

155 FERC ¶ 61,319  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;  
Cheryl A. LaFleur, Tony Clark,  
and Colette D. Honorable.

ISO New England Inc. and New England Power Pool Participants Committee      Docket No. ER16-1434-000

ORDER ACCEPTING FILING

(Issued June 28, 2016)

1. On April 15, 2016, ISO New England Inc. (ISO-NE) and the New England Power Pool (NEPOOL) Participants Committee (jointly, Filing Parties) submitted proposed revisions to the ISO-NE Transmission, Markets and Services Tariff (Tariff) to provide sloped zonal demand curves and a new sloped system-wide demand curve for use in ISO-NE's Forward Capacity Market (FCM). In this order, the Commission accepts the filing, effective June 29, 2016.

**I. Background**

**A. Forward Capacity Market**

2. ISO-NE administers the FCM, in which capacity resources compete in an annual Forward Capacity Auction (FCA) to provide capacity for a one-year Capacity Commitment Period three years in the future. Several months prior to each FCA, ISO-NE undertakes a zonal configuration process, the results of which determine whether ISO-NE will model the entire region as a single zone or instead model one or more constrained capacity zones<sup>1</sup> with a rest-of-pool capacity zone.<sup>2</sup> Under the existing

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<sup>1</sup> Constrained capacity zones can either be import-constrained or export-constrained.

<sup>2</sup> See ISO-NE Transmission, Markets and Services Tariff (Tariff) Section III.12.4, "Capacity Zones" (providing that, for each FCA, ISO-NE will model export-constrained

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market rules, ISO-NE models a linear, downward sloping system-wide demand curve<sup>3</sup> and models vertical demand curves (indicating fixed capacity requirements) for constrained zones to determine how much capacity to procure in those zones.

3. Concerns that vertical demand curves could allow for the exercise of market power or unnecessary price volatility<sup>4</sup> prompted the Commission to direct ISO-NE to implement sloped demand curves.<sup>5</sup> ISO-NE submitted a proposal to implement a system-wide sloped demand curve beginning with FCA 9, stating that it did not have enough time to also submit zonal sloped demand curves at that time. However, ISO-NE committed to developing and filing zonal sloped demand curves in time for FCA 10, and the Commission accepted ISO-NE's filing on that basis.<sup>6</sup> ISO-NE was unable to meet this commitment, and on December 28, 2015, the Commission instituted a proceeding, pursuant to section 206 of the Federal Power Act (FPA),<sup>7</sup> directing ISO-NE to implement zonal sloped demand curves in time for implementation in FCA 11.<sup>8</sup>

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and import-constrained zones, using the results of its most recent annual assessment of transmission transfer capability).

<sup>3</sup> The Commission approved the existing system-wide demand curve for implementation in FCA 9. *ISO New England Inc.*, 147 FERC ¶ 61,173, at P 4 (2014) (May 2014 Order).

<sup>4</sup> As the Commission previously determined, when vertical demand curves are used, even small increases or decreases in supply can result in large changes in price, because a fixed amount of capacity must be procured. *See ISO New England Inc.*, 153 FERC ¶ 61,338, at P 12 (2015).

<sup>5</sup> *ISO New England Inc.*, 146 FERC ¶ 61,038, at P 14 (2014) (January 2014 Order).

<sup>6</sup> May 2014 Order, 147 FERC ¶ 61,173 at PP 36, 41.

<sup>7</sup> 16 U.S.C. § 824e (2012).

<sup>8</sup> *ISO New England Inc.*, 153 FERC ¶ 61,338, at P 15 (2015) (December 2015 Order) (Commission finding that "ISO-NE's Tariff is unjust, unreasonable, unduly discriminatory or preferential because it applies vertical demand curves within constrained zones, which does not sufficiently address price volatility and susceptibility to the exercise of market power").

4. In response to the December 2015 Order, Filing Parties submitted the April 15, 2016 filing stating that, if the Commission approves the filing effective June 15, 2016, ISO-NE will be able to implement the proposal in time for FCA 11, which will take place in February 2017 to procure capacity for the 2020-2021 Capacity Commitment Period.

## II. April 15, 2016 Filing

### 1. Proposed Demand Curve Design

5. Filing Parties' proposed demand curve design includes a new set of demand curves (at both the system- and zonal-level) that reflect the marginal improvement in reliability associated with adding capacity in constrained capacity zones versus adding it to the remainder of the system (i.e. rest-of-pool).<sup>9</sup> Filing Parties state that the new set of demand curves will significantly improve the performance of the FCM by setting prices that more accurately reflect the locational marginal reliability impact (MRI) of capacity.<sup>10</sup> The proposed demand curves aim to: (1) procure sufficient capacity to meet the region's reliability planning objective (the reliability objective); (2) provide sufficient compensation to capacity suppliers to sustain adequate investment to meet the reliability objective over the long term (the sustainability objective); and (3) allocate capacity purchases among capacity zones in a way that minimizes the total bid-cost of procuring capacity overall (the cost-effectiveness objective).<sup>11</sup>

6. In addition to providing new zonal sloped demand curves in compliance with the Commission's December 2015 Order, Filing Parties propose to modify the existing system-wide demand curve to use the same MRI-based methodology. Filing Parties state that modification of the existing system-wide demand curve will maximize the benefit of using the new MRI methodology to develop the zonal sloped demand curves, and further state that ISO-NE has concluded that any demand curve that is *not* developed using a framework based on the marginal reliability impact of capacity, including the system-wide demand curve, will not procure capacity in a cost-effective manner.<sup>12</sup> Filing Parties

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<sup>9</sup> Transmittal at 2.

<sup>10</sup> *Id.* 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." Proposed Tariff section I.2.2, Definitions.

<sup>11</sup> See Testimony of Christopher Geissler and Matthew White, Attachment to Transmittal, at 18 (Geissler-White Testimony).

<sup>12</sup> Transmittal at 3. See also Geissler-White Testimony at 28 ("When there are one or more constrained capacity zones, then a set of demand curves that do not specify zonal

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acknowledge that the compliance obligation that the Commission placed on ISO-NE was solely to file new zonal sloped demand curves, and that the Commission generally does not permit utilities to submit new tariff provisions together with a compliance filing. However, Filing Parties argue that the Commission has found that it is acceptable to file changes that are “closely and plainly” related to the original compliance directive, and that the Commission has accepted new tariff provisions in combination with a compliance filing when the compliance directives warranted changes to other, related tariff provisions.<sup>13</sup> ISO-NE therefore requests that if the Commission concludes that the changes to the system-wide demand curve are beyond the scope of this proceeding, the Commission should treat that portion of this filing as a filing under section 205 of the FPA and approve the changes under the traditional section 205 standard. ISO-NE further states that, alternatively, if the Commission rejects the changes to the system-wide demand curve as being outside of the scope of what may be filed in this proceeding, it will immediately re-file those changes pursuant to FPA section 205 so that the changes could still be in place before FCA 11 along with the rest of Filing Parties’ proposal.<sup>14</sup>

7. Filing Parties state that the proposed design relies on two steps: (1) quantitative assessment of the incremental reliability improvement from procuring incremental capacity for each possible capacity level in each zone and (2) establishment of the prices for each demand curve proportional to this incremental reliability improvement.<sup>15</sup> According to Filing Parties, applying the same MRI-based design to both the system-wide and zonal curves maximizes the benefits of the new design. Filing Parties state that the new design approach uses a more dynamic, engineering-based methodology that is applied each year to produce a set of demand curves tailored to the specific zonal

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prices in proportion to the Marginal Reliability Impact of capacity in each zone will not be cost-effective. . . . for all practical intents and purposes, following this two-step process is the only way to construct capacity demand curves for a multi-zone capacity market that will satisfy the three central design principles”).

<sup>13</sup> Transmittal at 14 n.15 (citing *Midwest Independent Transmission System Operator, Inc.*, 112 FERC ¶ 61,169, at P 15 (2005) (*MISO*) (The Commission accepted new tariff provisions that MISO filed together with a compliance filing on the basis that they were “closely and plainly related to the Commission’s compliance requirements” and have “a common factual nexus with the compliance filing and do not undo or contravene the compliance requirements”)).

<sup>14</sup> Transmittal at 15 n.16.

<sup>15</sup> Geissler-White Testimony at 26-27.

configuration of each FCA. Filing Parties contend that the set of demand curves produced for each auction is likely to be quite stable from year to year, but the curves produced by the new methodology will be updated annually to reflect changing conditions.<sup>16</sup>

8. Filing Parties also explain that the MRI-based demand curves for the system-wide and import-constrained zones will be convex, while the curve for the export-constrained zones will be concave. As explained below, the shapes reflect the locational marginal reliability impact of incremental capacity. The convex curves are steeply sloped at lower capacity quantities (when incremental capacity should result in a bigger improvement in reliability). The slope of the convex curves then flattens at higher capacity quantities (when incremental capacity should produce relatively smaller improvements in reliability and is therefore less valuable).<sup>17</sup>

9. Filing Parties explain that they applied the same methodology to develop the zonal demand curves for export-constrained zones, but this resulted in concave curves because the logic is reversed. The concave curve has an increasingly steeper slope as quantity increases. That is, at lower capacity quantities, the marginal reliability impact of incremental capacity is at or near zero because the export transmission limit will rarely or never bind and there is a negligible difference in the marginal reliability impact of adding capacity in either the export-constrained zone or elsewhere in the system. As quantity in the export-constrained capacity zone increases, however, adding additional capacity in that zone improves reliability less than adding capacity in rest-of-pool, so the marginal reliability impact curve gets progressively steeper to reflect the decreasing value of incremental capacity in the export-constrained zone. Filing Parties assert that, as additional capacity is added to the system (or to any zone), it has a progressively diminishing marginal reliability impact. According to Filing Parties, the proposed demand curves (whether convex or concave) will accurately reflect this fundamental engineering attribute of how capacity affects system reliability.<sup>18</sup>

10. Filing Parties explain that the zonal demand curves will specify congestion prices in import- and export-constrained capacity zones. A clearing price in an import-constrained zone indicates an incremental price premium that will be paid to resources located in that zone in addition to the system-wide clearing price. By contrast, a clearing

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<sup>16</sup> Transmittal at 6.

<sup>17</sup> *Id.* at 6-7.

<sup>18</sup> *Id.*

price in an export-constrained zone indicates a decremental price reduction that will be subtracted from the system clearing price paid to resources located in that zone.<sup>19</sup>

## 2. Transition Mechanism

11. Filing Parties propose a transition mechanism from the existing, linear system-wide demand curve to the proposed MRI-based system-wide curve.<sup>20</sup> They state that the duration of the transition period will depend on whether certain conditions are met, but will last no longer than three auctions.<sup>21</sup> During this period, Filing Parties propose to use a transition demand curve that is a hybrid of the existing, linear demand curve design and the new, MRI-based design (the upper-left region of the transition curve is convex and MRI-based, while the lower-right section is linear and based on the existing design).<sup>22</sup> They state that the purpose of the transition is to provide a stable and predictable path from the existing design to the new design.

12. Filing Parties state that, without a transition mechanism, project developers that already have begun developing a new resource, based on their expectations concerning the existing market design and the recently-implemented linear system-wide demand curve, could find that their market expectations have changed considerably at the time that they are ready to qualify a resource to participate in the next auction. Filing Parties state that, in the absence of a transition mechanism, an immediate switch from the existing linear demand curve to the new MRI-based system demand curve would shift the system demand curve “significantly to the left for a wide range of prices,” thus possibly unexpectedly lowering short-term clearing prices and increasing the perceived investment

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<sup>19</sup> *Id.* at 10-13; Geissler-White Testimony at 60-74.

<sup>20</sup> The transition period will not apply to the zonal sloped demand curves.

<sup>21</sup> Transmittal at 15 (“Most importantly, the transition period ends and the new MRI-based system curve is implemented in the next auction if load growth (specifically, net ICR) increases above certain specified levels”); *see also* Geissler-White Testimony at 154-156 (two conditions could cause the transition period to end earlier than FCA 13: first, if the cumulative change in the Net Installed Capacity Requirement since FCA 10 exceeds 722 MW (for FCA 11), 375 MW (for FCA 12) or 150 MW (for FCA 13); second, if the quantity of demand at prices slightly above \$7.03/kW-month is greater than the quantity of demand at prices slightly below \$7.03/kW-month. If neither of the two conditions is met before FCA 13, the transition period concludes after that auction and the full MRI-based system demand curve is used for FCA 14 and future auctions).

<sup>22</sup> *See* Geissler-White Testimony at 154, Fig. 15.

risk associated with developing new capacity in New England. Filing Parties state that a transition mechanism should help maintain developer/investor confidence in the market and may lower the risk of higher bid prices that could result from a perception of an unstable, riskier market.<sup>23</sup> They additionally note that the use of a transition mechanism was supported by a broad cross-section of stakeholders, including those that represent the interests of both consumers and suppliers.

### **3. Stakeholder Process and Changes to Rules for Reconfiguration Auctions**

13. Filing Parties note that the Tariff provisions contained in this filing include conforming changes to the annual reconfiguration auction rules in section III.13.4.5 of the Tariff. These changes provide that if a primary auction was conducted using a vertical zonal demand curve, then the associated reconfiguration auctions will use a vertical zonal demand curve. Similarly, if a primary auction used sloped zonal demand curves, the associated reconfiguration auctions would use sloped zonal demand curves. Filing Parties state that there was not sufficient time to fully consider what changes would be appropriate prior to the April 15, 2016 filing deadline but that it may be appropriate to make additional conforming or other changes to the rules for reconfiguration auctions and capacity bilateral transactions. ISO-NE plans to begin reviewing these issues through the stakeholder process in the first half of 2017.<sup>24</sup>

### **III. Notice and Interventions**

14. Notice of the filing was published in the *Federal Register*, 81 Fed. Reg. 23,479 (2016), with interventions, comments, and protests due on or before May 6, 2016. The Commission subsequently granted an extension of time for parties to intervene and file comments or protests until May 13, 2016.<sup>25</sup>

15. Timely motions to intervene were filed by the New England States Committee on Electricity (NESCOE); Calpine Corporation (Calpine); H.Q. Energy Services (U.S.) Inc.; Exelon Corporation (Exelon); Consolidated Edison Energy, Inc.; the Electric Power Supply Association; NRG Power Marketing LLC and GenOn Energy Management, LLC (NRG); Dominion Resources Services, Inc. (Dominion); The United Illuminating Company; Eversource Energy Service Company; New England Power Generators

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<sup>23</sup> Transmittal at 16.

<sup>24</sup> *Id.* at 17.

<sup>25</sup> Notice of Extension of Time, Docket No. ER16-1434-000 (April 28, 2016).

Association Inc.; Emera Energy Services, Inc.; FirstLight Power Resources Management, LLC; GDF SUEZ Energy Marketing NA, Inc. (GDF Suez); National Grid;<sup>26</sup> the PSEG Companies; Potomac Economics, Ltd. (Potomac Economics); and Connecticut Municipal Electric Energy Cooperative and New Hampshire Electric Cooperative, Inc. (Public Systems). The Connecticut Public Utilities Regulatory Authority (CT PURA) filed a notice of intervention. Brookfield Energy Marketing LP (Brookfield) submitted a motion to intervene out of time on May 30, 2016.

16. Timely comments or protests were submitted by NEPOOL, GDF Suez, Potomac Economics, Indicated Suppliers,<sup>27</sup> CT PURA, NESCOE, and Public Systems.

17. On May 27, 2016, ISO-NE and CT PURA submitted answers to comments and protests. On May 31, 2016, NEPOOL submitted an answer to comments and protests.

#### **IV. Discussion**

##### **A. Procedural Issues**

18. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the notice of intervention and timely-filed unopposed motions to intervene serve to make the entities filing them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), we will grant Brookfield's late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

19. Rule 213(a)(2) of the Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answers filed by ISO-NE, CT PURA, and NEPOOL because they have provided information that assisted us in our decision-making process.

##### **B. Analysis**

20. The Commission accepts Filing Parties' proposed Tariff revisions, including the proposed changes to the system-wide sloped demand curve and the transition mechanism.

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<sup>26</sup> National Grid styles its motion to intervene as "out of time," but its motion for intervention is, in fact, timely.

<sup>27</sup> The Indicated Suppliers are Calpine, Dominion, Exelon, and NRG.



21. We find that Filing Parties have shown that their proposed MRI-based methodology for developing sloped zonal and system-wide demand curves is just and reasonable. As the Commission noted in the December 2015 Order, the vertical demand curves previously used for constrained zones permit significant price volatility and the potential exercise of market power.<sup>28</sup> Filing Parties have demonstrated that their proposed MRI-based methodology will result in demand curves that help address price volatility and potential market power.<sup>29</sup> Additionally, Filing Parties have demonstrated that the use of the MRI-based methodology to develop demand curves will benefit customers by facilitating the procurement of capacity on a cost-effective basis. Thus, as Filing Parties state, the MRI-based method of modeling demand curves to reflect the value of capacity at each location in the system accounts for the substitutability of (presumably less expensive) capacity in unconstrained areas for (presumably more expensive) capacity in constrained areas.<sup>30</sup> Thus, ISO-NE will continue to meet its reliability targets but in a more cost-effective manner than was the case when using the previous, linear system-wide demand curve and the vertical zonal demand curves.

22. Parties raise a number of issues with respect to the filing. We address those matters below.

1. **Challenges to Use of MRI-Based Methodology for both Zonal and System-Wide Demand Curves**

a. **Protests and Comments**

23. Indicated Suppliers urge the Commission to reject both the MRI-based zonal and MRI-based system-wide demand curves. Indicated Suppliers contend that the Commission did not require ISO-NE to propose an entirely new approach to representing demand in the capacity market, and, thus, according to Indicated Suppliers, the entire filing is beyond the scope of the compliance obligation from the December 2015 Order.<sup>31</sup>

24. Indicated Suppliers first state that the proposed demand curve design fundamentally changes the FCM. They assert that frequently changing the market design

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<sup>28</sup> December 2015 Order, 153 FERC ¶ 61,338 at PP 15-16.

<sup>29</sup> Geissler-White Testimony at 12-15.

<sup>30</sup> *Id.* at 13.

<sup>31</sup> Indicated Suppliers Protest at 6-7.

undermines investor confidence by introducing uncertainty about future unknowable and potentially material market design changes.<sup>32</sup>

25. Specifically with regard to the proposed changes to the system-wide demand curve, Indicated Suppliers assert that the Commission's review of a compliance filing is limited to whether the filing complies with the Commission's compliance directive, which in this case was limited to a directive to file new zonal demand curves. Indicated Suppliers argue that a compliance filing may not include new tariff provisions that the Commission did not require. They state that Filing Parties' reliance on the Commission's ruling in *MISO* is inappropriate, specifically the statement that "[w]hen considering the scope of what changes may be filed in response to a compliance directive, the Commission has found that it is acceptable to file changes that are 'closely and plainly' related to the compliance directive."<sup>33</sup> In *MISO*, according to Indicated Suppliers, the Commission was addressing a "hybrid" compliance filing in which the filers explicitly acknowledged that they were filing both new tariff provisions under FPA section 205 and compliance provisions,<sup>34</sup> whereas the instant filing is solely a compliance filing, as Filing Parties indicated through the eTariff filing code.

26. Indicated Suppliers further argue that the currently-effective linear system-wide demand curve was developed through an extensive stakeholder process with the benefit of experience in other organized capacity markets and was reviewed and approved by the Commission. As a result, Indicated Suppliers argue that ISO-NE should be adapting the zonal sloped demand curves to the existing system-wide demand curve, rather than the other way around. Indicated Suppliers argue that such an approach will ensure that the question of the correct zonal sloped demand curves is evaluated against the correct baseline – linear zonal sloped demand curves that would be consistent with the existing system-wide demand curve – rather than by comparison with vertical demand curves that the Commission has already required ISO-NE to eliminate before FCA 11.<sup>35</sup>

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<sup>32</sup> Indicated Suppliers reference changes made ahead of FCA 9, adoption of the sloped zonal demand curve and the Pay-for-Performance capacity market design. Indicated Suppliers Protest at 14.

<sup>33</sup> Transmittal at 14 (citing *Midwest Independent Transmission System Operator, Inc.*, 112 FERC ¶ 61,169, at P 15 (2005) (*MISO*)).

<sup>34</sup> See *MISO*, 112 FERC ¶ 61,169 at P 14 (“[MISO transmission owners state] that they submitted the June 6 filing as both a compliance filing and a section 205 filing”).

<sup>35</sup> Indicated Suppliers Protest at 11.

**b. Answers**

27. In response to Indicated Suppliers' argument that rule changes to the FCM will chill investment, ISO-NE explains that, to reduce financial risk for new entry, its market rules contain a seven-year price lock for new resources.<sup>36</sup> ISO-NE further states that recent outcomes in FCA 9 and FCA 10 contradict Indicated Suppliers' argument, since FCAs 9 and 10 cleared multiple new resources and replaced close to 10 percent of the generating fleet. Moreover, ISO-NE states that its interconnection queue has grown from 6 GW to 12 GW since 2014, indicating "a surge of recent investment in the region."<sup>37</sup> Similarly, CT PURA notes that Indicated Suppliers support the introduction of sloped zonal demand curves, just not Filing Parties' specific proposal.<sup>38</sup> CT PURA argues that the MRI-based demand curves actually decrease uncertainty and lower risk for investors. According to CT PURA, investor confidence depends on the alignment of the demand curves to the underlying market fundamentals and, to the extent that the new demand curves leave less of a buffer (i.e. over-procure fewer resources), then investors will not expect a future downward adjustment in the demand curve. In the alternative, according to CT PURA, if the existing system-wide demand curve keeps prices temporarily high by over-procuring capacity, investors will see this curve as unsustainable and discount those high prices with the expectation for a downward adjustment in the demand curve in the future.<sup>39</sup>

28. ISO-NE and CT PURA also state that nothing in the December 2015 Order directed ISO-NE to submit linear zonal sloped demand curves, and, thus, Filing Parties are not foreclosed from submitting MRI-based zonal demand curves.<sup>40</sup> ISO-NE further states that it was not able to develop acceptable zonal curves that were compatible with the existing linear system-wide demand curve and that "the attempt to fit zonal sloped demand curves to the existing linear system-wide demand curve presented insurmountable problems."<sup>41</sup> ISO-NE states that the demand curve design discussed in the stakeholder process prior to the MRI-based methodology did not achieve a design that

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<sup>36</sup> See May 2014 Order, 147 FERC ¶ 61,173 at PP 56-59.

<sup>37</sup> ISO-NE Answer at 12-14.

<sup>38</sup> CT PURA Answer at 6.

<sup>39</sup> *Id.* at 7-8.

<sup>40</sup> ISO-NE Answer at 5; CT PURA answer at 13.

<sup>41</sup> ISO-NE Answer at 5.

reasonably satisfies reliability, market efficiency and pricing objects with reasonable market power protections.<sup>42</sup> ISO-NE further asserts that, in order to achieve optimal results, all of the FCA demand curves – system-wide and zonal – must be designed in conjunction with one another, as part of an integrated, coherent package.<sup>43</sup> CT PURA similarly states that Filing Parties’ proposed changes to the system-wide demand curve and the new zonal demand curves are interdependent and argues that ISO-NE cannot procure capacity cost-effectively if it uses MRI-based demand curves in constrained zones with a linear system-wide demand curve.<sup>44</sup> ISO-NE states that the new system-wide demand curve will be necessary to ensure the effective operation of the zonal sloped demand curves.

29. NEPOOL notes that stakeholders reviewed and broadly supported the MRI-based zonal demand curves and the MRI-based system demand curve as a single package.<sup>45</sup>

**c. Commission Determination**

30. We appreciate the desire for certainty of market design as expressed by Indicated Suppliers. We balance it with our stated concerns regarding the potential exercise of market power and unnecessary price volatility, while also meeting ISO-NE’s own objectives to achieve reliability, sustainability, and cost-effectiveness in its capacity procurement. On balance, we accept the MRI-based zonal sloped demand curves as just and reasonable. In its analysis, ISO-NE explains why no other set of demand curves, including the existing demand curve design and the design initially considered during the NEPOOL stakeholder process (linear zonal demand curves) would be as cost-effective.

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<sup>42</sup> More specifically, ISO-NE listed three reasons why it would be imprudent to adopt the demand curve design discussed in the stakeholder process prior to May 18, 2015: (1) that demand curve design would fall far short of meeting the system planning criteria, (2) the evolving system topology in New England indicated the need for more robust “stress testing” of zonal demand curve designs, and (3) the current design had demonstrated better overall performance than the alternatives being discussed in the stakeholder process. ISO-NE Answer at 5-6 citing May 18, 2015 progress report, Docket No. ER14-1639-000 at 2-3.

<sup>43</sup> ISO-NE Answer at 7.

<sup>44</sup> CT PURA Answer at 13 n.48 (citing Geissler-White Testimony at 15).

<sup>45</sup> NEPOOL Answer at 7.

31. Specifically with regard to Filing Parties' MRI-based zonal sloped demand curves, as stated above, we are accepting the zonal sloped demand curves on the basis that they are just and reasonable. We also find that, in filing the MRI-based zonal demand curves, the Filing Parties have met the compliance obligation that the Commission placed on ISO-NE in the December 2015 Order, in which we stated that ISO-NE's tariff was unjust and unreasonable because "it applies vertical demand curves within constrained zones, which does not sufficiently address price volatility and susceptibility to the exercise of market power."<sup>46</sup> We further note that the December 2015 Order did not specify the form the zonal sloped demand curves must take. As we have noted above, the Filing Parties have demonstrated that the MRI-based zonal demand curves will address these concerns.<sup>47</sup>

32. We also accept the provisions relating to the new MRI-based system-wide sloped demand curve. The Filing Parties have demonstrated that the MRI-based system-wide curve and the MRI-based zonal curves "must be designed in conjunction with one another, as part of an integrated, coherent package."<sup>48</sup> Thus, as in *MISO*,<sup>49</sup> the proposed changes to the system-wide demand curve are closely and plainly related to the compliance requirement that the Commission placed on ISO-NE, namely, to develop zonal sloped demand curves that would effectively address price volatility and market power issues. The provisions for developing the new zonal and system-wide demand curves share a common factual nexus.

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<sup>46</sup> December 2015 Order, 153 FERC ¶ 61,338 at PP 15-16.

<sup>47</sup> *See supra* P 21.

<sup>48</sup> ISO-NE Answer at 7. *See also* Geissler-White Testimony at 15 ("The ISO's analysis . . . indicates that it is difficult (and perhaps impossible) to achieve an overall capacity market design that is robust to potential future market conditions and zonal configurations unless the system-wide and zonal demand curves are designed using the same methodology and properly account for the partial substitutability of capacity between zones").

<sup>49</sup> *MISO*, 112 FERC ¶ 61,169 at P 15. While the Commission generally will not accept additional tariff provisions in the same filing as a compliance filing (*El Paso Natural Gas Co.*, 115 FERC ¶ 61,395, at P 13 (2006) (footnotes omitted), *order on reh'g*, 124 FERC ¶ 61,227 (2008), *petitions for review denied*, 669 F.3d 302 (D.C. Cir. 2012); *New York Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,076, at P 113 (2016)) as noted in *MISO*, it will do so under certain limited circumstances.

33. Finally, rather than undoing or contravening the obligation placed on ISO-NE to implement zonal sloped demand curves that address price volatility and market power, as Indicated Suppliers allege, the MRI-based system-wide demand curve enhances the operation of the zonal sloped demand curves. This is because “[t]he system curve not only determines the locational price signal in the Rest-of-Pool Capacity Zone, it also determines – because the zonal curves specify congestion price ‘adders’ – the total price to be paid in each constrained capacity zone . . . [and] it is not possible to address satisfactorily the concerns of the December 28 Order in a cost-effective way, and to provide appropriate locational price signals in constrained capacity zones, without conforming revisions to the system demand curve.”<sup>50</sup> Thus, we find that the proposed changes to the system-wide demand curves are conforming changes to those made to the zonal demand curves. Accordingly, we accept them as part of the compliance filing. However, even if we were to consider the proposed changes to the system-wide demand curve as a proposal under FPA section 205, as ISO-NE has proposed in the alternative, we would accept them as just and reasonable.

## 2. Reliability versus Cost

### a. Protests and Comments

34. Potomac Economics, CT PURA, NESCOE, and Public Systems support the use of the MRI-based demand curves. CT PURA and NESCOE assert that the proposed sloped demand curve design represents an improvement over the status quo in that it more accurately values capacity.<sup>51</sup> CT PURA explains that, when compared to a linear design approach, the MRI-based design better reflects the tradeoffs between costs and benefits of procuring capacity because the marginal reliability impact of procuring incremental capacity is not linear.<sup>52</sup> CT PURA argues that the proposed sloped demand curve design accounts for system reliability through the use of a scaling factor based on a 1-in-10 year Loss of Load Expectation target, stating that this approach produces curves that are highly conservative and, therefore, arguments that MRI-based curves will lead to unreliable results are without merit.<sup>53</sup> NESCOE states that the sloped demand curve design appropriately reflects the transfer capability across zonal interfaces. Further,

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<sup>50</sup> ISO-NE Answer at 7 (footnotes omitted).

<sup>51</sup> CT PURA Comments at 2; NESCOE Comments at 2.

<sup>52</sup> CT PURA Comments at 3.

<sup>53</sup> *Id.* at 3.

NESCOE states that the sloped demand curve design is able to consider resource adequacy and transmission security principles.<sup>54</sup>

35. Indicated Suppliers argue that, due to limitations of economic modeling and future uncertainty, it would be prudent for ISO-NE to purchase some amount of capacity in excess of the computed MRI-based demand curve. According to Indicated Suppliers, this excess capacity would act as a hedge against the realization of potential outcomes that would result in lower levels of reliability than that which ISO-NE expected when modeling the MRI-based demand curves.<sup>55</sup> In support, Indicated Suppliers state that, to avoid the potential adverse consequences from under-procurement of capacity, the existing system-wide demand curve is further to the right of the proposed demand curve. ISO-NE's modeling achieves this by having the existing curve intersect the net Installed Capacity Requirement (ICR) at approximately 1.2 times net Cost of New Entry (CONE). By contrast, Indicated Suppliers state that the proposed curves intersect the ICR at net CONE. According to Indicated Suppliers, the existing system-wide demand curve thus adequately hedges against potential modeling and calculation inaccuracies (i.e. underestimation of net CONE) by positioning the demand curve further to the right, but the proposed demand curve shifts to the left without any corresponding type of hedge.<sup>56</sup> Therefore, Indicated Suppliers argue that ISO-NE's proposal fails to adequately balance the goals of maintaining system reliability and minimizing costs. Indicated Suppliers request that the Commission reject the proposed MRI-based demand curves.

**b. Answers**

36. In its response, ISO-NE explains that Indicated Suppliers are correct that the existing system-wide demand curve intersects net ICR at approximately 1.2 times net CONE. However, ISO-NE states that the Indicated Suppliers fail to recognize a key difference between the existing and proposed system-wide curve, i.e., the existing system-wide curve is linear while the proposed curve is convex. According to ISO-NE, as a result of this difference, the consequences of underestimating net CONE under the proposed curve are less severe than the consequences of underestimating net CONE under the linear curve because, as capacity values decrease, the convex curve bends more steeply upward and to the right, as compared to the linear curve which has a constant slope.<sup>57</sup> Further, ISO-NE argues that the best solution for consistently incorrect

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<sup>54</sup> NESCOE Comments at 4.

<sup>55</sup> Indicated Suppliers Protest at 13 (citing Montalvo Affidavit at 14).

<sup>56</sup> Indicated Suppliers Protest at 12-14 (citing Montalvo Affidavit at 12-14).

<sup>57</sup> ISO-NE Answer at 8-9.

estimations of net CONE is to review and potentially revise the net CONE estimates, a provision that already exists in the Tariff.<sup>58</sup> ISO-NE argues that corrupting the demand curve design, which simply uses net CONE as an input, to compensate for incorrect estimations of net CONE is not the proper approach.<sup>59</sup>

37. According to CT PURA, Indicated Suppliers argue for greater reliability by shifting the demand curves to the right, resulting in increased consumer costs and generator profits.<sup>60</sup> However, CT PURA argues that Filing Parties' MRI-based demand curves are sufficiently conservative, supporting its claims with analysis that demonstrates how ISO-NE's proposal meets reliability standards in contrast to Indicated Suppliers' recommendations, which would exceed those standards. CT PURA concludes that any further shift of the demand curves to the right, as Indicated Suppliers propose, is uneconomical and unreasonable.<sup>61</sup>

### c. Commission Determination

38. Indicated Suppliers argue that, since the proposed demand curve intersects net ICR at net CONE, rather than 1.2 net CONE as under the existing system-wide demand curve, other steps should be taken to assure reliability, in order to protect against potential modeling and calculation inaccuracies such as the underestimation of net CONE. While ISO-NE concedes that consistent underestimations of net CONE will lead it to procure less capacity than reliability objectives would require, ISO-NE explains that this is the case under both the existing and the proposed designs – in other words, the proposed design does not increase the underestimation of net CONE. In fact, we find that Filing Parties' proposal mitigates the impact of underestimating net CONE by reducing the reliability shortfalls resulting from any net CONE underestimations. Under the proposed convex curve, the curve bends more rapidly upward as capacity decreases, assigning an increasingly higher price increase as capacity purchases decrease. In contrast, the linear curve assigns a constant price increase as the quantity purchased decreases. Under either curve, ISO-NE will procure less capacity if net CONE is underestimated than if net

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<sup>58</sup> ISO-NE's market rules already require a review of net CONE every three years. The first review will be conducted during the next year, with the results reflected in FCA 12 scheduled for February 2018. Tariff at III.13.2.4.

<sup>59</sup> ISO-NE Answer at 10-11.

<sup>60</sup> CT PURA Answer at 3.

<sup>61</sup> *Id.* at 3-5. See Affidavit of Cliff Hamal, Attachment to CT PURA Answer (Hamal Affidavit) at 5:16-25.



CONE were accurately estimated. But because the slope of the proposed curve at net ICR is steeper than the existing linear curve, the amount of under-procurement will be smaller under the proposed curve than under the existing linear curve. The smaller purchase reductions under the proposed curve would result in a smaller incremental reliability harm if net CONE were to be underestimated

39. Turning to Indicated Suppliers' related arguments that the demand curve design should compensate for potentially incorrect estimates of net CONE, we disagree. Net CONE is one of the inputs used to estimate the demand curve. To the extent that net CONE should be revised, it is reasonable to allow parties to seek such revisions separately from the efforts to design the FCM's demand curves. As ISO-NE notes, an existing Tariff provision requires the review and, if appropriate, revision of net CONE.

40. Last, Indicated Suppliers argue that market rules that hedge by over-procuring capacity are prudent. We disagree. Filing Parties have stated that they procure sufficient capacity to meet the resource adequacy standard that is required by the Northeast Power Coordinating Council reliability region.<sup>62</sup> Indicated Suppliers have provided no basis to find that ISO-NE must procure capacity in excess of this standard to be prudent.

### **3. Calculation of Import Limits in Constrained Zones**

#### **a. Protests and Comments**

41. Indicated Suppliers argue that Filing Parties' proposed changes to the Transmission Security Analysis Requirement will undermine reliability. According to Indicated Suppliers, ISO-NE currently uses two metrics – resource adequacy and transmission security – to ensure ISO-NE is procuring enough capacity to address zonal capacity requirements. The Local Resource Adequacy Requirement reflects the minimum amount of capacity that must be located within a zone, while the Transmission Security Analysis Requirement is a locational capacity requirement to ensure that the system is capable of safely operating following the loss of two critical elements (N-1-1).<sup>63</sup> The current rules set the local sourcing requirement at the greater of the Local Resource Adequacy Requirement and the Transmission Security Analysis Requirement. However, according to Indicated Suppliers, under the proposed rules, in cases where the

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<sup>62</sup> Geissler-White Testimony at n. 7 (citing NPCC Reliability Reference Directory #1, Design and Operation of the Bulk Power System, 3.0 (NPCC Full Member Criteria), Resource Adequacy (R4)).

<sup>63</sup> N-1-1 allows for system adjustment after loss of the first critical element. In contrast, N-2 refers to simultaneous loss of two elements.

Transmission Security Analysis Requirement is greater than the Local Resource Adequacy Requirement, ISO-NE would model the capacity available to import to a zone at the N-1 limit, minus the difference between the Transmission Security Analysis Requirement and Local Resource Adequacy Requirement, which could overstate the import limit.<sup>64</sup>

42. According to Indicated Suppliers, Filing Parties' proposal "softens" import limits, seriously threatening reliability. Further, Indicated Suppliers state that the proposed changes would set import limits in a manner that is inconsistent with how ISO-NE calculates transmission capability for other purposes, resulting in undue discrimination between supply and transmission solutions and, in the long run, unnecessary consumer costs. For example, Indicated Suppliers note that when buying capacity in the FCM, ISO-NE would treat the Transmission Security Analysis Requirement as a soft, price-sensitive requirement. However, during transmission planning or the evaluation of bilateral transactions, reconfiguration auctions, de-list bids, and retirements, it would treat the Transmission Security Analysis Requirement as a value that cannot be violated. Indicated Suppliers contend that, as a result, ISO-NE will treat transmission resources more favorably than supply resources, which is unduly discriminatory and could lead to inefficient outcomes.<sup>65</sup>

43. Indicated Suppliers also argue that ISO-NE's proposal could create a serious revenue adequacy issue with regard to ISO-NE's Pay-for-Performance program if the relaxed import limit leads to less capacity being procured than the quantity needed to meet the Transmission Security Analysis Requirement. Indicated Suppliers posit that, under a relaxed import limit, total Capacity Supply Obligations may fall short of total load plus operating reserves.<sup>66</sup> Further, Indicated Suppliers argue that, if all capacity suppliers in a zone perform at 100 percent of their obligations, a capacity shortage may still occur under this scenario in real-time. According to Indicated Suppliers, over-performers in ISO-NE's Pay-for-Performance program should address this real-time deficit. However, given that there are no entities operating below their Capacity Supply Obligation, Indicated Suppliers argue that "there is no place for the money to come from to pay those over-performers" thereby leading to a revenue adequacy issue.<sup>67</sup> Indicated Suppliers state that Filing Parties' proposal will establish a paradigm where the region

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<sup>64</sup> Indicated Suppliers Protest at 20-21.

<sup>65</sup> *Id.* at 24-25.

<sup>66</sup> Fowler Affidavit at P 27, Indicated Suppliers Protest at 25.

<sup>67</sup> Fowler Affidavit at P 27- P29.

may consistently under-procure capacity needed for day-ahead and real-time operations, which could undermine ISO-NE's Pay-for Performance program.

44. In addition, Indicated Suppliers argue that because of the relatively lower Local Resource Adequacy Requirement under the proposed rules, de-list bids will more often be rejected for reliability reasons, leading to more out-of-market, cost-based compensation paid to resources to remain in service for reliability reasons. Indicated Suppliers argue that ISO-NE's analysis during reconfiguration auctions and capacity bilateral transactions (a deterministic analysis) is not consistent with the analysis proposed for calculating the import limit under the MRI-based demand curve design (a probabilistic analysis).<sup>68</sup> Indicated Suppliers further state that ISO-NE has committed to review the rules for reconfiguration auctions and capacity bilateral transactions as part of a future stakeholder process.<sup>69</sup>

45. Indicated Suppliers state that, if the Commission accepts the filing, it should consider two suggestions from Indicated Suppliers' Fowler Affidavit to minimize the market and reliability consequences of the proposal: (1) use the demand curve that ISO-NE proposed to stakeholders earlier in the stakeholder process in December 2015, which relied on the higher of the Local Resource Adequacy Requirement or Transmission Security Analysis Requirement or (2) adopt the same "soft" N-1-1 criterion that is built into the MRI-based proposal when ISO-NE is performing reliability reviews and transmission planning.<sup>70</sup>

**b. Answers**

46. ISO-NE responds that its proposal does not modify the calculation of Transmission Security Analysis Requirement values. ISO-NE explains that an MRI-based curve for an import-constrained zone is initially formed using the Local Resource Adequacy Requirement value calculated for that zone. ISO-NE notes that, if the Transmission Security Analysis Requirement value calculated for the zone exceeds the Local Resource Adequacy Requirement value, an adjustment is made that appropriately

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<sup>68</sup> Probabilistic analysis considers the likelihood of various events occurring (i.e. generation availability or load reaching certain levels). In contrast, deterministic analysis assumes a certain load level and resource dispatch scenario. Transmission Security Analysis Requirement refers to a deterministic analysis used to determine a specific amount of necessary supply that the system either meets or does not.

<sup>69</sup> Indicated Suppliers Protest at 25-26 (citing Fowler Affidavit at P33-36).

<sup>70</sup> Indicated Suppliers Protest at 26-27.

increases the resulting curve. ISO-NE posits that this approach therefore uses a methodology that “mathematically captures the ‘higher of’ Transmission Security Analysis Requirement and Local Resource Adequacy Requirement methodology used to determine the fixed values of the current vertical zonal demand curves.”<sup>71</sup>

47. ISO-NE also responds to Indicated Suppliers’ request that ISO-NE be required to use a Transmission Security Analysis Requirement value based on an N-1-1 contingency. ISO-NE counters that it currently determines the Transmission Security Analysis Requirement value on an N-1-1 basis and will continue to do so under the instant proposal. ISO-NE states that, if Indicated Suppliers meant to argue that the capacity transfer capability used to determine the MRI-based curves for import-constrained zones should be calculated on an N-1-1 basis, then Indicated Suppliers are, in effect, asking that the current Local Resource Adequacy Requirement be calculated under N-1-1 conditions. ISO-NE states that such an approach will result in increasing the reliability objective beyond the amounts necessary to meet applicable engineering standards. Further, ISO-NE states that Indicated Suppliers generally request that the zonal demand curves be shifted to the right of their position under Filing Parties’ cost-effective, MRI-based design, which would procure excess capacity and remunerate suppliers in excess of net CONE.<sup>72</sup>

48. In response to Indicated Suppliers’ arguments that ISO-NE calculates Transmission Security Analysis Requirement values inconsistently across different contexts, ISO-NE states that there is no preference for transmission solutions in its transmission planning approaches. ISO-NE explains that, as required by North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council and ISO-NE criteria, its transmission planning incorporates N-1 and N-1-1 contingency analysis. ISO-NE notes that its transmission planning needs assessments are fully deterministic, and the level of modeled interface flow is determined by the area load and resource availability assumptions. Further, ISO-NE notes that these analyses are continuously updated based on the results of the FCM (such as including new resources or retirements), which may accelerate or defer the need for transmission projects. Thus, ISO-NE contends, there is no preference for transmission solutions.<sup>73</sup> Similarly, CT PURA states that perfect coordination between various models cannot be obtained and that any sloped demand curve design would face the same theoretical issues.

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<sup>71</sup> ISO-NE Answer at 16.

<sup>72</sup> *Id.* at 18.

<sup>73</sup> *Id.* at 20-21.

49. In response to Indicated Suppliers' argument that ISO-NE's proposal could lead to revenue inadequacies that undermine Pay-for Performance, ISO-NE states that the Pay-for-Performance design "ensures that settlements balance even in cases where total energy and reserves demanded at the system or zonal level exceeds the total quantity of capacity with a supply obligation."<sup>74</sup>

50. In response to Indicated Suppliers' request that the Commission direct ISO-NE to employ the same approach to reliability reviews of de-list bids as it does to transmission planning, ISO-NE states that the analysis of de-list bids is conducted at a sub-zonal level, and, therefore, it is appropriate that the reviews differ.

51. With respect to arguments that Filing Parties' proposal is inconsistent with the rules for reconfiguration auctions and bilateral transactions, ISO-NE states that it has previously indicated that it will address revisions to those rules in subsequent stakeholder meetings after the Commission's determination on the instant filing.

52. CT PURA states that Indicated Suppliers fail to show that Filing Parties' proposal will fall short of meeting zonal reliability needs. In response to Indicated Suppliers' argument that Filing Parties' proposal will undermine reliability by not producing prices sufficient to satisfy the Transmission Security Analysis Requirement when rest-of-pool is long on capacity, CT PURA states that such an outcome can be expected but should not be considered problematic. CT PURA explains that this outcome is problematic only if zonal reliability needs are assumed to be completely independent of supply in the rest of the system. CT PURA argues that this is not the case, and that excess supply in rest-of-pool contributes to reliability in the zone.<sup>75</sup>

### **c. Commission Determination**

53. The central issue that Indicated Suppliers raise relates to the modeling approach that the new MRI-based proposal adopts in considering the impact of the Transmission Security Analysis Requirement on the zonal demand curve. In particular, this issue relates to whether the import capability into an import-constrained zone adequately considers the impact of the Transmission Security Analysis Requirement. We recognize that ISO-NE's market design utilizes a probabilistic approach to determine the Installed Capacity Requirement with the goal of meeting, on average, Loss of Load Expectation of 1 day in 10 years across its footprint. We agree with ISO-NE's answer that, in determining the Local Resource Adequacy Requirement value, utilizing an import limit

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<sup>74</sup> *Id.* at 21.

<sup>75</sup> CT PURA Answer at 10-11.

that corresponds to an N-1-1 contingency (prior outage of a generation or line, followed by another contingency) would likely result in procuring excess capacity within a zone, given that it would be significantly higher than the standard currently used.<sup>76</sup> In addition, we find that Filing Parties' proposal adequately considers the impact of the Transmission Security Analysis Requirement in the import limit for scenarios in which Local Resource Adequacy Requirement (computed assuming an N-1 import limit) is lower than the Transmission Security Analysis Requirement. This is done by computing the difference between Transmission Security Analysis Requirement and Local Resource Adequacy Requirement and then further lowering the import capability (that was computed using N-1) by the amount of this difference.

54. We are not persuaded by the argument that using a higher relative import capability would result in a failure to procure sufficient resources in the constrained zones and, thus, favor transmission investment to facilitate power transmission from export zones into import constrained zones. Indicated Suppliers suggest that Filing Parties' proposal will unduly discriminate between generation and transmission. Moreover, Indicated Suppliers argue that Filing Parties' proposal will not procure capacity cost-effectively, because it ignores out-of-market actions (such as transmission upgrades) that ISO-NE may be required to take after the capacity auction is concluded. For example, according to Indicated Suppliers, if the auction procures capacity below the Transmission Security Analysis Requirement in a zone, the transmission planning process may require transmission upgrades to be built that would not have been built if sufficient capacity had been procured. In these cases, Indicated Suppliers conclude,

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<sup>76</sup> See ISO-NE Answer at 16-17 (citing Testimony of Alan McBride, Attachment to Transmittal at ¶ 17 (McBride Testimony)):

If [Indicated Suppliers are requesting] that the capacity transfer capability used to determine the MRI-based curves for import-constrained zones should be based on N-1-1 conditions, such a request is equivalent to requesting that the current Local Resource Adequacy Requirement be calculated under N-1-1 conditions, and would result in a zonal requirement far to the right of any zonal requirement that has ever been used by the ISO. As explained in the McBride Testimony, using an N-1-1 limit would “increase the de facto reliability standard for import-constrained zones as a whole – well above the levels of reliability procured under the current ‘higher of’ methodology.”

Filing Parties' proposal would understate the costs of procuring capacity less than the Transmission Security Analysis Requirement. However, ISO-NE does not currently co-optimize the procurement of generation capacity and transmission resources, and the MRI-based demand curves would not change that. Rather, Filing Parties' proposal would procure capacity cost-effectively for the state of the grid in existence at the time of the auction.

55. We also are not persuaded by Indicated Suppliers' argument that Filing Parties' proposal could result in inadequate revenue when there is under-procurement of capacity in day-ahead and real-time operations, thereby undermining ISO-NE's Pay-for-Performance market design. We agree with ISO-NE that the Pay-for-Performance design ensures that settlements balance among suppliers even in situations where total energy demanded exceeds the total quantity of capacity with a supply obligation. ISO-NE's Pay-for-Performance design achieves this by properly providing for the allocation of deficient or excess payments. Tariff section III.13.7.4, Allocation of Deficit or Excess Capacity Performance Payments, will ensure that settlements balance when this Tariff section becomes effective beginning with the delivery year associated with FCA 9, 2018 – 2019.<sup>77</sup> We also agree with ISO-NE that, consistent with the current process, the transmission planning standards are appropriate when assessing de-list bids for reliability to mitigate any violations that may result from meeting the applicable planning standards.

56. With respect to arguments that Filing Parties' proposal is inconsistent with the rules for reconfiguration auctions and bilateral transactions, we agree with both Indicated Suppliers and ISO-NE that harmonizing these rules is important in order to ensure consistency between Filing Parties' proposal and the current FCA rules. However, we note ISO-NE's commitment to address revisions to these rules in future stakeholder meetings and encourage ISO-NE to undertake the development of these revisions in the stakeholder process.

#### **4. Transition Mechanism**

##### **a. Protests and Comments**

57. GDF Suez, CT PURA, and NESCOE support the proposed transition period. GDF Suez states that the filing is a fair and equitable package that considers the impact on investors and consumers and that the transition period will prevent an abrupt change in market signals, which could produce substantial differences in capacity prices unrelated to market dynamics and disrupt investor confidence in the FCM.<sup>78</sup> While CT PURA and

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<sup>77</sup> *ISO New England Inc.*, 149 FERC ¶ 61,009 (2014).

<sup>78</sup> GDF SUEZ Comments at 2-3.

NESCOE recognize that immediate implementation may result in short-term consumer savings, CT PURA and NESCOE state that a phased-in approach can mitigate potential shocks to the market.<sup>79</sup> NESCOE states that the internal market monitor indicated that an abrupt market change could result in increased long-term costs from premature retirements and increased risk premiums that can be passed on to wholesale electricity customers.<sup>80</sup> CT PURA and NESCOE note that the transition period was thoroughly vetted through the NEPOOL stakeholder process and received broad support from stakeholders, including generators and suppliers.<sup>81</sup> NEPOOL and GDF SUEZ point out that the transition proposal was supported by the internal market monitor, ISO-NE, and generators.<sup>82</sup>

58. Public Systems support the adoption of MRI-based demand curves but oppose the use of transition curves for up to three FCAs and request that the Commission require ISO-NE to move immediately to the new MRI-based curves. Public Systems assert that, if any of FCAs 11, 12, or 13 clears on this “transition” portion of the curve, the outcome will not be cost-effective and will not represent a just and reasonable result.<sup>83</sup> Public Systems note that the incremental costs of using the transition curves have been estimated at between \$480 million and \$800 million for FCAs 11 and 12 alone.<sup>84</sup> Public Systems also argue that Filing Parties fail to support their claim that immediate implementation of MRI-based curves will undermine investor confidence. They argue that, to the contrary, the option for new resources – either those that cleared in previous auctions or those contemplating participation in future FCAs – to lock in their initial clearing price for seven years mitigates any potential negative impact due to a change in the demand curve structure.<sup>85</sup> Indicated Suppliers state that the transition mechanism introduces yet more uncertainty into the marketplace and that, if the Commission accepts the proposed

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<sup>79</sup> CT PURA Comments at 4, NESCOE Comments at 3.

<sup>80</sup> NESCOE Comments at 3.

<sup>81</sup> CT PURA Comments at 4, NESCOE Comments at 3-4.

<sup>82</sup> GDF SUEZ Comments at 5, NEPOOL at 7.

<sup>83</sup> Public Systems Comments at 7.

<sup>84</sup> *Id.* at 3.

<sup>85</sup> *Id.* at 8-9.



MRI-based demand curves, it should provide certainty to the marketplace by fixing the length of the transition period for three years.<sup>86</sup>

**b. Answers**

59. In response to Public Systems' contention, ISO-NE argues that the transition mechanism provides a balanced means to implement the new MRI-based design as early as is reasonable given the significant benefits of the new design and avoids unnecessarily abrupt administrative changes in FCM outcomes. ISO-NE reiterates that abrupt changes to new market rules can increase investors' perceptions of regulatory risks inherent in new project development in New England, which may ultimately harm the market's cost-effectiveness.<sup>87</sup>

60. ISO-NE contends that Public Systems' cost estimates of the transition mechanism are speculative and unsupported. ISO-NE argues that, based on its models and assumptions, the impact of implementing the transition, as opposed to implementing the full MRI-based design immediately, would range from \$0 to \$121 million in FCA 11 (and from \$0 to \$83 million in FCA 12 and \$0 to \$44 million in FCA 13, if the transition were to last that long).<sup>88</sup> ISO-NE contends that although the Commission accepted the existing non-MRI-based system curve only two years ago, implementing the proposed improvement does not mean that it is unjust and unreasonable to use an interim curve to represent demand in the FCM.<sup>89</sup>

61. In response to Public Systems, NEPOOL reiterates that the transition mechanism is a balanced approach that bridged the divide among stakeholders.<sup>90</sup> Further, NEPOOL argues that its vote to approve the proposed demand curve revisions does not indicate that the current system-wide curve design is unjust and unreasonable.<sup>91</sup> In response to

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<sup>86</sup> Montalvo Affidavit at 9-10, Indicated Suppliers' Protest at 28.

<sup>87</sup> ISO-NE Answer at 23-24, 25.

<sup>88</sup> *Id.* at 24 (citing Model 1 through Model 6 in Attachment 1 to the Geissler-White Testimony).

<sup>89</sup> ISO-NE Answer at 26.

<sup>90</sup> NEPOOL Answer at 3-4.

<sup>91</sup> *Id.* at 5-6.

Indicated Suppliers' request that the transition mechanism be fixed<sup>92</sup> for three years, NEPOOL contends that modifying the transitional provisions is not necessary for a just and reasonable outcome and would likely lessen broad stakeholder support.

**c. Commission Determination**

62. We find the proposed transition period to be a balanced approach for implementing the proposed MRI-based demand curves as early as reasonable, while attenuating any potential abrupt change in market signals that could produce substantial differences in capacity prices unrelated to actual market dynamics. While we understand that immediate implementation of zonal sloped demand curves could result in additional short-term consumer savings, we find that implementing a methodical transition promotes long-term cost-effectiveness for the market, while promoting investor confidence. We also acknowledge that this mechanism has widespread stakeholder support. Finally, we agree with ISO-NE that Public Systems' cost estimates of the transition mechanism are speculative and unsupported.<sup>93</sup>

The Commission orders:

Filing Parties' April 15 Filing is hereby accepted for filing, to become effective June 29, 2016, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>92</sup> *Id.* at 9-10 (citing Indicated Suppliers Comments at 28).

<sup>93</sup> The Commission approved a similar transition plan to phase in ISO-NE's Pay-for-Performance provisions to allow parties to "gain experience with the new market design at reduced risk exposure." *ISO New England Inc. and New England Power Pool*, 147 FERC ¶ 61,172, at P 73 (2013).