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Optional Interconnection Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Optional Interconnection Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the LGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located, without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed

severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instances; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

System Operator

By:

Title:

Date:

Interconnecting Transmission Owner

By:

Title:

Date:

[Insert name of Interconnection Customer]

By:

Title:

Date:

Attachment A

Appendix 5

Optional Interconnection

Study Agreement

**ASSUMPTIONS USED IN CONDUCTING  
THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by Interconnection Customer consistent with Section 10 of the LGIP.]



**APPENDIX 6**  
**LARGE GENERATOR INTERCONNECTION**  
**AGREEMENT**

**TABLE OF CONTENTS**

Article 1	Definitions
Article 2	Effective Date, Term and Termination
Article 3	Regulatory Filings
Article 4	Scope of Service
Article 5	Interconnection Facilities Engineering, Procurement, and Construction
Article 6	Testing and Inspection
Article 7	Metering
Article 8	Communications
Article 9	Operations
Article 10	Maintenance
Article 11	Performance Obligation
Article 12	Invoice
Article 13	Emergencies
Article 14	Regulatory Requirements and Governing Law
Article 15	Notices
Article 16	Force Majeure
Article 17	Default
Article 18	Indemnity, Consequential Damages and Insurance
Article 19	Assignment
Article 20	Severability
Article 21	Comparability
Article 22	Confidentiality
Article 23	Environmental Releases
Article 24	Information Requirements
Article 25	Information Access and Audit Rights

Article 26	Subcontractors
Article 27	Disputes
Article 28	Representations, Warranties and Covenants
Article 29	Omitted
Article 30	Miscellaneous

## **THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT**

("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with a Large Generating Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnecting Transmission Owner"). Under this Agreement, the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, System Operator is the central dispatching agency provided for under the Transmission Operating Agreement ("TOA") which has responsibility for the operation of the New England Control Area from the System Operator control center and the administration of the Tariff; and

**WHEREAS**, Interconnecting Transmission Owner is the owner or possessor of an interest in the Administered Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and

**WHEREAS**, System Operator, Interconnection Customer and Interconnecting Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

## **ARTICLE 1. DEFINITIONS**

The definitions contained in this Article 1 and those definitions embedded in an Article of this Agreement are intended to apply in the context of the generator interconnection process provided for in Schedule 22 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of generator interconnections under Schedule 22. Capitalized terms in Schedule 22 that are not defined in this Article 1 shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**At-Risk Expenditure** shall mean money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** shall have the meaning specified in Section 2.3 of the Large Generator Interconnection Procedures (“LGIP”).

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability data bases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** shall mean that portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** shall mean: (i) in the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 5.2.3

of this LGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 5.2.3, net of any megawatt amount reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Large Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the

Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.



Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or

damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Engineering & Procurement ("E&P") Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.*

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such

term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** shall mean a Transmission Owner that owns, leases or otherwise possesses an interest in, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing, a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Large Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Generating Facility with the Administered Transmission System under the Standard Large Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** (a) shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of an existing Generating Facility; (iv) make a Material Modification to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System; (v) commence participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying

Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** shall mean the service provided by System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Standard Large Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the

deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**IRS** shall mean the Internal Revenue Service.

**Large Generating Facility** shall mean a Generating Facility having a maximum gross capability at or above zero degrees F of more than 20 MW.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff..

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2.2(a) of the Tariff.

**Material Modification** shall mean (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in Appendix 1, Attachment A (and Attachment A-1, if applicable) to the Interconnection Request or to the interconnection configuration, requested by the Interconnection

Customer that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Initial Synchronization Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; or (iv) except as provided in Section 3.2.3.4 of the LGIP, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6 of the LGIP, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource ("NR")** shall mean the portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.



**Network Resource Capability (“NR Capability”)** shall mean the maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 5.2.4 of this LGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 5.2.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Large Generating Facility to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a "higher-queued" Interconnection Request shall mean one that has been received by the System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as "lower-queued."

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably

expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for which new interconnection is sought; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for which new interconnection is sought; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for which new interconnection is sought; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for which new interconnection is sought; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in this Schedule 22 to the Tariff.

**Standard Large Generator Interconnection Procedures (“LGIP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in this Schedule 22 to the Tariff.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this LGIP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This LGIA shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner shall promptly and jointly file this LGIA with the Commission upon execution in accordance with Section 11.3 of the LGIP and Article 3.1, if required.

**2.2 Term of Agreement.** This LGIA, subject to the provisions of Article 2.3, and by mutual agreement of the Parties, shall remain in effect for a period of \_\_\_\_\_ years from the Effective Date (*term to be specified in individual Agreement, but in no case should the term be less than ten (10) years from the Effective Date or such other longer period as the Interconnection Customer may request*) and shall be automatically renewed for each successive one-year period thereafter.

**2.3 Termination Procedures.**

**2.3.1 Written Notice.** This LGIA may be terminated by the Interconnection Customer, subject to continuing obligations of this LGIA and the Tariff, after giving the System Operator and Interconnecting Transmission Owner ninety (90) Calendar Days advance written notice, or by System Operator or Interconnecting Transmission Owner notifying the

Commission after a Generating Facility retires pursuant to the Tariff, provided that if an Interconnection Customer exercises its right to terminate on ninety (90) Calendar Days, any reconnection would be treated as a new interconnection request; or this LGIA may be terminated by Interconnecting Transmission Owner or System Operator by notifying the Commission after the Generating Facility permanently ceases Commercial Operation.

**2.3.2 Default.** Each Party may terminate this LGIA in accordance with Article 17.

Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing, if applicable, with the Commission of a notice of termination of this LGIA, which notice has been accepted for filing by the Commission. Termination of the LGIA shall not supersede or alter any requirements for deactivation or retirement of a generating unit under ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**2.4 Termination Costs.** If a Party elects to terminate this LGIA pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party(ies), as of the date of such Party's(ies') receipt of such notice of termination, that are the responsibility of such Party(ies) under this LGIA. In the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by the Commission:

**2.4.1** With respect to any portion of the Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades to the extent covered by this LGIA, that have not yet been constructed or installed, the Interconnecting Transmission Owner shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment

obligations with respect to such materials, equipment, and contracts, and the Interconnecting Transmission Owner shall deliver such material and equipment, and, if necessary, and to the extent possible, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Interconnecting Transmission Owner for any or all such costs of materials or equipment not taken by Interconnection Customer, either (i) in the case of overpayment, Interconnecting Transmission Owner shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by the Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts, or (ii) in the case of underpayment, Interconnection Customer shall promptly pay such amounts still due plus any costs, including penalties incurred by Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which the Interconnecting Transmission Owner has incurred expenses and has not been reimbursed by the Interconnection Customer.

- 2.4.2 Interconnecting Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Interconnecting Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

- 2.5 Disconnection.** Upon termination of this LGIA, Interconnection Service shall terminate and, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from a non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.
- 2.6 Survival.** This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party(ies) pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS**

- 3.1 Filing.** The System Operator and Interconnecting Transmission Owner shall jointly file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required, in accordance with Section 11.3 of the LGIP. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this LGIA, or any amendment thereto, the Interconnection Customer shall reasonably cooperate with the System Operator and Interconnecting Transmission Owner with respect to such filing and to provide any information reasonably requested by the System Operator and/or the Interconnecting Transmission Owner needed to comply with applicable regulatory requirements.

### **ARTICLE 4. SCOPE OF SERVICE**

**4.1 Interconnection Product Options.** Interconnection Customer has selected the following (checked) type(s) of Interconnection Service:

Check: ☐ NR for NR Interconnection Service (NR Capability Only)

☐ CNR for CNR Interconnection Service (CNR Capability and NR Capability)

**4.1.1 Capacity Network Resource Interconnection Service (CNR Interconnection Service).**

**4.1.1.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which all other Capacity Network Resources are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Large Generating Facility to be designated as a Capacity Network Resource, to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNR Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as all other existing Capacity Network Resources, and to be studied as a Capacity Network Resource on the assumption that such a designation will occur.

**4.1.2 Network Resource Interconnection Service (NR Interconnection Service).**

**4.1.2.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Large Generating Facility in a manner comparable to that in which all other Network Resources are interconnected under the NC Interconnection Standard.



NR Interconnection Service allows the Interconnection Customer's Large Generating Facility to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of a Large Generating Facility that has been designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, unless pursuant to a new Interconnection Request for CNR Interconnection Service.

- 4.2 Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the LGIA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.
- 4.4 No Transmission Delivery Service.** The execution of this LGIA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.
- 4.5 Transmission Delivery Service Implications.** CNR Interconnection Service and NR Interconnection Service allow the Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on the New England

Transmission System as a Capacity Network Resource or Network Resource, up to the net CNR Capability or NR Capability, respectively, on the same basis as all other existing Capacity Network Resources and Network Resources interconnected to the New England Transmission System, and to be studied as a Capacity Network Resource or a Network Resource on the assumption that such a designation will occur. Although CNR Interconnection Service and NR Interconnection Service do not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Large Generating Facility in the same manner as it accesses Capacity Network Resources and Network Resources. A Large Generating Facility receiving CNR Interconnection Service or NR Interconnection Service may also be used to provide Ancillary Services, in accordance with the Tariff and Market Rule 1, after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Capacity Network Resource or Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Capacity Network Resource or as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all Generating Facilities that are similarly situated.

CNR Interconnection Service and NR Interconnection Service do not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures for the New England Transmission System in the same manner as other Capacity Network Resources or Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that the Interconnection Customer's Large Generating Facility be designated as a Capacity Network Resource or as a Network Resource by a Network Service Customer under the Tariff or that the Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as either a Capacity Network Resource or a Network Resource, it must do so pursuant to the Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining CNR Interconnection Service or NR Interconnection Service, as long as the Large Generating Facility has not been deemed to be retired, any future transmission service request for delivery from the Large Generating Facility on the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Capacity Network Resource or Network Resource, and regardless of changes in ownership of the Large Generating Facility. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the Large Generating Facility outside the New England Transmission System, or if the unit has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

**4.6 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.4. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING,  
PROCUREMENT, AND CONSTRUCTION**

**5.1 Options.** Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall specify the In-Service Date, Initial Synchronization Date, and Commercial Operation Date as specified in the Interconnection Request or as subsequently revised pursuant to Section 4.4 of the LGIP; and select either Standard Option or Alternate Option set forth below for completion of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as set forth in Appendix A, and such dates and selected option shall be set forth in Appendix B (Milestones). In accordance with Section 8 of the LGIP and unless otherwise mutually agreed, the Alternate Option is not an available option if the Interconnection Customer waived the Interconnection Facilities Study.

**5.1.1 Standard Option.** The Interconnecting Transmission Owner shall design, procure, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B (Milestones). The Interconnecting Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Interconnecting Transmission Owner reasonably expects that it will not be able to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the specified dates, the Interconnecting Transmission Owner shall promptly provide written notice to the Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by Interconnection Customer are acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume

responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities by the designated dates.

If Interconnecting Transmission Owner subsequently fails to complete Interconnecting Transmission Owner's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B (Milestones); Interconnecting Transmission Owner shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable System Operator refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by Interconnection Customer are not acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. The System Operator, Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to the LGIA. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If the Interconnection Customer elects not to exercise its option under Article 5.1.3 (Option to Build), Interconnection Customer shall so notify Interconnecting Transmission Owner within thirty (30) Calendar Days, and the Parties

shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection Customer) pursuant to which Interconnecting Transmission Owner is responsible for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Interconnecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades pursuant to 5.1.1 (Standard Option).

**5.2 General Conditions Applicable to Option to Build.** If Interconnection Customer assumes responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades,

(1) the Interconnection Customer shall engineer, procure equipment, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Interconnecting Transmission Owner;

(2) Interconnection Customer's engineering, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Interconnecting Transmission Owner would be subject in the engineering, procurement or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(3) Interconnecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

- (4) prior to commencement of construction, Interconnection Customer shall provide to Interconnecting Transmission Owner a schedule for construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Interconnecting Transmission Owner;
- (5) at any time during construction, Interconnecting Transmission Owner shall have the right to gain unrestricted access to the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
- (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Interconnecting Transmission Owner, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) the Interconnection Customer shall indemnify the Interconnecting Transmission Owner for claims arising from the Interconnection Customer's construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 (Indemnity);
- (8) the Interconnection Customer shall transfer control of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the Interconnecting Transmission Owner;
- (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Interconnecting Transmission Owner;
- (10) Interconnecting Transmission Owner shall approve and accept for operation and maintenance the Interconnecting Transmission Owner's Interconnection Facilities and Stand

Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Interconnecting Transmission Owner “as built” drawings, information, and any other documents that are reasonably required by Interconnecting Transmission Owner to assure that the Interconnection Facilities and Stand Alone Network Upgrades are built to the standards and specifications required by Interconnecting Transmission Owner.

**5.3 Liquidated Damages.** The actual damages to the Interconnection Customer, in the event the Interconnecting Transmission Owner’s Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Interconnecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer’s fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Interconnecting Transmission Owner to the Interconnection Customer in the event that Interconnecting Transmission Owner does not complete any portion of the Interconnecting Transmission Owner’s Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades, in the aggregate, for which Interconnecting Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades for which the Interconnecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Interconnecting Transmission Owner to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure



performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Interconnecting Transmission Owner's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless the Interconnection Customer would have been able to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Interconnecting Transmission Owner's delay; (2) the Interconnecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with the Interconnecting Transmission Owner or any cause beyond Interconnecting Transmission Owner's reasonable control or reasonable ability to cure, including, but not limited to, actions by the System Operator that cause delays and/or delays in licensing, permitting or consents where the Interconnecting Transmission Owner has pursued such licenses, permits or consents in good faith; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

**5.4 Power System Stabilizers.** If a Power System Stabilizer is required to be installed on the Large Generating Facility for the purpose of maintaining system stability, the Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the System Operator and Interconnecting Transmission Owner, and consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator and Interconnecting Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service

or not capable of automatic operation, the Interconnection Customer shall immediately notify the System Operator and Interconnecting Transmission Owner, or their designated representative. The requirements of this paragraph shall not apply to non-synchronous power production equipment.

**5.5 Equipment Procurement.** If responsibility for construction of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades is to be borne by the Interconnecting Transmission Owner, then the Interconnecting Transmission Owner shall commence design of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** The Interconnecting Transmission Owner has completed the Facilities Study pursuant to the Facilities Study Agreement;

**5.5.2** The Interconnecting Transmission Owner has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.5.3** The Interconnection Customer has provided security to the Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.6 Construction Commencement.** The Interconnecting Transmission Owner shall commence construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades;
- 5.6.3** The Interconnecting Transmission Owner has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B (Milestones); and
- 5.6.4** The Interconnection Customer has provided security to Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).
- 5.7 Work Progress.** The Interconnection Customer and the Interconnecting Transmission Owner shall keep each Party informed, by written quarterly progress reports, as to the progress of their respective design, procurement and construction efforts in order to meet the dates specified in Appendix B (Milestones). Any Party may also, at any other time, request a written progress report from the other Parties. If, at any time, the Interconnection Customer determines that the completion of the Interconnecting Transmission Owner's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer, upon the System Operator's approval that the change in the In-Service Date will not constitute a Material Modification pursuant to Section 4.4 of the LGIP, will provide written notice to the Interconnecting Transmission Owner of such later date upon which the completion of the Interconnecting Transmission Owner's Interconnection Facilities will be required.
- 5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with the New England Transmission System, and shall work diligently and in good faith to make any necessary design changes.
- 5.9 Limited Operation.** If any of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the

Commercial Operation Date of the Large Generating Facility, System Operator and the Interconnecting Transmission Owner shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. System Operator and Interconnecting Transmission Owner shall permit Interconnection Customer to operate the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Interconnection Customer's Interconnection Facilities ("ICIF").** Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.10.1 Large Generating Facility Specifications.** Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Interconnecting Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Interconnecting Transmission Owner shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Interconnecting Transmission Owner's Review.** Interconnecting Transmission Owner's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by

Interconnecting Transmission Owner, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner.

**5.10.3 ICIF Construction.** The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Interconnecting Transmission Owner “as-built” drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer’s step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facilities. The Interconnection Customer shall provide Interconnecting Transmission Owner specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.11 Interconnecting Transmission Owner’s Interconnection Facilities Construction.** The Interconnecting Transmission Owner’s Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnecting Transmission Owner shall deliver to the Interconnection Customer the following “as-built” drawings, information and documents for the Interconnecting Transmission Owner’s Interconnection Facilities. The appropriate drawings and relay diagrams shall be included in Appendix A of this LGIA.

The System Operator will obtain operational control of the Interconnecting Transmission Owner’s Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities pursuant to the TOA.

**5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party (“Granting Party”) shall furnish at the incremental cost to another Party (“Access Party”) any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents if allowed under the applicable agency agreement, that are necessary to enable the Access Party solely to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Administered Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the New England Transmission System; and (iii) disconnect or remove the Access Party’s facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party’s business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

**5.13 Lands of Other Property Owners.** If any part of the Interconnecting Transmission Owner’s Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall at Interconnection Customer’s expense use Reasonable Efforts, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Interconnecting Transmission Owner’s Interconnection Facilities and/or Network Upgrades upon such property. Notwithstanding the foregoing, the Interconnecting Transmission Owner shall not be obligated to exercise eminent domain authority in a manner inconsistent with Applicable Laws and Regulations or when an Interconnection Customer is authorized under Applicable Laws and Regulations to exercise eminent domain on its own behalf.

**5.14 Permits.** System Operator, Interconnecting Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations

that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Interconnecting Transmission Owner shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Interconnecting Transmission Owner's own, or an Affiliate's generation.

**5.15 Early Construction of Base Case Facilities.** Interconnection Customer may request Interconnecting Transmission Owner to construct, and Interconnecting Transmission Owner shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Administered Transmission System, which are included in the Base Case of the Facilities Study for the Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date. The Interconnection Customer shall reimburse the Interconnecting Transmission Owner for all costs incurred related to early construction to the extent such costs are not recovered from other Interconnection Customers included in the base case.

**5.16 Suspension.** Interconnection Customer reserves the right, upon written notice to Interconnecting Transmission Owner and System Operator, to suspend at any time all work by Interconnecting Transmission Owner associated with the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that the New England Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the System Operator's and Interconnecting Transmission Owner's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Interconnecting Transmission Owner (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New England Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Interconnecting Transmission Owner cannot reasonably avoid; provided, however, that

prior to canceling or suspending any such material, equipment or labor contract, Interconnecting Transmission Owner shall obtain Interconnection Customer's authorization to do so.

Interconnecting Transmission Owner shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Interconnecting Transmission Owner required under this LGIA pursuant to this Article 5.16, and has not requested Interconnecting Transmission Owner to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Interconnecting Transmission Owner and System Operator, if no effective date is specified. A suspension under this Article 5.16 does not automatically permit an extension of the In-Service Date, the Initial Synchronization Date or the Commercial Operation Date. A request for extension of such dates is subject to Section 4.4.5 of the LGIP. Notwithstanding the extensions permitted under Section 4.4.5 of the LGIP, the three-year period shall in no way result in an extension of the In-Service Date, the Initial Synchronization Date or the Commercial Operation Date that exceeds seven (7) years from the date of the Interconnection Request; otherwise, this LGIA shall be deemed terminated.

## **5.17 Taxes.**

**5.17.1 Payments Not Taxable.** The Parties intend that all payments or property transfers made by any Party for the installation of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior



to the transmission of the electricity on the New England Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Interconnecting Transmission Owner for the Interconnecting Transmission Owner's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Interconnecting Transmission Owner's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Interconnecting Transmission Owner's request, Interconnection Customer shall provide Interconnecting Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Interconnecting Transmission Owner represents and covenants that the cost of the Interconnecting Transmission Owner's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon Interconnecting Transmission Owner.** Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Interconnecting Transmission Owner from the cost consequences of any current tax liability imposed against Interconnecting Transmission Owner as the result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this LGIA, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Interconnecting Transmission Owner.

The Interconnecting Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Interconnecting Transmission Owner has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Interconnecting Transmission Owner to report payments or property as income subject to taxation; provided, however, that Interconnecting Transmission Owner may require Interconnection Customer to provide security, in a form reasonably acceptable to Interconnecting Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Interconnecting Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Interconnecting Transmission Owner of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period, and the applicable statute of limitation, as it may be extended by the Interconnecting Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Interconnecting Transmission Owner, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Interconnecting Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by Interconnecting Transmission Owner as a result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this LGIA (without regard to any payments

under this Article 5.17) (the “Gross Income Amount”) over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the “Present Value Depreciation Amount”), plus (2) an additional amount sufficient to permit the Interconnecting Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1). For this purpose, (i) Current Taxes shall be computed based on Interconnecting Transmission Owner composite federal and state tax rates at the time the payments or property transfers are received and Interconnecting Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the “Current Tax Rate”), and (ii) the Present Value Depreciation Amount shall be computed by discounting Interconnecting Transmission Owner’s anticipated tax depreciation deductions as a result of such payments or property transfers by Interconnecting Transmission Owner current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer’s liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer’s estimated tax liability in the event taxes are imposed shall be stated in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer’s request and expense, Interconnecting Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Interconnecting Transmission Owner under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer’s knowledge. Interconnecting Transmission Owner and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Interconnecting Transmission Owner shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Interconnecting Transmission Owner shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within ten (10) years from the date on which the relevant Interconnecting Transmission Owner's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenant contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Interconnecting Transmission Owner retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Interconnecting Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Interconnecting Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Interconnecting Transmission Owner shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Interconnecting Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Interconnecting Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Interconnecting Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other

contest, including the selection of counsel and compromise or settlement of the claim, but Interconnecting Transmission Owner shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Interconnecting Transmission Owner may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Interconnecting Transmission Owner, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Interconnecting Transmission Owner for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Interconnecting Transmission Owner which holds that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Interconnecting Transmission Owner in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this LGIA is not taxable to

Interconnecting Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Interconnecting Transmission Owner are not subject to federal income tax, or (d) if Interconnecting Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Interconnecting Transmission Owner pursuant to this LGIA, Interconnecting Transmission Owner shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amounts paid by Interconnection Customer to Interconnecting Transmission Owner for such taxes which Interconnecting Transmission Owner did not submit to the taxing authority, interest calculated in accordance with the methodology set forth in the Commission's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Interconnecting Transmission Owner refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Interconnecting Transmission Owner, any refund or credit Interconnecting Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Interconnecting Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Interconnecting Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Interconnecting Transmission Owner will remit such amount promptly to Interconnection Customer only after and to the extent that Interconnecting Transmission Owner has received a tax refund, credit or

offset from any Governmental Authority for any applicable overpayment of income tax related to the Interconnecting Transmission Owner's Interconnection Facilities.

The intent of this provision is to leave Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Interconnecting Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Interconnecting Transmission Owner for which Interconnection Customer may be required to reimburse Interconnecting Transmission Owner under the terms of this LGIA. Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, Interconnecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Interconnecting Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Interconnecting Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Interconnecting Transmission Owner.

**5.18 Tax Status.** Each Party shall cooperate with the others to maintain the other Party's(ies') tax status. Nothing in this LGIA is intended to adversely affect any Interconnecting Transmission

Owner's tax-exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

## **5.19 Modification.**

**5.19.1 General.** Either Interconnection Customer or Interconnecting Transmission Owner may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, the facilities of any Affected Parties, or the New England Transmission System, that Party shall provide to the other Parties and any Affected Party: (i) sufficient information regarding such modification so that the other Party(ies) may evaluate the potential impact of such modification prior to commencement of the work; and (ii) such information as may be required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party(ies) at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed. Notwithstanding the foregoing, no Party shall be obligated to proceed with a modification that would constitute a Material Modification and therefore require an Interconnection Request under the LGIP, except as provided under and pursuant to the LGIP.

In the case of Large Generating Facility or Interconnection Customer's Interconnection Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Interconnecting Transmission Owner shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades necessitated by



such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Interconnecting Transmission Owner makes to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System to facilitate the interconnection of a third party to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System, or to provide transmission service to a third party under the Tariff, except as provided for under the Tariff or any other applicable tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

**6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Interconnecting Transmission Owner shall test Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Interconnection Customer and Interconnecting Transmission Owner shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, as may be necessary to ensure the continued interconnection of the Large Generating Facility to the Administered Transmission System in a safe and reliable manner. The Interconnection Customer and Interconnecting Transmission Owner each shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's(ies') facilities, at the requesting Party's expense, as may be in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator shall also have the right to require reasonable additional testing of the other Party's (ies') facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 6.3 Right to Observe Testing.** Each Party shall notify the System Operator and other Party(ies) in advance of its performance of tests of its Interconnection Facilities. The other Party(ies) has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's(ies') tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's(ies') System Protection Facilities and other protective equipment; and (iii) review the other Party's(ies') maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. Each Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Parties. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be governed by Article 22.

## ARTICLE 7. METERING

- 7.1 General.** Each Party shall comply with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding metering. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment. Unless the System Operator otherwise agrees, the Interconnection Customer shall be responsible for installing and maintaining compatible metering and communications equipment to accurately account for the capacity and energy being transmitted under this Tariff and to communicate the information to the System Operator. Unless otherwise agreed, such equipment shall remain the property of the Interconnecting Transmission Owner.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Interconnecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Interconnecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** Interconnecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards and the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 7.4 Testing of Metering Equipment.** Interconnecting Transmission Owner shall inspect and test all Interconnecting Transmission Owner-owned Metering Equipment upon installation and thereafter as specified in the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be

inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than the values specified within ISO New England Operating Documents, or successor documents, from the measurement made by the standard meter used in the test, the Interconnecting Transmission Owner shall adjust the measurements, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 7.5 Metering Data.** At Interconnection Customer's expense, metered data shall be telemetered to one or more locations designated by System Operator and Interconnecting Transmission Owner. The hourly integrated metering, established in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, used to transmit Megawatt hour ("MWh") per hour data by electronic means and the Watt-hour meters equipped with kilowatt-hour ("kwh") or MWh registers to be read at month's end shall be the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection. Instantaneous metering is required for all Generators in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 8. COMMUNICATIONS**

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with the System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer or Interconnecting Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by System Operator and Interconnecting Transmission Owner through use of a dedicated point-to-point data circuit(s). The

communication protocol for the data circuit(s) shall be specified by System Operator and Interconnecting Transmission Owner. All information required by the ISO New England Operating Documents, or successor documents, must be telemetered directly to the location(s) specified by System Operator and Interconnecting Transmission Owner.

Each Party will promptly advise the other Party(ies) if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party(ies). The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

**8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

**8.4 Provision of Data from an Intermittent Power Resource.** The Interconnection Customer whose Generating Facility is an Intermittent Power Resource shall provide meteorological and forced outage data to the System Operator to the extent necessary for the System Operator's development and deployment of power production forecasts for that class of Intermittent Power Resources. The Interconnection Customer with an Intermittent Power Resource having wind as the energy source, at a minimum, will be required to provide the System Operator with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with an Intermittent Power Resource having solar as the energy source, at a minimum, will be required to provide the System Operator with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The System Operator and Interconnection Customer whose Generating Facility is an Intermittent Power Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power product forecast. The Interconnection Customer whose Generating Facility is an Intermittent Power Resource also shall submit data to the System Operator regarding all forced outages to the extent necessary for the System Operator's development and deployment of power production forecasts for that class of Intermittent Power Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the System Operator, including the frequency and timing of

data submittals, shall be made taking into account the size and configuration of the Intermittent Power Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the System Operator. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

## **ARTICLE 9. OPERATIONS**

- 9.1 General.** Each Party shall comply with applicable provisions of ISO New England Operating Documents, Reliability Standards, or successor documents, regarding operations. Each Party shall provide to the other Party(ies) all information that may reasonably be required by the other Party(ies) to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Control Area Notification.** Before Initial Synchronization Date, the Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner in writing in accordance with ISO New England Operating Documents, Reliability Standards, or successor documents. If the Interconnection Customer elects to have the Large Generating Facility dispatched and operated from a remote Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs and ISO New England Operating Documents, Reliability Standards, or successor documents, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area for dispatch and operations.
- 9.3 Interconnecting Transmission Owner and System Operator Obligations.** Interconnecting Transmission Owner and System Operator shall cause the Interconnecting Transmission Owner's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner

and in accordance with this LGIA and ISO New England Operating Documents, Reliability Standards, or successor documents. Interconnecting Transmission Owner or System Operator may provide operating instructions to Interconnection Customer consistent with this LGIA, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Interconnecting Transmission Owner's and System Operator's operating protocols and procedures as they may change from time to time. Interconnecting Transmission Owner and System Operator will consider changes to their operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA and ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.5 Start-Up and Synchronization.** The Interconnection Customer is responsible for the proper start-up and synchronization of the Large Generating Facility to the New England Transmission System in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6 Reactive Power.**

**9.6.1 Power Factor Design Criteria.**

**9.6.1.1 Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility and all generating units comprising the Large Generating Facility, as applicable, to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, unless the System Operator or Interconnecting Transmission Owner has established different requirements that apply to all synchronous (and non-wind non-

synchronous generators as specified in Appendix G, Section A.ii.4 to the LGIA) generators in the Control Area on a comparable basis and in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.1.2 Non-Synchronous Generation.** The power factor design criteria requirements applicable to non-synchronous Generating Facilities shall be as specified in in Appendix G to the LGIA. The Low Voltage Ride-Through Capability requirements applicable to wind and inverter-based Generating Facilities shall be as specified in Appendix G to the LGIA.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has synchronized the Large Generating Facility to the New England Transmission System, Interconnection Customer shall operate the Large Generating Facility at the direction of System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding voltage schedules in accordance with such requirements.

**9.6.2.1 Voltage Regulators.** The Interconnection Customer must keep and maintain a voltage regulator on all generating units comprising a Large Generating Facility in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. All Interconnection Customers that have, or are required to have, automatic voltage regulation shall normally operate the Large Generating Facility with its voltage regulators in automatic operation.

It is the responsibility of the Interconnection Customer to maintain the voltage regulator in good operating condition and promptly report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.



**9.6.2.2 Governor Control.** The Interconnection Customer is obligated to provide and maintain a functioning governor on all generating units comprising the Large Generating Facility in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.2.3 System Protection.** The Interconnection Customer shall install and maintain protection systems in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.3 Payment for Reactive Power.**

Interconnection Customers shall be compensated for Reactive Power service in accordance with Schedule 2 of the Section II of the Tariff.

**9.7 Outages and Interruptions.**

**9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's(ies') facilities as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.1.2 Outage Schedules.** Outage scheduling, and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.2 Interruption of Service.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

**9.7.3 Under-Frequency and Over Frequency Conditions.** Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with System Operator and Interconnecting Transmission Owner in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall install at Interconnection Customer's expense, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, any System Protection Facilities that may be required on

the Interconnecting Transmission Owner Interconnection Facilities or the New England Transmission System as a result of the interconnection of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities.

**9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.4** Each Party's protective relay design shall allow for tests required in Article 6.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.5 Requirements for Protection.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the New England Transmission System not otherwise isolated by Interconnecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New England Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the New England Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer

shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the New England Transmission System could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.** A Party's facilities shall not cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Party(ies) with a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Administered Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Interconnecting Transmission Owner's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon

the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to the Commission for resolution.

- 9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or the New England Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 10. MAINTENANCE**

- 10.1 Interconnecting Transmission Owner and Customer Obligations.** Interconnecting Transmission Owner and Interconnection Customer shall each maintain that portion of its respective facilities that are part of the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 10.2 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and

such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Interconnecting Transmission Owner's Interconnection Facilities, Stand Alone Network Upgrades, Network Upgrades and Distribution Upgrades.

## **ARTICLE 11. PERFORMANCE OBLIGATION**

- 11.1 Interconnection Customer's Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at its sole expense.
- 11.2 Interconnecting Transmission Owner's Interconnection Facilities.** Interconnecting Transmission Owner shall design, procure, construct, install, own and/or control the Interconnecting Transmission Owner's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades, and to the extent provided by Article 5.1, Stand Alone Network Upgrades, and Distribution Upgrades described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades). The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer.
- 11.4 Cost Allocation; Compensation; Rights; Affected Systems**
- 11.4.1 Cost Allocation.** Cost allocation of Generator Interconnection Related Upgrades shall be in accordance with Schedule 11 of Section II of the Tariff.

**11.4.2 Compensation.** Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its Generator Interconnection Related Upgrade shall be determined in accordance with Sections II and III of the Tariff.

**11.4.3 Rights.** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

**11.4.4 Special Provisions for Affected Systems.** The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Generating Facility.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of an Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Interconnecting Transmission Owner in accordance with Section 7 of Schedule 11 of the Tariff. In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.** If System Operator or Interconnecting Transmission Owner requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.4.1 of this LGIA, Interconnection Customer shall be compensated pursuant to the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.** Interconnection Customer shall be compensated for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the New England Transmission System during an Emergency Condition in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 12. INVOICE**

**12.1 General.** Each Party shall submit to the other Party(ies), on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party(ies) under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within six months after completion of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, Interconnecting Transmission Owner shall provide an invoice of the final cost of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades and



shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates.

Interconnecting Transmission Owner shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice. Interconnection Customer shall pay to Interconnecting Transmission Owner any amount by which the actual payment by Interconnection Customer for estimated costs falls short of the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by any Party will not constitute a waiver of any rights or claims the other Party(ies) may have under this LGIA.

**12.4 Disputes.** In the event of a billing dispute between Interconnecting Transmission Owner and Interconnection Customer, Interconnecting Transmission Owner shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Interconnecting Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Interconnecting Transmission Owner may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in the Commission's Regulations at 18 CFR § 35.19a(a)(2)(iii).

## **ARTICLE 13. EMERGENCIES**

**13.1 Obligations.** Each Party shall comply with the Emergency Condition procedures of the System Operator in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**13.2 Notice.** Interconnecting Transmission Owner or System Operator as applicable shall notify Interconnection Customer and System Operator or Interconnecting Transmission Owner as applicable, promptly when it becomes aware of an Emergency Condition that affects the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Interconnecting Transmission Owner and System Operator promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Interconnecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

**13.3 Immediate Action.** Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Interconnecting Transmission Owner and System Operator, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by the Interconnecting Transmission Owner or the System Operator or otherwise regarding the New England Transmission System.

**13.4 System Operator's and Interconnecting Transmission Owner's Authority.**

**13.4.1 General.** System Operator or Interconnecting Transmission Owner may take whatever actions or inactions with regard to the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the New England Transmission System or Interconnecting Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. System Operator and Interconnecting Transmission Owner may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of System Operator's and Interconnecting Transmission Owner's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.4.2 Reduction and Disconnection.** System Operator and Interconnecting Transmission Owner may reduce Interconnection Service or disconnect the Large Generating Facility or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. These rights are

separate and distinct from any right of curtailment of the System Operator and Interconnecting Transmission Owner pursuant to the Tariff. When the System Operator and Interconnecting Transmission Owner can schedule the reduction or disconnection in advance, System Operator and Interconnecting Transmission Owner shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. System Operator and Interconnecting Transmission Owner shall coordinate with the Interconnection Customer in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the System Operator and Interconnecting Transmission Owner. Any reduction or disconnection shall continue only for so long as reasonably necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the New England Transmission System to their normal operating state as soon as practicable in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**13.5 Interconnection Customer Authority.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents and the LGIA and the LGIP, the Interconnection Customer may take whatever actions or inactions with regard to the Large Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.

- 13.6 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this LGIA, a Party shall not be liable to another Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

- 14.1 Regulatory Requirements.** Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended. To the extent that a condition arises that could result in Interconnection Customer's inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, the Parties shall engage in good faith negotiations to address the condition so that such result will not occur and so that this LGIA can be performed.

**14.2 Governing Law.**

- 14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

- 14.2.2** This LGIA is subject to all Applicable Laws and Regulations.

- 14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **ARTICLE 15. NOTICES**

- 15.1 General.** Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by a Party to another Party and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F (Addresses for Delivery of Notices and Billings).  
A Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.
- 15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.
- 15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another Party and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.
- 15.4 Operations and Maintenance Notice.** Each Party shall notify the other Party(ies) in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **ARTICLE 16. FORCE MAJEURE**

### **16.1 Force Majeure.**

**16.1.1** Economic hardship is not considered a Force Majeure event.

**16.1.2** A Party shall not be considered to be in Default with respect to any obligation hereunder (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party(ies) in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **ARTICLE 17. DEFAULT**

### **17.1 Default.**

**17.1.1 General.** No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act or omission of the other Party(ies). Upon a Breach, the non-Breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party(ies) shall have the right to terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this LGIA.

## **ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

**18.1 Indemnity.** Each Party shall at all times indemnify, defend, and save the other Party(ies) harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party’s(ies’) action or inactions of their obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by an indemnified Party.

**18.1.1 Indemnified Person.** If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party



contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in

the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in which event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the Liquidated Damages heretofore described, in no event shall a Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** The Interconnecting Transmission Owner and the Interconnection Customer shall, at their own expense, maintain in force throughout the period of this LGIA, and until released by the other Party(ies), the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available

and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death, and property damage.

**18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

**18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

**18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party(ies), its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

**18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only

one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9** Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program, provided that such Party's senior secured debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article, it shall notify the other Party(ies) that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

**18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

## **ARTICLE 19. ASSIGNMENT**

**19.1 Assignment.** This LGIA may be assigned by any Party only with the written consent of the other Parties; provided that the Parties may assign this LGIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that the Interconnection Customer shall have the right to assign this LGIA, without the consent of the Interconnecting Transmission Owner or System Operator, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and System Operator of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the Interconnecting Transmission Owner and System Operator of the date and particulars of any such exercise of assignment right(s), including providing the Interconnecting Transmission Owner with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **ARTICLE 20. SEVERABILITY**

**20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or

covenant of this LGIA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Interconnecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to another prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by a Party, the other Party(ies) shall provide, in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**22.1.1 Term.** During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party(ies) that it no longer is confidential.

**22.1.3 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or are considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under this LGIA or its regulatory requirements.

**22.1.7 Order of Disclosure.** If a court or a Governmental Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.



**22.1.8 Termination of Agreement.** Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party(ies), use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party(ies)) or return to the other Party(ies), without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party(ies).

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Parties shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR. section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this LGIA prior

to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the LGIA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

**22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Parties’ Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **ARTICLE 23. ENVIRONMENTAL RELEASES**

**23.1** Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation

activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **ARTICLE 24. INFORMATION REQUIREMENTS**

**24.1 Information Acquisition.** Subject to any applicable confidentiality restrictions, including, but not limited to, codes of conduct, each Party shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

**24.2 Information Submission by System Operator and Interconnecting Transmission Owner.** The initial information submission by System Operator and Interconnecting Transmission Owner shall occur no later than one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date and shall include information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Parties. On a monthly basis Interconnecting Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

**24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date. Interconnection Customer shall submit a completed copy of the Large Generating Facility data

requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Interconnecting Transmission Owner and System Operator for the Interconnection Feasibility Study, Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Interconnecting Transmission Owner and System Operator standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is different from what was originally provided to Interconnecting Transmission Owner pursuant to the Interconnection Study Agreement between Interconnecting Transmission Owner and Interconnection Customer, then the System Operator will review it and conduct appropriate studies, as needed, at the Interconnection Customer's cost, to determine the impact on the New England Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

**24.4 Information Supplementation.** Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information and "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that

mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to the Interconnecting Transmission Owner for each individual generating unit in a station.

The Interconnection Customer shall provide the Interconnecting Transmission Owner and System Operator with any information changes due to proposed equipment replacement, repair, or adjustment. Interconnecting Transmission Owner shall provide the Interconnection Customer and System Operator with any information changes due to proposed equipment replacement, repair or adjustment in the directly connected substation or any adjacent Interconnecting Transmission Owner-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information in accordance with Article 5.19 of this Agreement.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Parties information that is in the possession of the disclosing Party and is necessary in order for the other Party(ies) to: (i) verify the costs incurred by the disclosing Party for which the other Party(ies) are responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.
- 25.2 Reporting of Non-Force Majeure Events.** Each Party (the "notifying Party") shall notify the other Party(ies) when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing,

notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory Breach of this LGIA.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party(ies), to audit at its own expense the other Party's(ies') accounts and records pertaining to a Party's performance or a Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's(ies') costs, calculation of invoiced amounts, the efforts to allocate responsibility for the provision of reactive support to the New England Transmission System, the efforts to allocate responsibility for interruption or reduction of generation on the New England Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

**25.4 Audit Rights Periods.**

**25.4.1 Audit Rights Period for Construction-Related Accounts and Records.** Accounts and records related to the design, engineering, procurement, and construction of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four (24) months following Interconnecting Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four (24) months after the auditing Party's receipt of an invoice giving rise to such cost obligations;

and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four (24) months after the event for which the audit is sought.

- 25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party(ies) together with those records from the audit which support such determination.

## **ARTICLE 26. SUBCONTRACTORS**

- 26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.
- 26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **ARTICLE 27. DISPUTES**

- 27.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide

the other Party(ies) with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s(ies’) receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

**27.2 External Arbitration Procedures.** Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail

**27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction.



The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel; or (2) a pro rata share of the cost of a single arbitrator chosen by the Parties.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

**28.1.2 Authority.** Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

## **ARTICLE 29. [OMITTED]**

## **ARTICLE 30. MISCELLANEOUS**

**30.1 Binding Effect.** This LGIA and the rights and obligations hereof shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**30.2 Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

**30.3 Rules of Interpretation.** This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any

Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix of this LGIA, or such Section of the LGIP or such Appendix of the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**30.4 Entire Agreement.** Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. Except for the ISO New England Operating Documents, Applicable Reliability Standards, any applicable tariffs, related facilities agreements, or successor documents, there are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this LGIA.

**30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

**30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by a Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this LGIA. Termination or Default of this LGIA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this LGIA shall, if requested, be provided in writing.

**30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

**30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.** Consistent with Section 11.3 of the LGIP, Interconnecting Transmission Owner and System Operator shall have the right to make unilateral filings with the Commission to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this LGIA pursuant

to section 206 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Parties and to participate fully in any proceeding before the Commission in which such modifications may be considered. In the event of disagreement on terms and conditions of the LGIA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to Interconnecting Transmission Owner's position on such terms and conditions. Nothing in this LGIA shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.** This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

**IN WITNESS WHEREOF**, the Parties have executed this LGIA in triplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**ISO New England Inc. (System Operator)**

By:

Title:

Date:

**[Insert Name of] (Interconnecting Transmission Owner)**

By:

Title:

Date:

**[*Insert name of*] (Interconnection Customer)**

By:

Title:

Date:

## **APPENDICES TO LGIA**

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings
Appendix G	Interconnection Requirements for a Wind Generating Plant

## APPENDIX A TO LGIA

### Interconnection Facilities, Network Upgrades and Distribution Upgrades

#### 1. Interconnection Facilities:

- a. **Point of Interconnection and Point of Change of Ownership.** The Point of Interconnection shall be at the point where *[insert description of location]*. See Appendix A-*[insert]*, which drawing is attached hereto and made part hereof.

The Point of Change of Ownership shall be at the point where *[insert description of location]*. See Appendix A – *[insert]*, which drawing is attached hereto and made part hereof.

If not located at the Point of Interconnection, the metering point(s) shall be located at: *[insert location]*.

- b. **Interconnection Customer's Interconnection Facilities (including metering equipment).** The Interconnection Customer shall construct *[insert Interconnection Customer's Interconnection Facilities]*. See Appendix A-*[insert]*.
- c. **Interconnecting Transmission Owner's Interconnection Facilities (including metering equipment).** The Interconnecting Transmission Owner shall construct *[insert Interconnecting Transmission Owner's Interconnection Facilities, including any Cluster Enabling Transmission Upgrades]*. See Appendix –*[insert]*.

#### 2. Network Upgrades:

- a. **Stand Alone Network Upgrades.** *[insert Stand Alone Network Upgrades]*.



- b. **Other Network Upgrades.** *[insert Other Network Upgrades, including any Cluster Enabling Transmission Upgrades].*
- 3. **Distribution Upgrades.** *[insert Distribution Upgrades]*
- 4. **Affected System Upgrades.** *[insert Affected System Upgrades]*
- 5. **Contingency Upgrades List:**

a. **Long Lead Facility-Related Upgrades.** The Interconnection Customer's Large Generating Facility is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the LGIP. Pursuant to Section 4.1 of the LGIP, the Interconnection Customer shall be responsible for the following upgrades in the event that the Long Lead Facility achieves Commercial Operation and obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert list of upgrades]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this LGIA in accordance with Article 17.1, and the System Operator will initiate all necessary steps to terminate this LGIA, in accordance with Article 2.3.

b. **Other Contingency Upgrades.** *[e.g., list of upgrades associated with higher queued Interconnection Requests with LGIAs prior to this LGIA and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Large Generating Facility.]*

6. **Post-Forward Capacity Auction Re-study Upgrade Obligations.** *[insert any change in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation through a Forward Capacity Auction.]*

## APPENDIX B TO LGIA

### Milestones

- 1. Selected Option Pursuant to Article 5.1:** Interconnection Customer selects the *[insert]*. Options as described in Articles 5.1.*[insert]*, 5.1.*[insert]*, and 5.1.*[insert]* shall not apply to this LGIA.
- 2. Milestones and Other Requirements for all Large Generating Facilities:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the LGIP and this LGIA. The referenced section of the LGIP or article of the LGIA should be reviewed by each Party to understand the requirements of each milestone.

Item No.	Milestone Description	Responsible Party	Date	LGIP/LGIA Reference
1	Provide evidence of continued Site Control to System Operator, or \$250,000 non-refundable deposit to Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.1 of LGIP
2	Provide evidence of one or more milestones specified in § 11.3 of LGIP	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.2 of LGIP
3	Commit to a schedule for payment of upgrades	Interconnection Customer	Within 15 BD of final LGIA receipt	§ 11.3.1.2 of LGIP
4	Provide either (1) evidence of Major Permits or (2) refundable deposit to Interconnecting Transmission Owner	Interconnection Customer	If (1) Within 15 BD of final LGIA receipt or if (2) At time of LGIA execution	§ 11.3.1.2 of LGIP
5	Provide certificate of	Interconnection	Within 10	§ 18.3.9 of LGIA

	insurance	Customer and Interconnecting Transmission Owner	Calendar Days of execution of LGIA	
6	Provide siting approval for Generating Facility and Interconnection Facilities to Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of LGIP
7A	Receive Governmental Authority approval for any facilities requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of LGIA
7B	Obtain necessary real property rights and rights-of-way for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.2 of LGIA
7C	Provide to Interconnecting Transmission Owner written authorization to proceed with design, equipment procurement and construction	Interconnection Customer	As may be agreed to by the Parties	§ 5.5.2 and § 5.6.3 of LGIA
7D	Provide quarterly written progress reports	Interconnection Customer and	15 Calendar Days after the end of	§ 5.7 of LGIA

		Interconnecting Transmission Owner	each quarter beginning the quarter that includes the date for Milestone 7C and ending when the entire Large Generating Facility and all required Interconnection Facilities and Network Upgrades are in place	
8	Provision of Security to Interconnecting Transmission Owner pursuant to Section 11.5 of LGIA	Interconnection Customer	At least 30 Calendar Days prior to design, procurement and construction	§§ 5.5.3 and 5.6.4 of LGIA
9	Provision of Security Associated with Tax Liability to Interconnecting Transmission Owner pursuant to Section 5.17.3 of LGIA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of LGIA
10	Commit to the ordering of long lead time material for Interconnection Facilities and Network Upgrades	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of LGIP
11A	Provide initial design,	Interconnection	180 Calendar Days	§ 5.10.1 of LGIA

	engineering and specification for Interconnection Customer's Interconnection Facilities to Interconnecting Transmission Owner	Customer	prior to Initial Synchronization Date	§ 7.5 of LGIP
11B	Provide comments on initial design, engineering and specification for Interconnection Customer's Interconnection Facilities	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of LGIA § 7.5 of LGIP
12A	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities to Interconnecting Transmission Owner	Interconnection Customer	90 Calendar Days prior to Initial Synchronization Date	§ 5.10.1 of LGIA § 7.5 of LGIP
12B	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of LGIA § 7.5 of LGIP
13	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of LGIA
14	Provide protective relay settings to Interconnecting Transmission Owner for	Interconnection Customer	At least 90 Calendar Days prior to Initial	§§ 5.10.1 of LGIA

	coordination and verification		Synchronization Date	
15	Commencement of construction of Interconnection Facilities	Interconnecting Transmission Owner	As may be agreed to by the Parties	§ 5.6 of LGIA
16	Submit updated data “as purchased”	Interconnection Customer	No later than 180 Calendar Days prior to Initial Synchronization Date	§ 24.3 of LGIA
17	In Service Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of LGIP, § 5.1 of LGIA
18	Initial Synchronization Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of LGIP
19	Submit supplemental and/or updated data – “as built/as-tested”	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of LGIA
20	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of LGIP
21	Deliver to Interconnection Customer “as built”	Interconnecting Transmission	If requested, within 120	§ 5.11 of LGIA

	drawings, information and documents regarding Interconnecting Transmission Owner's Interconnection Facilities	Owner	Calendar Days after Commercial Operation Date	
22	Provide Interconnection Customer final cost invoices	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner Interconnection Facilities and Network Upgrades	§ 12.2 of LGIA

### 3. Milestones Applicable Solely for CNR Interconnection Service and Long Lead Facility

**Treatment.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNR Interconnection Service and/or Long Lead Facility Treatment:

Item No.	Milestone Description	Responsible Party	Date	LGIP/LGIA Reference
1	If Long Lead Facility, all dates by which Critical Path Schedule upgrades will be submitted to System Operator (end date for New Capacity Show of Interest Submission)	Interconnection Customer		§ 3.2.3 of LGIP
2	If Long Lead Facility, dates by which	Interconnection		§ 3.2.3 of LGIP



	Long Lead Facility Deposits will be provided to System Operator (each deadline for which New Generating Capacity Resource would be required to provide financial assurance under § III.13.1.9 of the Tariff)	Customer		
3	If Long Lead Facility, Capacity Commitment Period (not to exceed the Commercial Operation Date)	Interconnection Customer		§ 1 and 3.2 of LGIP
4	Submit necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of LGIP
5	Participate in a CNR Group Study	Interconnection Customer		§ 3.2.1.3 of LGIP
6	Qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of LGIP
7	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a Capacity Supply Obligation	System Operator		§ 3.2.1.3 of LGIP

## APPENDIX C TO LGIA

### Interconnection Details

#### 1. Description of Interconnection:

Interconnection Customer shall install a [insert] MW facility, rated at [insert] MW gross and [insert] MW net, with all studies performed at or below these outputs. The Generating Facility is comprised of [insert] units in a [insert description of facility type - combined cycle, wind farm, etc.] rated at: [insert] MW each, and will located at [insert location].

The Large Generating Facility shall receive:

Network Resource Interconnection Service for the NR Capability at a level not to exceed [insert gross and net] MW for Summer, and [insert gross and net] MW for Winter.

Capacity Network Resource Interconnection Service for: (i) the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer and [insert gross and net at or above 0 degrees F] MW for Winter; and (ii) the CNR Capability at [insert net] MW for Summer and [insert net] MW for Winter, which shall not exceed [insert the maximum net MW electrical output of the Generating Facility at an ambient temperature at or above 90 degrees F for summer and at or above 20 degrees F for winter.]

#### 2. Detailed Description of Generating Facility and Generator Step-Up Transformer, if applicable:

Generator Data	
Number of Generators	
Manufacturer	
Model	

Designation of Generator(s)	
Excitation System Manufacturer	
Excitation System Model	
Voltage Regulator Manufacturer	
Voltage Regulator Model	
<b>Generator Ratings</b>	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 90 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 50 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 20 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above zero Degrees F	
Station Service Load For Each Unit	
Overexcited Reactive Power at Rated MVA and Rated Power Factor	
Underexcited Reactive Power at Rated MVA and Rated Power Factor	
<b>Generator Short Circuit and Stability Data</b>	
Generator MVA rating	
Generator AC Resistance	
Subtransient Reactance (saturated)	
Subtransient Reactance (unsaturated)	
Transient Reactance (saturated)	
Negative sequence reactance	

<b>Transformer Data</b>	
Number of units	
Self Cooled Rating	
Maximum Rating	
Winding Connection (LV/LV/HV)	
Fixed Taps	
Z1 primary to secondary at self cooled rating	
Z1 primary to tertiary at self cooled rating	
Z1 secondary to tertiary at self cooled rating	
Positive Sequence X/R ratio primary to secondary	
Z0 primary to secondary at self cooled rating	
Z0 primary to tertiary at self cooled rating	
Z0 secondary to tertiary at self cooled rating	
Zero Sequence X/R ratio primary to tertiary	

### **3. Meteorological and Forced Outage Data Requirements for a Generating Facility that is an Intermittent Power Resource:**

An Interconnection Customer whose Generating Facility is an Intermittent Power Resource having wind as the energy resource (referred to herein as “Wind Plant”) will be required to provide the following meteorological and forced outage data to the System Operator in the manner specified in the ISO New England Operating Documents. Capitalized terms in this Appendix C.3 that are not defined in Section 1 of the Agreement shall have the meanings specified in the ISO New England Operating Documents.

#### **A. Static Plant Data**

Below are the static plant data requirements that describe the physical layout of the Wind Plant and any associated meteorological equipment as well as data relevant to the design and operation of the Wind Plant. The static plant data must be supplied to the System Operator in the manner specified in the ISO

New England Operating Documents. The Interconnection Customer must keep the static plant data current and must inform the System Operator of any proposed datapoints changes.

1) Wind Plant:

- a) Wind Turbine tower center coordinates (i.e., latitude and longitude in WGS84 DD-MM-SS.SS using GPS WAAS, or comparable, methodology) and ground elevation of turbines ( in meters, to one decimal place).
- b) Number of turbines.
- c) Turbine model(s) including IEC wind class.
- d) Density dependent turbine nominal power curves for each type of turbine in the plant for standard test conditions (e.g., air density equaling  $1.225 \text{ kg/m}^3$ ) and for three additional values of density (for which the density values must be supplied): one power curve for normal operation at the long-term average density expected for the plant and one power curve each for normal operation at approximately 85% (+/- 10%) and approximately 115% (+/-10%), respectively of the expected long-term average Wind Plant air density.
- e) Hub height(s) (in meters to one decimal place).
- f) Maximum plant nameplate capacity (in MW to two decimal places).
- g) Cut-in wind speed(s) and time constants (if any, e.g., wind speed must be above 3.4 m/s for at least 5 minutes, etc.).
- h) Cut-out wind speed(s) and time constants (if any).
- i) Cut back in wind speed(s) and time constants (if any).
- j) Cold temperature cutoff threshold(s) (in Degrees C to one decimal place).
- k) High temperature cutoff threshold(s) (in Degrees C to one decimal place).
- l) Any cold weather operation packages and their effects on wind turbine operational envelope (e.g. blade and/or gearbox heaters, etc. that extends cold temperature cut-out to below xx degrees, etc.).
- m) Wind turbine icing behavior:
  - i. Triggers for icing related shutdowns (e.g., temperatures, relative humidities, out-of-balance conditions, etc.).
  - ii. Triggers for release from icing related shutdowns (e.g., manual reset, temperatures, hysteresis, etc.).
- n) For all plant wind speed and direction measuring devices (i.e., nacelle-level wind measuring devices):

- i. Equipment type (i.e., model specifications and operating principle e.g. make and model type, measurement heights) and calibration curves and/or reports.
- ii. Dimensions and/or site plan of any nearby potential obstructions that would substantially reduce the quality of the data and the mitigation measures employed (e.g., diagram of location with respect to the nacelle and rotor).
- o) Descriptions of any permitting or administrative restrictions such as requirements to reduce or to cease power production during certain hours or during certain events or wind conditions.
- p) For model training purposes, any available historical information required by the wind power forecaster regarding plant power output, plant meteorological conditions, and conditions that may have caused power output to be below theoretical maximum power output given the experienced wind speeds may also be required to be provided.

2) Met gathering station(s):

- a. Center of structure(s) coordinates (using the same method listed above for turbine in the Wind Plant) and ground elevation of met station(s).
- b. Equipment type (i.e., model specifications and operating principle e.g. make and model type, measurement heights).
- c. Dimensions and/or site plan of any nearby potential obstructions that would substantially reduce the quality of the data (e.g., met-tower dimensions and profile) and the mitigation measures employed (e.g. mounting arm dimensions and orientations).

## **B. Real-Time Data**

Below are the real-time operational and meteorological data requirements for Wind Plant operators that must be provided to the System Operator. The real-time operational and meteorological data must be electronically and automatically transmitted to the System Operator over a secure network using the protocol specified in the ISO New England Operating Documents. This information is required with a high degree of accuracy and reliability.

1) Availability:

The Wind Plant operator's real-time data transfer process and data gathering equipment shall be designated to operate at all times.

2) Required Data:

a) At a minimum, nacelle-level wind speed and wind direction measurements must be provided from the highest wind turbine (i.e., wind turbine hub elevation in terms of elevation above mean sea level) and a minimum of one wind turbine at the maximal value of each of the four true cardinal directions (i.e., the farthest true North, South, East, and West) in each Wind Turbine Group within the plant. Additionally, the wind turbine nearest the capacity-weighted centroid of the Wind Plant must also report wind speeds and directions. If any wind turbine within a Wind Turbine Group satisfies more than one of these conditions then it may be used to fulfill all conditions that it satisfies (e.g., if the highest wind turbine in a Wind Turbine Group is also the farthest North and the farthest East, it may be used to supply data for all three of these categories). Where more than one turbine satisfies these conditions, preference should be given to those turbines that will be least affected by Wind Plant wake effect from the prevailing wind direction(s). Finally, where a Wind Turbine Group contains 10 or less wind turbines only the nacelle-level data from the highest wind turbine nacelle is required. The locations of wind turbines with nacelle-level equipment providing data must be referenced to the Static Plant Data supplied locations.

b) Ambient temperature, air pressure and relative humidity must be measured, at a minimum, at one location within the plant (preferably as near to the capacity-weighted centroid of the Wind Plant as possible) whose height above ground may be in the range of 2 m to 10 m (or up to 30 m above mean sea level for offshore Wind Plants) and the measurement height above ground (or mean sea level for offshore Wind Plants) must be stated to within 10 cm.

3) Frequency

Minimum frequencies of the real-time data Wind Plant operators must provide are specified in the ISO New England Operating Documents.

**C. Outage Coordination**

Wind Plants shall submit daily outages in advance to perform routine maintenance work, which in many cases may have no effect on their overall MW capability. Therefore:

- 1) All Wind Plants must submit Wind Plant Future Availability to the System Operator.
- 2) If the Wind Plant does not have a Capacity Supply Obligation in accordance with Market Rule 1, Section III of the Tariff, and is not a Qualified Generator Reactive Resource, only Wind Plant Future Availability must be reported to the System Operator.
- 3) Any Wind Plant that does have a Capacity Supply Obligation in accordance with Market Rule 1, Section III of the Tariff, or that is a Qualified Generator Reactive Resource, must report Wind Plant Future Availability, and also submit an outage request to the System Operator only when the outage will derate the plant to the point that the available nameplate is less than its Capacity Supply Obligation and/or Qualified VARs.



**4. Other Description of Interconnection Plan and Facilities :**

*[Insert any other description relating to the Generating Facility, including, but not limited to switchyard, protection equipment, step-up transformer to the extent not described in Appendix A.]*

## **APPENDIX D TO LGIA**

### **Security Arrangements Details**

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New England Transmission System reliability and operational security. The Commission will expect System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the Critical Infrastructure Protection Committee and, eventually, best practice recommendations from NERC. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

## APPENDIX E TO LGIA

### Commercial Operation Date

This Appendix E is a part of the LGIA between System Operator Interconnecting, Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]

[to be supplied]

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Large Generating Facility

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of Unit No. \_\_\_\_\_. This letter confirms that [Interconnection Customer] commenced commercial operation of Unit No. \_\_\_\_\_ at the Large Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **APPENDIX F TO LGIA**

### **Addresses for Delivery of Notices and Billings Notices:**

System Operator:

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:

Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

### **Billings and Payments:**

System Operator:

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road

Holyoke, MA 01040-2841

With copy to:

Billing Department

ISO New England Inc.

One Sullivan Road

Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

**Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

System Operator:

Facsimile: (413) 540-4203

E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

With copy to:

Facsimile: (413) 535-4024

E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

DUNS Numbers:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner: [To be supplied]

## **APPENDIX G TO LGIA**

### **Interconnection Requirements For A Wind and Inverter-Based Generating Facilities**

Appendix G sets forth requirements and provisions specific to wind and inverter-based Generating Facilities. All other requirements of this LGIA continue to apply to wind and inverter-based Generating Facility interconnections.

#### **A. Technical Standards Applicable to Wind and Inverter-Based Generating Facility** **i. Low Voltage Ride-Through (LVRT) Capability**

Wind and inverter-based Generating Facilities shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

##### **Transition Period LVRT Standard**

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the System Operator and Interconnecting Transmission Owner. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind

generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual wind generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT. Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual wind generator units that are replaced are required to meet the Appendix G LVRT Standard.

#### **Post-transition Period LVRT Standard**

All wind Generating Facilities subject to FERC Order No. 661 and not covered by the transition period described above , as well as inverter-based Generating Facilities must meet the following requirements :

1. Wind and inverter-based Generating Facilities are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault



voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind or inverter-based Generating Facility substation location, as determined by and documented by the System Operator and Interconnecting Transmission Owner. The maximum clearing time the wind or inverter-based Generating Facility shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind or inverter-based Generating Facility may disconnect from the transmission system. Wind and inverter-based Generating Facilities shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind or inverter-based Generating Facility GSU.

2. This requirement does not apply to faults that would occur between the wind or inverter-based Generating Facility terminals and the high side of the GSU.
3. Wind and inverter-based Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind and inverter-based Generating Facilities may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind or inverter-based Generating Facility or by a combination of generator performance and additional equipment.
5. Existing individual wind generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual wind generator units that are replaced are required to meet the Appendix G LVRT Standard.

**ii. Power Factor Design Criteria (Reactive Power)**

1. A newly interconnecting non-synchronous Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commences after October 5, 2016 shall maintain dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, at continuous rated power output, measured at the high-side of the station transformer or at the Point of the Interconnection if there is no station transformer. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors (provided the use of such capacitors is solely for the purpose of offsetting collector system losses and is found to meet all of the requirements specified in the Interconnection System Impact Study), or a combination of the two.
2. A wind Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced after April 17, 2016 but before October 5, 2016 shall maintain dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, at continuous rated power output, measured at the high-side of the station transformer or at the Point of Interconnection if there is no station transformer.
3. A wind Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced before April 17, 2016 shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Interconnection System Impact Study shows that such a requirement is necessary to ensure safety or reliability. For a wind Generating Facility for which the Interconnection System Impact Study commences before April 17, 2016, the power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the System Operator and Interconnecting Transmission Owner, or a combination of the two.
4. A non-wind non-synchronous Generating Facility, and any subsequent modifications thereto, for which the Interconnection System Impact Study commenced before October 5, 2016 shall meet the power factor requirements of Article 9.6.1.1 of the LGIA.

5. The Interconnection Customer shall not disable power factor equipment while the wind Generating Facility is in operation.
6. Wind Generating Facilities shall also be able to provide sufficient additional dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Interconnection System Impact Study shows this to be required for system safety or reliability.

**iii. Supervisory Control and Data Acquisition (SCADA) Capability**

Wind and inverter-based Generating Facilities shall provide SCADA capability to transmit data and receive instructions from the System Operator and Local Control Center to protect system reliability. The System Operator, Interconnecting Transmission Owner and the wind or inverter-based Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed wind or inverter-based Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

## **APPENDIX 7**

### **INTERCONNECTION PROCEDURES FOR WIND GENERATION**

Appendix 7 sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

#### **A.     Special Procedures Applicable to Wind Generating Plants**

The wind generating plant Interconnection Customer, in completing the Interconnection Request required by Section 3.3 of this LGIP, may provide to the System Operator a set of preliminary electrical design specifications depicting the wind generating plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind generating plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind generating plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the System Operator to complete the Interconnection System Impact Study.

**SCHEDULE 23**

**SMALL GENERATOR  
INTERCONNECTION PROCEDURES**

## **TABLE OF CONTENTS**

### **Section 1. Application**

- 1.1 Applicability
- 1.2 Pre-Application
- 1.3 Interconnection Request
- 1.4 Site Control
- 1.5 Queue Position
- 1.6 Procedures for Transition
- 1.7 Type of Interconnection Service
- 1.8 Withdrawal

### **Section 2. Fast Track Process**

- 2.1 Applicability
- 2.2 Initial Review
- 2.3 Customer Options Meeting
- 2.4 Supplemental Review

### **Section 3. Study Process**

- 3.1 Applicability
- 3.2 Scoping Meeting
- 3.3 Interconnection Feasibility Study
- 3.4 Interconnection System Impact Study
- 3.5 Interconnection Facilities Study

### **Section 4. Provisions that Apply to All Interconnection Requests**

- 4.1 Reasonable Efforts
- 4.2 Disputes
- 4.3 Interconnection Metering
- 4.4 Commissioning
- 4.5 Confidentiality
- 4.6 Comparability
- 4.7 Record Retention
- 4.8 SGIA
- 4.9 Coordination with Affected Systems
- 4.10 Evaluation of a Small Generating Facility Interconnection Request

Attachment 1 – Glossary of Terms

Attachment 2 – Small Generator Interconnection Request

Attachment 3 – Certification Codes and Standards

Attachment 4 – Certification of Small Generator Equipment Packages

Attachment 5 – 10 kW Inverter Process

Attachment 6 – Interconnection Feasibility Study Agreement

Attachment 7 – Interconnection System Impact Study Agreement

Attachment 8 – Interconnection Facilities Study Agreement

EXHIBIT 1 - Small Generator Interconnection Agreement (SGIA)

## **SECTION 1. APPLICATION**

### **1.1 Applicability**

1.1.1 The Small Generator Interconnection Procedures (“SGIP”) and Small Generator Interconnection Agreement (“SGIA”) shall apply to Interconnection Requests, as defined in Attachment 1, pertaining to Small Generating Facilities, except that the SGIP and SGIA shall not apply to: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer’s site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility’s owner intent is to sell 100% of the Qualifying Facility’s output to its interconnected electric utility. In the event the SGIP and SGIA do not apply, the Interconnection Customer shall follow the applicable state tariff, rules or procedures regarding generator interconnections.

A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) to the Interconnecting Transmission Owner’s Distribution System that is part of the Administered Transmission System shall be evaluated under the section 2 Fast Track Process if the eligibility requirements of section 2.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) (solely as a Network Resource) shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 2.1, or does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 3 Study Process.

1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures. To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for the purposes of generator interconnections under this Schedule 23. Capitalized terms in Schedule 23 that are not defined in Attachment 1 or the body of these procedures shall have the meanings specified in Section I.2.2 of the Tariff.



1.1.3 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to May 9, 2006.

1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the System Operator's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The System Operator shall respond within fifteen (15) Business Days.

1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects all ISOs/RTOs, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

1.1.6 References in these procedures to interconnection agreement are to the SGIA.

## **1.2 Pre-Application**

1.2.1 The System Operator shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The names, telephone numbers, and e-mail addresses of the System Operator's contact employees or offices shall be made available on the System Operator's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Administered Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The System Operator shall comply with reasonable requests for such information.

1.2.2 In addition to the information described in section 1.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form to the System Operator along with a non-refundable fee of \$500 for a pre-application report on a proposed project at a

specific site. Within two (2) Business Days of receiving the pre-application report request form, the System Operator shall provide a copy of the pre-application request form to the Interconnecting Transmission Owner. The System Operator in conjunction with the Interconnecting Transmission Owner shall provide the pre-application data described in section 1.2.3 to the Interconnection Customer within twenty (20) Business Days of receipt of the completed request form and payment of the \$500 fee. The pre-application report produced by the System Operator in conjunction with the Interconnecting Transmission Owner is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Administered Transmission System. The written pre-application report request form shall include the information in sections 1.2.2.1 through 1.2.2.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

1.2.2.1 Project contact information, including name, address, phone number, and email address.

1.2.2.2 Project location (street address with nearby cross streets and town)

1.2.2.3 Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.

1.2.2.4 Generator Type (e.g., solar, wind, combined heat and power, etc.)

1.2.2.5 Size (alternating current kW)

1.2.2.6 Single or three phase generator configuration

1.2.2.7 Stand-alone generator (no onsite load, not including station service – Yes or No?)

1.2.2.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.

1.2.3 Using the information provided in the pre-application report request form in section 1.2.2., the System Operator in conjunction with the Interconnecting Transmission Owner will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. The selection by the System Operator in conjunction with the Interconnecting Transmission Owner does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. The Interconnecting Transmission Owner shall be responsible for determining whether the proposed Point of Interconnection is on a distribution facility that is subject to the Tariff. If the pre-application report request form seeks information about a Point of Interconnection that is on a distribution facility that is not subject to the Tariff, the Interconnection

Customer shall follow the applicable state tariff, rules or procedures regarding generator interconnections.

Subject to section 1.2.4, the pre-application report will include the following information:

1.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.

1.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.

1.2.3.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.

1.2.3.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).

1.2.3.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.

1.2.3.6 Nominal distribution circuit voltage at the proposed Point of Interconnection.

1.2.3.7 Approximate circuit distance between the proposed Point of Interconnection and the substation.

1.2.3.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 2.4.4.1.1 below and absolute minimum load, when available.

1.2.3.9 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area.

Identify whether the substation has a load tap changer.

1.2.3.10 Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.

1.2.3.11 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

1.2.3.12 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.

1.2.3.13 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

1.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the System Operator or the Interconnecting Transmission Owner to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the System Operator in conjunction with the Interconnecting Transmission Owner cannot complete all or some of a pre-application report due to lack of available data, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on “available capacity” pursuant to section 1.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the System Operator in conjunction with the Interconnecting Transmission Owner shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

### **1.3 Interconnection Request**

#### **1.3.1 Initiating an Interconnection Request**

To initiate and establish a valid Interconnection Request, the Interconnection Customer shall submit all of the following to the System Operator in the manner specified in the Interconnection Request contained in Attachment 2 to this SGIP: (i) the processing fee or deposit specified in the Interconnection Request, (ii) a completed Interconnection Request in the form of Attachment 2, and (iii) documentation of Site Control in the form specified in Section 1.4 of this SGIP.

The Interconnection Customer must submit a separate Interconnection Request for each site. The Interconnection Customer must comply with the requirements specified in this Section 1.3.1 for each Interconnection Request even when more than one request is submitted for a single site.

#### **1.3.2 Acknowledgement of Interconnection Request**

The System Operator shall acknowledge receipt of the Interconnection Request within three (3) Business Days of receipt of the request and attach a copy of the Interconnection Request to the acknowledgement.

Within three (3) Business Days of receiving the Interconnection Request, the System Operator shall provide a copy of the Interconnection Request to the Interconnecting Transmission Owner. If such request is to interconnect to a distribution facility, the Interconnecting Transmission Owner shall be responsible for determining whether the distribution facility is subject to the Tariff.

### **1.3.3 Deficiencies in Interconnection Request**

An Interconnection Request will not be considered a valid request until all items in Section 1.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the requirements set forth in Section 1.3.1, the System Operator shall notify the Interconnection Customer within ten (10) Business Days of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 1.3.3 shall be treated in accordance with Section 1.8.

1.3.4 All fees or deposits that must be submitted to the System Operator under this SGIP, must be delivered to the System Operator's bank account by electronic transfer within the period specified in the respective provision. A deposit will not be considered received until it is in the System Operator's bank account.

### **1.4 Site Control**

Documentation of site control must be submitted with the Interconnection Request. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. Site control may be demonstrated through:

1.4.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

1.4.2 An option to purchase or acquire an easement, a license or a leasehold interest in the site for such purpose; or

1.4.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or

1.4.4 Filed applications for required permits to site on federal or state property.

## **1.5 Queue Position**

1.5.1 **General.** The System Operator shall assign a Queue Position based upon the date- and time-stamp of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of information on the application form in Attachment 2 to this SGIP, and Interconnection Customer provides such information in accordance with Section 1.3.3, then the System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally submitted.

Except as otherwise provided in this Section 1.5, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be included in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and (iv) the cost responsibility for the Interconnection Facilities and upgrades necessary to accommodate the Interconnection Request. The System Operator shall maintain a single queue. At the System Operator's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 1.5.3 of this SGIP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

1.5.2 **Order of Interconnection Requests in the CNR Group Study.** Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance with Section III.13.1.1.2 of

the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3 of Schedule 22 of Section II of the Tariff. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Attachment 2 to the SGIA for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

### **1.5.3 Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Small Generating Facility.

#### **1.5.3.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator has determined that none of the Interconnection Requests identified in (a) of this Section 1.5.3.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at 115 kV AC or HVDC.

#### **1.5.3.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 1.5.3.1 of this SGIP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System



Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 1.5.3.1 of this SGIP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will be suspended, and they will proceed under Section 1.5.3 of this SGIP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 1.5.3.1 of this SGIP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated system upgrades, in accordance with this SGIP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 1.5.3.1 shall submit the technical data called for in Attachment 2 (including Attachment A, if applicable) to this SGIP to support the conduct of the CRPS.

### **1.5.3.3 Cluster Interconnection System Impact Study.**

#### **1.5.3.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry deadline for the CSIS (the "Cluster Entry Deadline") to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

#### **1.5.3.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 1.5.1 of this SGIP, shall be eligible to be studied together in the CSIS.

**1.5.3.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 1.8;
- (ii) request that the System Operator re-assign the Interconnection Customer's Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 1.5.3.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 1.5.3.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 1.5.3.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.

#### **1.5.3.3.2.2. CSIS Entry Requirements.**

An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 1.5.3.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator, a completed Cluster System Impact Study Application in the form specified in Attachment 2, Attachment A-1 to this SGIP requesting the inclusion of the Interconnection Request in the CSIS;

**(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.** If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection

System Impact Study Agreement in accordance with this Section 1.5.3.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS.

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Attachment 2 (including Attachment A, if applicable), and a refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 3.4.2 of this SGIP.

**(3) Cluster Participation Deposit.** By the Cluster Entry Deadline, Interconnection Customer must also submit to the System Operator an initial Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report. Cost allocation of the CETU and associated upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 1.8 of this SGIP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the cluster is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 1.8, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 1.5.3.3.2 of this SGIP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25)

percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 1.8, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Section 3.4.5 and Section 3.5.4 of this SGIP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 4.8 of this SGIP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting Transmission Owner the deposit specified in Section 4.8 of this SGIP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

### **1.5.3.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**1.5.3.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the CRPS as potentially enabled by the CETU. The Interconnection Requests will be included in the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 1.5.1 of this SGIP, relative to other eligible Interconnection Requests.

**1.5.3.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity of megawatts identified as potentially enabled by the CETU in the final CRPS report having been

exhausted in queue order under Section 1.5.3.3.3.1, (i) the Cluster Participation Deposit for the CSIS will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more Interconnection Requests after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.

**1.5.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 1.5.3.3.3.1 of this SGIP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Small Generating Facility (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 1.5.3.3.2 of this SGIP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**1.5.3.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 1.5.3.3.4, the CSIS shall be conducted in accordance with Sections 3.4.3 and 3.4.4 of this SGIP. The Study Case developed for the CSIS shall also include the CETU and associated system upgrades identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New England Transmission System under the NC Interconnection Standard consistent with Section 1.7.2 of

this SGIP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 3.4.3 of this SGIP except for analysis associated with an Interconnection Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**1.5.3.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 3.4.6 of this SGIP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 1.5.3.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

#### **1.5.3.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this SGIP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

##### **1.5.3.4.1 Cluster Interconnection Facilities Study Entry Requirements.**

An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 3.5.1 of this SGIP.

**1.5.3.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 3.5.2 and 3.5.3 of this SGIP based on a +/- 20 percent good faith cost estimate.

**1.5.3.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 3.5.5 of this SGIP, a re-study of the CFAC is required due to the withdrawal of an Interconnection Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 1.5.3.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain consistent with the megawatt quantity(ies) considered in the final CRPS report.

**1.5.3.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 3.5.3 of this SGIP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report. Cost allocation of the CETU and associated upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 1.5.3.4.4 will be fully refunded (with interest to be calculated in accordance with Section 1.8 of this SGIP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 1.5.3.3.2.2(3)(v), (vi), or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

**1.5.4 Transferability of Queue Position.** An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer

must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee's contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

**1.5.5 Modifications.** Any modification to the Interconnection Request, including the information provided in the attachments, and to the machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the System Operator, in consultation with the Interconnecting Transmission Owner, and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the change are undertaken. An Interconnection Customer may decrease the electrical output of a proposed Small Generating Facility after the Cluster Entry Deadline specified in Section 1.5.3.3.1 of this SGIP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline. A request to: (1) increase the energy capability or capacity capability output of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP shall require a new Interconnection Request for the incremental increase and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis; and (2) change from NR Interconnection Service to CNR Interconnection Service, at any time, shall require a new Interconnection Request for CNR Interconnection Service and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis.

Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service has until the Forward Capacity Auction for which the associated Capacity Commitment Period begins less than seven (7) years from the date of the original Interconnection Request for CNR Interconnection Service to clear the entire megawatt amount for which the CNR Interconnection Service was requested (or as that amount has been modified in accordance with this Section 1.5.5). A new Interconnection Request for CNR Interconnection Service will be required for the Generating Facility to participate in any subsequent auctions.

## **1.6 Procedures for Transition**



**1.6.1 Queue Position for Pending Requests.** Any Interconnection Customer assigned a Queue Position prior to November 1, 2017 shall retain that Queue Position subject to Section 1.6 of the SGIP.

1.6.1.1 If an Interconnection Study Agreement has not been executed prior to November 1, 2017, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this SGIP in effect on November 1, 2017 (or as revised thereafter).

1.6.1.2 If an Interconnection Study Agreement has been executed prior to November 1, 2017, such Interconnection Study shall be completed in accordance with the terms of such agreement.

If an Interconnection Study Agreement has been executed prior to November 1, 2017, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the SGIP in effect on November 1, 2017. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 1.5.3.3.2 of this SGIP within thirty (30) Calendar Days from the later of November 1, 2017 or the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure.

**1.6.2 Transition Period.** To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an SGIA has neither been executed nor submitted to the Commission for approval prior to November 1, 2017), Interconnecting Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the SGIP in effect as of November 1, 2017 (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request”

herein shall mean any Interconnection Request, on November 1, 2017: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related SGIA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding Interconnection Request as of the effective date of this SGIP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this SGIP.

**1.6.3 One-Time Election for CNR Interconnection Service at Queue Position Assigned Prior to February 1, 2009.** An Interconnection Customer with an outstanding Interconnection Request will be eligible to make a one-time election to be considered for CNR Interconnection Service at the Queue Position assigned prior to February 1, 2009. The Interconnection Customer's one-time election must be made by the end of the New Generating Capacity Show of Interest Submission Window for the fourth Forward Capacity Auction. Interconnection Customers requesting CNR Interconnection Service will be required to comply with the requirements for CNR Interconnection Service set forth in Section 1.7.1. Interconnection Customers requesting CNR Interconnection Service that have not received a completed Interconnection System Impact Study may request a preliminary, non-binding, analysis of potential upgrades that may be necessary for the fourth Forward Capacity Auction – the prompt or near-term auction – pursuant to Sections 3.3.2 or 3.4.3, whichever is applicable.

#### **1.6.4 Grandfathering.**

**1.6.4.1** An Interconnection Customer's Generating Facility that is interconnected pursuant to an Interconnection Agreement executed or submitted to the Commission for approval prior to February 1, 2009, will maintain its status as a Network Resource with Network Resource Interconnection Service eligible to participate in the New England Markets, in accordance with the requirements of Market Rule 1, Section III of the Tariff, up to the megawatt amount specified in the Interconnection Agreement, subject to the Interconnection Customer satisfying all requirements set forth in the Interconnection Agreement and this SGIP. If the Generating Facility does not meet the criteria set forth in Section 1.6.4.3 of this SGIP, the Interconnection Customer will be eligible to make a one-time election, pursuant to

Section 1.6.3, for Capacity Network Resource treatment without submitting a new Interconnection Request; however, the Interconnection Customer will be required to comply with the requirements for CNR Interconnection Service set forth in Section 1.7.1. Upon completion of the requirements to obtain CNR Interconnection Service, the Interconnection Customer's Interconnection Agreement shall be amended to conform to the SGIA in Exhibit 1 of this SGIP.

1.6.4.2 An Interconnection Customer's Generating Facility governed by an Interconnection Agreement either executed or filed with the Commission in unexecuted form prior to August 1, 2008, shall maintain the Queue Position assigned as of August 1, 2008, and be eligible to participate in the New England Markets, in accordance with the requirements in Market Rule 1, Section III of the Tariff, as in effect as of August 1, 2008, so long as the Interconnection Customer complies with all of the requirements specified in the Interconnection Agreement, including achieving the milestones associated with At-Risk Expenditures, subject to Section 1.5.5 of this SGIP.

1.6.4.3 All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a CNR and obtain CNR Interconnection Service, in accordance with this SGIP, up to the CNR Capability of the resource. The grandfathered CNR Capability for these resources shall be equal to the megawatt amount established pursuant to the following hierarchy:

- (a) First, the megawatt amount specified in an Interconnection Agreement (whether executed or filed in unexecuted form with the Commission).
- (b) Second, in the absence of an Interconnection Agreement with a specified megawatt amount, the megawatt amount specified in an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision).
- (c) Third, in the absence of an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) with a specified megawatt amount, as determined by the System Operator based on the documented historic capability of the Generating Facility.

Where a resource has both an Interconnection Agreement and an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision), the lower megawatt amount will govern until the resource completes the applicable process(es) under the Tariff for obtaining the higher megawatt amount. The absence of an Interconnection Agreement or an approval pursuant to Section I.3.9 (or its predecessor provision)

specifying a megawatt amount shall be confirmed by an affidavit executed by a corporate officer of the resource attesting that the resource does not have an Interconnection Agreement and/or an approval pursuant to Section I.3.9 of the Tariff (or its predecessor provision) that specifies a megawatt amount.

Where the governing document (as determined by the hierarchy set forth in 1.6.4.3) specifies a megawatt amount at an ambient temperature consistent with the definition of CNR Capability, the grandfathered CNR Capability shall be equal to that amount.

Where the governing document (as determined by the hierarchy set forth in Section 1.6.4.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of CNR Capability.

Where the implementation of this Section 1.6.4.3 results in a CNR Capability that is different than previously had been identified, the revised CNR Capability will be applied commencing with the next Forward Capacity Auction qualification process (after the revised CNR Capability value is identified), which is initiated by the Show of Interest Window in accordance with Section III.13 of the Tariff. The revised CNR Capability will continue to govern until the resource completes the applicable process(es) for obtaining the higher megawatt amount.

1.6.4.4 All resources that are treated as Existing Generating Capacity Resources in the fourth Forward Capacity Auction pursuant to Section III.13 of the Tariff shall receive treatment as a NR and obtain NR Interconnection Services in accordance with this SGIP, up to the NR Capability of the resource. The grandfathered NR Capability shall be determined pursuant to the hierarchy set forth in Section 1.6.4.3.

Where the governing document (as described by the hierarchy set forth in Section 1.6.4.3) of a resource for which a temperature-adjustment curve is used for the claimed capability verification, as set forth in the ISO New England Manuals, specifies a megawatt amount at an ambient temperature, the grandfathered NR Capability shall be equal to a temperature-adjusted value consistent with the definition of NR Capability.

Where the governing document (as determined by the hierarchy set forth in Section 1.6.4.3) does not specify an ambient temperature, the megawatt amount will be deemed to be at the value consistent with the definition of NR Capability.

## **1.7 Type of Interconnection Services**

At the time the Interconnection Request is submitted, the Interconnection Customer must request either CNR Interconnection Service or NR Interconnection Service, as described in Sections 1.7.1 and 1.7.2 below. An Interconnection Customer that meets the requirements to obtain CNR Interconnection Service shall obtain NR Interconnection Service up to the NR Capability upon completion of all requirements for NR Interconnection Service, including all necessary upgrades. Upon completion of all requirements for the CNR Interconnection Service, the Interconnection Customer shall also receive CNR Interconnection Service for CNR Capability. An Interconnection Customer that meets the requirements to obtain NR Interconnection Service shall receive NR Interconnection Service for the Interconnection Customer's Generating Facility NR Capability.

### **1.7.1 Capacity Network Resource Interconnection Service**

**1.7.1.1 The Product.** The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which CNRs are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Small Generating Facility to be designated as a CNR, and to participate in the New England Markets, in accordance with the Tariff, up to the CNR Capability or as otherwise provided in the Tariff, on the same basis as existing CNRs, and to be studied as a CNR on the assumption that such a designation will occur.

**1.7.1.2 The Studies.** All Interconnection Studies for CNR Interconnection Service shall assure that the Interconnection Customer's Small Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System. The CNR Group Study for CNR Interconnection Service shall assure that the Interconnection Customer's Small Generating Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other CNRs and Elective Transmission Upgrades with CNI Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The

Interconnection Request may also be studied with the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

**1.7.1.3 Milestones for CNR Interconnection Service.** In addition to the requirements set forth in this SGIP, an Interconnection Customer with an Interconnection Request for CNR Interconnection Service shall complete the following milestones prior to receiving CNR Interconnection Service for the CNR Capability, such milestones to be specified in Attachment 4 of the SGIA as either completed or to be completed: (i) submit the necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date (except as modified by Agreement with the System Operator pursuant to Section 1.5.5 of this SGIP), in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Generating Facility's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction, as applicable, through which the Interconnection Customer received a Capacity Supply Obligation. With respect to (iv) above, if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this SGIP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an SGIA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this SGIP shall be subject to re-study. The Attachments to the SGIA shall be amended (pursuant to Article 12.2 of the SGIA) to reflect CNR Capability and the results of the re-study.

## **1.7.2 Network Resource Interconnection Service**

**1.7.2.1 The Product.** The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission

Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which Network Resources are interconnected under the NC Interconnection Standard. NR Interconnection Service allows the Interconnection Customer's Small Generating Facility to participate in the New England Markets in accordance with the provisions of Market Rule 1, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as other Network Resources. Notwithstanding the above, the portion of a Small Generating Facility that has been designated solely as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

**1.7.2.2 The Studies.** The Interconnection Studies for an Network Resource shall assure that the Interconnection Customer's Small Generating Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NR Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions.

However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnecting Transmission Owner why the study of non-peak load conditions is required for reliability purposes.

**1.7.2.3 Milestones for NR Interconnection Service.** An Interconnection Customer with an Interconnection Request for NR Interconnection Service shall complete the requirements in this SGIP prior to receiving NR Interconnection Service.

## **1.8 Withdrawal**

**1.8.1** The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to the Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to adhere to all requirements of this SGIP, except as provided in Section 4.2 (Disputes),

the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this SGIP, upon receipt of such written notice, the Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue dispute resolution, and the System Operator shall notify the Interconnecting Transmission Owner and any Affected Parties of the same.

1.8.2 Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during dispute resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of dispute resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to the System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any interconnection study data or results.

1.8.3 The System Operator shall update the OASIS Queue Position posting. The System Operator and Interconnecting Transmission Owner shall: (i) arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred; or (ii) arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments. In the event of such withdrawal, the System Operator, subject to the confidentiality provisions of Section 4.5 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

## **SECTION 2. FAST TRACK PROCESS**

### **2.1 Applicability**



The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Distribution System that is part of the Administered Transmission System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track screens in section 2.2.1 below or the Supplemental Review screens in section 2.4.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than or equal to 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the System Operator in conjunction with the Interconnecting Transmission Owner has to have reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline <sup>1</sup> and $\leq 2.5$ Electrical Circuit Miles from Substation <sup>2</sup>
$< 5$ kV	$\leq 500$ kW	$\leq 500$ kW
$\geq 5$ kV and $< 15$ kV	$\leq 2$ MW	$\leq 3$ MW
$\geq 15$ kV and $< 30$ kV	$\leq 3$ MW	$\leq 4$ MW
$\geq 30$ kV and $< 69$ kV	$\leq 4$ MW	$\leq 5$ MW

1. For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

2. An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.2.

## **2.2 Initial Review**

Within fifteen (15) Business Days after the System Operator notifies the Interconnection Customer it has received a complete Interconnection Request, the System Operator in conjunction with the Interconnecting Transmission Owner shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the determinations under the screens.

### **2.2.1 Screens**

2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Interconnecting Transmission Owner's Distribution System that is subject to the Tariff.

2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of an Interconnecting Transmission Owner's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW.

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Interconnecting Transmission Owner's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Interconnecting Transmission Owner on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved for Network Resource interconnection Service and the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer an executable SGIA within five (5) Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the System Operator in conjunction with the Interconnecting Transmission Owner determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer an executable SGIA within five (5) Business Days after the determination. If the Interconnection Request is for Capacity Network Resource Interconnection Service, the Interconnection Customer must also comply with the milestones for CNR Interconnection Service specified in Section 1.7.1.3 of the SGIP.

2.2.4 If the proposed interconnection fails the screens, but the System Operator in conjunction with the Interconnecting Transmission Owner, does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the System Operator in conjunction with the Interconnecting Transmission Owner shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

### **2.3 Customer Options Meeting**

If the System Operator in conjunction with the Interconnecting Transmission Owner determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the System Operator shall notify the Interconnection Customer of that determination within five (5) Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of such determination, the System Operator shall offer to convene a customer options meeting with the Interconnection Customer and Interconnecting Transmission Owner to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the determination, or at the customer options meeting:

2.3.1 The Interconnecting Transmission Owner shall offer to perform facility modifications or minor modifications to the Interconnecting Transmission Owner's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Interconnecting Transmission Owner's electric system. If the Interconnection Customer agrees to pay for the modifications to the Interconnecting Transmission Owner's electric system, the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer with an executable SGIA within ten (10) Business Days of the customer options meeting; or

2.3.2 The System Operator shall offer to perform a supplemental review in accordance with section 2.4 and provide a non-binding good faith estimate of the costs of such review; or

2.3.3 The System Operator shall obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 3 Study Process.

## **2.4 Supplemental Review**

2.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit to the System Operator for the estimated costs of the supplemental review in the amount of the System Operator's and Interconnecting Transmission Owner's good faith estimate of the costs of such review, both within fifteen (15) Business Days of the offer. If the written agreement and deposit have not been received by the System Operator within that timeframe, the Interconnection Request shall continue to be evaluated under the section 3 Study Process unless it is withdrawn by the Interconnection Customer.

2.4.2 The Interconnection Customer must specify the order in which the System Operator in conjunction with the Interconnecting Transmission Owner will complete the screens in section 2.4.4.

2.4.3 The Interconnection Customer shall be responsible for the System Operator's and the Interconnecting Transmission Owner's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the System Operator and Interconnecting Transmission Owner will return such excess within twenty (20) Business Days of the invoice without interest.

2.4.4 Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the System Operator shall (1) in conjunction with the Interconnecting Transmission Owner, perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the System Operator's and Interconnecting Transmission Owner's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the System Operator shall notify the Interconnection Customer following the failure of any of the screens, or if the System Operator in conjunction with the Interconnecting Transmission Owner is unable to perform the screen in section 2.4.4.1, within two (2) Business Days of making such determination to request Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section 2.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility under section 3; or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

2.4.4.1 Minimum Load Screen: Where twelve (12) months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the System Operator in conjunction with the Interconnecting Transmission Owner shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 2.4.4.

2.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 2.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV\_systems utilizing tracking systems), while all other generation uses absolute minimum load.

2.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Interconnecting Transmission Owner's electric system will be considered as part of the aggregate generation.

2.4. 4.1.3 The System Operator and the Interconnecting Transmission Owner will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

2.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

2.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The System Operator in conjunction with the Interconnecting Transmission Owner shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

2.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

2.4.4.3.2 Whether the loading along the line section is uniform or even.

2.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.

2.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

2.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

2.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

2.4.5 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the Interconnection Request shall be approved and the System Operator in conjunction with the Interconnecting Transmission Owner will provide the Interconnection Customer with an executable SGIA within the timeframes established in sections 2.4.5.1 and 2.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the section 3 Study Process consistent with section 2.4.5.3 below.

2.4.5.1 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above and does not require construction of facilities by the Interconnecting Transmission Owner on its own system, the SGIA shall be provided within ten (10) Business Days after the notification of the supplemental review results.

2.4.5.2 If Interconnection Facilities or minor modifications to the Interconnecting Transmission Owner's system are required for the proposed interconnection to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Interconnecting Transmission Owner's electric system, the SGIA, along with a non-binding good faith estimate for the Interconnection Facilities and/or minor modifications, shall be provided to the Interconnection Customer within fifteen (15) Business Days after receiving written notification of the supplemental review results.

2.4.5.3 If the proposed interconnection would require more than Interconnection Facilities or minor modifications to the Interconnecting Transmission Owner's system to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the System Operator shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results,



that the Interconnection Request shall be evaluated under the section 3 Study Process unless the Interconnection Customer withdraws its Small Generating Facility.

### **SECTION 3. STUDY PROCESS**

#### **3.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Administered Transmission System if the Small Generating Facility is no larger than 20 MW and does not meet the eligibility requirements of section 2.1 or does not pass the Fast Track Process or the 10 kW Inverter Process.

#### **3.2 Scoping Meeting**

3.2.1 A scoping meeting will be held within ten (10) Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The System Operator, the Interconnecting Transmission Owner, the Interconnection Customer and the Affected Party(ies) will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting. Before participating in a scoping meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on the OASIS an advance notice of its intent to do so.

3.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request, including: (i) the estimated timeline for completing all applicable Interconnection Studies, (ii) exchange pertinent information including any transmission data that would reasonably be expected to impact interconnection options, (iii) analyze such information, and (iv) determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. A PSCAD model is required for all wind and inverter-based Small Generating Facilities. If a PSCAD model is required for other Small Generating Facility types, the Parties shall discuss this at the Scoping Meeting. The Parties shall discuss whether the System Operator should perform an Interconnection Feasibility Study or proceed directly to an Interconnection System Impact Study, or an Interconnection Facilities Study, or an SGIA. If the Interconnection Customer provides the technical data called for in Attachment 2 (including Attachment A, if applicable) to this SGIP with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS, within five (5) Business Days following the scoping meeting, the Interconnection Customer shall notify the System Operator, in writing: (i) whether it wants the Interconnection Feasibility Study to be completed, as a separate and distinct study or as part of the Interconnection System Impact Study, (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternative study scopes is being selected pursuant to Section 3.3.2, and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement (Attachment 6), or the Interconnection System Impact Study Agreement (Attachment 7) if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

3.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested an Interconnection Feasibility Study must return the executed Interconnection Feasibility Study Agreement (or Interconnection System Impact Study Agreement if the Interconnection Customer elected not to pursue the Interconnection Feasibility Study), within fifteen (15) Business Days.

### **3.3 Interconnection Feasibility Study**

3.3.1 **Interconnection Feasibility Study Agreement.** Within five (5) Business Days following the Interconnection Customer's request for an Interconnection Feasibility Study, the System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement signed by the System Operator and Interconnecting Transmission Owner, including an outline of the scope of the Interconnection Feasibility Study and a non-binding good faith estimate of the cost to perform the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). No later than fifteen (15) Business Days after its receipt of the Interconnection Feasibility Study Agreement, the Interconnection Customer shall execute and deliver the agreement, including completed attachments, to System Operator and the Interconnecting Transmission Owner, together with the refundable deposit of the lesser of 50 percent of the good faith estimated Interconnection Feasibility Study costs or earnest money of \$1,000. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of

developing the study agreement and its attachment(s). For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer. The System Operator and/or Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Feasibility Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. System Operator shall continue to hold any amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.3.2 Scope of Interconnection Feasibility Study.** The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information. The Interconnection Feasibility Study will consider the Base Cases as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the

Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement. The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Small Generating Facility as identified within the scope of the analysis performed as part of the study.

To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 3.3, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

**3.3.3 Interconnection Feasibility Study Procedures.** The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than thirty (30) Business Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection

Feasibility Study Agreement, study deposit and required technical data in accordance with Section 3.3.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

**3.3.4 Meeting with Parties.** Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

**3.3.5 Re-Study.** If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resources(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement. The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

### **3.4 Interconnection System Impact Study**

**3.4.1 Interconnection System Impact Study Agreement.** Within five (5) Business Days following the Interconnection Feasibility Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe to perform the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA.

**3.4.2 Execution of Interconnection System Impact Study Agreement.** The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement, including completed attachments, to the System Operator no later than fifteen (15) Business Days after its receipt along with (1) demonstration of Site Control, (2) a refundable deposit of 50 percent of the good faith estimated cost for the transmission portion of the Interconnection System Impact Study and 100 percent of the good faith estimated cost for the distribution portion of the Interconnection System Impact Study, and (3) a PSCAD model if one was determined to be needed at the Scoping Meeting; provided that if a PSCAD model was determined to be needed for the non-wind or non-inverter-based Small Generating Facility at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the execution of the System Impact Study Agreement to provide the PSCAD model. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection System Impact Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection

Customer. The System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the SGIA. In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster.

The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the transmission portion of the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.4.3 Scope of Interconnection System Impact Study.** The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNR Interconnection Request that elected to waive the Interconnection Feasibility Study may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the

Interconnection System Impact Study Agreement. The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses, such as electromagnetic transient analysis, that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility, (ii) a non-binding good faith estimated time to construct, (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 3.4.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

**3.4.4 Interconnection System Impact Study Procedures.** The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within forty-five (45) Business Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site Control is required, and required technical data in accordance with Section 3.4.2. If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within the times specified in this Section 3.4.4. At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator



shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

Except in the case of a CSIS, the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Attachment 2 of this SGIP and any attachments thereto, and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications unless the changes require a new Interconnection Request in accordance with Section 1.5.5 of this SGIP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

**3.4.5 Meeting with Parties.** Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study. Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study. If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the SGIA: (i) Siting approval for the Generating Facility and Interconnection Facilities; (ii) Engineering of

Interconnection Facilities approved by Interconnecting Transmission Owner; (iii) Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Initial Synchronization Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

**3.4.6 Re-Study.** If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resources(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

**3.4.7 Operational Readiness.** The System Operator shall, as close to the Interconnection Customer's actual Synchronization Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System with the addition of the Interconnection Customer's Generating Facility. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer. The System Operator is not obligated to perform the operational analyses described in this Section 3.4.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting

Transmission Owner determines that interconnection of the Interconnection Customer's Generating Facility to the Administered Transmission System is remote and speculative.

### **3.5 Interconnection Facilities Study**

**3.5.1 Interconnection Facilities Study Agreement.** Except as otherwise provided in Section 1.5.3.4 of this SGIP, the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection and proceed with a SGIA in accordance with the requirements specified in Section 4.8. If the Interconnection Customer elects to proceed with an Interconnection Facilities Study, the System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Attachment 8 to this SGIP simultaneously with the delivery of the Interconnection System Impact Study report to the Interconnection Customer. The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the SGIA. Within five (5) Business Days following the Interconnection Customer's Interconnection System Impact Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer the Interconnection Facilities Study Agreement along with a non-binding good faith estimate of the cost to perform the Interconnection Facilities Study. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement, including completed attachments, to the System Operator within thirty (30) Business Days after its receipt, together with the required refundable deposit of the non-binding good faith estimated costs for the Interconnection Facilities Study. Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer. The System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Interconnection Facilities Study, the study agreement and its attachment(s) and the SGIA. In the case of Clustering, CFAC costs that are associated with an individual Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the

Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

**3.5.2 Scope of Interconnection Facilities Study.** The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost, (ii) identify configurations of required facilities, and (iii) identify time requirements for construction and installation of required facilities. Design for any required Interconnection Facilities and/or Network Upgrades shall also be performed under the Interconnection Facilities Study. The Interconnection Customer, the System Operator, the Interconnecting Transmission Owner, and the Affected Party(ies), if any, may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design shall be reviewed and may be modified prior to acceptance by the Interconnecting Transmission Owner, under the provisions of the Interconnection Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the System Operator and/or the Interconnecting Transmission Owner shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain any independent design and cost estimates for any necessary facilities.

**3.5.3 Interconnection Facilities Study Procedures.** The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as

deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: forty-five (45) Business Days if upgrades are necessary, or thirty (30) Business Days if upgrades are not necessary. If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 3.5.3.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required. The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Business Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities report. Upon request, the System Operator and Interconnecting Transmission Owner shall

provide the Interconnection Customer and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer or to any non-market affiliate of the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of this SGIP and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

**3.5.4 Meeting with Parties.** Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study. Within thirty (30) Business Days of receipt of the study results, the Interconnection Customer shall provide written notice whether it agrees to pay for the Interconnection Facilities and upgrades identified in the Interconnection Facilities Study. An executable SGIA shall be tendered by the System Operator in conjunction with the Interconnecting Transmission Owner to the Interconnection Customer within five (5) Business Days of receipt of such agreement.

**3.5.5 Re-Study.** If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall so notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than thirty (30) Business Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection

Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

## **SECTION 4. PROVISIONS THAT APPLY TO ALL INTERCONNECTION REQUESTS**

### **4.1 Reasonable Efforts**

The System Operator and Interconnecting Transmission Owner shall make Reasonable Efforts to meet all time frames provided in these procedures unless the System Operator, the Interconnecting Transmission Owner and the Interconnection Customer agree to a different schedule. If the System Operator or Interconnecting Transmission Owner cannot meet a deadline provided herein, it shall notify the other Parties, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### **4.2 Disputes**

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

4.2.2 In the event of a dispute, the Party initiating the dispute resolution process shall provide the other Party(ies) with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two (2) Business Days after receipt of the Notice, any Party may contact the Commission's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for its own costs and its pro rata share of any costs paid to the neutral party and any associated common negotiating costs.

4.2.6 If none of the Parties elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then each Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of these procedures.

#### **4.3 Interconnection Metering**

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Commission, state, or local regulatory requirements and with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **4.4 Commissioning**

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards.

4.4.1 The System Operator and the Interconnecting Transmission Owner must be given at least five (5) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

#### **4.5 Confidentiality**

4.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party(ies) that is clearly marked or otherwise designated "Confidential." For purposes of these procedures all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such. Confidential information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an SGIA.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party(ies) and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such



information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party(ies) as it employs to protect its own Confidential Information.

4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

4.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to these procedures, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party(ies) when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **4.6 Comparability**

The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The System Operator and Interconnecting Transmission Owner shall use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the Interconnecting Transmission Owner, its subsidiaries or affiliates, or others.

#### **4.7 Record Retention**

The System Operator shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

#### **4.8 SGIA**

In accordance with Section 3, the System Operator and the Interconnecting Transmission Owner shall tender to the Interconnection Customer a draft SGIA, together with draft attachments completed to the extent practicable. The Interconnection Customer shall return the Interconnection Customer specific information required to complete the form SGIA, including the attachments, within fifteen (15) Business Days. Within five (5) Business Days, the System Operator and the Interconnecting Transmission Owner shall issue a final draft of the SGIA to the Interconnection Customer.

The Interconnection Customer and the Interconnecting Transmission Owner shall have fifteen (15) Business Days or another mutually agreeable timeframe to sign three (3) originals of the SGIA and return them to the System Operator, who will send an original fully executed SGIA to Interconnecting Transmission Owner and Interconnection Customer, or the Interconnection Customer shall request that an unexecuted SGIA be filed with the Commission. If the Interconnection Customer does not sign the SGIA, or ask that it be filed unexecuted within thirty (30) Business Days after its receipt of the final draft of the SGIA, the Interconnection Request shall be deemed withdrawn. After the SGIA is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the SGIA.

The Interconnection Customer, the Interconnecting Transmission Owner and the System Operator shall be Parties to the SGIA.

Within fifteen (15) Business Days after receipt of the final SGIA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation Deposit in accordance with Section 1.5.3.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final

SGIA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by the fifteenth Business Day after receipt of the final SGIA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

#### **4.9 Coordination with Affected Systems**

The System Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The System Operator will include such Affected System operators in all meetings held with the Interconnection Customer as required by the SGIP. The Interconnection Customer will cooperate with the System Operator and the Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies). The System Operator shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Parties.

#### **4.10 Evaluation of a Small Generating Facility Interconnection Request**

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total energy capability or capacity capability of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System. However, if the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the System Operator's and Interconnecting Transmission Owner's agreement, with such agreement not to be unreasonably withheld, that the manner in which the Interconnection Customer proposes to implement such a limit will not adversely affect the safety and reliability of the Administered Transmission System. If the System Operator and the Interconnecting Transmission Owner do not agree with the manner in which the Interconnection Customer proposes to implement the limit, then the Interconnection Request must be withdrawn or revised to specify the maximum energy capability and capacity capability that the Small Generating Facility is capable of injecting into the Administered Transmission System without such limitations. Furthermore, nothing in this section shall prevent the System Operator from considering an output higher than the limited output, if appropriate, when evaluating system protection impacts.

**Glossary of Terms**

**10 kW Inverter Process** – The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

**Administered Transmission System** – The PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Affected Party**– The entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** – Any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** – With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**At-Risk Expenditure** – Money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (i) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and surveys, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** – Base power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists provided by System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements; such databases and lists shall include all generation projects and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. Base Cases also include data provided by the Interconnection Customer, where applicable, to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** – The criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** – That portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** – (i) In the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff, for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a

filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 1.6.4.3 of this SGIP, the total megawatt amount determined pursuant to the hierarchy established in Section 1.6.4.3, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** – The study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Small Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 1.5.3.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 1.5.3.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 1.5.3.3.2.2 and 1.5.3.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 1.5.3.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** – The status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** – For a unit, the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Standard Small Generator Interconnection Agreement.

**Distribution System** – The Interconnecting Transmission Owner’s facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.



**Distribution Upgrades** – The additions, modifications, and upgrades to the Interconnecting Transmission Owner’s Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Fast Track Process** – The procedure for evaluating an Interconnection Request for a certified Small Generating Facility that meets the eligibility requirements of section 2.1 and includes the section 2 screens, customer options meeting, and optional supplemental review.

**Generating Facility** – The Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.

**Initial Synchronization Date** – The date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** – The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** – A Transmission Owner that owns, leases or otherwise possesses an interest, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing, a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Small Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Attachment 2 to the Standard Small Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole use

facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** – Any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Small Generating Facility with the Administered Transmission System under the Standard Small Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Attachment 2 of the Standard Small Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** – The Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** – A study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 3.5.2 of the Standard Small Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** – The form of agreement contained in Attachment 8 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** – A preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 3.3 of the Standard Small Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection Feasibility Study Agreement** – The form of agreement contained in Attachment 6 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** – The Interconnection Request shall mean an Interconnection Customer's request, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP; (iv) make a modification to the operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected to the Administered Transmission System; (v) commence participation in the wholesale markets by, an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying

Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** – The service provided by the System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Small Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** – Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Small Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** – Any of the following agreements: The Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, and the Interconnection Facilities Study Agreement attached to the Standard Small Generator Interconnection Procedures.

**Interconnection System Impact Study** – An engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Small Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection System Impact Study Agreement** – The form of agreement contained in Attachment 7 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**Network Capability Interconnection Standard (“NC Interconnection Standard”)** – The minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource (“NR”)** – The portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability (“NR Capability”)** – The maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 1.6.4.4 of this SGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 1.6.4.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard. An Interconnection Customer’s NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** – Additions, modifications, and upgrades to the New England Transmission System

required at or beyond the point at which the Small Generating Facility interconnects with the Administered Transmission System to accommodate the interconnection with the Small Generating Facility to the Administered Transmission System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – A written notice of a dispute or claim that arises out of or in connection with the Standard Small Generator Interconnection Agreement or its performance.

**Party**– The System Operator, Interconnecting Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Administered Transmission System.

**Queue Position** – The order of a valid request in the New England Control Area, relative to all other pending valid requests in the New England Control Area, that is established based upon the date and time of receipt of the valid Interconnection Request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the SGIP or SGIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – A Generating Facility having a maximum gross capability at or above zero degrees F of 20 MW or less.

**Stand Alone Network Upgrades** – Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their

construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Attachment 2 to the Standard Small Generator Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 3.3.2 and 3.4.3 of this SGIP.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, Interconnection Feasibility Study, Interconnection System Impact Study, and Interconnection Facilities Study.

**Tariff** - The System Operator's or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

**Trial Operation** – The period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Upgrades** – The required additions and modifications to the Administered Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**SMALL GENERATOR INTERCONNECTION REQUEST  
(Application Form)**

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP Section 1.4, documentation of Site Control must be submitted with the Interconnection Request, except where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the proposed modifications do not require additional real property.

\_\_\_\_\_ Site Control is not provided because the proposed modification is to the Interconnection Customer's existing Small Generating Facility and, by checking this option, the Interconnection Customer certifies that it has Site Control and that the proposed modification does not require additional real property.

**Preamble and Instructions**

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection that is subject to this SGIP must submit this Interconnection Request to the System Operator via the Interconnection Request Tracking Tool or IRTT, a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$4.50/kW (minimum of \$300 and maximum of \$7,500). The kW are the maximum gross kW of the Small Generating Facility. The Fast Track Process is limited to a Small Generating Facility that meets the eligibility requirements of section 2.1 and certain codes, standards and certification requirements.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the System Operator a non-refundable deposit of \$2,500 towards the cost of the scoping



meeting, the development of the interconnection study agreements, interconnection studies, and development of the SGIA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the non-refundable deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.

**Interconnection Customer Information**

**Proposed Project Name:** \_\_\_\_\_

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

ISO Customer ID# (if available): \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    \_\_\_\_\_ New Small Generating Facility  
                              \_\_\_\_\_ Capacity addition to or modification of an existing Small Generating Facility  
                              \_\_\_\_\_ Commencement of participation in the wholesale markets by an existing Small Generating Facility  
                              \_\_\_\_\_ A change from Network Resource Interconnection Service to Capacity Network Resource Interconnection Service

If capacity addition to or modification of an existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

If the capacity addition increases the maximum gross megawatt electrical output at an ambient temperature of 20 degrees F of the Generating Facility to more than 20 MW, the Interconnection Customer shall apply under Schedule 22.

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Others? Yes \_\_\_ No \_\_\_

Is the Interconnection Request for:

Service Type (check one):

\_\_\_\_\_Capacity Network Resource Interconnection Service (energy capability and capacity capability) or

\_\_\_\_\_Network Resource Interconnection Service (energy capability only)

A retail customer interconnecting a new Small Generating Facility that will produce electric energy to be consumed only on the retail customer's site? Yes\_\_\_\_\_No\_\_\_\_\_

A Qualifying Facility where 100% of the output will be sold to its host utility?  
Yes\_\_\_\_\_No\_\_\_\_\_

An Interconnection Customer interconnecting a new Small Generating Facility that plans to participate in the wholesale markets? Yes\_\_\_\_\_No\_\_\_\_\_

An existing Small Generating Facility commencing participation in the wholesale markets?  
Yes\_\_\_\_\_No\_\_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider) (Existing Account Number)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

### Small Generating Facility Information

Interconnection Customer's Requested Initial Synchronization Date:

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

Interconnection Customer's Requested Commercial Operation Date: \_\_\_\_\_

Proposed Point of Interconnection: \_\_\_\_\_

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: \_\_\_ Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_ Other (state type) \_\_\_\_\_

Prime Mover: \_\_\_ Fuel Cell \_\_\_ Recip Engine \_\_\_ Gas Turb \_\_\_ Steam Turb  
\_\_\_ Microturbine \_\_\_ PV \_\_\_ Other

Type of Generator: \_\_\_ Synchronous \_\_\_ Induction \_\_\_ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

Will the generator have energy storage capacity? Yes \_\_\_ No \_\_\_

If Yes, describe the energy storage device and specifications:

Provide the maximum output of each generator including each energy storage device: \_\_

**Generating Facility Capacity (MW):**

	<b>Maximum Net MW Electrical Output</b>	<b>Maximum Gross MW Electrical Output</b>
<b>At 90 degrees F or higher</b>		
<b>At 50 degrees F or higher</b>		
<b>At 20 degrees F or higher</b>		
<b>At zero degrees F or higher</b>		

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? \_\_\_ Yes \_\_\_ No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_      \_\_\_Single phase      \_\_\_Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

### Model Requirements

For all generation types: A completed, fully functioning, public (*i.e.*, non-proprietary or non-confidential) Siemens PTI's ("PSSE") power flow model or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flow ("PSLF") data sheet, must be supplied with this Interconnection Request. If additional public data sheets are more appropriate to the proposed device then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.

A PSCAD model for all wind and inverter-based Small Generating Facilities must be supplied with this Interconnection Request. If a PSCAD model is deemed required for other Generating Facility types at the Scoping Meeting, such PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the executed Interconnection System Impact Study Agreement. A benchmarking analysis consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time the PSCAD model is submitted.

### Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Generator AC resistance  $R_a$ : \_\_\_\_\_

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2 t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the System Operator prior to submitting the Interconnection Request to determine if the specified information above is required.

#### Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

#### **Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_\_ Yes \_\_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_\_ Yes \_\_\_\_ No

#### Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_ single phase \_\_\_\_ three phase? Size: \_\_\_\_\_ kVA

Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_ Volts \_\_\_\_ Delta \_\_\_\_ Wye \_\_\_\_ Wye Grounded

Transformer Secondary: \_\_\_\_ Volts \_\_\_\_ Delta \_\_\_\_ Wye \_\_\_\_ Wye Grounded

Transformer Tertiary: \_\_\_\_ Volts \_\_\_\_ Delta \_\_\_\_ Wye \_\_\_\_ Wye Grounded

#### Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)



Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

**General Information**

Enclose two copies of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Are two copies of One-Line Diagram Enclosed? \_\_\_\_ Yes \_\_\_\_ No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_\_Yes \_\_\_\_No

### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

In order for a Small Generator Interconnection Request to be considered a valid request, it must:

- (a) Be accompanied by the applicable deposit that is provided electronically and which shall be non-refundable;*
- (b) Include documentation of Site Control, if applicable;*
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures;*
- (d) Include two copies, signed and stamped by a licensed Professional Engineer, of the site electrical one-line diagram; and*
- (e) Include all information and data required on the Interconnection Request form and any attachments thereto.*

The Interconnection Request must be submitted to the System Operator via the Interconnection Request Tracking Tool or IRTT.

--

## Attachment A to Interconnection Request Form

### SUPPLEMENTARY WIND AND INVERTER-BASED GENERATING FACILITY DATA FORM

1. Attach a Geographic Map Demonstrating the Project Layout and its Interconnection to the Power Grid. (Specify the name of the attachment here)

2. Attach a Bus-Breaker Based One-line Diagram (The diagram should include each of the individual wind unit, generator number, rating and terminal voltage.) (Specify the name of the attachment here)

- 2.1 Collection system detail impedance sheet

If a collector system is used, attach a collector system data sheet in accordance with the one-line diagram attached above. The data sheet should include: the type, length  $Z_0$ ,  $Z_1$  and  $Xc/B$  of each circuit (feeder and collector string).

Specify the name of the attachment here: \_\_\_\_\_

- 2.2 Collection system aggregate (equivalent) model data sheet

Attach an aggregate (equivalent) collection system data sheet. The data table should include: the type, length,  $Z_0$ ,  $Z_1$  and  $Xc/B$  of the equivalent circuits (feeders and collector strings).

Specify the name of the attachment here: \_\_\_\_\_

3. Summary of the Unit Models in the wind or inverter-based generating facility *(List all different unit models in the facility)*

Manufacturer Model	Type of this WTG* (if applicable)	Generator Unit Numbers in the field	Number(s) of these Units	Maximum Output of this Unit (MW)	Total MW

--	--	--	--	--	--

- \* Type 1 – Cage rotor induction generators  
Type 2 – Induction generators with variable rotor resistance  
Type 3 – Doubly-fed asynchronous generators with rotor-side converter  
Type 4 – Full-power converter interface

***Repeat the following sections from 4 to 12 for each different unit model.***

#### 4. Unit Detail Information

Unit Manufacturer Model	
Terminal Voltage	
Rating of Each Unit (MVA)	
Maximum Gross Electrical Output (MW)	
Minimum Gross Electrical Output(MW)	
Lagging Reactive Power Limit at Rated Real Power Output (MVAR)	
Leading Reactive Power Limit at Rated Real Power Output (MVAR)	
Lagging Reactive Power Limit at Zero Real Power Output (MVAR)	
Leading Reactive Power Limit at Zero Real Power Output (MVAR)	
Station Service Load(MW, MVAR)	
Minimum short circuit ratio(SCR) requirement by manufacturer	
On which bus the minimum SCR is required by manufacturer	
What voltage level the minimum SCR is required by manufacturer	
Positive sequence Xsource	
Zero sequence Xsource	

5. Unit GSU – \_\_\_\_\_

Nameplate rating (MVA)	
Total number of the GSUs	
Voltages, generator side/system side	
Winding connections, low voltage/high voltage	
Available tap positions on high voltage side	
Available tap positions on low voltage side	
Will the GSU operate as an LTC?	
Desired voltage control range if LTC	
Tap adjustment time (Tap switching delay + switching time) if LTC	
Desired tap position if applicable	
Impedance, Z1, X/R ratio	
Impedance, Z0, X/R ratio	

6. Low Voltage Ride Through(LVRT) – \_\_\_\_\_(*Specify the Manufacturer Model of this Unit*)

Does each Unit have LVRT capability?

Yes\_\_ No\_\_

If yes, please provide:

6.1 Unit LVRT mode activation and release condition:

When operating at maximum real power, what is the Unit terminal voltage for LVRT mode activation? \_\_\_\_\_

When operating at maximum real power, what is the Unit terminal voltage for releasing LVRT mode after it is activated? \_\_\_\_\_

If there is different LVRT activation and release logic, please state here \_\_\_\_\_

- 6.2 A wind or inverter-based generating facility technical manual from the manufacturer including description of LVRT functionality:

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

- 6.3 Does the wind or inverter-based generating facility technical manual attached above include a reactive power capability curve?

Yes\_\_ No\_\_

***If no, attach the file and specify the name of the attachment here:***

\_\_\_\_\_

7. Low Voltage Protection (considering LVRT functionality)

(Specify the Manufacturer Model of this Unit)

Low Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

8. High Voltage Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

High Voltage Setting (pu)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

9. Low Frequency Protection - \_\_\_\_\_(Specify the Manufacturer Model of this Unit)

Low Frequency Setting (Hz)	Relay Pickup Time (Seconds)



--	--

\*Add more rows in the table as needed

10. High Frequency Protection - \_\_\_\_\_ (Specify the Manufacturer Model of this Unit)

High Frequency Setting (Hz)	Relay Pickup Time (Seconds)

\*Add more rows in the table as needed

**Please make sure the settings in sections 7 through 10 comply with NERC and NPCC standards for generator protection relays.**

11. Unit Reactive Power Control - \_\_\_\_\_ (Specify the Manufacturer Model of this Unit)

11.1 What are the options for the Unit reactive power control (check all available)?

- \_\_\_\_\_ Control the voltage at the Unit terminal
- \_\_\_\_\_ Control constant power factor at the Unit terminal
- \_\_\_\_\_ Control constant power factor at the low side of the station main transformer
- \_\_\_\_\_ Control constant power factor at the high side of the station main transformer
- \_\_\_\_\_ Control voltage at the low side of the station main transformer
- \_\_\_\_\_ Control voltage at the high side of the station main transformer
- \_\_\_\_\_ Other options. Please describe if select others

\_\_\_\_\_

11.2 In all the control options selected above, please list the options in which the Unit is able to control its terminal voltage to prevent low/high voltage tripping.

\_\_\_\_\_

11.3 What is the desired control mode from the selected options above? Specify the control plan in this mode. For example: control voltage at which bus to what schedule.

\_\_\_\_\_

12. Wind or inverter-based generating facility Model

*(All model files provided under this section 12 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

12.1 Power flow model

- 12.1.1 A \*.RAW file including **aggregated/equivalent** wind or inverter-based generating facility power flow model with appropriate parameters and settings.

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.1.2 A \*.RAW file including **detailed** wind or inverter-based generating facility power flow model with appropriate parameters and settings. *(Optional)*

*Attach the \*.RAW file and specify the name of the attachment here:*

\_\_\_\_\_

12.2 Dynamic simulation model

*(Please note that the dynamic model must match the aggregated/equivalent power flow model provided above. Attach the following information for each of the models.)*

- 12.2.1 Wind or inverter-based generating facility Model \_\_\_\_\_(Please Specify the Manufacturer Model)

- 12.2.2 A compiled PSS/E dynamic model for the turbines (a \*.LIB or \*.OBJ file)

*Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:*

\_\_\_\_\_

- 12.2.3 A dynamic data file with appropriate parameters and settings for the turbines (typically a \*.DYN file)

***Attach the \*.DYN file and specify the name of the attachment here:***

\_\_\_\_\_

- 12.2.4 PSS/E wind or inverter-based generating facility model user manual for the WTG

***Attach and specify the name of the attachment here:***

\_\_\_\_\_

***Repeat the above sections from 6 to 12 for each different wind or inverter-based generating facility model.***

13. Power Plant Controller

Will the wind or inverter-based generating facility be equipped with power plant controller, which has the ability to centrally control the output of the units?

Yes\_\_\_ No\_\_\_

If yes, please provide:

- 13.1 Manufacturer model of the power plant controller

\_\_\_\_\_

- 13.2 What are the reactive power control strategy options of the power plant controller?

- 13.3 Which of the control option stated above is being used in current operation?

\_\_\_\_\_

- 13.3 Is the power plant controller able to control the unit terminal voltages to prevent low/high voltage tripping?

Yes\_\_\_ No\_\_\_

Please provide the park controller technical manual from the manufacturer

***Attach the file and specify the name of the attachment here:***

\_\_\_\_\_

14. Station Transformer

Transformer Name		
Nameplate ratings (MVA)		
Total number of the main transformer(s)		
Voltages, High/Low/Tertiary (kV)		
Winding connections, High/Low/Tertiary		
Available tap positions on high voltage side		
Available tap positions on low voltage side		
Will the transformer operate as a LTC?		
Desired voltage control range if LTC		
Tap adjustment time (Tap switching delay + switching time) if LTC		
Desired tap position if applicable		
Tap adjustment time (Tap switching delay + switching time)		
Impedance $Z_1$ , X/R ratio	$Z_{1H-L}$	X/R
	$Z_{1H-T}$	X/R
	$Z_{1T-L}$	X/R
Impedance $Z_0$ , X/R ratio	$Z_{0H-L}$	X/R
	$Z_{0H-T}$	X/R
	$Z_{0T-L}$	X/R

15. Dynamic Simulation Model for the Power Plant Controller(s) (if applicable )

*(All model files provided under this section 15 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)*

15.1 A compiled PSS/E dynamic model for the power plant controller(s) (a \*.LIB or \*.OBJ file)

***Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:***

\_\_\_\_\_

- 15.2 A dynamic data file with appropriate parameters and settings for the power plant controller(s) (typically a \*.DYR file).

***Please set the parameters in accordance with the currently used control mode.***

***Attach the \*.DYR file and specify the name of the attachment here:***

\_\_\_\_\_

- 15.3 PSS/E model user manual for the power plant controller(s)

***Attach the manual and specify the name of the attachment or specify the name of the attachment here:***\_\_\_\_\_

16. Capacitors and Reactors

Please provide necessary modeling data for all the capacitors and reactors belong to the facility, including: size, basic electrical parameters, connecting bus, switched or fixed, etc.

17. Dynamic Device(s)

***(All model files provided under this section 17 should be compatible with Siemens PTI's PSS/E version currently in use at ISO New England)***

- 17.1 Provide necessary modeling data file for all the dynamic devices belong to the facility.

Attach the \*.LIB or \*.OBJ file and specify the name of the attachment here:

\_\_\_\_\_

- 17.2 A dynamic data file containing the parameters for the units (typically a \*.DYR file).

Set the parameters in accordance with the desired control mode.

Attach the \*.DYR file and specify the name of the attachment here:

\_\_\_\_\_

18. Collection System/Transformer Tap-Setting Design

Attach a collection system/transformer tap-setting design calculations, consistent with the requirements in the ISO New England Planning Procedures, that identify the calculations to

support the proposed tap settings for the unit step-up transformers and the station step-up transformers.

Attach the design document and specify the name of the attachment here:

\_\_\_\_\_

19. Additional Information

Are there any special features available to be implemented to the wind or inverter-based generating facility? Such as weak grid interconnection solutions, etc.

Specify the available features here:

\_\_\_\_\_

***Insert the technical manual for each of the features listed above as objects (display as icons) or specify the name of the attachment here:*** \_\_\_\_\_

20. Provide PSCAD Model and Documentation for the wind or inverter-based generating facility, the Power Plant Controller(s) and Other Dynamic Devices for the wind or inverter-based generating facility.

***ISO will determine how much PSCAD work is needed from the wind or inverter-based generating facility based on its interconnection system conditions.***

## CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Small Generating Facility in a Cluster Interconnection System Impact Study pursuant to Section 1.5.3.3.2.2 of this SGIP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:

- a. Project Name: \_\_\_\_\_
- b. Queue Position: \_\_\_\_\_
- c. Is the Interconnection Request contractually associated with another Interconnection Request for an Elective Transmission Upgrade? Yes \_\_\_\_ No \_\_\_\_  
If yes, identify Queue Position of the associated Interconnection Request and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_

2. Initial Cluster Participation Deposit as specified in Section 1.5.3.3.2.2.

### Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

## **Attachment 3**

### **Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms



NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

**Certification of Small Generator Equipment Packages**

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

**10 kW Inverter Process**

**Solely applicable for Network Resource Interconnection Service**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the System Operator.
- 2.0 The System Operator acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The System Operator in conjunction with the Interconnecting Transmission Owner evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The System Operator in conjunction with the Interconnecting Transmission Owner verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The System Operator has 15 Business Days to complete this process. Unless the System Operator in conjunction with the Interconnecting Transmission Owner determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the System Operator approves the Application and returns it to the Customer. Note to Customer: Please check with the System Operator before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the System Operator. Prior to parallel operation, the System Operator and Interconnecting Transmission Owner may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The System Operator in conjunction with the Interconnecting Transmission Owner notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Interconnecting Transmission Owner has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Interconnecting Transmission Owner is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Interconnecting Transmission Owner does not

inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the System Operator and the Interconnecting Transmission Owner, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

**Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.4, documentation of Site Control must be submitted with the Interconnection Request, except where the Interconnection Request is for a modification to the Interconnection Customer's existing Small Generating Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

### Small Generating Facility Information

Location (if different from above): \_\_\_\_\_

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

Is the Interconnection Request for:

A retail customer interconnecting a new Small Generating Facility that will produce electric energy to be consumed only on the retail customer's site? Yes\_\_\_\_No\_\_\_\_

A Qualifying Facility where 100% of the output will be sold to its host utility?

Yes\_\_\_\_No\_\_\_\_

An Interconnection Customer interconnecting a new Small Generating Facility that plans to participate in the wholesale markets? Yes\_\_\_\_No\_\_\_\_

An existing Small Generating Facility commencing participation in the wholesale markets?

Yes\_\_\_\_No\_\_\_\_

Inverter Manufacturer:\_\_\_\_\_Model\_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

Single Phase \_\_\_\_\_ Three Phase\_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell☐

Turbine☐ Other \_\_\_\_\_

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐

Fuel Oil ☐ Other (describe) \_\_\_\_\_

Is the equipment UL1741 Listed? Yes\_\_\_\_No\_\_\_\_

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small

Generator Interconnection Procedures (SGIP), or the Interconnecting Transmission Owner has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

#### **Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

#### **Contingent Approval to Interconnect the Small Generating Facility (For Internal use only)**

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Interconnecting Transmission Owner Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Interconnecting Transmission Owner waives inspection/witness test? Yes\_\_\_No\_\_\_

System Operator Signature: \_\_\_\_\_



Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

### **Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Small Generating Facility (if different from above):

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

#### Electrician:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Interconnecting Transmission Owner: \_\_\_\_\_

Application ID number: \_\_\_\_\_

#### Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

---

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert System Operator and Interconnecting Transmission Owner information below):

Name: \_\_\_\_\_

System Operator: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Name: \_\_\_\_\_

Interconnecting Transmission Owner:

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

---

**Approval to Energize the Small Generating Facility**  
**(For Internal use only)**

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Interconnecting Transmission Owner Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

System Operator Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Terms and Conditions for Interconnecting an Inverter-Based  
Small Generating Facility No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the System Operator approves the Interconnection Request (the "Application") and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Interconnecting Transmission Owner's (the "Company") electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 The Customer returns the Certificate of Completion to the System Operator and the Company, and

2.3 The Company has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small

Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

### **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### **4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

### **5.0 Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

## **6.0 Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

## **7.0 Insurance**

The Parties agree to follow all applicable insurance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

## **8.0 Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

## **9.0 Termination**

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

9.2 By providing written notice to the Company and the System Operator.

9.3 By the Company or the System Operator

9.4 If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

## **10.0 Permanent Disconnection**

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

**11.0 Survival Rights**

This Agreement shall continue in effect after termination to the extent necessary to allow or require any Party to fulfill rights or obligations that arose under the Agreement.

**12. Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the System Operator and the Company.

## Interconnection Feasibility Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested the System Operator and Interconnecting Transmission Owner to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Small Generating Facility with the facilities that are part of the Interconnecting Transmission Owner's Administered Transmission System, and of any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures ("SGIP"), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the "Tariff").

- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection Feasibility Study consistent the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the Interconnection Feasibility Study may be extended by agreement of the Parties.
- 5.0 In performing the study, the System Operator and Interconnecting Transmission Owner shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the Interconnection Feasibility Study.
- 6.0 The Interconnection Feasibility Study report shall provide the following analyses depending on whether the Feasibility Study consisted of: (a) a power flow, including thermal analysis and voltage analysis, and short circulated analysis, or (b) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the interconnection of the Small Generating Facility as proposed given recent study experience and as discussed at the Scoping Meeting:
  - 6.1 Initial identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient



analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;

- 6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Small Generating Facility's interconnection given recent study experience and as discussed at the Scoping Meeting;
  - 6.3 Preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Small Generating Facility as identified within the scope of the analysis performed as part of the study;
  - 6.4 If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection;
  - 6.5 If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, description and non-binding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues and length of time that would be necessary to construct the facilities; and
  - 6.6 To the extent the Interconnection Customer requested a preliminary analysis as described in Section 3.3.2 of the SGIP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.
- 7.0 The Interconnection Feasibility Study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.

- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit, paid to the System Operator, of the lesser of 50 percent of good faith estimated Interconnection Feasibility Study costs or earnest money of \$1,000 shall be required from the Interconnection Customer.
- 10.0 Once the Interconnection Feasibility Study is completed, an Interconnection Feasibility Study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the Interconnection Feasibility Study must be completed and the Interconnection Feasibility Study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct an Interconnection Feasibility Study.
- 11.0 The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$ [insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted. 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator shall refund such excess within 30 calendar days of the invoice without interest.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator shall refund such excess within 30 calendar days of the invoice without interest
- 13.0 Miscellaneous.
- 13.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

13.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

13.3 Force Majeure, Liability and Indemnification.

13.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

13.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System

Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 13.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case

of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 13.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 13.2 and 13.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall not be deemed third party beneficiaries of Sections 13.2 and 13.3.
- 13.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 13.5, shall continue in effect for a term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.

- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.
- 13.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 13.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 13.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 13.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 13.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other

failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

- 13.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 13.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 13.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 13.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the

hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

13.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

13.16 Reservation of Rights. Subject to the TOA, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.



**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]**

**[Insert name of Interconnection Customer]**

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

**[Insert name of Interconnecting Transmission Owner]\**

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

**Attachment A to  
Interconnection Feasibility Study Agreement**

**Assumptions Used in Conducting the Interconnection Feasibility Study**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the scoping meeting held on \_\_\_\_\_:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
  
  
  
  
  
  
  
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer, System Operator and Interconnecting Transmission Owner.

**Interconnection System Impact Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Administered Transmission System;

**WHEREAS**, the System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the Interconnection Feasibility Study.); and

**WHEREAS**, the Interconnection Customer has requested the System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study(s) to assess the impact of interconnecting the Small Generating Facility with the facilities that are part of the Interconnecting Transmission Owner's Administered Transmission System, and of any Affected Systems.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of an Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 An Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study and the technical information provided by Interconnection Customer in the Interconnection Request. The System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 An Interconnection System Impact Study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. An Interconnection System Impact Study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. An Interconnection System Impact Study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and

time to construct.

- 6.0 A distribution Interconnection System Impact Study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of an Interconnection System Impact Study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon an Interconnection System Impact Study that covers potential adverse system impacts on their electric systems, and the System Operator and Interconnecting Transmission Owner have 20 additional Business Days to complete an Interconnection System Impact Study requiring review by Affected Systems.
- 8.0 If the System Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the Interconnection System Impact Study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced.
  - 8.1 Are directly interconnected with the Administered Transmission System; or
  - 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 8.3 Have a pending higher queued Interconnection Request to interconnect with the Administered Transmission System.
- 9.0 A distribution Interconnection System Impact Study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission Interconnection System Impact Study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties.

10.0 A deposit of the equivalent of the good faith estimated cost of a distribution Interconnection System Impact Study shall be paid to the System Operator by the Interconnection Customer; and the one half the good faith estimated cost of a transmission Interconnection System Impact Study shall be paid to the System Operator by the Interconnection Customer.

11.0 The total estimated cost of the performance of the Interconnection System Impact Study consists of \$[insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator or Interconnecting Transmission Owner, as applicable, shall refund such excess within 30 calendar days of the invoice without interest.

13.0 Miscellaneous.

13.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

13.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied,

whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the content of the Interconnection System Impact Study, or the conclusions of the Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 13.3 Force Majeure, Liability and Indemnification.

13.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

13.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission

Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 13.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of



Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 13.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 13.2 and 13.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall not be deemed third party beneficiaries of Sections 13.2 and 13.3.
- 13.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 13.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be

deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.

- 13.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 13.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 13.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 13.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 13.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.
- 13.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the

Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

- 13.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 13.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 13.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 13.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.
- 13.16 Reservation of Rights. Subject to the TO Agreement, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any

other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]      [Insert name of Interconnection Customer]**

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

**[Insert name of Interconnecting Transmission Owner]**

\_\_\_\_\_  
Signed\_\_\_\_\_

Name (Printed):

\_\_\_\_\_  
Title\_\_\_\_\_

**Attachment A to System  
Impact Study Agreement**

**Assumptions Used in Conducting the System Impact Study**

The Interconnection System Impact Study shall be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
  
  
  
  
  
  
  
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer, System Operator and Interconnecting Transmission Owner.

**Interconnection Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, ("Interconnection Customer,") and ISO New  
England Inc., a non-stock corporation existing under the laws of the State of Delaware ("System  
Operator"), and  
\_\_\_\_\_, a \_\_\_\_\_  
existing under the laws of the State of \_\_\_\_\_,  
("Interconnecting Transmission Owner"). Interconnection Customer, System Operator and  
Interconnecting Transmission Owner each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or  
generating capacity addition to an existing Small Generating Facility consistent with the Interconnection  
Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the  
Administered Transmission System;

**WHEREAS**, the System Operator and Interconnecting Transmission Owner have completed an  
Interconnection System Impact Study and provided the results of said study to the Interconnection  
Customer; and

**WHEREAS**, the Interconnection Customer has requested the System Operator and Interconnecting  
Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the  
equipment, engineering, procurement and construction work needed to implement the conclusions of the  
Interconnection System Impact Study in accordance with Good Utility Practice to physically and  
electrically connect the Small Generating Facility with the facilities that are part of the Interconnecting  
Transmission Owner's Administered Transmission System.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 The Interconnection Customer elects and the System Operator and Interconnecting Transmission Owner shall cause an Interconnection Facilities Study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study(s). The Interconnection Facilities Study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Interconnecting Transmission Owner’s Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The System Operator and Interconnecting Transmission Owner may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit, paid to the System Operator, of the good faith estimated Interconnection Facilities Study costs shall be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the Interconnection Facilities Study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are



necessary, and the required facilities are limited to Interconnection Facilities, the Interconnection Facilities Study must be completed within 30 Business Days.

- 8.0 Once the Interconnection Facilities Study is completed, an Interconnection Facilities Study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the Interconnection Facilities Study must be completed and the Interconnection Facilities Study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct an Interconnection Facilities Study.
- 9.0 The total estimated cost of the performance of the Interconnection Facility Study consists of \$ [insert], which is comprised of the System Operator's cost of \$[insert] and the Interconnecting Transmission Owner's cost of \$[insert]. The Interconnection Customer may be invoiced on a monthly basis for work to be conducted.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the System Operator or Interconnecting Transmission Owner, as applicable, shall refund such excess within 30 calendar days of the invoice without interest.
- 11.0 Miscellaneous.
- 11.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.
- 11.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility

Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

## 11.2 Force Majeure, Liability and Indemnification.

11.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all Reasonable Efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

11.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or

omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 11.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be

reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 11.4 Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns. Notwithstanding the foregoing, and without limitation of Sections 11.2 and 11.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall not be deemed third party beneficiaries of Sections 11.2 and 11.3.
- 11.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 11.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 1.8 of the SGIP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 11.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

- 11.7 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority: (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.
- 11.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 11.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 11.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 11.11 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 11.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect. Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the System Operator and the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

- 11.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 11.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.
- 11.15 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.
- 11.15.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the System Operator or Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 11.15.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.
- 11.16 Reservation of Rights. Subject to the TOA, the System Operator and the Interconnecting Transmission Owner shall have the right to make a unilateral filing with the Commission

to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of System Operator]      [Insert name of Interconnection Customer]**

_____	_____
Signed_____	Signed_____
Name (Printed):	Name (Printed):
_____	_____
Title_____	Title_____

**[Insert name of Interconnecting Transmission Owner]**

\_\_\_\_\_

Signed\_\_\_\_\_

Name (Printed):

---

Title\_\_\_\_\_



**Attachment A to  
Interconnection Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer  
with the Interconnection Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location.  
(Maximum load on Current Transformer/Power Transformer ("CT/PT"))

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

One set of metering is required for each generation connection to the new ring bus or existing  
Transmission Provider station. Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the  
total plant generation? Yes \_\_\_\_\_ No \_\_\_\_\_  
(Please indicate on the one-line diagram).

What type of control system or Power Line Carrier ("PLC") will be located at the Small Generating  
Facility?

---

---

What protocol does the control system or PLC use?

---

---

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to Administered Transmission System.

---

Tower number observed in the field. (Painted on tower leg)\*:

---

Number of third party easements required for transmission lines\*:

---

\* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_ If No, please provide name of local provider:

---

Please provide the following proposed schedule dates:

Begin Construction Date: \_\_\_\_\_

Generator step-up transformers  
receive back feed power Date: \_\_\_\_\_

Generation Testing Date: \_\_\_\_\_

Commercial Operation Date: \_\_\_\_\_

**STANDARD SMALL GENERATOR  
INTERCONNECTION AGREEMENT (SGIA)**

## **TABLE OF CONTENTS**

### **Article. 1. Scope and Limitations of Agreement**

- 1.1 Applicability
- 1.2 Purpose
- 1.3 No Agreement to Purchase or Deliver Power
- 1.4 Limitations
- 1.5 Responsibilities of the Parties
- 1.6 Parallel Operation Obligations
- 1.7 Metering
- 1.8 Reactive Power
- 1.9 Capitalized Term
- 1.10 Scope of Service

### **Article. 2. Inspection, Testing, Authorization, and Right of Access**

- 2.1 Equipment Testing and Inspection
- 2.2 Authorization Required Prior to Parallel Operation
- 2.3 Right of Access

### **Article. 3. Effective Date, Term, Termination, and Disconnection**

- 3.1 Effective Date
- 3.2 Term of Agreement
- 3.3 Termination
- 3.4 Temporary Disconnection
  - 3.4.1 Emergency Conditions
  - 3.4.2 Routine Maintenance, Construction, and Repair
  - 3.4.3 Forced Outages
  - 3.4.4 Adverse Operating Effects
  - 3.4.5 Modification of the Small Generating Facility
  - 3.4.6 Reconnection

### **Article. 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

- 4.1 Interconnection Facilities
- 4.2 Distribution Upgrades

### **Article. 5. Cost Responsibility for Network Upgrades**

- 5.1 Applicability

- 5.2 Network Upgrades
- 5.3 Special Provisions for Affected Systems
- 5.4 Rights Under Other Agreements

**Article.6. Billing, Payment, Milestones, and Financial Security**

- 6.1 Billing and Payment Procedures and Final Accounting
- 6.2 Milestones
- 6.3 Financial Security Arrangements

**Article. 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

- 7.1 Assignment
- 7.2 Limitation of Liability
- 7.3 Indemnity
- 7.4 Consequential Damages
- 7.5 Force Majeure
- 7.6 Default

**Article. 8. Insurance Requirements**

- 8.1 General Liability
- 8.2 Insurer Requirements and Endorsements
- 8.3 Evidence of Insurance
- 8.4 Self Insurance
- 8.5 Interconnecting Transmission Owner Insurance

**Article. 9. Confidentiality**

**Article. 10. Disputes**

**Article. 11. Taxes**

**Article. 12. Miscellaneous**

- 12.1 Governing Law, Regulatory Authority, and Rules
- 12.2 Amendment
- 12.3 No Third-Party Beneficiaries
- 12.4 Waiver
- 12.5 Entire Agreement
- 12.6 Multiple Counterparts
- 12.7 No Partnership
- 12.8 Severability
- 12.9 Security Arrangements

12.10 Environmental Releases

12.11 Subcontractors

12.12 Reservation of Rights

**Article. 13. Notices**

13.1 General

13.2 Billing and Payment

13.3 Alternative Forms of Notice

13.4 Designated Operating Representative

13.5 Changes to the Notice Information

**Article. 14. Signatures**

Attachments to SGIA

Attachment 1 – Glossary of Terms

Attachment 2 – Description and Costs of the Small Generating Facility, Interconnection Facilities, and  
Metering Equipment

Attachment 3 – One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities,  
Metering Equipment, and Upgrades

Attachment 4 – Milestones

Attachment 5 – Additional Operating Requirements for the New England Transmission System and  
Affected Systems Needed to Support the Interconnection Customer's Needs

Attachment 6 – Interconnecting Transmission Owner's Description of its Upgrades and Best Estimate of  
Upgrade Costs

Attachment 7 – Commercial Operation Date

**THIS STANDARD SMALL GENERATOR INTERCONNECTION AGREEMENT** ("Agreement")

is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with a Small Generating Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnecting Transmission Owner"). Under this Agreement the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

In consideration of the mutual covenants set forth herein, the Parties agree as follows

**Article 1. Scope and Limitations of Agreement**

**1.1 Applicability:**

This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.

**1.2 Purpose**

This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Interconnecting Transmission Owner's facilities that are part of the Administered Transmission System.

**1.3 No Agreement to Purchase or Deliver Power**

This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Party.



#### 1.4 Limitations

Nothing in this Agreement is intended to affect any other agreement between the Parties.

#### 1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Interconnecting Transmission Owner shall construct, operate, and maintain its transmission facilities and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their

respective sides of the point of change of ownership. The Interconnecting Transmission Owner and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the New England Transmission System [or Interconnecting Transmission Owner's transmission facilities], personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

- 1.5.6 The System Operator, with input from the Interconnecting Transmission Owner, shall coordinate with all Affected Systems to support the interconnection.
- 1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to Article 2.1 of this Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Interconnecting Transmission Owner's automatic load-shed program. The System Operator and Interconnecting Transmission Owner shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting

Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis. The term “voltage ride through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Interconnecting Transmission Owner, the New England Transmission System and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the New England Control Area on a comparable basis.

#### 1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to the ISO New England Operating Documents, and the Operating Requirements set forth in Attachment 5 of this Agreement.

#### 1.7 Metering

The Interconnection Customer shall be responsible for the Interconnecting Transmission Owner’s reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachment 2 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

#### 1.8 Reactive Power

##### 1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation. The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging, unless the System Operator or Interconnecting Transmission Owner has established different requirements that apply to all similarly situated synchronous (and non-wind non-synchronous generators as specified in Appendix G, Section A.ii.4, to the LGIA) generators on a comparable basis and in accordance with Operating Requirements.

1.8.1.2 Non-Synchronous Generation. Generating Facilities shall be subject to the power factor design criteria specified in Appendix G to the LGIA. Wind and inverter-based Generating Facilities shall be subject to the Low Voltage Ride-Through Capability requirements specified in Appendix G to the LGIA.

1.8.2 Interconnection Customers shall be compensated for reactive power service in accordance with Schedule 2 of the Tariff.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement. Capitalized terms in Schedule 23 that are not defined in the Glossary of Terms shall have the meanings specified in Sections I.2.2. of the Tariff.

1.10 Scope of Service

1. 10.1 Interconnection Product Options. Interconnection Customer has selected the following (checked) type of Interconnection Service:

- ☐ NR for NR Interconnection Service (NR Capability Only)
- ☐ CNR for CNR Interconnection Service (NR Capability and CNR Capability)

1.10.1.1 Capacity Network Resource Interconnection Service (CNR Interconnection Service)

- (a) The Product. The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which all other CNRs are interconnected under the CC Interconnection Standard. CNR Interconnection Service allows the Interconnection Customer's Small Generating Facility to be designated as a CNR to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNR Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff, on the same basis as all other existing Capacity Network Resources, and to be studied as a Capacity Network Resource on the assumption that such a designation will occur.

1.10.1.2 Network Resource Interconnection Service (NR Interconnection Service).

- (a) The Product. The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the Small Generating Facility in a manner comparable to that in which all other Network Resources are interconnected under the NC Interconnection Standard.

NR Interconnection Service allows the Interconnection Customer's Small Generating Facility to participate in the New England Markets, in accordance with Market Rule, Section III of the Tariff, up to the gross and net NR Capability or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of a Small Generating Facility that has been designated as a Network Resource interconnected under the NC Interconnection Standard cannot be a capacity resource under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNR Interconnection Service.

- 1.10.1.3      **Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Small Generating Facility at the Point of Interconnection.
- 1.10.1.4      **Performance Standards.** Each Party shall perform all of its obligations under this SGIA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this SGIA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the SGIA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.
- 1.10.1.5      **No Transmission Service Delivery.** The execution of this SGIA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.
- 1.10.1.6      **Transmission Delivery Service Implications.** CNR Interconnection Service and NR Interconnection Service allow the Interconnection Customer's Small Generating Facility to be designated by any Network Customer under the Tariff on the New England Transmission System as a Capacity Network Resource or Network Resource, up to the net CNR Capability or NR Capability, respectively, on the same basis as all other existing Capacity Network Resources and Network Resources interconnected to the New England Transmission System, and to be studied as a Capacity Network Resource or a Network Resource on the assumption that such a designation will occur. Although CNR Interconnection Service and NR Interconnection

Service do not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Small Generating Facility in the same manner as it accesses Capacity Network Resources and Network Resources. A Small Generating Facility receiving CNR Interconnection Service or NR Interconnection Service may also be used to provide Ancillary Services, in accordance with the Tariff and Market Rule 1, after technical studies and/or periodic analyses are performed with respect to the Small Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Capacity Network Resource or Network Resource. However, if an Interconnection Customer's Small Generating Facility has not been designated as a Capacity Network Resource or as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all Generating Facilities that are similarly situated.

CNR Network Interconnection Service and NR Interconnection Service do not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Small Generating Facility to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Small Generating Facility shall be subject to the applicable congestion management procedures for the New England Transmission System in the same manner as other Capacity Network Resources or Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that the Interconnection Customer's Small Generating Facility be designated as a Capacity Network Resource or as a Network Resource by a Network Customer under the Tariff or that the Interconnection Customer identify a specific buyer (or sink). To the extent a Network

Customer does designate the Small Generating Facility as either a Capacity Network Resource or a Network Resource, it must do so pursuant to the Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining CNR Interconnection Service or NR Interconnection Service, as long as the Small Generating Facility has not been deemed to be retired, any future transmission service request for delivery from the Small Generating Facility on the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Small Generating Facility be undertaken, regardless of whether or not such Small Generating Facility is ever designated by a Network Customer as a Capacity Network Resource or Network Resource and regardless of changes in ownership of the Small Generating Facility. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the Small Generating Facility outside the New England Transmission System, or if the unit has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

## **Article 2. Inspection, Testing, Authorization, and Right of Access**

### **2.1 Equipment Testing and Inspection**

- 2.1.1. The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the System Operator and the Interconnecting Transmission Owner of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Interconnecting Transmission Owner may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe



the testing. The Interconnection Customer shall provide the Interconnecting Transmission Owner a written test report when such testing and inspection is completed.

- 2.1.2 The Interconnecting Transmission Owner shall provide the Interconnection Customer and the System Operator written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Interconnecting Transmission Owner of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

- 2.2.1 The Interconnecting Transmission Owner [and System Operator] shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Interconnecting Transmission Owner shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Interconnecting Transmission Owner shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
- 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the New England Transmission System [or Interconnecting Transmission Owner's transmission facilities] without prior written authorization of the Interconnecting Transmission Owner. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

- 2.3.1 Upon reasonable notice, the Interconnecting Transmission Owner may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small

Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Interconnecting Transmission Owner at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Interconnecting Transmission Owner shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

### **Article 3. Effective Date, Term, Termination, and Disconnection**

#### **3.1 Effective Date**

This Agreement shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner shall promptly file this Agreement with the Commission upon execution, if required.

#### **3.2 Term of Agreement**

This Agreement shall become effective on the Effective Date and by mutual agreement of the Parties shall remain in effect for a period of \_\_\_\_\_ years, (Term to be specified in individual Agreements, but in no case should the term be less than ten years from the Effective Date or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

### 3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with the Commission of a notice of termination of this Agreement (if required), which notice has been accepted for filing by the Commission.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the System Operator and Interconnecting Transmission Owner 20 Business Days written notice.

3.3.2 Each Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

### 3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

#### 3.4.1 Emergency Conditions

“Emergency Condition” shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, the Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. The System Operator and the Interconnecting Transmission Owner may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility in accordance with applicable provisions of the Operating Requirements. The System Operator and Interconnecting Transmission Owner shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the New England Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

### 3.4.2 Routine Maintenance, Construction, and Repair

3.4.2.1 Outage Authority and Coordination. The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party’s(ies’) facilities

as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

3.4.2.2 Outage Schedules. Outage scheduling, and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

3.4.2.3 Interruption of Service. In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

### 3.4.3 Forced Outages

During any forced outage, the Interconnecting Transmission Owner [and the System Operator] may suspend interconnection service to effect immediate repairs on the New England Transmission System. The Interconnecting Transmission Owner shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Interconnecting Transmission Owner shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

### 3.4.4 Adverse Operating Effects

The Interconnecting Transmission Owner shall notify the Interconnection Customer and the System Operator as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other

customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the New England Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Interconnecting Transmission Owner may disconnect the Small Generating Facility. The Interconnecting Transmission Owner shall provide the Interconnection Customer and the System Operator with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

#### 3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from: (1) the Interconnecting Transmission Owner before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Interconnecting Transmission Owner's Interconnection Facilities; and (2) the System Operator before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the New England Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the System Operator's or the Interconnecting Transmission Owner's, as appropriate, prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

#### 3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the New England Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

### **Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

#### 4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Interconnecting Transmission Owner shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Interconnecting Transmission Owner.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Interconnecting Transmission Owner's Interconnection Facilities.

#### 4.2 Distribution Upgrades

The Interconnecting Transmission Owner shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Interconnecting Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer. The Interconnection Customer shall be responsible for its share of all reasonable expenses, associated with operating, maintaining, repairing, and replacing such Distribution Upgrades, except to the extent that a retail tariff of, or an agreement with, the Interconnecting Transmission Owner or its distribution company affiliate, if appropriate, provides otherwise.

### **Article 5. Cost Responsibility for Network Upgrades**

#### 5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades, including Stand Alone Network Upgrades.

## 5.2 Network Upgrades

The Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Interconnecting Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Interconnecting Transmission Owner elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer.

5.2.1.1 Cost Allocation. Cost allocation of Generator Interconnection Related Upgrades shall be in accordance with Schedule 11 of Section II of the Tariff.

5.2.1.2 Compensation. Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its Generator Interconnection Related Upgrade shall be determined in accordance with Sections II and III of the Tariff.

## 5.3 Special Provisions for Affected Systems

The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Small Generating Facility.

## 5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result



of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

## **Article 6. Billing, Payment, Milestones, and Financial Security**

### **6.1 Billing and Payment Procedures and Final Accounting**

6.1.1 The Interconnecting Transmission Owner shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Interconnecting Transmission Owner's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Interconnecting Transmission Owner for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Interconnecting Transmission Owner shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Interconnecting Transmission Owner within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Interconnecting Transmission Owner shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

### **6.2 Milestones**

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by

agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party(ies) of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

### 6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Interconnecting Transmission Owner's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Interconnecting Transmission Owner in accordance with Section 7 of Schedule 11 of the Tariff. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Interconnecting Transmission Owner's Interconnection Facilities and Upgrades. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Interconnecting Transmission Owner and must specify a reasonable expiration date.

## **Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnection Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

## 7.1 Assignment

This Agreement may be assigned by a Party upon 15 Business Days prior written notice and opportunity to object by the other Parties; provided that:

- 7.1.1 The Parties may assign this Agreement without the consent of the other Parties to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the other Parties of any such assignment.
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Interconnecting Transmission Owner or the System Operator, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and the System Operator of any such assignment.
- 7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## 7.2 Limitation of Liability

Each Party's liability to the other Party(ies) for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall a Party be liable to another Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

### 7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 Each Party shall at all times indemnify, defend, and hold the other Parties harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's(ies') action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall

notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

#### 7.4 Consequential Damages

Other than as expressly provided for in this Agreement, in no event shall a Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

#### 7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party(ies), either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party(ies) informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this

Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## 7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party(ies). Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party(ies) shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

## **Article 8. Insurance Requirements**

### 8.1 General Liability

The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment

being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Interconnecting Transmission Owner, except that the Interconnection Customer shall show proof of insurance to the Interconnecting Transmission Owner no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

## 8.2 Insurer Requirements and Endorsements

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in the state where the interconnection is located having a Best Rating of “A-”. In addition, all insurance shall, (a) include Interconnecting Transmission Owner and System Operator as additional insureds; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Interconnecting Transmission Owner and System Operator shall not incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days’ written notice to Interconnecting Transmission Owner and System Operator prior to cancellation, termination, or material change of such insurance; provided that to the extent the Interconnection Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy, the Interconnection Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Interconnecting Transmission Owner and System Operator as required above.

If the requirement of clause (a) in the paragraph above prevents Interconnection Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnection Customer’s written notice to Interconnecting Transmission Owner and System Operator, the requirements of clause (a) shall be waived.

## 8.3 Evidence of Insurance

Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnection Customer.

The Interconnection Customer is responsible for providing the Interconnecting Transmission Owner and the System Operator with evidence of insurance in compliance with this Tariff on an annual basis.

Prior to the Interconnecting Transmission Owner commencing work on Interconnection Facilities, Network Upgrades and Distribution Upgrades, the Interconnection Customer shall have its insurer furnish to the Interconnecting Transmission Owner and the System Operator certificates of insurance evidencing the insurance coverage required above. The Interconnection Customer shall notify and send to the Interconnecting Transmission Owner and the System Operator a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Transmission Owner and the System Operator may at their discretion require the Interconnection Customer to maintain tail coverage for three years on all policies written on a "claims-made" basis.

#### 8.4 Self Insurance

If Interconnection Customer is a company with a self-insurance program established in accordance with commercially acceptable risk management practices, Interconnection Customer may comply with the following in lieu of the above requirements as reasonably approved by the Interconnecting Transmission Owner and the System Operator:

- Interconnection Customer shall provide to Interconnecting Transmission Owner and System Operator, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.
- If Interconnection Customer ceases to self-insure to the standards required hereunder, or if Interconnection Customer is unable to provide continuing evidence of Interconnection Customer's financial ability to self-insure, Interconnection Customer agrees to promptly obtain the coverage required under Article 8.1.



## 8.5 Interconnecting Transmission Owner Insurance

The Interconnecting Transmission Owner agrees to maintain general liability insurance or self-insurance consistent with the Interconnecting Transmission Owner's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Interconnecting Transmission Owner's liabilities undertaken pursuant to this Agreement.

## **Article 9. Confidentiality**

9.1 Confidential Information shall include without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, and any confidential and/or proprietary information provided by a Party to the another Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party(ies) and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party(ies) as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or

proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

- 9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this Agreement prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party(ies) to this Agreement when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

## **Article 10. Disputes**

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, a Party shall provide the other Party(ies) with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, any Party may contact the Commission's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical

expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for its pro-rata share of any costs paid to neutral third-parties.
- 10.6 If no Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then each Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with Commission policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other to maintain the other Party's(ies') tax status. Nothing in this Agreement is intended to adversely affect the Interconnecting Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

#### **Article 12. Miscellaneous**

##### 12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

##### 12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by the Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.1 Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, there are no other agreements,

representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects the System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric

reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

#### 12.10 Environmental Releases

Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any governmental authorities addressing such events.

#### 12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

Consistent with Section 4.8 of Schedule 23, the Interconnecting Transmission Owner and the System Operator shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement under any applicable provision of the Federal Power Act and the Commission's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party(ies) and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**Article 13. Notices**

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

[To be supplied]

If to the Interconnecting Transmission Owner:

[To be supplied]

If to the System Operator:

ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: 413-540-4203

With a copy to:

Billing Department

ISO New England Inc.

One Sullivan Road

Holyoke, MA 01040-2841

### 13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner[To be supplied]

System Operator: ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: 413-540-4203

With a copy to:

Billing Department

ISO New England Inc.

One Sullivan Road



Holyoke, MA 01040-2841

### 13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by a Party to the other Party(ies) and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

If to the Interconnecting Transmission Owner:

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

If to the System Operator:

Phone: \_\_\_\_\_ Fax: 413-540-4203  
E-mail: [genintercomm@iso-ne.com](mailto:genintercomm@iso-ne.com)

With a copy to:

Billing Department  
Facsimile: (413) 535-4024  
E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

### 13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

[To be supplied]

Interconnecting Transmission Owner's Operating Representative:

[To be supplied]

System Operator's Operating Representative:

ISO New England Inc.

Attention: Generation Interconnection, Transmission Planning Department

One Sullivan Road

Holyoke, MA 01040-2841

Phone: \_\_\_\_\_ Fax: (413) 540-4203

E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

DUNS Numbers:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner: [To be supplied]

### 13.5 Changes to the Notice Information

A Party may change this information by giving five Business Days written notice prior to the effective date of the change.

**Article 14.     Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

***[Insert name of]* (Interconnecting Transmission Owner)**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

***[Insert name of]* (Interconnection Customer)**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**ISO New England Inc. (System Operator)**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **ATTACHMENTS TO SGIA**

Attachment 1	Glossary of Terms
Attachment 2	Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment
Attachment 3	One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment and Upgrades
Attachment 4	Milestones
Attachment 5	Additional Operating Requirements for the New England Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs
Attachment 6	Interconnecting Transmission Owner's Description of its Upgrades, and Best Estimates of Upgrade Costs
Attachment 7	Commercial Operation Date

**Glossary of Terms**

**Administered Transmission System** – The PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Affected Party**– The entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affected System** – Any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affiliate** – With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Standards** – The requirements and guidelines of NERC, NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Systems.

**At-Risk Expenditure** – Money expended for the development of the Generating Facility that cannot be recouped if the Interconnection Customer were to withdraw the Interconnection Request for the Generating Facility. At-Risk Expenditure may include, but is not limited to, money expended on: (1) costs of federal, state, local, regional and town permits, (ii) Site Control, (iii) site-specific design and survey, (iv) construction activities, and (v) non-refundable deposits for major equipment components. For purposes of this definition, At-Risk Expenditure shall not include costs associated with the Interconnection Studies.

**Base Case** – Base power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists provided by System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements; such databases and lists shall include all generation projects and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. Base Cases also include data provided by the Interconnection Customer, where applicable, to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** – The criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resources and Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Resource (“CNR”)** – That portion of a Generating Facility that is interconnected to the Administered Transmission System under the Capacity Capability Interconnection Standard.

**Capacity Network Resource Capability (“CNR Capability”)** -- (i) In the case of a Generating Facility that is a New Generating Capacity Resource pursuant to Section III.13.1 of the Tariff or an Existing Generating Capacity Resource that is increasing its capability pursuant to Section III.13.1.2.2.5 of the Tariff for Summer, the highest megawatt amount of the Capacity Supply Obligation obtained by the Generating Facility in accordance with Section III.13 of the Tariff, and, if applicable, as specified in a

filing by the System Operator with the Commission in accordance with Section III.13.8.2 of the Tariff, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff, and, for Winter, the Summer CNR Capability multiplied by the ratio of the associated Winter Qualified Capacity divided by the associated Summer Qualified Capacity, or (ii) in the case of a Generating Facility that meets the criteria under Section 1.6.4.3 of the Small Generator Interconnection Procedures (“SGIP”), the total megawatt amount determined pursuant to the hierarchy established in Section 1.6.4.3, net of any megawatt reductions resulting from terminations, retirements or permanent de-list bids in accordance with Section III.13 of the Tariff. The CNR Capability shall not exceed the maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90degrees F for Summer and at or above 20 degrees F for Winter. Where the Generating Facility includes multiple production devices, the CNR Capability shall not exceed the aggregate maximum net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 90 degrees F for Summer and at or above 20 degrees F for Winter.

**Capacity Network Resource Group Study (“CNR Group Study”)** – The study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Capacity Network Resource Interconnection Service (“CNR Interconnection Service”)** - The Interconnection Service selected by the Interconnection Customer to interconnect its Small Generating Facility with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s CNR Interconnection Service shall be for the megawatt amount of CNR Capability. CNR Interconnection Service does not in and of itself convey transmission service.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered. The CETU shall be considered part of a Generator Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 1.5.3.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFS”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 1.5.3.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 1.5.3.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 1.5.3.3.2.2 and 1.5.3.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 1.5.3.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** – The status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** – The date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Attachment 7 to the Standard Small Generator Interconnection Agreement.

**Default** – The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

**Distribution System** – The Interconnecting Transmission Owner’s facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators



or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Generating Facility** – The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

**Initial Synchronization Date** – The date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** – The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner's Interconnection Facilities to obtain back feed power.

**Interconnecting Transmission Owner** – A Transmission Owner that owns, leases or otherwise possesses an interest in, or a Non-Incumbent Transmission Developer that is not a Participating Transmission Owner that is constructing, a portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Standard Small Generator Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator.

**Interconnecting Transmission Owner's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Attachment 2 to the Standard Small Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** – Any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Small Generating Facility with the Administered Transmission System under the Standard Small Generator Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Attachment 2 of the Standard Small Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** – The Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** – A study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Administered Transmission System. The scope of the study is defined in Section 3.5 of the Standard Small Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** – The form of agreement contained in Attachment 8 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** – A preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Administered Transmission System, the scope of which is described in Section 3.3 of the Standard Small Generator Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and Section 3.4.

**Interconnection Feasibility Study Agreement** – The form of agreement contained in Attachment 6 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** – The Interconnection Request (a) shall mean an Interconnection Customer's request, in accordance with the Tariff, to: (i) interconnect a new Generating Facility to the Administered Transmission System as either a CNR or a NR; (ii) make a Material Modification to a proposed Generating Facility with an outstanding Interconnection Request; (iii) increase the energy capability or capacity capability of or add energy storage capability to the Small Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to 1.6.4 of this SGIP; (iv) make a modification to the operating characteristics of an existing Generating Facility, including its Interconnection Facilities, that is interconnected to the Administered Transmission System; (v) commence participation in the wholesale markets by an existing Generating Facility that is interconnected with the Administered Transmission System; or (vi) change from NR Interconnection Service to CNR Interconnection Service for all or part of a Generating Facility's capability. Interconnection Request shall

not include: (i) a retail customer interconnecting a new Generating Facility that will produce electric energy to be consumed only on the retail customer's site; (ii) a request to interconnect a new Generating Facility to a distribution facility that is subject to the Tariff if the Generating Facility will not be used to make wholesale sales of electricity in interstate commerce; or (iii) a request to interconnect a Qualifying Facility (as defined by the Public Utility Regulatory Policies Act, as amended by the Energy Policy Act of 2005 and the regulations thereto), where the Qualifying Facility's owner intent is to sell 100% of the Qualifying Facility's output to its interconnected electric utility.

**Interconnection Service** – The service provided by the System Operator and the Interconnecting Transmission Owner, associated with interconnecting the Interconnection Customer's Generating Facility to the Administered Transmission System and enabling the receipt of electric energy capability and/or capacity capability from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Small Generator Interconnection Agreement and, if applicable, the Tariff.

**Interconnection Study** – Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Small Generator Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** – Any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, and the Interconnection Facilities Study Agreement attached to the Standard Small Generator Interconnection Procedures.

**Interconnection System Impact Study** – An engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Small Generator Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 3.3 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 3.3 are performed as part of the Interconnection System Impact

Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 3.3 and 3.4.

**Interconnection System Impact Study Agreement** – The form of agreement contained in Attachment 7 of the Standard Small Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**Network Capability Interconnection Standard (“NC Interconnection Standard”)**– The minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Resource (“NR”)** – The portion of a Generating Facility that is interconnected to the Administered Transmission System under the Network Capability Interconnection Standard.

**Network Resource Capability (“NR Capability”)** – The maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. Where the Generating Facility includes multiple energy production devices, the NR Capability shall be the aggregate maximum gross and net megawatt electrical output of the Generating Facility at the Point of Interconnection at an ambient temperature at or above 50 degrees F for Summer and at or above 0 degrees F for Winter. The NR Capability shall be equal to or greater than the CNR Capability. In the case of a Generating Facility that meets the criteria under Section 1.6.4.4 of this SGIP, the NR Capability shall equal the total megawatt amount determined pursuant to Section 1.6.4.4.

**Network Resource Interconnection Service (“NR Interconnection Service”)** – The Interconnection Service selected by the Interconnection Customer to interconnect its Generating Facility to the Administered Transmission System in accordance with the Network Capability Interconnection Standard.

An Interconnection Customer's NR Interconnection Service shall be solely for the megawatt amount of the NR Capability. NR Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** – Additions, modifications, and upgrades to the New England Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Administered Transmission System to accommodate the interconnection of the Small Generating Facility with the Administered Transmission System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – A written notice of a dispute or claim that arises out of or in connection with the Standard Small Generator Interconnection Agreement or its performance.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to System Operator or the Interconnecting Transmission Owner's requirements, including those set forth in the Small Generator Interconnection Agreement, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**Party**– The System Operator, Interconnecting Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Administered Transmission System.

**Queue Position** – The order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a "higher-queued" Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as "lower-queued."

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – A Generating Facility having a maximum gross capability at or above zero degrees F of 20 MW or less.

**Stand Alone Network Upgrades** – Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Attachment 2 to the Standard Small Generator Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 3.3.2 and 3.4.3 of this SGIP.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, Interconnection Feasibility Study, Interconnection System Impact Study, and Interconnection Facilities Study.

**Tariff** – The System Operator's or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

**Trial Operation** – The period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Upgrades** – The required additions and modifications to the Administered Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Description and Costs of the Small Generating Facility,  
Interconnection Facilities, and Metering Equipment**

*Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Interconnecting Transmission Owner. The Interconnecting Transmission Owner will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.*

**I. DESCRIPTION OF MAJOR COMPONENTS**

**A. Small Generating Facility**

**(1) Description of Small Generating Facility.**

[insert]

**(2) The Small Generating Facility shall receive:**

\_\_\_\_ Network Resource Interconnection Service for the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer, and [insert gross and net at or above 0 degrees F] MW for Winter.

\_\_\_\_ Capacity Network Resource Interconnection Service for: (a)(i) the NR Capability at a level not to exceed [insert gross and net at or above 50 degrees F] MW for Summer and [insert gross and net at or above 0 degrees F] MW for Winter; and (ii) the CNR Capability at [insert net] MW for Summer and [insert net] MW for Winter, which shall not exceed [insert the maximum net MW electrical output of the Generating Facility at an ambient temperature at or above 90 degrees F for summer and at or above 20 degrees F for winter].



- (3) Detailed Description of Small Generating Facility and Generator Step-Up Transformer, if applicable:

<b>Generator Data</b>	
Number of Generators	
Manufacturer	
Model	
Designation of Generator(s)	
Excitation System Manufacturer	
Excitation System Model	
Voltage Regulator Manufacturer	
Voltage Regulator Model	
<b>Generator Ratings</b>	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 90 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 50 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above 20 Degrees F	
Greatest Unit Gross and Net MW Output at Ambient Temperature at or above zero Degrees F	
Station Service Load For Each Unit	
Overexcited Reactive Power at Rated MVA and Rated Power Factor	
Underexcited Reactive Power at Rated MVA and Rated Power Factor	

Generator Short Circuit and Stability Data	
Generator MVA rating	
Generator AC Resistance	
Subtransient Reactance (saturated)	
Subtransient Reactance (unsaturated)	
Transient Reactance (saturated)	
Negative sequence reactance	
Transformer Data	
Number of units	
Self Cooled Rating	
Maximum Rating	
Winding Connection (LV/LV/HV)	
Fixed Taps	
Z1 primary to secondary at self cooled rating	
Z1 primary to tertiary at self cooled rating	
Z1 secondary to tertiary at self cooled rating	
Positive Sequence X/R ratio primary to secondary	
Z0 primary to secondary at self cooled rating	
Z0 primary to tertiary at self cooled rating	
Z0 secondary to tertiary at self cooled rating	
Zero Sequence X/R ratio primary to tertiary	

B. Interconnection Facilities

*[insert]*

C. Metering Equipment

*[insert]*

D. Other Components

*[insert]*

II. INTERCONNECTION EQUIPMENT OWNERSHIP, OPERATION AND MAINTENANCE

A. Point of Change of Ownership; Point of Interconnection

*[insert]*

B. Description of Responsibilities

*[insert]*

III. PRICING ESTIMATES

A. Interconnection Facilities

*[insert]*

B. Metering Equipment

*[insert]*

C. Operation and Maintenance

*[insert]*

### **Attachment 3**

#### **One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades**

*[insert]*

### Milestones

- 1. Milestones and Other Requirements:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the SGIP and this SGIA. The referenced section of the SGIP or article of the SGIA should be reviewed to understand the requirements of each milestone.

Item No.	Milestone Description	Responsible Party	Date	SGIP/SGIA Reference
1	Submit updated data “as purchased”	Interconnection Customer	No later than 180 Calendar Days prior to Initial Synchronization Date	
2	Submit supplemental and/or updated data “as built/as-tested”	Interconnection Customer	Prior to Commercial Operation Date	
3	Provide quarterly written progress reports	Interconnection Customer and Interconnecting Transmission Owner	15 Calendar Days after the end of each quarter beginning the quarter that includes the date for Milestone #3 below and ending when the entire Small Generating	

			Facility and all required Interconnection Facilities and Network Upgrades are in place	
4	Deliver to Transmission Owner “as built” drawings, information and documents regarding Interconnection Customer’s Interconnection Facility	Interconnection Customer	If requested, within 120 Calendar Days after Commercial Operation date	

**2. Milestones Applicable If Facilities Study Has Been Waived by Interconnection Customer:**

<b>Item No.</b>	<b>Milestone Description</b>	<b>Responsible Party</b>	<b>Date</b>	<b>SGIP/SGIA Reference</b>
1	Siting approval for the Generating Facility and Interconnection Facilities	Interconnection Customer	As agreed to by the Parties	SGIP § 3.4.5(i)
2	Engineering of Interconnection Facilities approved by Interconnecting Transmission Owner	Interconnection Customer	As agreed to by the Parties	SGIP § 3.4.5(ii)
3	Commit to the	Interconnection	As agreed to by	SGIP § 3.4.5(iii)

	ordering of long lead time material for Interconnection Facilities and system upgrades	Customer	the Parties	
4	In-Service Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	
5	Initial Synchronization Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	SGIP § 3.4.5(iv)
6	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	SGIP § 3.4.5(v)

**3. Milestones Applicable Solely for CNR Interconnection Service.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNR Interconnection Service:

Item #	Milestone	Responsible Party	Date	SGIP/SGIA Reference
1	Submit necessary requests for participation in the Forward Capacity Auction associated with the Generating Facility's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		1.7.1.3(i)
2	Participate in a CNR Group Study	Interconnection		1.7.1.3(ii)

		Customer; System Operator		
3	Qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		1.7.1.3(iii)
4	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction, Reconfiguration Auction or bilateral transaction through which the Interconnection Customer received a Capacity Supply Obligation	System Operator		1.7.1.3(iv)



**Additional Operating Requirements for the  
New England Transmission System and Affected Systems Needed to Support  
the Interconnection Customer's Needs**

*The Interconnecting Transmission Owner shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the New England Transmission System.*

**I. OPERATING REQUIREMENTS**

*[Insert]*

**Interconnecting Transmission Owner's  
Description of its Upgrades  
and Best Estimate of Upgrade Costs**

*The Interconnecting Transmission Owner shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Interconnecting Transmission Owner shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.*

**I. DESCRIPTION OF UPGRADES**

**A. Distribution Upgrades**

[Insert]

**B. Network Upgrades**

[Insert]

(1) Stand Alone Network Upgrades

(2) Other Network Upgrades

**C. Affected System Upgrades**

[Insert]

**D. Contingency Upgrades**

(1) Long Lead Facility-Related Upgrades. The Interconnection Customer's Small Generating Facility is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the LGIP. Pursuant to Section 4.1 of the LGIP, the Interconnection Customer shall be responsible for the following upgrades in the event that the Long Lead Facility

achieves Commercial Operation and obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert list of upgrades]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this SGIA in accordance with Article 7, and the System Operator will initiate all necessary steps to terminate this SGIA, in accordance with Article 3.

(2) Other Contingency Upgrades. *[e.g., list of upgrades associated with higher queued Interconnection Requests with SGIAs prior to this SGIA and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Small Generating Facility.]*

E. Post-Forward Capacity Auction Re-study Upgrade Obligations.

*[Insert any changes in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation in accordance with the Tariff.]*

**Commercial Operation Date**

This Attachment 7 is a part of the SGIA between System Operator, Interconnecting Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]

Generator Interconnections  
Transmission Planning Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Small Generating Facility

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of Unit No. \_\_\_\_.  
This letter confirms that [Interconnection Customer] commenced commercial operation of Unit No. \_\_\_\_ at the Small Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **SCHEDULE 25**

### **ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION PROCEDURES**

## **TABLE OF CONTENTS**

SECTION 1.	DEFINITIONS
SECTION 2.	SCOPE, APPLICATION AND TIME REQUIREMENTS
2.1	Application of Elective Transmission Upgrade Interconnection Procedures
2.2	Comparability
2.3	Base Case Data
2.4	No Applicability to Transmission Service
2.5	Treatment of Elective Transmission Upgrades for Transmission, Operations, and Scheduling Purposes
2.6	Time Requirements
SECTION 3.	INTERCONNECTION REQUESTS
3.1	General
3.2	Type of Interconnection Services and Long Lead Time Facility Treatment
3.3	Valid Interconnection Request
3.4	OASIS Posting
3.5	Coordination with Affected Systems
3.6	Withdrawal
SECTION 4.	QUEUE POSITION
4.1	General
4.2	Reserved
4.3	Transferability of Queue Position
4.4	Modifications
SECTION 5.	PROCEDURES FOR TRANSITION
5.1	Queue Position for Pending Requests
5.2	Reserved
5.3	New System Operator or Interconnecting Transmission Owner
SECTION 6.	INTERCONNECTION FEASIBILITY STUDY
6.1	Interconnection Feasibility Study Agreement
6.2	Scope of Interconnection Feasibility Study
6.3	Interconnection Feasibility Study Procedures
6.4	Re-Study
SECTION 7.	INTERCONNECTION SYSTEM IMPACT STUDY

7.1	Interconnection System Impact Study Agreement
7.2	Execution of Interconnection System Impact Study Agreement
7.3	Scope of Interconnection System Impact Study
7.4	Interconnection System Impact Study Procedures
7.5	Meeting with Parties
7.6	Re-Study
7.7	Operational Readiness
SECTION 8.	INTERCONNECTION FACILITIES STUDY
8.1	Interconnection Facilities Study Agreement
8.2	Scope of Interconnection Facilities Study
8.3	Interconnection Facilities Study Procedures
8.4	Meeting with Parties
8.5	Re-Study
SECTION 9.	ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT
SECTION 10.	OPTIONAL INTERCONNECTION STUDY
10.1	Optional Interconnection Study Agreement
10.2	Scope of Optional Interconnection Study
10.3	Optional Interconnection Study Procedures
10.4	Meeting with Parties
10.5	Interconnection Agreement Developed Based on Optional Interconnection Study
SECTION 11.	ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT (ETU IA)
11.1	Tender
11.2	Negotiation
11.3	Evidence to be Provided by Interconnection Customer; Execution and Filing of ETU IA
11.4	Commencement of Interconnection Activities
11.5	Other Regulatory Arrangements
SECTION 12.	CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES
12.1	Schedule
12.2	Construction Sequencing
SECTION 13.	MISCELLANEOUS
13.1	Confidentiality

- 13.2 Delegation of Responsibility
- 13.3 Obligation for Study Costs
- 13.4 Third Parties Conducting Studies
- 13.5 Disputes
- 13.6 Local Furnishing Bonds



## **APPENDICES TO ETU INTERCONNECTION PROCEDURES**

APPENDIX 1 INTERCONNECTION REQUEST

APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT

APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 6 ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT

## **SECTION I. DEFINITIONS.**

The definitions contained in this section are intended to apply in the context of the Elective Transmission Upgrade interconnection process provided for in this Schedule 25 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of Elective Transmission Upgrade interconnections under this Schedule 25. Capitalized terms in Schedule 25 that are not defined in this Section I shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability databases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Elective Transmission Upgrade Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Elective Transmission Upgrade Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resource or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Import Capability (“CNI Capability”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission

Facility, the aggregate highest megawatt amount of Capacity Supply Obligation obtained by the Import Capacity Resource(s) associated with the External Elective Transmission Upgrade, net of any megawatt reductions, in accordance with Section III.13 of the Tariff. The Capacity Network Import Capability shall be the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Capacity Capability Interconnection Standard and shall not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures.

**Capacity Network Import Interconnection Service (“CNI Interconnection Service”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s Capacity Network Import Interconnection Service shall be for the megawatt of Capacity Network Import Capability. Capacity Network Import Interconnection Service does not in and of itself convey transmission service.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of an ETU Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of an Elective Transmission Upgrade that has commenced transmitting electricity, excluding performance during Trial Operation.

**Commercial Operation Date** shall mean the date on which the Elective Transmission Upgrade commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Elective Transmission Upgrade Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Elective Transmission Upgrade Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Elective Transmission Upgrade. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Elective Transmission Upgrade Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Elective Transmission Upgrade ("ETU")** shall mean a new Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnecting to the Administered Transmission System, or an upgrade to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is part of or interconnected to the Administered Transmission System for which the Interconnection Customer has agreed to pay all of the costs of said Elective Transmission Upgrade and of any additions or modifications to the Administered Transmission System that are required to accommodate the Elective Transmission Upgrade. An Elective Transmission Upgrade is not a Generator Interconnection Related Upgrade, a Regional Transmission Upgrade, or a Market Efficiency Transmission Upgrade.

**Elective Transmission Upgrade Interconnection Agreement ("ETU IA")** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade, that is included in this Schedule 25 to Section II of the Tariff.

**Elective Transmission Upgrade Interconnection Procedures (“ETU IP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade that are included in this Schedule 25 to Section II of the Tariff.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Elective Transmission Upgrade or Interconnection Customer’s Interconnection Facilities.

**Engineering & Procurement (“E&P”) Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**External Elective Transmission Upgrade (“External ETU”)** shall mean an Elective Transmission Upgrade that interconnects the New England Control Area with another Control Area.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of Section II to the Tariff.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities.

**Interconnecting Transmission Owner** shall mean Transmission Owner that owns, leases or otherwise possesses an interest in the portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Elective Transmission Upgrade Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator, and may refer to one or more Transmission Owners in the case of an Internal Elective Transmission Upgrade.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole



use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Elective Transmission Upgrade with the Administered Transmission System under the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Elective Transmission Upgrade Interconnection Agreement, that are separate and distinct from the Elective Transmission Upgrade and are located between the Elective Transmission Upgrade and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Elective Transmission Upgrade and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Elective Transmission Upgrade with the Administered Transmission System. The scope of the study is defined in Section 8 of the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Elective Transmission Upgrade to the Administered Transmission System, the scope of which is described in Section 6 of the Elective Transmission Upgrade Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Elective Transmission Upgrade Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Elective Transmission Upgrade to the Administered Transmission System; (ii) make a Material Modification to an Elective Transmission Upgrade with an outstanding Interconnection Request; (iii) increase the capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System; (iv) make a Material Modification to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected with the Administered Transmission System; or (v) change from NI Interconnection Service to CNI Interconnection Service for an Elective Transmission Upgrade that is eligible to request such services. Interconnection Request shall not include a request to interconnect to a transmission facility that is not part of the Administered Transmission System.

**Interconnection Service** shall mean the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include Capacity Network Import Interconnection Service or Network Import Interconnection Service.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Elective Transmission Upgrade Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to Elective Transmission Upgrade Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection of an Elective Transmission Upgrade on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Elective Transmission Upgrade were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Elective Transmission Upgrade Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection System Impact Study.

**Internal Elective Transmission Upgrade (“Internal ETU”)** shall mean an Elective Transmission Upgrade that interconnects solely within the New England Control Area.

**IRS** shall mean the Internal Revenue Service.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively,

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Elective Transmission Upgrade Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in Appendix 1, Attachment A to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility, or Other

Transmission Facility that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Trial Operation Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed pursuant to the Elective Transmission Upgrade Interconnection Agreement, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Import Capability ("NI Capability")** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Network Capability Interconnection Standard and shall be for an amount not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures. The Network Import Capability shall be equal to or greater than the Capacity Network Import Capability.

**Network Import Interconnection Service ("NI Interconnection Service")** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade to the Administered Transmission System in accordance with the Network

Capability Interconnection Standard. An Interconnection Customer's Network Import Interconnection Service shall be solely for the megawatt amount of the Network Import Capability. Network Import Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Elective Transmission Upgrade to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Elective Transmission Upgrade Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities connect to the Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point(s), as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests

for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Elective Transmission Upgrade Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property where the Elective Transmission Upgrade’s terminal locations will be located at the Point of Interconnection within the New England Control Area.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Elective Transmission Upgrade Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this ETU IP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Elective Transmission Upgrade and (2) the Elective Transmission Upgrade from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Elective Transmission Upgrade prior to Commercial Operation.

**Trial Operation Date** shall mean the date upon which the Elective Transmission Upgrade begins Trial Operation.

## **SECTION 2. SCOPE, APPLICATION AND TIME REQUIREMENTS.**

### **2.1 Application of Elective Transmission Upgrade Interconnection Procedures.**

The ETU IP and ETU IA shall apply to Interconnection Requests pertaining to Elective Transmission Upgrades. Except as expressly provided in the ETU IP and ETU IA, nothing in the ETU IP or ETU IA shall be construed to limit the authority or obligations that the Interconnecting Transmission Owner or System Operator, as applicable, has with regard to ISO New England Operating Documents.

### **2.2. Comparability.**



The System Operator shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this ETU IP. The System Operator and Interconnecting Transmission Owner will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the ETU is owned by the Interconnecting Transmission Owner, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

System Operator, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall provide Base Case power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists upon request to the Interconnection Customer and any third party consultant retained by the Interconnection Customer. For the purpose of this provision, Base Case Data may include the electromagnetic transient network model that does not include proprietary electromagnetic transient equipment models. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy as well as any other applicable requirement under Applicable Laws and Regulations regulating disclosure or confidentiality of such information. System Operator is permitted to require that the Interconnection Customer or third party consultant sign a confidentiality agreement before the release of information governed by Section 13.1 or the ISO New England Information Policy, or the release of any other information that is commercially sensitive or Critical Energy Infrastructure Information. Such databases and lists, hereinafter referred to as Base Cases, shall include all generation and transmission projects that are proposed for the New England Transmission System and any Affected System and for which a transmission expansion plan has been submitted and approved by the applicable authority and which, in the sole judgment of the System Operator, may have an impact on the Interconnection Request. The Interconnection Customer, where applicable, shall provide Base Case Data to the Interconnecting Transmission Owner and System Operator to facilitate required Interconnection Studies.

### **2.4 No Applicability to Transmission Service.**

Nothing in this ETU IP shall constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity service, energy service or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

## **2.5 Treatment of Elective Transmission Upgrades for Transmission, Operations, and Scheduling Purposes.**

All ETUs must be categorized as PTF, Non-PTF, MTF or OTF. External ETUs will be treated for transmission, operations and scheduling purposes by the System Operator in a manner consistent with similarly situated PTF, Non-PTF, MTF or OTF under the Tariff. Internal ETUs will be operated and scheduled by the System Operator without recognition of physical transmission rights.

## **2.6 Time Requirements.**

Parties that must perform a specific obligation under a provision of the ETU IP or ETU IA within a specified time period shall use Reasonable Efforts to complete such obligation within the applicable time period. A Party may, in the exercise of reasonable discretion and within the time period set forth by the applicable procedure or agreement, request that the relevant Party consent to a mutually agreeable alternative time schedule, such consent not to be unreasonably withheld.

# **SECTION 3. INTERCONNECTION REQUESTS.**

## **3.1 General.**

To initiate an Interconnection Request, an Interconnection Customer must comply with all of the requirements set forth in Section 3.3.1. The Interconnection Customer shall submit a separate Interconnection Request(s) for each Elective Transmission Upgrade of a: (a) specific technology to be interconnected at a designated Point of Interconnection for a specific capability; or (b) specific objective to facilitate the operation of specific Generating Facility(ies), including achieving CNR Interconnection Service, to increase transfer capability between two specific endpoints, or another specific and clearly defined discrete objective that the ISO, at its sole discretion, determines that it is appropriate to propose in a single Interconnection Request. The Interconnection Customer must comply with the requirements specified in Section 3.3.1 for each Interconnection Request even when more than one request is submitted.

Within three (3) Business Days after its receipt of a valid Interconnection Request, System Operator shall submit a copy of the Interconnection Request to Interconnecting Transmission Owner.

At Interconnection Customer's option, System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in

accordance with applicable codes of conduct and confidentiality requirements, will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

All deposits that must be submitted to the System Operator under this ETU IP, must be delivered to the System Operator's bank account by electronic transfer within the period specified in the respective provision. A deposit will not be considered received until it is in the System Operator's bank account.

### **3.2 Type of Interconnection Services and Long Lead Time Facility Treatment.**

Interconnection Service for all Elective Transmission Upgrades is the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include CNI Interconnection Service or NI Interconnection Service. An External ETU Merchant Transmission Facility or Other Transmission Facility is a controllable facility if it employs technology that, in the judgment of the System Operator, enables full control over the direction and amount of power flow on the Elective Transmission Upgrade without adjusting the dispatch of resources within or outside of the New England Control Area, and can be scheduled, curtailed and operated independently from any other interface that interconnects the New England Control Area with another Control Area.

An External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility seeking to import capacity and/or energy into the New England Control Area must select either CNI Interconnection Service or NI Interconnection Service at the time the Interconnection Request is submitted, as described in Sections 3.2.1 and 3.2.2 below. An Interconnection Customer that meets the requirements to obtain CNI Interconnection Service shall obtain NI Interconnection Service up to the NI Capability upon completion of all requirements for NI Interconnection Service, including all necessary

upgrades. Upon completion of all requirements for the CNI Interconnection Service, the Interconnection Customer shall also receive CNI Interconnection Service for CNI Capability. An Interconnection Customer that meets the requirements to obtain NI Interconnection Service shall receive NI Interconnection Service for the Interconnection Customer's NI Capability. At the time the Interconnection Request is submitted, the Interconnection Customer may also request Long Lead Facility treatment in accordance with Section 3.2.3.

Interconnection Studies for Elective Transmission Upgrades shall assure that the Interconnection Customer's Elective Transmission Upgrade interconnects to the Administered Transmission System consistent with the objectives specified in the ETU Interconnection Request and in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Elective Transmission Upgrade.

### **3.2.1 Capacity Network Import Interconnection Service.**

#### **3.2.1.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the CC Interconnection Standard. CNI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to enable the participation of an Import Capacity Resource in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the CNI Capability or as otherwise provided in the Tariff.

#### **3.2.1.2 The Studies.**

All Interconnection Studies for CNI Interconnection Service shall assure that the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the

facility. The CNR Group Study for CNI Interconnection Service shall assure that the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility can be interconnected in a manner that ensures intra-zonal deliverability by avoidance of the redispach of other Capacity Network Resources and Elective Transmission Upgrades with CNI Interconnection Service, in accordance with the CC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

### **3.2.1.3 Milestones for Capacity Network Import Interconnection Service.**

In addition to the requirements set forth in this ETU IP, an Interconnection Customer with an Interconnection Request for CNI Interconnection Service or its counterparty (i.e., Import Capacity Resource) as required shall complete the following milestones prior to receiving CNI Interconnection Service for the CNI Capability, such milestones to be specified in Appendix B of the ETU IA, as either completed or to be completed: (i) submit the necessary requests for participation in the Forward Capacity Auction associated with the Elective Transmission Upgrade's Commercial Operation Date (except as modified pursuant to Sections 3.2.3 or 4.4 of the ETU IP) in accordance with the provisions of Section III.13 of the Tariff; (ii) participate in a CNR Group Study for the Forward Capacity Auction associated with the requested Elective Transmission Upgrade's Commercial Operation Date; (iii) qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff; and (iv) complete a re-study of the applicable Interconnection Study and CNR Group Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer's counterparty received a Capacity Supply Obligation. With respect to (iv) above, if an Interconnection Study has been completed, the completed Interconnection Study shall be subject to re-study, in accordance with the re-study provisions in this ETU IP. If an Interconnection Study Agreement has been executed, the Interconnection Study associated with the Interconnection Study Agreement shall include the necessary analysis that would otherwise have been performed in a re-study. If an ETU IA has been either executed or filed with the Commission in unexecuted form, then the last Interconnection Study completed for the Interconnection Customer under this ETU IP shall be subject to

re-study. The Appendices to the ETU IA shall be amended (pursuant to Article 30 of the ETU IA) to reflect CNI Capability and the results of the re-study.

### **3.2.2 Network Import Interconnection Service.**

#### **3.2.2.1 The Product.**

The System Operator must conduct the necessary studies in conjunction with the Interconnecting Transmission Owner, and with other Affected Parties as appropriate and in accordance with applicable codes of conduct and confidentiality requirements, and the Interconnecting Transmission Owner and other Affected Parties as appropriate must construct the Network Upgrades needed to interconnect a controllable Merchant Transmission Facility or Other Transmission Facility External ETU under the NC Interconnection Standard. Notwithstanding the above, the portion of a controllable Merchant Transmission Facility or Other Transmission Facility External ETU that has been interconnected under the NC Interconnection Standard cannot be used to support an Import Capacity Resource's participation in the Forward Capacity Market under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNI Interconnection Service.

#### **3.2.2.2 The Studies.**

The Interconnection Studies for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall assure that the Interconnection Customer's External ETU satisfies the minimum characteristics required to interconnect in a manner that avoids any significant adverse effect on reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the unit, in accordance with the NC Interconnection Standard and as detailed in the ISO New England Planning Procedures. The System Operator, in coordination with the Interconnecting Transmission Owner, may also study the New England Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the System Operator and as appropriate the Interconnecting Transmission Owner must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

#### **3.2.2.3 Milestones for Network Import Interconnection Service.**

An Interconnection Customer with an Interconnection Request for NI Interconnection Service shall complete the requirements in this ETU IP prior to receiving NI Interconnection Service.

### **3.2.3 Long Lead Time Facility Treatment.**

#### **3.2.3.1 Treatment of Long Lead Facility.**

Long Lead Facilities receive the treatment described herein in connection with the associated request of the Interconnection Customer for CNR Interconnection Service for its Large Generating Facility or CNI Interconnection Service for its External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility. Long Lead Facility treatment provides for the Interconnection Customer's Generating Facility or controllable Merchant Transmission Facility or Other Transmission Facility External ETU, after the completion of the Interconnection System Impact Study, to be modeled in the Base Cases for the next CNR Group Study to determine whether the Long Lead Facility would have qualified or enabled the qualification of an Import Capacity Resource to participate in the Forward Capacity Auction associated with that CNR Group Study, in accordance with Section III.13.1.2 of the Tariff, but for the Long Lead Facility's development cycle (which shall include development of required transmission upgrades). If the Long Lead Facility is deemed to qualify or have enabled an associated Import Capacity Resource to qualify, the Long Lead Facility shall be included in the re-study pursuant to Section 3.2.1.3(iv) in order to determine the facilities and upgrades that would be necessary in order to accommodate the Interconnection Request of the Long Lead Facility, and for which costs the Interconnection Customer must be responsible. In order to maintain Long Lead Facility status, the Interconnection Customer must commit to the completion of these facilities and upgrades in time to allow the Long Lead Facility to achieve its Commercial Operation Date by the start of the associated Capacity Commitment Period. In addition, the Long Lead Facility will be treated as a New Generating Capacity Resource in the case of a Generating Facility or as if an Import Capacity Resource associated with the Long Lead Facility cleared in the case of an External ETU for the sole purpose of inclusion of the Long Lead Facility in the CNR Group Studies for the Forward Capacity Auctions that precede the Forward Capacity Auction for the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation. If an earlier-queued Generating Facility seeking CNR Interconnection Service or an Import Capacity Resource associated with an Elective Transmission Upgrade that is seeking CNI Interconnection Service obtains a Capacity Supply Obligation in a Forward Capacity Auction prior to or simultaneous with the Forward Capacity Auction in which the Long Lead Facility or its contractual counterparty in the case of an Elective Transmission Upgrade obtains a Capacity Supply Obligation, the Long Lead Facility will be re-studied in order to determine whether any additional facilities and upgrades to those identified prior to the CNR Group Study must be completed, at

the Interconnection Customer's cost, prior to its Commercial Operation Date. A Long Lead Facility's cost responsibility for the facilities necessary to accommodate the Interconnection Request shall not be impacted by a Generating Facility or an External ETU with a Queue Position lower than the Long Lead Facility or its counterparty in the case of an External ETU that clears in a Forward Capacity Auction, in accordance with Section III.13.2 of the Tariff, prior to the clearance of the Long Lead Facility.

### **3.2.3.2 Request for Long Lead Facility Treatment.**

An Interconnection Customer requesting CNR Interconnection Service for its proposed Generating Facility or CNI Interconnection Service for its proposed controllable Merchant Transmission Facility or Other Transmission Facility External ETU, which the Interconnection Customer projects to have a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) may elect or request Long Lead Facility treatment in the following manner:

(a) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service of 100 MW or more may elect Long Lead Facility treatment at the time the Interconnection Request is submitted, together with the critical path schedule and deposits required in Section 3.2.3.3.

(b) An Interconnection Customer proposing a Generating Facility or a controllable Merchant Transmission Facility or Other Transmission Facility External ETU with a requested CNR Interconnection Service or CNI Interconnection Service under 100 MW at may request Long Lead Facility treatment by submitting a written request to the System Operator for its review and approval, explaining why the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU cannot achieve Commercial Operation by the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for Long Lead Facility treatment is made), together with the critical path schedule and deposits required in Section 3.2.3.3. In reviewing the request, the System Operator shall evaluate the feasibility of the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU achieving Commercial Operation to meet an earlier Capacity Commitment Period based on the information provided in the request and the critical path schedule submitted pursuant to Section 3.2.3.3, in a manner



similar to that performed under Section III.13.3.2 of the Tariff. Within forty-five (45) Business Days after its receipt of the request for Long Lead Facility treatment, the System Operator shall notify the Interconnection Customer in writing whether the request has been granted or denied. If the System Operator determines that the Generating Facility or the controllable Merchant Transmission Facility or Other Transmission Facility External ETU can achieve a Commercial Operation Date prior to the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction, the Interconnection Customer's request shall be denied. The dispute resolution provisions of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU are not available for disputes or claims associated with the ISO's determination to deny an Interconnection Customer's request for Long Lead Facility treatment.

(c) An Interconnection Customer that did not request Long Lead Facility treatment at the time the Interconnection Request was submitted, may thereafter submit a request for treatment as a Long Lead Facility, together with the critical path schedule and deposits required in Section 3.2.3.3 and, if applicable, a request for an extension of the Commercial Operation Date specified in the Interconnection Request in accordance with Sections 4.4.4 and 4.4.5. A request for Long Lead Facility treatment that is submitted after the initial Interconnection Request will not be eligible to participate in any Forward Capacity Auction prior to the Forward Capacity Auction associated with the extended Commercial Operation Date. The Long Lead Facility will be modeled in the Base Cases for the CNR Study Group associated with the near term Forward Capacity Auction unless that CNR Study Group is underway, in which case the Long Lead Facility will be modeled in the next CNR Study Group.

### **3.2.3.3 Critical Path Schedule and Deposits for Long Lead Facility Treatment.**

At the time an Interconnection Customer submits an election or request for Long Lead Facility treatment, the Interconnection Customer must submit, together with the request:

(1) **Critical Path Schedule.** A critical path schedule, in writing, for the Long Lead Facility (with a development cycle that would not be completed until after the beginning of the Capacity Commitment Period associated with the next Forward Capacity Auction (after the election for the Long Lead Facility is made) that meets the requirements set forth in Section III.13.1.1.2.2.2 of the Tariff. The Interconnection Customer must submit annually, in writing, an updated critical path schedule to the System Operator by the closing deadline of each New Capacity Show of

Interest Submission Window that precedes the Forward Capacity Auction associated with the Capacity Commitment Period by which the Long Lead Facility is expected to have achieved Commercial Operation, prior to the inclusion of the Long Lead Facility in the Base Case for the CNR Group Study associated with the corresponding New Capacity Show of Interest Submission Window. With its annual update, for each critical path schedule milestone achieved since the submission of the previous critical path schedule update, the Interconnection Customer must include in the critical path update documentation demonstrating that the milestone has been achieved by the date indicated and as otherwise described in the critical path schedule.

**(2) Long Lead Facility Deposits.**

**(a) Deposits.** In addition to the deposits required elsewhere in the LGIP in the case of a Generating Facility or the ETUP IP for External ETU, at the time of its request for Long Lead Facility treatment, in accordance with Section 3.2.3.3, and by each deadline for which a New Generating Capacity Resource is required to provide financial assurance under Section III.13.1.9.1 of the Tariff, the Interconnection Customer must provide a separate deposit in the amount of  $0.25 * (\text{Forward Capacity Auction Starting Price } (\$/\text{kW-mo}) / 2) * \text{requested CNR Capacity or CNI Capacity}$ . For each calculation of the deposit, the System Operator shall use the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction at the time of that calculation, pursuant to Section III.13.2.4 of the Tariff, or the Forward Capacity Auction Starting Price for the previous Forward Capacity Auction in the case where the Forward Capacity Auction Starting Price in effect for the upcoming Forward Capacity Auction has not yet been calculated. The total amount of deposits shall not exceed the Non-Commercial Capacity Financial Assurance Amount that the Long Lead Facility would be required to provide if the Long Lead Facility or its counterparty cleared in the upcoming Forward Capacity Auction, in accordance with Section III.13.1.9.1 of the Tariff. The Long Lead Facility deposits will be fully refunded (with interest to be calculated in accordance with Section 3.6) (i) if the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days of the Scoping Meeting or of the completion of the System Impact Study (including restudy of the System Impact Study), pursuant to Section 7, or (ii) once the Long Lead Facility or its counterparty clears in a Forward Capacity Auction.

**(b) Reductions.** Ten (10) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) after the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear in the Forward Capacity Auction that follows the first Forward Capacity Auction for which the Long Lead Facility or its counterparty could qualify based on the Commercial Operation Date specified in the initial critical path schedule for the Long Lead Facility. An additional five (5) percent of the Long Lead Facility deposits collected pursuant to Section 3.2.3.3(2)(a) shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request (except as provided in Section 3.2.3.3(2)(a)) following each subsequent Forward Capacity Auction in which the Long Lead Facility or its counterparty fails to qualify or qualifies and fails to clear such Forward Capacity Auction, not to exceed the maximum period allowed under Sections 3.3.1, 4.4.4 and 4.4.5. The non-refundable portions of the deposits shall be credited to the revenue requirements under Schedule 1 of Section IV of the Tariff.

#### **3.2.3.4 Withdrawal and Refunds After Expenditures for Upgrades.**

An Interconnection Customer that provides documentation in the critical path schedule update to be submitted in accordance with Section 3.2.3.3(1), showing expenditures of the required amounts for upgrades identified in the Interconnection Studies for the Long Lead Facility, may submit a withdrawal of the Interconnection Request for the Long Lead Facility, in accordance with Section 3.6, at any time up to thirty (30) Calendar Days, after the Long Lead Facility's or its counterparty's failure to clear in any Forward Capacity Auction. In such instance, the Interconnection Customer shall receive a refund from the System Operator of the Long Lead Facility deposits (with interest to be calculated in accordance with Section 3.6) as adjusted pursuant to 3.2.3.3(2), if appropriate, and from the Interconnecting Transmission Owner a refund of the payments for the upgrades that exceed the costs incurred by the Interconnecting Transmission Owner. If the Interconnection Customer withdraws only its election or request for Long Lead Facility treatment, such withdrawal will be considered a Material Modification and the Long Lead Facility will lose its Queue Position unless its withdrawal occurs within one of the thirty (30)-day periods described in Section 3.2.3.3(2) of the LGIP in the case of a Generating Facility or the ETU IP for an External ETU.

#### **3.2.3.5 Additional Requirements to Maintain Long Lead Facility Treatment.**

An Interconnection Customer with a Long Lead Facility must begin payment as required by the transmission expenditure schedule for the transmission upgrade costs that have been identified in the pertinent Interconnection Studies. The Interconnection Request for CNI Interconnection Service shall be deemed withdrawn under Section 3.6 if the Interconnection Customer fails to comply with the requirements for Long Lead Facility treatment, including the milestones specified in Section 3.2.1.4. In this circumstance, the conditions specified in an Interconnection Agreement for a Generating Facility seeking CNR Interconnection Service or External ETU seeking CNI Interconnection Service that had an Interconnection Request of a Queue Position lower than the Long Lead Facility, but cleared (in the case of the Elective Transmission Upgrade, the Import Capacity Resource) in a Forward Capacity Auction prior to the Long Lead Facility, shall be removed.

#### **3.2.3.6 Participation in Earlier Forward Capacity Auctions.**

An Interconnection Customer with a Long Lead Facility may, without loss of Queue Position, elect to participate in an earlier Forward Capacity Auction than originally anticipated, but only if the election to accelerate is made to the System Operator in writing within thirty (30) Calendar Days of the Scoping Meeting or within thirty (30) Calendar Days of the completion of the System Impact Study (but before the Long Lead Facility and the results of the associated System Impact Study are incorporated into the Base Cases). Otherwise, such an election shall be considered a Material Modification.

### **3.3 Valid Interconnection Request.**

#### **3.3.1 Initiating an Interconnection Request.**

To initiate and establish a valid Interconnection Request, Interconnection Customer must submit all of the following to the System Operator in the manner specified in Appendix 1 Interconnection Request to this ETU IP: (i) an initial deposit of \$50,000, (ii) a completed application in the form of Appendix 1, (iii) all information and deposits required under Section 3.2, and (iv) demonstration of Site Control or a posting of an additional deposit of \$10,000 in lieu of Site Control for all Interconnection Request except those requesting CNI Interconnection Service, in which case Site Control is required. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility, or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification to existing Pool

Transmission Facility that is not owned by the Interconnection Customer. The portions of the deposit of \$50,000 that have not been applied as provided in this Section 3.3.1 shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in relative order with any other Interconnection Request also requesting to be re-queued pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit of \$50,000 (and any study-related deposits, if any have been submitted) shall be applied toward the re-queued Interconnection Request's initial deposit of \$50,000 and any remaining balance will be refunded, or (iv) if the Interconnection Customer executes an ETU IA. Otherwise, any unused balance of the deposit of \$50,000 shall be non-refundable and applied on a pro-rata basis to offset costs incurred by Interconnection Customers with lower Queue Positions that are subject to re-study, as determined by the System Operator in accordance with the provisions of this ETU IP, as a result of the withdrawal of an Interconnection Request with a higher Queue Position.

The deposit of \$50,000 shall be applied toward the costs incurred by the System Operator associated with the Interconnection Request and Long Lead Facility treatment, as well as, the costs of the Interconnection Feasibility Study and/or the Interconnection System Impact Study, including the cost of developing the study agreements and their attachments, and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit of \$50,000 also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS.

If, in the case of a request that is not for CNI Interconnection Service, the Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.3.3 after submitting its Interconnection Request, the additional deposit of \$10,000 shall be refundable; otherwise, that deposit shall be applied as provided in Section 3.1, including, toward the costs of any Interconnection Studies pursuant to the Interconnection Request, the cost of developing the study agreement(s) and associated attachment(s), and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing

the cost estimates in support of the CRPS. The portions of the deposit of \$10,000 that have not been applied as provided in this Section 3.3.1 also shall be refundable if (i) the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within ten (10) Business Days of the Scoping Meeting, (ii) the Interconnection Customer that is eligible for inclusion in a CSIS withdraws the Interconnection Request, pursuant to Section 4.2.3.2.1, by the Cluster Entry Deadline, (iii) the Interconnection Customer that is eligible for inclusion in a CSIS requests, by the Cluster Entry Deadline, to be re-assigned a Queue Position at the bottom of the queue, pursuant to Section 4.2.3.2.1, in which case the unused balance of the deposit shall be applied toward the re-queued Interconnection Request in lieu of Site Control for NR Interconnection Service, or (iv) if the Interconnection Customer executes an ETU IA.

The expected Trial Operation Date of the new Elective Transmission Upgrade, or the increase in capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility interconnected to the Administered Transmission System, or of the implementation of a Material Modification to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System shall not exceed seven (7) years from the date the Interconnection Request is received by the System Operator, unless the Interconnection Customer demonstrates that such time required to actively engineer, permit and construct the new Elective Transmission Upgrade or increase in capability of the existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility interconnected to the Administered Transmission System or implement the Material Modification to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System will take longer than the seven year period. Upon such demonstration, the Trial Operation Date may succeed the date the Interconnection Request is received by the System Operator by a period of greater than seven (7) years so long as the Interconnection Customer, System Operator, and Interconnecting Transmission Owner agree; such agreement shall not be unreasonably withheld.

Within sixty (60) days of submitting an Interconnection Request to the System Operator, the Interconnection Customer with a request for an External ETU, shall provide evidence that it has submitted a valid request with the other Control Area to which it seeks to interconnect. Notwithstanding any other provision in this ETU IP, if such evidence is not provided within a period not to exceed sixty (60) days, the Interconnection Request will immediately be deemed withdrawn.

### **3.3.2 Acknowledgment of Interconnection Request.**

System Operator shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement. With the System Operator's acknowledgement of a valid Interconnection Request, the System Operator shall provide to the Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2 or an Interconnection System Impact Study Agreement in the form of Appendix 3.

### **3.3.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid Interconnection Request until all items in Section 3.3.1 have been received by the System Operator. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, the System Operator shall notify the Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the System Operator the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

### **3.3.4 Scoping Meeting.**

Within ten (10) Business Days after receipt of a valid Interconnection Request, System Operator shall establish a date agreeable to Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, for a Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be (i) to discuss the estimated timeline for completing all applicable Interconnection Studies, and alternative interconnection options, (ii) to exchange pertinent information including any transmission data that would reasonably be expected to impact such interconnection options, (iii) to analyze such information, (iv) to determine the potential feasible Points of Interconnection, and (v) to discuss any other information necessary to facilitate the administration of the Interconnection Procedures. If a PSCAD model is required, the Parties shall discuss this at the Scoping Meeting. If the Interconnection Customer provided the technical data called for in Appendix 1,

Attachment A with the Interconnection Request, the Parties shall discuss the detailed project design at the Scoping Meeting.

The Parties will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) information regarding general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. The Parties will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 6.1, and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

Unless the Interconnection Request has been identified to be included in a CRPS or eligible for inclusion in a CSIS, within five (5) Business Days following the Scoping Meeting Interconnection Customer shall notify the System Operator, in writing, (i) whether it wants the Interconnection Feasibility Study to be completed as a separate and distinct study or as part of the Interconnection System Impact Study; (ii) if requesting the Interconnection Feasibility Study be completed as a separate and distinct study, which of the alternative study scopes is being selected pursuant to Section 6.2; and (iii) the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection for inclusion in the attachment to the Interconnection Feasibility Study Agreement, or the Interconnection System Impact Study Agreement if the Interconnection Customer elects not to pursue the Interconnection Feasibility Study.

### **3.4 OASIS Posting.**

The System Operator will maintain on its OASIS a list of all Interconnection Requests in its Control Area. The list will identify, for each Interconnection Request: (i) the maximum net summer and winter megawatt electrical output; (ii) the location by county and state of the Point of Interconnection; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected Trial Operation Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested (i.e., CNI Interconnection Service or NI Interconnection Service); and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Elective Transmission Upgrade to be constructed (e.g., Internal ETU, External ETU, controllable, non-controllable); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except



in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes an ETU IA or requests that the System Operator and Interconnecting Transmission Owner jointly file an unexecuted ETU IA with the Commission. Before participating in a Scoping Meeting with an Interconnection Customer that is also an Affiliate, the Interconnecting Transmission Owner shall post on OASIS an advance notice of its intent to do so. The System Operator shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to the System Operator's OASIS site subsequent to the meeting between the System Operator, Interconnecting Transmission Owner, and Interconnection Customer to discuss the applicable study results. The System Operator shall also post any known deviations in the Elective Transmission Upgrade's Trial Operation Date.

### **3.5 Coordination with Affected Systems.**

The System Operator will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected Parties and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this ETU IP. The System Operator will include such Affected Parties in all meetings held with the Interconnection Customer as required by this ETU IP. The Interconnection Customer will cooperate with the System Operator and Interconnecting Transmission Owner in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the Affected Systems. Payment and refunds associated with the costs of such studies will be coordinated between the Interconnection Customer and the Affected Party(ies).

The System Operator shall seek the cooperation of all Affected Parties in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Nothing in the foregoing is intended to authorize the Interconnection Customer to receive interconnection, related facilities or other services on an Affected System, and provision of such services must be handled through separate arrangements with Affected Party(ies).

### **3.6 Withdrawal.**

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to System Operator, which System Operator will transmit to Interconnecting Transmission Owner and any Affected Parties. In addition, if the Interconnection Customer fails to

adhere to all requirements of this ETU IP, except as provided in Section 13.5 (Disputes), the System Operator shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Except as otherwise provided elsewhere in this ETU IP, the Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify the System Operator of its intent to pursue Dispute Resolution, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

Withdrawal shall result in the loss of the Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, the System Operator may eliminate the Interconnection Customer's Interconnection Request from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to System Operator, Interconnecting Transmission Owner, and any Affected Parties all costs prudently incurred with respect to that Interconnection Request prior to System Operator's receipt of notice described above. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

The System Operator shall update the OASIS Queue Position posting. Except as otherwise provided elsewhere in this ETU IP, the System Operator and the Interconnecting Transmission Owner shall arrange to refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs incurred, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations, or arrange to charge to the Interconnection Customer any amount of such costs incurred that exceed the Interconnection Customer's deposit or study payments, including interest calculated in accordance with section 35.19a(a)(2) of the Commission's regulations. In the event of such withdrawal, System Operator, subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information, shall provide, at Interconnection Customer's request, all information developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

#### **SECTION 4. QUEUE POSITION.**

#### **4.1 General.**

System Operator shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form in Appendix 1 to this ETU IP, and Interconnection Customer provides such information in accordance with Section 3.3.3, then System Operator shall assign Interconnection Customer a Queue Position based on the date the application form was originally submitted.

Except as otherwise provided in this Section 4.1, the Queue Position of each Interconnection Request will be used to determine: (i) the order of performing the Interconnection Studies; (ii) the order in which Interconnection Requests will be eligible for inclusion in the CSIS and CFAC; (iii) the order in which Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service will be included in the CNR Group Study; and (iv) the cost responsibility for the facilities and upgrades necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is lower queued.

A CSIS and CFAC shall include the Interconnection Requests that were identified as eligible to participate in the CSIS and CFAC and met the associated requirements for inclusion in said studies in accordance with Section 4.2 of this ETU IP. An Interconnection Request included in a cluster shall consider a higher queued Interconnection Request not included in the cluster. A lower queued Interconnection Request that is not included in the cluster shall consider all of the higher queued Interconnection Requests that are part of the cluster.

##### **4.1.1 Order of Interconnection Requests in the CNR Group Study.**

Participation in a CNR Group Study shall be a prerequisite to achieve CNR Interconnection Service and CNI Interconnection Service. The CNR Group Study (to be conducted in accordance with Section III.13.1.1.2.3 of the Tariff) shall include all Interconnection Requests for CNR Interconnection Service and CNI Interconnection Service that have an associated New Capacity Show of Interest Form that was submitted during the New Capacity Show of Interest Submission Window for the purpose of qualification for participation in the same Forward Capacity Auction for a Capacity Commitment Period, in accordance with Section III.13.1.1.2 of the Tariff, as well as Long Lead Facilities in accordance with Section 3.2.3. Where a CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a

lower Queue Position is associated with a New Capacity Show of Interest Form that was submitted for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and another CNR Interconnection Service or CNI Interconnection Service Interconnection Request with a higher Queue Position is not associated with a New Capacity Show of Interest Form that was submitted for qualification until a subsequent Forward Capacity Auction, the CNR Interconnection Service or CNI Interconnection Service Interconnection Request with the lower Queue Position will be included in the CNR Group Study prior to the CNR Interconnection Service or the CNI Interconnection Service Interconnection Request with the higher Queue Position.

However, where an Interconnection Customer with a CNR Interconnection Service Interconnection Request submits a New Capacity Show of Interest Form for qualification to participate in a particular Forward Capacity Auction for a Capacity Commitment Period and identifies in that New Capacity Show of Interest Form one or more Elective Transmission Upgrade Interconnection Request(s) for an Internal ETU that is not already included in the network model pursuant to Section III.12 of the Tariff for the particular Forward Capacity Auction, the CNR Interconnection Request will be included in the CNR Group Study at the lowest of the CNR Interconnection Request's or its associated Elective Transmission Upgrade Interconnection Request(s) for the Internal ETU's Queue Position. Where multiple Interconnection Customers' CNR Interconnection Service Interconnection Requests are associated with the same lower Queue Position for an Elective Transmission Upgrade Interconnection Request for an Internal ETU in the CNR Group Study, the CNR Interconnection Request's Queue Position will be used as the tie breaker to dictate the relative order in which the CNR Interconnection Service Interconnection Request will be included in the CNR Group Study.

An Interconnection Customer with a Generating Facility or that is associated with an Import Capacity Resource in the case of an Elective Transmission Upgrade that is treated as a Conditional Qualified New Resource, in accordance with Section III.13.1.1.2.3(f) of the Tariff, may be responsible for the facilities and upgrades associated with an overlapping CNR Interconnection Service or CNI Interconnection Service Interconnection Request having a higher Queue Position if the Conditional Qualified New Resource obtains a Capacity Supply Obligation through a Forward Capacity Auction under Section III.13.2.5 of the Tariff.

An Interconnection Customer with a lower queued CNR Interconnection Service Interconnection Request for a Generating Facility or CNI Interconnection Service Interconnection Request for an Elective

Transmission Upgrade that has achieved Commercial Operation and obtained CNR Interconnection Service or CNI Interconnection Service, respectively, may be responsible for additional facilities and upgrades if the related higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively. In such circumstance, Appendix A to the Interconnection Agreement for the lower queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request shall specify the facilities and upgrades for which the Interconnection Customer shall be responsible if the higher queued CNR Interconnection Service or CNI Interconnection Service Interconnection Request for a Long Lead Facility achieves Commercial Operation and obtains CNR Interconnection Service or CNI Interconnection Service, respectively.

## **4.2 Clustering.**

Clustering Interconnection Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable Regional System Plan in light of the New England Transmission System's capabilities for the time period under study. The System Operator may study an Interconnection Request serially to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Elective Transmission Upgrade.

### **4.2.1 Triggers for Studying Interconnection Requests in Clusters.**

At the discretion of the System Operator, Interconnection Requests will be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study when the combination of the following circumstances is present in the interconnection queue: (a) there are two (2) or more Interconnection Requests without completed Interconnection System Impact Studies in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (b) the System Operator determined that none of the Interconnection Requests identified in (a) of this Section 4.2.1 will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure at or above 115 kV AC or HVDC. An Interconnection Request for an Internal ETU that the System Operator identifies as potentially eligible to take the place of a CETU will be eligible to participate in a CSIS.

### **4.2.2 Notice of Initiation of Cluster Studies.**

When the combination of the triggers specified in Section 4.2.1 of this ETU IP are present in the interconnection queue, the System Operator will provide notice to the Planning Advisory Committee of

the initiation of a cluster for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff. The System Operator also will provide notice to the Interconnection Customers with Interconnection Requests identified in Section 4.2.1 of this ETU IP, and at the time the System Operator notifies the Planning Advisory Committee of the initiation of a cluster, all study work for these Interconnection Requests will be suspended and they will proceed under Section 4.2 of this ETU IP. The System Operator will conduct Clustering in two phases. In the first phase, the System Operator will perform a CRPS to identify the CETU and associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests considered in Section 4.2.1 of this ETU IP, consistent with Section 15.2 of Attachment K. In the second phase, the System Operator will conduct a CSIS and a CFAC to study the Interconnection Requests identified through the CRPS that have elected to participate in the CSIS together with the identified CETU and associated upgrades, in accordance with this ETU IP.

Within sixty (60) Calendar Days of the System Operator's notice to the Planning Advisory Committee of the initiation of the use of Clustering for studying certain Interconnection Requests under the Regional System Planning Process in accordance with Section 15.1 of Attachment K, Section II of the Tariff, Interconnection Customers with Interconnection Requests identified in Section 4.2.1 shall submit the technical data called for in Appendix 1, Attachment A, to support the conduct of the CRPS.

#### **4.2.3 Cluster Interconnection System Impact Study.**

##### **4.2.3.1 Notice of Cluster Interconnection System Impact Study Entry Deadline.**

At the same time the System Operator issues the final CRPS report to the Planning Advisory Committee in accordance with Section 15.4 of Attachment K, the System Operator will provide notice of the entry deadline for the CSIS (the "Cluster Entry Deadline") to the Interconnection Customers with Interconnection Requests identified in the final CRPS report as eligible to participate in the CSIS. The Cluster Entry Deadline shall be thirty (30) Calendar Days from the posting of the final CRPS report.

##### **4.2.3.2 Cluster Interconnection System Impact Study Entry Requirements.**

All Interconnection Requests identified in the final CRPS report, by Queue Position as assigned in accordance with Section 4.1 of this ETU IP, shall be eligible to be studied together in the CSIS.

**4.2.3.2.1 Cluster Entry Deadline Election.** By the Cluster Entry Deadline, an Interconnection Customer with an Interconnection Request identified as eligible to be studied in the CSIS must, in writing:

- (i) withdraw the Interconnection Request, pursuant to Section 3.6;
- (ii) request that the System Operator re-assign the Interconnection Customer's Interconnection Request a new Queue Position at the bottom of the queue as of the Cluster Entry Deadline in relative order with any other Interconnection Requests requesting to be re-queued under this Section 4.2.3.2.1; or
- (iii) request to be included in the CSIS and meet the CSIS entry requirements specified in Section 4.2.3.2.2.

If, by the Cluster Entry Deadline, Interconnection Customer fails to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or request to be included in the CSIS and meet the CSIS entry requirements, then the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If Interconnection Customer elects option (iii) and does not meet all of the CSIS entry requirements specified in Section 4.2.3.2.2 by the Cluster Entry Deadline, the Interconnection Request will be automatically withdrawn from the interconnection queue as of the Cluster Entry Deadline without further opportunity to cure. If an initial Cluster Participation Deposit had been submitted as part of the incomplete CSIS entry requirements submission, the initial Cluster Participation Deposit will be refunded at the time the Interconnection Request is withdrawn.

#### **4.2.3.2.2 CSIS Entry Requirements**

An Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to be studied in the CSIS that elects option (iii) under Section 4.2.3.2.1 must meet the following CSIS entry requirements in order to be included in the CSIS:

**(1) Cluster System Impact Study Application.** By the Cluster Entry Deadline, Interconnection Customer must submit to the System Operator a completed Cluster System Impact Study Application in the form specified in Appendix 1, Attachment A-1, of this ETU IP requesting the inclusion of the Interconnection Request in the CSIS;

**(2) System Impact Study Agreement, Study Deposit, Technical Data, and Site Control.** If an Interconnection Feasibility Study Agreement or an Interconnection System Impact Study Agreement has been executed prior to the issuance of the final CRPS report identifying the Interconnection Request as eligible for inclusion in a CSIS, such agreement shall terminate upon execution of a new Interconnection System Impact Study Agreement in accordance with this Section 4.2.3.2.2, and any unused balance of the study deposit associated with the terminated agreement shall be applied toward the study deposit associated with the new Interconnection System Impact Study Agreement.

Within fifteen (15) Business Days following the Cluster Entry Deadline, the System Operator and Interconnecting Transmission Owner will provide to Interconnection Customer an Interconnection System Impact Study Agreement, including a non-binding good faith estimate of the costs and timeframe for commencing and completing the CSIS.

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after receipt along with continued demonstration of Site Control, the technical data called for in Appendix 1, Attachment A, and a refundable study deposit, to the extent that any additional study deposit is required, in accordance with Section 7.2 of this ETU IP.

**(3) Cluster Participation Deposit for the CSIS.** By the Cluster Entry Deadline, Interconnection Customer also must submit to the System Operator an initial Cluster Participation Deposit equal to: (a) for an External ETU, five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CRPS report, or (b) for an Internal ETU, the lesser of \$1,000,000 or five (5) percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the initial Cluster Participation Deposit is due. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The initial Cluster Participation Deposit will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this ETU IP) to Interconnection Customer with an Interconnection Request that met the cluster entry requirements: (i) if the CSIS is initially undersubscribed by more than ten (10) percent of the quantity of megawatts that the CETU developed through the CRPS was designed to enable and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section



3.6, before the CSIS starts, (ii) if the CSIS is initially oversubscribed as described in Section 4.2.3.3.2 of this ETU IP (e.g., the CETU developed through the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet the CSIS entry requirements by the Cluster Entry Deadline), in which case the Cluster Participation Deposits will be refunded to Interconnection Customers with Interconnection Requests corresponding to the oversubscribed megawatt quantities, (iii) if the cost estimates for the CETU and the associated system upgrades provided in the final CRPS report for the entire cluster have increased by twenty-five (25) percent or more when compared to the cost estimates provided in the draft CSIS report or the draft CFAC report and the Interconnection Customer withdraws the Interconnection Request, pursuant to Section 3.6, within thirty (30) Calendar Days after receipt of the draft CSIS report or the draft CFAC report in accordance with Sections 7.5 and 8.3 of this ETU IP, respectively, (iv) if less than two (2) Interconnection Requests included in the CSIS or CFAC remain in the interconnection queue during the CSIS or CFAC, as applicable, in which case, the CSIS or the CFAC terminates and the remaining Interconnection Request proceeds in serial queue order, (v) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this ETU IP, (vi) if no Interconnection Customer with an Interconnection Request included in the cluster executes an Interconnection Agreement and provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this ETU IP, or (vii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.

Otherwise, the initial Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue at any time after the Cluster Entry Deadline. The non-refundable initial Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.2.3.3 Cluster Filling, Oversubscription and Backfilling Upon Withdrawal.**

**4.2.3.3.1 Cluster Filling.** The CSIS shall be filled with all Interconnection Requests in the same electrical part of the New England Control Area relative to the CETU identified in the final CRPS report that do not yet have a completed Interconnection System Impact Study and met the CSIS entry requirements by the Cluster Entry Deadline up to the approximate megawatt quantity identified in the final CRPS report as potentially enabled by the CETU. The Interconnection Requests will be included in

the CSIS in queue order, based on the Queue Positions assigned in accordance with Section 4.1 of this ETU IP, relative to other eligible Interconnection Requests.

**4.2.3.3.2 Cluster Oversubscription.** If an Interconnection Customer with an Interconnection Request identified in the final CRPS report as eligible to participate in a CSIS met the CSIS entry requirements and therefore would have been eligible for inclusion in the CSIS but is excluded as a result of the quantity of megawatts identified as potentially enabled by the CETU in the final CRPS report having been exhausted in queue order under Section 4.2.3.3.1, (i) the initial Cluster Participation Deposit will be refunded to the Interconnection Customer, and (ii) the Interconnection Request will maintain its Queue Position. If there are two (2) or more Interconnection Request after the CSIS is filled, the System Operator will initiate another cluster to identify the transmission infrastructure to enable the interconnection of another round of Interconnection Requests consistent with Section 15.1 of Attachment K.

**4.2.3.3.3 Cluster Backfilling Upon Withdrawal.** Upon withdrawal of an Interconnection Request that is included in the CSIS, the System Operator will backfill the CSIS, in queue order, with later-queued Interconnection Requests consistent with the methodology used to fill the original CSIS as specified in Section 4.2.3.3.1 of this ETU IP. The System Operator will notify all Interconnection Customers with Interconnection Requests identified by the System Operator as eligible for backfilling that the respective Elective Transmission Upgrade (or part thereof) proposed in the Interconnection Request is eligible to participate in the CSIS, and the Interconnection Customer shall have thirty (30) Calendar Days from receipt of System Operator's notice to withdraw its Interconnection Request, request to be re-assigned a Queue Position at the bottom of the queue, or accept the inclusion of the Interconnection Request (or part thereof, in which case the Interconnection Customer shall modify the Interconnection Request to reflect the appropriate reduction) in the CSIS and meet the CSIS entry requirements, consistent with Section 4.2.3.2 of this ETU IP. If the Interconnection Customer does not make one of these three elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure and consider other later-queued Interconnection Requests.

**4.2.3.4 Scope of Cluster Interconnection System Impact Study.** Except as otherwise provided in this Section 4.2.3.4, the CSIS shall be conducted in accordance with Sections 7.3 and 7.4 of this ETU IP. The Study Case developed for the CSIS shall also include the CETU and associated system upgrades

identified in the final CRPS report. An Internal ETU can be considered, and included in the CSIS, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated in the Cluster Application Form or with the executed Interconnection System Impact Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. The CSIS shall evaluate the proposed interconnections to the New England Transmission System under the NC Interconnection Standard consistent with Section 3.2.2 of this ETU IP and as detailed in the ISO New England Planning Procedures. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CSIS shall consist of the analysis specified in Section 7.3 of this ETU IP except for analysis associated with an Interconnection Feasibility Study or a preliminary, non-binding, analysis. An Interconnection Customer with an Interconnection Request being studied as part of the CSIS cannot elect to have the Interconnection Feasibility Study or a preliminary, non-binding, analysis performed as part of the CSIS.

**4.2.3.5. Restudy of Cluster Interconnection System Impact Study.** In addition to the circumstances specified in Section 7.6 of this ETU IP, a re-study of the CSIS is required due to the withdrawal of an Interconnection Request that had been included in the CSIS. Upon withdrawal of an Interconnection Request that had been included in the CSIS, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study will be conducted to determine if there are any changes in the upgrades identified during the CSIS with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

#### **4.2.4. Cluster Interconnection Facilities Study.**

Notwithstanding any other provision in this ETU IP, an Interconnection Customer with an Interconnection Request included in a completed CSIS will not be eligible to waive the, or request a separate, CFAC. All Interconnection Customers with an Interconnection Request included in a completed CSIS shall be studied together in the CFAC for the purpose of implementing the conclusions of the CSIS with respect to non-sole use facilities.

**4.2.4.1 Cluster Interconnection Facilities Study Entry Requirements.** An Interconnection Customer with an Interconnection Request that was included in a completed CSIS shall execute an Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator, together with the required technical data and refundable deposit for the Interconnection Facilities Study as specified in Section 8.1 of this ETU IP.

**4.2.4.2. Scope of Interconnection Facilities Study.** The CFAC will be conducted in accordance with Sections 8.2 and 8.3 of this ETU IP based on a +/- 20 percent good faith cost estimate.

**4.2.4.3 Re-study of the Interconnection Facilities Study.** In addition to the circumstances specified in Section 8.5 of this ETU IP, a re-study of the CFAC is required due to the withdrawal of an Interconnection Request that had been included in the CFAC. Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3. A re-study of the CSIS and CFAC will be conducted to determine if there are any changes in the upgrades identified during the CSIS and CFAC with the exception of the CETU identified in the final CRPS report, which shall remain configured consistent with the megawatt quantity(ies) considered in the final CRPS report.

**4.2.4.4 Additional Cluster Participation Deposit.** Within thirty (30) Calendar Days after receipt of the final CFAC report in accordance with Section 8.3 of this ETU IP, an Interconnection Customer with an Interconnection Request included in the CFAC shall submit to the System Operator an additional Cluster Participation Deposit equal to: (a) for an External ETU, five (5) percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades to be determined based on the cost estimates provided in the final CFAC report, or (b) for an Internal ETU, the lesser of \$1,000,000 or five (5) percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the additional Cluster Participation Deposit is due. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff.

The additional Cluster Participation Deposit provided under this Section 4.2.4.4 will be fully refunded (with interest to be calculated in accordance with Section 3.6 of this ETU IP) to Interconnection Customer that submitted the additional Cluster Participation Deposit if the conditions specified in Sections 4.2.3.2.2(3)(v), (vi) or (vii) above occur.

Otherwise, the additional Cluster Participation Deposit shall be non-refundable if the Interconnection Customer withdraws its Interconnection Request or the Interconnection Request is withdrawn from the interconnection queue. The non-refundable additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in a cluster at the time the facilities proposed in the Interconnection Requests achieve Commercial Operation.

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Elective Transmission Upgrade identified in the Interconnection Request and the Point of Interconnection does not change. The Interconnection Customer must notify the System Operator, in writing, of any transfers of Queue Position and must provide the System Operator with the transferee's contact information, and System Operator shall notify Interconnecting Transmission Owner and any Affected Parties of the same.

#### **4.4 Modifications.**

The Interconnection Customer shall submit to System Operator and Interconnecting Transmission Owner, in writing, modifications to any information provided in the Interconnection Request, including its attachments. The Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1 or 4.4.4, or are determined not to be Material Modifications pursuant to Section 4.4.2. The System Operator will notify the Interconnecting Transmission Owner, and, when System Operator deems it appropriate in accordance with applicable codes of conduct and confidentiality requirements, it will notify any Affected Party of such modifications.

A new Interconnection Request shall be required to: (1) increase the capability of an Elective Transmission Upgrade above that specified in an Interconnection Request, or an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission); (2) change from NI Interconnection Service to CNI Interconnection Service, in which case a new Interconnection Request for CNI Interconnection Service shall be required; or (3) change the objective specified in an Interconnection Request. Such new Interconnection Request will receive the lowest Queue Position available at the time the Interconnection Request is submitted for purposes of cost allocation and study analysis.

Notwithstanding the foregoing, an Interconnection Customer with an Interconnection Request for CNI Interconnection Service has until the Forward Capacity Auction for which the associated Capacity

Commitment Period begins less than seven (7) years (or the years agreed to pursuant to Section 3.3.1 or Section 4.4.5) from the date of the original Interconnection Request for CNI Interconnection Service for an Import Capacity Resource(s) associated with its Elective Transmission Upgrade to clear the entire megawatt amount for which CNI Interconnection Service was requested. A new Interconnection Request for CNI Interconnection Service will be required for the Elective Transmission Upgrade to enable the participation of an Import Capacity Resource in any subsequent auctions.

During the course of the Interconnection Studies, either the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes do not constitute a Material Modification and are acceptable to the Parties, such acceptance not to be unreasonably withheld, System Operator and the Interconnecting Transmission Owner shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

**4.4.1** Prior to the commencement of the Interconnection System Impact Study, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent in the capability of the proposed project; (b) modifying the technical parameters associated with the Elective Transmission Upgrade technology or characteristics; and (c) modifying the interconnection configuration. Notwithstanding the foregoing, an Interconnection Customer may decrease the electrical output of a proposed Elective Transmission Upgrade after the Cluster Entry Deadline specified in Section 4.2.3.1 of this ETU IP; however, the requesting Interconnection Customer remains responsible for costs corresponding to the megawatt quantity requested as of the Cluster Entry Deadline.

**4.4.2** Prior to making any modification other than those specifically permitted by Sections 4.4.1 and 4.4.4, Interconnection Customer may first request that the System Operator and Interconnecting Transmission Owner evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, the System Operator in consultation with the Interconnecting Transmission Owner, and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall evaluate,

at the Interconnection Customer's cost, the proposed modifications prior to making them and the System Operator will inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.3** Upon receipt of Interconnection Customer's request for modification that does not constitute a Material Modification and therefore is permitted under this Section 4.4, the System Operator in consultation with the Interconnecting Transmission Owner and in consultation with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, shall commence and perform any necessary additional studies as soon as practicable, but in no event shall the System Operator, Interconnecting Transmission Owner, or Affected Party commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

**4.4.4** Extensions of less than three (3) cumulative years in the Commercial Operation Date, In-Service Date or Trial Operation Date of the Elective Transmission Upgrade to which the Interconnection Request relates are not material and should be handled through construction sequencing, provided that the extension(s) do not exceed seven (7) years from the date the Interconnection Request was received by the System Operator.

**4.4.5** Extensions of three (3) or more cumulative years in the Commercial Operation Date, In-Service Date or Trial Operation Date of the Elective Transmission Upgrade to which the Interconnection Request relates or any extension of a duration that results in the Trial Operation Date exceeding the date the Interconnection Request was received by the System Operator by seven (7) or more years is a Material Modification unless the Interconnection Customer demonstrates to the System Operator due diligence in pursuit of permitting, licensing and construction of the Elective Transmission Upgrade to meet the Commercial Operation Date, In-Service Date or Trial Operation Date provided in the Interconnection Request. Such demonstration shall be based on evidence to be provided by the Interconnection Customer of accomplishments in permitting, licensing, and construction in an effort to meet the Commercial Operation Date, In-Service Date or Trial Operation Date provided in this Interconnection Request. Such

evidence may include filed documents, records of public hearings, governmental agency findings, documentation of actual construction progress, including the previous four (4) months. If the evidence demonstrates that the Interconnection Customer did not undertake reasonable efforts to meet the Commercial Operation Date, In-Service Date or Trial Operation Date specified in the Interconnection Request, or demonstrates that reasonable efforts were not undertaken until four (4) months prior to the request for extension, the request for extension shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed Material Modification or proceed with a new Interconnection Request for such modification.

## **SECTION 5. PROCEDURES FOR TRANSITION.**

### **5.1 Rules for Establishing Queue Position for Interconnection Requests Pending Prior to February 16, 2015.**

**5.1.1** An Interconnection Customer with a request for Elective Transmission Upgrade submitted prior to February 16, 2015, shall be assigned a Queue Position pursuant to the following provisions.

**5.1.1.1** If the Interconnection Customer's Elective Transmission Upgrade has received an approval pursuant to Section I.3.9 of the Tariff prior to February 16, 2015:

**5.1.1.1.1** The Interconnection Request shall be assigned a Queue Position based on the date of the Elective Transmission Upgrade's approval pursuant to Section I.3.9 of the Tariff and shall be respected by all Interconnection Requests with a lower Queue Position than the Elective Transmission Upgrade's assigned Queue Position. The assigned Queue Position for an Interconnection Request of an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for NI Interconnection Service. Within sixty (60) days from February 16, 2015, the Interconnection Customer must: (a) proceed as directed in Section 8 of this ETU IP, and (b) submit a deposit of \$47,500 for the difference between the former Elective Transmission Upgrade application deposit (*i.e.*, \$ 2,500) and the new Elective Transmission Upgrade Interconnection Request deposit (*i.e.*, \$50,000) to be applied toward the costs of developing the ETU IA. Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request will be deemed withdrawn.



**5.1.1.1.2** The Interconnection Request shall be assigned a placeholder to establish a separate Queue Position for CNI Interconnection Service if the Interconnection Customer proposing an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility submits a valid Interconnection Request for CNI Interconnection Service within sixty (60) days from February 16, 2015. The Interconnection Customer's Interconnection Request for CNI Interconnection Service may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. The placeholder for such Queue Position shall be at the bottom of the queue as of February 16, 2015, in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.1.2. Notwithstanding any other provision in this ETU IP, if a valid Interconnection Request for CNI Interconnection Service is not submitted within a period not to exceed sixty (60) days from February 16, 2015, the placeholder Queue Position shall be deemed withdrawn.

**5.1.1.2** If the Interconnection Customer's Elective Transmission Upgrade has not received an approval pursuant to Section I.3.9 of the Tariff prior to February 16, 2015:

**5.1.1.2.1** An Interconnection Request with a System Impact Study Agreement that has been executed prior to February 16, 2015, and has been recognized by the System Operator as actively under study, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.1.2 and in relative order based on the date of the former Elective Transmission Upgrade application submitted pursuant to Section II.47.5 of the Tariff, with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.1. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer indicates in its updated Interconnection Request that it only seeks NI Interconnection Service. The System Impact Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effect on February 16, 2015 (or as revised thereafter), including potential re-study to accommodate the revised queue. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall submit: (a) an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in

coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, completion of the System Impact Study, and (b) a deposit of \$250,000 minus any amounts already paid to the System Operator for estimated costs of the System Operator and the Interconnecting Transmission Owner to be applied toward the costs of the remaining study work and development of the ETU IA. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include in its updated Interconnection Request a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

**5.1.1.2.2** An Interconnection Customer with a System Impact Study Agreement that has been executed prior to February 16, 2015, but is not recognized by the System Operator as actively under study, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.2.1 and in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.2. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer indicates in its updated Interconnection Request that it only seeks NI Interconnection Service. The System Impact Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effective on February 16, 2015 (or as revised thereafter), including potential re-study to accommodate the revised queue. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall submit: (a) an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the System Impact Study, and (b) \$250,000 to be applied toward the costs of the System Impact Study and development of the ETU IA. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include in its updated Interconnection Request a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4

and 4.4.5. Notwithstanding any other provision in this ETU IA, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

**5.1.1.2.3** An Interconnection Customer that does not have an executed System Impact Study Agreement prior to February 16, 2015, shall be assigned a Queue Position at the bottom of the queue as of February 16, 2015, below the Queue Position of the Elective Transmission Upgrade Interconnection Requests that fall under Section 5.1.1.2.2 and in relative order with any other Elective Transmission Upgrade Interconnection Request that falls under this Section 5.1.1.2.3. The assigned Queue Position of an Interconnection Request for an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility shall be for CNI Interconnection Service unless the Interconnection Customer provides written notification to the System Operator that it seeks only NI Interconnection Service. Within sixty (60) days from February 16, 2015, the Interconnection Customer shall: (a) submit an updated Interconnection Request for the same Elective Transmission Upgrade proposed in the former Elective Transmission Upgrade application submitted under Section II.47.5 of the Tariff together with all data requested to facilitate the System Operator, in coordination with Interconnecting Transmission Owner and Affected Party as deemed appropriate by the System Operator, conduct of the Interconnection Studies, (b) submit a deposit of \$47,500 for the difference between the former Elective Transmission Upgrade application deposit (*i.e.*, \$ 2,500) and the new Elective Transmission Upgrade Interconnection Request deposit (*i.e.*, \$50,000) to be applied toward the costs of the Interconnection Studies and development of the ETU IA, and (c) proceed as directed in Section 6 of this ETU IP. At that time, Interconnection Customers with an Interconnection Request for CNI Interconnection Service may also include a request for Long Lead Facility Treatment, which shall be subject to review pursuant to Section 3.2.3, and, if applicable, a request for a change of the Commercial Operation Date, in accordance with Sections 4.4.4 and 4.4.5. Interconnection Studies shall be processed in accordance with the version of the ETU IP in effective on February 16, 2015 (or as revised thereafter). Notwithstanding any other provision in this ETU IP, if the Interconnection Customer fails to meet these requirements within a period not to exceed sixty (60) days, the Interconnection Request shall be deemed withdrawn.

## **5.2 Transition Rules for Pending Interconnection Requests After February 16, 2015.**

**5.2.1** Any Interconnection Customer assigned a Queue Position prior to November, 1 2017, shall retain that Queue Position subject to Section 4.4 of this ETU IP.

**5.2.1.1** If an Interconnection Study Agreement has not been executed prior to November 1, 2017, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with the version of this ETU IP in effect on November 1, 2017 (or as revised thereafter).

**5.2.1.2** If an Interconnection Study Agreement has been executed prior to November 1, 2017 and is actively under study, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to November 1, 2017, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the ETU IP in effect on November 1, 2017. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 4.2.3.2 of this ETU IP within thirty (30) Calendar Days from the later of November 1, 2017 or the issuance of the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure.

**5.2.2** Transition Period. To the extent necessary, the System Operator, Interconnection Customers with an outstanding Interconnection Request (i.e., an Interconnection Request for which an ETU IA has neither been executed nor submitted to the Commission for approval prior to November 1, 2017), Interconnecting Transmission Owner and any other Affected Parties, shall transition to proceeding under the version of the ETU IP in effect as of November 1, 2017 (or as revised thereafter) within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term “outstanding Interconnection Request” herein shall mean any Interconnection Request, on November 1, 2017: (i) that has been submitted, together with the required deposit and attachments, but not yet accepted by the System Operator; (ii) where the related ETU IA has not yet been submitted to the Commission for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any

Interconnection Customer with an outstanding Interconnection Request as of the effective date of this ETU IP may request a reasonable extension of the next applicable deadline if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension, not to exceed sixty (60) Calendar Days, shall be granted by the System Operator to the extent consistent with the intent and process provided for under this ETU IP.

### **5.3 New System Operator or Interconnecting Transmission Owner.**

If the System Operator transfers operational control of the New England Transmission System to a successor System Operator during the period when an Interconnection Request is pending, the System Operator shall transfer to the successor System Operator any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this ETU IP shall be paid by or refunded to the Interconnection Customer, as appropriate. The System Operator shall coordinate with the successor System Operator to complete any Interconnection Study, as appropriate, that the System Operator has begun but has not completed.

If the Interconnecting Transmission Owner transfers ownership of its transmission facilities to a successor transmission owner during the period when an Interconnection Request is pending, and System Operator in conjunction with Interconnecting Transmission Owner has tendered a draft ETU IA to the Interconnection Customer but the Interconnection Customer has not either executed the ETU IA or requested the filing of an unexecuted ETU IA with the Commission, unless otherwise provided, the Interconnection Customer must complete negotiations with the successor transmission owner.

## **SECTION 6. INTERCONNECTION FEASIBILITY STUDY.**

### **6.1 Interconnection Feasibility Study Agreement.**

Except as otherwise provided in Section 4.2.3.4 of this ETU IP, the Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study under this Section 6, or as part of the Interconnection System Impact Study under Section 7. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the

Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the System Operator's and Interconnecting Transmission Owner's receipt from the Interconnection Customer of its designation of the Point(s) of Interconnection and of the type of study to be performed pursuant to Section 3.3.4, System Operator shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). No later than thirty (30) Calendar Days after its receipt of the Interconnection Feasibility Study Agreement, (a) the Interconnection Customer shall execute and deliver the agreement to System Operator and the Interconnecting Transmission Owner, (b) the Interconnection Customer shall also deliver the refundable deposit for the Interconnection Feasibility Study to the System Operator, and (c) the technical data called for in Appendix 1, Attachment B. The deposit for the study shall be 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study, including the cost of developing the study agreement and its attachment(s). For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection Feasibility Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Interconnection Feasibility Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner on the Interconnection Feasibility Study, including the development of the study agreement and its attachment(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold any amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection Feasibility Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A or B, depending on the scope elected pursuant to Section 3.3.1. If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection Feasibility Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection Feasibility Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection Feasibility Study Agreement or deposit.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to the Parties, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

## **6.2 Scope of Interconnection Feasibility Study.**

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Administered Transmission System with available data and information. The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection Feasibility Study). An Interconnection Customer with a CNI Interconnection Service

Interconnection Request may also request that the Interconnection Feasibility Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection Feasibility Study Agreement. The Interconnection Feasibility Study will consist of a power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) a list of facilities, and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct the Interconnection Facilities and Network Upgrades; (iii) a protection assessment to determine the required Interconnection Facilities; and may provide (iv) an evaluation of the siting of Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environmental work for Interconnection Facilities and Network Upgrades.

Alternatively, in the case where the Interconnection Customer requests that the Interconnection Feasibility Study be completed as a separate and distinct study, the Interconnection Customer may provide the technical data called for in Appendix 1, Attachment A with the executed Interconnection Feasibility Study Agreement and request that the Interconnection Feasibility Study consist of limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade's interconnection given recent study experience and as discussed at the Scoping Meeting. In this case, the Interconnection Feasibility Study report will provide (i) the study findings; and, (ii) a preliminary description of a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Elective Transmission Upgrade as identified within the scope of the analysis performed as part of the study. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2, the Interconnection Feasibility Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

### **6.3 Interconnection Feasibility Study Procedures.**



The System Operator in coordination with Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after System Operator and Interconnecting Transmission Owner receive the fully executed Interconnection Feasibility Study Agreement, study deposit and required technical data in accordance with Section 6.1. At the request of the Interconnection Customer or at any time the System Operator or the Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the System Operator is unable to complete the Interconnection Feasibility Study within that time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator with input from the Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow and short circuit databases that have been developed for the Interconnection Feasibility Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **6.3.1 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Feasibility Study.

#### **6.4 Re-Study.**

If re-study of the Interconnection Feasibility Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-designation of the Point of Interconnection pursuant to Section 6.1, (iv) a re-assessment of the upgrade responsibilities

of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Feasibility Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Feasibility Study Agreement.

The Interconnection Customer shall have the option to waive the re-study and elect to have the re-study performed as part of its Interconnection System Impact Study. The Interconnection Customer shall provide written notice of the waiver and election of moving directly to the Interconnection System Impact Study within five (5) Business Days of receiving notice from the System Operator of the required re-study.

## **SECTION 7. INTERCONNECTION SYSTEM IMPACT STUDY.**

### **7.1 Interconnection System Impact Study Agreement.**

If the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and the System Operator shall be responsible for generating only one final report, which will include the results of both Section 6 and Section 7.

Within five (5) Business Days following the Interconnection Feasibility Study results meeting, or subsequent to the Scoping Meeting within five (5) Business Days following the receipt of designation of the Point(s) of Interconnection and type of study to be performed pursuant to Section 3.3.4, if the Interconnection Customer did not request that the Interconnection Feasibility Study be completed as a separate and distinct study, the System Operator and Interconnecting Transmission Owner shall provide

to Interconnection Customer the Interconnection System Impact Study Agreement, which includes a non-binding good faith estimate of the cost and timeframe for commencing and completing the Interconnection System Impact Study. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA.

## **7.2 Execution of Interconnection System Impact Study Agreement.**

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the System Operator no later than thirty (30) Calendar Days after its receipt along with a demonstration of Site Control and the technical data called for in Appendix 1, Attachment A, and the Interconnection Customer shall also deliver a refundable deposit. An Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification of an existing Pool Transmission Facility that is not owned by the Interconnection Customer. If a PSCAD model was determined to be needed for the Elective Transmission Upgrade at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the execution of the System Impact Study Agreement to provide the PSCAD model. The deposit for the study shall be the greater of 100 percent of the estimated cost of the study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection System Impact Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA. For Interconnection Requests that are identified for inclusion in a CRPS performed under Section 15 of Attachment K, Section II of the Tariff, the deposit also shall be applied toward the costs incurred by the Interconnecting Transmission Owner in developing the cost estimates in support of the CRPS. Any difference between the study deposit and the actual cost of the Interconnection System Impact Study or the actual costs incurred by the Interconnecting Transmission Owner in developing the costs estimates in support of the CRPS shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs

of Interconnection System Impact Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the System Impact Study, including the study agreement and its attachment(s) and the ETU IA. In the case of Clustering, CSIS costs that are associated with an individual Interconnection Request assessed within the CSIS will be charged directly to that Interconnection Customer. CSIS costs that are associated with the CSIS as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. If the Interconnection Customer elects the deposit described in (ii) above, the System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study on each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

On or before the return of the executed Interconnection System Impact Study Agreement to the System Operator and Interconnecting Transmission Owner, the Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A; provided that if a PSCAD model was determined to be needed at the Scoping Meeting, then the Interconnection Customer shall have ninety (90) Calendar Days from the execution of the System Impact Study Agreement to provide the PSCAD model.

If the Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, the System Operator shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting or the Interconnection Feasibility Study, a substitute Point of Interconnection identified by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and acceptable to each Party, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above

without loss of Queue Position, and re-studies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if the Parties cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement or Interconnection System Impact Study depending on whether Interconnection Customer requested that the Interconnection Feasibility Study be completed as a separate and distinct study or as part of the Interconnection System Impact Study, as specified pursuant to Section 3.3.4, shall be the substitute.

### **7.3 Scope of Interconnection System Impact Study.**

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the “Study Case” for the Interconnection System Impact Study). An Interconnection Customer with a CNI Interconnection Service Interconnection Request may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer’s Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses, such as electromagnetic transient analysis, that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner. The Interconnection System Impact Study report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service,

including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study report will provide (i) a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct; (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environment work. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

#### **7.4 Interconnection System Impact Study Procedures.**

The System Operator shall coordinate the Interconnection System Impact Study with the Interconnecting Transmission Owner, and with any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, that is affected by the Interconnection Request pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable when it performs the study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement, study deposit, demonstration of Site Control, if Site Control is required, and required technical data in accordance with Section 7.2. If System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within the times specified in this Section 7.4.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the System Operator shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the System Operator and Interconnecting Transmission Owner are unable to complete the Interconnection System Impact Study within the time period, the System Operator shall notify the Interconnection Customer and provide an estimated start date if the study has not commenced and completion date with an explanation of the

reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide all supporting documentation, workpapers and relevant Study Case power flow, short circuit and stability databases that have been developed for the Interconnection System Impact Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

Except in the case of a CSIS, the System Operator shall notify the Interconnection Customer when the Interconnection System Impact Study is expected to commence within sixty-five (65) Calendar Days. An Interconnection Customer with an Interconnection Request being studied serially will be permitted to update the technical data provided in Appendix 1 and Attachment A, and submit modifications to that technical data to the System Operator no later than sixty (60) Calendar Days from the date that the System Operator notified the Interconnection Customer that the Interconnection System Impact Study is expected to commence. Such modifications will not be deemed Material Modifications provided they meet the requirements of Section 4.4.1 of this ETU IP.

Where sufficient time has elapsed since the initial Scoping Meeting, within ten (10) Business Days after notifying the Interconnection Customer that the Interconnection System Impact Study is expected to commence, the System Operator may convene a second Scoping Meeting for the purpose of providing updated information to the Interconnection Customer in preparation for the submittal of updates to the technical data.

## **7.5 Meeting with Parties.**

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, the System Operator shall convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, to discuss the results of the Interconnection System Impact Study.

Within ten (10) Business Days following the study results meeting, the Interconnection Customer shall provide to the System Operator written notice that it will either pursue the Interconnection Facilities Study or waive the Interconnection Facilities Study and elect an expedited interconnection. Once the Interconnection Customer notifies the System Operator of its election, such election is not subject to change. If the Interconnection Customer elects to pursue the Facilities Study it must proceed with the study. If the Interconnection Customer waives the Facilities Study, it shall commit to the following milestones in the ETU IA: (i) Siting process and approval schedule for the Elective Transmission Upgrade and Interconnection Facilities; (ii) Engineering of Interconnection Facilities and Elective Transmission upgrade approved by Interconnecting Transmission Owner; (iii) Ordering of long lead time material for Interconnection Facilities and system upgrades; (iv) Trial Operation Date; and (v) Commercial Operation Date.

Within thirty (30) Calendar Days of the Interconnection Customer receiving the Interconnection System Impact Study report, the Interconnection Customer shall provide written comments on the report or written notice that it has no comments on the report. The System Operator shall issue a final Interconnection System Impact Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's notice that it will not provide comments.

## **7.6 Re-Study.**

If re-study of the Interconnection System Impact Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) re-designation of the Point of Interconnection pursuant to Section 7.2, (iv) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (v) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing.

Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the



original Interconnection System Impact Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection System Impact Study Agreement.

#### **7.7 Operational Readiness.**

The System Operator shall, as close to the Interconnection Customer's actual Trial Operation Date as reasonably possible, ensure that operational analysis, including current stability analyses, power flow analyses, and any other analyses deemed necessary by the System Operator, are performed, and that procedures are developed or updated to address the operation of the New England Transmission System with the addition of the Interconnection Customer's Elective Transmission Upgrade. The operational analysis will also include tests of system performance with selected facilities out of service. Such studies shall be performed at the expense of the Interconnection Customer.

The System Operator is not obligated to perform the operational analyses described in this Section 7.7 if, in the exercise of reasonable discretion, the System Operator in consultation with Interconnecting Transmission Owner determines that interconnection of the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System is remote and speculative.

### **SECTION 8. INTERCONNECTION FACILITIES STUDY.**

#### **8.1 Interconnection Facilities Study Agreement.**

Except as otherwise provided in Section 4.2.4 of this ETU IP, the Interconnection Customer may waive the Interconnection Facilities Study and instead elect expedited interconnection, which means that the Interconnection Customer may enter into E&P Agreements under Section 9 if it had not already done so, and shall enter into an ETU IA in accordance with the requirements specified in Section 11.

If the Interconnection Customer waives the Interconnection Facilities Study, the Interconnection Customer, subject to the specific terms of the E&P Agreements, assumes all risks and shall pay all costs associated with equipment, engineering, procurement and construction work covered by the Interconnection Facilities Study as described in Section 8.2 below.

The System Operator shall provide to the Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this ETU IP simultaneously with the delivery of the Interconnection System Impact Study to the Interconnection Customer.

The Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the System Operator and Interconnecting Transmission Owner for the actual cost of the Interconnection Facilities Study, including the cost of developing the study agreement and its attachment(s) and the cost of developing the ETU IA. Within three (3) Business Days following the Interconnection System Impact Study results meeting, the System Operator and Interconnecting Transmission Owner shall provide to Interconnection Customer a non-binding good faith estimate of the cost for completing the Interconnection Facilities Study in accordance with requirements specified in Section 8.3. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the System Operator within thirty (30) Calendar Days after its receipt, together with the required technical data and the refundable deposit for the Interconnection Facilities Study. In accordance with Section 8.3, the Interconnection Customer shall specify in Attachment A to the Interconnection Facilities Study Agreement whether it wants no more than a +/- 20 percent or a +/- 10 percent good faith cost estimate contained in the report. The deposit for the study shall be the greater of twenty-five percent of the estimated cost of the study or \$250,000.

Any difference between the study deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the cost of the Interconnection Facilities Studies that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Interconnection Facilities Study, the study agreement and its attachment(s) and the ETU IA. In the case of Clustering, CFAC costs that are associated with an individual Interconnection Request assessed within the CFAC will be charged directly to that Interconnection Customer. CFAC costs that are associated with the CFAC as a whole will be divided equally, on a per-project basis, among the Interconnection Customers in the cluster. The System Operator and the Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposit until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Administered Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The scope and cost of the Interconnection Facilities Study shall include completion of any engineering work limited to what is reasonably required to (i) estimate such aforementioned cost to the accuracy specified by the Interconnection Customer pursuant to Section 8.3, (ii) identify, configurations of required facilities and (iii) identify time requirements for construction and installation of required facilities.

## **8.3 Interconnection Facilities Study Procedures.**

The System Operator shall coordinate the Interconnection Facilities Study with Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, pursuant to Section 3.5 above. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the study and the System Operator shall issue a draft Interconnection Facilities Study report to the Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent good faith cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if the Interconnection Customer requests a +/- 10 percent good faith cost estimate. Such cost estimates either individually or in the aggregate will be provided in the final study report. If the System Operator uses Clustering, the System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to deliver a completed Interconnection Facilities Study within the times specified in this Section 8.3.

At the request of the Interconnection Customer or at any time the System Operator or Interconnecting Transmission Owner determines that it will not meet the required time frame for completing the Interconnection Facilities Study, System Operator shall notify the Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, as to the schedule status of the Interconnection Facilities Study. If the System Operator is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, the System Operator shall notify the Interconnection Customer, Interconnecting Transmission Owner and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, and provide an estimated completion date and an explanation of the reasons why additional time is required.

The Interconnection Customer and appropriate Affected Parties may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to the System Operator and Interconnecting Transmission Owner, which the System Operator shall include in the final report. The System Operator shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The System Operator may reasonably extend such fifteen-day period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the System Operator or Interconnecting Transmission Owner to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, or any third party consultant retained by the Interconnection Customer supporting documentation, with workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/ disclosure requirements, such information may be provided directly to the Interconnection Customer.

#### **8.4 Meeting with Parties.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, the System Operator will convene a meeting of the Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Interconnection Facilities Study.

#### **8.5 Re-Study.**

If re-study of the Interconnection Facilities Study is required due to (i) a higher queued project dropping out of the queue, (ii) a modification of a higher queued project subject to Section 4.4, (iii) a re-assessment of the upgrade responsibilities of an Elective Transmission Upgrade associated with an Import Capacity Resource(s) or a Generating Facility after the Import Capacity Resource(s) or the Generating Facility receives a Capacity Supply Obligation in accordance with Section III.13 of the Tariff, or (iv) a modification to a transmission project included in the Base Case, the System Operator shall notify the Interconnection Customer and Interconnecting Transmission Owner in writing. Each re-study shall be conducted serially based on the Queue Position of each Interconnection Customer, and each re-study shall take no longer than sixty (60) Calendar Days from the date the re-study commences. Any cost of re-study shall be borne by the Interconnection Customer being re-studied. If the original Interconnection Facilities Study is complete and the final invoice has been issued, the re-study shall be performed under a new Interconnection Facilities Study Agreement.

### **SECTION 9. ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT.**

Prior to executing an ETU IA, an Interconnection Customer may request, in order to advance the implementation of its interconnection, and the Interconnecting Transmission Owner and any Affected Party shall offer the Interconnection Customer, an E&P Agreement that authorizes the Interconnecting Transmission Owner and any Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the Interconnecting Transmission Owner or any Affected Party shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the ETU IP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer’s Queue Position or Trial Operation Date. The E&P Agreement shall provide for the Interconnection Customer to pay the

cost of all activities authorized by the Interconnection Customer, including a deposit of 100 percent of the estimated engineering and study costs, and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or an E&P Agreement is terminated by any Party, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the Interconnecting Transmission Owner or the Affected Party that is a party to an E&P Agreement may elect: (i) to take title to the equipment, in which event the Interconnecting Transmission Owner or relevant Affected Party shall refund the Interconnection Customer any amounts paid by the Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **SECTION 10. OPTIONAL INTERCONNECTION STUDY.**

### **10.1 Optional Interconnection Study Agreement.**

On or after the date when the Interconnection Customer receives Interconnection System Impact Study report and no later than five (5) Business Days after the study results meeting to review the report, the Interconnection Customer may request in writing, and the System Operator in coordination with the Interconnecting Transmission Owner shall perform, an Optional Interconnection Study. The request shall describe the assumptions that the Interconnection Customer wishes the System Operator to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, the System Operator shall provide to the Interconnecting Transmission Owner and the Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that the Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify

the Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case, and (iii) specify the System Operator's and Interconnecting Transmission Owner's estimate of the cost of the Optional Interconnection Study. To the extent known by the System Operator, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. The Optional Interconnection Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Optional Interconnection Study, including the cost of developing the study agreement and its attachment(s). Notwithstanding the above, the System Operator and Interconnecting Transmission Owner shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

The Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the required technical data and the refundable deposit for the Optional Interconnection Study to the System Operator. The deposit for the study shall be 100 percent of the estimated cost of the study. Any difference between the study deposit and the actual cost of the Optional Interconnection Study shall be paid by or refunded to the Interconnection Customer, except as otherwise provided in Section 13.3. In accordance with Section 13.3, the System Operator and/or the Interconnecting Transmission Owner shall issue to the Interconnection Customer an invoice for the costs of the Optional Interconnection Study that have been incurred by the System Operator and/or the Interconnecting Transmission Owner for the Optional Interconnection Study and the study agreement and its attachments(s). The Interconnection Customer shall pay the invoiced amounts, to the extent such amounts are greater than the initial deposit, within thirty (30) Calendar Days of receipt of invoice. The System Operator shall continue to hold the amounts on deposits until settlement of the final invoice with the Interconnection Customer and the Interconnecting Transmission Owner.

## **10.2 Scope of Optional Interconnection Study.**

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional

Interconnection Study. The System Operator shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. The System Operator and Interconnecting Transmission Owner shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

The Optional Interconnection Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, including thermal analysis and voltage analysis, a system protection analysis, and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner.

### **10.3 Optional Interconnection Study Procedures.**

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to the System Operator and Interconnecting Transmission Owner within ten (10) Business Days of the Interconnection Customer receipt of the Optional Interconnection Study Agreement. The System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed-upon time period specified within the Optional Interconnection Study Agreement. If the System Operator and Interconnecting Transmission Owner are unable to complete the Optional Interconnection Study within such time period, the System Operator shall notify the Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. In such circumstances, upon request, the System Operator and Interconnecting Transmission Owner shall provide the Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study to any third party consultant retained by the Interconnection Customer. The recipient(s) of such information shall be subject to the confidentiality provisions of Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. To the extent that any applicable information is not covered by any applicable confidentiality/disclosure requirements, such information may be provided directly to the Interconnection Customer.

### **10.4 Meeting with Parties.**

Within ten (10) Business Days of providing an Optional Interconnection Study report to Interconnection Customer, System Operator will convene a meeting of the Interconnecting Transmission Owner,



Interconnection Customer, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements to discuss the results of the Optional Interconnection Study.

#### **10.5 Interconnection Agreement Developed Based on Optional Interconnection Study.**

If the ETU IA for an Elective Transmission Upgrade is based on the results of an Optional Interconnection Study, the ETU IA shall reflect the conditions studied and any obligations that may involve: (i) additional studies if such conditions change, (ii) operational limits, or (iii) financial support for transmission upgrades.

### **SECTION 11. ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT (ETU IA).**

#### **11.1 Tender.**

Interconnection Customer shall tender comments or provide notice, in writing, to the System Operator and Interconnecting Transmission Owner that the Interconnection Customer has no comments on the draft Interconnection Facilities Study report or on the draft Interconnection System Impact Study report if the Interconnection Customer waived the Interconnection Facilities Study, within thirty (30) Calendar Days of receipt of the report. Except as provided in the E&P Agreement or any mutual agreement by the entities that would be Parties to the ETU IA, the System Operator shall initiate the development of the ETU IA process within fifteen (15) Calendar Days after the comments are submitted or waived, by tendering to the Interconnection Customer a draft ETU IA, together with draft appendices completed by the System Operator, in conjunction with the Interconnecting Transmission Owner to the extent practicable. The draft ETU IA shall be in the form of the System Operator's Commission-approved standard form ETU IA which is in Appendix 6 to Schedule 25. The Interconnection Customer shall return the Interconnection Customer specific information required to complete the form of ETU IA, including the appendices, in Appendix 6 of Schedule 25 that the Interconnection Customer is willing to execute within thirty (30) Calendar Days after receipt of the draft from the System Operator.

#### **11.2 Negotiation.**

Notwithstanding Section 11.1, at the request of the Interconnection Customer, the System Operator and Interconnecting Transmission Owner shall begin negotiations with the Interconnection Customer concerning the appendices to the ETU IA at any time after the Interconnection Facilities Study is

complete or after the Interconnection System Impact Study is complete if the Interconnection Customer intends to waive the Interconnection Facilities Study. The System Operator, Interconnection Customer, and Interconnecting Transmission Owner shall negotiate concerning any disputed provisions of the appendices to the draft ETU IA for not more than sixty (60) Calendar Days after tender by the System Operator of the draft ETU IA pursuant to Section 11. If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft ETU IA pursuant to Section 11.1 and request submission of the unexecuted ETU IA with the Commission or initiate Dispute Resolution procedures pursuant to Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted ETU IA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed the ETU IA, requested filing of an unexecuted ETU IA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of by the System Operator of the draft ETU IA pursuant to Section 11.1, it shall be deemed to have withdrawn its Interconnection Request. The System Operator and Interconnecting Transmission Owner shall provide to the Interconnection Customer a final ETU IA within fifteen (15) Business Days after the mutually agreed completion of the negotiation process.

### **11.3 Evidence to be Provided by Interconnection Customer; Execution and Filing of ETU IA.**

#### **11.3.1 Evidence to be Provided by Interconnection Customer.**

**11.3.1.1 Site Control.** Within fifteen (15) Business Days after receipt of the final ETU IA, the Interconnection Customer shall provide (A) to the System Operator, reasonable evidence of continued Site Control, or (B) to the Interconnecting Transmission Owner posting of \$250,000 non-refundable additional security, which shall be applied toward future construction costs. If multiple Interconnecting Transmission Owners, the \$250,000 non-refundable additional security shall be distributed evenly among them. Interconnection Customer does not need to demonstrate Site Control where the Interconnection Request is for (i) a modification to the Interconnection Customer's existing Pool Transmission Facility, Merchant Transmission Facility, or Other Transmission Facility and the Interconnection Customer has certified in the Interconnection Request that it has Site Control and that the modification proposed in the Interconnection Request does not require additional real property, or (ii) a modification of an existing Pool Transmission Facility that is not owned by the Interconnection Customer.

**11.3.1.2 Development Milestones.** Within fifteen (15) Business Days after receipt of the final ETU IA, the Interconnection Customer also shall provide to the System Operator reasonable evidence that one or more of the following milestones in the development of the Elective Transmission Upgrade, to be elected by the Interconnection Customer, has been achieved: (i) the submission of filings for regulatory siting; (ii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Elective Transmission Upgrade; (iii) execution of an agreement regarding the use of the Elective Transmission Upgrade; (iv) application for environmental or land use permit.

At the same time, the Interconnection Customer with an Interconnection Request that was not studied using Clustering, shall commit to a schedule for the payment of upgrades identified in the Interconnection Studies or an E&P Agreement and either: (A) provide evidence of approvals for all Major Permits for the Elective Transmission Upgrade, as defined in Section III.13.1.1.2.2.2(a) of the Tariff, or (B) provide to the Interconnecting Transmission Owner, in the form acceptable to the Interconnecting Transmission Owner, a refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades identified in the Interconnection Studies or an E&P Agreement, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final ETU IA. If the Interconnection Customer selects option (B) above, it shall also commit in the ETU IA to the achievement of: (i) milestones for the completion of Major Permit approvals, and (ii) in the case of a CNR Interconnection Request, milestones to align the ETU IA with the fulfillment of terms outlined in Section III.13 of the Tariff for participation in the Forward Capacity Market.

Within fifteen (15) Business Days after receipt of the final ETU IA, an Interconnection Customer with an Interconnection Request studied using Clustering that provided the additional Cluster Participation Deposit in accordance with Section 4.2.4.4 shall provide to the Interconnecting Transmission Owner, in cash, a potentially non-refundable deposit of twenty (20) percent of the total costs for the Interconnection Facilities and other upgrades, including any CETUs, identified in the CFAC, unless the Interconnecting Transmission Owner's expenditure schedule for the Interconnection Facilities and other upgrades calls for an initial payment of greater than twenty (20) percent of the total upgrade costs, in which case the scheduled initial payment must instead be made within the fifteenth Business Day after receipt of the final ETU IA. If the Interconnection Customer does not submit this deposit (or make the initial payment) by

the fifteenth Business Day after receipt of the final ETU IA, the Interconnection Request shall be automatically withdrawn from the interconnection queue without further opportunity to cure, and the Interconnection Customer's initial and additional Cluster Participation Deposits shall become non-refundable. The non-refundable initial and additional Cluster Participation Deposits shall be re-allocated, according to the cost allocation methodology contained in Schedule 11, to the Interconnection Customers with Interconnection Requests included in the cluster at time the facilities proposed in the Interconnection Requests achieve Commercial Operation. If an Interconnection Request is withdrawn after the Interconnection Customer's payment of twenty (20) percent of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner, then the payment shall be used to offset the costs of the CETU. Any unspent payments of the total cost responsibility for the upgrades to the Interconnecting Transmission Owner will be refunded to the respective Interconnection Customers that executed the Interconnection Agreement and provided to the Interconnecting Transmission Owner the twenty (20) percent deposit (or initial payment) if all the associated Interconnection Requests are withdrawn from the interconnection queue and the associated Interconnection Agreements are terminated.

**11.3.2 Execution and Filing of ETU IA.** Within fifteen (15) Business Days after receipt of the final ETU IA, (i) the Interconnection Customer and Interconnecting Transmission Owner shall execute three (3) originals of the tendered ETU IA, and return them to the System Operator, who will send an original to Interconnecting Transmission Owner and Interconnection Customer; or (ii) the Interconnection Customer shall request in writing that the System Operator and the Interconnecting Transmission Owner jointly file with the Commission an ETU IA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered ETU IA (if it does not conform with a Commission-approved standard form of interconnection agreement) or the request to file an unexecuted ETU IA, the System Operator and Interconnecting Transmission Owner, in accordance with Section 11.3.3 or Section 11.3.4, as appropriate, shall jointly file the ETU IA with the Commission, together with its explanation of any matters as to which the System Operator, Interconnection Customer or Interconnecting Transmission Owner disagree and support for the costs that the Interconnecting Transmission Owner proposes to charge to the Interconnection Customer under the ETU IA. An unexecuted ETU IA should contain terms and conditions deemed appropriate by the System Operator and Interconnecting Transmission Owner for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted ETU IA, they may proceed pending Commission action.

With respect to the interconnection of an Interconnection Customer under Schedule 25, the ETU IA shall be a three-party agreement among the Interconnecting Transmission Owner, the System Operator and the Interconnection Customer. If the Interconnecting Transmission Owner, System Operator and Interconnection Customer agree to the terms and conditions of a specific ETU IA, or any amendments to such an ETU IA, then the System Operator and Interconnecting Transmission Owner shall jointly file the executed ETU IA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act. To the extent the Interconnecting Transmission Owner, System Operator and Interconnection Customer cannot agree to proposed variations from the standard form of ETU IA in Appendix 6 or cannot otherwise agree to the terms and conditions of the ETU IA for such Elective Transmission Upgrade, or any amendments to such an ETU IA, then the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted ETU IA, or amendment thereto, with the Commission under Section 205 of the Federal Power Act and shall identify the areas of disagreement in such filing, provided that, in the event of disagreement on terms and conditions of the ETU IA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of the Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on such terms and conditions.

**11.3.3** The Interconnecting Transmission Owner, acting on its own or jointly with the System Operator, may initiate a filing to amend this ETU IP and the standard form of ETU IA in Appendix 6 under Section 205 of the Federal Power Act and shall include in such filing the views of System Operator, provided that the standard applicable under Section 205 of the Federal Power Act shall apply only to the Interconnecting Transmission Owner's position on any financial obligations of the Interconnecting Transmission Owner or the Interconnection Customer(s), and any provisions related to physical impacts of the interconnection on the Interconnecting Transmission Owner's transmission facilities or other assets.

#### **11.4 Commencement of Interconnection Activities.**

If the Interconnection Customer executes the final ETU IA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall perform their respective obligations in accordance with the terms of the ETU IA, subject to modification by the Commission. Upon submission

of an unexecuted ETU IA, the System Operator, Interconnection Customer and Interconnecting Transmission Owner shall promptly comply with the unexecuted ETU IA, subject to modification by the Commission.

#### **11.5 Other Regulatory Arrangements.**

Prior to achieving Commercial Operation, the Elective Transmission Upgrade must be under the Operational Authority of the System Operator pursuant to a Transmission Operating Agreement and establish a schedule under the ISO OATT pursuant to which service will be offered over the Elective Transmission Upgrade.

### **SECTION 12. CONSTRUCTION OF INTERCONNECTING TRANSMISSION OWNER INTERCONNECTION FACILITIES AND NETWORK UPGRADES.**

#### **12.1 Schedule.**

The Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party shall negotiate in good faith concerning a schedule for the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades.

#### **12.2 Construction Sequencing.**

**12.2.1 General.** In general, the Trial Operation Date of an Interconnection Customer seeking interconnection to the Administered Transmission System will determine the sequence of construction of Network Upgrades.

**12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.** An Interconnection Customer with an executed or unexecuted, but filed with the Commission, ETU IA, in order to maintain its Trial Operation Date, may request that the Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such Trial Operation Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the Interconnection Customer that is seeking interconnection to the Administered Transmission System, in

time to support such Trial Operation Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party; (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The Interconnecting Transmission Owner or appropriate Affected Party will refund to the Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the ETU IA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that the Interconnecting Transmission Owner or appropriate Affected Party has not refunded to the Interconnection Customer. Payment by that entity with a contractual obligation to construct such Network Upgrades shall be due on the date that it would have been due had there been no request for advance construction. The Interconnecting Transmission Owner or appropriate Affected Party shall forward to the Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to the Interconnection Customer. The Interconnecting Transmission Owner or appropriate Affected Party then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the ETU IA.

**12.2.3 Advancing Construction of Network Upgrades that are Part of the Regional System Plan of the System Operator.** An Interconnection Customer with an ETU IA, in order to maintain its Trial Operation Date, may request that Interconnecting Transmission Owner or appropriate Affected Party advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such Trial Operation Date and (ii) would otherwise not be completed, pursuant to the Regional System Plan, in time to support such Trial Operation Date. Upon such request, the Interconnecting Transmission Owner or appropriate Affected Party will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the Interconnecting Transmission Owner or appropriate Affected Party any associated expediting costs.

**12.2.4 Amended Interconnection System Impact Study.** An Interconnection System Impact Study will be amended to determine the facilities necessary to support the requested Trial Operation Date. This amended study will include those transmission and Generating Facilities that are expected to be in service

on or before the requested Trial Operation Date. The ETU IA will also be amended to reflect the results of the Amended Interconnection System Impact Study and any changes in obligations, including financial support, of the Parties.

## **SECTION 13. MISCELLANEOUS.**

### **13.1 Confidentiality.**

Confidential Information shall include, without limitation, all information treated as confidential under the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the others prior to the execution of an ETU IA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by any Party, the other Party(ies) shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**13.1.1 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the ETU IA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding



establishing rights and obligations under the ETU IA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

**13.1.2 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

**13.1.3 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other Party(ies) of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**13.1.4 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**13.1.5 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under these procedures or its regulatory requirements.

**13.1.6 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential

Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of the ETU IA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**13.1.7 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

**13.1.8 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the ETU IP, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR. section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the ETU IA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules, regulations and Section 13.1.

**13.1.9** Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this ETU IP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Party’s(ies’) Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**13.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

**13.1.11** The System Operator and Interconnecting Transmission Owner shall, at Interconnection Customer’s election, destroy, in a confidential manner, or return the Confidential Information provided at the time when Confidential Information is no longer needed.

**13.2 Delegation of Responsibility.**

The System Operator and Interconnecting Transmission Owner, or any Affected Party may use the services of subcontractors as it deems appropriate to perform its obligations under this ETU IP. The Party using the services of a subcontractor shall remain primarily liable to the Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this ETU IP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### **13.3 Obligation for Study Costs.**

The System Operator and the Interconnecting Transmission Owner shall charge, and the Interconnection Customer shall pay, the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to the Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. The Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. The System Operator and Interconnecting Transmission Owner shall not be obligated to perform or continue to perform any studies unless the Interconnection Customer has paid all undisputed amounts in compliance herewith.

### **13.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) the Interconnection Customer receives notice pursuant to Sections 6.3, 7.4, 8.3 or 10.3 that the System Operator or Interconnecting Transmission Owner will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) the Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then the Interconnection Customer may request, which request will not be unreasonably denied, that the System Operator and Interconnecting Transmission Owner utilize a third party consultant reasonably acceptable to the System Operator, Interconnection Customer, Interconnecting Transmission Owner and any appropriate Affected Party, to perform such Interconnection Study under the direction of the System Operator or Interconnecting Transmission Owner as applicable. At other times, System Operator or Interconnecting Transmission Owner may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of the Interconnection Customer, or on its own volition. In all cases, use of a third party consultant shall be in accord with Article 26 of the ETU IA (Subcontractors) and limited to situations where the System Operator or Interconnecting Transmission Owner determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's pending Interconnection Request and not interfere with the System Operator and Interconnecting Transmission Owner's progress on Interconnection Studies for other pending Interconnection Requests. In cases where the Interconnection Customer requests use of a third party

consultant to perform such Interconnection Study, the Interconnection Customer, System Operator and Interconnecting Transmission Owner shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. The System Operator and Interconnecting Transmission Owner shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon the Interconnection Customer's request subject to the confidentiality provision in Section 13.1 and the ISO New England Information Policy, as well as any other applicable requirement under Applicable Laws and Regulations regulating the disclosure or confidentiality of such information. In any case, such third party contract may be entered into with the System Operator, Interconnection Customer, or Interconnecting Transmission Owner at the System Operator and Interconnecting Transmission Owner's discretion. In the case of (iii) the Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this ETU IP, Article 26 of the ETU IA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if the System Operator and Interconnecting Transmission Owner were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes.

The System Operator and Interconnecting Transmission Owner shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

### **13.5 Disputes.**

**13.5.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with the ETU IA, the ETU IP, or their performance, such Party (the "Disputing Party") shall provide the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not

agree to submit such claim or dispute to arbitration, after thirty (30) Calendar Days, then (i) in the case of disputes arising out of or in conjunction with the ETU IA, the System Operator and Interconnecting Transmission Owner shall jointly file an unexecuted ETU IA, or amendment thereto, with the Commission in accordance with Section 11.3.4, or (ii) in the case of disputes arising out of or in connection with any other matter regarding the administration of the ETU IP, the System Operator may terminate the Interconnection Request and the Interconnection Customer may seek relief pursuant to Section 206 of the Federal Power Act. Each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Schedule 25.

**13.5.2 External Arbitration Procedures.** Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

**13.5.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons for such decision. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the ETU IA and ETU IP and shall have no power to modify or change any provision of the ETU IA and ETU IP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**13.5.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three-member panel and one-third of any associated arbitration costs; or (2) one-third the cost of the single arbitrator jointly chosen by the Parties and one-third of any associated arbitration costs.

## **13.6 Local Furnishing Bonds.**

**13.6.1 Facilities Financed by Local Furnishing Bonds.** This provision is applicable only to interconnections associated with facilities financed for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this ETU IA and ETU IP, the Interconnecting Transmission Owner shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this ETU IA and ETU IP if the provision of such Interconnection Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance the Interconnecting Transmission Owner's facilities that would be used in providing such Interconnection Service.

**13.6.2 Alternative Procedures for Requesting Interconnection Service.** If the Interconnecting Transmission Owner determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receiving notice of the Interconnection Request. The Interconnection Customer thereafter may renew its Interconnection Request using the process specified in the Tariff.

## **APPENDICES TO ETU IP**

- APPENDIX 1 INTERCONNECTION REQUEST FOR ELECTIVE TRANSMISSION UPGRADE
- APPENDIX 2 INTERCONNECTION FEASIBILITY STUDY AGREEMENT
- APPENDIX 3 INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT
- APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT
- APPENDIX 5 OPTIONAL INTERCONNECTION STUDY AGREEMENT
- APPENDIX 6 ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT



**APPENDIX 1**  
**INTERCONNECTION REQUEST**  
**FOR ELECTIVE TRANSMISSION UPGRADE**

The undersigned Interconnection Customer submits this request to interconnect its Elective Transmission Upgrade (“ETU”) to the Administered Transmission System under Schedule 25 – Elective Transmission Upgrade Interconnection Procedures (“ETU IP”) of Section II to the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”). Capitalized terms have the meanings specified in the Tariff.

---

---

**PROJECT INFORMATION**

Proposed Project Name: \_\_\_\_\_

1) Description of the ETU objective (*select one of a, b, c, d, or e*):

a. \_\_\_\_ Addition of a specific technology:

i) Type of new facility (*check all applicable*):

\_\_\_\_DC    \_\_\_\_AC    \_\_\_\_controllable    \_\_\_\_non-controllable    \_\_\_\_Other (Explain):

ii) Address(es) or Location(s) of the ETU (including Town/City, County & State or a map detailing such information):

iii) Location(s) of the proposed Point(s) of Interconnection and associated terminals:

**iv) Transmission transfer capability, including:**

- (1) Energy transfer capability and direction(s) of flow**
- (2) Capacity transfer capability and direction(s) of flow**
- (3) Other:**

**v) Indicate whether the study should consider:**

- (1) Both directions of flow**
- (2) One direction of flow only**
- (3) Explain:**

**b. \_\_\_\_ Modification to existing PTF, MTF or OTF that is part of or interconnected to the Administered Transmission System. Explain.**

**c. \_\_\_\_ Specific performance objective associated with specific Generating Facility(ies)/resources:**

**i) Identify Generating Facility(ies)/resources, including Queue Positions:**

**ii) Identify the specific performance goals/objectives of the ETU (e.g., energy integration):**

--

**d. \_\_\_\_ Increase in transfer capability between points, including:**

**i) Transfer points (from/to)**

**ii) Energy transfer capability increase and direction(s) of flow**

**iii) Capacity transfer capability increase and direction(s) of flow**

**iv) Other**

--

**e. \_\_\_\_ Other specific and clearly described discrete objective:**

--

**2) Projected Dates:**

**a. Commercial Operation: \_\_\_\_\_**

**b. Trial Operation: \_\_\_\_\_**

**c. In-Service: \_\_\_\_\_**

**3) This request is for (*check either Internal ETU or External ETU options*):**

**a. \_\_\_\_ An Internal ETU (*check one of i or ii*):**

**i) \_\_\_\_ The interconnection of proposed new (*check one*):**

- (1) \_\_\_\_PTF;
  - (2) \_\_\_\_OTF or MTF.
- ii) \_\_\_\_A modification to, an increase in the transmission capability of, or other specific proposed objective associated with (*check one*):
  - (1) \_\_\_\_existing internal PTF;
  - (2) \_\_\_\_existing internal MTF or OTF that is interconnected to the Administered Transmission System.
- b. \_\_\_\_An External ETU (*check i or ii or iii and specify the other Control Area interconnecting to \_\_\_\_\_*)
  - i) \_\_\_\_The interconnection of proposed new (*check one*):
    - (1) \_\_\_\_PTF;
    - (2) \_\_\_\_OTF or MTF.
  - ii) \_\_\_\_A modification to, an increase in the transmission capability of, or other specific proposed objective associated with (*check one*):
    - (1) \_\_\_\_existing external PTF
    - (2) \_\_\_\_existing external MTF or OTF.
  - iii) \_\_\_\_A change from NI Interconnection Service to CNI Interconnection Service for a controllable MTF or OTF (no physical change to facilities).
- 4) For External controllable OTF or MTF in the importing direction, applicant requests (*check one*):
  - a. \_\_\_\_NI Interconnection Service (i.e., energy only): \_\_\_\_\_ MW

b. \_\_\_\_ CNI Interconnection Service (i.e., capacity and energy): \_\_\_\_ MW

i) If CNI Interconnection Service, does the Interconnection Customer request Long Lead Facility treatment? \_\_\_\_ Yes or \_\_\_\_ No

If yes, provide to ISO-NE, together with this Interconnection Request, the Long Lead Facility deposit and other required information as specified in Section 3.2.3 of the ETU IP, including a justification for Long Lead Facility treatment.

**5) Evidence of Site Control (*check one*):**

a. \_\_\_\_ If for CNI Interconnection Service, Site Control is included with this Interconnection Request form, as required.

b. \_\_\_\_ If for NI Interconnection Service (*check one*):

i) \_\_\_\_ Site Control is provided with this Interconnection Request form.

ii) \_\_\_\_ In lieu of evidence of Site Control, a \$10,000 deposit is provided with this Interconnection Request form (refundable within the cure period as described in Section 3.3.3 of the ETU IP).

iii) \_\_\_\_ Site Control is not provided because the proposed modification is either: a) to existing MTF, OTF or PTF and by checking this option, the Interconnection Customer certifies that the proposed modification does not require additional real property, or b) to PTF and the Interconnection Customer does not own such PTF.

**6) This Interconnection Customer requests (*check one*):**

a. \_\_\_\_ An Interconnection Feasibility Study to be completed as a separate and distinct study,  
or

b. \_\_\_\_ An Interconnection System Impact Study with the Feasibility Study to be performed as the first step of the study.

- c. If seeking CNI Interconnection Service, does the Interconnection Customer request a preliminary non-binding, analysis to identify potential upgrades that may be necessary to qualify resources for participation in a Forward Capacity Auction? \_\_\_\_Yes or \_\_\_\_No

*Note: The above selection of a or b is not required as part of the initial Interconnection Request; however, the Interconnection Customer shall select either option and may revise this selection up to within five (5) Business Days following the Scoping Meeting.*

7) The ETU technical data specified within the applicable attachment to this form (*check one*):

- a. \_\_\_\_Is included with the submittal of this Interconnection Request.
- b. \_\_\_\_Will be provided on or before the execution and return of the Feasibility Study Agreement (Attachment B) or the System Impact Study Agreement (Attachment A), as applicable.
- 
- 

**CUSTOMER INFORMATION**

	<b><u>Interconnection Customer</u></b>	<b><u>Customer Representative</u></b>
<b>Company Name:</b>		
<b>Address:</b> (PO Box)		
(Street)		
(City, State, ZIP)		
<b>Phone:</b>		
<b>FAX:</b>		
<b>Email:</b>		

ISO Customer ID# (if available): \_\_\_\_\_

---

---

**This Interconnection Request is submitted by:**

**Authorized Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

---

---

*In order for an Interconnection Request to be considered a valid request, it must:*

- (a) Be accompanied by a deposit of \$50,000.00 that is provided electronically and which may be refundable in accordance with Section 3.3.1 of the ETU IP;*
- (b) For CNI Interconnection Service, include documentation demonstrating Site Control. If for NI Interconnection Service, demonstrate Site Control or post an additional deposit of \$10,000. If the Interconnection Customer with an Interconnection Request for NI Interconnection Service demonstrates Site Control within the cure period specified in Section 3.3.3 of the ETU IP, the additional deposit of \$10,000 shall be refundable (An Interconnection Customer does not need to demonstrate Site Control for an Interconnection Request for a modification to its existing PTF, MTF or OTF facility where the Interconnection Customer has certified that it has Site Control and that the proposed modification does not require additional real property);*
- (c) Include a detailed map, such as a map of the quality produced by the U.S. Geological Survey, which clearly indicates the site of the new facility and pertinent surrounding structures;*
- (d) Include a one-line diagram of the facilities (2 copies);*
- (e) Include all information required on the Interconnection Request form and any attachments thereto; and*
- (f) Include the deposit and all information required for Long Lead Facility treatment, if such treatment is requested in accordance with Section 3.2.3 of the ETU IP.*

*In addition, within sixty (60) days of submitting an Interconnection Request to the System Operator, the Interconnection Customer with a request for an External ETU, shall provide evidence that it has submitted a valid request with the other Control Area to which it seeks to interconnect.*

---

---

**All Interconnection Requests must be sent to the System Operator via the Interconnection Request Tracking Tool or IRTT, a web-based application for submitting, tracking and viewing Interconnection Requests available on the ISO New England website.**

**ISO New England Inc. Use**

**Date Elective Transmission Upgrade Request Received:** \_\_\_\_\_

**Received By:** \_\_\_\_\_

☐ **Deficient**

**Date Cured:** \_\_\_\_\_

**Date Deemed Valid Application:** \_\_\_\_\_

**Deemed Valid By:** \_\_\_\_\_



Attachment A (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

**The technical data required below must be submitted no later than the date of execution of the System Impact Study Agreement pursuant to Section 7.2 of the ETU IP. Submit additional data sheets as necessary.**

**ELECTIVE TRANSMISSION UPGRADES:**

<b>GEOGRAPHIC MAP</b>
Geographic map which clearly illustrates the location of the proposed Elective Transmission Upgrade facilities and which includes the location of the proposed Point(s) of Interconnection and a specific transmission line or transmission cable route if applicable.
<b>ONE LINE DIAGRAM</b>
Detailed one-line diagram of the proposed Elective Transmission Upgrades facilities showing the connectivity between all new proposed equipment (i.e., circuit breakers, instrument transformers, surge arresters, transformers, shunt-connected capacitor banks, shunt-connected reactors, dynamic reactive power supply systems, transmission lines, etc.) and the proposed bus configuration at the Point(s) of Interconnection. Equipment grounding configuration should be depicted on the one-line (i.e., for transformers show winding and grounding arrangement)
<b>PROPOSED POINT(S) OF INTERCONNECTION</b> <i>(include additional points as necessary)</i>
Point of Interconnection A:
Voltage Level: _____kV
Point of Interconnection B:

Attachment A (page 2)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Voltage Level: _____ Kv
Point of Interconnection C:
Voltage Level: _____ kV
<b>AC TRANSMISSION LINE DATA</b>  <i>(include data for segments between the POI and converter station(s) as necessary)</i>
Transmission line length: _____ Miles
AC transmission tower design illustrating tower type, conductor type, number of conductors per bundle, spacing of conductors within bundle, phase spacing between conductors or conductor bundles, and conductor or conductor bundle clearances.
Voltage level: _____ kV
Transmission line MVA base: _____ MVA
Positive sequence impedances on transmission line MVA base:  R: _____ p.u.      X: _____ p.u.      B: _____ p.u.
Zero sequence impedances on transmission line MVA base):  R: _____ p.u.      X: _____ p.u.      B: _____ p.u.
Line Rating: Normal/LTE/STE Rating _____ MVA / _____ MVA / _____ MVA

Attachment A (page 3)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection System Impact Study

<b>TRANSFORMER DATA</b>  <i>(include data for converter station power transformer(s) as necessary)</i>
Transformer Rating: OA/FA/FOA Rating _____ MVA / _____ MVA / _____ MVA
Voltage Ratio: High-side/Low-side/Tertiary _____ kV / _____ kV / _____ kV
Winding Connections (Delta, Wye, or Wye-Grounded): High-side Winding / Low-side Winding / Tertiary Winding _____ / _____ / _____
Fixed or Variable Taps:
Tap Range:
Two-Winding Transformer Impedances: Positive Sequence Impedance on transformer OA MVA base: _____ % _____ X/R Zero Sequence Impedance on transformer OA MVA base: _____ % _____ X/R
Three-Winding Transformer Impedances:
Positive Sequence Impedance on transformer OA MVA base Z1 <sub>H-L</sub> (on self-cooled MVA rating) _____ %, X/R _____ Z1 <sub>H-T</sub> (on self-cooled MVA rating) _____ %, X/R _____ Z1 <sub>L-T</sub> (on self-cooled MVA rating) _____ %, X/R _____

Attachment A (page 4)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection System Impact Study

Zero Sequence Impedance on transformer OA MVA base  $Z0_{H-L}$ (on self-cooled MVA rating) _____ %, X/R _____  $Z0_{H-T}$ (on self-cooled MVA rating) _____ %, X/R _____  $Z0_{L-T}$ (on self-cooled MVA rating) _____ %, X/R _____
<b>FIXED OR SWITCHED SHUNT CAPACITOR BANK DATA</b>
Capacitor Bank Rating: _____ MVA <sub>r</sub>
Positive sequence susceptance on capacitor bank rating base: B: _____ p.u.
Zero sequence susceptance on capacitor bank rating base: B: _____ p.u.
<b>FIXED OR SWITCHED SHUNT REACTOR DATA</b>
Nameplate Reactor Rating: _____ MVA <sub>r</sub>
Positive sequence susceptance on reactor rating base: B: _____ p.u.
Zero sequence susceptance on reactor rating base: B: _____ p.u.
<b>DYNAMIC SHUNT REACTIVE SUPPLY SYSTEM</b>
Device Type (i.e., SVC, STATCOM, etc.):
Reactive power supply reference point:
Maximum leading reactive power supply capability: _____ MVA <sub>r</sub>

Attachment A (page 5)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection System Impact Study

Maximum lagging reactive power supply capability: _____ MVar
<b>DC TRANSMISSION SYSTEMS (LINE-COMMUTATED CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW    _____ MVA
Minimum power transmission capacity: _____ MW
Maximum power transmission ramp rate: _____ MW/min
Point-to-point or back-to-back transmission:
Monopolar or bipolar transmission configuration:
Unidirectional or bidirectional power transmission:  (identify rectifier station for detail to be submitted below):
Rated DC voltage: _____ kV
Rated DC current: _____ A
Power controlling converter station and real power reference location:
Converter station losses (including auxiliary power demand) at nameplate power:  <div style="display: flex; justify-content: space-around;"> <span>Rectifier: _____ kW</span> <span>Inverter: _____ kW</span> </div>
Transmission line or cable losses at nameplate power: _____ kW
Nominal rectifier firing angle (alpha): _____ deg

Nominal inverter extinction angle (gamma): \_\_\_\_\_ deg

Attachment A (page 6)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection System Impact Study

Converter station total reactive power supply (including filtering system) at nameplate active power:

Rectifier: \_\_\_\_\_ MVar      Inverter: \_\_\_\_\_ MVar

Number of switched filter or reactive power supply devices:

Rectifier: \_\_\_\_\_      Inverter: \_\_\_\_\_

Size of largest switched filter or reactive power supply device:

Rectifier: \_\_\_\_\_ MVar      Inverter: \_\_\_\_\_ MVar

DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.

DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.

Pole conductor resistance at maximum operating temperature: \_\_\_\_\_ ohms

DMNR conductor resistance at maximum operating temperature : \_\_\_\_\_ ohms

**DC TRANSMISSION SYSTEMS (VOLTAGE SOURCE CONVERTER TECHNOLOGY)**

Nameplate power transmission capacity: \_\_\_\_\_ MW      \_\_\_\_\_ MVA

Point-to-point or back-to-back transmission:

Attachment A (page 7)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection System Impact Study

Transmission configuration (i.e., mono-pole, bi-pole or other):
Unidirectional or bidirectional power transmission:  (identify rectifier station for detail to be submitted below):
Maximum power transmission ramp rate: _____ MW/min
Rated DC voltage: _____ kV
Rated DC current: _____ A
Real power controlling converter and reference location:
Converter station losses (including auxiliary power demand) at nameplate power: _____ kW
Transmission line or cable losses at nameplate power: _____ kW
Passive filter size:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier:</span> <span>Fixed: ____MVar   Switched at de-block: ____MVar</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Inverter:</span> <span>Fixed: ____MVar   Switched at de-block: ____MVar</span> </div>
Maximum converter station leading reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier: _____ MVar</span> <span>Inverter: _____ MVar</span> </div>

Attachment A (page 8)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection System Impact Study

Maximum converter station lagging reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:

Rectifier: \_\_\_\_\_ MVar      Inverter: \_\_\_\_\_ MVar

Provide reactive capability curve.

DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.

DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.

Pole conductor resistance at maximum operating temperature: \_\_\_\_\_ ohms

### POWER SYSTEM SIMULATION MODELS

Completed, fully-functioning, public (*i.e.*, non-proprietary or non-confidential) Siemens PTI's ("PSS/E") power flow models or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flows ("PSLF") data sheet, must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device, then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.

If a PSCAD model is deemed required at the Scoping Meeting, then the PSCAD model must be provided to the System Operator within ninety (90) Calendar Days of the executed Interconnection System Impact Study Agreement. A benchmarking analysis, consistent with the requirements in the ISO New England Planning Procedures, confirming acceptable performance of the PSS/E model in comparison to the PSCAD model, shall be provided at the time PSCAD model is submitted.



<b>OTHER TRANSMISSION FACILITY DATA</b>
System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Facilities Study.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment A to the Interconnection Request is true and accurate.

For Interconnection Customer:\_\_\_\_\_ Date:\_\_\_\_\_

### **CLUSTER SYSTEM IMPACT STUDY APPLICATION FORM**

The undersigned Interconnection Customer submits this form to request the inclusion of the Interconnection Request for its Elective Transmission Upgrade in a Cluster Interconnection System Impact Study pursuant to Section 4.2.3.2.2 of this ETU IP.

To be included in a Cluster Interconnection System Impact Study, the following must be submitted together with this form to the System Operator by the Cluster Entry Deadline:

1. Project Information:

- a. Project Name: \_\_\_\_\_
- b. Queue Position: \_\_\_\_\_
- c. Is the Interconnection Request contractually associated with an Interconnection Request for a Generating Facility? Yes \_\_\_\_ No \_\_\_\_  
If yes, identify Queue Position of the associated Interconnection Request  
and provide evidence of the contractual commitment. Queue Position No.: \_\_\_\_\_

2. Initial Cluster Participation Deposit as specified in Section 4.2.3.2.2

#### **Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this form is true and accurate.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment B (page 1)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

**The technical data required below must be submitted no later than the date of execution of the Feasibility Study Agreement pursuant to Section 6.1 of the ETU IP. Submit additional data sheets as necessary.**

**ELECTIVE TRANSMISSION UPGRADES:**

<b>GEOGRAPHIC MAP</b>
Geographic map which clearly illustrates the location of the proposed Elective Transmission Upgrade facilities and which includes the location of the proposed Point(s) of Interconnection and a conceptual transmission line or transmission cable route if applicable.
<b>ONE LINE DIAGRAM</b>
Conceptual one-line diagram of the proposed Elective Transmission Upgrades facilities showing the connectivity between all new proposed equipment (i.e., circuit breakers, transformers, shunt-connected capacitor banks, shunt-connected reactors, dynamic reactive power supply systems, transmission lines, etc.) and the proposed bus configuration at the Point(s) of Interconnection.
<b>PROPOSED POINT(S) OF INTERCONNECTION</b> <i>(include additional points as necessary)</i>
Point of Interconnection A:
Voltage Level: _____kV
Point of Interconnection B:
Voltage Level: _____kV

Attachment B (page 2)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection Feasibility Study

Point of Interconnection C:
Voltage Level: _____kV
<b>AC TRANSMISSION LINE DATA</b>  <i>(include data for segments between the POI and converter station(s) as necessary)</i>
Estimated transmission line length: _____Miles
Conceptual AC transmission tower design illustrating tower type, conductor type, number of conductors per bundle, spacing of conductors within bundle, phase spacing between conductors or conductor bundle spacing, and conductor or conductor bundle clearances.
Voltage level: _____kV
Transmission line MVA base: _____ MVA
Estimated positive sequence impedances on transmission line MVA base:  R: _____ p.u.      X: _____ p.u.      B: _____ p.u.
Estimated zero sequence impedances on transmission line MVA base):  R: _____ p.u.      X: _____ p.u.      B: _____ p.u.
Line Rating:  Normal/LTE/STE Rating _____ MVA / _____ MVA / _____ MVA

Attachment B (page 3)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

<b>TRANSFORMER DATA</b>  <i>(include data for converter station power transformer(s) as necessary)</i>
Estimated Transformer Rating:  OA/FA/FOA Rating _____ MVA / _____ MVA / _____ MVA
Voltage Ratio: High-side/Low-side/Tertiary _____ kV / _____ kV / _____ kV
Winding Connections (Delta, Wye, or Wye-Grounded):  High-side Winding / Low-side Winding / Tertiary Winding _____ / _____ / _____
Fixed or Variable Taps:
Estimated Tap Range:
Estimated Two-Winding Transformer Impedances:  Positive Sequence Impedance on transformer OA MVA base: _____ % _____ X/R  Zero Sequence Impedance on transformer OA MVA base: _____ % _____ X/R
Estimated Three-Winding Transformer Impedances:
Positive Sequence Impedance on transformer OA MVA base  Z1 <sub>H-L</sub> (on self-cooled MVA rating) _____ %, X/R _____  Z1 <sub>H-T</sub> (on self-cooled MVA rating) _____ %, X/R _____  Z1 <sub>L-T</sub> (on self-cooled MVA rating) _____ %, X/R _____

Attachment B (page 4)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection Feasibility Study

Zero Sequence Impedance on transformer OA MVA base  $Z0_{H-L}$ (on self-cooled MVA rating) _____ %, X/R _____  $Z0_{H-T}$ (on self-cooled MVA rating) _____ %, X/R _____  $Z0_{L-T}$ (on self-cooled MVA rating) _____ %, X/R _____
<b>FIXED OR SWITCHED SHUNT CAPACITOR BANK DATA</b>
Capacitor Bank Rating: _____ MVar
Estimated positive sequence susceptance on capacitor bank rating base: B: _____ p.u.
Estimated zero sequence susceptance on capacitor bank rating base: B: _____ p.u.
<b>FIXED OR SWITCHED SHUNT REACTOR DATA</b>
Nameplate Reactor Rating: _____ MVar
Estimated positive sequence susceptance on reactor rating base: B: _____ p.u.
Estimated zero sequence susceptance on reactor rating base: B: _____ p.u.
<b>DYNAMIC SHUNT REACTIVE SUPPLY SYSTEM</b>
Device Type (i.e., SVC, STATCOM, etc.):
Reactive power supply reference point:
Maximum leading reactive power supply capability: _____ MVar

Attachment B (page 5)  
To Appendix 1  
Interconnection Request  
Technical Data Required For  
Interconnection Feasibility Study

Maximum lagging reactive power supply capability: _____ MVA <sub>r</sub>
<b>DC TRANSMISSION SYSTEMS (LINE-COMMUTATED CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW    _____ MVA
Minimum power transmission capacity: _____ MW
Maximum power transmission ramp rate: _____ MW/min
Point-to-point or back-to-back transmission:
Monopolar or bipolar transmission configuration:
Unidirectional or bidirectional power transmission: (identify rectifier station for detail to be submitted below):
Rated DC voltage: _____ kV
Rated DC current: _____ A
Power controlling converter station and real power reference location:
Estimated converter station losses (including auxiliary power demand) at nameplate power:  Rectifier: _____ kW  Inverter: _____ kW
Estimated transmission line or cable losses at nameplate power: _____ kW
Nominal rectifier firing angle (alpha): _____ deg

Attachment B (page 6)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection Feasibility Study

Nominal inverter extinction angle (gamma): _____ deg
Estimated converter station total reactive power supply (including filtering system) at nameplate active power:  <div style="display: flex; justify-content: space-around;"> <span>Rectifier: _____ MVar</span> <span>Inverter: _____ MVar</span> </div>
Estimated number of switched filter or reactive power supply devices:  <div style="display: flex; justify-content: space-around;"> <span>Rectifier: _____</span> <span>Inverter: _____</span> </div>
Estimated size of largest switched filter or reactive power supply device:  <div style="display: flex; justify-content: space-around;"> <span>Rectifier: _____ MVar</span> <span>Inverter: _____ MVar</span> </div>
Conceptual DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.
Conceptual DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.
Estimated pole conductor resistance at maximum operating temperature: _____ ohms
Estimated DMNR conductor resistance at maximum operating temperature : _____ ohms
<b>DC TRANSMISSION SYSTEMS (VOLTAGE SOURCE CONVERTER TECHNOLOGY)</b>
Nameplate power transmission capacity: _____ MW    _____ MVA
Point-to-point or back-to-back transmission:



Attachment B (page 7)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection Feasibility Study

Transmission configuration (i.e., mono-pole, bi-pole or other):
Unidirectional or bidirectional power transmission:  (identify rectifier station for detail to be submitted below):
Maximum power transmission ramp rate: _____MW/min
Rated DC voltage: _____ kV
Rated DC current: _____ A
Real power controlling converter and reference location:
Estimated converter station losses (including auxiliary power demand) at nameplate power: _____ kW
Estimated transmission line or cable losses at nameplate power: _____kW
Estimated passive filter size:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier:</span> <span>Fixed: ____MVA</span> <span>Switched at de-block: ____MVA</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Inverter:</span> <span>Fixed: ____MVA</span> <span>Switched at de-block: ____MVA</span> </div>
Estimated maximum converter station leading reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Rectifier:_____ MVA</span> <span>Inverter:_____ MVA</span> </div>

Attachment B (page 8)  
 To Appendix 1  
 Interconnection Request  
 Technical Data Required For  
 Interconnection Feasibility Study

<p>Estimated maximum converter station lagging reactive power supply (including filtering system) at the network side of the power transformer and at nameplate active power:</p> <p style="text-align: center;">Rectifier: _____ MVar      Inverter: _____ MVar</p>
<p>Provide reactive capability curve.</p>
<p>Conceptual DC transmission tower design illustrating tower type, conductor type, number of conductors, spacing between pole conductors or conductor bundles, and conductor or conductor bundle clearances.</p>
<p>Conceptual DC cable design illustrating cable type, cable spacing, and underground or submarine installation design.</p>
<p>Estimated pole conductor resistance at maximum operating temperature: _____ ohms</p>
<p><b>POWER SYSTEM SIMULATION MODELS</b></p>
<p>Completed, fully-functioning, public (<i>i.e.</i>, non-proprietary or non-confidential) Siemens PTI's PSS/E power flow models or other compatible formats, such as IEEE and General Electric Company Power Systems Load Flows ("PSLF") data sheet, must be supplied with this Attachment A. If additional public data sheets are more appropriate to the proposed device, then they shall be provided and discussed at the Scoping Meeting. For all Interconnection Studies commencing after January 1, 2017, all power flow models must be standard library models in PSS/E or applicable applications. After January 1, 2017, user-models will not be accepted.</p>
<p><b>OTHER TRANSMISSION FACILITY DATA</b></p>

System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Attachment B to the Interconnection Request is true and accurate.

For Interconnection Customer:\_\_\_\_\_ Date:\_\_\_\_\_

**APPENDIX 2**  
**INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Upgrade to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner(s) to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Elective Transmission Upgrade to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade

Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).

- 2.0 Interconnection Customer elects and System Operator shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of the ETU IP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in Attachment B to the Interconnection Request, as may be modified as the result of the Scoping Meeting. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the ETU IP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the ETU IP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information depending on whether the Feasibility Study consisted of (a) a power flow, including thermal analysis and voltage analysis, and short circuit analysis, or (b) limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic analysis, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade’s interconnection given recent study experience and as discussed at the Scoping Meeting:
  - preliminary identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection, or, findings of the limited thermal analysis, voltage analysis, short circuit analysis, stability analysis, and electromagnetic transient analysis, as appropriate, focusing on the

issues that are expected to be the most significant for the proposed Elective Transmission Upgrade's interconnection given recent study experience and as discussed at the Scoping Meeting;

- preliminary identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection, as appropriate, focusing on the issues that are expected to be the most significant for the proposed Elective Transmission Upgrade's interconnection given recent study experience and as discussed at the Scoping Meeting;
- preliminary description of and a non-binding good faith order of magnitude estimated cost of (unless such cost estimate is waived by the Interconnection Customer) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Elective Transmission Upgrade as identified within the scope of the analysis performed as part of the study;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, initial review of grounding requirements and electric system protection;
- If the Feasibility Study consisted of a power flow, including thermal analysis and voltage analysis, and short circuit analysis, preliminary description and non-binding estimated cost of and the time to construct the facilities required to interconnect the Elective Transmission Upgrade to the Administered Transmission System and to address the identified short circuit and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 6.2 of the ETU IP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

In accordance with the ETU IP, in performing the Interconnection Feasibility Study, System Operator and Interconnecting Transmission Owner shall coordinate with each other and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. The deposit shall be applied toward the cost of the Interconnection Feasibility Study and the development of this Interconnection Feasibility Study Agreement and its attachment(s). Interconnecting Transmission Owner's and System Operator's good faith estimate for the time of completion of the Interconnection Feasibility Study Agreement is [insert date].

The total estimated cost of the performance of the Interconnection Feasibility Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection Feasibility Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection Feasibility Study System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

- 7.0 Miscellaneous.

- 7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

- 7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Feasibility Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information.

Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Feasibility Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Feasibility Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection Feasibility Study, the content of the Interconnection Feasibility Study, or the conclusions of the Interconnection Feasibility Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not



be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or an Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or an Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members,

employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Feasibility Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Feasibility Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.

- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.

7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]

**APPENDIX 3**  
**INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Upgrade to the Administered Transmission System;

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection Feasibility Study (the “Feasibility Study”) and provided the results of said study to the Interconnection Customer, or Interconnection Customer has requested that the Feasibility Study be completed as part of the System Impact Study pursuant to Section 6.1 of the ETU IP, or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”)(This recital is to be omitted if Interconnection Customer has elected to forego the Interconnection Feasibility Study); and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection System Impact Study to assess the impact of interconnecting the Elective Transmission Upgrade to the Administered Transmission System, and any Affected Systems.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedure (“ETU IP”).
- 2.0 Interconnection Customer elects and System Operator and Interconnecting Transmission Owner shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of the ETU IP in accordance with the Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, and the technical information provided by Interconnection Customer in Attachment A to the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the ETU IP. System Operator and Interconnecting Transmission Owner reserve the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the interconnection;
  - identification of any thermal overload of any transmission facility or system voltage limit violations resulting from the interconnection;
  - initial review of grounding requirements and electric system protection;



- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- description and non-binding, good faith estimated cost of and the time to construct the facilities required to interconnect the Elective Transmission Upgrade to the Administered Transmission System and to address the identified short circuit, instability, and power flow issues; and
- to the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.4 of the ETU IP, the report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Elective Transmission Upgrade to enable an Import Capacity Resource(s) to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

6.0 The Interconnection Customer is providing a deposit equal to the greater of 100 percent of the estimated cost of the Interconnection System Impact Study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection System Impact Study and the development of this Interconnection System Impact Study Agreement and its attachment(s) and the ETU IA. Interconnecting Transmission Owner's and System Operator's good faith estimate for the times of commencement and completion of the Interconnection System Impact Study is [insert dates].

The total estimated cost of the performance of the Interconnection System Impact Study consists of \$\_\_\_\_\_ which is comprised of the System Operator's estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner's estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection System Impact Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection System Impact Study each month.

Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice.

In accordance with the ETU IP, in performing the Interconnection System Impact Study, System Operator and Interconnecting Transmission Owner shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection System Impact Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection System Impact Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection System Impact Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or

profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Interconnection System Impact Study, the content of the Interconnection System Impact Study, or the conclusions of the Interconnection System Impact Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission

Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, an Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owners and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the

indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Interconnection System Impact Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection System Impact Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.

- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By:\_\_\_\_\_

By:\_\_\_\_\_

Title:\_\_\_\_\_

Title:\_\_\_\_\_

Date:\_\_\_\_\_

Date:\_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By:\_\_\_\_\_

By:\_\_\_\_\_

Title:\_\_\_\_\_

Title:\_\_\_\_\_

Date:\_\_\_\_\_

Date:\_\_\_\_\_

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, whether performed separately or as part of the Interconnection System Impact Study, subject to any modifications in accordance with Section 4.4 of the ETU IP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer, System Operator, and Interconnecting Transmission Owner]



**APPENDIX 4**  
**INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_ ; and

**WHEREAS**, Interconnection Customer desires to interconnect the Elective Transmission Upgrade to the Administered Transmission System; and

**WHEREAS**, System Operator and Interconnecting Transmission Owner have completed an Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested System Operator and Interconnecting Transmission Owner to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Elective Transmission Upgrade to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).
- 2.0 Interconnection Customer elects and System Operator shall cause an Interconnection Facilities Study consistent with Section 8.0 of the ETU IP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Elective Transmission Upgrade to the Administered Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 The Interconnection Customer is providing a deposit equal to the greater of 25 percent of the estimated cost of the Interconnection Facilities Study or \$250,000.

The deposit shall be applied toward the cost of the Interconnection Facilities Study and the development of this Interconnection Facilities Study Agreement and its attachment(s) and the ETU IA. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

The total estimated cost of the performance of the Interconnection Facilities Study consists of \$\_\_\_\_\_ which is comprised of the System Operator’s estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner’s estimated cost of \$\_\_\_\_\_.

Any difference between the deposit and the actual cost of the Interconnection Facilities Study shall be paid by or refunded to the Interconnection Customer, as appropriate.

Upon receipt of the Interconnection Facilities Study, System Operator and

Interconnecting Transmission Owner shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study. System Operator and Interconnecting Transmission Owner may, in the exercise of reasonable discretion, invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of the invoice. In accordance with the ETU IP, in performing the Interconnection Facilities Study, Interconnecting Transmission Owner and System Operator shall coordinate with Affected Parties, shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.

6.0 Miscellaneous.

6.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

6.2 Disclaimer of Warranty. In preparing and/or participating in the Interconnection Facilities Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Interconnection Facilities Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Interconnection Facilities Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in

conducting the Interconnection Facilities Study, the content of the Interconnection Facilities Study, or the conclusions of the Interconnection Facilities Study.

Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 6.3 Force Majeure, Liability and Indemnification.

6.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

6.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the

enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 6.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owner under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from the gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting

Transmission Owner shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.

- 6.4 Third-Party Beneficiaries. Without limiting Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, review, or to assist in the conducting, participating in, or reviewing of, an Interconnection Facilities Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 6.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Interconnection Facilities Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 6.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located without regard to any choice of laws provisions.
- 6.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 6.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.

- 6.9      Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 6.10     Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.
- 6.11     Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 6.12     No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.
- 6.13     Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 6.14     Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE  
INTERCONNECTION FACILITIES STUDY**

Interconnection Customer elects (check one):

- ☐ +/- 20 percent cost estimate contained in the Interconnection Facilities Study report.
- ☐ +/- 10 percent cost estimate contained in the Interconnection Facilities Study report.

Interconnecting Transmission Owner and System Operator shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE  
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the Elective Transmission Upgrade, including terminal facilities. For staged projects, please indicate future equipment, etc.

One set of metering is required for each ETU connection to the new ring bus or existing New England Transmission System station. Number of connections:

On the one line indicate the required capacity attached at each metering location. (Maximum load on Current Transformer/Power Transformer (“CT/PT”))

On the one line indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes \_\_\_\_\_ No \_\_\_\_\_

Will a transfer bus on the ETU side of the metering require that each meter set be designed for the total ETU capacity? Yes \_\_\_\_\_ No \_\_\_\_\_

(Please indicate on one line).

What type of control system or Power Line Carrier (“PLC”) will be located at the Interconnection Customer’s ETU?

What protocol does the control system or PLC use?

Attachment B (page 2)  
Appendix 4  
Interconnection Facilities  
Study Agreement

Please provide a 7.5-minute quadrangle of the site. Sketch the facility, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from facility to interconnection station:

Line length from interconnection station to Interconnecting Transmission Owner's transmission line.

Tower number observed in the field. (Painted on tower leg)\*

Number of third party easements required for transmission lines\*:

\* To be completed in coordination with System Operator and Interconnecting Transmission Owner.

Is the ETU in Interconnecting Transmission Owner's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_ Local provider:

Please provide proposed schedule dates:

Begin Construction Date:

Trial Operation Date:

Commercial Operation Date:

**APPENDIX 5**  
**OPTIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnection Customer,”) and ISO New England Inc., a non-stock corporation existing under the laws of the State of Delaware (“System Operator”), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”) [and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_ (“Interconnecting Transmission Owner”)]. Interconnection Customer, System Operator, and Interconnecting Transmission Owner may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing an Elective Transmission Upgrade consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish an interconnection to the Administered Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to System Operator an Interconnection Request; and

**WHEREAS**, on or after the date when the Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that the System Operator and Interconnecting Transmission Owner prepare an Optional Interconnection Study.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0      When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved Elective Transmission Upgrade

Interconnection Procedures (“ETU IP”), or in the other provisions of the ISO New England Inc. Transmission, Markets and Services Tariff (the “Tariff”).

- 2.0 Interconnection Customer elects and System Operator shall cause an Optional Interconnection Study consistent with Section 10.0 of the ETU IP to be performed in accordance with the Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by the Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Interconnecting Transmission Owner’s Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the assumptions specified by the Interconnection Customer in Attachment A.  
  
In accordance with the ETU IP, in performing the Optional Interconnection Study, the System Operator shall coordinate with Interconnecting Transmission Owner and Affected Parties, and shall receive and incorporate input from such entities into its study, and shall provide copies of the final study report to such entities.
- 6.0 The Interconnection Customer is providing a deposit equal to 100 percent of the estimated cost of the study. Interconnecting Transmission Owner’s and System Operator’s good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].

The total estimated cost of the performance of the Optional Interconnection Study consists of \$\_\_\_\_\_ which is comprised of the System Operator’s estimated cost of \$\_\_\_\_\_ and the Interconnecting Transmission Owner’s estimated cost of \$\_\_\_\_\_.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate. Upon receipt of the Optional Interconnection Study, System Operator and Interconnecting Transmission Owner shall charge and the Interconnection Customer shall pay the actual costs of the Optional Interconnection Study. Interconnection Customer shall pay any invoiced amounts within thirty (30) Calendar Days of receipt of invoice.

7.0 Miscellaneous.

7.1 Accuracy of Information. Except as a Party ("Providing Party") may otherwise specify in writing when it provides information to the other Parties under this Agreement, the Providing Party represents and warrants that, to the best of its knowledge, the information it provides to the other Parties shall be accurate and complete as of the date the information is provided. The Providing Party shall promptly provide the other Parties with any additional information needed to update information previously provided.

7.2 Disclaimer of Warranty. In preparing and/or participating in the Optional Interconnection Study, as applicable, each Party and any subcontractor consultants employed by it shall have to rely on information provided by the Providing Party, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, beyond the commitment to use Reasonable Efforts in preparing and/or participating in the Optional Interconnection Study (including, but not limited to, exercise of Good Utility Practice in verifying the accuracy of information provided for or used in the Optional Interconnection Study), as applicable, no Party nor any subcontractor consultant employed by it makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy of the information considered in conducting the Optional Interconnection Study, the content of the Optional Interconnection Study, or the conclusions of the Optional Interconnection Study. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

### 7.3 Force Majeure, Liability and Indemnification.

7.3.1 Force Majeure. Neither System Operator, Interconnecting Transmission Owner nor an Interconnection Customer will be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure; provided that no event of Force Majeure affecting any entity shall excuse that entity from making any payment that it is obligated to make hereunder. However, an entity whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement, and shall promptly notify the System Operator, the Interconnecting Transmission Owner or the Interconnection Customer, whichever is appropriate, of the commencement and end of each event of Force Majeure.

7.3.2 Liability. System Operator shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by System Operator in performing its obligations under this Agreement, except to the extent such act or omission by System Operator is found to result from its gross negligence or willful misconduct. Interconnecting Transmission Owner shall not be liable for money damages or other compensation to the Interconnection Customer for action or omissions by Interconnecting Transmission Owner in performing its obligations under this Agreement, except to the extent such act or omission by Interconnecting Transmission Owner is found to result from its gross negligence or willful misconduct. To the extent the Interconnection Customer has claims against System Operator or Interconnecting Transmission Owner, the Interconnection Customer may only look to the assets of System Operator or Interconnecting Transmission Owner (as the case may be) for the enforcement of such claims and may not seek to enforce any claims against the directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either who, the Interconnection Customer acknowledges and agrees, have no personal or other liability for obligations of System Operator or Interconnecting Transmission

Owner by reason of their status as directors, members, shareholders, officers, employees or agents of System Operator or Interconnecting Transmission Owner or Affiliate of either. In no event shall System Operator, Interconnecting Transmission Owner or any Interconnection Customer be liable for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys fees or costs arising out of, or connected in any way with the performance or non-performance under this Agreement. Notwithstanding the foregoing, nothing in this section shall diminish an Interconnection Customer's obligations under the Indemnification section below.

- 7.3.3 Indemnification. Interconnection Customer shall at all times indemnify, defend, and save harmless System Operator and the Interconnecting Transmission Owner and their respective directors, officers, members, employees and agents from any and all damages, losses, claims and liabilities ("Losses") by or to third parties arising out of or resulting from the performance by System Operator or Interconnecting Transmission Owners under this Agreement, any bankruptcy filings made by the Interconnection Customer, or the actions or omissions of the Interconnection Customer in connection with this Agreement, except in the case of System Operator, to the extent such Losses arise from gross negligence or willful misconduct by System Operator or its directors, officers, members, employees or agents, and, in the case of Interconnecting Transmission Owner, to the extent such Losses arise from the gross negligence or willful misconduct by Interconnecting Transmission Owner or its directors, officers, members, employees or agents. The amount of any indemnity payment hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the indemnified party in respect of the indemnified action, claim, demand, cost, damage or liability. The obligations of Interconnection Customer to indemnify System Operator and Interconnecting Transmission Owners shall be several, and not joint or joint and several. The liability provisions of the Transmission Operating Agreement or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner.



- 7.4 Third-Party Beneficiaries. Without limitation of Sections 7.2 and 7.3 of this Agreement, the Parties agree that subcontractor consultants hired by them to conduct, participate in, or review, or to assist in the conducting, participating in, or reviewing of, an Optional Interconnection Study shall be deemed third party beneficiaries of Sections 7.2 and 7.3.
- 7.5 Term and Termination. This Agreement shall be effective from the date hereof and unless earlier terminated in accordance with this Section 7.5, shall continue in effect for a term of one year or until the Optional Interconnection Study is completed. This Agreement shall automatically terminate upon the withdrawal of Interconnection Request under Section 3.6 of the ETU IP. The System Operator or the Interconnecting Transmission Owner may terminate this Agreement fifteen (15) days after providing written notice to the Interconnection Customer that it has breached one of its obligations hereunder, if the breach has not been cured within such fifteen (15) day period.
- 7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state where the Point of Interconnection is located, without regard to any choice of laws provisions.
- 7.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.
- 7.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument.
- 7.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 7.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein shall survive the expiration or termination hereof.

- 7.11 Independent Contractor. Each of the Parties shall at all times be deemed to be an independent contractor of the other Parties, and none of its employees or the employees of its subcontractors shall be considered to be employees of the other Parties as a result of this Agreement.
- 7.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to insist or rely on any such provision, rights and remedies in that or any other instances; rather, the same shall be and remain in full force and effect.
- 7.13 Successors and Assigns. This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of the other Parties hereto, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, to the extent the same are authorized hereunder.
- 7.14 Due Authorization. Each Party to this Agreement represents and warrants that it has full power and authority to enter into this Agreement and to perform its obligations hereunder, that execution of this Agreement will not violate any other agreement with a third party, and that the person signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[System Operator]

[Insert name of Interconnection Customer]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Interconnecting Transmission Owner

[Insert name of ITO]

[Insert name of ITO]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attachment A

Appendix 5

Optional Interconnection

Study Agreement

**ASSUMPTIONS USED IN CONDUCTING  
THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by Interconnection Customer consistent with Section 10 of the ETU IP.]

**APPENDIX 6**  
**ELECTIVE TRANSMISSION UPGRADE**  
**INTERCONNECTION AGREEMENT**

**TABLE OF CONTENTS**

Article 1	Definitions
Article 2	Effective Date, Term and Termination
Article 3	Regulatory Filings
Article 4	Scope of Service
Article 5	Interconnection Facilities Engineering, Procurement, and Construction
Article 6	Testing and Inspection
Article 7	Metering
Article 8	Communications
Article 9	Operations
Article 10	Maintenance
Article 11	Performance Obligation
Article 12	Invoice
Article 13	Emergencies
Article 14	Regulatory Requirements and Governing Law
Article 15	Notices
Article 16	Force Majeure
Article 17	Default
Article 18	Indemnity, Consequential Damages and Insurance
Article 19	Assignment
Article 20	Severability
Article 21	Comparability
Article 22	Confidentiality
Article 23	Environmental Releases
Article 24	Information Requirements
Article 25	Information Access and Audit Rights
Article 26	Subcontractors
Article 27	Disputes

Article 28	Representations, Warranties and Covenants
Article 29	Omitted
Article 30	Miscellaneous

## **THIS ELECTIVE TRANSMISSION UPGRADE INTERCONNECTION AGREEMENT**

("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with an Elective Transmission Upgrade Facility), ISO New England Inc., a non-stock corporation organized and existing under the laws of the State of Delaware ("System Operator"), and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnecting Transmission Owner"). Under this Agreement the Interconnection Customer, System Operator, and Interconnecting Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, System Operator is the central dispatching agency provided for under the Transmission Operating Agreement ("TOA") which has responsibility for the operation of the New England Control Area from the System Operator control center and the administration of the Tariff; and

**WHEREAS**, Interconnecting Transmission Owner is the owner or possessor of an interest in the Administered Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Elective Transmission Upgrade identified in Appendix C to this Agreement; and

**WHEREAS**, System Operator, Interconnection Customer and Interconnecting Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Elective Transmission Upgrade to the Administered Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Elective Transmission Upgrade Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

## **ARTICLE 1. DEFINITIONS**

The definitions contained in this Article 1 and those definitions embedded in an Article of this Agreement are intended to apply in the context of the Elective Transmission Upgrade interconnection process provided for in Schedule 25 (and its appendices). To the extent that the definitions herein are different than those contained in Section I.2.2 of the Tariff, the definitions provided below shall control only for purposes of Elective Transmission Upgrade interconnections under Schedule 25. Capitalized terms in Schedule 25 that are not defined in this Article 1 shall have the meanings specified in Section I.2.2 of the Tariff.

**Administered Transmission System** shall mean the PTF, the Non-PTF, and distribution facilities that are subject to the Tariff.

**Adverse System Impact** shall mean any significant negative effects on the stability, reliability or operating characteristics of the electric system.

**Affected System** shall mean any electric system that is within the Control Area, including, but not limited to, generator owned transmission facilities, or any other electric system that is not within the Control Area that may be affected by the proposed interconnection.

**Affected Party** shall mean the entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the interconnection process.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the New England Control Area.



**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the NPCC and the New England Control Area, including publicly available local reliability requirements of Interconnecting Transmission Owners or other Affected Parties.

**Base Case** shall have the meaning specified in Section 2.3.

**Base Case Data** shall mean the Base Case power flow, short circuit, and stability databases used for the Interconnection Studies by the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Elective Transmission Upgrade Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Elective Transmission Upgrade Interconnection Agreement.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Capacity Capability Interconnection Standard (“CC Interconnection Standard”)** shall mean the criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Capacity Network Resource Interconnection Service or an Elective Transmission Upgrade seeking Capacity Network Import Interconnection Service, and in a manner that ensures intra-zonal deliverability by avoidance of the redispatch of other Capacity Network Resource or Elective Transmission Upgrades with Capacity Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Capacity Network Import Capability (“CNI Capability”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the aggregate highest megawatt amount of Capacity Supply Obligation obtained by the Import Capacity Resource(s) associated with the External Elective Transmission Upgrade, net of any megawatt reductions, in accordance with Section III.13 of the Tariff. The Capacity Network Import Capability shall be the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Capacity Capability Interconnection Standard and shall not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures.

**Capacity Network Import Interconnection Service (“CNI Interconnection Service”)** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade with the Administered Transmission System in accordance with the Capacity Capability Interconnection Standard. An Interconnection Customer’s Capacity Network Import Interconnection Service shall be for the megawatt of Capacity Network Import Capability. Capacity Network Import Interconnection Service does not in and of itself convey transmission service.

**Capacity Network Resource Group Study (“CNR Group Study”)** shall mean the study performed by the System Operator under Section III.13.1.1.2.3 of the Tariff to determine which resources qualify to participate in a Forward Capacity Auction.

**Cluster Enabling Transmission Upgrade (“CETU”)** shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered. The CETU shall be considered part of an ETU Interconnection Related Upgrade and be categorized as Interconnection Facilities or Network Upgrades.

**Cluster Enabling Transmission Upgrade Regional Planning Study (“CRPS”)** shall mean a study conducted by the System Operator under Attachment K, Section II of the Tariff to identify the Cluster

Enabling Transmission Upgrade and associated system upgrades to enable the interconnection of Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.

**Cluster Interconnection Facilities Study (“CFAC”)** shall mean an Interconnection Facilities Study performed using Clustering pursuant to Section 4.2.4.

**Cluster Interconnection System Impact Study (“CSIS”)** shall mean an Interconnection System Impact Study performed using Clustering pursuant to Section 4.2.3.

**Cluster Participation Deposit** shall mean the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.

**Cluster Entry Deadline** shall mean the deadline specified in Section 4.2.3.1.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together for the purpose of conducting the Interconnection System Impact Study and Interconnection Facilities Study and for the purpose of determining cost responsibility for upgrades identified through the Clustering provisions.

**Commercial Operation** shall mean the status of an Elective Transmission Upgrade that has commenced transmitting electricity, excluding performance during Trial Operation.

**Commercial Operation Date** shall mean the date on which the Elective Transmission Upgrade commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Elective Transmission Upgrade Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information shall include, but not be limited to, information that is confidential pursuant to the ISO New England Information Policy.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Elective Transmission Upgrade Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Interconnecting Transmission Owner's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Interconnecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Elective Transmission Upgrade. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Elective Transmission Upgrade Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by the Commission or if filed unexecuted, upon the date specified by the Commission.

**Elective Transmission Upgrade ("ETU")** shall mean a new Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnecting to the Administered Transmission System, or an upgrade to an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is part of or interconnected to the Administered Transmission System for which the Interconnection Customer has agreed to pay all of the costs of said Elective Transmission Upgrade and of any additions or modifications to the Administered Transmission System that are required to accommodate the Elective Transmission Upgrade. An Elective Transmission Upgrade is not a Generator Interconnection Related Upgrade, a Regional Transmission Upgrade, or a Market Efficiency Transmission Upgrade.

**Elective Transmission Upgrade Interconnection Agreement ("ETU IA")** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade, that is included in this Schedule 25 to Section II of the Tariff.

**Elective Transmission Upgrade Interconnection Procedures (“ETU IP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to an Elective Transmission Upgrade that are included in this Schedule 25 to Section II of the Tariff.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that, in the case of the Interconnecting Transmission Owner, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the New England Transmission System, Interconnecting Transmission Owner’s Interconnection Facilities or any Affected System to which the New England Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Elective Transmission Upgrade or Interconnection Customer’s Interconnection Facilities.

**Engineering & Procurement (“E&P”) Agreement** shall mean an agreement that authorizes the Interconnection Customer, Interconnecting Transmission Owner and any other Affected Party to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**External Elective Transmission Upgrade (“External ETU”)** shall mean an Elective Transmission Upgrade that interconnects the New England Control Area with another Control Area.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** is defined in Section I of Schedule 22 and Attachment 1 to Schedule 23 of Section II to the Tariff.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Interconnecting Transmission Owner’s Interconnection Facilities.

**Interconnecting Transmission Owner** shall mean Transmission Owner that owns, leases or otherwise possesses an interest in the portion of the Administered Transmission System at the Point of Interconnection and shall be a Party to the Elective Transmission Upgrade Interconnection Agreement. The term Interconnecting Transmission Owner shall not be read to include the System Operator, and may refer to one or more Transmission Owners in the case of an Internal Elective Transmission Upgrade.

**Interconnecting Transmission Owner’s Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Interconnecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Interconnecting Transmission Owner’s Interconnection Facilities are sole

use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Customer** shall mean any entity, including a transmission owner or its Affiliates or subsidiaries, that interconnects or proposes to interconnect its Elective Transmission Upgrade with the Administered Transmission System under the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Elective Transmission Upgrade Interconnection Agreement, that are separate and distinct from the Elective Transmission Upgrade and are located between the Elective Transmission Upgrade and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Interconnecting Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Elective Transmission Upgrade and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Elective Transmission Upgrade to the Administered Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the System Operator, Interconnecting Transmission Owner, or a third party consultant for the Interconnection Customer to determine a list of facilities (including Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Elective Transmission Upgrade with the Administered Transmission System. The scope of the study is defined in Section 8 of the Elective Transmission Upgrade Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Elective Transmission Upgrade to the Administered Transmission System, the scope of which is described in Section 6 of the Elective Transmission Upgrade Interconnection Procedures. The Interconnection Customer has the option to request either that the Interconnection Feasibility Study be completed as a separate and distinct study, or as part of the Interconnection System Impact Study. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Elective Transmission Upgrade Interconnection Procedures, in accordance with the Tariff, to: (i) interconnect a new Elective Transmission Upgrade to the Administered Transmission System; (ii) make a Material Modification to an Elective Transmission upgrade with an outstanding Interconnection Request; (iii) increase the capability of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected to the Administered Transmission System; (iv) make a Material Modification to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility or Other Transmission Facility that is interconnected with the Administered Transmission System ; or (v) change from NI Interconnection Service to CNI Interconnection Service for an Elective Transmission Upgrade that is eligible to request such services. Interconnection Request shall not include a request to interconnect to a transmission facility that is not part of the Administered Transmission System.



**Interconnection Service** shall mean the right to interconnect the Interconnection Customer's Elective Transmission Upgrade to the Administered Transmission System at the Point of Interconnection pursuant to the terms of the Elective Transmission Upgrade Interconnection Agreement and, if applicable, the Tariff. For an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, Interconnection Service shall include Capacity Network Import Interconnection Service or Network Import Interconnection Service.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, the Interconnection Facilities Study and the Optional Interconnection Study described in the Elective Transmission Upgrade Interconnection Procedures. Interconnection Study shall not include a CNR Group Study.

**Interconnection Study Agreement** shall mean any of the following agreements: the Interconnection Feasibility Study Agreement, the Interconnection System Impact Study Agreement, the Interconnection Facilities Study Agreement, and the Optional Interconnection Study Agreement attached to Elective Transmission Upgrade Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection of an Elective Transmission Upgrade on the safety and reliability of the Administered Transmission System and any other Affected System. The study shall identify and detail the system impacts that would result if the Elective Transmission Upgrade were interconnected without project modifications or system modifications, focusing on Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Elective Transmission Upgrade Interconnection Procedures. If the Interconnection Customer requests that the Interconnection Feasibility Study be completed as part of the Interconnection System Impact Study, Section 6 shall be performed as the first step of the Interconnection System Impact Study, and shall be regarded as part of the Interconnection System Impact Study. When the requirements of Section 6 are performed as part of the Interconnection System Impact Study, the Interconnection Customer shall be responsible only for the deposit requirements of the Interconnection System Impact Study, and there shall be only one final report, which will include the results of both Section 6 and Section 7.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Interconnection System Impact Study.

**Internal Elective Transmission Upgrade (“Internal ETU”)** shall mean an Elective Transmission Upgrade that interconnects solely within the New England Control Area.

**IRS** shall mean the Internal Revenue Service.

**Long Lead Time Facility (“Long Lead Facility”)** shall mean a Generating Facility or an Elective Transmission Upgrade with an Interconnection Request for Capacity Network Resource Interconnection Service or Capacity Network Import Interconnection Service, respectively, that has, as applicable, elected or requested long lead time treatment and met the eligibility criteria and requirements specified in Schedule 22 or Schedule 25 of Section II of the Tariff, respectively,

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party’s performance, or non-performance of its obligations under the Elective Transmission Upgrade Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

**Major Permits** shall be as defined in Section III.13.1.1.2.2(a) of the Tariff.

**Material Modification** shall mean: (i) except as expressly provided in Section 4.4.1, those modifications to the Interconnection Request, including any of the technical data provided by the Interconnection Customer in Appendix 1, Attachment A to the Interconnection Request or to the interconnection configuration, requested by the Interconnection Customer, that either require significant additional study of the same Interconnection Request and could substantially change the interconnection design, or have a material impact (*i.e.*, an evaluation of the proposed modification cannot be completed in less than ten (10) Business Days) on the cost or timing of any Interconnection Studies or upgrades associated with an Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Pool Transmission Facility, Merchant Transmission Facility, or Other

Transmission Facility that is interconnected with the Administered Transmission System that may have a significant adverse effect on the reliability or operating characteristics of the New England Transmission System; (iii) a delay to the Commercial Operation Date, In-Service Date, or Trial Operation Date of greater than three (3) years where the reason for delay is unrelated to construction schedules or permitting which delay is beyond the Interconnection Customer's control; (iv) except as provided in Section 3.2.3.4, a withdrawal of a request for Long Lead Facility treatment; or (v) except as provided in Section 3.2.3.6, an election to participate in an earlier Forward Capacity Auction than originally anticipated.

**Metering Equipment** shall mean all metering equipment installed or to be installed pursuant to the Elective Transmission Upgrade Interconnection Agreement, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Network Capability Interconnection Standard ("NC Interconnection Standard")** shall mean the minimum criteria required to permit the Interconnection Customer to interconnect a Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service in a manner that avoids any significant adverse effect on the reliability, stability, and operability of the New England Transmission System, including protecting against the degradation of transfer capability for interfaces affected by the Generating Facility seeking Network Resource Interconnection Service or Elective Transmission Upgrade seeking Network Import Interconnection Service, as detailed in the ISO New England Planning Procedures.

**Network Import Capability ("NI Capability")** shall mean, for an External Elective Transmission Upgrade that is a controllable Merchant Transmission Facility or Other Transmission Facility, the maximum net megawatt electrical capability at the Point of Interconnection consistent with the Network Capability Interconnection Standard and shall be for an amount not to exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures. The Network Import Capability shall be equal to or greater than the Capacity Network Import Capability.

**Network Import Interconnection Service ("NI Interconnection Service")** shall mean the Interconnection Service selected by the Interconnection Customer to interconnect its Elective Transmission Upgrade to the Administered Transmission System in accordance with the Network

Capability Interconnection Standard. An Interconnection Customer's Network Import Interconnection Service shall be solely for the megawatt amount of the Network Import Capability. Network Import Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the New England Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Elective Transmission Upgrade to the Administered Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Elective Transmission Upgrade Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Elective Transmission Upgrade Interconnection Procedures for conducting the Optional Interconnection Study.

**Party** shall mean the System Operator, Interconnection Customer and Interconnecting Transmission Owner or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities connect to the Interconnecting Transmission Owner's Interconnection Facilities.

**Point of Interconnection** shall mean the point(s), as set forth in Appendix A to the Elective Transmission Upgrade Interconnection Agreement, where the Interconnection Facilities connect to the Administered Transmission System.

**Queue Position** shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests

for Generating Facilities, Elective Transmission Upgrades, requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System. References to a “higher-queued” Interconnection Request shall mean one that has been received by System Operator (and placed in queue order) earlier than another Interconnection Request, which is referred to as “lower-queued.”

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Elective Transmission Upgrade Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (a) that the Interconnection Customer is the owner in fee simple of the real property or holds an easement for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (b) that the Interconnection Customer holds a valid written leasehold or other contractual interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (c) that the Interconnection Customer holds a valid written option to purchase or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; (d) that the Interconnection Customer holds a duly executed written contract to purchase, acquire an easement, a license or a leasehold interest in the real property for the Elective Transmission Upgrade’s terminal locations at the Point of Interconnection within the New England Control Area; or (e) that the Interconnection Customer has filed applications for required permits to site on federal or state property where the Elective Transmission Upgrade’s terminal locations will be located at the Point of Interconnection within the New England Control Area.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the New England Transmission System during their construction. The System Operator, Interconnection Customer, Interconnecting Transmission Owner, and any Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Elective Transmission Upgrade Interconnection Agreement.

**Study Case** shall have the meaning specified in Sections 6.2 and 7.3 of this ETU IP.

**System Protection Facilities** shall mean the equipment, including necessary signal protection communications equipment, required to protect (1) the New England Transmission System from faults or other electrical disturbances occurring at the Elective Transmission Upgrade and (2) the Elective Transmission Upgrade from faults or other electrical system disturbances occurring on the New England Transmission System or on other delivery systems or other generating systems to which the New England Transmission System is directly connected.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Elective Transmission Upgrade prior to Commercial Operation.

**Trial Operation Date** shall mean the date upon which the Elective Transmission Upgrade begins Trial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This ETU IA shall become effective upon execution by the Parties subject to acceptance by the Commission (if applicable), or if filed unexecuted, upon the date specified by the Commission. System Operator and Interconnecting Transmission Owner, shall promptly and jointly file this ETU IA with the Commission upon execution in accordance with Section 11.3 of the ETU IP and Article 3.1, if required.

**2.2 Term of Agreement.** This ETU IA, subject to the provisions of Article 2.3, and by mutual agreement of the Parties, shall remain in effect for a period of \_\_\_\_\_ years from the Effective Date (*term to be specified in individual Agreement, but in no case should the term be less than ten (10) years from the Effective Date or such other longer period as the Interconnection Customer may request*) and shall be automatically renewed for each successive one-year period thereafter.

**2.3 Termination Procedures.**

**2.3.1 Written Notice.** This ETU IA may be terminated by the Interconnection Customer, subject to continuing obligations of this ETU IA and the Tariff, after giving the System Operator and Interconnecting Transmission Owner ninety (90) Calendar Days advance written notice, or by System Operator or Interconnecting Transmission Owner notifying the Commission after the Elective Transmission Upgrade retires pursuant to the Tariff, provided that if an Interconnection Customer exercises its right to terminate on ninety (90) Calendar Days, any reconnection would be treated as a new interconnection request; or this ETU IA may be terminated by Interconnecting Transmission Owner or System Operator by notifying the Commission after the Elective Transmission Upgrade permanently ceases Commercial Operation.

**2.3.2 Default.** Each Party may terminate this ETU IA in accordance with Article 17. Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing, if applicable, with the Commission of a notice of termination of this ETU IA, which notice has been accepted for filing by the Commission. Termination of the ETU IA shall not supersede or alter any requirements for deactivation or retirement of an Elective Transmission Upgrade under ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**2.4 Termination Costs.** If a Party elects to terminate this ETU IA pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party(ies), as of the date of such Party's(ies') receipt of such notice of termination, that are the

responsibility of such Party(ies) under this ETU IA. In the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this ETU IA, unless otherwise ordered or approved by the Commission:

- 2.4.1 With respect to any portion of the Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades to the extent covered by this ETU IA, that have not yet been constructed or installed, the Interconnecting Transmission Owner shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Interconnecting Transmission Owner shall deliver such material and equipment, and, if necessary, and to the extent possible, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Interconnecting Transmission Owner for any or all such costs of materials or equipment not taken by Interconnection Customer, either (i) in the case of overpayment, Interconnecting Transmission Owner shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by the Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts, or (ii) in the case of underpayment, Interconnection Customer shall promptly pay such amounts still due plus any costs, including penalties incurred by Interconnecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.
- If an Interconnection Customer terminates this ETU IA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which the Interconnecting Transmission Owner has incurred expenses and has not been reimbursed by the Interconnection Customer.



- 2.4.2 Interconnecting Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Interconnecting Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this ETU IA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.
- 2.5 Disconnection.** Upon termination of this ETU IA, Interconnection Service shall terminate and, the Parties will take all appropriate steps to disconnect the Elective Transmission Upgrade from the Interconnecting Transmission Owner's Interconnection Facilities. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from a non-terminating Party's Default of this ETU IA or such non-terminating Party otherwise is responsible for these costs under this ETU IA.
- 2.6 Survival.** This ETU IA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this ETU IA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this ETU IA was in effect; and to permit each Party to have access to the lands of the other Party(ies) pursuant to this ETU IA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS**

- 3.1 Filing.** The System Operator and Interconnecting Transmission Owner shall jointly file this ETU IA (and any amendment hereto) with the appropriate Governmental Authority, if required, in accordance with Section 11.3 of the ETU IP. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this ETU IA, or any amendment thereto, the

Interconnection Customer shall reasonably cooperate with the System Operator and Interconnecting Transmission Owner with respect to such filing and to provide any information reasonably requested by the System Operator and/or the Interconnecting Transmission Owner needed to comply with applicable regulatory requirements.

#### **ARTICLE 4. SCOPE OF SERVICE**

- 4.1 Interconnection Product Options.** Interconnection Customer with an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility (import direction) has selected the following (checked) type(s) of Interconnection Service:

Check: ☐ NI Interconnection Service (NI Capability Only)

☐ CNI Interconnection Service (CNI Capability and NI Capability)

**4.1.1 Capacity Network Import Interconnection Service (CNI Interconnection Service).**

**4.1.1.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and the Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the CC Interconnection Standard. CNI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to enable the participation of an Import Capacity Resource in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the net CNI Capability, or as otherwise provided in Market Rule 1, Section III of the Tariff.

**4.1.2 Network Import Interconnection Service (NI Interconnection Service).**

**4.1.2.1 The Product.** The System Operator and Interconnecting Transmission Owner must conduct the necessary studies and Interconnecting Transmission Owner and Affected Parties must construct the Network Upgrades needed to interconnect the External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility under the NC Interconnection Standard.

NI Interconnection Service allows the Interconnection Customer's External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility to participate in the New England Markets, in accordance with Market Rule 1, Section III of the Tariff, up to the NI Capability or as otherwise provided in Market Rule 1, Section III of the Tariff. Notwithstanding the above, the portion of an External ETU that is a controllable Merchant Transmission Facility or Other Transmission Facility that has been interconnected under the NC Interconnection Standard cannot be used to support an Import Capacity Resource's(s') participation in the Forward Capacity Market under Section III.13 of the Tariff, except pursuant to a new Interconnection Request for CNI Interconnection Service.

**4.2 Provision of Service.** System Operator and Interconnecting Transmission Owner shall provide Interconnection Service for the Elective Transmission Upgrade at the Point of Interconnection.

**4.3 Performance Standards.** Each Party shall perform all of its obligations under this ETU IA in accordance with Applicable Laws and Regulations, the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such requirements and standards, such Party shall not be deemed to be in Breach of this ETU IA for its compliance therewith. If such Party is the Interconnecting Transmission Owner, then that Party shall amend the ETU IA and System Operator, in conjunction with the Interconnecting Transmission Owner, shall submit the amendment to the Commission for approval.

**4.4 No Transmission Delivery Service.** The execution of this ETU IA does not constitute a request for, nor the provision of, any service except for Interconnection Service, including, but not limited to, transmission delivery service, local delivery service, distribution service, capacity

service, energy service, or Ancillary Services under any applicable tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

**4.5 Transmission Delivery Service Implications.** Interconnection Service allows the Interconnection Customer's Elective Transmission Upgrade to be interconnected to the Administered Transmission System. Although Interconnection Service does not convey a reservation of transmission service, any Network Customer can utilize its network service under the Tariff to obtain delivery of capability from the Interconnection Customer's Elective Transmission Upgrade. An Elective Transmission Upgrade may also be used to provide Ancillary Services, in accordance with the Tariff, after technical studies and/or periodic analyses are performed with respect to the Elective Transmission Upgrade's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Elective Transmission Upgrade. However, an Interconnection Customer's Elective Transmission Upgrade cannot be required to provide Ancillary Services except to the extent such requirements extend to all Elective Transmission Upgrades that are similarly situated.

Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver electricity to any particular load on the New England Transmission System without incurring congestion costs. In the event of transmission constraints on the New England Transmission System, the Interconnection Customer's Elective Transmission Upgrade shall be subject to the applicable congestion management procedures for the New England Transmission System.

Once an Interconnection Customer satisfies the requirements for obtaining Interconnection Service, as long as the Elective Transmission Upgrade has not been deemed to be retired, any future transmission service request for delivery of electricity from the Elective Transmission Upgrade to the New England Transmission System of any amount of capacity capability and/or energy capability will not require that any additional studies be performed or that any further upgrades associated with such Elective Transmission Upgrade be undertaken, and regardless of changes in ownership of the Elective Transmission Upgrade. To the extent the Interconnection Customer enters into an arrangement for long-term transmission service for deliveries from the

Elective Transmission Upgrade outside the New England Transmission System, or if the Elective Transmission Upgrade has been deemed to be retired, such request may require additional studies and upgrades in order for Interconnecting Transmission Owner to grant such request.

**4.6 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this ETU IA are set forth in Article 9.6 and Article 13.4. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

## **ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION**

**5.1 Options.** Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall specify the In-Service Date, Trial Operation Date, and Commercial Operation Date as specified in the Interconnection Request or as subsequently revised pursuant to Section 4.4 of the ETU IP; and select either Standard Option or Alternate Option set forth below for completion of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades as set forth in Appendix A, and such dates and selected option shall be set forth in Appendix B (Milestones). In accordance with Section 8 of the ETU IP and unless otherwise mutually agreed, the Alternate Option is not an available option if the Interconnection Customer waived the Interconnection Facilities Study.

**5.1.1 Standard Option.** The Interconnecting Transmission Owner shall design, procure, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B (Milestones). The Interconnecting Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Interconnecting Transmission Owner reasonably expects that it will not be able to complete the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades by the specified dates, the Interconnecting Transmission Owner shall promptly provide written notice to the Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by Interconnection Customer are acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities by the designated dates.

If Interconnecting Transmission Owner subsequently fails to complete Interconnecting Transmission Owner's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Trial Operation Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B (Milestones); Interconnecting Transmission Owner shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable System Operator refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by Interconnection Customer are not acceptable to Interconnecting Transmission Owner, the Interconnecting Transmission Owner shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. The System Operator, Interconnecting Transmission Owner, Interconnection Customer, and any Affected Party as deemed appropriate by System Operator in accordance with applicable codes of conduct and confidentiality requirements must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to the ETU IA. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If the Interconnection Customer elects not to exercise its option under Article 5.1.3 (Option to Build), Interconnection Customer shall so notify Interconnecting Transmission Owner within thirty (30) Calendar Days, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection

Customer) pursuant to which Interconnecting Transmission Owner is responsible for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Interconnecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades pursuant to 5.1.1 (Standard Option).

**5.2 General Conditions Applicable to Option to Build.** If Interconnection Customer assumes responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades,

(1) the Interconnection Customer shall engineer, procure equipment, and construct the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Interconnecting Transmission Owner;

(2) Interconnection Customer's engineering, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Interconnecting Transmission Owner would be subject in the engineering, procurement or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(3) Interconnecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(4) prior to commencement of construction, Interconnection Customer shall provide to Interconnecting Transmission Owner a schedule for construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Interconnecting Transmission Owner;



(5) at any time during construction, Interconnecting Transmission Owner shall have the right to gain unrestricted access to the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Interconnecting Transmission Owner, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(7) the Interconnection Customer shall indemnify the Interconnecting Transmission Owner for claims arising from the Interconnection Customer's construction of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 (Indemnity);

(8) the Interconnection Customer shall transfer control of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the Interconnecting Transmission Owner;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Interconnecting Transmission Owner;

(10) Interconnecting Transmission Owner shall approve and accept for operation and maintenance the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Interconnecting Transmission Owner "as built" drawings, information, and any other documents that are reasonably required by Interconnecting Transmission Owner to assure that the Interconnection Facilities and Stand Alone Network

Upgrades are built to the standards and specifications required by Interconnecting Transmission Owner.

**5.3 Liquidated Damages.** The actual damages to the Interconnection Customer, in the event the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Interconnecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Interconnecting Transmission Owner to the Interconnection Customer in the event that Interconnecting Transmission Owner does not complete any portion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to  $\frac{1}{2}$  of 1 percent per day of the actual cost of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, in the aggregate, for which Interconnecting Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which the Interconnecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Interconnecting Transmission Owner to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this ETU IA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Interconnecting Transmission Owner's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to transmit power from the Elective Transmission Upgrade on the specified dates, unless the Interconnection Customer would have been able to commence use of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades to transmit power from the Elective Transmission Upgrade, but for

Interconnecting Transmission Owner's delay; (2) the Interconnecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other Interconnection Customer who has entered into an ETU IA with the Interconnecting Transmission Owner or any cause beyond Interconnecting Transmission Owner's reasonable control or reasonable ability to cure, including, but not limited to, actions by the System Operator that cause delays and/or delays in licensing, permitting or consents where the Interconnecting Transmission Owner has pursued such licenses, permits or consents in good faith; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

**5.4 Power System Stabilizers.** If a Power System Stabilizer or other frequency damping control equipment is required to be installed on the Elective Transmission Upgrade for the purpose of maintaining system stability, the Interconnection Customer shall procure, install, maintain and operate such equipment in accordance with the guidelines and procedures established by the System Operator and Interconnecting Transmission Owner, and consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator and Interconnecting Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers or other frequency damping control equipment, subject to the design and operating limitations of the Elective Transmission Upgrade. If the Elective Transmission Upgrade's Power System Stabilizers or other frequency damping control equipment are removed from service or not capable of automatic operation, the Interconnection Customer shall immediately notify the System Operator and Interconnecting Transmission Owner, or their designated representative.

**5.5 Equipment Procurement.** If responsibility for construction of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades is to be borne by the Interconnecting Transmission Owner, then the Interconnecting Transmission Owner shall commence design of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** The Interconnecting Transmission Owner has completed the Facilities Study pursuant to the Facilities Study Agreement;

**5.5.2** The Interconnecting Transmission Owner has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.5.3** The Interconnection Customer has provided security to the Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.6 Construction Commencement.** The Interconnecting Transmission Owner shall commence construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

**5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades;

**5.6.3** The Interconnecting Transmission Owner has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B (Milestones); and

**5.6.4** The Interconnection Customer has provided security to Interconnecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B (Milestones).

**5.7 Work Progress.** The Interconnection Customer and the Interconnecting Transmission Owner shall keep each Party informed, by written quarterly progress reports, as to the progress of their

respective design, procurement and construction efforts in order to meet the dates specified in Appendix B (Milestones). Any Party may also, at any other time, request a written progress report from the other Parties. If, at any time, the Interconnection Customer determines that the completion of the Interconnecting Transmission Owner's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer, upon the System Operator's approval that the change in the In-Service Date will not constitute a Material Modification pursuant to Section 4.4 of the ETU IP, will provide written notice to the Interconnecting Transmission Owner of such later date upon which the completion of the Interconnecting Transmission Owner's Interconnection Facilities will be required.

**5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with the New England Transmission System, and shall work diligently and in good faith to make any necessary design changes.

**5.9 Limited Operation.** If any of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Elective Transmission Upgrade, System Operator and the Interconnecting Transmission Owner shall, upon the request and at the expense of Interconnection Customer, perform operating studies to determine the extent to which the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this ETU IA. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to complete the operating studies and permit Interconnection Customer to operate the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Elective Transmission Upgrade ("ETU") and Interconnection Customer's Interconnection Facilities ("ICIF").** Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.10.1 Elective Transmission Upgrade Specifications.** Interconnection Customer shall submit initial specifications for the ETU and ICIF, including System Protection Facilities, to Interconnecting Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Trial Operation Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Trial Operation Date. Interconnecting Transmission Owner shall review such specifications to ensure that the ETU and ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Interconnecting Transmission Owner's Review.** Interconnecting Transmission Owner's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the ETU or the ICIF. Interconnection Customer shall make such changes to the ETU or the ICIF as may reasonably be required by Interconnecting Transmission Owner, in accordance with Good Utility Practice, to ensure that the ETU and ICIF are compatible with the technical specifications, operational control, and safety requirements of the Interconnecting Transmission Owner.

**5.10.3 ETU and ICIF Construction.** The ETU and ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Interconnecting Transmission Owner "as-built" drawings, information and documents for the ETU and ICIF, such as: a one-line diagram, a site plan showing the ETU and the ICIF, plan and elevation drawings showing the layout of the ETU and ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the ETU and the ICIF, and the impedances (determined by factory tests) for any associated transformers. The Interconnection Customer shall provide Interconnecting Transmission Owner specifications for any and all controls, automatic

voltage regulating equipment or controls, ETU control and protection settings, transformer tap settings, and communications, if applicable.

- 5.11 Interconnecting Transmission Owner's Interconnection Facilities Construction.** The Interconnecting Transmission Owner's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, the Interconnecting Transmission Owner shall deliver to the Interconnection Customer "as-built" drawings, information and documents for the Interconnecting Transmission Owner's Interconnection Facilities. The appropriate drawings and relay diagrams shall be included in Appendix A of this ETU IA. The System Operator will obtain operational control of the Interconnecting Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities pursuant to the TOA.
- 5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at the incremental cost to another Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents if allowed under the applicable agency agreement, that are necessary to enable the Access Party solely to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Elective Transmission Upgrade with the Administered Transmission System; (ii) operate and maintain the Elective Transmission Upgrade, the Interconnection Facilities and the New England Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this ETU IA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.
- 5.13 Lands of Other Property Owners.** If any part of the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Interconnecting Transmission Owner, the

Interconnecting Transmission Owner shall at Interconnection Customer's expense use Reasonable Efforts, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Interconnecting Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property. Notwithstanding the foregoing, the Interconnecting Transmission Owner shall not be obligated to exercise eminent domain authority in a manner inconsistent with Applicable Laws and Regulations or when an Interconnection Customer is authorized under Applicable Laws and Regulations to exercise eminent domain on its own behalf.

**5.14 Permits.** System Operator, Interconnecting Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Interconnecting Transmission Owner shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Interconnecting Transmission Owner's own, or an Affiliate's generation or transmission facilities, if any.

**5.15 Early Construction of Base Case Facilities.** Interconnection Customer may request Interconnecting Transmission Owner to construct, and Interconnecting Transmission Owner shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Administered Transmission System, which are included in the Base Case of the Facilities Study for the Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date. The Interconnection Customer shall reimburse the Interconnecting Transmission Owner for all costs incurred related to early construction to the extent such costs are not recovered from other Interconnection Customers included in the base case.

**5.16 Suspension.** Interconnection Customer reserves the right, upon written notice to Interconnecting Transmission Owner and System Operator, to suspend at any time all work by Interconnecting Transmission Owner associated with the construction and installation of Interconnecting



Transmission Owner's Interconnection Facilities and/or Network Upgrades required under this ETU IA with the condition that the New England Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the System Operator's and Interconnecting Transmission Owner's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Interconnecting Transmission Owner (i) has incurred pursuant to this ETU IA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New England Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Interconnecting Transmission Owner cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Interconnecting Transmission Owner shall obtain Interconnection Customer's authorization to do so. Interconnecting Transmission Owner shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Interconnecting Transmission Owner required under this ETU IA pursuant to this Article 5.16, and has not requested Interconnecting Transmission Owner to recommence the work required under this ETU IA on or before the expiration of three (3) years following commencement of such suspension, this ETU IA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Interconnecting Transmission Owner and System Operator, if no effective date is specified. A suspension under this Article 5.16 does not automatically permit an extension of the In-Service Date, the Trial Operation Date or the Commercial Operation Date. A request for extension of such dates is subject to Section 4.4.5 of the ETU IP. Notwithstanding the extensions permitted under Section 4.4.5 of the ETU IP, the three-year period shall in no way result in an extension of the In-Service Date, the Trial Operation Date or the Commercial Operation Date that exceeds seven (7) years from the date of the Interconnection Request; otherwise, this ETU IA shall be deemed terminated.

## **5.17 Taxes.**

**5.17.1 Payments Not Taxable.** The Parties intend that all payments or property transfers made by any Party for the installation of the Interconnecting Transmission Owner's

Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity transmitted on the Elective Transmission Upgrade will pass to another party prior to the transmission of the electricity on the New England Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Interconnecting Transmission Owner for the Interconnecting Transmission Owner's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Interconnecting Transmission Owner's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Elective Transmission Upgrade. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Interconnecting Transmission Owner's request, Interconnection Customer shall provide Interconnecting Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Interconnecting Transmission Owner represents and covenants that the cost of the Interconnecting Transmission Owner's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon Interconnecting Transmission Owner.** Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Interconnecting Transmission

Owner from the cost consequences of any current tax liability imposed against Interconnecting Transmission Owner as the result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Interconnecting Transmission Owner.

The Interconnecting Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this ETU IA unless (i) Interconnecting Transmission Owner has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Interconnecting Transmission Owner to report payments or property as income subject to taxation; provided, however, that Interconnecting Transmission Owner may require Interconnection Customer to provide security, in a form reasonably acceptable to Interconnecting Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Interconnecting Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Interconnecting Transmission Owner of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period, and the applicable statute of limitation, as it may be extended by the Interconnecting Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Interconnecting Transmission Owner, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount

equal to (1) the current taxes imposed on Interconnecting Transmission Owner (“Current Taxes”) on the excess of (a) the gross income realized by Interconnecting Transmission Owner as a result of payments or property transfers made by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA (without regard to any payments under this Article 5.17) (the “Gross Income Amount”) over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the “Present Value Depreciation Amount”), plus (2) an additional amount sufficient to permit the Interconnecting Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1). For this purpose, (i) Current Taxes shall be computed based on Interconnecting Transmission Owner composite federal and state tax rates at the time the payments or property transfers are received and Interconnecting Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the “Current Tax Rate”), and (ii) the Present Value Depreciation Amount shall be computed by discounting Interconnecting Transmission Owner’s anticipated tax depreciation deductions as a result of such payments or property transfers by Interconnecting Transmission Owner current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer’s liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: 
$$\frac{\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})}{(1 - \text{Current Tax Rate})}$$
 Interconnection Customer’s estimated tax liability in the event taxes are imposed shall be stated in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades).

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer’s request and expense, Interconnecting Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Interconnecting Transmission Owner under this ETU IA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer’s knowledge. Interconnecting Transmission Owner and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Interconnecting Transmission Owner shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Interconnecting Transmission Owner shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within ten (10) years from the date on which the relevant Interconnecting Transmission Owner's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenant contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this ETU IA terminates and Interconnecting Transmission Owner retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Interconnecting Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Interconnecting Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Interconnecting Transmission Owner shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Interconnecting Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Interconnecting Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Interconnecting Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but

Interconnecting Transmission Owner shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Interconnecting Transmission Owner may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Interconnecting Transmission Owner, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Interconnecting Transmission Owner for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Interconnecting Transmission Owner which holds that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this ETU IA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Interconnecting Transmission Owner in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Interconnecting Transmission Owner under the terms of this ETU IA is not taxable to Interconnecting Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Interconnecting Transmission Owner are not subject to federal income tax,

or (d) if Interconnecting Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Interconnecting Transmission Owner pursuant to this ETU IA, Interconnecting Transmission Owner shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amounts paid by Interconnection Customer to Interconnecting Transmission Owner for such taxes which Interconnecting Transmission Owner did not submit to the taxing authority, interest calculated in accordance with the methodology set forth in the Commission's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Interconnecting Transmission Owner refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Interconnecting Transmission Owner, any refund or credit Interconnecting Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Interconnecting Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Interconnecting Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Interconnecting Transmission Owner will remit such amount promptly to Interconnection Customer only after and to the extent that Interconnecting Transmission Owner has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the Interconnecting Transmission Owner's Interconnection Facilities.

The intent of this provision is to leave Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Interconnecting Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Interconnecting Transmission Owner for which Interconnection Customer may be required to reimburse Interconnecting Transmission Owner under the terms of this ETU IA. Interconnection Customer shall pay to Interconnecting Transmission Owner on a periodic basis, as invoiced by Interconnecting Transmission Owner, Interconnecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Interconnecting Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Interconnecting Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Interconnecting Transmission Owner.

**5.18 Tax Status.** Each Party shall cooperate with the others to maintain the other Party's(ies') tax status. Nothing in this ETU IA is intended to adversely affect any Interconnecting Transmission Owner's tax-exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

**5.19 Modification.**

**5.19.1 General.** Either Interconnection Customer or Interconnecting Transmission Owner may undertake modifications to its facilities. If a Party plans to undertake a modification that



reasonably may be expected to affect the other Party's facilities, the facilities of any Affected Parties, or the New England Transmission System, that Party shall provide to the other Parties and any Affected Party: (i) sufficient information regarding such modification so that the other Party(ies) may evaluate the potential impact of such modification prior to commencement of the work; and (ii) such information as may be required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Elective Transmission Upgrade. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party(ies) at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed. Notwithstanding the foregoing, no Party shall be obligated to proceed with a modification that would constitute a Material Modification and therefore require an Interconnection Request under the ETU IP, except as provided under and pursuant to the ETU IP.

In the case of Elective Transmission Upgrade or Interconnection Customer's Interconnection Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Interconnecting Transmission Owner shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the New England Transmission System, Interconnecting Transmission Owner's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this ETU IA and Good Utility Practice.

**5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Interconnecting Transmission

Owner makes to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System to facilitate the interconnection of a third party to the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System, or to provide transmission service to a third party under the Tariff, except as provided for under the Tariff or any other applicable tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Elective Transmission Upgrade or Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Interconnecting Transmission Owner shall test Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall transmit test energy to or from the Elective Transmission Upgrade only if it has arranged for the transfer of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Interconnection Customer and Interconnecting Transmission Owner shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, as may be necessary to ensure the continued interconnection of the Elective Transmission Upgrade to the Administered Transmission System in a safe and reliable manner. The Interconnection Customer and Interconnecting Transmission Owner each shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's(ies') facilities, at the requesting Party's expense, as may be in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The System Operator shall also have the right to

require reasonable additional testing of the other Party's (ies') facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 6.3 Right to Observe Testing.** Each Party shall notify the System Operator and other Party(ies) in advance of its performance of tests of its Elective Transmission Upgrade and Interconnection Facilities. The other Party(ies) has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's(ies') tests and/or inspection of any of its System Protection Facilities and other protective equipment; (ii) review the settings of the other Party's(ies') System Protection Facilities and other protective equipment; and (iii) review the other Party's(ies') maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. Each Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Parties. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be governed by Article 22.

## **ARTICLE 7. METERING**

- 7.1 General.** Interconnection Customer and Interconnecting Transmission Owner shall comply with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding metering. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment. Unless the System Operator otherwise agrees, the Interconnection Customer shall be responsible for installing and maintaining compatible metering and communications equipment to accurately account for the capacity and energy being transmitted under this Tariff and to communicate the information to the System Operator. Unless otherwise agreed, such equipment shall remain the property of the Interconnecting Transmission Owner.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Interconnecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this ETU IA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Interconnecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** Interconnection Customer and Interconnecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards and the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 7.4 Testing of Metering Equipment.** Interconnection Customer and Interconnecting Transmission Owner shall inspect and test all of their respectively owned Metering Equipment upon installation and thereafter as specified in the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnection Customer and Interconnecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection

Customer's expense, in order to provide accurate metering. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than the values specified within ISO New England Operating Documents, or successor documents, from the measurement made by the standard meter used in the test, the Interconnection Customer and the Interconnecting Transmission Owner shall adjust the measurements of their respective equipment, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 7.5 Metering Data.** At Interconnection Customer's expense, metered data shall be telemetered to one or more locations designated by System Operator and Interconnecting Transmission Owner. The hourly integrated metering, established in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, used to transmit Megawatt hour ("MWh") per hour data by electronic means and the Watt-hour meters equipped with kilowatt-hour ("kwh") or MWh registers to be read at month's end shall be the official measurement of the amount of energy transmitted from the Elective Transmission Upgrade to the Point of Interconnection. Instantaneous metering is required in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 8. COMMUNICATIONS**

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with the System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 8.2 Remote Terminal Unit.** Prior to the Trial Operation Date of the Elective Transmission Upgrade, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer or Interconnecting Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by System Operator and Interconnecting Transmission Owner through use of a dedicated point-to-point data circuit(s). The communication protocol for the data circuit(s) shall be specified by System Operator and Interconnecting Transmission Owner. All information required by the ISO New England Operating Documents, or successor

documents, must be telemetered directly to the location(s) specified by System Operator and Interconnecting Transmission Owner.

Each Party will promptly advise the other Party(ies) if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party(ies). The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

**8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

**8.4 Reserved.**

## **ARTICLE 9. OPERATIONS**

**9.1 General.** Each Party shall comply with applicable provisions of ISO New England Operating Documents, Reliability Standards, or successor documents, regarding operations. Each Party shall provide to the other Party(ies) all information that may reasonably be required by the other Party(ies) to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

**9.2 Control Area Notification.** Before Trial Operation Date, the Interconnection Customer shall notify the System Operator and Interconnecting Transmission Owner in writing in accordance with ISO New England Operating Documents, Reliability Standards, or successor documents. If the Interconnection Customer elects to have the Elective Transmission Upgrade dispatched and operated from a remote Control Area other than the Control Area in which the Elective Transmission Upgrade is physically located, and if permitted to do so by the relevant transmission tariffs and ISO New England Operating Documents, Reliability Standards, or successor documents, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this ETU IA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Elective Transmission Upgrade in the other Control Area for dispatch and operations.

**9.3 Interconnecting Transmission Owner and System Operator Obligations.** Interconnecting Transmission Owner and System Operator shall cause the Interconnecting Transmission Owner's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this ETU IA and ISO New England Operating Documents, Reliability Standards, or successor documents. Interconnecting Transmission Owner or System Operator may provide operating instructions to Interconnection Customer consistent with this ETU IA, ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and Interconnecting Transmission Owner's and System Operator's operating protocols and procedures as they may change from time to time. Interconnecting Transmission Owner and System Operator will consider changes to their operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this ETU IA and ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.5 Start-Up and Trial Operation.** The Interconnection Customer is responsible for the proper start-up and Trial Operation of the Elective Transmission Upgrade as part of the New England Transmission System in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6 Reactive Power.**

**9.6.1 Power Factor Design Criteria.** Interconnection Customer shall design the Elective Transmission Upgrade and Interconnection Facilities that are capable of voltage control to maintain a composite power delivery at continuous rated power output at the Point of Interconnection with dynamic reactive capability over the power factor range of 0.95 leading to 0.95 lagging or any reactive power or power factor requirement specified in the Interconnection System Impact Study for the Elective Transmission Upgrade, unless the System Operator or Interconnecting Transmission Owner has established different requirements that apply to all similar-situated facilities in the Control Area on a

comparable basis and in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has commenced Trial Operation of the Elective Transmission Upgrade to the New England Transmission System, Interconnection Customer shall operate the Elective Transmission Upgrade at the direction of System Operator and Interconnecting Transmission Owner in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, regarding voltage schedules in accordance with such requirements.

**9.6.2.1 Voltage Regulating Equipment.** The Interconnection Customer must keep and maintain voltage regulating equipment on all voltage-controlling elements of the Elective Transmission Upgrade and Interconnection Facilities any voltage control requirements specified in the Interconnection System Impact Study and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. All Interconnection Customers that have, or are required to have, voltage regulating equipment shall normally operate the voltage regulating equipment in automatic operation.

It is the responsibility of the Interconnection Customer to maintain the voltage regulating equipment and function in good operating condition and promptly report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.

**9.6.2.2 Governor Control.** The Interconnection Customer is obligated to provide and maintain a functioning governor or frequency regulation on all elements of the Elective Transmission Upgrade and Interconnection Facilities that are capable of frequency regulation in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

It is the responsibility of the Interconnection Customer to maintain the frequency regulating equipment and function in good operating condition and promptly



report to the System Operator and Interconnecting Transmission Owner any problems that could cause interference with its proper operation.

**9.6.2.3 System Protection.** The Interconnection Customer shall install and maintain protection systems in accordance with applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.6.3 Payment for Reactive Power.**

Interconnection Customers shall be compensated for Reactive Power service in accordance with Schedule 2 of the Section II of the Tariff.

**9.7 Outages and Interruptions.**

**9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** The System Operator shall have the authority to coordinate facility outages in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Each Party may in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, in coordination with the other Party(ies), remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's(ies') facilities as necessary to perform maintenance or testing or to install or replace equipment, subject to the oversight of System Operator in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.1.2 Outage Schedules.** Outage scheduling, and any related compensation, shall be in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.2 Interruption of Service.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, the System Operator or Interconnecting Transmission Owner may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect System Operator's or Interconnecting Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate and maintain the New England Transmission System.

**9.7.3 Under-Frequency and Over Frequency Conditions.** Interconnection Customer shall implement under-frequency and over-frequency protection set points for the Elective Transmission Upgrade and the Interconnection Facilities as required by the applicable provisions of ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Elective Transmission Upgrade response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with System Operator and Interconnecting Transmission Owner in accordance with ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. Interconnecting Transmission Owner shall install at Interconnection Customer's expense, in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, any System Protection Facilities that may be required on the Interconnecting Transmission Owner Interconnection Facilities or the New England Transmission System as a result of the interconnection of the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities.

**9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.4.4** Each Party's protective relay design shall allow for tests required in Article 6.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

**9.7.5 Requirements for Protection.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, and compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Elective Transmission Upgrade to any short circuit occurring on the New England Transmission System not otherwise isolated by Interconnecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New England Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Elective Transmission Upgrade and the New England Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Elective Transmission Upgrade and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Elective Transmission Upgrade and Interconnection Customer's other equipment if conditions on the New England Transmission System could adversely affect the Elective Transmission Upgrade. Relays and other equipment

that protect for other conditions such as over- or under-frequency, over- or under-voltage, and overloads shall be coordinated with the protective requirements of the New England Transmission System.

**9.7.6 Power Quality.** A Party's facilities shall not cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Party(ies) with a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Elective Transmission Upgrade to the Administered Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Interconnecting Transmission Owner's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection

Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Interconnecting Transmission Owner, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed-upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to the Commission for resolution.

- 9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Elective Transmission Upgrade or the New England Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

## **ARTICLE 10. MAINTENANCE**

- 10.1 Interconnecting Transmission Owner and Customer Obligations.** Interconnecting Transmission Owner and Interconnection Customer shall each maintain that portion of its respective facilities that are part of the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 10.2 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Interconnecting Transmission Owner's Interconnection Facilities, Stand Alone Network Upgrades, Network Upgrades and Distribution Upgrades.

## **ARTICLE 11. PERFORMANCE OBLIGATION**

- 11.1 Interconnection Customer's Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at its sole expense.
- 11.2 Interconnecting Transmission Owner's Interconnection Facilities.** Interconnecting Transmission Owner shall design, procure, construct, install, own and/or control the Interconnecting Transmission Owner's Interconnection Facilities described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades) at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Interconnecting Transmission Owner shall design, procure, construct, install, and own the Network Upgrades, and to the extent provided by Article 5.1, Stand Alone Network Upgrades, and Distribution Upgrades described in Appendix A (Interconnection Facilities, Network Upgrades and Distribution Upgrades). The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer.
- 11.4 Cost Allocation; Compensation; Rights; Affected Systems**
- 11.4.1 Cost Allocation.** Cost allocation of ETU Interconnection Related Upgrades shall be in accordance with Schedules 11 and 12 of Section II of the Tariff.
- 11.4.2 Compensation.** Any compensation due to the Interconnection Customer for increases in transfer capability to the PTF resulting from its ETU and associated system upgrades shall be determined in accordance with Sections II and III of the Tariff.
- 11.4.3 Rights.** Notwithstanding any other provision of this ETU IA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm

transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades.

**11.4.4 Special Provisions for Affected Systems.** The Interconnection Customer shall enter into separate related facilities agreements to address any upgrades to the Affected System(s) that are necessary for safe and reliable interconnection of the Interconnection Customer's Elective Transmission Upgrade.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of an Interconnecting Transmission Owner's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Interconnecting Transmission Owner a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Interconnecting Transmission Owner in accordance with the Tariff. In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Interconnecting Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Interconnecting Transmission Owner and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.** If System Operator or Interconnecting Transmission Owner requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.4.1 of this ETU IA, Interconnection Customer shall be compensated pursuant to the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.**

Interconnection Customer shall be compensated for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the New England Transmission System during an Emergency Condition in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

### **ARTICLE 12. INVOICE**

**12.1 General.** Each Party shall submit to the other Party(ies), on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party(ies) under this ETU IA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within six months after completion of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades, Interconnecting Transmission Owner shall provide an invoice of the final cost of the construction of the Interconnecting Transmission Owner's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Interconnecting Transmission Owner shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice. Interconnection Customer shall pay to Interconnecting Transmission Owner any amount by which the actual payment by Interconnection Customer for estimated costs falls short of the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.



- 12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by any Party will not constitute a waiver of any rights or claims the other Party(ies) may have under this ETU IA.
- 12.4 Disputes.** In the event of a billing dispute between Interconnecting Transmission Owner and Interconnection Customer, Interconnecting Transmission Owner shall continue to provide Interconnection Service under this ETU IA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Interconnecting Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Interconnecting Transmission Owner may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in the Commission's Regulations at 18 CFR § 35.19a(a)(2)(iii).

### **ARTICLE 13. EMERGENCIES**

- 13.1 Obligations.** Each Party shall comply with the Emergency Condition procedures of the System Operator in accordance with the applicable provisions of the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.
- 13.2 Notice.** Interconnecting Transmission Owner or System Operator as applicable shall notify Interconnection Customer and System Operator or Interconnecting Transmission Owner as applicable, promptly when it becomes aware of an Emergency Condition that affects the Interconnecting Transmission Owner's Interconnection Facilities or the New England Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Interconnecting Transmission

Owner and System Operator promptly when it becomes aware of an Emergency Condition that affects the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Interconnecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

**13.3 Immediate Action.** Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Interconnecting Transmission Owner and System Operator, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by the Interconnecting Transmission Owner or the System Operator or otherwise regarding the New England Transmission System.

**13.4 System Operator's and Interconnecting Transmission Owner's Authority.**

**13.4.1 General.** System Operator or Interconnecting Transmission Owner may take whatever actions or inactions with regard to the New England Transmission System or the Interconnecting Transmission Owner's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the New England Transmission System or Interconnecting Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities. System Operator and Interconnecting Transmission Owner may, on the basis of technical considerations and equipment capabilities, require the Elective Transmission Upgrade to mitigate an

Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Elective Transmission Upgrade; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Elective Transmission Upgrade and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of System Operator's and Interconnecting Transmission Owner's operating instructions concerning Elective Transmission Upgrade real power and reactive power output within the manufacturer's design limitations of the Elective Transmission Upgrade's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.4.2 Reduction and Disconnection.** System Operator and Interconnecting Transmission Owner may reduce Interconnection Service or disconnect the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. These rights are separate and distinct from any right of curtailment of the System Operator and Interconnecting Transmission Owner pursuant to the Tariff. When the System Operator and Interconnecting Transmission Owner can schedule the reduction or disconnection in advance, System Operator and Interconnecting Transmission Owner shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. System Operator and Interconnecting Transmission Owner shall coordinate with the Interconnection Customer in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the System Operator and Interconnecting Transmission Owner. Any reduction or disconnection shall continue only for so long as reasonably necessary in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents. The Parties shall cooperate with each other to restore the Elective Transmission Upgrade, the Interconnection Facilities, and the

New England Transmission System to their normal operating state as soon as practicable in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

- 13.5 Interconnection Customer Authority.** In accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents and the ETU IA and the ETU IP, the Interconnection Customer may take whatever actions or inactions with regard to the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Elective Transmission Upgrade or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New England Transmission System and the Interconnecting Transmission Owner's Interconnection Facilities. System Operator and Interconnecting Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.
- 13.6 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this ETU IA, a Party shall not be liable to another Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and in accordance with the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents.

#### **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

- 14.1 Regulatory Requirements.** Each Party's obligations under this ETU IA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this ETU IA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended. To the extent that a condition arises that could result in Interconnection Customer's inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company

Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, the Parties shall engage in good faith negotiations to address the condition so that such result will not occur and so that this ETU IA can be performed.

## **14.2 Governing Law.**

**14.2.1** The validity, interpretation and performance of this ETU IA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

**14.2.2** This ETU IA is subject to all Applicable Laws and Regulations.

**14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **ARTICLE 15. NOTICES**

**15.1 General.** Unless otherwise provided in this ETU IA, any notice, demand or request required or permitted to be given by a Party to another Party and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F (Addresses for Delivery of Notices and Billings).

A Party may change the notice information in this ETU IA by giving five (5) Business Days written notice prior to the effective date of the change.

**15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.

**15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another Party and not required by this Agreement to be given in writing may be so given by

telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

- 15.4 Operations and Maintenance Notice.** Each Party shall notify the other Party(ies) in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **ARTICLE 16. FORCE MAJEURE**

### **16.1 Force Majeure.**

**16.1.1** Economic hardship is not considered a Force Majeure event.

**16.1.2** A Party shall not be considered to be in Default with respect to any obligation hereunder (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party(ies) in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **ARTICLE 17. DEFAULT**

### **17.1 Default.**

**17.1.1 General.** No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this ETU IA or the result of an act or omission of the other Party(ies). Upon a Breach, the non-Breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party(ies) shall have the right to terminate this ETU IA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this ETU IA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this ETU IA.

## **ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

Notwithstanding any other provision of this Agreement, the liability, indemnification and insurance provisions of the Transmission Operating Agreement (“TOA”) or other applicable operating agreements shall apply to the relationship between the System Operator and the Interconnecting Transmission Owner and the liability, indemnification and insurance provisions of the Tariff apply to the relationship between the System Operator and the Interconnection Customer and between the Interconnecting Transmission Owner and the Interconnection Customer.

**18.1 Indemnity.** Each Party shall at all times indemnify, defend, and save the other Party(ies) harmless from any and all damages, losses, claims, including claims and actions relating to injury

to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's(ies') action or inactions of their obligations under this ETU IA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by an indemnified Party.

**18.1.1 Indemnified Person.** If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances,



the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in which event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the Liquidated Damages heretofore described, in no event shall a Party be liable under any provision of this ETU IA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** The Interconnecting Transmission Owner and the Interconnection Customer shall, at their own expense, maintain in force throughout the period of this ETU IA, and until released by the other Party(ies), the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

- 18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death, and property damage.
- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party(ies), its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this ETU IA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration

for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

**18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this ETU IA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

**18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this ETU IA.

**18.3.9** Within ten (10) days following execution of this ETU IA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this ETU IA, executed by each insurer or by an authorized representative of each insurer.

**18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program, provided that such Party's senior secured debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article, it shall notify the other Party(ies) that it meets the requirements to self-insure and that its self-insurance

program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

**18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this ETU IA.

## **ARTICLE 19. ASSIGNMENT**

**19.1 Assignment.** This ETU IA may be assigned by any Party only with the written consent of the other Parties; provided that the Parties may assign this ETU IA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this ETU IA; and provided further that the Interconnection Customer shall have the right to assign this ETU IA, without the consent of the Interconnecting Transmission Owner or System Operator, for collateral security purposes to aid in providing financing for the Elective Transmission Upgrade, provided that the Interconnection Customer will promptly notify the Interconnecting Transmission Owner and System Operator of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the Interconnecting Transmission Owner and System Operator of the date and particulars of any such exercise of assignment right(s), including providing the Interconnecting Transmission Owner with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this ETU IA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **ARTICLE 20. SEVERABILITY**

**20.1 Severability.** If any provision in this ETU IA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such

determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this ETU IA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Interconnecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to another prior to the execution of this ETU IA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by a Party, the other Party(ies) shall provide, in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**22.1.1 Term.** During the term of this ETU IA, and for a period of three (3) years after the expiration or termination of this ETU IA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this ETU IA; or (6) is required, in accordance with Article 22.1.7 of the ETU IA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this ETU IA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party(ies) that it no longer is confidential.

**22.1.3 Release of Confidential Information.** A Party shall not release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or are considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this ETU IA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party(ies). The disclosure by each Party to the other

Party(ies) of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.** By providing Confidential Information, a Party does not make any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, a Party does not obligate itself to provide any particular information or Confidential Information to the other Party(ies) nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party(ies) under this ETU IA or its regulatory requirements.

**22.1.7 Order of Disclosure.** If a court or a Governmental Authority or entity with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party(ies) with prompt notice of such request(s) or requirement(s) so that the other Party(ies) may seek an appropriate protective order or waive compliance with the terms of this ETU IA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.** Upon termination of this ETU IA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party(ies), use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party(ies)) or return to the other

Party(ies), without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party(ies).

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's(ies') Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party(ies) shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Parties shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to the Commission, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR. section 1b.20, if the Commission or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this ETU IA, the Party shall provide the requested information to the Commission or its staff, within the time provided for in the request for information. In providing the information to the Commission or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by the Commission and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party(ies) to this ETU IA prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Party(ies) to the ETU IA when it is notified by the Commission or its staff that a request to release Confidential Information has been received by the Commission, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests



from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

**22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this ETU IA (“Confidential Information”) shall not be disclosed by the other Party(ies) to any person not employed or retained by the other Party(ies), except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party(ies), such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this ETU IA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party(ies) in writing of the information it claims is confidential. Prior to any disclosures of the other Parties’ Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party(ies) in writing and agrees to assert confidentiality and cooperate with the other Party(ies) in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **ARTICLE 23. ENVIRONMENTAL RELEASES**

**23.1** Each Party shall notify the other Party(ies), first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Elective Transmission Upgrade or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party(ies). The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party(ies) copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **ARTICLE 24. INFORMATION REQUIREMENTS**

**24.1 Information Acquisition.** Subject to any applicable confidentiality restrictions, including, but not limited to, codes of conduct, each Party shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

**24.2 Information Submission by System Operator and Interconnecting Transmission Owner.** The initial information submission by System Operator and Interconnecting Transmission Owner shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation Date and shall include information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Parties. On a monthly basis Interconnecting Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

**24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation Date. Interconnection Customer shall submit a completed copy of the Elective Transmission Upgrade data requirements contained in Appendix 1 to the ETU IP. It shall also include any additional information provided to Interconnecting Transmission Owner and System Operator for the Interconnection Feasibility Study, Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Elective Transmission Upgrade design or expected performance data. Information submitted for stability models shall be compatible with Interconnecting Transmission Owner and System Operator standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is different from what was originally provided to Interconnecting Transmission Owner pursuant to the Interconnection Study Agreement between Interconnecting Transmission Owner and Interconnection Customer, then the System Operator will review it and conduct appropriate studies, as needed, at the Interconnection Customer's cost, to determine the impact on the New England Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

- 24.4 Information Supplementation.** Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all “as-built” Elective Transmission Upgrade information and “as-tested” performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Elective Transmission Upgrade as required by Good Utility Practice to verify proper operation of the Elective Transmission Upgrade's voltage regulation capability, and of other automatic controls for which the Elective Transmission Upgrade is reliant upon for acceptable performance, as described and requested by the System Operator. Documentation of the test results will be provided to the System Operator.

The Interconnection Customer shall provide the Interconnecting Transmission Owner and System Operator with any information changes due to proposed equipment replacement, repair, or adjustment. Interconnecting Transmission Owner shall provide the Interconnection Customer and System Operator with any information changes due to proposed equipment replacement, repair or adjustment in the directly connected substation or any adjacent Interconnecting Transmission Owner-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information in accordance with Article 5.19 of this Agreement.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

- 25.1 Information Access.** Each Party (the “disclosing Party”) shall make available to the other Parties information that is in the possession of the disclosing Party and is necessary in order for the other Party(ies) to: (i) verify the costs incurred by the disclosing Party for which the other

Party(ies) are responsible under this ETU IA; and (ii) carry out its obligations and responsibilities under this ETU IA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this ETU IA.

**25.2 Reporting of Non-Force Majeure Events.** Each Party (the “notifying Party”) shall notify the other Party(ies) when the notifying Party becomes aware of its inability to comply with the provisions of this ETU IA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory Breach of this ETU IA.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this ETU IA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party(ies), to audit at its own expense the other Party’s(ies’) accounts and records pertaining to a Party’s performance or a Party’s satisfaction of obligations under this ETU IA. Such audit rights shall include audits of the other Party’s(ies’) costs, calculation of invoiced amounts, the efforts to allocate responsibility for the provision of reactive support to the New England Transmission System, the efforts to allocate responsibility for interruption or reduction of generation on the New England Transmission System, and each Party’s actions in an Emergency Condition. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party’s performance and satisfaction of obligations under this ETU IA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

**25.4 Audit Rights Periods.**

**25.4.1 Audit Rights Period for Construction-Related Accounts and Records.** Accounts and records related to the design, engineering, procurement, and construction of Interconnecting Transmission Owner’s Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four (24) months following

Interconnecting Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of all obligations under this ETU IA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four (24) months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four (24) months after the event for which the audit is sought.

**25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party(ies) together with those records from the audit which support such determination.

## **ARTICLE 26. SUBCONTRACTORS**

**26.1 General.** Nothing in this ETU IA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this ETU IA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this ETU IA in providing such services and each Party shall remain primarily liable to the other Party(ies) for the performance of such subcontractor.

**26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this ETU IA. The hiring Party shall be fully responsible to the other Party(ies) for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Interconnecting Transmission Owner be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this ETU IA. Any applicable obligation imposed by this ETU IA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **ARTICLE 27. DISPUTES**

- 27.1 Submission.** In the event a Party has a dispute, or asserts a claim, that arises out of or in connection with this ETU IA or its performance, such Party (the "disputing Party") shall provide the other Party(ies) with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party(ies). In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's(ies') receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this ETU IA.
- 27.2 External Arbitration Procedures.** Any arbitration initiated under this ETU IA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator so chosen by the System Operator shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable Commission regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail

- 27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this ETU IA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.
- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel; or (2) a pro rata share of the cost of a single arbitrator chosen by the Parties.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

- 28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Elective Transmission Upgrade, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this ETU IA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this ETU IA.
- 28.1.2 Authority.** Such Party has the right, power and authority to enter into this ETU IA, to become a Party hereto and to perform its obligations hereunder. This ETU IA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance

with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this ETU IA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this ETU IA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this ETU IA, and it will provide to any Governmental Authority notice of any actions under this ETU IA that are required by Applicable Laws and Regulations.

## **ARTICLE 29. [OMITTED]**

## **ARTICLE 30. MISCELLANEOUS**

**30.1 Binding Effect.** This ETU IA and the rights and obligations hereof shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**30.2 Conflicts.** In the event of a conflict between the body of this ETU IA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this ETU IA shall prevail and be deemed the final intent of the Parties.

**30.3 Rules of Interpretation.** This ETU IA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this ETU IA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this ETU IA), document, instrument or tariff means such



agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this ETU IA or such Appendix of this ETU IA, or such Section of the ETU IP or such Appendix of the ETU IP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this ETU IA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**30.4 Entire Agreement.** Except for the ISO New England Operating Documents, Applicable Reliability Standards, or successor documents, this ETU IA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this ETU IA. Except for the ISO New England Operating Documents, Applicable Reliability Standards, any applicable tariffs, related facilities agreements, or successor documents, there are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this ETU IA.

**30.5 No Third Party Beneficiaries.** This ETU IA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

**30.6 Waiver.** The failure of a Party to this ETU IA to insist, on any occasion, upon strict performance of any provision of this ETU IA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by a Party of its rights with respect to this ETU IA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this ETU IA. Termination or Default of this ETU IA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Interconnecting Transmission Owner. Any waiver of this ETU IA shall, if requested, be provided in writing.

**30.7 Headings.** The descriptive headings of the various Articles of this ETU IA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this ETU IA.

**30.8 Multiple Counterparts.** This ETU IA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.** The Parties may by mutual agreement amend this ETU IA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this ETU IA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this ETU IA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.** Consistent with Section 11.3 of the ETU IP, Interconnecting Transmission Owner and System Operator shall have the right to make unilateral filings with the Commission to modify this ETU IA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this ETU IA pursuant to section 206 or any other applicable provision of the Federal Power Act and the Commission's rules and regulations thereunder; provided that each Party shall

have the right to protest any such filing by the other Parties and to participate fully in any proceeding before the Commission in which such modifications may be considered. In the event of disagreement on terms and conditions of the ETU IA related to the costs of upgrades to such Interconnecting Transmission Owner's transmission facilities, the anticipated schedule for the construction of such upgrades, any financial obligations of Interconnecting Transmission Owner, and any provisions related to physical impacts of the interconnection on Interconnecting Transmission Owner's transmission facilities or other assets, then the standard applicable under Section 205 of the Federal Power Act shall apply only to Interconnecting Transmission Owner's position on such terms and conditions. Nothing in this ETU IA shall limit the rights of the Parties or of the Commission under sections 205 or 206 of the Federal Power Act and the Commission's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.** This ETU IA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

**IN WITNESS WHEREOF**, the Parties have executed this ETU IA in triplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**ISO New England Inc. (System Operator)**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

***[Insert Name of (Interconnecting Transmission Owner(s))***

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

***[Insert name of] (Interconnection Customer)***

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **APPENDICES TO ETU IA**

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings

## APPENDIX A TO ETU IA

### Interconnection Facilities, Network Upgrades and Distribution Upgrades

#### 1. Interconnection Facilities:

##### a. Point(s) of Interconnection

List and identify each Point of Interconnection (*e.g.*, first, second, etc.)

The Point of Interconnection for the first terminal location shall be at the point where *[insert description of the first location internal to New England Control Area]*. See Appendix A-1, which drawing is attached hereto and made part hereof.

The Point of Interconnection for the second terminal location shall be at the point where *[insert description of the second location internal to New England Control Area or the location external to New England Control Area]*. See Appendix A-2, which drawing is attached hereto and made part hereof.

##### b. Point(s) of Change of Ownership

List and identify the Point of Change of Ownership for each Point of Interconnection (*e.g.*, first, second, etc.)

The Point of Change of Ownership for the first terminal location shall be at the point where *[insert description of the first location internal to New England Control Area]*. See Appendix A-1, which drawing is attached hereto and made part hereof.

The Point of Change of Ownership for the second terminal location shall be at the point where *[insert description of the second location internal to New England Control Area or the location external to New England Control Area]*. See Appendix A-2, which drawing is attached hereto and made part hereof.

**c. Metering**

List and identify the metering point for each Point of Interconnection (*e.g.*, first, second, etc.)

The metering point for the first terminal location shall be located at where [*insert description of the first location internal to New England Control Area*]. See Appendix A-1, which drawing is attached hereto and made part hereof.

The metering point for the second terminal location shall be located at where [*insert description of the second location internal to New England Control Area or the location external to New England Control Area*]. See Appendix A-2, which drawing is attached hereto and made part hereof.

**d. Interconnection Customer's Interconnection Facilities (including metering equipment).**

List and identify the Interconnection Customer's Interconnection Facilities for each Point of Interconnection (*e.g.*, first, second, etc.)

The Interconnection Customer's Interconnection Facilities for the first terminal location shall include [*insert Interconnection Customer's Interconnection Facilities*]. See Appendix A-1.

The Interconnection Customer's Interconnection Facilities for the second terminal location shall include [*insert Interconnection Customer's Interconnection Facilities for the second terminal location*]. See Appendix A-2.

**e. Interconnecting Transmission Owner's Interconnection Facilities (including metering equipment).**

List and identify the Interconnecting Transmission Owner's Interconnection Facilities for each Point of Interconnection (e.g., first, second, etc.)

The Interconnecting Transmission Owner's Interconnection Facilities for the first terminal location shall include *[insert Interconnecting Transmission Owner's Interconnection Facilities, including any Cluster Enabling Transmission Upgrades, for the first terminal location]*. See Appendix –1.

The Interconnecting Transmission Owner's Interconnection Facilities for the second terminal location shall include *[insert Interconnecting Transmission Owner's Interconnection Facilities for the second terminal location]*. See Appendix –2.

**2. Network Upgrades:**

- a. **Stand Alone Network Upgrades.** *[insert Stand Alone Network Upgrades associated with the first terminal location]*
- b. **Other Network Upgrades.** *[insert Other Network Upgrades, including any Cluster Enabling Transmission Upgrades, associated with the first terminal location].*
- c. **Stand Alone Network Upgrades.** *[insert Stand Alone Network Upgrades associated with the second terminal position if it is internal to the New England Control Area, list all Network Upgrades for terminal locations external to New England Control Area as Affected System Upgrades].*
- d. **Other Network Upgrades.** *[insert Other Network Upgrades associated with the second terminal position if it is internal to New England Control Area, list all Network Upgrades for terminal locations external to New England Control Area as Affected System Upgrades].*

**3. Distribution Upgrades.**

- a. *[insert Distribution Upgrades associated with the first terminal position]*
- b. *[insert Distribution Upgrades associated with the second terminal position if it is internal to New England Control Area, list all Distribution Upgrades for terminal locations external to New England Control Area as Affected System Upgrades]*



**4. Affected System Upgrades.**

- a. *[insert Affected System Upgrades associated with the first terminal position]*
- b. *[insert Affected System Upgrades associated with the second terminal position]*

**5. Contingency Upgrades List:**

**a. Long Lead Facility-Related Upgrades.**

The Interconnection Customer's Elective Transmission Upgrade is associated with a Long Lead Facility, in accordance with Section 3.2.3 of the ETU IP. Pursuant to Section 4.1.1 of the ETU IP, the Interconnection Customer shall be responsible for the following upgrades in the event that the Long Lead Facility achieves Commercial Operation and its counterparty obtains a Capacity Supply Obligation in accordance with Section III.13.1 of the Tariff:

*[insert]*

If the Interconnection Customer fails to cause these upgrades to be in-service prior to the commencement of the Long Lead Facility's associated counterparty's Capacity Commitment Period, the Interconnection Customer shall be deemed to be in Breach of this ETU IA in accordance with Article 17.1, and the System Operator will initiate all necessary steps to terminate this ETU IA, in accordance with Article 2.3.

- b. Other Contingency Upgrades.** *[e.g., list of upgrades associated with higher queued Interconnection Requests and any other contingency upgrades that the Parties may deem necessary for the interconnection of the Elective Transmission Upgrade]*
- c. Post-Forward Capacity Auction Re-study Upgrade Obligations.** *[insert any change in upgrade obligations that result from re-study conducted post receiving a Capacity Supply Obligation through a Forward Capacity Auction]*

## APPENDIX B TO ETU IA

### Milestones

- 1. Selected Option Pursuant to Article 5.1:** Interconnection Customer selects the *[insert]*.  
Options as described in Articles 5.1.*[insert]*, 5.1.*[insert]*, and 5.1.*[insert]* ] shall not apply to this ETU IA.
- 2. Milestones and Other Requirements for all Elective Transmission Upgrades:** The description and entries listed in the following table establish the required Milestones in accordance with the provisions of the ETU IP and this ETU IA. The referenced section of the ETU IP or article of the ETU IA should be reviewed by each Party to understand the requirements of each milestone.

Item No.	Milestone Description	Responsible Party	Date	ETU IP/ETU IA Reference
1	Provide evidence of continued Site Control to System Operator, or \$250,000 non-refundable deposit to the Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final ETU IA receipt	§ 11.3.1.1 of ETU IP
2	Provide evidence of one or more milestones specified in § 11.3 of ETU IP to the System Operator and to the Interconnecting Transmission Owner	Interconnection Customer	Within 15 BD of final ETU IA receipt	§ 11.3.1.2 of ETU IP
3	Commit to a schedule for payment of upgrades to the	Interconnection Customer	Within 15 BD of final ETU IA receipt	§ 11.3.1.2 of ETU IP

	Interconnecting Transmission Owner			
4	Provide either (1) evidence of Major Permits to the System Operator and the Interconnecting Transmission Owner or (2) a refundable deposit to the Interconnecting Transmission Owner	Interconnection Customer	If (1) Within 15 BD of final ETU IA receipt or if (2) At time of ETU IA execution	§ 11.3.1.2 of ETU IP
5	Provide certificate of insurance to each Party	Interconnection Customer and Interconnecting Transmission Owner	Within 10 Calendar Days of execution of ETU IA	§ 18.3.9 of ETU IA
6A	Provide siting process approval schedule for the Elective Transmission Upgrade to System Operator and Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
6B	Provide siting process approval schedule for Interconnection Customer's Interconnection Facilities at the first terminal location to System Operator and Interconnecting	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP

	Transmission Owner			
6C	Provide siting process approval schedule for Interconnection Customer's Interconnection Facilities at the second terminal location to System Operator and Interconnecting Transmission Owner	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
7A	Receive Governmental Authority approvals for a the Elective Transmission Upgrade facilities requiring regulatory approval	Interconnection Customer	If needed, as may be agreed to by the Parties	
7B	Receive Governmental Authority approvals for any facilities associated with the first terminal location requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of ETU IA
7C	Receive Governmental Authority approvals for any facilities associated with the second terminal location requiring regulatory approval	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.1 of ETU IA
8A	Obtain necessary real property rights and	Interconnection Customer and/or Interconnecting	If needed, as may be agreed	§ 5.6.2 of ETU IA

	rights-of-way associated with the first terminal location for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	Transmission Owner	to by the Parties	
8B	Obtain necessary real property rights and rights-of-way associated with the second terminal location for the construction of a discrete aspect of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades	Interconnection Customer and/or Interconnecting Transmission Owner	If needed, as may be agreed to by the Parties	§ 5.6.2 of ETU IA
9A	Provide to Interconnecting Transmission Owner associated with the first terminal position written authorization to proceed with design, equipment procurement and construction	Interconnection Customer	As may be agreed to by the Parties	§ 5.6.3 of ETU IA

9B	Provide to owner associated with the second terminal position written authorization to proceed with design, equipment procurement and construction	Interconnection Customer	As may be agreed to by the Parties	§ 5.6.3 of ETU IA
10	Provide quarterly written progress reports	Interconnection Customer and Interconnecting Transmission Owner	15 Calendar Days after the end of each quarter beginning the quarter that includes earlier of the dates for Milestones 9A or 9B and ending when the entire Elective Transmission Upgrade and all required Interconnection Facilities and Network Upgrades are in place	§ 5.7 of ETU IA
11A	Provision of Security associated with the first terminal position to the Interconnecting	Interconnection Customer	At least 30 Calendar Days prior to design, procurement	§§ 5.5.3 and 5.6.4 of ETU IA

	Transmission Owner pursuant to Section 11.5 of ETU IA		and construction	
11B	Provision of Security associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner pursuant to Section 11.5 of ETU IA	Interconnection Customer	At least 30 Calendar Days prior to design, procurement and construction	§§ 5.5.3 and 5.6.4 of ETU IA
12A	Provision of Security Associated with Tax Liability associated with the first terminal position to Interconnecting Transmission Owner pursuant to Section 5.17.3 of ETU IA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of ETU IA
12B	Provision of Security Associated with Tax Liability associated with the second terminal position, if it is internal to ISO-NE, to Interconnecting Transmission Owner pursuant to Section 5.17.3 of ETU IA	Interconnection Customer	As may be agreed to by the Parties	§ 5.17.3 of ETU IA
13A	Commit to the ordering	Interconnection Customer	As may be	§ 7.5 of

	of long lead time material for Interconnection Facilities and Network Upgrades associated with the first terminal position		agreed to by the Parties	ETU IP
13B	Commit to the ordering of long lead time material for Interconnection Facilities and Network Upgrades associated with the second terminal position, if it is internal to ISO-NE	Interconnection Customer	As may be agreed to by the Parties	§ 7.5 of ETU IP
14A	Provide initial design, engineering and specification for the Elective Transmission Upgrade	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
14B	Provide initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to the Interconnecting Transmission Owner	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP



C	Provide initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner	Interconnection Customer	180 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15A	Provide comments on initial design, engineering and specification for the Elective Transmission Upgrade	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15B	Provide comments on initial design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
15C	Provide comments on initial design, engineering and specification for	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP

	Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE			
16A	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to Interconnecting Transmission Owner(s)	Interconnection Customer	90 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
16B	Provide final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position to Interconnecting Transmission Owner(s)	Interconnection Customer	90 Calendar Days prior to Trial Operation Date	§ 5.10.1 of ETU IA § 7.5 of ETU IP
16C	Provide final design, engineering and specification for	Interconnection Customer	90 Calendar Days prior to Trial Operation	§ 5.10.1 of ETU IA § 7.5 of

	Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner		Date	ETU IP
17A	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
17B	Provide comments on final design, engineering and specification for Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of ETU IP
17C	Provide comments on final design, engineering and	Interconnecting Transmission Owner	Within 30 Calendar Days of receipt	§ 5.10.1 of ETU IA § 7.5 of

	specification for Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE			ETU IP
18A	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities associated with the first terminal position	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of ETU IA
18B	Deliver to Transmission Owner "as built" drawings, information and documents regarding Interconnection Customer's Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE	Interconnection Customer	Within 120 Calendar Days of Commercial Operation date	§ 5.10.3 of ETU IA
19A	Provide protective relay	Interconnection Customer	At least 90	§§ 5.10.1 of

	settings associated with the first terminal position to the Interconnecting Transmission Owner for coordination and verification		Calendar Days prior to Trial Operation Date	ETU IA
19B	Provide protective relay settings associated with the second terminal position, if it is internal to ISO-NE, to the Interconnecting Transmission Owner for coordination and verification	Interconnection Customer	At least 90 Calendar Days prior to Trial Operation Date	§§ 5.10.1 of ETU IA
20A	Commencement of construction of Interconnection Facilities associated with the first terminal position	Interconnecting Transmission Owner(s)	As may be agreed to by the Parties	§ 5.6 of ETU IA
20B	Commencement of construction of Interconnection Facilities associated with the second terminal position, if it is internal to ISO-NE	Interconnecting Transmission Owner(s)	As may be agreed to by the Parties	§ 5.6 of ETU IA
21	Submit updated data “as purchased”	Interconnection Customer	No later than 180 Calendar Days prior to	§ 24.3 of ETU IA

			Trial Operation Date	
22A	In Service Date of first terminal position	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of ETU IP, § 5.1 of ETU IA
22B	In Service Date of second terminal position	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1 and 4.4.5 of ETU IP, § 5.1 of ETU IA
23	Trial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of ETU IP
24A	Submit supplemental and/or updated data – “as built/as-tested” associated with first terminal position	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of ETU IA
24B	Submit supplemental and/or updated data – “as built/as-tested” associated with second terminal position	Interconnection Customer	Prior to Commercial Operation Date	§ 24.4 of ETU IA
25	Commercial Operation Date	Interconnection Customer	Same as Interconnection Request unless subsequently modified	§ 3.3.1, 4.4.4, 4.4.5, and 7.5 of ETU IP

26A	Deliver to Interconnection Customer “as built” drawings, information and documents regarding Interconnecting Transmission Owner’s Interconnection Facilities associated with first terminal position	Interconnecting Transmission Owner	If requested, within 120 Calendar Days after Commercial Operation Date	§ 5.11 of ETU IA
26B	Deliver to Interconnection Customer “as built” drawings, information and documents regarding Interconnecting Transmission Owner’s Interconnection Facilities associated with the second terminal position	Interconnecting Transmission Owner	If requested, within 120 Calendar Days after Commercial Operation Date	§ 5.11 of ETU IA
27A	Provide Interconnection Customer final cost invoices associated with first terminal position	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner Interconnection	§ 12.2 of ETU IA

			Facilities and Network Upgrades	
27B	Provide Interconnection Customer final cost invoices associated with the second terminal position, if it is internal to ISO-NE	Interconnecting Transmission Owner	Within 6 months of completion of construction of Interconnecting Transmission Owner Interconnection Facilities and Network Upgrades	§ 12.2 of ETU IA

### 3. Milestones Applicable Solely for CNI Interconnection Service and Long Lead Facility

**Treatment.** In addition to the Milestones above, the following Milestones apply to Interconnection Customers requesting CNI Interconnection Service and/or Long Lead Facility Treatment:

Item No.	Milestone Description	Responsible Party	Date	ETU IP/ETU IA Reference
1	If Long Lead Facility, all dates by which Critical Path Schedule upgrades will be submitted to System Operator (end date for New Capacity Show of Interest Submission)	Interconnection Customer		§ 3.2.3 of ETU IP
2	If Long Lead Facility, dates by which Long Lead Facility Deposits will be provided to System Operator (each deadline for which New Generating	Interconnection Customer		§ 3.2.3 of ETU IP



	Capacity Resource would be required to provide financial assurance under § III.13.1.9 of the Tariff)			
3	If Long Lead Facility, Capacity Commitment Period (not to exceed the Commercial Operation Date)	Interconnection Customer		§ 1 and 3.2 of ETU IP
4	Counterparty to submit necessary requests for participation in the Forward Capacity Auction associated with the Elective Transmission Upgrade's requested Commercial Operation Date, in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of ETU IP
5	Participate in a CNR Group Study	Interconnection Customer		§ 3.2.1.3 of ETU IP
6	Counterparty to qualify and receive a Capacity Supply Obligation in accordance with Section III.13 of the Tariff	Interconnection Customer		§ 3.2.1.3 of ETU IP
7	Complete a re-study of the applicable Interconnection Study to determine the cost responsibility for facilities and upgrades necessary to accommodate the Interconnection Request based on the results of the Forward Capacity Auction or Reconfiguration Auction or bilateral transaction through which the Interconnection Customer's counterparty received a Capacity Supply Obligation	System Operator		§ 3.2.1.3 of ETU IP

## **APPENDIX C TO ETU IA**

### **Interconnection Details**

#### **1. Description of Interconnection:**

This Interconnection Agreement is for an *(insert either Internal ETU or External ETU description from Article 1 of Appendix I)*

The ETU consists of *(insert description from Article 2 of Appendix I)*:

The External Elective Transmission Upgrade that is controllable Merchant Transmission Facility or Other Transmission Facility shall receive *(enter N/A for other ETUs)*:

Network Import Interconnection Service solely for the NI Capability of *[insert amount]* MWs.

Capacity Network Import Interconnection Service for: (i) the NI Capability of *[insert amount]* MWs; and (ii) the CNI Capability of *[insert amount]* MWs.

#### **2. Detailed Description of the Elective Transmission Upgrade:**

*[Insert any other description relating to the Elective Transmission Upgrade, including updates to all the technical data included on Attachment A to Appendix I.]*

#### **3. Other Description of Interconnection Plan and Facilities associated with the Elective Transmission Upgrade:**

#### **4. Other Description of Interconnection Plan and Facilities associated with the first interconnection location:**

**5. Other Description of Interconnection Plan and Facilities associated with the second interconnection location:**

## **APPENDIX D TO ETU IA**

### **Security Arrangements Details**

Infrastructure security of the New England Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New England Transmission System reliability and operational security. The Commission will expect System Operator, Interconnecting Transmission Owners, market participants, and Interconnection Customers interconnected to the New England Transmission System to comply with the recommendations offered by the Critical Infrastructure Protection Committee and, eventually, best practice recommendations from NERC. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

**APPENDIX E TO ETU IA**  
**Commercial Operation Date**

This Appendix E is a part of the ETU IA between System Operator Interconnecting, Transmission Owner and Interconnection Customer.

[Date]

[Interconnecting Transmission Owner; Address]

[to be supplied]

Transmission Strategy & Services

ISO New England Inc.

One Sullivan Road

Holyoke, MA 01040-2841

Re: \_\_\_\_\_ Elective Transmission Upgrade

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of [Elective Transmission Upgrade]. This letter confirms that [Interconnection Customer] commenced commercial operation of [Elective Transmission Upgrade], effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **APPENDIX F TO ETU IA**

### **Addresses for Delivery of Notices and Billings Notices:**

System Operator:

Transmission Strategy & Services  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:

*[To be supplied.]*

Interconnection Customer:

*[To be supplied.]*

### **Billings and Payments:**

System Operator:

Transmission Strategy & Services  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

With copy to:  
Billing Department  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Interconnecting Transmission Owner:  
*[To be supplied.]*

Interconnection Customer:  
*[To be supplied.]*

**Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

System Operator:

Facsimile: (413) 540-4203  
E-mail: [geninterconn@iso-ne.com](mailto:geninterconn@iso-ne.com)

With copy to:  
Facsimile: (413) 535-4024  
E-mail: [billingdept@iso-ne.com](mailto:billingdept@iso-ne.com)

Interconnecting Transmission Owner:  
*[To be supplied.]*

Interconnection Customer:  
*[To be supplied.]*

DUNS Numbers:

Interconnection Customer: [To be supplied]

Interconnecting Transmission Owner: [To be supplied]





**ATTACHMENT K**  
**REGIONAL SYSTEM PLANNING PROCESS**

**TABLE OF CONTENTS**

1. Overview
  - 1.1 Enrollment
  - 1.2 A List of Entities Enrolled in the Planning Region
2. Planning Advisory Committee
  - 2.1 Establishment
  - 2.2 Role of Planning Advisory Committee
  - 2.3 Membership
  - 2.4 Procedures
    - (a) Notice of Meetings
    - (b) Frequency of Meetings
    - (c) Availability of Meeting Materials
    - (d) Access to Planning-Related Materials that Contain CEII
  - 2.5 Local System Planning Process
3. RSP: Principles, Scope, and Contents
  - 3.1 Description of RSP
  - 3.2 Baseline of RSP
  - 3.3 RSP Planning Horizon and Parameters
  - 3.4 Other RSP Principles
  - 3.5 Market Responses in RSP
  - 3.6 The RSP Project List
    - (a) Elements of the Project List
    - (b) Periodic Updating of RSP Project List
    - (c) Project List Updating Procedures and Criteria
    - (d) Posting of LSP Project Status

4. Procedures for the Conduct of Needs Assessments, Treatment of Market Responses and Evaluation of Proposed Solutions

4.1 Non-Applicability of Section 4.1 through 4.3: Needs Assessments

- (a) Triggers for Needs Assessments
- (b) Requests by Stakeholders for Needs Assessments for Economic Considerations
- (c) Conduct of a Needs Assessment for Rejected De-List Bids
- (d) Notice of Initiation of Needs Assessments
- (e) Preparation of Needs Assessments
- (f) Treatment of Market Solutions in Needs Assessment
- (g) Needs Assessment Support
- (h) Input from the Planning Advisory Committee
- (i) Publication of Needs Assessment and Response Thereto
- (j) Requirements for Use of Solution Studies Rather than Competitive Process for Projects Based on Year of Need

4.2 Evaluation of Regulated Transmission Solutions in Solutions Studies, Where Competitive Solution Process of Section 4.3 Is Not Applicable

- (a) Evaluation and Development of Regulated Transmission Solutions in Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades
- (b) Notice of Initiation of a Solutions Study
- (c) Classification of Regulated Transmission Solutions as Market Efficiency Transmission Upgrades or Reliability Transmission Upgrades
- (d) Identification of the Preferred Solution and Inclusion of Results of Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades in the RSP

4.3 Competitive Solution Process for Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades

- (a) Preliminary Solicitation of Alternatives
- (b) Public Notice Initiating Competitive Solution Process
- (b) Use and Control of Right of Way
- (c) Information Required for Phase One Proposals; Study Deposit; Timing
- (d) LSP Coordination

- (e) Preliminary Review by the ISO
  - (f) Proposal Deficiencies: Further Information
  - (g) Listing of Qualifying Phase One Proposals
  - (h) Information Required for Phase Two Solutions; Identification and Reporting of Preliminary Preferred Phase Two Solution
  - (i) Reimbursement of Phase Two Solution Costs; Collection and Refund of ISO Study Costs
  - (j) Inclusion of Preferred Phase Two Solution in RSP and/or RSP Project List
  - (k) Milestone Schedules
- 4A. Public Policy Transmission Studies; Public Policy Transmission Upgrades
  - 4A.1 NESCOE Requests for Public Policy Transmission Studies
    - 4A.1.1 Study of Federal Public Policy Requirements Not Identified by NESCOE; Local Public Policy Requirements
  - 4A.2 Preparation for Conduct of Public Policy Transmission Studies; Stakeholder Input
  - 4A.3 Public Policy Transmission Studies; Stakeholder Input
    - (a) Conduct of Public Policy Transmission Studies; Stakeholder Input
    - (b) Treatment of Market Solutions in Public Policy Transmission Studies
  - 4A.4 Response to Public Policy Transmission Studies
  - 4A.5 Stage One Proposals
    - (a) Information Required for Stage One Proposals
    - (b) LSP Coordination
    - (c) Preliminary Review by ISO
    - (d) Proposal Deficiencies; Further Information
    - (e) List of Qualifying Stage One Proposals; NESCOE Response
  - 4A.6 Reimbursement of Stage One Proposal and Stage Two Solution Costs; Collection and Refund of ISO Study Costs
  - 4A.7 Information Required for Stage Two Solutions; Identification and Reporting of Preliminary Preferred Stage Two Solution
  - 4A.8 Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List; Milestone Schedules; Removal From RSP Project List

- (a) Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List
  - (b) Milestone Schedules
  - (c) Removal from RSP Project List
- 4A.9 Local Public Policy Transmission Upgrades
- 4B. Qualified Transmission Project Sponsors
  - 4B.1 Periodic Evaluation of Applications
  - 4B.2 Information To Be Submitted
  - 4B.3 Review of Qualifications
  - 4B.4 List of Qualified Transmission Project Sponsors; Annual Certification
- 5. Supply of Information and Data Required for Regional System Planning
- 6. Regional, Local and Interregional Coordination
  - 6.1 Regional Coordination
  - 6.2 Local Coordination
  - 6.3 Interregional Coordination
- 7. Procedures for Development and Approval of the RSP
  - 7.1 Initiation of RSP
  - 7.2 Draft RSP; Public Meeting
  - 7.3 Action by the ISO Board of Directors on RSP; Request for Alternative Proposals
    - (a) Action by ISO Board of Directors on RSP
    - (b) Requests for Alternative Proposals
- 8. Obligations of PTOs to Build; PTOs' Obligations, Conditions and Rights
- 9. Merchant Transmission Facilities
  - 9.1 General
  - 9.2 Operation and Integration
  - 9.3 Control and Coordination

10. Cost Responsibility for Transmission Upgrades
11. Allocation of ARRs
12. Dispute Resolution Procedures
  - 12.1 Objective
  - 12.2 Confidential Information and CEII Protections
  - 12.3. Eligible Parties
  - 12.4 Scope
    - (a) Reviewable Determinations
    - (b) Material Adverse Impact
  - 12.5 Notice and Comment
  - 12.6 Dispute Resolution Procedures
    - (a) Resolution Through the Planning Advisory Committee
    - (b) Resolution Through Informal Negotiations
    - (c) Resolution Through Alternative Dispute Resolution
  - 12.7 Notice of Dispute Resolution Process Results
13. Rights Under The Federal Power Act
14. Annual Assessment of Transmission Transfer Capability
15. Procedures for the Conduct of Cluster Enabling Transmission Upgrades Regional Planning Study

APPENDIX 1 – ATTACHMENT K – LOCAL: LOCAL SYSTEM PLANNING PROCESS

APPENDIX 2 – LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION

APPENDIX 3 – LIST OF QUALIFIED TRANSMISSION PROJECT SPONSORS

## **1. Overview**

This Attachment describes the regional system planning process conducted by the ISO, as well as the coordination with transmission-owning entities in, or other entities interconnected to, the New England Transmission System and neighboring systems to ensure the reliability of the New England Transmission System and compliance with national and regional planning standards, criteria and procedures, while accounting for market performance, economic, environmental, and other considerations, as may be agreed upon from time to time. The New England Transmission System is comprised of PTF, Non-PTF, OTF and MTF within the New England Control Area that is under the ISO's operational authority or control pursuant to the ISO Tariff and/or various transmission operating agreements. This Attachment describes the regional system planning process for the PTF conducted by the ISO, and local system planning process conducted by the PTOs, pursuant to their responsibilities defined in the Tariff, the various transmission operating agreements and this Attachment. Additional details regarding the regional system planning process are also provided in the ISO New England Planning Procedures and ISO New England Operating Procedures, which are available on the ISO's website.

The ISO shall conduct the regional system planning process for the PTF in coordination with the transmission-owning entities in, or other entities interconnected to, the New England Transmission System and neighboring systems, consistent with the rights and obligations defined in the Tariff, applicable transmission operating agreements and this Attachment. As described in this Attachment's Section 6 and Appendix 1, entitled "Attachment K -Local System Planning Process", the PTOs are responsible for the Local System Planning ("LSP") process for the Non-PTF in the New England Transmission System. As also described in Section 6, and pursuant to the Tariff and/or transmission operating agreements, the OTOs and MTOs are required to participate in the ISO's regional system planning process for reliability purposes and to perform and/or support studies of the impact of regional system planning projects on their respective OTF and MTF.

The regional system planning process described in this Attachment provides for the ISO to undertake assessments of the needs of the PTF system on a systemwide or specific area basis. These assessments shall be referred to as Needs Assessments, as described in Section 4.1 of this Attachment. The ISO shall incorporate market responses that have met the criteria specified in Section 4.1(f) of this Attachment into the Needs Assessments, Public Policy Transmission Studies or the Regional System Plan ("RSP"), described below. Where market responses incorporated into the Needs Assessments or Public Policy

Transmission Studies do not eliminate or address the needs identified by the ISO in Needs Assessments, Public Policy Transmission Studies or the RSP, the ISO shall develop or evaluate, pursuant to Sections 4.2(b) or 4.3 of this Attachment, as applicable, regulated transmission solutions proposed in response to the needs identified by the ISO.

Pursuant to Sections 3 and 7 of this Attachment, the ISO shall develop the RSP for approval by the ISO Board of Directors following stakeholder input through the Planning Advisory Committee established pursuant to Section 2 of this Attachment. The RSP is a compilation of the regional system planning process activities conducted by the ISO. The RSP shall address needs of the PTF system determined by the ISO through Needs Assessments initiated and updated on an ongoing basis by the ISO to: (i) account for changes in the PTF system conditions; (ii) ensure reliability of the PTF system; (iii) comply with national and regional planning standards, criteria and procedures; and (iv) account for market performance, economic, environmental and other considerations as may be agreed upon from time to time.

As more fully described in Section 3 of this Attachment, the RSP shall identify:

- (i) PTF system reliability and market efficiency needs,
- (ii) the requirements and characteristics of the types of resources that may satisfy PTF system reliability and market efficiency needs to provide stakeholders an opportunity to develop and propose efficient market responses to meet the needs identified in Needs Assessments;
- (iii) regulated transmission solutions to meet the needs identified in Needs Assessments where market responses do not address such needs or additional transmission infrastructure may be required to comply with national and regional planning standards, criteria and procedures or provide market efficiency benefits in accordance with Attachment N of this OATT; and
- (iv) those projects identified through the procedures described in Section 4A of this Attachment K.

In addition, the RSP shall also provide information on a broad variety of power system requirements that serves as input for reviewing the design of the markets and the overall economic performance of the

system. The RSP shall also describe the coordination of the ISO's regional system plans with regional, local and inter-area planning activities.

Pursuant to Section 3.6 of this Attachment, the ISO shall also develop, maintain and post on its website a cumulative list reflecting the regulated transmission solutions proposed in response to Needs Assessments (the "RSP Project List"). The RSP Project List shall be a cumulative representation of the regional transmission planning expansion efforts ongoing in New England.

### **1.1 Enrollment**

For purposes of participating as a transmission provider in the New England transmission planning region pursuant to this Attachment K, and distinct from Transmission Providers as defined in Section I of this Tariff, an entity chooses to enroll by executing (or having already executed) a: (i) transmission operating agreement with the ISO, or (ii) a Market Participant Service Agreement coupled with a written notification to the ISO that the entity desires to be a transmission provider in the New England region. Such enrollment in the transmission planning region is not necessary to participate in the Planning Advisory Committee, which is open to any entity as described in Section 2.3 of this Attachment K.

### **1.2 A List of Entities Enrolled in the Planning Region**

A list of entities enrolled in the transmission planning region as transmission providers as described in Section 1.1. above, is included as Appendix 2 of this Attachment K.

## **2. Planning Advisory Committee**

### **2.1 Establishment**

A Planning Advisory Committee shall be established by the ISO to perform the functions set forth in Section 2.2 of this Attachment. It shall have a Chair and Secretary, who shall be appointed by the chief executive officer of the ISO or his or her designee. Before appointing an individual to the position of the Chair or Secretary, the ISO shall notify the Planning Advisory Committee of the proposed assignment and, consistent with its personnel practices, provide any other information about the individual reasonably requested by the Planning Advisory Committee. The chief executive officer of the ISO or his or her designee shall consider the input of the members of the Planning Advisory Committee in selecting, removing or replacing such officers. The Planning Advisory Committee shall be advisory only and shall have no formal voting protocol.



The ISO may form subcommittees that, at the discretion of the ISO, may report to the Planning Advisory Committee.

## **2.2 Role of Planning Advisory Committee**

The Planning Advisory Committee may provide input and feedback to the ISO concerning the regional system planning process, including the development of and review of Needs Assessments, the conduct of Solutions Studies, the development of the RSP, and updates to the RSP Project List. Specifically, the Planning Advisory Committee serves to review and provide input and comment on: (i) the development of the RSP, (ii) assumptions for studies, (iii) the results of Needs Assessments, Solutions Studies, and competitive solutions developed pursuant to Section 4.3 of this Attachment, (iv) potential market responses to the needs identified by the ISO in a Needs Assessment or the RSP, and (v) Cluster Enabling Transmission Upgrades Regional Planning Studies. The Planning Advisory Committee, with the assistance of and in coordination with the ISO, serves also to identify and prioritize requests for Economic Studies to be performed by the ISO, and provides input and feedback to the ISO concerning the conduct of Economic Studies and Public Policy Transmission Studies, including the criteria and assumptions for such studies. Based on input and feedback related to the regional system planning process provided by the Planning Advisory Committee to the ISO, the ISO shall consult with the appropriate NEPOOL technical committees, including but not limited to, the Markets, Reliability and Transmission Committees, on issues and concerns identified by the Planning Advisory Committee as requiring further investigation and consideration of potential changes to ISO New England Operating Documents.

## **2.3 Membership**

Any entity, including State regulators or agencies and NESCOE, as specified in Attachment N of the OATT, may designate a member to the Planning Advisory Committee by providing written notice to the Secretary of that Committee identifying the name of the entity represented by the member and the member's name, address, telephone number, facsimile number and electronic mail address. The entity may remove or replace such member at any time by written notice to the Secretary of the Planning Advisory Committee.

## **2.4 Procedures**

**(a) Notice of Meetings**

Prior to the beginning of each year, the ISO shall list on the ISO Calendar, which is available on the ISO's website, the proposed meeting dates for the Planning Advisory Committee for each month of the year. Prior to a Planning Advisory Committee meeting, the ISO shall provide notice to the Planning Advisory Committee by electronic email with the date, time, format for the meeting (i.e., in person or teleconference), and the purpose for the meeting.

**(b) Frequency of Meetings**

Meetings of the Planning Advisory Committee shall be held as frequently as necessary to serve the purposes stated in Section 2.2 of this Attachment and as further specified elsewhere in this Attachment, generally expected to be no less than four (4) times per year.

**(c) Availability of Meeting Materials**

The ISO shall post materials for Planning Advisory Committee meetings on the Planning Advisory Committee section on the ISO's website prior to meetings. The materials for the Planning Advisory Committee meetings shall be made available to the members of the Planning Advisory Committee subject to protections warranted by confidentiality requirements of the ISO New England Information Policy set forth in Attachment D of the ISO Tariff and Critical Energy Infrastructure Information ("CEII") policy as further described in Section 2.4(d) of this Attachment.

**(d) Access to Planning-Related Materials that Contain CEII**

CEII is defined as specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure (physical or virtual) that:

- (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
- (ii) Could be useful to a person in planning an attack on critical infrastructure;
- (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and

- (iv) Does not simply give the location of critical infrastructure.

CEII pertains to existing and proposed system and assets, whether physical or virtual, the incapacity or destruction of which would negatively affect security, economic security, public health or safety, or any combination of those matters. CEII does not include information that is otherwise publicly available. Simplified maps and general information on engineering, vulnerability, or design that relate to production, generation, transportation, transmission or distribution of energy shall not constitute CEII.

Planning-related materials determined to be CEII will be posted on the ISO's password-protected website. To obtain access to planning-related materials determined to be CEII, the entity seeking to obtain such access must contact the ISO's Customer Service department. Authorized Market Participants or their representatives, such as consultants, are bound by the ISO New England Information Policy and will be able to access CEII materials through the ISO's password-protected website. State and federal governmental agency employees and their consultants will be able to access such materials through the ISO's password-protected website upon submittal of a signed non-disclosure agreement, which is available on the ISO's website. Personnel of the ERO, NPCC, other regional transmission organizations or independent system operators, and transmission owners from neighboring regions will be able to access CEII materials pursuant to governing agreements, rules and protocols. All external requests by other persons for planning-related materials determined to be CEII shall be recorded and tracked by ISO's Customer Services staff. Such requestors will be able to obtain access to CEII documents filed with the Commission pursuant to the Commission's regulations governing access to CEII. To the extent a requestor seeks access to planning-related material that is not filed with the Commission, such requestor shall comply with the requirements provided in the CEII procedures of the ISO, available on the ISO's website, prior to receiving access to CEII information. Upon compliance with the ISO's CEII procedures, the ISO shall grant the requestor access to the planning-related CEII document through direct distribution or access to the ISO password-protected website.

## **2.5 Local System Planning Process**

The LSP process described in Appendix 1 to this Attachment applies to the transmission system planning for the Non-PTF in the New England Transmission System. The PTOs will utilize interested members of the Planning Advisory Committee for advisory stakeholder input in the LSP process that will meet, as needed, at the conclusion of, or independent of, scheduled Planning Advisory Committee meetings. The LSP meeting agenda and meeting materials will be developed by representatives of the pertinent PTOs and PTO representatives will chair the LSP meeting. The ISO will post the LSP agenda and materials for LSP.

### **3. RSP: Principles, Scope, and Contents**

#### **3.1 Description of RSP**

The ISO shall develop the RSP based on periodic comprehensive assessments (conducted not less than every third year) of the PTF systemwide needs to maintain the reliability of the New England Transmission System while accounting for market efficiency, economic, environmental, and other considerations, as agreed upon from time to time. The ISO shall update the RSP to reflect the results of ongoing Needs Assessments conducted pursuant to Section 4.1 of this Attachment. The RSP shall also account for projected improvements to the PTF that are needed to maintain system reliability in accordance with national and regional standards and the operation of efficient markets under a set of planning assumptions.

The RSP shall, among other things:

- (i) describe, in a consolidated manner, the assessment of the PTF system needs, the results of such assessments, and the projected improvements;
- (ii) provide the projected annual and peak demands for electric energy for a five-to ten-year horizon, the needs for resources over this period and how such resources are expected to be provided;
- (iii) specify the physical characteristics of the physical solutions that can meet the needs defined in the Needs Assessments and include information on market responses that can address them; and

- (iv) provide sufficient information to allow Market Participants to assess the quantity, general locations, operating characteristics and required availability criteria of the type of incremental supply or demand-side resources, or merchant transmission projects, that would satisfy the identified needs or that may serve to modify, offset or defer proposed regulated transmission upgrades.

The RSP shall also include a description of proposed regulated transmission solutions that, based on the Solutions Studies described in Section 4.2 of this Attachment and the competitive solution process described in Section 4.3 of this Attachment, may meet the needs identified in the Needs Assessments. To this end, as further described in Section 3.6 below, the ISO shall develop and maintain a RSP Project List, a cumulative listing of proposed regulated transmission solutions classified, to the extent known, as Reliability Transmission Upgrades, Market Efficiency Transmission Upgrades, and Public Policy Transmission Upgrades (which, for the foregoing types of upgrades, may include the portions of Interregional Transmission Projects located within the New England Control Area) and of External Transmission Projects. The RSP shall also provide reasons for any new regulated transmission solutions or Transmission Upgrades included in the RSP Project List, any change in status of a regulated transmission solution or Transmission Upgrade in the RSP Project List, or for any removal of regulated transmission solutions or Transmission Upgrades from the RSP Project List that are known as of that time.

Each RSP shall be built upon the previous RSP.

### **3.2 Baseline of RSP**

The RSP shall account for: (i) all projects that have met milestones, including market responses and regulated transmission solutions (e.g., planned demand-side projects, generation and transmission projects and Elective Transmission Upgrades) as determined by the ISO, in collaboration with the Planning Advisory Committee, pursuant to Sections 4.1, 4.2 and 4.3 of this Attachment; and (ii) the requirements for system operation and restoration services, not including the development of a system operations or restoration plan, which is outside the scope of the regional system planning process.

### **3.3 RSP Planning Horizon and Parameters**

The RSP shall be based on a five-to ten-year planning horizon, and reflect five-to ten-year capacity and load forecasts.

The RSP shall conform to: Good Utility Practice; applicable Commission compliance requirements related to the regional system planning process; applicable reliability principles, guide lines, criteria, rules, procedures and standards of the ERO, NPCC, and any of their successors; planning criteria adopted and/or developed by the ISO; Transmission Owner criteria, rules, standards, guides and policies developed by the Transmission Owner for its facilities consistent with the ISO planning criteria, the applicable criteria of the ERO and NPCC; local transmission planning criteria; and the ISO New England Planning Procedures and ISO New England Operating Procedures, as they may be amended from time to time (collectively, the “Planning and Reliability Criteria”).

The revisions to this Attachment K submitted to comply with FERC’s Order No. 1000 shall not apply to any Proposed or Planned project included in an RSP approved by the ISO Board of Directors (or in an RSP Project List update) prior to the effective date of the Order No. 1000 compliance filing of the ISO and the PTOs, unless the ISO is re-evaluating the solution design for such project as of that effective date, or subsequently determines that the solution design for such project requires re-evaluation.

### **3.4 Other RSP Principles**

The RSP shall be designed and implemented to: (i) avoid unnecessary duplication of facilities; (ii) identify facilities that are necessary to meet Planning and Reliability Criteria; (iii) avoid the imposition of unreasonable costs upon any Transmission Owner, Transmission Customer or other user of a transmission facility; (iv) take into account the legal and contractual rights and obligations of the Transmission Owners and the transmission-related legal and contractual rights and obligations of any other entity; (v) provide for coordination with existing transmission systems and with appropriate inter-area and local expansion plans; and (vi) properly coordinate with market responses, including, but not limited to generation, merchant transmission and demand-side responses.

### **3.5 Market Responses in RSP**

Market responses shall include investments in resources (e.g., demand-side projects, generation and distributed generation) and Elective Transmission Upgrades and shall be evaluated by the ISO, in consultation with the Planning Advisory Committee, pursuant to Sections 4.1(f) and 7 of this Attachment.

In developing the RSP, the ISO shall account for market responses: (i) proposed by Market Participants as addressing needs (and any critical time constraints for addressing such needs) identified in an RSP, Needs Assessment, or Public Policy Transmission Study; and (ii) that have proved to be viable by meeting the criteria specified in Section 4.1(f) or 4A.3(b) of this Attachment, as applicable.

Specifically, market responses that are identified to the ISO and are determined by the ISO, in consultation with the Planning Advisory Committee, to be sufficient to alleviate the need for a particular regulated transmission solution or Transmission Upgrade, based on the criteria specified in the pertinent Needs Assessment or RSP, and are judged by the ISO to be achievable within the required time period, shall be reflected in the next RSP and/or in a new or updated Needs Assessment. That particular regulated transmission solution or Transmission Upgrade may continue to be included in the appropriate category on the RSP Project List (as described in Section 3.6 below), subject to the ISO having the flexibility to indicate that the project should proceed at a later date or it may be removed if it is determined to be no longer needed. If the market response does not fully address the defined needs, or if additional transmission infrastructure is required to facilitate the efficient operation of the market, the RSP shall also include that particular regulated transmission solution or Transmission Upgrade, subject to the ISO having the flexibility to indicate that the Transmission Upgrade or regulated transmission solution should proceed at a later date and be modified, if necessary.

### **3.6 The RSP Project List**

#### **(a) Elements of the RSP Project List**

The RSP Project List shall identify regulated transmission solutions proposed in response to the needs identified in a RSP or Needs Assessments conducted pursuant to Section 4.1 of this Attachment, and shall identify Public Policy Transmission Upgrades identified pursuant to Section 4A of this Attachment. The RSP Project List shall identify the proposed regulated transmission solutions separately as a Reliability Transmission Upgrade, a Market Efficiency Transmission Upgrade, or a Public Policy Transmission Upgrade.

With regard to Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, the following subcategories will be utilized to indicate the status of each

proposed regulated transmission solution in the evaluation process. These subcategories include: (i) Concept; (ii) Proposed; (iii) Planned; (iv) Under Construction; and (v) In-Service. A Public Policy Transmission Upgrade will be identified in the RSP Project List as (i) Proposed; (ii) Planned; (iii) Under Construction; or (iv) In-Service.

The regulated transmission solution subcategories are defined as follows:

(i) For purposes of Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, “Concept” shall include a transmission project that is being considered by its proponent as a potential solution to meet a need identified by the ISO in a Needs Assessment or the RSP, but for which there is little or no analysis available to support the transmission project.

(ii) For purposes of Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades, “Proposed” shall include a regulated transmission solution that (a) has been proposed in response to a specific need identified by the ISO in a Needs Assessment or the RSP and (b) has been evaluated or further defined and developed in a Solutions Study, as specified in Section 4.2(a) of this Attachment, or in the competitive solutions process specified in Section 4.3 of this Attachment, such that there is significant analysis that supports a determination by the ISO, as communicated to the Planning Advisory Committee, that the proposed regulated transmission solution would likely meet the need identified by the ISO in a Needs Assessment or the RSP, but has not received approval by the ISO under Section I.3.9 of the Tariff.

For purposes of Public Policy Transmission Upgrades, “Proposed” means that the ISO has included the project in the RSP Project List pursuant to the procedures described in Section 4A of this Attachment K, but that the project has not yet been approved by the ISO under Section I.3.9 of the Tariff.

(iii) “Planned” shall include a Transmission Upgrade that has met the requirements for a Proposed project and has been approved by the ISO under Section I.3.9 of the Tariff.



(iv) “Under Construction” shall include a Transmission Upgrade that has received the approvals required under the Tariff and engineering and construction is underway.

(v) “In Service” shall include a Transmission Upgrade that has been placed in commercial operation.

The RSP Project List shall also list External Transmission Projects for which cost allocation and, if applicable, operating agreements have been accepted by the Commission, and indicate whether such External Transmission Projects are proposed, under construction or in service.

Each Reliability Transmission Upgrade and Market Efficiency Transmission Upgrade shall be cross-referenced to the specific systemwide or area needs identified in a Needs Assessment or RSP. Each proposed Public Policy Transmission Upgrade shall be cross-referenced in the RSP Project List to a specific Public Policy Transmission Study.

For completeness, the RSP Project List shall also include Elective Transmission Upgrades and transmission facilities (as determined under the ISO interconnection process specified in this OATT) to be built to accommodate new generation, and Elective Transmission Upgrades that have satisfied the requirements of this OATT.

An Interregional Transmission Project developed pursuant to Section 6.3 of this Attachment K may displace a regional Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade on the RSP Project List where the ISO has determined that the Interregional Transmission Project is a more efficient or cost-effective solution. In the case of an Interregional Transmission Project that could meet the needs met by a Public Policy Transmission Upgrade, the associated Public Policy Transmission Upgrade may be removed from the RSP Project List in the circumstances described, and using the procedures specified, in Section 4A of Attachment K.

**(b) Periodic Updating of RSP Project List**

The RSP Project List will be updated by the ISO periodically by adding, removing or revising regulated transmission solutions or Transmission Upgrades in consultation with the Planning Advisory Committee and, as appropriate, the Reliability Committee.

Updating of the RSP Project List shall be considered an update of the RSP to be reflected in the next RSP, as appropriate, pursuant to Section 3.1 of this Attachment.

**(c) RSP Project List Updating Procedures and Criteria**

As part of the periodic updating of the RSP Project List, the ISO: (i) shall modify (in accordance with the provisions of this Attachment) regulated transmission solutions or Transmission Upgrades to reflect changes to the PTF system configurations, including ongoing investments by Market Participants or other stakeholders; (ii) may add to and classify accordingly, regulated transmission solutions; (iii) may remove from the RSP Project List regulated transmission solutions or Transmission Upgrades previously identified in the RSP Project List if the ISO determines that the need for the proposed regulated transmission solution or the approved Transmission Upgrade no longer exists or is no longer feasible; and (iv) may remove from the RSP Project List regulated transmission solutions or Transmission Upgrades that have been displaced by an Interregional Transmission Project in the circumstances described in Section 3.6(a) of this Attachment. With regard to (iii) above, this may include a removal of a regulated transmission solution or Transmission Upgrade because a market response meeting the need reaches the maturity specified in Section 4.1(f) of this Attachment and has been determined, pursuant to Section 4.1(f) of this Attachment, to meet the need described in the pertinent Needs Assessment, Public Policy Transmission Study or RSP, as applicable. In doing so, the ISO shall consult with and consider the input from the Planning Advisory Committee and, as appropriate, the Reliability Committee. In addition, the ISO shall remove from the RSP Project List any Public Policy Transmission Upgrade if the ISO determines, with input from the Planning Advisory Committee, that the need to which the Public Policy Transmission Upgrade responds no longer exists.

If a regulated transmission solution or Transmission Upgrade is removed from the RSP Project List by the ISO, the entity responsible for the construction of the regulated

transmission solution or Transmission Upgrade shall be reimbursed for any costs prudently incurred or prudently committed to be incurred (plus a reasonable return on investment at existing Commission-approved ROE levels) in connection with the planning, designing, engineering, siting, permitting, procuring and other preparation for construction, and/or construction of the regulated transmission solution or Transmission Upgrade proposed for removal from the RSP Project List. The provisions of Schedule 12 of this OATT shall apply to any cost reimbursement under this Section. Prior to finalizing the RSP, the ISO shall provide the Planning Advisory Committee with written information explaining the reasons for any removal under this Section.

**(d) Posting of LSP Project Status**

Each PTO will be individually responsible for publicly posting and updating the status of its respective LSP and the transmission projects arising therefrom on its company website. The ISO's posting of the RSP Project Lists will include links to each PTO's specific LSP posting to be provided to the ISO by the PTOs.

**4. Procedures for the Conduct of Needs Assessments, Treatment of Market Responses and Evaluation of Regulated Transmission Solutions**

**4.1 Non-Applicability of Sections 4.1 through 4.3; Needs Assessments**

The reliability planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a reliability need. The market efficiency planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a market efficiency need. The public policy planning process established in this Attachment K shall apply to all transmission solutions adopted to resolve a public policy need. For needs identified initially as reliability, market efficiency or public policy needs, the collateral benefits of potential solutions to those needs shall not change the planning process applicable to those identified needs; notwithstanding the foregoing, the ISO shall report its views as to whether a project or preferred solution may also satisfy identified reliability needs of the system as described in Sections 4A.5(e) or 4A.7, respectively, of this Attachment K. Sections 4.1 through 4.3 of this Attachment are not applicable to the planning of Public Policy Transmission Upgrades, which is governed instead by Section 4A of this Attachment.

On a regular and ongoing basis, the ISO, in coordination with the PTOs and the Planning Advisory Committee, shall conduct assessments (i.e., Needs Assessments) of the adequacy of the PTF system, as a whole or in part, to maintain the reliability of such facilities while promoting the operation of efficient wholesale electric markets in New England. A Needs Assessment shall analyze whether the PTF in the New England Transmission System: (i) meet applicable reliability standards; (ii) have adequate transfer capability to support local, regional, and inter-regional reliability; (iii) support the efficient operation of the wholesale electric markets; (iv) are sufficient to integrate new resources and loads on an aggregate or regional basis; or (v) otherwise examine various aspects of its performance and capability. A Needs Assessment shall also identify: (i) the location and nature of any potential problems with respect to the PTF and (ii) situations that significantly affect the reliable and efficient operation of the PTF along with any critical time constraints for addressing the needs of the PTF to facilitate the development of market responses and to initiate the pursuit of regulated transmission solutions.

**(a) Triggers for Needs Assessments**

The ISO, in coordination with the PTOs and the Planning Advisory Committee, shall perform Needs Assessments, inter alia, if:

- (i) a need for additional transfer capability is identified by the ISO in its ongoing evaluation of the PTF's adequacy and performance;
- (ii) a need for additional transfer capability is identified as a result of an ERO and/or NPCC reliability assessment or more stringent publicly available local reliability criteria, if any;
- (iii) constraints or available transfer capability limitations that are identified possibly as a result of generation additions or retirements, evaluation of load forecasts or proposals for the addition of transmission facilities in the New England Control Area;
- (iv) as requested by a stakeholder pursuant to the provisions of Section 4.1(b) of this Attachment; or
- (v) as otherwise deemed appropriate by the ISO as warranting such an assessment.

**(b) Requests by Stakeholders for Needs Assessments for Economic Considerations**

The ISO's stakeholders may request the ISO to initiate a Needs Assessment to examine situations where potential regulated transmission solutions or market responses or investments could result in (i) a net reduction in total production cost to supply system load based on the factors specified in Attachment N of this OATT, (ii) reduced congestion, or (iii) the integration of new resources and/or loads on an aggregate or regional basis (an "Economic Study").

Requests for Economic Studies shall be submitted, considered and prioritized as follows:

- (i) By no later than April 1 of each year, any stakeholder may submit to the ISO for public posting on the ISO's website a request for an Economic Study.
- (ii) The ISO shall thereafter add any of its own proposals for Economic Studies. The ISO shall also develop a rough work scope and cost estimate for all requested Economic Studies, and develop preliminary prioritization based on the ISO's perceived regional and/or, as coordinated with the applicable neighboring system, inter-area benefits to assist stakeholders in the prioritization of Economic Studies.
- (iii) By no later than May 1 of each year, the ISO shall provide the foregoing information to the Planning Advisory Committee, and a Planning Advisory Committee meeting shall be held at which Economic Study proponents will provide an explanation of their request.
- (iv) By no later than June 1 of each year, the ISO shall hold a meeting of the Planning Advisory Committee for the members of the Planning Advisory Committee to discuss, identify and prioritize, as further facilitated by the ISO's preparation of a straw priority list to be further discussed at such meeting, up to two (2) Economic Studies (the costs of which will be recovered by the ISO pursuant to Section IV.A of the Tariff) to be performed by the ISO in a given year taking into consideration their impact on the ISO budget and other priorities. The ISO may consider performing up to three (3) Economic Studies if a Public Policy Transmission Study will not be concurrently performed.

- (v) The ISO and the Planning Advisory Committee may agree to hold additional meetings to further discuss and resolve any issue concerning the substance of the Economic Studies themselves and/or their prioritization.
- (vi) If the Planning Advisory Committee, after discussions between the Planning Advisory Committee and ISO management, is not able to prioritize the Economic Studies to be performed by the ISO in a given year, any member of the Planning Advisory Committee must submit a request for Regional Planning Dispute Resolution Process pursuant to Section 12 of this Attachment, such request to be submitted no later than August 30, to resolve the issues concerning the substance of the Economic Studies themselves and/or their prioritization.
- (vii) The ISO will issue a notice to the Planning Advisory Committee detailing the prioritization of the Economic Studies as identified by the Planning Advisory Committee or, if a request for Regional Planning Dispute Resolution Process is submitted pursuant to Section 4.1.(b)(vi), as determined through that Process.

The foregoing timelines are subject to adjustment as determined by the ISO in coordination with the Planning Advisory Committee. The ISO will provide periodic updates on the status of Economic Studies to the Planning Advisory Committee.

Economic Study requests not within the three studies identified in Section 4.1(b)(iv) to be performed in a given year may be requested and paid for by the study proponent.

**(c) Conduct of a Needs Assessment for Rejected De-List Bids**

- (i) Where a Needs Assessment is underway for an area affected by a rejected Permanent De-List Bid or Retirement De-List Bid, the Needs Assessment will represent the resource with the rejected Permanent De-List Bid or Retirement De-List Bid as being interconnected, but unavailable for reliability purposes in the base representation being used to assess the system to identify reliability needs that must be addressed.

- (ii) Where there is not a Needs Assessment underway for an area affected by a rejected Permanent De-List Bid or Retirement De-List Bid, the ISO will initiate a Needs Assessment for that area.
- (iii) In the case of a rejected Static De-List Bid or Dynamic De-List Bid, the ISO may as warranted, with advisory input from the Reliability Committee, examine the unavailability of the resource(s) with the rejected bid as a sensitivity in a Needs Assessment, or examine the unavailability of the resource(s) in the base representation in a Needs Assessment. The ISO may as warranted, with advisory input from the Reliability Committee, initiate a Needs Assessment for the purpose of modeling rejected Static De-List Bids or Dynamic De-List Bids where the ISO believes that the initiation of such a study is warranted.
- (iv) Prior to the start of each New Capacity Show of Interest Submission Window, the ISO shall present to the Reliability Committee the status of any prior rejected Dynamic De-List Bids, Static De-List Bids, Permanent De-List Bids or Retirement De-List Bids being studied in the regional system planning process.

**(d) Notice of Initiation of Needs Assessments**

Prior to its commencement, the ISO shall provide notice of the initiation of a Needs Assessment to the Planning Advisory Committee consistent with Section 2 of this Attachment.

**(e) Preparation of Needs Assessment**

Needs Assessments may examine resource adequacy, transmission adequacy, projected congestion levels and other relevant factors as may be agreed upon from time to time. Needs Assessments shall also consider the views, if any, of the Planning Advisory Committee, State regulators or agencies, NESCOE, the Market Advisor to the ISO Board of Directors, and the ISO Board of Directors. A corresponding assessment shall be performed by the PTOs to identify any needs relating to the Non-PTF transmission facilities (of whatever voltage) that could affect the provision of Regional Transmission Service over the PTF.

**(f) Treatment of Market Solutions in Needs Assessments**

The ISO shall reflect proposed market responses in the regional system planning process. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), and Elective Transmission Upgrades.

Specifically, the ISO shall incorporate or update information regarding resources in Needs Assessments that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract. The ISO will model out-of-service all submitted Retirement De-List Bids and submitted Permanent De-List Bids and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction. With respect to (ii) or (iii) above, the proponent of the market response shall inform the ISO, in writing, of its selection or its assumption of financially binding obligations, respectively. The ISO shall incorporate or update information regarding a proposed Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff. In the case where the Elective Transmission Upgrades are proposed in conjunction with the interconnection of a resource, these Elective Transmission Upgrades shall be considered at the same time as the proposed resource is considered in the Needs Assessment provided that the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff.

**(g) Needs Assessment Support**

For the development of the Needs Assessments, the ISO will coordinate with the PTOs and the Planning Advisory Committee to support the ISO's performance of Needs Assessments. To facilitate this support, the ISO will post on its website the models, files, cases, contingencies, assumptions and other information used to perform Needs Assessments. The ISO may establish requirements that any PTO or member of the Planning Advisory Committee must satisfy in order to access certain information used to perform Needs Assessments, due to ISO New England



Information Policy and CEII constraints. The ISO may ask PTOs or Planning Advisory Committee members with special expertise to provide technical support or perform studies required to assess one or more potential needs that will be considered in the Needs Assessments process. These entities will provide, and the ISO will post on its website, the models, files, cases, contingencies, assumptions and other information used by those entities to perform studies. The ISO will post the draft results of any such Needs Assessment studies on its website. The ISO will convene meetings open to any representative of an entity that is a member of the Planning Advisory Committee to facilitate input on draft Needs Assessments studies and the inputs to those studies prior to the ISO's completion of a draft Needs Assessment report to be reviewed by the entire Planning Advisory Committee pursuant to Section 4.1(i) of this Attachment. All provisions of this subsection (g) relating to the provision and sharing of information shall be subject to the ISO-NE Information Policy.

**(h) Input from the Planning Advisory Committee**

Meetings of the Planning Advisory Committee shall be convened to identify additional considerations relating to a Needs Assessment that were not identified in support of initiating the assessment, and to provide input on the Needs Assessment's scope, assumptions and procedures, consistent with the responsibilities of the Planning Advisory Committee as set forth in Section 2.2 of this Attachment.

**(i) Publication of Needs Assessment and Response There to**

The ISO shall report the results of Needs Assessments to the Planning Advisory Committee, subject to CEII constraints. Needs Assessments containing CEII will be posted on the ISO's password-protected website consistent with Section 2.4(d) of this Attachment. Needs Assessments will identify high-level functional requirements and characteristics for regulated transmission solutions and market responses that can meet the needs described in the assessment. The ISO will also present the Needs Assessments in appropriate market forums to facilitate market responses. Where the ISO forecasts that a solution is needed to solve reliability criteria violations in three years or less from the completion of a Needs Assessment (unless the solution to the Needs Assessment will likely be a Market Efficiency Transmission Upgrade), and the requirements of Section 4.1(j) of this Attachment have been met or where there is only one Phase One Proposal or Stage One Proposal submitted in response to a public notice issued under

Sections 4.3(a) or 4A.5(a) of this Attachment, respectively, or only one proposed solution that is selected to move on to Phase Two or Stage Two, the ISO will evaluate the adequacy of proposed regulated solutions by performing Solutions Studies, as described in Section 4.2 of this Attachment. Where the solution to a Needs Assessment will likely be a Market Efficiency Transmission Upgrade, or where the forecast year of need for a solution that is likely to be a Reliability Transmission Upgrade is more than three years from the completion of a Needs Assessment, the ISO will conduct a solution process based on a two-stage competition, as described in Section 4.3 of this Attachment.

**(j) Requirements for Use of Solution Studies Rather than Competitive Process for Projects Based on Year of Need**

The following requirements must be met in order for the ISO to use Solution Studies in the circumstances described in Section 4.1(i) based on the solution's year of need:

- (i) The ISO shall separately identify and post on its website an explanation of the reliability criteria violations and system conditions that the region has a time-sensitive need to solve within three years of the completion of the relevant Needs Assessment. The explanation shall be in sufficient detail to allow stakeholders to understand the need and why it is time-sensitive.
- (ii) In deciding whether to utilize Solutions Studies, such that the regulated transmission solution will be developed through a process led by the ISO and built by the PTO(s), the ISO shall:
  - (A) Provide to the Planning Advisory Committee and post on its website a full and supported written description explaining the decision to designate a Participating Transmission Owner as the entity responsible for construction and ownership of the reliability project, including an explanation of other transmission or non-transmission options that the region considered but concluded would not sufficiently address the immediate reliability need, and the circumstances that generated the reliability need and an explanation of why that reliability need was not identified earlier.

- (B) Provide a 30-day period during which comments from stakeholders on the posted description may be sent to the ISO, which comments will be posted on the website, as well.
- (iii) The ISO shall maintain and post on its website a list of prior year designations of all projects in the limited category of transmission projects for which the PTO(s) was designated as the entity responsible for construction and ownership of the project following the performance of Solution Studies. The list must include the project's need-by date and the date the PTO(s) actually energized the project, i.e., placed the project into service. The ISO shall file such list with the Commission as an informational filing in January of each calendar year covering the designations of the prior calendar year, when applicable.

#### **4.2 Evaluation of Regulated Transmission Solutions in Solutions Studies, Where Competitive Solution Process of Section 4.3 Is Not Applicable**

The procedures described in this Section 4.2 shall be utilized for the evaluation of regulated transmission solutions for reliability and market efficiency needs where the requirements of Sections 4.1(i) and/or (j) of this Attachment are satisfied. Otherwise, the procedures of Section 4.3 shall be utilized for that purpose.

##### **(a) Evaluation and Development of Regulated Transmission Solutions in Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades**

In the case of Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades, the ISO, in coordination with the proponents of regulated transmission solutions and other interested or affected stakeholders, shall conduct or participate in studies ("Solutions Studies") to evaluate whether proposed regulated transmission solutions meet the PTF system needs identified in Needs Assessments. The ISO, in coordination with affected stakeholders shall also identify regulated transmission projects for addressing the needs identified in Needs Assessments.

The ISO may form ISO-led targeted study groups to conduct Solutions Studies. Such study groups will include representatives of the proponents of regulated transmission solutions and

other interested or affected stakeholders. Through this process, the ISO may identify the solutions for the region that offer the best combination of electrical performance, cost, future system expandability, and feasibility to meet a need identified in a Needs Assessment in the required time frame. These solutions may differ from a transmission solution proposed by a transmission owner.

Proponents of regulated transmission proposals in response to Needs Assessments shall also identify any LSP plans that require coordination with their regulated transmission proposals addressing the PTF system needs.

**(b) Notice of Initiation of a Solutions Study**

The ISO shall provide notice of the initiation and scope of a Solutions Study to the Planning Advisory Committee.

**(c) Classification of Regulated Transmission Solutions as Market Efficiency Transmission Upgrades or Reliability Transmission Upgrades**

As described in Section 3.1 and 3.6(a) of this Attachment, proposed regulated transmission solutions determined by the ISO, in consultation with the Planning Advisory Committee, to address needs identified in Needs Assessments shall be classified as a Reliability Transmission Upgrade and/or a Market Efficiency Transmission Upgrade pursuant to the standards set forth in Attachment N of this OATT.

**(d) Identification of the Preferred Solution and Inclusion of Results of Solutions Studies for Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades in the RSP**

The results of Solutions Studies related to Market Efficiency Transmission Upgrades and Reliability Transmission Upgrades will be reported to the Planning Advisory Committee. After receiving feedback from the Planning Advisory Committee, the ISO will identify the preferred solution. The ISO will inform the appropriate Transmission Owners in writing regarding the identification of the preferred solution.

Once identified, the preferred solution, as appropriate, will be reflected (with an overview of why the solution is preferred) in the RSP and/or its Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

#### **4.3 Competitive Solution Process for Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades**

##### **(a) Public Notice Initiating Competitive Solution Process**

The ISO will issue a public notice with respect to each Needs Assessment for which, pursuant to Section 4.1(i) of this Attachment, a competitive solution process will be utilized. The notice will indicate that Qualified Transmission Project Sponsors may submit Phase One Proposals offering solutions that comprehensively address the identified needs.

A PTO or PTOs shall submit an individual or joint Phase One Proposal as a Backstop Transmission Solution for any need that would be solved by a project located within or connected to its/their existing electric system, and which it/they would therefore have an obligation to build under Schedule 3.09(a) of the TOA. Such PTOs may recover the costs of preparing Phase One Proposals in accordance with the mechanisms reflected in the OATT and the terms of the TOA.

A member of the Planning Advisory Committee that is not a Qualified Transmission Project Sponsor but would like the ISO to consider a Phase One Proposal reflecting its concept for a project in response to a Needs Assessment (that is, a project that is “unsponsored”) must, before the deadline for the submission of Phase One Proposals, identify a Qualified Transmission Project Sponsor willing to submit a corresponding Phase One Proposal and Phase Two Proposal (and to develop and construct the project, if selected in the competitive process) in order for the unsponsored project to be submitted in response to an ISO solicitation in Phase One. Upon request by the pertinent Planning Advisory Committee member for assistance in identifying a sponsor, the ISO shall post on its website and distribute to the Planning Advisory Committee a notice that solicits expressions of interest by Qualified Transmission Project Sponsors for sponsorship of the member’s conceptual project. All expressions of interest shall include a

detailed explanation of why the Qualified Transmission Project Sponsor is best qualified to construct, own and operate the unsponsored project. If only one Qualified Transmission Project Sponsor expresses interest, the ISO shall designate it as the project sponsor. If more than one Qualified Transmission Project Sponsor expresses interest, the Planning Advisory Committee member shall select the sponsor. In either case, the designated sponsor shall thereafter comply with the requirements of this Attachment K and the ISO Tariff with respect to the project. If no Qualified Transmission Project Sponsor expresses interest, the unsponsored project may not be submitted in Phase One.

**(b) Use and Control of Right of Way**

Neither the submission of a project by a Qualified Transmission Project Sponsor nor the selection by the ISO of a project submitted by a Qualified Transmission Project Sponsor for inclusion in the RSP Project List shall alter a PTO's use and control of an existing right of way, the retention, modification, or transfer of which remain subject to the relevant law or regulation, including property or contractual rights, that granted the right-of-way. Nothing in the processes described in this Attachment K requires a PTO to relinquish any of its rights-of-way in order to permit a Qualified Transmission Project Sponsor to develop, construct or own a project.

**(c) Information Required for Phase One Proposals; Study Deposit; Timing**

**Phase One Proposals shall provide the following information:**

- (i) a detailed description of the proposed solution, in the manner specified by the ISO, including an identification of the proposed route for the solution and technical details of the project;
- (ii) a detailed explanation of how the proposed solution addresses the identified need;
- (iii) the proposed schedule, including key high-level milestones, for development, siting, procurement of real estate rights, permitting, construction and completion of the proposed solution;

- (iv) right, title, and interest in rights of way, substations, and other property or facilities, if any, that would contribute to the proposed solution or the means and timeframe by which such would be obtained; and
- (v) the estimated lifecycle cost of the proposed solution, including a high-level itemization of the components of the cost estimate.

With each proposal, the Qualified Transmission Project Sponsor must include payment of a \$100,000 study deposit per submitted proposal to support the cost of Phase One and Phase Two study work by the ISO. The deposit of \$100,000 shall be applied towards the costs incurred by the ISO associated with the study of the Phase One and Phase Two proposal.

Phase One Proposals must be submitted by the deadline specified in the posting by the ISO of the public notice described in Section 4.3(a) of this Attachment, which shall not be less than 60 days from the posting date of the notice. The ISO may reject submittals which are insufficient or not adequately supported.

**(d) LSP Coordination**

Sponsors of Phase One Proposals shall also identify any LSP plans that require coordination with their proposals.

**(e) Preliminary Review by ISO**

If the sole Phase One Proposal in response to a given Needs Assessment has been submitted by PTO(s), proposing a project that would be located within or connected to its/their existing electric system, the ISO shall proceed under Section 4.2(a)-(d) of this Attachment, rather than pursuant to the procedures set forth in the remainder of this Section 4.3.

If more than one Phase One Proposal has been submitted in response to the public notice described in Section 4.3(a) of this Attachment K, the ISO shall perform a preliminary feasibility review of each proposal to determine whether the proposed solution:

- (i) provides sufficient data and that the data is of sufficient quality to satisfy Section 4.3(c) of this Attachment;
- (ii) appears to satisfy the needs described in the Needs Assessment;
- (iii) is technically practicable and indicates possession of, or an approach to acquiring, the necessary rights of way, property and facilities that will make the proposal reasonably feasible in the required timeframe; and
- (iv) is eligible to be constructed only by an existing PTO in accordance with Schedule 3.09(a) of the TOA because the proposed solution is an upgrade to existing PTO facilities, or because the costs of the proposed solution are not eligible for regional cost allocation under the OATT and will be allocated only to the local customers of a PTO.

**(f) Proposal Deficiencies; Further Information**

If the ISO identifies any minor deficiencies in meeting the requirements of Section 4.3(a) in the information provided in connection with a proposed Phase One Proposal, the ISO will notify the Phase One Proposal sponsor and provide an opportunity for the sponsor to cure the deficiencies within the timeframe specified by the ISO. Upon request, sponsors of Phase One Proposals shall provide the ISO with additional information reasonably necessary for the ISO's evaluation of the proposed solutions. This identification and notification will occur prior to the publication by the ISO of any Phase One Proposals. In providing information under this subsection (f), or in Phase Two, the sponsor may not modify its project materially or submit a new project, but instead may clarify its project. Phase Two Proposals reflecting a material modification to a Phase One Proposal or representing a new project will be rejected.

**(g) Listing of Qualifying Phase One Proposals**

For each Needs Assessment, the ISO will provide the Planning Advisory Committee with, and post on the ISO's website, a listing of Phase One Proposals that meet the criteria of Section 4.3(c). A meeting of the Planning Advisory Committee will be held thereafter in order to solicit stakeholder input on the listing, and the listed proposals. The ISO with input from the Planning Advisory Committee may exclude projects from the list, and from consideration in Phase Two,



based on a determination that the project is not competitive with other projects that have been submitted in terms of cost, electrical performance, future system expandability, or feasibility. Information on Phase One Proposals containing CEII will be posted on the ISO's protected website consistent with Section 2.4(d) of this Attachment. The ISO may amend its listing based on stakeholder input. The ISO shall post on its website an explanation of why it has determined to exclude a Phase One Proposal from consideration in Phase Two.

**(h) Information Required for Phase Two Solutions; Identification and Reporting of Preliminary Preferred Phase Two Solution**

Qualified Transmission Project Sponsors of projects reflected on the final listing developed pursuant to Section 4.3(g) of this Attachment shall provide the following information in their proposed Phase Two Solutions:

- (i) updates of the information provided in Phase One Proposals, or a certification that the information remains current and correct;
- (ii) list of required major Federal, State and local permits;
- (iii) description of construction sequencing, a conceptual plan for the anticipated transmission and generation outages necessary to construct the Phase Two Solution and their respective durations, and possible constraints;
- (iv) project schedule, with additional detail compared with Phase One Proposals, as specified by the ISO;
- (v) detailed cost component itemization and life-cycle costs;
- (vi) design standards to be used;
- (vii) description of the authority the sponsor has to acquire necessary rights of way;
- (viii) experience of the sponsor in acquiring rights of way;

- (ix) status of acquisition of right, title, and interest in rights of way, substations, and other property or facilities, if any, that are necessary for the proposed solution;
- (x) detailed explanation of project feasibility and potential constraints and challenges;
- (xi) description of the means by which the sponsor proposes to satisfy state legal or regulatory requirements for siting, constructing, owning and operating transmission projects; and
- (xii) detailed explanation of potential future expandability.

Phase Two Solutions must be submitted to the ISO by the deadline specified in the posting of the final listing (following stakeholder input) of Phase One Proposals described in Section 4.3(g).

The deadline for submittal of Phase Two Solutions shall not be less than 60 days from the posting date of the final listing. The ISO may reject Phase Two Solution submittals which are insufficient or not adequately supported.

The ISO will identify the project that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe as the preliminary preferred Phase Two Solution in response to each Needs Assessment. The ISO will report the preliminary preferred Phase Two Solution, together with explanatory materials, to the Planning Advisory Committee and seek stakeholder input on the preliminary preferred solution.

**(i) Reimbursement of Phase Two Solution Costs; Collection and Refund of ISO Study Costs**

Qualified Transmission Project Sponsors whose projects are listed pursuant to Section 4.3(g) for review as Phase Two Solutions shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff (and, as applicable, the TOA and NTDOA), all prudently incurred costs associated with developing a Phase Two Solution. PTOs shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff, all prudently incurred study costs and costs associated with developing any upgrades or modifications to such PTOs' existing facilities necessary to facilitate the development of a listed project proposed by any other Qualified Transmission Project Sponsor.

Any difference between a Qualified Transmission Project Sponsor's study deposit and the actual

cost of the Phase One and Phase Two studies for a project shall be paid by or refunded to the Qualified Transmission Project Sponsor, as appropriate, with interest calculated in accordance with Section 35.19a(a)(2) of the FERC regulations. Any refund payment shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any invoice to collect funds in addition to the deposit shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any disputes arising from the study process shall be addressed under the dispute resolution process specified in Section I.6 of the ISO Tariff.

**(j) Inclusion of Preferred Phase Two Solution in RSP and/or RSP Project List**

Following receipt of stakeholder input, the ISO will identify the preferred Phase Two Solution (with an overview of why the solution is preferred) by a posting on its website. The ISO's identification will select the project that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe. The ISO will also notify the Qualified Transmission Project Sponsor that proposed the preferred Phase Two Solution that its project has been selected for development. The ISO will include the project as a Reliability Transmission Upgrade or Market Efficiency Transmission Upgrade, as appropriate, in the RSP and/or its Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

**(k) Milestone Schedules**

Within 30 Business Days of its receiving notification pursuant to Section 4.3(j) of this Attachment, the Qualified Transmission Project Sponsor shall submit to the ISO (and shall update periodically) a schedule that indicates the dates by which applications for siting and other approvals necessary to develop and construct the project by the required in-service date shall be submitted. Within 30 Business Days of its receiving all necessary siting and other approvals, the Qualified Transmission Project Sponsor shall submit to the ISO its acceptance of responsibility to proceed with the project, and a schedule acceptable to the ISO of dates by which typical project construction phases will be completed. The Qualified Transmission Project Sponsor shall submit to the ISO on a monthly basis thereafter, until the project is placed into service, a report that provides updated information, as specified by the ISO, showing the progress of the project.

If the ISO finds, after consultation with a non-PTO Qualified Transmission Project Sponsor, that the sponsor is failing to pursue approvals or construction in a reasonably diligent fashion, or that the sponsor is unable to proceed with the project due to forces beyond its reasonable control, the ISO shall request the applicable PTO(s) to implement the Backstop Transmission Solution, and prepare a report explaining why it has reassigned the project. If the Qualified Transmission Project Sponsor that is failing or unable to proceed is a PTO, the ISO shall prepare a report consistent with the provisions of Section 1.1(e) of Schedule 3.09(a) of the Transmission Operating Agreement, including the ISO's proposed course of action. If prepared with respect to a Qualified Transmission Project Sponsor that is not a PTO, the report shall include a report from that sponsor. The ISO shall file its report (whether with respect to a PTO or non-PTO Qualified Transmission Project Sponsor) with the Commission.

#### **4A. Public Policy Transmission Studies; Public Policy Transmission Upgrades**

##### **4A.1 NESCOE Requests for Public Policy Transmission Studies**

No less often than every three years, by January 15 of that year, the ISO will post a notice indicating that members of the Planning Advisory Committee may, no later than 45 days after the posting of the notice: (i) provide NESCOE, via the process described below, with input regarding state and federal Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and regarding particular transmission needs driven by those Public Policy Requirements, and (ii) provide the ISO with input regarding local (e.g., municipal and county) Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and regarding particular transmission needs driven by those Public Policy Requirements. A meeting of the Planning Advisory Committee may be held for this purpose. Members of the Planning Advisory Committee shall direct all such input related to state, federal, and local Public Policy Requirements that drive transmission needs to the ISO and the ISO will post such input on the ISO's website. By no later than May 1 of that year, NESCOE may submit to the ISO in writing a request for a new Public Policy Transmission Study, or an update of a previously conducted study. The request will identify the Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System, and may identify particular NESCOE-identified public policy-related transmission needs as well. Along with any such request, NESCOE will provide the ISO with a written explanation

of which transmission needs driven by state or federal Public Policy Requirements the ISO will evaluate for potential solutions in the regional planning process, including why other suggested transmission needs will not be evaluated. The ISO will post the NESCOE request and explanation on the ISO's website. If NESCOE does not provide that listing of identified transmission needs (which may consist of a NESCOE statement of its determination that no transmission needs are driven by state or federal Public Policy Requirements identified during the stakeholder process) and that explanation (which may consist of a NESCOE explanation of why no transmission needs are driven by state or federal Public Policy Requirements identified during the stakeholder process), the ISO will note on its website that a NESCOE listing and explanation have not been provided. In that circumstance, the ISO will determine subsequently (after opportunity for Planning Advisory Committee input), and post on its website an explanation of, which transmission needs driven by state or federal Public Policy Requirements the ISO will evaluate in the regional planning process, including why other suggested transmission needs will not be evaluated.

#### **4A.1.1 Study of Federal Public Policy Requirements Not Identified by NESCOE; Local Public Policy Requirements**

If a stakeholder believes that a federal Public Policy Requirement that may drive transmission needs relating to the New England Transmission System has not been appropriately addressed by NESCOE, it may file with the ISO, no later than 15 days after the posting of NESCOE's explanation as described in Section 4A.1 of this Attachment, a written request that explains the stakeholder's reasoning and that seeks reconsideration by the ISO of NESCOE's position regarding that requirement. The ISO will post the stakeholder's written request on the ISO's website. Where the ISO agrees with a stated stakeholder position, or on its own finding, the ISO may perform an evaluation under Sections 4A.2 through 4A.4 of this Attachment of a federal Public Policy Requirement not otherwise identified by NESCOE. The ISO will post on its website an explanation of those transmission needs driven by federal Public Policy Requirements not identified by NESCOE that will be evaluated for potential transmission solutions in the regional system planning process, and why other suggested transmission needs driven by federal Public Policy Requirements not identified by NESCOE will not be evaluated. In addition, the ISO will post on its website an explanation of those transmission needs driven by local Public Policy Requirements that will be evaluated for potential transmission solutions in the regional

system planning process, and why other suggested transmission needs driven by local Public Policy Requirements will not be evaluated.

#### **4A.2 Preparation for Conduct of Public Policy Transmission Studies; Stakeholder Input**

Upon receipt of the NESCOE request, or as the result of the ISO's consideration of a federal or local Public Policy Requirement pursuant to Section 4A.1.1, the ISO will prepare and post on its website a proposed scope for the Public Policy Transmission Study, and associated parameters and assumptions (including resource assumptions), and provide the foregoing to the Planning Advisory Committee by no later than September 1 of the request year. A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit stakeholder input for consideration by the ISO on the study's scope, parameters and assumptions.

#### **4A.3 Public Policy Transmission Studies**

##### **(a) Conduct of Public Policy Transmission Studies; Stakeholder Input**

With input from Planning Advisory Committee and potentially impacted PTOs, the ISO will perform the initial phase of the Public Policy Transmission Study to develop a rough estimate of the costs and benefits of high-level concepts that could meet transmission needs driven by Public Policy Requirements. The study's results will be posted on the ISO's website, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input on the results of the initial phase of the study, and the scope, parameters and assumptions (including resource assumptions) for any follow-on phase of the study. The ISO may – as a follow-on phase of the Public Policy Transmission Study – perform more detailed analysis and engineering work on the high-level concepts.

##### **(b) Treatment of Market Solutions in Public Policy Transmission Studies**

The ISO shall reflect proposed market responses in the Public Policy Transmission Study. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), Merchant Transmission Facilities and Elective Transmission Upgrades.

Specifically, the ISO shall incorporate in the Public Policy Transmission Study information regarding resources that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually

bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract. With respect to (ii) or (iii) above, the proponent of the market response shall inform the ISO, in writing, of its selection or its assumption of financially binding obligations, respectively. The ISO shall incorporate information regarding a proposed Merchant Transmission Facility or Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Merchant Transmission Facility or Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), and a commercial operation date has been ascertained, with the exception of Elective Transmission Upgrades that are proposed in conjunction with the interconnection of a resource, which shall be considered at the same time as the proposed resource is considered in the Public Policy Transmission Study.

#### **4A.4 Response to Public Policy Transmission Studies**

The results of the Public Policy Transmission Study will be provided to the Planning Advisory Committee and posted on the ISO's website, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input for the ISO on those results, including any updates from the states on any methods by which they are satisfying their respective Public Policy Requirements included in the Public Policy Transmission Study. The ISO's costs of performing the Public Policy Transmission Study described in Section 4A.3 will be collected by the ISO pursuant to Schedule 1 of Section IV.A of the Tariff. Any prudently incurred PTO costs for assistance requested by the ISO to support the Public Policy Transmission Study will be recovered by the applicable PTO(s) in accordance with Attachment F and Schedule 21 of the Tariff.

The ISO will evaluate the input from the Planning Advisory Committee and provide the results of the Public Policy Transmission Study to Qualified Transmission Project Sponsors for their use in preparing Stage One Proposals to develop, build and operate one or more projects consistent with the general design requirements identified by the ISO in the study.

#### **4A.5 Stage One Proposals**

##### **(a) Information Required for Stage One Proposals**

The ISO will post on its website a notice inviting, for each high-level general project concept identified by the ISO pursuant to Section 4A.3(a) above, Qualified Transmission Project Sponsors to submit (by the deadline specified in the public notice, which shall be not less than 60 days from the date of posting the public notice) a Stage One Proposal providing the following information:

- (i) a detailed description of the proposed solution, in the manner specified by the ISO, including an identification of the proposed route for the solution and technical details of the project;
- (ii) a detailed explanation of how the proposed solution addresses the identified need;
- (iii) the proposed schedule, including key high-level milestones, for development, siting, procurement of real estate rights, permitting, construction and completion of the proposed solution;
- (iv) right, title, and interest in rights of way, substations, and other property or facilities, if any, that would contribute to the proposed solution or the means and timeframe by which such would be obtained; and
- (v) the estimated lifecycle cost of the proposed solution, including a high-level itemization of the components of the cost estimate.

A member of the Planning Advisory Committee that is not a Qualified Transmission Project Sponsor but would like the ISO to consider a Stage One Proposal reflecting its concept for a project in response to a Public Policy Transmission Study (that is, a project that is “unsponsored”) must identify a Qualified Transmission Project Sponsor willing to submit a corresponding Stage One Proposal and Stage Two Proposal (and to develop and construct the project, if selected in the competitive process) in order for the unsponsored project to be submitted in response to an ISO solicitation in Stage One. Upon request of the pertinent Planning Advisory Committee member for assistance in identifying a sponsor, the ISO shall post on its website and distribute to the Planning Advisory Committee a notice that solicits expressions of interest by Qualified Transmission Project Sponsors for sponsorship of the member’s conceptual project. All expressions of interest shall include a detailed explanation of why the Qualified Transmission Project Sponsor is best qualified to construct, own and operate the unsponsored project. If only one Qualified Transmission Project Sponsor expresses interest, the ISO shall designate it as the



project sponsor. If more than one Qualified Transmission Project Sponsor expresses interest, the Planning Advisory Committee member shall select the sponsor. In either case, the designated sponsor shall thereafter comply with the requirements of this Attachment K and the ISO Tariff with respect to the project. If no Qualified Transmission Project Sponsor expresses interest, the unsponsored project may not be submitted in Stage One.

With each proposal, the Qualified Transmission Project Sponsor must include payment of a \$100,000 study deposit per submitted project to support the cost of Stage One and Stage Two study work by the ISO. The deposit of \$100,000 shall be applied towards the costs incurred by the ISO associated with the study of the Stage One and Stage Two proposal.

**(b) LSP Coordination**

Sponsors of Stage One Proposals shall also identify any LSP plans that require coordination with their proposals.

**(c) Preliminary Review by ISO**

Upon receipt of Stage One Proposals, the ISO shall perform a preliminary feasibility review of each proposal to determine whether the proposed solution:

- (i) provides sufficient data and that the data is of sufficient quality to satisfy Section 4A.5(a);
- (ii) appears to satisfy the needs driven by Public Policy Requirements, as reflected in the Public Policy Transmission Study;
- (iii) is technically practicable and indicates possession of, or an approach to acquiring, the necessary rights of way, property and facilities that will make the proposal reasonably feasible in the required timeframe; and;
- (iv) is eligible to be constructed only by an existing PTO in accordance with Schedule 3.09(a) of the TOA because the proposed solution is an upgrade to existing PTO facilities or because the costs of the proposed solution are not eligible for regional cost allocation under the OATT and will be allocated only to the local customers of a PTO.

**(d) Proposal Deficiencies; Further Information**

If the ISO identifies any deficiencies (compared with the requirements of Section 4A.5(a)) in the information provided in connection with a proposed Stage One Proposal, the ISO will notify the Stage One Proposal sponsor and provide an opportunity for the sponsor to cure the deficiencies within the timeframe specified by the ISO. Upon request, sponsors of Stage One Proposals shall provide the ISO with additional information reasonably necessary for the ISO's evaluation of the proposed solutions. This identification and notification will occur prior to the publication by the ISO of any Stage One Proposals. In providing information under this subsection (d), or in Stage Two, the sponsor may not modify its project materially or submit a new project, but instead may clarify its project. Stage Two Proposals reflecting a material modification to a Stage One Proposal or representing a new project will be rejected.

**(e) List of Qualifying Stage One Proposals**

The ISO will provide the Planning Advisory Committee with, and post on the ISO's website, a list of Stage One Proposals that meet the criteria of Section 4A.5(c). A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit input for the ISO on that list. The ISO shall also indicate whether any of the projects may also satisfy identified reliability needs of the system. The ISO with input from the Planning Advisory Committee may exclude projects from the list, and from consideration in Stage Two, based on a determination that the project is not competitive with other projects that have been submitted in terms of cost, electrical performance, future system expandability, or feasibility. Information on Stage One Proposals containing CEII will be posted on the ISO's protected website consistent with Section 2.4(d) of this Attachment. The ISO may amend its listing based on stakeholder input.

**4A.6 Reimbursement of Stage One Proposal and Stage Two Solution Costs; Collection and Refund of ISO Study Costs**

Qualified Transmission Project Sponsors that are requested by NESCOE in writing or by one or more states' governors or regulatory authorities directly to submit a Stage One Proposal shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff and the TOA, their prudently incurred costs from the Regional Network Load of the states identified by NESCOE in the written communication as having made the request or from the Regional Network Load of the states that made the request directly. Stage One Proposal costs shall otherwise not be subject to recovery under the ISO Tariff.

Qualified Transmission Project Sponsors whose projects are listed by the ISO pursuant to Section 4A.5(e) shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff and, as applicable, the TOA and NTDOA, all prudently incurred costs associated with developing a Stage Two Solution. PTOs shall be entitled to recover, pursuant to rates and appropriate financial arrangements set forth in the Tariff, all prudently incurred study costs and costs associated with developing any upgrades or modifications to such PTOs' existing facilities necessary to facilitate the development of a listed project proposed by any other Qualified Transmission Project Sponsor.

Any difference between a Qualified Transmission Project Sponsor's study deposit and the actual cost of the Stage One and Stage Two studies for a project shall be paid by or refunded to the Qualified Transmission Project Sponsor, as appropriate, with interest calculated in accordance with Section 35.19a(a)(2) of the FERC regulations. Any refund payment shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any invoice to collect funds in addition to the deposit shall be accompanied by a detailed and itemized accounting of the actual study costs incurred. Any disputes arising from the study process shall be addressed under the dispute resolution process specified in Section I.6 of the Tariff.

#### **4A.7 Information Required for Stage Two Solutions; Identification and Reporting of Preliminary Preferred Stage Two Solution**

Qualified Transmission Project Sponsors of projects listed pursuant to Section 4A.5(e) of this Attachment shall provide the following information in their proposed Stage Two Solutions:

- (i) updates of the information provided in Stage One Proposals, or a certification that the information remains current and correct;
- (ii) list of required major Federal, State and local permits;
- (iii) description of construction sequencing, a conceptual plan for the anticipated transmission and generation outages necessary to construct the Stage Two Solution and their respective durations, and possible constraints;

- (iv) project schedule, with additional detail compared with Stage One Proposals, as specified by the ISO;
- (v) detailed cost component itemization and life-cycle costs;
- (vi) design standards to be used;
- (vii) description of the authority the sponsor has to acquire necessary rights of way;
- (viii) experience of the sponsor in acquiring rights of way;
- (ix) status of acquisition of right, title, and interest in rights of way, substations, and other property or facilities, if any, that are necessary for the proposed solution;
- (x) detailed explanation of project feasibility and potential constraints and challenges;
- (xi) description of the means by which the sponsor proposes to satisfy state legal or regulatory requirements for siting, constructing, owning and operating transmission projects; and
- (xii) detailed explanation of potential future expandability.

Stage Two Solutions must be submitted to the ISO by the deadline specified in the posting of the final listing (following stakeholder input) of Phase One Proposals described in Section 4A.5(e). The deadline for submittal of Stage Two Solutions shall not be less than 60 days from the posting date of the final listing. The ISO may reject Stage Two Solution submittals which are insufficient or not adequately supported.

The ISO will report the preliminary preferred Stage Two Solution(s), along with its views as to whether the preferred solution(s) also satisfies identified reliability needs of the system, to the Planning Advisory Committee and seek stakeholder input on the preliminary preferred solutions.

#### **4A.8 Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List; Milestone Schedules; Removal from RSP Project List**

##### **(a) Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List**

Following receipt of stakeholder input, the ISO will identify the preferred Stage Two Solution (with an overview of why the solution is preferred) by a posting on its website. The ISO's identification will select the project that best addresses the identified Public Policy Requirement while utilizing the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe. The ISO will also notify the Qualified Transmission Project Sponsor that proposed the preferred Stage Two Solution that its project has been selected for development, and include the project as a Public Policy Transmission Upgrade in the Regional System Plan and RSP Project List, as it is updated from time to time in accordance with this Attachment. Where external impacts of regional Public Policy Transmission Upgrades are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP. Costs associated with such impacts will be addressed as set forth in Schedule 15.

##### **(b) Milestone Schedules**

Within 30 Business Days of its receiving notification pursuant to Section 4A.8(a) of this Attachment, the Qualified Transmission Project Sponsor shall submit to the ISO (and shall update periodically) a schedule that indicates the dates by which applications for siting and other approvals necessary to develop and construct the project by the required in-service date shall be submitted. Within 30 Business Days of its receiving all necessary siting and other approvals, the Qualified Transmission Project Sponsor shall submit to the ISO its acceptance of responsibility to proceed with the project, and a schedule acceptable to the ISO of dates by which typical project construction phases will be completed. The Qualified Transmission Project Sponsor shall submit to the ISO on a monthly basis thereafter, until the project is placed into service, a report that provides updated information (as specified by the ISO) showing the progress of the project.

If the ISO finds, after consultation with a non-PTO Qualified Transmission Project Sponsor, that the sponsor is failing to pursue approvals or construction in a reasonably diligent fashion, or that the sponsor is unable to proceed with the project due to forces beyond its reasonable control, the ISO shall, after consultation with the Planning Advisory Committee, prepare a report, including a proposed course of action. If the Qualified Transmission Project Sponsor that is failing or unable to proceed is a PTO, the ISO shall, after consultation with the Planning Advisory Committee, prepare a report consistent with the provisions of Section 1.1(e) of Schedule 3.09(a) of the Transmission Operating Agreement, including the ISO's proposed course of action. The proposed course of action may include, for example, a consideration and selection of another Stage Two Proposal relating to the pertinent Public Policy Requirement, or the re-solicitation of Stage One Proposals to meet the pertinent Public Policy Requirement. If prepared with respect to a Qualified Transmission Project Sponsor that is not a PTO, the report shall include a report from that sponsor. The ISO shall file its report (whether with respect to a PTO or a non-PTO Qualified Transmission Project Sponsor) with the Commission.

**(c) Removal from RSP Project List**

If a Public Policy Transmission Upgrade is removed from the RSP Project List by the ISO pursuant to Section 3.6(c), the entity responsible for the construction of the Public Policy Transmission Upgrade shall be reimbursed for any costs prudently incurred or prudently committed to be incurred (plus a reasonable return on investment at existing Commission-approved ROE levels) in connection with the planning, designing, engineering, siting, permitting, procuring and other preparation for construction, and/or construction of that Public Policy Transmission Upgrade.

**4A.9 Local Public Policy Transmission Upgrades**

The costs of Local Public Policy Transmission Upgrade(s) that are required in connection with the construction of a Public Policy Transmission Upgrade approved for inclusion in the Regional System Plan in accordance with Section 4A.8 shall be allocated in accordance with Schedule 21 of the ISO OATT.

## **4B. Qualified Transmission Project Sponsors**

### **4B.1 Periodic Evaluation of Applications**

The ISO will periodically evaluate applications submitted by an entity that seeks to qualify as a sponsor of a proposed Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade.

### **4B.2 Information To Be Submitted**

The application to be submitted to the ISO by an entity desiring to be a Qualified Transmission Project Sponsor will include the following information:

- (i) the current and expected capabilities of the applicant to finance and construct a Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade and operate and maintain it for the life of the project;
- (ii) the financial resources of the applicant;
- (iii) the technical and engineering qualifications and experience of the applicant;
- (iv) if applicable, the previous record of the applicant regarding construction and maintenance of transmission facilities;
- (v) demonstrated capability of the applicant to adhere to construction, maintenance and operating Good Utility Practices, including the capability to respond to outages;
- (vi) the ability of the applicant to comply with all applicable reliability standards; and
- (vii) demonstrated ability of the applicant to meet development and completion schedules.

### **4B.3 Review of Qualifications**

The ISO shall review each application for completeness. The ISO will notify each applicant within 30 calendar days of receipt of such application whether the application is complete, or identify any deficiencies in provision of the information required by Section 4B.2 of this Attachment. An applicant notified of deficiencies must provide any remedial information within 30 calendar days of the receipt of such notice. Thereafter, the ISO will determine whether the applicant is physically, technically, legally, and financially capable of constructing a Reliability Transmission Upgrade, Market Efficiency Transmission Upgrade or Public Policy Transmission Upgrade in a timely and competent manner, and operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project,

and use its best efforts to inform the applicant within 90 days from the date on which it has a completed application on file with the ISO whether it has met all of these criteria. A PTO determined by the ISO to meet all of these criteria will be deemed a Qualified Transmission Project Sponsor. A non-PTO entity determined by the ISO to meet all of these criteria will, upon its execution of the Non-incumbent Transmission Developer Operating Agreement (in the form specified in Attachment O of the OATT) and the Market Participant Service Agreement, be deemed a Qualified Transmission Project Sponsor.

#### **4B.4 List of Qualified Transmission Project Sponsors; Annual Certification**

Qualified Transmission Project Sponsors are listed in Appendix 3 of this Attachment K. Each Qualified Transmission Project Sponsor shall submit to the ISO annually a certification that the information initially submitted in response to Section 4B.2 of this Attachment K has not changed adversely in a material fashion, or (if a material adverse change has occurred in the intervening year) submit instead a new application for qualification as a project sponsor. In the latter case, the entity shall not be a Qualified Transmission Project Sponsor unless and until the ISO approves its new application.

### **5. Supply of Information and Data Required for Regional System Planning**

The Transmission Owners, Generator Owners, Transmission Customers, Market Participants and other entities requesting transmission or interconnection service or proposing the integration of facilities to PTF in the New England Transmission System or alternatives to such facilities, and stakeholders requesting a Needs Assessment pursuant to Section 4.1 of this Attachment, shall supply, as required by the Tariff, the Participants Agreement, MPSAs, applicable transmission operating agreements, and/or other existing agreements, protocols and procedures, or upon request by the ISO, and subject to required CEII and confidentiality protections as specified in Section 2.4 of this Attachment, any information (including cost estimates) and data that is reasonably required to prepare an RSP or to perform a Needs Assessment or Solutions Study.

### **6. Regional, Local and Interregional Coordination**

#### **6.1 Regional Coordination**

The ISO shall conduct the regional system planning process for the PTF in coordination with the transmission-owning entities in, or other entities interconnected to, the New England Transmission



System consistent with the rights and obligations defined in the ISO OATT, applicable transmission operating agreements or protocols, and/or this Attachment. Pursuant to Section II.49 of this OATT and Sections 3.02, 3.05 and 3.09 of the TOA, the ISO has Operating Authority or control over all PTF and Non-PTF within the New England Control Area, which are utilized for the provision of transmission service under this OATT. The ISO also has Operating Authority or control over the United States portions of the HVDC ties to Quebec and over Merchant Transmission Facilities and Other Transmission Facilities, pursuant to this OATT or applicable transmission operating agreements or protocols. The ISO, however, is not responsible for the planning of the Non-PTF, OTF and MTF. As provided in Section 6.2 and Appendix 1 of this Attachment, the PTOs are responsible for the planning of the Non-PTF and coordinating such planning efforts with the ISO. Pursuant to the OATT and/or applicable transmission operating agreements or protocols, the transmission owners of OTF and MTF are required to participate in the ISO's regional system planning process and perform and/or support studies of the impacts of regional system projects on their respective facilities.

## **6.2 Local Coordination**

The regional system planning process shall be conducted and the RSP shall be developed in coordination with the local system plans of the PTOs. In accordance with the TOA and OATT provisions identified in Section 6.1 of this Attachment, the PTOs have responsibility for planning Non-PTF. The PTOs conduct planning of Non-PTF using the LSP process outlined in Section 2.5 and Appendix 1 of this Attachment, in coordination with the ISO, other entities interconnected with the New England Transmission System, Transmission Customers and stakeholders, and in accordance with the provisions in the TOA, the OATT and the Planning and Reliability Criteria. The openness and transparency of the LSP process is intended to be consistent with the regional system planning process.

## **6.3 Interregional Coordination**

The regional system planning process shall be conducted and the RSP shall be developed in coordination with the similar plans of the surrounding ISOs/RTOs and Control Areas pursuant to the Northeastern Planning Protocol and other agreements with neighboring systems (including entities that are not Parties to the Northeastern Planning Protocol) and NPCC.

**(a) Interregional Coordination and Cost Allocation Among ISO, New York Independent System Operator, Inc. (“NYISO”) and PJM Interconnection, L.L.C. (“PJM”) Under Order No. 1000**

Pursuant to Section 7 of the Northeastern Planning Protocol (which is posted on the web at [www.iso-ne.com/static-assets/documents/2015/07/northeastern\\_protocol\\_dmeast.doc](http://www.iso-ne.com/static-assets/documents/2015/07/northeastern_protocol_dmeast.doc), the Joint ISO/RTO Planning Committee (“JIPC”) reviews regional needs and solutions identified in the regional planning processes of the ISO, NYISO and PJM in order to identify, with input from the Interregional Planning Stakeholder Advisory Committee (“IPSAC”), the potential for Interregional Transmission Projects that could meet regional needs more efficiently or cost-effectively than regional transmission projects. All members of the Planning Advisory Committee shall be considered IPSAC members. The JIPC will coordinate studies deemed necessary to allow the effective consideration by the regions, in the same general timeframe, of a proposed Interregional Transmission Project in comparison to regional transmission solutions. Any stakeholder may propose in the New England planning process, for evaluation under Section 4.2, 4.3, or 4A (as applicable) of Attachment K, an Interregional Transmission Project (or project concept) that may be more efficient or cost-effective than a regional transmission solution. If a proposed Interregional Transmission Project is approved in each region in which the project is located, the corresponding New England regional transmission project(s) will be displaced in the circumstances described in Section 3.6(a) of this Attachment, and the costs of the Interregional Transmission Project will be allocated among the regions based on the formula provided in Schedule 15 of this OATT, or in accordance with another funding arrangement filed with and accepted by the Commission. The amount of the costs of an Interregional Transmission Project allocated as the responsibility of New England pursuant to the methodology referenced in Section 6.3(a) of this Attachment shall be allocated within New England as specified in Schedule 15 of the ISO OATT.

**(b) Other Interregional Assessments and Other Interregional Transmission Projects**

Interregional system assessments and/or interregional system expansion planning studies may be performed periodically by the ISO with Planning Authorities who are not parties to the Northeastern Planning Protocol, or with the JIPC pursuant to Section 6 of the Northeastern Planning Protocol, or both. The ISO shall convene periodic meetings of the Planning Advisory Committee (which may be combined with meetings of the IPSAC), to provide input and feedback

to the ISO concerning such assessments and studies. To the extent that an Interregional Transmission Project is agreed to by ISO and by another region (not a Party to the Northeastern Planning Protocol) in which a portion of the project is located, the related cost allocation and operating agreements will be filed with the Commission (and, as applicable, with Canadian jurisdictional agencies) in accordance with existing filing rights.

## **7. Procedures for Development and Approval of the RSP**

### **7.1 Initiation of RSP**

No less often than once every three years, the ISO shall initiate an effort to develop its RSP and solicit input on regional system needs for the RSP from the Planning Advisory Committee. The Planning Advisory Committee shall meet to perform its respective functions in connection with the preparation of the RSP, as specified in Section 2 of this Attachment. The ISO shall issue the periodic planning reports that support the RSP, such as Needs Assessments, as those reports are completed.

### **7.2 Draft RSP; Public Meeting**

The ISO shall provide a draft of the RSP to the Planning Advisory Committee and input from that Committee shall be received and considered in preparing and revising subsequent drafts. The ISO shall post the draft RSP and provide notice to the Planning Advisory Committee of a meeting to review the draft RSP as specified in Section 2.2 of this Attachment.

After the ISO has provided a draft of the RSP to the Planning Advisory Committee, the ISO shall issue a second draft of the RSP to be presented by the ISO staff to the ISO Board of Directors for approval. The draft RSP shall incorporate the results of any Needs Assessment, and corresponding Solutions Studies, performed since the last RSP was approved. A subcommittee of that Board shall hold a public meeting, at their discretion, to receive input directly and to discuss any proposed revisions to the RSP. The final recommended RSP shall be presented to the ISO Board of Directors and shall be acted on by the ISO Board of Directors within 60 days of receipt. The foregoing timeframes are subject to adjustment as determined by the ISO in coordination with the Planning Advisory Committee.

### **7.3 Action by the ISO Board of Directors on RSP; Request for Alternative Proposals**

#### **(a) Action by ISO Board of Directors on RSP**

The ISO Board of Directors may approve the recommended draft RSP as submitted, modify the RSP or remand all or any portion of it back with guidance for development of a revised recommendation. The Board of Directors may consider the RSP in executive session, and shall consider in its deliberations the views of the subcommittee of the Board of Directors reflecting the public meeting held pursuant to Section 7.2 of this Attachment. In considering whether to approve the draft RSP, the Board of Directors may, if it finds a proposed Reliability Benefit Upgrade not to be viable, or if no Reliability Benefit Upgrade has been proposed, direct the ISO staff to meet with the affected load serving entities and State entities in order to develop an interim solution. Should that effort fail, and as a last resort, the Board of Directors may direct the ISO to issue a Request For Alternative Proposal (“RFAP”), subject to the procedures described below, and may withhold approval of the draft RSP, or portions thereof, pending the results of that RFAP and any Commission action on any resulting jurisdictional contract or funding mechanism. The ISO shall provide a written explanation as to any subsequent changes or modification made in the final version of the RSP.

**(b) Requests For Alternative Proposals**

- (i) The RFAP shall seek generation, demand-side and merchant transmission alternatives that can be implemented rapidly and provide substantial reliability benefits over the period solicited in the RFAP, and normally will focus on an interim (“gap”) solution until an identified Reliability Transmission Upgrade has been placed in-service. The ISO will file a proposed RFAP with the Commission for approval at least 60 days prior to its issuance. The filing shall explain why the issuance of an RFAP is necessary.
- (ii) The ISO staff shall provide the Board of Directors and subject to confidentiality requirements, the Planning Advisory Committee with an analysis of the alternatives offered in response to the RFAP, and provide a recommendation together with a funding mechanism reflecting input from the Planning Advisory Committee.
- (iii) The ISO may enter into contracts awarded pursuant to an RFAP process, and/or propose a funding mechanism. Bidders that are awarded contracts through the RFAP process shall file those contracts with the Commission for approval of the rates to be charged thereunder to the extent that such contracts are for services that are jurisdictional

to the Commission. The ISO shall file related or separate funding mechanisms with the Commission as well. All other contracts entered into pursuant to an RFAP shall be filed with the Commission for informational purposes.

(iv) The Board of Directors will reflect the results of the RFAP process in the approved RSP.

## **8. Obligations of PTOs to Build; PTOs' Obligations, Conditions and Rights**

In accordance with the TOA, PTOs designated by the ISO as the appropriate entities to construct and own or finance Transmission Upgrades included in the RSP shall construct and own or finance such facilities or enter into appropriate contracts to fulfill such obligations. In the event that a PTO: (i) does not construct or indicates in writing that it does not intend to construct a Transmission Upgrade included in the RSP; or (ii)

demonstrates that it has failed (after making a good faith effort) to obtain necessary approvals or property rights under applicable law, the ISO shall promptly file with the Commission a report on the results of the planning process, which report shall include a report from the PTO responsible for the planning, design or construction of such No. 3 Open Access Transmission Tariff Section II – Attachment K – Regional System Planning Process Transmission Upgrade, in order to permit the Commission to determine what action, if any, it should take.

In connection with regional system planning, the ISO will not propose to impose on any PTO obligations or conditions that are inconsistent with the explicit provisions of the TOA or deprive any PTO of any of the rights set forth in the TOA.

Subject to necessary approvals and compliance with Section 2.06 of the TOA, nothing in this OATT shall affect the right of any PTO to expand or modify its transmission facilities in the New England Transmission System on its own initiative or in response to an order of an appropriate regulatory authority. Such expansions or modifications shall conform with: (a) Good Utility Practice; (b) applicable reliability principles, guidelines, criteria, rules, procedures and standards of national, regional, and local reliability councils that may be in existence; and (c) the ISO and relevant PTO criteria, rules, standards, guides and policies. The ISO reserves its right to challenge the permitting of such expansions or modifications.

## **9. Merchant Transmission Facilities**

### **9.1 General**

Subject to compliance with the requirements of the Tariff and any other applicable requirements with respect to the interconnection of bulk power facilities with the New England Transmission System, any entity shall have the right to propose and construct the addition of transmission facilities (“Merchant Transmission Facilities”), none of the costs of which shall be covered under the cost allocation provisions of this OATT. Any such Merchant Transmission Facilities shall be subject to the requirements of Section 9.2 of this Attachment. In performing studies in connection with the RSP, the prospect that proposed Merchant Transmission Facilities will be completed shall be accounted for as will the prospect that proposed generating units will be completed.

### **9.2 Operation and Integration**

All Merchant Transmission Facilities shall be subject to: (i) an agreement to transfer to the ISO operational control authority over any facilities which constitute part of the Merchant Transmission Facilities that are to be integrated with, or that will affect, the New England Transmission System; and (ii) taking such other action as may be required to make the facility available for use as part of the New England Transmission System.

### **9.3 Control and Coordination**

Until such time as a Merchant Transmission Owner has transferred operational control over its Merchant Transmission Facilities to the ISO pursuant to Section 9.2(i), all such Merchant Transmission Facilities shall be subject to the operational control, scheduling and maintenance coordination of the System Operator in accordance with the Tariff.

## **10. Cost Responsibility for Transmission Upgrades**

The cost responsibility for each upgrade, modification or addition to the transmission system in New England that is included with the status of “Planned” in the RSP Project List as defined in Section 3.6 of this Attachment shall be determined in accordance with Schedule 12 of this OATT.

## **11. Allocation of ARRs**

The allocation of ARRs in connection with Transmission Upgrades is addressed in Section III.C.8 of the Tariff.

## **12. Dispute Resolution Procedures**

### **12.1 Objective**

Section 12 of this Attachment sets forth a dispute resolution process (the “Regional Planning Dispute Resolution Process”) through which regional transmission planning-related disputes may be resolved as expeditiously as possible.

### **12.2 Confidential Information and CEII Protections**

All information disclosed in the course of the Regional Planning Dispute Resolution Process shall be subject to the protection of confidential information and CEII consistent with the ISO New England Information Policy and CEII policy.

### **12.3 Eligible Parties**

Any member of the Planning Advisory Committee that has been adversely affected by a Reviewable Determination, defined in Section 12.4(a) of this Attachment, with respect to the regional system planning process described in this Attachment is eligible to raise its dispute, as appropriate, under this Dispute Resolution Process (“Disputing Party”).

### **12.4 Scope**

In order to ensure that the regional transmission planning process set forth under this Attachment moves expeditiously forward, the scope of issues that may be subject to the Regional Planning Dispute Resolution Process under this Section 12 shall be limited to certain key procedural and substantive decisions made by the ISO within its authority as specified in documents on file with the Commission. That is, decisions not subject to resolution within the jurisdiction of the Commission are not within the scope of the Regional Planning Dispute Resolution Process. Examples of matters not within the scope of the Regional Planning Dispute Resolution Process include planning to serve retail native load or state siting issues. Additionally, the Tariff already explicitly provides specific dispute resolution procedures for various matters. To this end, any matter regarding the review and approval of applications pursuant to Section I.3.9 of the Tariff, which is subject to the dispute resolution process under Section I.6 of the Tariff, shall not be within the scope of this Regional Planning Dispute Resolution Process. Similarly, any

matter regarding Transmission Cost Allocation shall be governed by the dispute resolution process under Schedule 12 of the OATT, and shall be outside the scope of this Regional Planning Dispute Resolution Process.

**(a) Reviewable Determinations**

The determinations that may be subject to the Regional Planning Dispute Resolution Process under this Section 12 that include certain procedural and substantive challenges that may arise at limited designated key decision points in the regional transmission planning process for PTF. Procedural challenges will be limited to whether or not the steps taken up to a designated key decision point conform to the requirements set forth in this Attachment. Substantive challenges will be limited to whether or not a determination or conclusion rendered at a designated key decision point was supported by adequate basis in fact.

The designated key decision points for Reviewable Determinations shall be limited to the following:

- (i) Results of a Needs Assessment conducted and communicated by the ISO to the Planning Advisory Committee as specified in Section 4.1 of this Attachment;
- (ii) Updates to the RSP Project List, including adding, removing or revising regulated transmission solutions included thereunder, as presented at the Planning Advisory Committee and as specified in Section 3.6 of this Attachment;
- (iii) Results of Solutions Studies conducted and communicated by the ISO to the Planning Advisory Committee as specified in Section 4.2 of this Attachment;
- (iv) Consideration of market responses in Needs Assessments as specified in Section 4.1(f) of this Attachment;
- (v) Substance of Economic Studies to be conducted by the ISO in a given year as specified in Section 4.1(b) of this Attachment; and



- (vi) Prioritization of Economic Studies to be performed in a given year where the Planning Advisory Committee is not able to prioritize them as specified in Section 4.1(b) of this Attachment.

**(b) Material Adverse Impact**

In order to prevail in a challenge to a procedural-based Reviewable Determination, the Disputing Party must show that the alleged procedural error had a material adverse impact on the determination or conclusion. In order to prevail in a challenge to a substantive-based Reviewable Determination, the Disputing Party must show that either (i) the determination is based on incorrect data or assumptions or (ii) incorrect analysis was performed by the ISO, and (iii) as a result the ISO made an incorrect decision or determination.

**12.5 Notice and Comment**

A Disputing Party aggrieved by a Reviewable Determination shall have fifteen (15) calendar days upon learning of the Reviewable Determination following the ISO's presentation of such Reviewable Determination at the Planning Advisory Committee to request dispute resolution by giving notice to the ISO ("Request for Dispute Resolution"). A Request for Dispute Resolution shall be in writing and shall be addressed to the ISO's Chair of the Planning Advisory Committee and, as appropriate, the affected Transmission Owner. Within three (3) Business Days of the receipt by the ISO of a Request for Dispute Resolution, the ISO shall prepare and distribute to all members of the Planning Advisory Committee a notice of the Request for Dispute Resolution including, subject to the protection of Confidential Information and CEII, the specifics of the Request for Dispute Resolution and providing the name of an ISO representative to whom any comments may be sent. Any member of the Planning Advisory Committee may submit to the ISO's designated representative, on or before the tenth (10th) Business Day following the date the ISO distributes the notice of the Request for Dispute Resolution, written comments to the ISO with respect to the Request for Dispute Resolution. The party filing the Request for Dispute Resolution may respond to any such comments by submitting a written response to the ISO's designated representative and to the commenting party on or before the fifteenth (15th) Business Day following the date the ISO distributes the notice of the Request for Dispute Resolution. The ISO may, but is not required to, consider any written comments.

**12.6 Dispute Resolution Procedures**

**(a) Resolution Through the Planning Advisory Committee**

The Planning Advisory Committee shall discuss and resolve any dispute arising under this Attachment involving a Reviewable Determination, as defined in Section 12.4 of this Attachment, between and among the ISO, the Disputing Party, and, as appropriate, the affected Transmission Owner (collectively, "Parties") (excluding applications for rate changes or other changes to the Tariff, or to any Service Agreement entered into under the Tariff, which shall be presented directly to the Commission for resolution).

**(b) Resolution Through Informal Negotiations**

To the extent that the Planning Advisory Committee is not able to resolve a dispute arising under this Attachment involving a Reviewable Determination, as defined in Section 12.4 of this Attachment, between and among the ISO, the Disputing Party, and, as appropriate, the affected Transmission Owner, such dispute shall be the subject of good-faith negotiations among the Parties. Each Party shall designate a fully authorized senior representative for resolution on an informal basis as promptly as practicable.

**(c) Resolution Through Alternative Dispute Resolution**

In the event the designated representatives are unable to resolve the dispute through informal negotiation within thirty (30) days, or such other period as the Parties may agree upon, by mutual agreement of the Parties, such dispute may be submitted to mediation or any other form of alternative dispute resolution upon the agreement of all Parties to participate in such mediation or other alternative dispute resolution process. Such form of alternative dispute resolution shall not include binding arbitration.

If a Party identifies exigent circumstances reasonably requiring expedited resolution of the dispute, such Party may file a Complaint with the Commission or seek other appropriate redress before a court of competent jurisdiction.

**12.7 Notice of Dispute Resolution Process Results**

Within three (3) Business Days following the resolution of a dispute pursuant to either Section 12.6(b) or Section 12.6(c) of this Attachment, the ISO shall distribute to the Planning Advisory Committee a document reflecting the resolution.

### **13. Rights Under The Federal Power Act**

Nothing in this Attachment shall restrict the rights of any party to file a Complaint with the Commission under relevant provisions of the Federal Power Act.

### **14. Annual Assessment of Transmission Transfer Capability**

Each year, the ISO shall issue the results of the annual assessment of transmission transfer capability, conducted pursuant to applicable NERC, NPCC and ISO New England standards and criteria and the identification of potential future transmission system weaknesses and limiting facilities that could impact the transmission system's ability to reliably transfer energy in the planning horizon. Each annual assessment will identify those portions of the New England system, along with the associated interface boundaries, that should be considered in the assessment of Capacity Zones to be modeled in the Forward Capacity Market pursuant to ISO Tariff Section III.12. This report will be posted on the ISO website. Each annual assessment will model out-of-service all Non-Price Retirement Requests and Permanent De-List Bids as well as rejected for reliability Static De-List Bids and rejected for reliability Dynamic De-List Bids from the most recent Forward Capacity Auction.

### **15. Procedures for the Conduct of Cluster Enabling Transmission Upgrades Regional Planning Study**

The purpose of this Section 15 is to support the conduct of Interconnection Studies under the Interconnection Procedures set forth in Schedules 22, 23 and 25 of Section II of the Tariff. Other than Section 2 of this Attachment K regarding the responsibilities of the Planning Advisory Committee and this Section 15, none of the other provisions in this Attachment K apply to the conduct of the Cluster Enabling Transmission Upgrade Regional Planning Study or the results of the study.

#### **15.1 Notice of Initiation of Cluster Enabling Transmission Upgrade Regional Planning Study in Support of Cluster Studies under the Interconnection Procedures.**

Pursuant to Section 4.2.2 of Schedule 22, Section 1.5.3.2 of Schedule 23, and Section 4.2.2 of Schedule 25 of Section II of this Tariff, the ISO shall provide notice to the Planning Advisory Committee of the initiation of a cluster for studying certain Interconnection Requests. The cluster study process, known as Clustering, shall consist of two phases. This notice shall trigger the first phase of Clustering, during which the ISO shall conduct a Cluster Enabling Transmission Upgrade ("CETU") Regional Planning Study ("CRPS") (the cost of which will be recovered by the ISO pursuant to Section IV.A of the Tariff).

In the second phase of Clustering, the ISO shall conduct Interconnection System Impact Studies and Interconnection Facilities Studies in clusters pursuant to Schedules 22, 23 and 25 of Section II of the Tariff.

### **15.2 Preparation for Conduct of CRPS; Stakeholder Input**

The purpose of the CRPS shall be to identify the new transmission infrastructure and any associated system upgrades to enable the interconnection of potentially all of the resources proposed in the Interconnection Requests for which the conditions identified in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff have been triggered. The ISO will prepare and post on its website, consistent with Section 2.4(d) of this Attachment K, a proposed scope of the CRPS and associated parameters and assumptions, and provide the foregoing to the Planning Advisory Committee. A meeting of the Planning Advisory Committee will be held promptly thereafter in order to solicit stakeholder input for consideration by the ISO on the CRPS's scope, parameters and assumptions, consistent with the responsibilities of the Planning Advisory Committee as set forth in Section 2.2 of this Attachment. As part of the CRPS's scope, the ISO will describe the circumstances that triggered the conditions in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff. In addition, the ISO will identify: (i) the Interconnection Requests, to be referenced by Queue Position, that are expected to be eligible to participate in the Cluster Interconnection System Impact Study, and (ii) the preliminary transmission upgrade concepts proposed to be considered in the CRPS. The preliminary transmission upgrade concepts may account for previously conducted transmission reinforcement studies and previously identified concepts for transmission upgrades in the relevant electrical area, including Elective Transmission Upgrades with Interconnection Requests pending in the interconnection queue prior to the initiation of the CRPS.

A member of the Planning Advisory Committee or an Interconnection Customer may make a written submission to the ISO, requesting that Clustering be considered for specific Interconnection Requests in the ISO New England interconnection queue. In response to such a request, the ISO will either develop a notice of initiation of a cluster pursuant to Section 15.1 of this Attachment K, or identify, in writing, to the Planning Advisory Committee why the conditions in Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff have not been triggered.

### **15.3 Conduct of the CRPS**

The CRPS will consist of analyses performed under the conditions used in the conduct of an Interconnection System Impact Study under the Interconnection Procedures. The CRPS will consist of steady state thermal analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak-grid-related analyses. The ISO will use Reasonable Efforts to complete the CRPS within twelve (12) months from the notice of the cluster initiation to the Planning Advisory Committee. If less than two (2) Interconnection Requests identified pursuant to Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff remain in the interconnection queue prior to the completion of the CRPS, the ISO will terminate the CRPS.

### **15.4 Publication of the CRPS**

The ISO shall post a draft report of the CRPS to the Planning Advisory Committee, consistent with Section 2.4(d) of this Attachment K, and a meeting of the Planning Advisory Committee will be held promptly thereafter in order to discuss the results of the CRPS. A comment period will follow the Planning Advisory Committee meeting. The ISO will post on its website any comments received and the ISO's responses to those comments.

The CRPS report will provide:

- (i) a planning level description of the CETU(s) and a non-binding good faith order-of-magnitude estimate, developed by the applicable Transmission Owner(s), of the costs for the CETU(s);
- (ii) a list of other facilities that may be needed in addition to the CETU(s) and a non-binding good faith order-of-magnitude estimate, developed by the applicable Transmission Owner(s), of the costs for those facilities (the CRPS will not provide descriptions of expected Interconnection Facilities for specific Interconnection Requests in the cases where the Interconnection Facilities cannot be finalized until the actual Interconnection Requests that will be moving forward in the cluster are known);
- (iii) the approximate megawatt quantity (or quantities if more than one level of megawatt injection was studied in the CRPS) of resources that could be interconnected in a manner

that meets the Network Capability Interconnection Standard and the Capacity Capability Interconnection Standard in accordance with Schedules 22, 23 and 25 of Section II of the Tariff; and,

- (iv) a list of the Interconnection Requests, to be referenced by Queue Position, that at the sole discretion of the ISO are identified as eligible to participate in the Cluster Interconnection System Impact Study that will be conducted by the ISO in accordance with Section 4.2.3 of Schedule 22, Section 1.5.3.3 of Schedule 23, and Section 4.2.3 of Schedule 25 of Section II of the Tariff. The list shall include the expected cost allocation for the eligible Interconnection Requests, calculated in accordance with Schedule 11 of Section II of the Tariff.

The non-binding good faith order-of-magnitude estimates under Section 15.4(i)-(ii) of this Attachment will be developed by the applicable Transmission Owner(s), and the costs of developing such estimates shall be recovered as specified in Sections 3.3.1, 6.1 and 7.2 of Schedule 22, Section 3.3.1, 3.4.2, and Attachment 1 of Schedule 23, and Section 3.3.1, 6.1 and 7.2 of Schedule 25.

The posting, consistent with Section 2.4 (d) of this Attachment K, of the final CRPS report on the ISO website will trigger the Cluster Interconnection System Impact Study Entry Deadline specified in Section 4.2.3.1 of Schedule 22, Section 1.5.3.3.1 of Schedule 23, and Section 4.2.3.1 of Schedule 25 of Section II of the Tariff. The Cluster Interconnection System Impact Study Entry Deadline shall be 30 days from the posting of the final CRPS report.

Notwithstanding any other provision in this Section 15, the final Maine Resource Integration Study shall be the first CRPS and will form the basis for the first Cluster Interconnection System Impact Study to be conducted in accordance with Section 4.2.3 of Schedule 22, Section 1.5.3.3 of Schedule 23, and Section 4.2.3 of Schedule 25 of Section II of the Tariff.

**ATTACHMENT K APPENDIX 1**  
**ATTACHMENT K -LOCAL**  
**LOCAL SYSTEM PLANNING PROCESS**

**APPENDIX 1**  
**ATTACHMENT K -LOCAL**  
**LOCAL SYSTEM PLANNING PROCESS**

**1. Local System Planning Process**

**1.1 General**

In circumstances where transmission system planning for Non-Pool Transmission Facilities (“Non-PTF”)<sup>1</sup>, including Local Public Policy Transmission Upgrades, is taking place in New England that is not incorporated into the RSP planning process, the following Local System Plan (“LSP”) process will be utilized for transmission planning purposes. The purpose of the LSP is to enable formal stakeholder input to planning for Non-PTF that is not incorporated into the RSP. The LSP shall ensure the opportunity for Planning Advisory Committee participation in the LSP process. The LSP will not be subject to approval by the ISO or the ISO Board under the RSP.

**1.2 Planning Advisory Committee Review**

The Planning Advisory Committee shall periodically provide input and feedback to the PTOs concerning the development of the LSP and the conduct of associated system enhancement and expansion studies. It is contemplated that LSP issues for identified local areas will be periodically addressed at the end of regularly scheduled Planning Advisory Committee meetings. Regular meetings of the Planning Advisory Committee shall be extended as necessary to serve the purposes of this section. Each PTO contemplating the addition of new Non-PTF will present its respective LSP to the Planning Advisory Committee not less than once per year. Not less than every three years, each PTO will post a notice as part of its LSP process indicating that members of the Planning Advisory Committee, NESCOE, or any state may provide the PTO with input regarding state and federal Public Policy Requirements identified as driving transmission needs relating to Non-PTF and regarding particular local transmission needs driven by Public Policy Requirements. The PTO will provide a written explanation, to be posted on the ISO website, of why suggested transmission needs driven by Public Policy Requirements will or will not be evaluated for potential solutions in the LSP planning process.

**1.3 Role of the PTOs**

---

<sup>1</sup> For absence of doubt, the PTOs clarify that Non-PTF is meant to include Category B and Local Area Facilities as defined by the TOA.



Each PTO will be responsible for administering the LSP process pertaining to its own Non-PTF, including Local Public Policy Transmission Upgrades, by presenting LSP information to the Planning Advisory Committee, developing an appropriate needs analysis and addressing LSP needs within its local area. In developing its LSP, each PTO will ensure comparable treatment of similarly situated customers or potential customers and will take into consideration data, comments and specific requests supplied by the Planning Advisory Committee, Transmission Customers and other stakeholders. To the extent that generation and/or demand resources are identified that could impact planning for Non-PTF, each PTO will take such resources into account when developing the LSP for its facilities, consistent with Good Utility Practice. Each PTO will also be responsible for addressing issues or concerns arising out of Planning Advisory Committee review of its proposed LSP and posting its LSP and the LSP Project List.

#### **1.4 Description of LSP**

The LSP shall describe the projected improvements to Non-PTF that are needed to maintain system reliability or as Local Public Policy Transmission Upgrades, and shall reflect the results of such reviews within the limited geographical areas that pertain to the LSP, as determined by each PTO (“LSP Needs Assessments”), and corresponding system planning and expansion studies. The LSP Needs Assessments will be coordinated with the RSP and include the information that the ISO-NE incorporates into the RSP plans, as applicable. The proponents of regulated transmission proposals in response to LSP Needs Assessments shall also identify any RSP plans that require coordination with their regulated transmission proposals addressing the Non-PTF system needs.

The LSP shall identify the planning process, criteria, data, and assumptions used to develop the LSP. To the extent the current LSP utilizes data, assumptions or criteria used by the ISO in the RSP, any such data, assumptions or criteria will also be identified in the LSP.

Each PTO shall consult with NESCOE and applicable states, local authorities and stakeholders to consider their views prior to including a Local Public Transmission Upgrade in its LSP, as described in Section 1.6.

Each PTO’s LSP will be made available on a website for review by the Planning Advisory Committee, Transmission Customers and other stakeholders, subject to the ISO New England Information Policy and

CEII restrictions or requirements. The ISO's posting of the RSP and the RSP Project List will include links to each PTO's specific LSP posting.

The LSP of a particular PTO shall be posted not less than 3 business days prior to its presentation by the PTO to the Planning Advisory Committee. The Planning Advisory Committee, Transmission Customers, and other stakeholders will have 30 days from the date of the PTO's presentation to the Planning Advisory Committee to provide any written comments for consideration by the PTO. The LSP shall specify the physical characteristics of the solutions that can meet the needs identified in the LSP. The LSP shall provide sufficient information to allow Market Participants to assess the quantity, general locations and operating characteristics of the type of incremental supply or demand-side resources, or merchant transmission projects, that would satisfy the identified needs or that may serve to modify, offset or defer proposed regulated transmission upgrades.

Each year's LSP shall be based upon the LSP completed in the prior year by either recertifying the results of the prior LSP or providing specific updates.

## **1.5 Economic Studies**

To the extent that the ISO selects any Economic Studies pursuant to Section 4.1(b) of Attachment K or otherwise performs Economic Studies that will impact Non-PTF, the PTOs will coordinate with the ISO in the performance of such Economic Studies.

## **1.6 Public Policy Studies**

As part of the LSP process, each PTO will evaluate potential transmission solutions on its Non-PTF system that are likely to be both efficient and cost-effective for meeting Public Policy Requirements.

### **1.6A Process to Identify Public Policy Requirements Driving Non-PTF Transmission Needs**

Within six months of publication, each PTO will review the Public Policy Requirements posted by the ISO to determine and evaluate at a high level any public policy needs potentially driving transmission needs on their respective Non-PTF systems. Such evaluations will also include potential public policy needs suggested by third parties. Each PTO will review NESCOE's written explanation of which transmission needs driven by state or federal Public Policy Requirements will be evaluated by the ISO and why other suggested transmission needs will not be evaluated. If NESCOE does not provide a listing

of identified transmission needs and explanation, each PTO will review the ISO's explanations of which transmission needs driven by state or federal Public Policy Requirements will be evaluated by the ISO and why other suggested transmission needs will not be evaluated. In addition, each PTO will review the ISO's explanation of which transmission needs driven by local Public Policy Requirements will be evaluated in the regional system planning process and why other suggested transmission needs driven by local Public Policy requirements will not be evaluated. Each PTO will then determine if any of the posted state, federal or local Public Policy Requirements are driving a need on its Non-PTF transmission system and will include the non-PTF needs in its local planning process.

As part of the local planning process, each PTO will list the identified transmission needs on its non-PTF transmission system driven by state, federal, or local Public Policy Requirements that will be evaluated, and provide an explanation of why any identified transmission needs will not be evaluated as part of its LSP. The list will be posted in the PTO's LSP and presented at the annual PAC meeting. The PTO will seek input at the PAC meeting from stakeholders about whether further study is warranted to identify solutions for local transmission system needs and seek recommendations about whether to proceed with such studies. A stakeholder may provide written input on the list within 30 days from the date of presentation for consideration by the PTO. Each PTO will then confirm, or modify if appropriate, its determination of which identified transmission needs on its non-PTF transmission system driven by state, federal, or local Public Policy Requirements will be evaluated and which will not be evaluated, and revise its annual LSP accordingly. If the potential Non-PTF transmission needs identified would affect the Non-PTF facilities of more than one PTO, the affected PTOs will coordinate their efforts with other affected PTOs, as necessary.

#### **1.6B Procedure for Evaluating Potential Public Policy Solutions on the Non-PTF**

Once it has been determined that a non-PTF need driven by state, federal or local Public Policy Requirements will be evaluated, each PTO will prepare a scope and associated assumptions as part of a Public Policy Local Transmission Study. For those needs where a scope is available, a PTO may present the proposed scope for the Public Policy Local Transmission Study within its LSP and as part of its LSP presentation described in Section 1.6A. A stakeholder may provide written input to the scope within 30 days after the LSP presentation for the PTO to consider.

Each PTO will schedule a follow-up PAC meeting presentation for additional stakeholder input within 4 months after the PTO's LSP presentation as described in Section 1.6A if the proposed scope for a Public Policy Local Transmission Study was not included in its annual LSP presentation. Within 30 days after

the follow-up meeting, a stakeholder may provide written input to the scope for the PTO to consider. Subsequently, the PTO will determine the study scope for the Public Policy Local Transmission Study and revise its annual LSP.

In preparation of a Public Policy Local Transmission Study that will be presented to the PAC as part of the LSP for the following year, the PTO will undertake the following: First, the PTO will perform the initial phase of the Public Policy Local Transmission Study to develop an estimate of costs and benefits and post its preliminary results on a website. Second, the PTO will use good faith efforts to contact stakeholders and the appropriate state and/or local authorities informing them of the posting, requesting input on whether further study is warranted to identify solutions for local transmission system needs, and seeking recommendations about whether to proceed with further planning and construction of a Local Public Policy Transmission Upgrade. Each PTO will then make a determination of whether further study is warranted to identify solutions for local transmission system needs, or will select its final solution, and revise its annual LSP accordingly. If the potential Non-PTF transmission needs identified would affect the Non-PTF facilities of more than one PTO, the affected PTOs will coordinate their efforts with other affected PTOs, as necessary. Results of a Public Policy Local Transmission Study will be provided to the PAC as part of the LSP for the following year.

## **2. Posting of LSP Project List**

Each PTO shall develop, maintain and make available on a website, a cumulative listing of proposed regulated transmission solutions that may meet LSP needs (the “LSP Project List”). The LSP Project List will be updated at least annually. The LSP Project List shall also provide reasons for any new Non-PTF, including Local Public Policy Transmission Upgrades, any change in status of proposed Non-PTF, including Local Public Policy Transmission Upgrades, or any removal of proposed Non-PTF, including Local Public Policy Transmission Upgrades, from the LSP Project List. Each PTO will be individually responsible for publicly posting and updating the status of its respective LSP and the transmission projects arising therefrom on a website in a format comparable to the manner in which RSP plans and projects are posted on the RSP Project List. The ISO’s posting of the RSP and RSP Project List will include links to each PTO’s specific LSP Project List.

## **3. Posting of Assumptions and Criteria**

Each PTO will make available on a website the planning criteria and assumptions used in its current LSP. A link to each PTO’s planning criteria and assumptions will be posted on the ISO website.

#### **4. Cost Responsibility for Transmission Upgrades**

The cost responsibility for each upgrade, modification or addition to the transmission system in New England that is included in the LSP Project List of this Appendix 1 shall be determined in accordance with Schedule 21 of this OATT.

#### **5. LSP Dispute Resolution Procedures**

##### **5.1 Objective**

Section 5 of this Appendix 1 sets forth an LSP dispute resolution process (the "LSP Dispute Resolution Process") through which LSP-related transmission planning-related disputes may be resolved as expeditiously as possible.

##### **5.2 Confidential Information and CEII Protections**

All information disclosed in the course of the LSP Dispute Resolution Process shall be subject to the protection of confidential information and CEII consistent with the ISO New England Information Policy and CEII policy.

##### **5.3 Eligible Parties**

Any member of the Planning Advisory Committee that has been adversely affected by a PTO's Reviewable Determination with respect to the LSP transmission planning process described in this Appendix 1 is eligible to raise its dispute, as appropriate, under this LSP Dispute Resolution Process ("Disputing Party").

##### **5.4 Scope**

In order to ensure that the LSP transmission planning process set forth under this Appendix 1 moves expeditiously forward, the scope of issues that may be subject to the LSP Dispute Resolution Process under this Section 5 shall be limited to certain key procedural and substantive decisions made by the applicable PTO within its authority as specified in documents on file with the Commission. That is, decisions not subject to resolution within the jurisdiction of the Commission are not within the scope of this LSP Dispute Resolution Process. Examples of matters not within the scope of the LSP Dispute Resolution Process include planning to serve retail native load or state siting issues. Additionally, the

Tariff already explicitly provides specific dispute resolution procedures for various matters. To this end, any matter regarding the review and approval of applications pursuant to Section I.3.9 of the Tariff, which is subject to the dispute resolution process under Section I.6 of the Tariff, shall not be within the scope of this LSP Dispute Resolution Process. Similarly, any matter regarding Transmission Cost Allocation shall be governed by the dispute resolution process under Schedule 12 of the OATT, and shall be outside the scope of this LSP Dispute Resolution Process.

**(a) Reviewable Determinations:**

The LSP determinations made by the applicable PTO that may be subject to the LSP Dispute Resolution Process under this Section 5 ("Reviewable LSP Determination") shall include certain procedural and substantive challenges at designated key decision points during the LSP transmission planning process for Non-PTF, including Local Public Policy Transmission Upgrades ("Key LSP Decision Points"). Procedural challenges will be limited to whether or not the steps taken up to a Key LSP Decision Point conform to the requirements set forth in this Appendix 1. Substantive challenges will be limited to whether or not a determination or conclusion rendered at a Key LSP Decision Point was supported by adequate basis in fact. The Key LSP Decision Points shall be limited to the following:

- (i) Results of an LSP Needs Assessment conducted and communicated by a PTO to the Planning Advisory Committee as specified in this Appendix 1;
- (ii) Updates to the LSP Project List, including adding, removing or revising regulated Non-PTF transmission solutions included thereunder, as presented at the Planning Advisory Committee and as specified in this Appendix 1;
- (iii) Results of Non-PTF transmission solution studies, including any Local Public Policy Transmission Upgrade studies, conducted and communicated by the PTO to the Planning Advisory Committee as specified in this Appendix 1; and
- (iv) Consideration of market responses in LSP Needs Assessments as specified in this Appendix 1.

### **(b) Material Adverse Impact**

In order to prevail in a challenge to a procedural-based Reviewable LSP Determination, the Disputing Party must show that the alleged procedural error had a material adverse impact on the determination or conclusion made by the applicable PTO. In order to prevail in a challenge to a substantive-based Reviewable LSP Determination, the Disputing Party must show that either (i) the determination is based on incorrect data or assumptions or (ii) incorrect analysis was performed by the PTO, and (iii) as a result thereof, the PTO made an incorrect decision or determination.

## **5.5 Notice and Comment**

A Disputing Party aggrieved by a PTO's Reviewable LSP Determination shall have fifteen (15) calendar days upon learning of the Reviewable LSP Determination following the PTO's presentation of such LSP Reviewable Determination at the Planning Advisory Committee to request dispute resolution by giving notice to the Applicable PTO ("Request for LSP Dispute Resolution").

A Request for LSP Dispute Resolution shall be in writing and shall be provided to the applicable PTO and, as appropriate, other affected Transmission Owners. Within three (3) Business Days of the receipt by a PTO of a Request for Dispute Resolution, the PTO, in coordination with the ISO, shall prepare and distribute to all members of the Planning Advisory Committee a notice of the Request for Dispute Resolution including, subject to the protection of Confidential Information and CEII, the specifics of the Request for Dispute Resolution and providing the name of a PTO representative to whom any comments may be sent. Any member of the Planning Advisory Committee may submit to the PTO's designated representative, on or before the tenth (10th) Business Day following the date the PTO distributes the notice of the Request for Dispute Resolution, written comments to the PTO with respect to the Request for Dispute Resolution. The Disputing Party filing the Request for Dispute Resolution may respond to any such comments by submitting a written response to the PTO's designated representative and to the commenting party on or before the fifteenth (15th) Business Day following the date the PTO distributes the notice of the Request for Dispute Resolution. The PTO may, but is not required to, consider any written comments.

## **5.6 Dispute Resolution Procedure**

### **(a) Resolution Through the Planning Advisory Committee**

The Planning Advisory Committee shall discuss and resolve any LSP related dispute arising under this Appendix 1 involving a Reviewable LSP Determination, as defined in Section 5.4 of this Appendix 1, between and among the applicable PTO, the Disputing Party, and, as appropriate, other affected Transmission Owners and the ISO (collectively, “Parties”) (excluding applications for rate changes or other changes to the Tariff, or to any Service Agreement entered into under the Tariff, which shall be presented directly to the Commission for resolution).

**(b) Resolution Through Informal Negotiation**

To the extent that the Planning Advisory Committee is not able to resolve a dispute arising under this Appendix 1 involving a Reviewable LSP Determination, as defined in Section 5.4 of this Appendix 1, between and among the Parties, such dispute shall be the subject of good-faith negotiations among the Parties. Each Party shall designate a fully authorized senior representative for resolution on an informal basis as promptly as practicable.

**(c) Resolution Through Alternative Dispute Resolution**

In the event the designated representatives are unable to resolve the dispute through informal negotiations within thirty (30) days, or such other period as the Parties may agree upon, by mutual agreement of the Parties, such LSP related dispute may be submitted to mediation or any other form of alternative dispute resolution upon the agreement of all Parties to participate in such mediation or other alternative dispute resolution process. Such form of alternative dispute resolution shall not include binding arbitration.

If a Party identifies exigent circumstances reasonably requiring expedited resolution of the LSP related dispute, such Party may file a Complaint with the Commission or seek other appropriate redress before a court of competent jurisdiction

**5.7 Notice of Results of Dispute Resolution**

Within three (3) Business Days following the resolution of a dispute pursuant to either Section 5.6(b) or 5.6(c) of this Appendix 1, the PTO shall distribute to members of the Planning Advisory Committee a document reflecting the resolution.

**5.8 Rights under the Federal Power Act:**



Nothing in this Appendix 1 shall restrict the rights of any party to file a complaint with the Commission under relevant provisions of the Federal Power Act.

**ATTACHMENT K APPENDIX 2**  
**LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION**  
**ENTITIES**

## **APPENDIX 2**

### **ATTACHMENT K**

#### **LIST OF ENTITIES ENROLLED IN THE TRANSMISSION PLANNING REGION**

The entities listed in this Appendix 2 are those enrolled for the purpose of participating as a transmission provider in the New England transmission planning region pursuant to Attachment K as of the date the revisions to this Appendix 2 were filed with the Commission. The most current list of entities enrolled for the purpose of participating as a transmission provider in the New England transmission planning region pursuant to Attachment K is available on the ISO-NE website. This Appendix 2 will be updated to reflect any subsequent enrollments as part of unrelated OATT filings at the time ISO-NE undertakes such unrelated filings.

Town of Braintree Electric Light Department

Central Maine Power Company

The City of Chicopee Municipal Lighting Department

The City of Holyoke Gas and Electric Department

The Connecticut Light and Power Company

Connecticut Municipal Electric Energy Cooperative

Connecticut Transmission Municipal Electric Energy Cooperative

Cross-Sound Cable Company, LLC

Emera Maine

Fitchburg Gas and Electric Light Company

Green Mountain Power Corporation

Hudson Light & Power Department

Massachusetts Municipal Wholesale Electric Company

Maine Electric Power Company

Middleborough Gas and Electric Department

New England Electric Transmission Corporation

New England Energy Connection, LLC

New England Hydro-Transmission Corporation

New England Hydro-Transmission Electric Company Inc.

New England Power Company

New Hampshire Electric Cooperative, Inc.

New Hampshire Transmission, LLC

Eversource Energy Service Company as agent for: The Connecticut Light and Power Company, NSTAR Electric Company, Public Service Company of New Hampshire, and Western Massachusetts Electric Company

Norwood Municipal Light Department

NSTAR Electric Company

Public Service Company of New Hampshire

Shrewsbury Electric & Cable Operations

Taunton Municipal Lighting Plant

Town of Reading Municipal Light Department

The United Illuminating Company

Unitil Energy Systems, Inc.

Vermont Electric Cooperative, Inc.

Vermont Electric Power Company, Inc.

Vermont Electric Transmission Company

Vermont Public Power Supply Authority

Vermont Transco LLC

Town of Wallingford CT Dept of Public Utilities – Electric Division

Western Massachusetts Electric Company

## **ATTACHMENT K APPENDIX 3**

### **LIST OF QUALIFIED TRANSMISSION PROJECT SPONSORS**

The entities listed in this Appendix 3 are those approved by ISO-NE as Qualified Transmission Project Sponsors as of the date the revisions to this Appendix 3 were filed with the Commission. The most current list of entities approved as Qualified Transmission Project Sponsors is available on the ISO-NE website. This Appendix 3 will be updated to reflect any subsequent enrollments as part of unrelated OATT filings at the time ISO-NE undertakes such unrelated filings.

Central Maine Power Company

The Connecticut Light and Power Company

Emera Maine

Eversource Energy Transmission Ventures, Inc.

Maine Electric Power Company

New England Energy Connection, LLC

New England Power Company

New Hampshire Transmission, LLC

NSTAR Electric Company

Public Service Company of New Hampshire

United Illuminating Company

Vermont Transco, LLC

Western Massachusetts Electric Company

1 UNITED STATES OF AMERICA  
2 BEFORE THE  
3 FEDERAL ENERGY REGULATORY COMMISSION  
4

5  
6 ISO New England Inc., *et al.*

)

Docket No. ER17-\_\_\_\_-000

7  
8  
9 PREPARED TESTIMONY OF MR. ALAN MCBRIDE  
10 ON BEHALF OF ISO NEW ENGLAND INC.  
11

12 I. INTRODUCTION

13 Q: Please state your name, title and business address.

14 A: My name is Alan McBride. I am the Director, Transmission Strategy and Services with  
15 ISO New England Inc. (the “ISO”). My business address is One Sullivan Road, Holyoke,  
16 Massachusetts 01040-2841.  
17

18 Q: Please describe your work experience.

19 A: I joined the ISO in June 2006 and for the first four years of my time at the ISO my  
20 primary responsibility was as Project Manager of New Generation Qualification for the  
21 Forward Capacity Market (“FCM”). In 2010, I became the Manager, Area Transmission  
22 Planning for northern New England. I am currently the Director of Transmission  
23 Strategy and Services and am responsible for the oversight of the interconnection process  
24 for new Generating Facilities and Elective Transmission Upgrades (“ETU”). Before  
25 joining the ISO, I worked at Dynegy and then at Calpine. At Dynegy and Calpine, I  
26 supported various transmission-related activities associated with the development,  
27 interconnection and commercial operation of merchant generators. Before joining  
28 Dynegy, I worked at Power Technologies Incorporated (now a division of Siemens),

1 where I conducted various transmission analysis studies, including the system impact  
2 studies of several proposed Generating Facilities. I have over 20 years of experience in  
3 various aspects of power transmission system analysis and transmission services. I hold a  
4 B.S. in Electrical Engineering from University College Dublin, in Ireland, an M.S. in  
5 Electric Power Engineering from Rensselaer Polytechnic Institute and an M.B.A from  
6 Purdue University.

7  
8 **II. PURPOSE, SCOPE AND SUMMARY OF TESTIMONY**

9 **Q: What is the purpose of your testimony?**

10 A: The purpose of my testimony is to explain the proposed changes to Sections I and II of  
11 the ISO's Transmission, Markets and Services Tariff (the "Tariff") that are necessary to  
12 incorporate a methodology for considering Interconnection Requests and allocating  
13 interconnection upgrade costs on a cluster basis when a set of conditions are present in  
14 the ISO's interconnection queue. In this testimony, I refer to this methodology as  
15 "clustering approach" or "clustering methodology." The proposed changes are primarily  
16 reflected in Schedules 11, 22, 23 and 25 and Attachment K in Section II of the Tariff,  
17 which contains the Open Access Transmission Tariff (the "OATT"), with some  
18 conforming revisions to the definitions provision in Section I.2.2 of the Tariff. I refer to  
19 the proposed amendments, collectively, as the "Clustering Revisions." For context,  
20 Schedule 11 sets forth the provisions for allocating the costs of upgrades that are  
21 necessary to accommodate Interconnection Requests submitted pursuant to Schedules 22,  
22 23 and 25. Schedules 22 and 23 contain the Interconnection Procedures and  
23 Interconnection Agreements for Large Generating Facilities and Small Generating

1 Facilities, respectively, and Schedule 25 contains the Interconnection Procedures and  
2 Interconnection Agreement for Elective Transmission Upgrades – New England’s  
3 participant-funded transmission facilities. I refer to Schedules 22, 23 and 25,  
4 collectively, as the “Interconnection Procedures.” Finally, Attachment K of the OATT  
5 sets forth the ISO’s Regional System Planning Process.  
6

7 **Q: Please summarize the Clustering Revisions**

8 A: The Clustering Revisions include amendments to the Interconnection Procedures to  
9 incorporate a clustering methodology for expediting Interconnection Requests processing  
10 in certain circumstances and corresponding provisions for the allocation of  
11 interconnection upgrade costs among Interconnection Customers included in the cluster.  
12 The Clustering Revisions reflect the proposed clustering methodology in Section 4.2 of  
13 the LGIP, Section 1.5.3 of the SGIP, and Section 4.2 of the ETU IP, together with the  
14 triggers for considering Interconnection Requests under clustering; the cluster study  
15 process; and, the provisions for cluster eligibility. The Clustering Revisions also  
16 establish in the Interconnection Procedures several corresponding mechanisms designed  
17 to increase certainty in the interconnection process, facilitate more informed decisions,  
18 and reduce the likelihood of restudies when clustering is invoked. These mechanisms  
19 include cluster entry requirements, such as cluster participation deposits; procedures for  
20 addressing impacts of cluster oversubscription, undersubscription, and withdrawals; and,  
21 transition rules. In addition, the Clustering Revisions modify Attachment K of the OATT  
22 to add a new Section 15 pursuant to which the ISO will conduct a regional planning study  
23 designed to facilitate the interconnection process when clustering is invoked. The



1 Clustering Revisions also include modifications in Schedule 11 of the OATT to establish  
2 the methodology for allocating interconnection upgrade costs among Interconnection  
3 Customers included in a cluster and a mechanism to address late comers seeking to use  
4 the upgrades built to support a cluster. Finally, the Clustering Revisions incorporate in  
5 Section I.2.2, the Interconnection Procedures, Schedule 11 and Attachment K certain  
6 conforming changes necessary to support clustering, and reflect other ministerial or  
7 clean-up changes.

8  
9 **Q: Why are the Clustering Revisions being made at this time?**

10 A: The Clustering Revisions are the result of an extensive programmatic effort initiated by  
11 the ISO, in conjunction with stakeholders, to address the interconnection queue backlog  
12 in Northern and Western Maine. While, in most cases, the interconnection process is  
13 working well elsewhere on the New England Transmission System, a significant backlog  
14 of Interconnection Requests for more than 5,800 megawatts (“MW”) (as of September  
15 2017) of proposed new resources (mostly wind generators) seeking to interconnect in the  
16 Northern and Western Maine parts of the system persists. The ISO sought to identify the  
17 key contributing factors to the Maine queue study backlog, each of which has introduced  
18 significant complexities to the Interconnection Studies, resulting in more effort and time  
19 to complete those studies. While there are a number of contributing factors, the primary  
20 obstacle to interconnection for resources in Northern and Western Maine is a physical  
21 one of limited transmission infrastructure. These resources are seeking to interconnect in  
22 remote areas of the New England Transmission System, far from the region’s load  
23 centers, where the transmission system was not built to carry large amounts of electricity.

1 The Northern and Western Maine areas of the system are comprised of a transmission  
2 network that was built to serve low levels of area load, and there are already a number of  
3 generators connected to this part of the system, leaving this part of the transmission  
4 system at its performance limit with no remaining margin. Significant new transmission  
5 infrastructure requiring billions of dollars in investments is necessary to interconnect the  
6 quantity of proposed resources in Northern and Western Maine.

7  
8 The identified need for significant transmission infrastructure is common to all resources  
9 seeking to interconnect in these areas of the system. The safe and reliable  
10 interconnection of each Interconnection Request in Northern and Western Maine involves  
11 lengthy and complex engineering studies to identify and design effective and operable  
12 system upgrades required to accommodate the interconnection of the proposed resource,  
13 and significant infrastructure investment by the developer. Individual interconnection  
14 projects, however, are not able or willing on an individual basis to make the necessary  
15 system upgrade investments. This combination of circumstances has led to the  
16 consideration of a clustering solution to move the situation forward.

17  
18 The Clustering Revisions provide the process to resolve the interconnection queue  
19 backlog in Northern and Western Maine and, in the future, elsewhere on the New  
20 England Transmission System should similar conditions arise. More specifically, the  
21 Clustering Revisions incorporate in the OATT a two-phased clustering methodology for  
22 expediting the consideration of multiple Interconnection Requests in the same study  
23 effort, and allocating the costs of shared interconnection upgrades among the requests

1 included in the cluster study effort when a queue backlog caused by a lack of significant  
2 transmission infrastructure in a given part of the system is likely to persist with the  
3 continued application of the serial queue study process. The proposed clustering  
4 approach was informed by extensive research and review of clustering study approaches  
5 implemented in other regions, and reflects important considerations, such as limiting the  
6 likelihood of restudies – a key to the success of clustering. It is the result of extensive  
7 efforts of the ISO, in conjunction with stakeholders, and is strongly supported by  
8 NEPOOL, the New England states and the Participating Transmission Owners.

9  
10 **Q: Will the Clustering Revisions result in the interconnection of proposed resources in**  
11 **the Northern and Western Maine parts of the system?**

12 A: The Clustering Revisions establish the mechanism to expedite interconnection processing  
13 in circumstances where a backlog resulting from a lack of significant transmission  
14 infrastructure is likely to persist with the continued application of the serial queue  
15 process. The revisions, however, do not, and are not intended to, create a mechanism for  
16 transmission infrastructure itself to get built unless the Interconnection Customer  
17 commits to pay for the transmission through the process. Instead, they provide the  
18 mechanism (and the associated cost allocation) for Interconnections Requests to be  
19 studied together and information about the magnitude and cost of the needed  
20 infrastructure to be provided in an open and transparent way, so that Interconnection  
21 Customers can make well-informed decisions as to whether or not to move forward with  
22 their projects. While the Clustering Revisions do not create a funding mechanism, as that  
23 is not within the scope of the Interconnection Procedures, the proposed clustering

construct can facilitate an Interconnection Customer’s funding efforts. As I further describe later, the first phase of the clustering approach provides for the identification of the Interconnection Requests that may be eligible to participate in the cluster studies and the needed infrastructure (and associated cost estimates) to interconnect potentially all of the proposed resources in an open and transparent forum – the Regional System Planning Process. This first-phase work will be presented and discussed from its formative stage through completion at the Planning Advisory Committee where Interconnection Customers, policymakers, regulators and other interested parties can take an active role and provide input to the ISO. The outcome of the first phase of the study process will provide Interconnection Customers a wealth of information necessary to facilitate well-informed decisions about whether or not to move forward with their projects. It can also inform regional initiatives and other considerations, including state procurement processes taking place outside of the ISO’s interconnection process.

### **III. THE CONDITIONS IN NORTHERN AND WESTERN MAINE**

**Q: Please describe the current status of the interconnection queue in Northern and Western Maine relative to other parts of the New England Transmission System.**

**A:** In most cases, the interconnection process is working well in non-Northern and Western Maine parts of the system with Interconnection System Impact Studies (“SIS”) being completed, on average, within a year of execution of the SIS Agreement. There are factors, such as the location of a project – for example, a project’s proximity to the boundary of a major load serving interface – or the withdrawal of an earlier-queued project that could continue to contribute to study delays for some projects in the non-

1 Maine areas of the system. In some cases, the time to complete studies also may be  
2 lengthened to factor in emerging transmission reliability expansion plans to the benefit of  
3 the proposed resource.

4  
5 Recent serially conducted studies associated with Interconnection Requests for resources  
6 seeking to interconnect in Northern and Western Maine parts of the system have taken  
7 considerable time, in some cases as much as two years. Given the current backlog of  
8 Interconnection Requests in Northern and Western Maine and the time taken to conduct  
9 the complex individual studies, it may take several years to complete the required studies  
10 using the serial queued process. As noted earlier, the primary obstacle to interconnection  
11 for the resources seeking to interconnect in these areas is a physical one of limited  
12 transmission infrastructure. The Northern and Western Maine parts of the system are  
13 comprised of a transmission network that was built to serve relatively low levels of load,  
14 and there are already a number of generators connected to this part of the system, leaving  
15 this part of the transmission system at its performance limit with no remaining margin.  
16 Significant new transmission infrastructure is required to interconnect the quantity of  
17 proposed resources in Northern and Western Maine.

18  
19 **Q. How does the identified need for significant transmission infrastructure in Northern**  
20 **and Western Maine impact Interconnection Study work?**

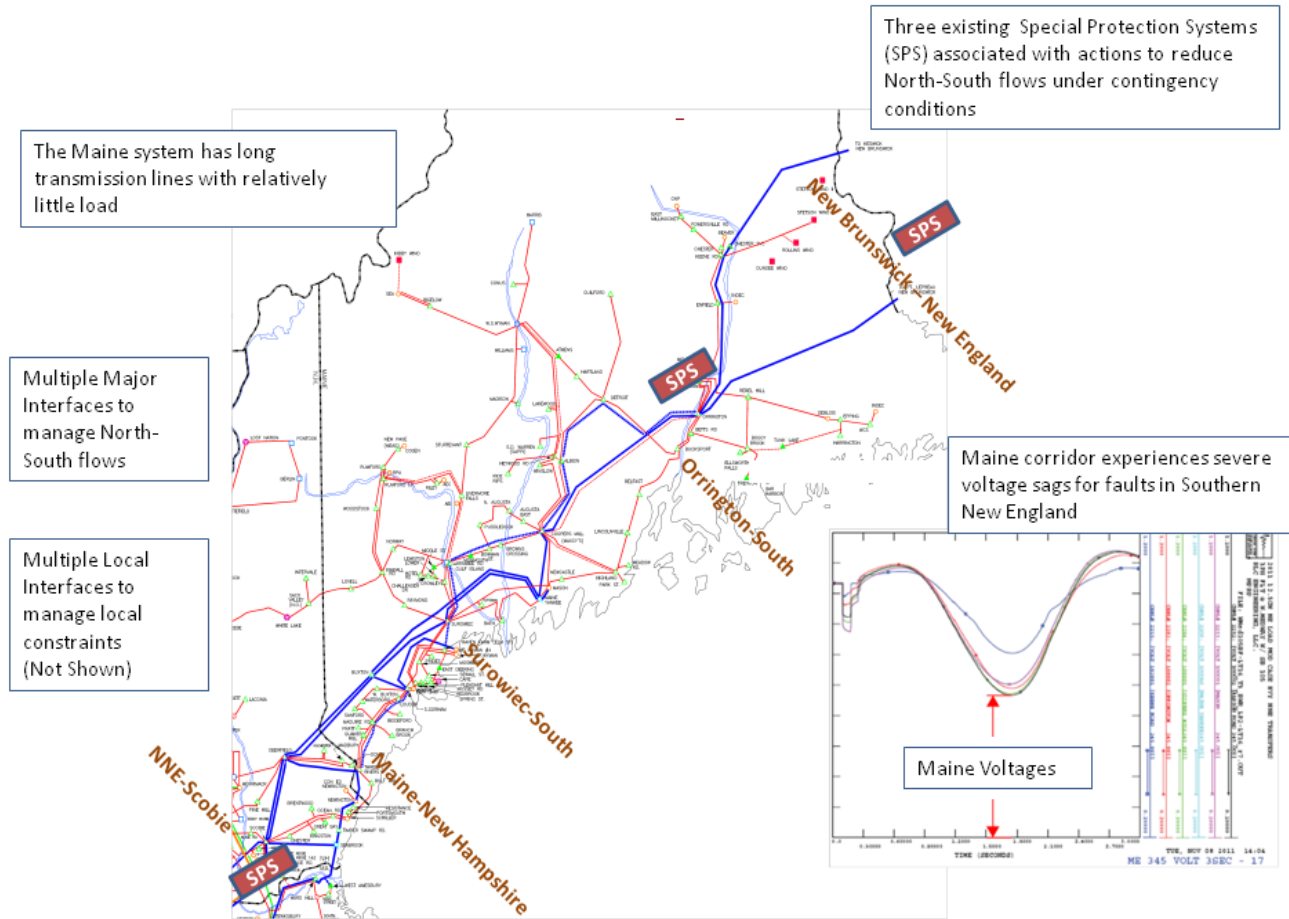
21 A: To address this, I will first describe the Maine transmission system and explain how the  
22 characteristics of that system, especially that of Northern and Western Maine, introduce  
23 complexities to the Interconnection Studies, requiring more time and effort to complete.

1 Next, I will explain how the oversubscription of the system and the identified need for  
2 significant transmission infrastructure to interconnect resources proposed in these areas  
3 further complicate the study work.  
4

### 5 **1. The Maine Transmission System**

6 By way of background, the New England Control Area is interconnected to the New  
7 Brunswick system via two 345 kV interconnections that connect together at Orrington,  
8 Maine, as illustrated in the map included as Figure 1 below. The 345 kV corridors  
9 continue southward from Orrington and span hundreds of miles and eventually tie into  
10 transmission facilities in Massachusetts. The transmission system throughout northern  
11 New England is limited in capacity. While it has been planned and designed to be  
12 sufficient to serve load and existing transmission obligations, it is at its limit in places and  
13 requires vigilance to address numerous potential transmission security concerns.  
14 Underlying the limited number of 345 kV transmission facilities are a number of old,  
15 low-capacity, and long 115 kV lines.  
16

FIGURE 1



2

3

4

5

6

7

8

9

10

The two most significant challenges facing northern New England have been: (i) maintaining the reliable performance of the long 345 kV corridors, particularly through Maine; and, (ii) ensuring that the underlying transmission system is sufficiently system-secure to meet demand. The system of long 115 kV lines, with weak sources and high real- and reactive-power losses, was designed to serve relatively small amounts of geographically distant loads. The inherent capability of this 115 kV system has become strained as it is increasingly challenged to interconnect generation while efficiently and reliably serving load.

1 Regional Transmission Upgrades, known as the Maine Power Reliability Program  
2 (“MPRP”), were proposed in 2008, and received their most recent Proposed Plan  
3 Application approval under Section I.3.9 of the ISO Tariff in 2010. At a cost of  
4 approximately \$1.5 billion, the MPRP projects included the addition of significant new  
5 345 kV and 115 kV transmission facilities and new 345 kV autotransformers at key  
6 locations in Maine. The majority of the MPRP projects entered service by the first half  
7 of 2015. The MPRP enables the Maine system to serve load at an appropriate level of  
8 system reliability and operability in accordance with the applicable reliability standards.  
9 Along with the addition of the MPRP projects (which included the necessary retirement  
10 of several special protection systems), area transfer limits in the North-to-South direction  
11 were increased to the highest level possible while still retaining reliability.

12  
13 Over the past several years, the addition of generation in Maine (approximately 750 MW  
14 of wind has been added to date), in combination with the area’s limited transfer  
15 capability, has increased the likelihood of many northern New England interfaces  
16 operating near their limits, creating ever-greater restrictions on northern New England  
17 resources. Because these interface limits depend on generation dispatch, the operation of  
18 the system becomes more complex. Additional concerns in northern New England  
19 include limited system flexibility to accommodate maintenance outages, limited dynamic  
20 reactive-power resources, and high real- and reactive-power losses. The existing system  
21 still includes three complicated special protection systems, which interact with each other  
22 in the management of flows in the North-to-South direction following system  
23 contingencies, thus compounding the complexity of reliable system operation.



1 As noted above, a significant number of new wind generation projects have already  
2 interconnected, pursuant to the Network Capability Interconnection Standard (previously,  
3 the Minimum Interconnection Standard), to the northern portions of the New England  
4 transmission system. As described earlier, several additional proposed new resources  
5 (mostly wind projects) have applied to interconnect in these areas. These portions of the  
6 system are remote from the region's load centers and are susceptible to poor voltage  
7 performance. These same locations have also already experienced congestion in system  
8 operations, especially during transmission system maintenance periods.

9  
10 In summary, the recent addition of the MPRP projects was successful in enabling the  
11 Maine system to continue to reliably serve load and connect reliably with New  
12 Brunswick and New Hampshire. However, the increased power transfers and generation  
13 additions have brought the system to its limit and there is no remaining margin on the  
14 existing system. The resulting, incrementally increasing susceptibility to dynamic and  
15 voltage stability security concerns that would be introduced by further generation  
16 additions is a direct driver of interconnection study complications and study time.  
17 Interconnection Studies must consider interactions among other weakly interconnected  
18 generators, interactions with complicated existing special protection systems, and  
19 interactions with the neighboring system in New Brunswick.

## 20 21 **2. Oversubscription**

22 The pending Interconnection Requests in Northern and Western Maine would be far  
23 beyond the existing inherent capability of the Maine transmission system. Simply stated,  
24 the Maine area is oversubscribed from a basic generation interconnection perspective and

1 especially from a cumulative standpoint. Maine is already a heavy export area. Its  
2 forecast 2017 summer peak (90/10) gross load is approximately 2,300 MW (net). Maine  
3 export capability is 1,900 MW, so the total load plus export capability is approximately  
4 4,200 MW. Existing generating capacity in Maine as of summer 2017 is approximately  
5 3,200 MW, New Brunswick import capability is 1,000 MW, and new wind proposals as  
6 of September 2017 total 4,500 MW and new import and non-wind proposals total  
7 approximately 2,400 MW. Thus, the potential resource total would be 11,100 MW.  
8 Proposals for new interconnections in the Maine area, if they all materialize, will add to  
9 the significant oversupply of resources attempting to supply through Maine to the rest of  
10 New England.

11  
12 Even in a system without the multitude of potentially limiting conditions presented in the  
13 Maine area, the study of this level of resource addition would take a considerable amount  
14 of time. This level of resource additions cannot be interconnected without billions of  
15 dollars of transmission infrastructure investment, and individual projects are not able to  
16 or willing to make the scale of system upgrades required.

17  
18 **IV. EFFORTS UNDERTAKEN IN RESPONSE TO THE MAINE QUEUE BACKLOG**

19 **Q. Please describe the efforts the ISO has undertaken in response to the**  
20 **interconnection queue backlog in Northern and Western Maine.**

21 **A:** The ISO has taken significant steps to respond to the interconnection queue backlog in  
22 Northern and Western Maine. As mentioned earlier, the ISO identified the key  
23 contributing factors to the Maine queue study backlog, each of which has introduced

1 significant complexities to the Interconnection Studies, requiring more effort and time to  
2 those studies,<sup>1</sup> and, in July 2015, the ISO, together with stakeholders, initiated a  
3 programmatic effort to address them.

4  
5 In the first part of that effort, the ISO sought to address the complexities introduced by  
6 the nature of the technology, which is primarily wind and inverter-based generation,  
7 being proposed in the area. That effort resulted in important revisions to the  
8 Interconnection Procedures, which the Commission approved in an order issued on April  
9 15, 2016, in Docket No. ER16-946-000.<sup>2</sup> These changes, referred to as the “2016  
10 Improvements,” incorporated in Schedules 22 and 23 of the OATT new technical and  
11 modeling data requirements, including detailed up-front design and standardized model  
12 requirements, for wind and inverter-based generators designed to make these  
13 technologies more “study-ready,” similar to conventional generators. Progress is already  
14 being observed as a result of the implementation of these changes. In 2016, for instance,  
15 a new inverter-based electric storage facility seeking to interconnect in Southern Maine  
16 completed the entire interconnection process and achieved Commercial Operation in  
17 approximately a year.

18  
19 While the 2016 Improvements provided key tools to expediting Interconnection Study  
20 work for wind and inverter-based generators, they alone were not expected to resolve the

---

<sup>1</sup> See *American Wind Energy Ass’n*, Comments of ISO New England Inc., Docket No. RM15-21-000 at 12-18 (filed Sept. 8, 2015).

<sup>2</sup> See *ISO New England Inc. and Participating Transmission Owners Admin. Comm.*, 155 FERC ¶ 61,031 (2016).

1 Northern and Western Maine queue backlog given the lack of significant transmission  
2 infrastructure in this relatively remote region, far from New England’s load centers.  
3 Accordingly, in early 2016, the ISO engaged in further discussions with stakeholders to  
4 respond to the identified infrastructure challenge, which, for the reasons explained earlier,  
5 lent itself to consideration of a cluster study approach. Careful consideration, however,  
6 was warranted so not to disrupt existing processes that are working well in New England  
7 and minimize the uncertainties and restudy exposure issues experienced with cluster  
8 study constructs. To that end, the ISO initiated an extensive effort to develop an  
9 appropriate clustering solution for the region.

10  
11 In parallel with that effort, the ISO also initiated a strategic infrastructure study, referred  
12 to as the “Maine Resource Integration Study,” to identify the new common significant  
13 transmission infrastructure needed to enable the interconnection of potentially all of the  
14 proposed resources in Northern and Western Maine, and further inform the approach to  
15 clustering. This work has been presented and discussed from its formative stage at the  
16 Planning Advisory Committee, and is posted on the ISO’s website. Currently, the ISO is  
17 in process of completing the study, which, not only informed the clustering approach  
18 reflected in the Clustering Revisions, but will also serve as the first cluster effort upon the  
19 Clustering Revisions’ Effective Date.

1 **Q: Please describe the ISO’s considerations and objectives in the development of a**  
2 **clustering solution to address the identified significant infrastructure challenges in**  
3 **Northern and Western Maine.**

4 A: In developing an appropriate clustering solution for the region, the ISO considered: (1)  
5 clustering approaches implemented in other independent system operator and regional  
6 transmission organizations (“ISO/RTOs”); (2) stakeholders’ experiences with clustering  
7 processes; and, (3) the interactions of clustering with the FCM. Through these efforts,  
8 the ISO sought to develop a mechanism to expedite interconnection processing by  
9 considering Interconnection Requests on a cluster basis without harming the overall  
10 participation of new resources in the FCM, and minimizing the uncertainties and restudy  
11 exposure issues experienced in cluster study constructs.

13 **Q: Which cluster study approaches did the ISO consider in its development of a**  
14 **clustering solution?**

15 A: The ISO undertook an extensive research of and reviewed with stakeholders at the  
16 Planning Advisory Committee the clustering methodologies used by other ISO/RTOs in  
17 North America. The ISO surveyed the cluster study approaches in the California  
18 Independent System Operator Corporation (“CAISO”), Midcontinent Independent  
19 System Operator, Inc. (“MISO”), New York Independent System Operator, Inc.  
20 (“NYISO”), PJM Interconnection, L.L.C. (“PJM”), and Southwest Power Pool, Inc.  
21 (“SPP”). This survey identified some useful features and practices, particularly,  
22 “targeted” clustering approaches implemented in other areas that were specifically  
23 designed to address situations similar to those observed in Maine – namely, an emergence

1 of a backlog in a remote part of the system and the identification of infrastructure that  
2 could be used to interconnect queued resources in the regional planning process. An  
3 example of such a construct is the Tehachapi Renewable Transmission Project (the  
4 “Tehachapi Project”) proposed in CAISO’s Southern California region to accommodate  
5 wind generation development in the Tehachapi Wind Resource Area.<sup>3</sup>  
6

7 In addition, the ISO sought stakeholders’ experiences with clustering processes in other  
8 areas. In this regard, the ISO also considered the concerns raised in the American Wind  
9 Energy Association’s Petition for Rulemaking and the objectives of the reforms for which  
10 AWEA argued.<sup>4</sup> In particular, the ISO considered the requests to improve study/restudy  
11 and cost certainty and limit restudies exposure, all of which would be harmed by the  
12 application of a poorly designed clustering methodology or by the unnecessary  
13 application or over-application of clustering.  
14

15 **Q: Please explain the concerns with the interactions of a clustering approach with the**  
16 **FCM.**

17 A: In New England, Generating Facilities and certain types of External ETUs have the  
18 option of two Interconnection Services – the Network Resource Interconnection Service  
19 (“NRIS”), which provides interconnection to the system with full market access except  
20 the ability to participate in the capacity market, and Capacity Network Resource  
21 Interconnection Service (“CNRIS”), which provides interconnection to the system with

---

<sup>3</sup> See *California Indep. Sys. Operator Corp.*, 118 FERC ¶ 61,226 at P 24 (2007).

<sup>4</sup> See *AWEA Wind Energy Ass’n*, Petition for Rulemaking to Revise Generator Interconnection Procedures, Docket No. RM15-21-000 (filed June 19, 2015).

1 full market access rights, including the capacity market. CNRIS is based on the Capacity  
2 Supply Obligation achieved through the FCM. As part of the qualification process for  
3 the FCM, the ISO conducts an annual cluster or group study, known as the “CNR Group  
4 Study,” that includes the Interconnection Requests for CNRIS that enter the  
5 interconnection queue before the FCA New Capacity Resource Show of Interest deadline  
6 and are associated with resources that are seeking to participate in the same upcoming  
7 FCA in order to achieve CNRIS. Interconnection Requests seeking to qualify for the  
8 same upcoming FCA may include requests with a completed SIS or that just entered the  
9 queue and do not have a completed SIS. In the CNR Group Study, Interconnection  
10 Requests are studied in queue order relative to those seeking to qualify for the same  
11 upcoming FCA. These requests are qualified to participate in the FCA if upgrades that  
12 are needed to meet the Capacity Capability Interconnection Standard, which is the intra-  
13 zonal deliverability standard for CNRIS, can be completed in time for the relevant FCA  
14 Capacity Commitment Period. During this process, later-queued Interconnection  
15 Requests learn if their upgrades depend on the outcome of earlier-queued Interconnection  
16 Requests. CNRIS (and associated upgrade and cost responsibility) is assigned to those  
17 Interconnection Requests with resources that obtain a Capacity Supply Obligation  
18 through the FCM even if the resource clears before an earlier-queued Interconnection  
19 Request under a “first-cleared, first-served” approach. The coordination of the  
20 interconnection queue process with FCM participation, while complicated for both ISO  
21 and the participating resources, has been successful in allowing many capacity resources  
22 to decide to move forward to commercial operation. The imposition of a second cluster  
23 study effort in the interconnection process in addition to the existing CNR Group Study

1 in all circumstances where there are new resources in proximity would over-complicate  
2 and impede FCM participation. This is because resources would have to wait for the  
3 outcome of the additional cluster study processes before having sufficient information to  
4 participate in the FCM. Such a design would run counter to the competitive dynamic that  
5 is created under the current CNR Group Study design.

6  
7 **Q: Did these efforts inform the clustering methodology reflected in the proposed**  
8 **Clustering Revisions?**

9 A: Yes, the combined efforts resulted in the proposed clustering approach targeted at  
10 addressing situations like those observed in Northern and Western Maine, and, in the  
11 future, elsewhere on the New England Transmission System should similar conditions  
12 arise.

13  
14 **V. EXPLANATION OF THE PROPOSALS REFLECTED IN THE REVISIONS**

15 **A. *The Clustering Methodology***

16 **Q. Please describe the proposed clustering methodology.**

17 A: The ISO's proposed clustering approach reflected in the Clustering Revisions consists of  
18 a two-phase study process that will be initiated or triggered where a backlog of two or  
19 more Interconnection Requests seeking to interconnect in the same electrical part of the  
20 system is likely to persist with the continued application of the serial queue study process  
21 due to the need for new common significant infrastructure to interconnect proposed  
22 resources in the ISO's interconnection queue. More specifically, the ISO will process  
23 Interconnection Requests using the proposed two-phase cluster study approach when the



combination of the following conditions is present in the ISO's interconnection queue:  
(1) there are two or more Interconnection Requests without completed SISs in the same electrical part of the New England Control Area based on the requested Point of Interconnection, and (2) none of the Interconnection Requests will be able to interconnect, either individually or on a cluster basis, without the use of common significant new transmission line infrastructure rated at or above 115 kV AC or HVDC. These conditions are referred to as "clustering triggers," and are reflected in Section 4.2 of the LGIP, Section 1.5.3 of the SGIP, and Section 4.2 of the ETU IP.

When the combination of the clustering triggers is present in the interconnection queue, the ISO will initiate and evaluate the impacted Interconnection Requests under the two-phase clustering study process. The first phase of the study process will consist of a transmission planning study to be conducted by the ISO under the Regional System Planning Process pursuant to procedures incorporated in a new Section 15 added in Attachment K of the OATT. This transmission planning study will identify the new transmission infrastructure, called "Cluster Enabling Transmission Upgrades" ("CETU"), and associated system upgrades that will be necessary to enable the interconnection of potentially all resources proposed in the interconnection queue. This first phase of the process is referred to as the "Cluster Enabling Transmission Upgrade Regional Planning Study" ("CRPS"). The second phase will consist of a Cluster Interconnection System Impact Study ("CSIS") and a Cluster Interconnection Facilities Study ("CFAC"), which are collectively referred to as the "second-phase cluster studies", that will be performed under the Interconnection Procedures to identify the specific facilities required to

1 interconnect the resources proposed by Interconnection Customers that elect to move  
2 toward interconnection and meet the associated entry requirements to participate in the  
3 second-phase cluster studies. The scope and procedures for the second-phase cluster  
4 studies are set forth in the Interconnection Procedures.

5  
6 **Q: What is the rationale for limiting the application of the clustering approach to the**  
7 **circumstances when conditions described in your earlier response are present in the**  
8 **interconnection queue as opposed to applying it in all circumstances?**

9 **A:** The proposed clustering approach varies from the Commission's Order No. 2003 *pro*  
10 *forma* construct in that it is situation-specific and its use is limited to the occurrence of  
11 the conditions identified in my earlier response. In other words, absent the combination  
12 of the triggering conditions in the interconnection queue, Interconnection Requests will  
13 continue to be processed under the serial queue study approach. This targeted and  
14 limited application is appropriate for New England where the interconnection process is  
15 generally working well in non-Northern and Western Maine areas of the system,  
16 rendering the imposition of a clustering approach in all circumstances unnecessary.  
17 Moreover, the unnecessary application or over-application of clustering would run  
18 counter to the key objectives underlying the clustering design, in particular, providing a  
19 mechanism to expedite interconnection processing without harming the overall  
20 participation of new resources in the FCM, and in a manner that limits the likelihood of  
21 restudy. The serial queue approach does not suffer from the restudy and cluster  
22 reformation difficulties that have been identified as concerns in other areas. Maintaining  
23 that construct where it is working well results in less study uncertainties and restudies.

1 The proposed targeted and limited approach is also consistent with other Commission-  
2 approved cluster designs addressing an emergence of a backlog in a remote part of the  
3 system and the identification of a set of infrastructure that could be used to interconnect  
4 queued resources, similar to the conditions observed in Northern and Western Maine.  
5 For example, CAISO implemented a “targeted” cluster study approach in response to  
6 Interconnection Requests for approximately 4,350 MW of primarily wind generation  
7 development in the remote Tehachapi Wind Resource Area of the CAISO system.

8  
9 **Q: What is the basis for the proposed thresholds for the clustering triggers?**

10 A: Under the proposal, for the clustering approach to be triggered, there must be two or  
11 more Interconnection Requests without completed SISs in the same electrical part of the  
12 New England Control Area, which will be determined based on the proposed Point of  
13 Interconnection, that cannot interconnect to the system without significant common  
14 transmission infrastructure. The presence of a number of Interconnection Requests in  
15 close electric or geographic proximity in the interconnection queue alone will not trigger  
16 clustering. This is because a number of Interconnection Requests for resources in close  
17 electric or geographic proximity by itself does not lead to queue backlog. For example,  
18 four Interconnection Requests in a robust part of the system may not require significant  
19 new infrastructure, and they can be studied relatively quickly. These requests would not  
20 involve lengthy complicated study work. Further, the Interconnection Procedures already  
21 provide a mechanism to discipline the process for multiple CNRIS Interconnection  
22 Requests when they are pending in the interconnection queue. In the CNR Group Study  
23 conducted for capacity purposes, Interconnection Requests seeking CNRIS are studied

1 together in queue order relative to the other Interconnection Requests that are also  
2 seeking to qualify to participate in the same FCA, and are qualified to participate in the  
3 FCA if needed upgrades can be completed in time for the FCA Capacity Commitment  
4 Period. The first resource that clears in the FCA moves forward and the remaining  
5 resources decide whether to participate in a subsequent auction or withdraw. This “first-  
6 cleared, first-served” mechanism already allows Interconnection Requests to move  
7 forward without the need for additional clustering activities.

8  
9 The proposed threshold to trigger the cluster process in the case of new transmission line  
10 infrastructure rated at or above 115 kV AC or HVDC – that is, the CETU – is also  
11 appropriate because such upgrades take significantly more time to design and are  
12 significantly more expensive, leading to the impetus for studying Interconnection  
13 Requests on a cluster basis and interconnection upgrade cost-sharing among  
14 Interconnection Customers with clustered Interconnection Requests.

15  
16 **Q: Why does the proposed clustering approach have two study phases?**

17 A: When triggered, the proposed clustering methodology provides for Interconnection  
18 Requests to be evaluated under a two-phase study process. As I briefly mentioned  
19 earlier, the first phase of the study process will consist of the CRPS, and the second phase  
20 will consist of the second-phase cluster studies, which include the CSIS and CFAC. The  
21 two-phase study construct is specifically designed to increase certainty, enable more  
22 informed decisions, and reduce the likelihood of restudies under clustering. The first-  
23 phase CRPS, which will be conducted under the ISO’s Regional System Planning

1 Process, will provide Interconnection Customers and any other interested stakeholders  
2 through the Planning Advisory Committee meaningful information about the likely  
3 ultimate outcome and cost of the infrastructure needed for the cluster study effort early in  
4 the process. The CRPS will provide information about the magnitude of system upgrades  
5 and their associated cost estimates that are necessary to interconnect the resources  
6 proposed in the queued Interconnection Requests, and will list the Interconnection  
7 Requests being considered under clustering. This two-phased study approach also  
8 provides reasonable opportunity for Interconnection Customers to decide, on the basis of  
9 that information, whether or not to proceed to interconnection. With the transmission  
10 expansion plan having been identified in the CRPS, the second part of the study process  
11 will focus on the identification of the specific facilities needed to accommodate only  
12 those Interconnection Requests that are ready to move forward with their proposed  
13 resources, and elect to participate in the second-phase cluster studies.

14  
15 The proposed two-phased study approach is also comparable to other Commission-  
16 approved methodologies for considering Interconnection Requests in clusters. As a  
17 comparison, the CAISO methodology includes two primary phases, with increased  
18 commitment required to enter the second phase. It is also consistent with the CAISO's  
19 one-time study approach associated with the Tehachapi Project, which was effectively  
20 carried out in two phases. The first phase of that targeted cluster study was conducted  
21 under the CAISO regional planning process, and the second phase was conducted in the  
22 interconnection process.

1        ***B.        The Clustering Two-Phase Study Process***

2        **Q:        Earlier you explain that when the combination of the clustering triggers is present**  
3        **in the interconnection queue, the ISO will initiate and evaluate impacted**  
4        **Interconnection Requests under the two-phase study process. What is the process**  
5        **for initiating the cluster study effort?**

6        A:        The Clustering Revisions specify the process for initiating clustering in Section 4.2.2 of  
7        the LGIP, Section 1.5.3.2 of the SGIP, and Section 4.2.2 of the ETU IP. Under these  
8        provisions, when the combination of the clustering triggers is present in the  
9        interconnection queue, the ISO will initiate the clustering study process. The ISO will  
10       announce the initiation of clustering to the region through the Planning Advisory  
11       Committee under the Regional System Planning Process in Attachment K. At the same  
12       time, the ISO will notify each individual Interconnection Customer with an  
13       Interconnection Request identified by the ISO to be considered under clustering. This  
14       notification will suspend all ongoing serial queue-based individual study work associated  
15       with the identified Interconnection Requests so they can proceed to be considered under  
16       the cluster study process.

17  
18       **Q:        What are the impacted Interconnection Requests?**

19       A;        The impacted Interconnection Requests include those without completed SISs in the  
20       same electrical part of the New England Control Area that cannot interconnect to the  
21       system without new common significant transmission infrastructure. To be clear, the  
22       proposed clustering approach does not seek impacted Interconnection Customers'  
23       expressions of interest for consideration under clustering. Because the ISO is required to

1 provide Interconnection Service, in the first-phase of the study process (*i.e.*, for the  
2 CRPS), the clustering construct assumes that all Interconnection Requests in the ISO's  
3 interconnection queue that are identified by the ISO for evaluation under the cluster study  
4 process intend to proceed toward interconnection. Through clustering, the ISO must  
5 identify the significant upgrades necessary to enable the interconnection of the proposed  
6 resources in the queue. As such, when the clustering process is triggered, all  
7 Interconnection Requests identified by the ISO for consideration under that process,  
8 including requests for which the associated SIS under the serial study process is under  
9 way but not completed, will be clustered for consideration in the CRPS.  
10 Correspondingly, to the extent an Interconnection Request identified by the ISO remains  
11 in the queue, the Interconnection Customer associated with that request may not refuse to  
12 be clustered. Refusing to be clustered would block the progress of the interconnection  
13 process for all other identified requests. Conversely, an Interconnection Customer with  
14 an Interconnection Request for which the SIS has been completed would not be identified  
15 to be evaluated under clustering or be eligible to voluntarily elect to join the cluster. The  
16 study identifying the needed upgrades and their associated costs to accommodate the  
17 requested interconnection is complete for such a project; thereby, enabling the  
18 Interconnection Customer to make an informed decision regarding whether to proceed  
19 with interconnection of the proposed resource or withdraw from the interconnection  
20 queue.

21  
22 As noted in my earlier response, at the beginning of the second-phase of the study  
23 process, Interconnection Customers that are identified as eligible to participate in the

1 second-phase cluster studies will have an opportunity to decide, on the basis of the  
2 information provided through the CRPS, whether or not to proceed to interconnection.  
3 Only those Interconnection Requests associated with Interconnection Customers that  
4 elect to be included in the second-phase cluster studies and meet the associated entry  
5 requirements will be considered in the CSIS and the CFAC.

6  
7 **Q: How are non-clustered Interconnection Requests processed relative to the clustered**  
8 **Interconnection Requests?**

9 A: The Clustering Revisions provide the process for studying multiple Interconnection  
10 Requests located in the same electrical part of the system that need common new  
11 significant infrastructure to interconnect to the system at the same time. The cluster  
12 itself, however, will not have a Queue Position. Rather, consistent with today's queue  
13 order construct, an Interconnection Request included in a cluster will respect an  
14 electrically relevant higher-queued Interconnection Request that is not included in the  
15 cluster. Likewise, a lower-queued Interconnection Request that is not included in the  
16 cluster will respect all higher-queued Interconnection Requests that are part of the cluster.

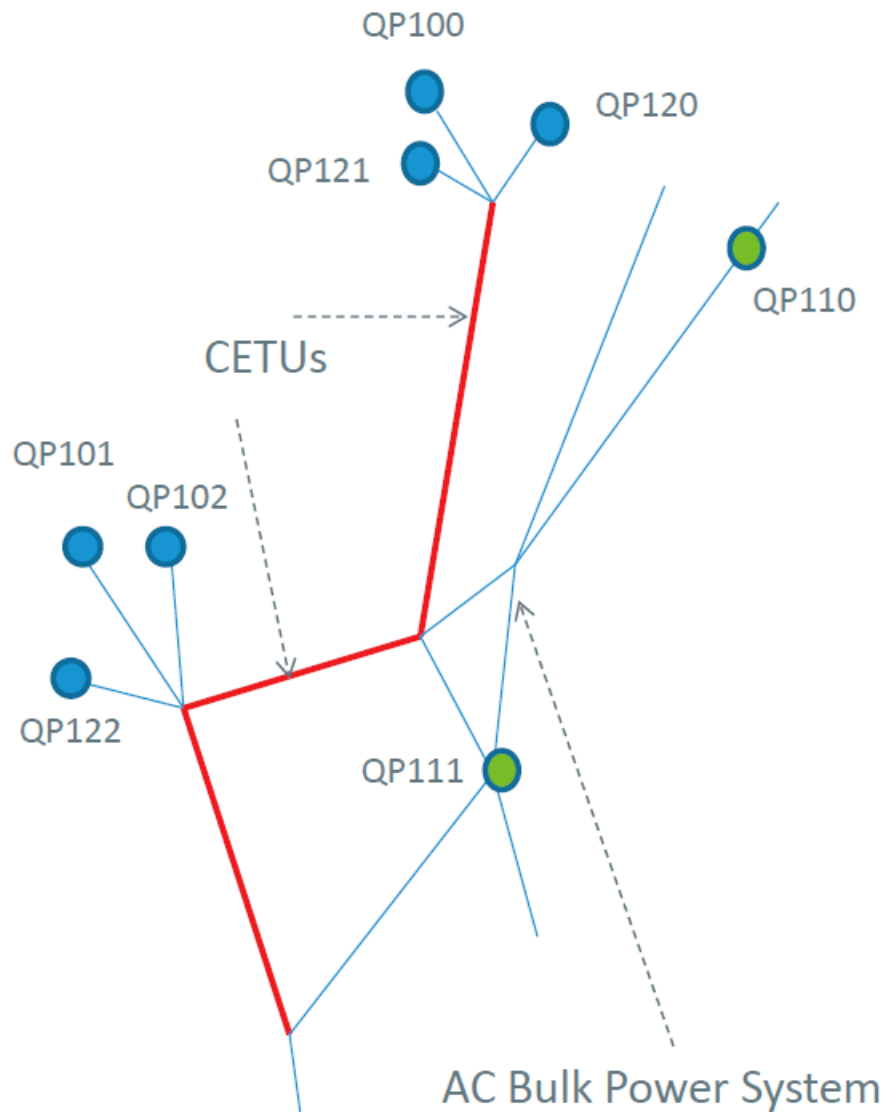
17  
18 Maintaining this existing construct allows for Interconnection Studies associated with  
19 Interconnection Requests that do not have an electrical interaction with the cluster to  
20 move forward independently. The proposed two-phased clustering approach also allows  
21 for Interconnection Requests that are not part of the cluster but have an interaction with  
22 the cluster to move forward once the first-phase CRPS is complete. As described earlier,  
23 the first-phase CRPS will identify the CETU(s) and the megawatts from earlier-Queued



Positions that are eligible to participate in the second-phase cluster studies. In the case of an Interconnection Request that is not part of the cluster but has interaction with the cluster, the Interconnection Request will assume the CETUs and the megawatts from earlier-queued Interconnection Requests identified in the CRPS in its Study Base Case. These features are illustrated in the simplified schematic show in Figure 2, below. For purposes of this illustration, the cluster includes Queue Position Nos. 100, 101, 102, 120, 121 and 122, as they each require the CETUs, shown in the thick red line, to interconnect to the system. For purposes of this example, if we assume that Queue Position No. 110 does not electrically interact with the cluster, then its Interconnection Studies will be able to proceed without delay. If we assume that Queue Position No. 111, which is not part of the cluster, has an interaction with the cluster, then its Interconnection Studies will be able to proceed with the identification of CETU and the megawatts from earlier-Queued Positions – that is, 100, 101, and 102, which are higher in the queue relative to 111 – in the CRPS.

1

**FIGURE 2**



2

3 **Q: Why is the first-phase CRPS being performed under the Regional System Planning**  
 4 **Process?**

5 A: The clustering methodology extends the Regional System Planning Process in  
 6 Attachment K to facilitate the interconnection process when clustering is invoked. As set  
 7 forth in a new Section 15 of Attachment K, the CRPS will be conducted by the ISO to  
 8 identify the significant common transmission infrastructure – that is, the CETU –  
 9 necessary to enable the interconnection of potentially all of the resources proposed in the

1 Interconnection Requests identified as potentially eligible to participate in the second-  
2 phase cluster studies. The CRPS is not a study to support the regional transmission  
3 planning process. However, the clustering approach provides for the CRPS to follow the  
4 same open and transparent construct used for other transmission planning studies. This  
5 will provide an opportunity for Interconnection Customers, policymakers, regulators and  
6 other interested stakeholders to take on an active role in this phase of the process and  
7 provide input to the ISO on the infrastructure and even identify other solutions for the  
8 ISO's consideration. In this regard, the CRPS can also help inform other regional  
9 initiatives and undertakings such as new resource procurement activities.

10  
11 **Q: Please describe the scope and procedures for the CRPS.**

12 A: The scope and procedures for the CRPS are set forth in new Sections 15.1 to 15.4 of  
13 Attachment K. The CRPS will be performed using an approach similar to a SIS in that its  
14 purpose is to identify the significant new common infrastructure and any associated  
15 system upgrades needed to interconnect potentially all resources proposed in the  
16 Interconnection Requests that are expected to be eligible to participate in the second-  
17 phase cluster studies. To facilitate the conduct of the CRPS, Interconnection Customers  
18 with Interconnection Requests identified for inclusion in the CRPS will need to submit to  
19 the ISO the same technical data that is used to support the conduct of a SIS. The  
20 technical data will need to be submitted to the ISO within 60 days of the ISO's cluster  
21 initiation notice to the Planning Advisory Committee. The ISO will perform the CRPS  
22 under the conditions used in the conduct of a SIS. The CRPS will consist of steady state

1 thermal analysis, voltage and transient analysis, and, as appropriate, other analysis, such  
2 as weak-grid-related analysis.

3  
4 Consistent with the process established for transmission planning studies, the ISO will  
5 prepare and post on the ISO website the scope of the CRPS, together with associated  
6 parameters and assumptions, and solicit stakeholder input on such scope, parameters and  
7 assumptions through the Planning Advisory Committee. As part of the CRPS scope, the  
8 ISO will: (1) describe the circumstances that triggered the clustering process; (2) identify  
9 the Interconnection Requests, by Queue Position to maintain confidentiality of  
10 Interconnection Customers' identity, that are expected to be eligible to participate in the  
11 second-phase cluster studies; and, (3) identify the preliminary infrastructure concepts  
12 proposed to be considered in the CRPS. In identifying the transmission infrastructure,  
13 the ISO will consider previously conducted studies and previously identified concepts of  
14 transmission upgrades in the relevant electrical area, including proposed ETUs.

15  
16 The ISO will use Reasonable Efforts to complete the CRPS within twelve months from  
17 the cluster initiation notice to the Planning Advisory Committee. This timeframe is  
18 appropriate, as it reflects a realistic standard informed by the ISO's recent study  
19 experience performing other Interconnection Studies and the Maine Resource Integration  
20 Study. It is also not excessive given that the CRPS will involve the identification of a  
21 comprehensive and implementable transmission expansion plan, and accommodates  
22 stakeholder review and input throughout the process. In the event that there are less than  
23 two Interconnection Requests included in the CRPS remaining in the interconnection

1 queue as a result of withdrawals during the CRPS, the ISO will terminate the CRPS. In  
2 that case, the ISO will evaluate the remaining Interconnection Request under the existing  
3 serial queue study process.

4  
5 Upon completion of the CRPS, the ISO will prepare and post on the ISO's website a draft  
6 CRPS report for stakeholder comments on the result of the CRPS. In furtherance of  
7 transparency, the ISO will also post any written comments received on the CRPS report  
8 and its responses to those comments. The ISO will then post a final CRPS report on the  
9 ISO's website. At the same time the ISO posts on its website the final CRPS report, the  
10 ISO will also notify all Interconnection Customers with Interconnection Requests  
11 identified as eligible to participate in the cluster studies. The posting of that final CRPS  
12 report will mark the completion of the first phase of the study process, and trigger the  
13 start of the second phase of the process. More specifically, the posting of the final CRPS  
14 report will trigger a 30-day window, referred to as the "Cluster Interconnection System  
15 Impact Study Entry Deadline" ("Cluster Entry Deadline") at the beginning of the second  
16 phase of the study process, by which Interconnection Customers identified in the final  
17 CRPS report as eligible to participate in the second-phase cluster studies must elect  
18 whether or not to move forward with the interconnection process.

19  
20 **Q: What information will be provided in the final CRPS report?**

21 A: The final CRPS report will list the Interconnection Requests identified as eligible to be  
22 considered together in the second-phase cluster studies, and the transmission  
23 infrastructure needed to enable their interconnection to the system. Specifically, the final

CRPS report will provide: (1) a planning level description of the CETU(s) and associated system upgrades; (2) a non-binding good faith order-of-magnitude, developed by the applicable Transmission Owner(s), of the costs for the CETU(s) and the associated upgrades; (3) the approximate megawatt quantity (or quantities if more than one level of megawatt injection was studied in the CRPS) of resources that could be interconnected in a manner that meets the Network Capability Interconnection Standard, which is applied for energy-only interconnections, and Capacity Capability Interconnection Standard, which is applied for capacity and energy interconnections, similar to the preliminary non-binding overlapping impacts analysis available under the SIS, in accordance with the Interconnection Procedures; and, (4) a list of the Interconnection Requests, referenced by Queue Position, identified by the ISO as eligible to participate in the second-phase cluster studies, together with the Interconnection Requests' expected cost responsibility for the CETU and the associated upgrade costs. The CRPS will not identify the Interconnection Facilities; such as sole use facilities interconnecting an individual Generating Facility to the CETU, where such facilities cannot be finalized until the actual Interconnection Requests that will be moving forward in the second-phase cluster studies are known.

**Q: What level of Interconnection Service will be anticipated in the CRPS?**

**A:** Consistent with the conduct of Interconnection Studies today, the CRPS will identify the upgrades needed for the eligible resources to achieve Network Resource Interconnection Service. The CRPS will also identify the extent to which the resources may be expected to achieve Capacity Network Resource Interconnection Service as a result of the CETU.

1   **Q:    Will the CETU be designed based on the total level of megawatts of the resources**  
2       **proposed in the Interconnection Requests included in the CRPS?**

3   A:    According to the clustering trigger design, all of the Interconnection Requests identified  
4       for consideration under clustering require significant new common transmission  
5       infrastructure to interconnect the proposed resources to the system. As appropriate, the  
6       ISO will study the ranges of megawatts proposed in the electrical area of the system  
7       where clustering was triggered in designing the CETU. For example, a CETU design  
8       may be developed to enable the interconnection of up-to 1,200 MW in the given part of  
9       the region. The CRPS will identify if there are logical breakpoints in the infrastructure if  
10      fewer megawatts end up proceeding through the interconnection process. For example,  
11      the design for the 1,200 MW of resources may include a new 345 kV line and the  
12      upgrade of an existing 345 kV line. However, the upgrade of the existing line may not be  
13      required if only 800 MW come forward. The final CRPS report will identify this  
14      information.

15  
16      At the same time, the CETU identified in the final CRPS report may not be designed to  
17      interconnect the entire total of megawatts proposed in the Interconnection Requests  
18      located in the same electrical part of the system. As described later, a second CRPS will  
19      be commissioned if the first cluster is oversubscribed. In addition, focusing every effort  
20      on designing an initial CETU that interconnects every single requested megawatt in many  
21      cases will be counterproductive because there is always the potential for attrition.  
22      Furthermore, an over-designed CETU could make cluster failure more likely from the  
23      start.

1   **Q:    Will Elective Transmission Upgrades be eligible for consideration under the cluster**  
2       **study process?**

3   A:    All Interconnection Requests, including requests for Generating Facilities and ETUs,  
4       located in the same electrical part of the system relative to the CETU that require the  
5       CETU to interconnect to the system and do not have a completed CSIS at the time the  
6       CRPS report is finalized will be identified in the final CRPS report as eligible to  
7       participate in the second-phase cluster studies. External ETUs that need the CETU to  
8       interconnect to the system will be eligible to participate in the cluster studies in the same  
9       way as Generating Facilities, recognizing the requested import and export capability.  
10      Internal ETUs will be included either as cluster-eligible projects to the extent the Internal  
11      ETU needs the CETU to interconnect to the system, similar to a Generating Facility, or as  
12      upgrades that are potentially eligible to take the place of a CETU. To facilitate the latter  
13      treatment, if there is an Interconnection Request for an Internal ETU in the ISO's  
14      interconnection queue that the ISO identifies as potentially eligible to step in and perform  
15      the role of a CETU, the ISO will identify the Internal ETU's Interconnection Request, by  
16      Queue Position, in the final CRPS report as eligible to participate in the second-phase  
17      cluster studies. This treatment is reflected in the revisions to Section 4.2.1 of the ETU IP.  
18      The Interconnection Customer associated with the Interconnection Request for the  
19      Internal ETU will be subject to the same cluster entry requirements as all other  
20      Interconnection Customers identified as eligible to participate in the second-phase cluster  
21      studies.



1   **Q:     How will the CRPS be funded?**

2   A:     The costs of the ISO's performance of the CRPS will be recovered pursuant to Section  
3           IV.A of the Tariff, consistent with other regional planning studies. However, the costs  
4           incurred by the Transmission Owner(s) to develop upgrade cost estimates in support of  
5           the ISO's CRPS will be funded by the Interconnection Customers with Interconnection  
6           Requests included in the CRPS. To facilitate that funding, the Interconnection  
7           Procedures have been revised to provide for the initial Interconnection Request deposit  
8           and study deposit associated with Interconnection Requests included in the CRPS to be  
9           applied toward the costs incurred by the Transmission Owner(s) in developing the cost  
10          estimates necessary to support the CRPS. If an Interconnection Customer withdraws its  
11          Interconnection Request during the CRPS, it will only be responsible for the costs  
12          incurred up to that point in time.

13  
14   **Q:     Please describe the second phase of the study process.**

15   A:     The second phase of the cluster study process starts with the posting of the final CRPS  
16          report on the ISO's website. As noted, at the beginning of the second phase,  
17          Interconnection Customers that are not ready to commit to move forward will have the  
18          option to either step aside to the bottom of the interconnection queue or withdraw from  
19          the interconnection queue altogether. During the second phase of the study process, the  
20          ISO will perform a CSIS and CFAC that considers only Interconnection Requests  
21          associated with Interconnection Customers that elect, and meet the associated  
22          requirements to, proceed to the second-phase cluster studies. The procedures for the

CSIS and the CFAC are set out in Sections 4.2.3 and 4.2.4 of the LGIP, Sections 1.5.3.3 and 1.5.3.4 of the SGIP, and Sections 4.2.2 and 4.2.4 of the ETU IP.

**Q: Please describe the scope and procedures for the CSIS.**

A: The ISO will perform the CSIS following the existing provisions governing the conduct of the SIS, with some specific exceptions.

Under the current Interconnection Procedures, the ISO performs the SIS for each individual Interconnection Request to identify the facilities needed to accommodate the proposed resource in a manner that does not impact the reliability and safe operation of the New England Transmission System. In general, the Study Base Case for each individual study includes all existing and approved resources, as well as electrically relevant higher-queued Interconnection Request. The analysis consists of steady state thermal analysis, short circuit analysis, voltage and transient stability analysis, and, as appropriate, other analysis, such as weak-grid-related analysis. Depending on the Interconnection Customer's elections, the current serial-queued SIS may also include the performance of the FS as the first part of the study, and it may also include a preliminary non-binding overlapping impact analysis to identify potential upgrades that may be necessary for the proposed resource to qualify for participation in a FCA.

The CSIS follows this same construct, but the Study Base Case will include all of the Interconnection Requests that meet the requirements for inclusion in the CSIS so they can be assessed together with the CETU and associated system upgrades identified in the

1 CRPS. In addition, if an Internal ETU meets the requirements to take the place of a  
2 CETU or part thereof, the CSIS Study Base Case will also include the Internal ETU.  
3 Because the FS, in essence, will have taken place in the CRPS, Interconnection  
4 Customers with Interconnection Requests included in the CSIS will not have the option  
5 to have a FS performed as part of the CSIS, as is the case under the current  
6 Interconnection Procedures. Similarly, the preliminary non-binding overlapping impact  
7 study will not be an option for the CSIS, as the CRPS will also identify the potential  
8 megawatts that may meet the Capacity Capability Interconnection Standard.

9  
10 The ISO will use Reasonable Efforts to complete the CSIS within timeframes currently  
11 provided under the procedures. While all the Interconnection Requests included in the  
12 CSIS will be assessed together, upon completion of the CSIS, the ISO will issue a study  
13 report to each individual Interconnection Customer, identifying the shared and sole-use  
14 facilities required to interconnect the proposed resource and their associated cost  
15 estimates.

16  
17 **Q: Under which Interconnection Standard will Interconnection Request included in the**  
18 **CSIS be evaluated?**

19 **A:** The ISO will evaluate the interconnection of the resources proposed in the  
20 Interconnection Requests included in the CSIS under the Network Capability  
21 Interconnection Standard. Consistent with that standard, the evaluation will include  
22 conditions where the proposed resources included in the cluster are not dispatched against  
23 each other unless they share an operable system constraint that would provide the basis

1 for a redispatch condition. For example, under the Network Capability Interconnection  
2 Standard, a new Generating Facility can be dispatched against an existing Generating  
3 Facility in the circumstances where running both facilities together would cause an  
4 overload in the system model. If running both the new and existing facilities does not  
5 cause an overload, then the existing Generating Facility would not be turned down in the  
6 analysis.

7  
8 Interconnection Requests for Generating Facilities and External ETUs that successfully  
9 complete the interconnection process will achieve NRIS. Participation in the CSIS and  
10 the sharing of common upgrade costs does not alter the existing procedural flow and  
11 milestone progress of the Interconnection Procedures. Furthermore, Interconnection  
12 Customers seeking to achieve CNR status will need to complete all of the FCM-related  
13 milestones that are set forth in the Tariff, including the achievement of a Capacity Supply  
14 Obligation and Commercial Operation within the required timeframe. The evaluation of  
15 overlapping interconnection impacts in the FCA qualification will continue to be  
16 conducted in queue order relative to those project that have submitted Show of Interests  
17 Forms to be considered for qualification in the same FCA.

18  
19 **Q: Why is the CETU not subject to redesign during the CSIS?**

20 **A:** The CSIS Study Base Case will include the CETU as configured in the CRPS. Because  
21 all of the Interconnection Requests considered in the CRPS require the new common  
22 enabling infrastructure to interconnect to the system, it is not necessary to redesign the  
23 CETU during the CSIS even upon withdrawal of an eligible Interconnection Request. As

described earlier, as appropriate, the CRPS will consider the megawatt thresholds associated with the need for the given upgrades and so the CETU will remain configured consistent with the various megawatt quantities considered in the final CRPS report.

**Q: What are the requirements for an Internal ETU to be included in the CSIS Study Base Case in the place of a CETU or part thereof?**

A: The default expectation is that the Interconnecting Transmission Owner will be responsible for building the CETU. For an Internal ETU to take the place of a CETU or part thereof, the Interconnection Customer for the Internal ETU must elect, and meet the associated requirements, to be included in the CSIS. In addition, each Interconnection Customer in the cluster that needs the CETU to interconnect to the system will need to indicate, by the time the SIS Agreement to support the CSIS is due, that it has an arrangement with the ETU Interconnection Customer establishing a commitment to fund and a right to use the Internal ETU to interconnect to the system. The Clustering Revisions reflect this requirement in Section 4.2.3.4 of the LGIP, Section 1.5.3.3.3.4 of the SGIP, and Section 4.2.3.4 of the ETU IP. This requirement is appropriate. It is the ISO's obligation to provide Interconnection Service, and the purpose of this requirement is to ensure that an Interconnection Customer is not hindered from interconnection because they are unable to reach agreement with a private Internal ETU developer.

**Q: How will the CSIS be funded?**

A: As is the case today, the deposits that Interconnection Customers submit along with the executed SIS Agreements (*i.e.*, the study deposit) will be used to fund the cost of the

1 CSIS. The CSIS costs that are associated with an individual Interconnection Request  
2 included in the CSIS will be charged directly to the respective Interconnection Customer.  
3 The CSIS costs that are associated with the CSIS as a whole will be divided equally  
4 among the Interconnection Customers with Interconnection Requests included in the  
5 CSIS. If an Interconnection Customer withdraws during the CSIS, it will only be  
6 responsible for the costs incurred up to that point in time.  
7

8 **Q: Please describe the scope and procedures for the CFAC.**

9 A: In the second phase of the study process, Interconnection Customers with Interconnection  
10 Requests included in a completed CSIS, to the extent they remain in the queue, will be  
11 studied together in a specified-scope CFAC. The CFAC will be performed for the  
12 purpose of developing an adequate quality cost estimate for all common or shared  
13 upgrades associated with the cluster – that is, the CETU and other shared system  
14 upgrades. The requirement for these Interconnection Customers to complete a CFAC is  
15 reflected in Section 4.2.4 of the LGIP, Section 1.5.3.4 of the SGIP, and Section 4.2.4 of  
16 the ETU IP.  
17

18 The scope of the CFAC will be the same as that of the existing FAC based on a +/- 20  
19 percent good faith cost estimate, but it will be limited to shared upgrades. The CFAC  
20 will not include sole-use facilities identified in the CSIS. However, if an Interconnection  
21 Customer wishes to pursue a FAC for sole-use facilities identified in the CSIS, it may do  
22 so under existing provisions in the Interconnection Procedures. While all the  
23 Interconnection Requests included in the CFAC will be assessed together, upon

1 completion of the CFAC, the ISO also will issue a study report to each individual  
2 Interconnection Customer, providing the detailed cost estimates for the shared upgrades.

3  
4 **Q: How will the CFAC be funded?**

5 A: Like the CSIS, the study deposit submitted along with the executed FAC Agreement will  
6 be applied toward the cost of the CFAC. The CFAC costs that are associated with an  
7 individual Interconnection Request included in the CFAC will be charged directly to the  
8 respective Interconnection Customer. The CFAC costs that are associated with the  
9 CFAC as a whole will be divided equally among the Interconnection Customers with  
10 Interconnection Requests included in the CFAC. As is the case today, an Interconnection  
11 Customer that withdraws during the CFAC will only be responsible for the study costs  
12 incurred up to that point in time.

13  
14 ***C. Mechanisms to Increase Certainty in Clustering and Limit Withdrawal Impacts***

15 **Q: Please identify the mechanisms proposed in the Clustering Revisions to increase**  
16 **certainty in the interconnection process, facilitate more informed interconnections,**  
17 **and reduce the likelihood of restudy as referenced in an earlier response.**

18 A: The proposed Clustering Revisions incorporate in the Interconnection Procedures several  
19 key features designed to increase certainty and reduce the likelihood of restudies when  
20 clustering has been invoked. As indicated, the two-phased cluster study structure is  
21 specifically designed to provide Interconnection Customers meaningful early information  
22 about the likely outcome of the cluster effort (e.g., the magnitude of transmission  
23 infrastructure and associated costs, as well as, the identification of projects that are  
24 eligible for inclusion in cluster studies) in the first phase. The design also provides a

1 reasonable opportunity for Interconnection Customers that are ready to move forward to  
2 elect to proceed to the second-phase cluster studies and for those that are not ready to  
3 commit to move forward to either step aside to the bottom of the interconnection queue  
4 or withdraw from the interconnection queue altogether. In addition, the Clustering  
5 Revisions incorporate significant cluster participation requirements, including potentially  
6 forfeitable cluster participation deposits for Interconnection Customers that proceed to  
7 the second-phase cluster studies, with time-specific off-ramps designed to allow  
8 Interconnection Customer's withdrawals without forfeiting the deposit. Finally, the  
9 Clustering Revisions include provisions for backfilling the cluster with lower-queued  
10 requests in the event of withdrawals to minimize the need to restudy and any resulting  
11 impact on the remaining Interconnection Requests. I further describe each of these  
12 features in this part of my testimony.

13  
14 *1. Cluster Eligibility, Notification and Entry Requirements*

15 **Q: Upon the completion of the first phase of the study process with the posting of the**  
16 **final CRPS report, will the ISO notify Interconnection Customers whether their**  
17 **Interconnection Requests have been identified as eligible to participate in the**  
18 **second-phase cluster studies?**

19 **A:** The final CRPS report will identify all Interconnection Requests identified as eligible to  
20 participate in the second-phase cluster studies. These will include all Interconnection  
21 Requests without completed SISs in the same electrical part of the New England Control  
22 Area, relative to the CETU identified in the final CRPS report, that require the CETU to  
23 interconnect to the system. Additionally, at the time the ISO posts on its website the final



1 CRPS report, the ISO will also notify all Interconnection Customers associated with the  
2 identified requests in accordance with the revisions proposed in Section 4.2.3.1 of the  
3 LGIP, Section 1.5.3.3.1 of the SGIP and Section 4.2.3.1 of the ETU IP. Importantly, the  
4 ISO's notice will trigger the 30-day Cluster Entry Deadline by which the identified  
5 Interconnection Customers will need to make a determination as to whether or not to  
6 proceed to the second-phase of the study process. More specifically, by the Cluster Entry  
7 Deadline, Interconnection Customers with Interconnection Requests listed in the final  
8 CRPS report and notified by the ISO will need to elect to: (1) participate in the second-  
9 phase cluster studies and meet the associated requirements; (2) move to the bottom of the  
10 queue in the same relative order as other eligible requests that make this choice, without  
11 the need to post another initial \$50,000 Interconnection Request deposit to support the re-  
12 queued request; or, (3) withdraw the Interconnection Request from the queue, and receive  
13 a refund of the unspent portion of the initial \$50,000 Interconnection Request deposit.  
14 These options are consistent with a "first-ready, first-served" approach in that  
15 Interconnection Customers that are ready to move forward will most likely elect to  
16 participate in the second-phase cluster studies and those that are not ready will choose to  
17 proceed at a later time by either moving to the bottom of the queue or withdrawing from  
18 the queue.

19  
20 **Q: Are there any consequences if an Interconnection Customer fails to make an**  
21 **election by the Cluster Entry Deadline?**

22 **A:** Interconnection Customers with identified Interconnection Requests, while required to  
23 participate in the first-phase CRPS, are not required to participate in the second-phase

1 cluster studies. However, Interconnection Customers with identified Interconnection  
2 Requests must make an election and meet the associated requirements by the Cluster  
3 Entry Deadline. The Cluster Entry Deadline will not be subject to further extensions  
4 given the wealth of meaningful information that will be available during the first phase of  
5 the study process and the ample period of time Interconnection Customers will have to  
6 formulate an informed decision. Being identified as eligible to participate in the second-  
7 phase cluster studies should not be a surprise, given the Interconnection Requests'  
8 consideration in the CRPS, and its identification in the CRPS report. Failure to make an  
9 election by the Cluster Entry Deadline will result in the immediate withdrawal of the  
10 Interconnection Request from the interconnection queue without further opportunity to  
11 cure. Correspondingly, Interconnection Customers that elect to participate in the second-  
12 phase cluster studies must also meet the requirements to be included in the CSIS – that is,  
13 the CSIS entry requirements – by the Cluster Entry Deadline. Otherwise, the  
14 Interconnection Request will be withdrawn from the interconnection queue without  
15 further opportunity to cure. These measures are appropriate in that they will avoid  
16 further delays in the progress of the interconnection process for all of the eligible request  
17 that meet the election requirements in a timely manner.

18  
19 **Q: What are the requirements that an Interconnection Customer identified as eligible**  
20 **to participate in the second-phase cluster studies will need to meet in order to be**  
21 **included in the CSIS?**

22 **A:** The CSIS entry requirements are incorporated in Section 4.2.3.2.2 of the LGIP, Section  
23 1.5.3.3.2.2 of the SGIP, and Section 4.2.3.2.2 of the ETU IP. To be included in the CSIS,

an Interconnection Customer with an Interconnection Request identified as eligible to participate in the second-phase cluster studies must submit to the ISO, by the Cluster Entry Deadline: (1) a Cluster System Impact Study Application, which has been incorporated in the Appendices to the Interconnection Procedures, requesting the inclusion of the Interconnection Request in the CSIS; and, (2) a potentially non-refundable initial Cluster Participation Deposit. In addition, Interconnection Customers must enter into a new SIS Agreement, which will replace any Feasibility Study Agreements or System Impact Study Agreements that may have been executed prior to the issuance of the final CRPS report, to support the conduct of the CSIS. The new executed SIS Agreement will be due 30 days after receipt of the SIS Agreement from the ISO, consistent with the existing SIS procedures in Section 7.2 of the LGIP, Section 3.4 of the SGIP and Section 7.2 of the ETU IP. At the same time the executed SIS Agreement is due, Interconnection Customers will also need to submit to the ISO continued demonstration of Site Control, the required technical data, and a refundable study deposit, which is separate from the Cluster Participation Deposit, to the extent that any additional study deposit is required. The Clustering Revisions provide for any unused balance of the study deposit associated with the study agreements entered into prior to the issuance of the final CRPS report to be applied toward the study deposit associated with the new study agreements to support the CSIS.

**Q: What is the required initial Cluster Participation Deposit?**

**A:** To be included in the CSIS, an Interconnection Customer with an Interconnection Request for a Generating Facility or an External ETU must submit to the ISO, by the

Cluster Entry Deadline, an initial Cluster Participation Deposit in the amount of five percent of the Interconnection Customer's cost allocation responsibility for the CETU and associated system upgrades identified in the final CRPS report. An Interconnection Customer with an Internal ETU is also required to submit to the ISO, by the Cluster Entry Deadline, an initial Cluster Participation Deposit; however, the deposit will be the lesser of \$1,000,000 or five percent of the Interconnection Customer's estimated costs for the Internal ETU as of the time the initial Cluster Participation Deposit is due. The cost of the CETU and associated system upgrades will be determined based on the cost estimates provided in the final CRPS report. The Interconnection Customer's respective cost responsibility for the CETU and the associated system upgrades will be determined using the cluster cost allocation methodology incorporated in Schedule 11 of the OATT, which I describe later in my testimony. For example, if the expected cost allocation for an Interconnection Request in the cluster is \$100M, the deposit will be equal to \$5M.

**Q: Why is the initial Cluster Participation Deposit required for inclusion in the CSIS?**

A: One of the key objectives of the clustering design is to minimize uncertainties and the impacts of withdrawals. Because the second-phase cluster studies – the CSIS and the CFAC – are dependent on more than one Interconnection Request moving forward, Interconnection Customers electing to proceed to the second-phase cluster studies need assurance that the other Interconnection Customers electing the same are also committed to moving forward. The initial Cluster Participation Deposit, commensurate to a portion of Interconnection Customer's cost responsibility for the CETU and associated system upgrades (or, in the case of an Internal ETU, the lesser of \$1,000,000 or five percent of

the proposed Internal ETU costs), is required to demonstrate Interconnection Customer's commitment to proceed toward interconnection. The initial Cluster Participation Deposit is designed to ensure the viability and willingness of projects proceeding to the second phase of the cluster study process.

**Q: Is the initial Cluster Participation Deposit refundable to the Interconnection Customer?**

A: The reason for the initial Cluster Participation Deposit is to ensure that only those projects that are committed to proceed toward interconnection based on the information provided in the final CRPS report enter the second-phase cluster studies; thereby, minimizing the uncertainties and impacts of late-stage withdrawals. As such, the initial Cluster Participation Deposit is potentially non-refundable. The Clustering Revisions, however, recognize that the circumstances known at the time of an Interconnection Customer's election to proceed to the second-phase cluster studies and be included in the CSIS can change significantly. Therefore, the revisions provide for time-specific off-ramps or milestones that afford Interconnection Customers a reasonable opportunity to withdraw should a significant change occur without forfeiting the initial Cluster Participation Deposit. If an Interconnection Customer withdraws its Interconnection Request at one of the specified process intervals or key decision points, then the ISO will fully refund its initial Cluster Participation Deposit at that time. The specific process intervals or key decision points and the associated events are set forth in Section 4.2.3.2.2(3) of the LGIP, Section 1.5.3.3.2.2(3) of the SGIP, and Section 4.2.3.2.2(3) of the ETU IP. They are as follows:

- 1       • Before the start of the CSIS to account for significant cluster size differences –
  - 2           ○ If the CSIS is initially undersubscribed by more than ten percent of the
  - 3           quantity of megawatts that the CETU developed through the CRPS was
  - 4           designed to enable, and the Interconnection Customer withdraws before
  - 5           the CSIS starts; or,
  - 6           ○ If the CSIS is initially oversubscribed (e.g., the CETU developed through
  - 7           the CRPS is designed to enable 1,000 MW and more than 1,000 MW meet
  - 8           the CSIS entry requirements by the Cluster Entry Deadline), and the
  - 9           Interconnection Customer, to the extent it met the CSIS entry
  - 10          requirements, would have been included in the CSIS but for the
  - 11          oversubscription, in which case the Interconnection Customer will also
  - 12          maintain its Queue Position.
- 13       • During the CSIS or CFAC to account for less than two Interconnection Requests
  - 14           – If less than two Interconnection Requests included in the CSIS or CFAC remain
  - 15           in the interconnection queue during the CSIS or CFAC, due to withdrawals, in
  - 16           which case, the applicable cluster study terminates, and the remaining
  - 17           Interconnection Request proceeds to be evaluated using the existing serial queue
  - 18           study process;
- 19       • After the CSIS or CFAC to account for significant cost estimate differences – If
  - 20           the cost estimates for the CETU and the associated system upgrades provided in
  - 21           the final CRPS report for the entire cluster (as opposed to each individual
  - 22           Interconnection Customer) increase by 25 percent or more when compared to the
  - 23           cost estimates provided in the draft CSIS report or the draft CFAC report, as

1 applicable, and the Interconnection Customer withdraws within 30 days after  
2 receipt of the draft CSIS report or the draft CFAC report; or,

- 3 • Within 15 Business Days after receipt of final Interconnection Agreement for  
4 execution – At the time Interconnection Customer provides Interconnecting  
5 Transmission Owner a new milestone deposit of 20% of total upgrade cost  
6 estimates.

7  
8 Otherwise, to minimize the potential for cascading withdrawals, the initial Cluster  
9 Participation Deposit will be forfeited if the Interconnection Customer withdraws its  
10 Interconnection Request or if the Interconnection Request is withdrawn from the  
11 interconnection queue at any time after the Cluster Entry Deadline unless all of the  
12 Interconnection Requests included in the cluster withdraw from the interconnection  
13 queue – that is, the cluster collapses – in which case, the initial Cluster Participation  
14 Deposits are refunded to the respective Interconnection Customers.

15  
16 **Q: What happens to the initial Cluster Participation Deposits that are forfeited by the**  
17 **Interconnection Customer withdrawing after the Cluster Entry Deadline at times**  
18 **other than those specified in the earlier response?**

19 **A:** The non-refundable initial Cluster Participation Deposits will be used to offset the impact  
20 of the withdrawal on the Interconnection Customers remaining in the cluster. More  
21 specifically, the total forfeited deposits will be re-allocated to Interconnection Customers  
22 with Interconnection Requests that remain in the cluster at the time the resources  
23 proposed in the Interconnection Requests achieve Commercial Operation. The amount of

1 the total forfeited deposits that will be re-allocated to each remaining Interconnection  
2 Customer will be determined using the cluster cost allocation methodology proposed in  
3 Schedule 11. In the case of initial Cluster Participation Deposits determined using the  
4 proposed distribution factor methodology, the share of all forfeited initial Cluster  
5 Participation Deposits for each of the remaining Interconnection Customers will be based  
6 on their respective distribution impact cost allocations after the withdrawal. For example,  
7 if after a withdrawal, a remaining resource's cost responsibility for an upgrade (that  
8 would have been contributed to by the withdrawing resource) becomes 30% of the cost of  
9 the upgrade, then the remaining resource will receive 30% of the forfeited deposit  
10 associated with that upgrade. The distribution impact is essentially the distribution factor  
11 of the Interconnection Customer's resource multiplied by the megawatt value of the  
12 proposed resource. This approach to re-allocation of forfeited Cluster Participation  
13 Deposits is intended to offset the uncertainties and risks assumed by Interconnection  
14 Customers in light of late-stage withdrawals.

15  
16 **Q: Are there additional requirements for Interconnection Customers that were**  
17 **included in the CSIS to advance to the next step of the interconnection process?**

18 A: Yes, the Clustering Revisions incorporate in Section 4.2.4.4 of the LGIP, Section  
19 1.5.3.4.4 of the SGIP and Section 4.2.4.4 of the ETU IP, a requirement for  
20 Interconnection Customers to provide an additional Cluster Participation Deposit after the  
21 final CFAC report in order to enter into the Interconnection Agreement development  
22 phase of the interconnection process for further reassurance of commitment to move  
23 toward interconnection. In the case of a Generating Facility or an External ETU, the



1 additional Cluster Participation Deposit is in the amount of five percent of the  
2 Interconnection Customer's cost allocation responsibility for the CETU and associated  
3 system upgrades identified in the final CRPS report. In the case of an Internal ETU, the  
4 additional Cluster Participation Deposit is the lesser of \$1,000,000 or five percent of the  
5 Interconnection Customer's estimated costs for the Internal ETU as of the time the  
6 additional Cluster Participation Deposit is due. The cost of the CETU and associated  
7 system upgrades will be determined based on the cost estimates provided in the final  
8 CFAC report. The Interconnection Customer's respective cost responsibility for the  
9 CETU and the associated system upgrades will be determined using the cluster cost  
10 allocation methodology incorporated in Schedule 11 of the OATT. The additional  
11 Cluster Participation Deposit prior to the development of the Interconnection Agreement  
12 is necessary as further assurance for other Interconnection Customers also electing to  
13 move forward into the Interconnection Agreement development, and before committing  
14 significant resources to the development of complex Interconnection Agreements  
15 involving significant transmission infrastructure that will likely be shared among multiple  
16 Interconnection Customers, and the need to incorporate shared facilities arrangements  
17 and coordinate milestone schedules (*e.g.*, permitting, construction, etc.) for these  
18 facilities.

19  
20 In addition, the Clustering Revisions revise the Interconnection Procedures to require  
21 Interconnection Customers with clustered Interconnection Requests to further commit to  
22 the upgrades upon finalizing the Interconnection Agreement. Specifically, the Clustering  
23 Revisions incorporate in Section 11.3.1.2 of the LGIP, Section 4.8 of the SGIP, and

1 Section 11.3.1.2 of the ETU IP, a requirement for clustered Interconnection Customers to  
2 provide to the Interconnecting Transmission Owner, within 15 Business Days after  
3 receipt of the final Interconnection Agreement, the greater of (1) a potentially non-  
4 refundable deposit, in cash, in the amount of 20 percent of the total upgrade costs,  
5 including the CETU, based on the final CFAC report, or (2) the initial payment called for  
6 in the Interconnecting Transmission Owner's payment schedule.

7  
8 If an Internal ETU has been selected to take the place of a CETU or a portion thereof,  
9 then the Cluster Participation Deposit amounts described above would be reduced to  
10 exclude the Internal ETU. Interconnection Customers' cost responsibility for the Internal  
11 ETU would be governed by the appropriate arrangements as between the Interconnection  
12 Customers and the Internal ETU developer.

13  
14 **Q: Is the additional Cluster Participation Deposit refundable to the Interconnection**  
15 **Customer?**

16 **A:** Unless forfeited, at the time the Interconnection Customer provides the 20 percent  
17 deposit (or makes the initial payment) to the Interconnecting Transmission Owner, the  
18 ISO will fully refund the initial and additional Cluster Participation Deposits (10 percent,  
19 or amounts provided in the case of Internal ETU) to the respective Interconnection  
20 Customers. If the Interconnection Customer does not submit the 20 percent deposit (or  
21 make the initial payment) within the period specified, the Interconnection Request will be  
22 automatically withdrawn from the interconnection queue, and the Cluster Participation  
23 Deposits will be forfeited. The forfeited Cluster Participation Deposits will be re-

1 allocated as described earlier, according to the cost allocation methodology contained in  
2 Schedule 11, to those Interconnection Customers with Interconnection Requests included  
3 in the cluster at the time the proposed resources achieve Commercial Operation, similar  
4 to the initial Cluster Participation Deposit.

5  
6 **Q: Is the 20 percent deposit (or initial payment) refundable to the Interconnection**  
7 **Customer?**

8 A: If the Interconnection Request is withdrawn after the Interconnection Customer submits  
9 the 20 percent deposit (or makes the initial payment), then the associated Interconnection  
10 Agreement will be terminated and the 20 percent deposit (or initial payment) will be  
11 applied to offset the costs of the CETU. However, if all clustered Interconnection  
12 Requests are withdrawn from the interconnection queue after the 20 percent deposits (or  
13 initial payments) have been made, the associated Interconnection Agreements will be  
14 terminated and the Interconnecting Transmission Owner will return any unspent portions  
15 of the deposits/payments to the respective Interconnection Customers in accordance with  
16 the associated Interconnection Agreements.

17  
18 **2. *Cluster Filling, Over/Undersubscription and Backfilling***

19 **Q: Please describe how the ISO will fill or populate the cluster studies.**

20 A: The Clustering Revisions specify the criteria to be applied to fill the cluster in Sections  
21 4.2.3.3 of the LGIP, Section 1.5.2.2 of the SGIP, and Section 4.2.3.3 of the ETU IP. The  
22 CSIS will be filled with all Interconnection Requests located in the same electrical part of  
23 the system relative to the CETU identified in the final CRPS report that do not have a

1 completed SIS and meet the CSIS entry requirements by the Cluster Entry Deadline, up  
2 to the megawatts enabled by the CETU. The Interconnection Requests will be included  
3 in queue order relative to other eligible Interconnection Requests that meet the  
4 requirement.

5  
6 **Q: What happens if Interconnection Requests for more megawatts than the CETU is**  
7 **designed to enable meet the CSIS entry requirements by the Cluster Entry**  
8 **Deadline?**

9 A: If the cluster is oversubscribed – that is, more Interconnection Requests meet the  
10 requirements to enter the CSIS than can be accommodated by the CETU – the Clustering  
11 Revisions provide for the ISO to immediately initiate the cluster study process for the  
12 next round of eligible projects. Should cluster oversubscription occur, the first round of  
13 eligible Interconnection Requests that met the CSIS entry requirements will proceed with  
14 the first CSIS. The ISO will initiate another cluster to identify the transmission  
15 infrastructure to enable the interconnection of another round of Interconnection Requests  
16 with the announcement of another first-phase CRPS through the Planning Advisory  
17 Committee. Conversely, if the cluster is undersubscribed, then, as described earlier, the  
18 Interconnection Customers that met the CSIS entry requirements will have an opportunity  
19 to withdraw the Interconnection Requests from the queue prior to the start of the CSIS  
20 and be refunded the initial Cluster Participation Deposit.

1   **Q:    Are the second-phase cluster studies subject to restudy in the event of withdrawal?**

2   A:    Not necessarily. In the event of withdrawals, whether during the scheduled off-ramps I  
3       described earlier or at any other time, the Clustering Revisions provide for the ISO to  
4       backfill the cluster, in queue order, with later-queued Interconnection Requests identified  
5       by the ISO as eligible to take the place of (backfill) a withdrawn Interconnection Request.  
6       Backfilling will be based on the same criteria applied to fill the original cluster.  
7       Consistent with that process, the ISO will notify all Interconnection Customers with  
8       Interconnection Requests identified as eligible for backfilling. Interconnection  
9       Customers will have 30 days by which to meet the cluster entry requirements for their  
10      respective Interconnection Request's inclusion in the cluster, request to have the  
11      Interconnection Request moved to the bottom of the queue, or withdraw the  
12      Interconnection Request. If the Interconnection Customer does not make one of these  
13      elections and meets the associated requirements, then the Interconnection Request will be  
14      automatically withdrawn.

15  
16      To minimize the impact of the withdrawal on the remaining Interconnection Requests,  
17      the ISO may identify the Generating Facility or ETU as proposed in a lower-queued  
18      Interconnection Request or a portion of it to be eligible for backfilling. In that case, the  
19      Interconnection Customer will be allowed to modify the Interconnection Request to  
20      reflect the appropriate reduction. Correspondingly, when an Internal ETU has been  
21      included in the CSIS Study Base Case to take the place of a CETU or part thereof, then,  
22      only in this circumstance of backfilling, any later-queued Interconnection Request that is  
23      joining the cluster must also have a commitment with the ETU developer to fund and use

1 the Internal ETU. Otherwise, the later-queued Interconnection Request will not be  
2 eligible to backfill, as rendering the Internal ETU as no longer eligible to take the place  
3 of the CETU in the absence of such a commitment at this stage in the process would be  
4 too disruptive to the cluster and could result in cluster collapse.

5  
6 While the backfilling provisions are intended to reduce the need for restudies that may be  
7 triggered by withdrawal, the Clustering Revisions incorporate restudy provisions in the  
8 CSIS and CFAC provisions in case restudy is needed. Consistent with the existing  
9 restudy provisions in the Interconnection Procedures, the Clustering Revisions specify  
10 the circumstances that may warrant a restudy of the CSIS or CFAC. The circumstances  
11 include those that are currently reflected in the existing restudy provisions (*e.g.*, changes  
12 to a higher-queued project or modifications to an approved regulated transmission  
13 solution included in the base case), as well as, withdrawal of an Interconnection Request  
14 that had been included in the CSIS or CFAC. To the extent restudy is triggered,  
15 individual Interconnection Customer's cost responsibilities will be updated.

16  
17 ***E. Clustering Cost Allocation Methodology***

18 **Q: Please describe the proposed revisions to Schedule 11 of the OATT.**

19 A: The Clustering Revisions modify, primarily, Section 5 of Schedule 11 of the OATT to  
20 establish a methodology for allocating interconnection upgrade costs among  
21 Interconnection Customers included in a cluster and a mechanism to address late comers  
22 seeking to use the upgrades built to support the cluster.

1   **Q:   How are the costs for interconnection upgrades allocated today?**

2   A:   Interconnection Customers are responsible for the costs of interconnection upgrades.  
3       More specifically, under the current Interconnection Procedures, the Queue Position  
4       assigned to a valid Interconnection Request determines the cost responsibility for  
5       interconnection upgrades that are necessary to accommodate the Interconnection Request  
6       based on the cost allocation methodology set out in Schedule 11 of the OATT. Under  
7       Section 5 of Schedule 11, all costs of interconnection that would not have been incurred  
8       but for the interconnection are allocated to the Interconnection Customer.

9  
10   **Q:   How will the costs for interconnection upgrades identified through clustering be**  
11       **allocated under the Clustering Revisions?**

12   A:   The Clustering Revisions amend Section 5 of Schedule 11 to establish the provisions for  
13       allocating the costs for interconnection upgrades among Interconnection Customers with  
14       Interconnection Requests included in a cluster. All interconnection upgrade costs  
15       continue to be paid by Interconnection Customers in the cluster; costs are not shifted to  
16       the region or localized. Under the proposed cost allocation methodology, the costs for  
17       direct-connect or sole-use facilities (*e.g.*, a generator lead connecting a Generating  
18       Facility to the CETU) will continue to be paid for by the respective Interconnection  
19       Customer, the same as today. The costs for common or shared upgrades (*e.g.*, the CETU,  
20       other network upgrades), however, will be shared among the Interconnection Customers  
21       with Interconnection Requests included in the cluster. Each Interconnection Customer's  
22       cost responsibility for the common or shared upgrade costs will be determined on the

1 basis of a distribution factor methodology or a pro-rata megawatt methodology,  
2 depending on the type of upgrade.

3  
4 **Q: Please explain how the costs of common or shared upgrades will be allocated under**  
5 **the distribution factor cost allocation methodology.**

6 A: The distribution factor cost allocation methodology uses a distribution factor to determine  
7 the proportionate shares of costs among the Interconnection Requests participating in the  
8 cluster. The distribution factor represents the measure of responsiveness or change in the  
9 electrical loading on the shared or common upgrades due to a change in electric power  
10 transfer from one part of the system to another, expressed in percent of the change in  
11 power transfer.

12  
13 When applying the distribution factor methodology for clustered cost allocation, an  
14 Interconnection Customer with an Interconnection Request included in the cluster, with  
15 the exception of an Interconnection Customer with an Interconnection Request for an  
16 Internal ETU that is taking the place of a CETU or part thereof, will be responsible for:  
17 the total cost of the shared or common upgrade multiplied by the ratio of the individual  
18 distribution impact of the Interconnection Customer's resource divided by the total  
19 distribution impact of all the resources in the cluster.

20  
21 The individual distribution impact of an Interconnection Customer's resource will be  
22 calculated by: multiplying the distribution factor of the Interconnection Customer's



resource by the megawatt value of the Interconnection Customer's resource included in the cluster.

The distribution factor of an Interconnection Customer's resource relative to each common or shared upgrade will be calculated using the final CSIS Study Case for summer peak load conditions with no contingencies modeled, and a transfer from the injection point associated with the Interconnection Customer's resource to the New England Control Area load.

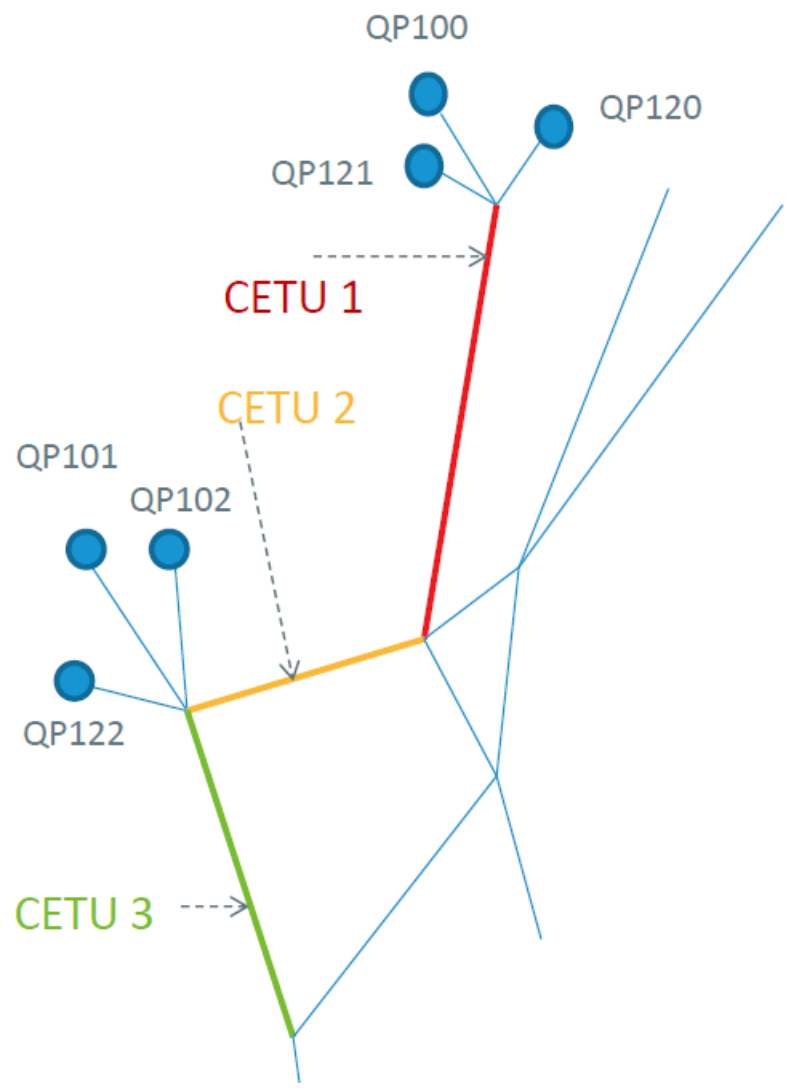
The total distribution impact for the entire cluster will be sum of all of the individual distribution impacts of the Interconnection Customers' resources.

**Q: Please provide an example demonstrating the application of the distribution factor cost allocation methodology described in your earlier response.**

A: The images shown in Figures 3-5, below, illustrate the application of the distribution factor methodology in the case of six interconnecting resources with three CETUs. Figure 3 provides a simplified schematic illustrating the interconnecting resources and the CETUs. Figure 4 provides the distribution factor of each Interconnection Customer's resource relative to each CETU, which are calculated using the CSIS power flow case, as explained in my earlier response. It also provides the size of the interconnecting resources, and the cost of each of the CETU upgrades. Figure 5 breaks-down the calculations based on the values provided in Figure 4.

1

FIGURE 3



2

3

4

1

**FIGURE 4**

## MW Size of the Interconnection Request

	QP100	QP101	QP102	QP120	QP121	QP122
MW	50	100	200	100	100	200

## Upgrade Cost

	Cost \$M
CETU1	100
CETU2	200
CETU3	100

## Distribution Factors, Calculated from the Power Flow Case

	QP100 DFAX (%)	QP101 DFAX (%)	QP102 DFAX (%)	QP120 DFAX (%)	QP121 DFAX (%)	QP122 DFAX (%)
CETU1	100	0	0	100	100	0
CETU2	50	30	30	50	50	30
CETU3	50	70	70	50	50	70

2

3

**FIGURE 5**

## Distribution Impact = MW x Distribution Factor

	QP100 Impact MW	QP101 Impact MW	QP102 Impact MW	QP120 Impact MW	QP121 Impact MW	QP122 Impact MW	Total Impact MW
CETU1	50	0	0	100	100	0	250
CETU2	25	30	60	50	50	60	275
CETU3	25	70	140	50	50	140	475

## Impact Share = Distribution Impact/Total Impact

	QP100 Impact Share	QP101 Impact Share	QP102 Impact Share	QP120 Impact Share	QP121 Impact Share	QP122 Impact Share
CETU1	0.2	0	0	0.4	0.4	0
CETU2	0.09	0.11	0.22	0.18	0.18	0.22
CETU3	0.05	0.15	0.29	0.11	0.11	0.29

## Cost Allocation = Cost x Impact Share

	Cost \$M
CETU1	100
CETU2	200
CETU3	100

	QP100 Cost Alloc. \$M	QP101 Cost Alloc. \$M	QP102 Cost Alloc. \$M	QP120 Cost Alloc. \$M	QP121 Cost Alloc. \$M	QP122 Cost Alloc. \$M
CETU1	20	0	0	40	40	0
CETU2	18.18	21.82	43.64	36.36	36.36	43.64
CETU3	5.26	14.74	29.47	10.53	10.53	29.47

4

5

1 As illustrated in Figure 5, the individual distribution impact for each resource proposed in  
2 each Interconnection Request will be calculated by multiplying the distribution factor by  
3 the megawatt size of each proposed resource. The total distribution impact for the each  
4 upgrade will be calculated as the sum of all of the individual distribution impacts. The  
5 upgrade cost responsibility for each Interconnection Request included in the cluster  
6 would be the total cost of the upgrade multiplied by the ratio of the proposed resource's  
7 individual distribution impact divided by the total distribution impact for the entire  
8 cluster.

9  
10 **Q: What is the rationale for using a distribution factor cost allocation methodology for**  
11 **allocating the costs of interconnection upgrades identified under clustering?**

12 A: The proposed distribution factor cost allocation methodology is appropriate because it  
13 provides for Interconnection Customer to contribute to costs for only those upgrades over  
14 which its proposed resource's power will flow to the network, and the contribution will  
15 be proportional to the relative amount that the proposed resource will be using the  
16 upgrade compared with other resources proposed in the cluster

17  
18 **Q: Why is an Interconnection Customer with an Interconnection Request for an**  
19 **Internal ETU that is taking the place of a CETU or part thereof excluded from the**  
20 **cost allocation process?**

21 A: The costs of ETUs are not governed by Schedule 11 of the OATT. Under the ETU IP,  
22 Interconnection Customers are responsible for the costs of their proposed ETU. ETUs  
23 are voluntarily funded. Where an Internal ETU has been selected to take the place of a

1 CETU or part thereof, the Interconnection Customers that need to use the Internal ETU  
2 will fund the Internal ETU pursuant to arrangements with the Internal ETU developer.

3  
4 **Q: The Clustering Revisions also provide for cost to be allocated based on a pro-rata**  
5 **methodology. When will the costs of interconnection upgrades identified under**  
6 **clustering be allocated on a pro-rata basis?**

7 A: Where cost allocation for an interconnection upgrade identified under clustering cannot  
8 be determined using the distribution factor cost allocation methodology (*e.g.*, a dynamic  
9 reactive device), the costs of the upgrade will be allocated to the Interconnection  
10 Customers based upon a pro rata megawatt share. For example, if the addition of a  
11 dynamic reactive device costs \$50 million and there are 500 megawatts of resources in  
12 the cluster, then a 100 megawatt project would be allocated a cost of \$10 million.

13  
14 **Q: What measures, if any, has the ISO undertaken to address the potential for free-**  
15 **riders?**

16 A: The Clustering Revisions incorporate in Section 5 of Schedule 11 provisions that provide  
17 for reimbursement of CETU costs to Interconnection Customers in the cluster by  
18 Interconnection Customers associated with resources that interconnect to the CETU after  
19 the original CETU funding. These Interconnection Customers are referred to as the “Late  
20 Comer Projects.” Under the Late Comer Project provisions, an Interconnection Customer  
21 with a resource that interconnects within ten years of the In-Service Date of the CETU is  
22 required to reimburse the Interconnection Customers that have contributed to the costs of  
23 the CETU (*i.e.*, the “Original Interconnection Customers”) the amount of the Original

1 Interconnection Customers' corresponding reduction in the CETU costs based on the  
2 comparison of the CETU cost allocation with and without the added Late Comer Project.

3  
4 An Interconnection Customer is a Late Comer Project when its resource:

5 (1) interconnects directly to the CETU,

6 (2) connects to a substation where the CETU terminates, or

7 (3) (a) is greater than five megawatts and is greater than one percent of the CETU normal  
8 rating and (b) has an impact on the CETU that is greater than five percent of the CETU  
9 normal rating or has a distribution factor on the CETU that is greater than or equal to 20  
10 percent using the distribution factor cost allocation methodology described above.

11  
12 The Original Interconnection Customer's applicable reimbursement will occur through  
13 the Interconnecting Transmission Owner.

14  
15 **Q: Why are the Late Comer Project provisions necessary?**

16 **A:** As I describe earlier, Interconnection Customers with Interconnection Requests identified  
17 by the ISO as eligible to participate in the second-phase cluster studies, will have the  
18 option to elect, at the beginning of the second phase of the study process, to be included  
19 in cluster studies by meeting the CSIS entry requirements, move to the bottom of the  
20 interconnection queue, or withdraw from the interconnection queue. While this provides  
21 Interconnection Customers a reasonable opportunity to make informed-decisions  
22 regarding whether to move toward interconnection or withdraw, it also could  
23 inadvertently create the opportunity for free-riders to follow with later interconnection

1 making use of the clustering upgrades. To address this concern, the Clustering Revisions  
2 incorporate the Late Comer Project provisions.

3  
4 **Q: Why is the Late Comer Project application limited to the CETU and its associated**  
5 **costs?**

6 A: The Late Comer Project provisions only apply to CETUs and their costs, because of their  
7 unique nature compared with typical interconnection related upgrades. By definition,  
8 CETUs will be major transmission upgrades such as new lines. Such infrastructure tends  
9 to be “lumpy,” leading to the potential for the creation of headroom that could be used by  
10 later projects. In contrast, upgrades such as the reconductoring of an existing line or the  
11 addition of a dynamic reactive device are not deliberately oversized, within the  
12 application of standardized equipment, beyond the need of the interconnecting project,  
13 minimizing the opportunities for free-riding.

14  
15 ***E. Transition Rules***

16 **Q: How will the new rules be applied to Interconnection Requests that are pending in**  
17 **the ISO’s interconnection queue?**

18 A: As with prior changes to the Interconnection Procedures, the Clustering Revisions update  
19 the transition rules in the Interconnection Procedures to facilitate the transition into the  
20 new rules. The transition rules are reflected in Section 5.1 of the LGIP, Section 1.6 of the  
21 SGIP, and Section 5.2 of the ETU IP. As indicated, the Clustering Revisions provide the  
22 process to resolve the queue backlog in Northern and Western Maine and elsewhere on  
23 the New England Transmission System should similar conditions arise. As further

1 described earlier, through the Maine Resource Integration Study, the ISO has already  
2 been identifying the interconnection upgrades needed to enable the interconnection of  
3 potentially all of the resources proposed in Northern and Western Maine. The Clustering  
4 Revisions leverage this important work and specify a transition mechanism that provides  
5 for the current Northern and Western Maine queue backlog to be the circumstance that  
6 triggers the clustering process and the currently ongoing Maine Resource Integration  
7 Study to be the first CRPS, so that the second phase of the cluster study process can be  
8 initiated soon after the Effective Date of the Clustering Revisions without further delays.  
9 Consistent with the CRPS-requirements described earlier, the final Maine Resource  
10 Integration Study report will provide the CETU(s) description, the megawatt quantity  
11 enabled by the CETU(s), the cost estimates for the CETU and associated supporting  
12 upgrades, and the eligible Interconnection Requests. Consistent with the transition  
13 construct established in Order No. 2003, the Clustering Revisions provide for all  
14 Interconnection Requests in the queue located in the electrically relevant portions of  
15 Northern and Western Maine without a completed SIS by the Effective Date of the  
16 Clustering Revisions to be considered as Interconnection Requests eligible to participate  
17 in the second-phase cluster studies. For the transition, the Cluster Entry Deadline will be  
18 30 days after the later of the Effective Date of the Clustering Revisions or the completion  
19 of the Maine Resource Integration Study. As with past efforts, the ISO has and will  
20 continue to work with Interconnection Customers regarding the status of their  
21 Interconnection Requests and any actions they need to take based on that status to  
22 facilitate their transition into the new rules.



1                   ***F. Clarifications, Conforming and Other Ministerial Changes***

2   **Q: Please describe the conforming changes that are necessary to support the overall**  
3   **objectives of the Clustering Revisions.**

4   **A:** The Clustering Revisions also include certain conforming and ministerial or clean-up  
5   changes. These include revisions to:

- 6       • Section I of the LGIP, Article 1 of the LGIA, Attachment 1 to the SGIP and the  
7       SGIA, and Section I of the ETU IP and Article 1 of the ETU IA to incorporate  
8       definitions for new concepts of CETU, CRPS, CFAC, CSIS, Cluster Participation  
9       Deposit, and Cluster Entry Deadline, and revise the existing definition for  
10      “Clustering” to recognize the conduct of the FAC on a cluster basis.  
11      Correspondingly, to the extent the new concepts are used in other Tariff provisions  
12      (e.g., Attachment K or Schedule 11), Section I.2.2 of the Tariff has been revised to  
13      reflect the terms;
- 14      • Sections 3.3.1 of the LGIP and Section 3.3.1 of the ETU IP to provide for: (1) the  
15      initial deposit of \$50,000 (and the \$10,000 deposit if provided in lieu of Site Control)  
16      associated with Interconnection Requests identified for inclusion in a CRPS to be  
17      applied toward the Interconnecting Transmission Owner’s costs for developing the  
18      CETU and associated system upgrade cost estimates in support of the CRPS in the  
19      case of a clustered Interconnection Request; (2) the application of any unused balance  
20      toward an Interconnection Request that is re-queued under the cluster election  
21      provisions; and, (3) the refund of any used balance upon Interconnection Customer’s  
22      election to withdraw under the cluster election provisions. Attachment 2 to the SGIP  
23      has also been revised to provide for the initial \$2,500 non-refundable deposit to be  
24      applied toward the costs incurred by the Interconnecting Transmission Owner in  
25      developing the cost estimates in support of the CRPS;
- 26      • Sections 3.3.4 of the LGIP, Section 3.2 of the SGIP, and Section 3.3.4 of the ETU IP  
27      to recognize the options available to an Interconnection Customer after the Scoping  
28      Meeting will change when the clustering approach is triggered. Corresponding  
29      changes have also been incorporated in the Interconnection Study provisions in the  
30      LGIP, SGIP and ETU IP;
- 31      • Section 4.4.1 of the LGIP, Section 1.5.5 (as renumbered) of the SGIP, and Section  
32      4.4.1 of the ETU IP to clarify, consistent with the Commission’s *pro forma* adopted  
33      in Order No. 2003, that an Interconnection Customer may reduce the size of the  
34      facility initially proposed any time after SIS commences, but remains responsible for  
35      the costs corresponding to the initially requested megawatt quantity;
- 36      • Sections 6-8 of the LGIP, Sections 3.3-3.5 of the SGIP and Sections 6-8 of the ETU  
37      IP, which are the Interconnection Study provisions, to: (1) provide for the application  
38      of the FS and SIS deposits associated with Interconnection Requests identified for

1 inclusion in a CRPS to be applied toward the costs incurred by the Interconnecting  
2 Transmission Owner in developing the cost estimates in support of the CRPs; (2)  
3 specify that the costs of the CSIS and CFAC associated with an individual  
4 Interconnection Request will be directly assigned to the Interconnection Customers  
5 and those that are associated with the cluster as a whole will be divided equally, on a  
6 per-project basis, among the Interconnection Customers included in the cluster study;  
7 and, (3) insert cross-references to Attachment A-1 where appropriate;

- 8 • Section 11.3.1.2 of the LGIP and the ETU IP to: (1) distinguish the existing 20  
9 percent refundable deposit required to demonstrate commitment toward  
10 interconnection from the new 20 percent potentially non-refundable deposit  
11 associated with the clustering provisions; (2) clarify that the existing 20 percent  
12 deposit may be provided in the form acceptable by the Interconnecting Transmission  
13 Owner (*e.g.*, cash, letter of credit), consistent with current practice; and, (3) remove  
14 ambiguity regarding when the deposit is due, which is within 15 Business Days after  
15 receipt of the final Interconnection Agreement;
- 16 • Section 1.3 of the SGIP to align the Interconnection Request provisions and the  
17 associated assignment of a Queue Position with those in the LGIP and ETU IP;
- 18 • Section 3.3.4 and Section 3.5.1 of the SGIP to remove inapplicable *pro forma* SGIP  
19 provisions since the New England SGIP incorporates the LGIP three-phase  
20 Interconnection Study process; and,
- 21 • Schedule 11 of the OATT to clarify the application of the cost allocation  
22 methodology set out in Section 5 to ETUs, consistent with Article 11.4 of the ETU  
23 IA, and to recognize the cost allocation methodology for common or shared upgrades  
24 identified through Clustering in Section 7.

25  
26 **Q: Are there any other additional changes?**

27 A: Yes, the Clustering Revisions also reflect ministerial or clean-up changes: (1) to the  
28 definition of “Material Modification” in Section I of the LGIP, Article 1 to the LGIP,  
29 Section I of the ETU IP, and Article 1 to the ETU IA to clarify cross-reference to  
30 Attachment A to Appendix 1 and, in the case of the LGIP/LGIA, reflect the addition of  
31 Attachment A-1; (2) throughout Schedule 22 (LGIP/LGIA) and 23 (SGIP/SGIA) to,  
32 where appropriate, include cross-references to the “Supplementary Wind and Inverter-  
33 Based Generating Facility Form,” which is Attachment A-1 in Schedule 22 and

1 Attachment A in Schedule 23, and fix numbering cross-references within the form; (3) to  
2 Section 3.1 of the LGIP, Section 1.3.4 of the SGIP, and Section 3.1 of the ETU IP to  
3 clarify when a deposit submitted to the ISO is considered received; (4) to Section 3.6 of  
4 the LGIP, Section 1.8 of the SGIP, and Section 3.6 of the ETU IP to improve readability;  
5 (5) to Section 7.5 of the LGIP, Section 3.4.5 of the SGIP, and Section 7.5 of the ETU IP  
6 to clarify the process following an Interconnection Customer's election to pursue the  
7 FAC to eliminate ambiguities and delays introduced in circumstances where  
8 Interconnection Customers change their election past the election deadline; (6) to  
9 Attachment A to the LGIP, Attachment 2 to the SGIP, and Attachment A to the ETU IP  
10 to clarify when the PSCAD model for a non-wind or inverter-based generator needs to be  
11 provided to the ISO by removing references to the Scoping Meeting; (6) (7) to  
12 Attachment B in the LGIP and the ETU IP to remove the PSCAD model requirement  
13 since those attachments relate to the FS; (8) to the Interconnection Feasibility Study  
14 Agreement in Schedules 22, 23 and 25 to recognize the scope of the alternative scope FS;  
15 and, (9) to Attachment 1 of the SGIP and the SGIA to add defined terms "Interconnecting  
16 Transmission Owner's Interconnection Facilities" and "Interconnection Customer's  
17 Interconnection Facilities" (and use the capitalized terms throughout the schedule), and  
18 reflect certain definitions in each of the attachments that were reflected in one attachment  
19 but not the other. Other clean-up changes, such as correcting misspellings, punctuations,  
20 spaces, are also reflected.

21 **Q: Does this conclude your testimony?**

22 **A:** Yes.

1 I declare under penalty of perjury that the foregoing is true and correct.

2  
3 Executed on 09/01/17

4  
5  
6 \_\_\_\_\_

7 Alan McBride  
8

## **New England Governors, State Utility Regulators and Related Agencies\***

### **Connecticut**

The Honorable Dannel P. Malloy  
Office of the Governor  
State Capitol  
210 Capitol Ave.  
Hartford, CT 06106  
[Liz.Donohue@ct.gov](mailto:Liz.Donohue@ct.gov)

Connecticut Public Utilities Regulatory  
Authority  
10 Franklin Square  
New Britain, CT 06051-2605  
[robert.luysterborghs@ct.gov](mailto:robert.luysterborghs@ct.gov)  
[michael.coyle@ct.gov](mailto:michael.coyle@ct.gov)  
[clare.kindall@ct.gov](mailto:clare.kindall@ct.gov)  
[steven.cadwallader@ct.gov](mailto:steven.cadwallader@ct.gov)

### **Maine**

The Honorable Paul LePage  
One State House Station  
Office of the Governor  
Augusta, ME 04333-0001  
[Kathleen.Newman@maine.gov](mailto:Kathleen.Newman@maine.gov)

Maine Public Utilities Commission  
18 State House Station  
Augusta, ME 04333-0018  
[Maine.puc@maine.gov](mailto:Maine.puc@maine.gov)

### **Massachusetts**

The Honorable Charles Baker  
Office of the Governor  
State House  
Boston, MA 02133

Massachusetts Attorney General Office  
One Ashburton Place  
Boston, MA 02108  
[rebecca.tepper@state.ma.us](mailto:rebecca.tepper@state.ma.us)

Massachusetts Department of Public Utilities  
One South Station  
Boston, MA 02110  
[Nancy.Stevens@state.ma.us](mailto:Nancy.Stevens@state.ma.us)

[morgane.treanton@state.ma.us](mailto:morgane.treanton@state.ma.us)

### **New Hampshire**

The Honorable Chris Sununu  
Office of the Governor  
26 Capital Street  
Concord NH 03301  
[Jared.chicoine@nh.gov](mailto:Jared.chicoine@nh.gov)  
[Myles.matteson@nh.gov](mailto:Myles.matteson@nh.gov)

New Hampshire Public Utilities Commission  
21 South Fruit Street, Ste. 10  
Concord, NH 03301-2429  
[tom.frantz@puc.nh.gov](mailto:tom.frantz@puc.nh.gov)  
[george.mccluskey@puc.nh.gov](mailto:george.mccluskey@puc.nh.gov)  
[F.Ross@puc.nh.gov](mailto:F.Ross@puc.nh.gov)  
[David.goyette@puc.nh.gov](mailto:David.goyette@puc.nh.gov)  
[RegionalEnergy@puc.nh.gov](mailto:RegionalEnergy@puc.nh.gov)  
[kate.bailey@puc.nh.gov](mailto:kate.bailey@puc.nh.gov)  
[amanda.noonan@puc.nh.gov](mailto:amanda.noonan@puc.nh.gov)

### **Rhode Island**

The Honorable Gina Raimondo  
Office of the Governor  
82 Smith Street  
Providence, RI 02903  
[eric.beane@governor.ri.gov](mailto:eric.beane@governor.ri.gov)  
[carol.grant@energy.ri.gov](mailto:carol.grant@energy.ri.gov)  
[christopher.kearns@energy.ri.gov](mailto:christopher.kearns@energy.ri.gov)  
[Danny.Musher@energy.ri.gov](mailto:Danny.Musher@energy.ri.gov)  
[nicholas.ucci@energy.ri.gov](mailto:nicholas.ucci@energy.ri.gov)

Rhode Island Public Utilities Commission  
89 Jefferson Blvd.  
Warwick, RI 02888  
[Margaret.curran@puc.ri.gov](mailto:Margaret.curran@puc.ri.gov)  
[todd.bianco@puc.ri.gov](mailto:todd.bianco@puc.ri.gov)  
[Marion.Gold@puc.ri.gov](mailto:Marion.Gold@puc.ri.gov)

### **Vermont**

The Honorable Phil Scott

## **New England Governors, State Utility Regulators and Related Agencies\***

Office of the Governor  
109 State Street, Pavilion  
Montpelier, VT 05609  
[jgibbs@vermont.gov](mailto:jgibbs@vermont.gov)

New England Conference of Public Utilities  
Commissioners  
One South Station  
Boston, MA 02110  
[martin.honigberg@puc.nh.gov](mailto:martin.honigberg@puc.nh.gov)

Vermont Public Service Board  
112 State Street  
Montpelier, VT 05620-2701  
[mary-jo.krolewski@vermont.gov](mailto:mary-jo.krolewski@vermont.gov)  
[sarah.hofmann@vermont.gov](mailto:sarah.hofmann@vermont.gov)

Vermont Department of Public Service  
112 State Street, Drawer 20  
Montpelier, VT 05620-2601  
[bill.jordan@vermont.gov](mailto:bill.jordan@vermont.gov)  
[june.tierney@vermont.gov](mailto:june.tierney@vermont.gov)  
[Ed.McNamara@vermont.gov](mailto:Ed.McNamara@vermont.gov)

### **New England Governors, Utility Regulatory and Related Agencies**

Jay Lucey  
Coalition of Northeastern Governors  
400 North Capitol Street, NW  
Washington, DC 20001  
[coneg@sso.org](mailto:coneg@sso.org)

Heather Hunt, Executive Director  
New England States Committee on Electricity  
655 Longmeadow Street  
Longmeadow, MA 01106  
[HeatherHunt@nescoe.com](mailto:HeatherHunt@nescoe.com)  
[JasonMarshall@nescoe.com](mailto:JasonMarshall@nescoe.com)

Rachel Goldwasser, Executive Director  
New England Conference of Public Utilities  
Commissioners  
72 N. Main Street  
Concord, NH 03301  
[rgoldwasser@necpuc.org](mailto:rgoldwasser@necpuc.org)

Martin Honigberg, President