



July 1, 2013

VIA ELECTRONIC FILING

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

**Re: ISO New England Inc. and New England Power Pool,
Docket No. ER13- -000, Revisions to Forward Capacity Auction Market Clearing
Function**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act (“FPA”),¹ ISO New England Inc. (the “ISO”) joined by the New England Power Pool (“NEPOOL”) Participants Committee² (together, the “Filing Parties”), hereby electronically submits revisions to the rules governing the clearing of the Forward Capacity Market (“FCM”).³

As more fully described in Section IV of this filing letter and in the testimony of Andrew Gillespie (the “Gillespie Testimony”), Principal Analyst in the Market Development Department at the ISO (sponsored solely by the ISO), the revisions to the FCM rules (the “Rule Changes”) revise the market clearing function of the Forward Capacity Auction such that it will seek to maximize social surplus instead of minimize total costs. This revision, which was broadly supported by stakeholders, will have little effect on actual clearing outcomes, but will achieve those outcomes with less complexity and risk.

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

² Capitalized terms used but not otherwise defined in this filing have the meanings ascribed thereto in the ISO’s Transmission, Markets and Services Tariff (the “Tariff”), the Second Restated New England Power Pool Agreement, and the Participants Agreement. Section III of the Tariff is Market Rule 1.

³ Under New England’s Regional Transmission Organization (“RTO”) arrangements, the rights to make this filing of changes to the Market Rule under Section 205 of the FPA are the ISO’s. NEPOOL, which pursuant to the Participants Agreement provides the sole Participant Processes for advisory voting on ISO matters, supported the changes reflected in this filing and, accordingly, joins in this Section 205 filing.

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 operates the New England bulk power system and administers New England's organized wholesale electricity market pursuant to the Tariff and the Transmission Operating Agreement with the New England Participating Transmission Owners ("TOA"). 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.

NEPOOL is a voluntary association organized in 1971 pursuant to the New England Power Pool Agreement, and it has grown to include more than 430 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 Federal Energy Regulatory Commission ("FERC" or "Commission"),⁴ 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:

⁴ *ISO New England Inc.*, 109 FERC ¶ 61,147 (2004).

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II. STANDARD OF REVIEW

The Rule Changes 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.”⁶ Under Section 205, the Commission “plays ‘an essentially passive and reactive’ role”⁷ whereby it “can reject [a filing] only if it finds that the changes proposed by the public utility are not ‘just and reasonable.’”⁸ 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

⁵ 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.

⁶ *Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002).

⁷ *Id.* at 10 (quoting *City of Winnfield v. FERC*, 744 F.2d 871, 876 (D.C. Cir. 1984)).

⁸ *Id.* at 9.

reasonable than alternative rate designs.”⁹ The Rule Changes filed herein “need not be the only reasonable methodology, or even the most accurate.”¹⁰ 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.¹¹

III. BACKGROUND

In any run of the descending-clock Forward Capacity Auction,¹² it is extremely unlikely that the auction will stop naturally at the precise intersection of supply and demand, in such a way as to require no further work to determine the set of cleared resources and clearing prices. The primary reason for this is that the supply curve is not continuous (*i.e.*, the supply curve is “lumpy”). Pursuant to the FCM rules, most offers from new capacity resources and most de-list bids from existing resources must clear or not clear in whole, unless the offer or bid specifically elects to be rationable.¹³ Given the fixed sizes of most capacity resources, this limitation eases participation in the capacity market and produces more efficient outcomes. As a result of this constraint, however, the supply curve in the auction contains a series of vertical “steps” that, barring a significant coincidence, will prevent the auction from clearing at the precise amount of capacity required.

While the descending-clock auction ably performs its role in winnowing the relevant resources and prices to the right neighborhood, in the specific area where supply and demand intersect, there are (because of the lumpiness of the supply curve and multiple zones) in general a number of potential solutions regarding which resources should clear and at what prices. Choosing which of the possible solutions to be final involves making some subjective decisions about the proper outcome. When the FCM was initially designed, the ISO and stakeholders agreed that the

⁹ *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.).

¹⁰ *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (citing *Cities of Bethany* at 1136).

¹¹ *Cf. Southern 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.).

¹² In the descending clock auction, generally, capacity is withdrawn by suppliers as the price is progressively lowered in each successive auction round until the amount of capacity offered reaches the amount of capacity needed.

¹³ *See* Tariff Section III.13.2.6.

market clearing engine should select the final solution that best minimizes the total cost of capacity that would ultimately be paid by consumers.¹⁴ This approach is reflected in the current FCM rules:

Where the requirement that offers and bids clear or not clear in whole (Section III.13.2.6) prohibits the descending clock auction in its normal progression from clearing a Capacity Zone at the precise amount of capacity required, then the auctioneer shall analyze the aggregate supply curve to determine whether to clear more excess capacity at a lower Capacity Clearing Price or to clear less or no excess capacity at a higher Capacity Clearing Price, and *shall choose the alternative that results in procuring at least the amount of capacity required while seeking to minimize the total cost for the associated Capacity Commitment Period* by enumerating as many combinations of non-rationable offers and bids as practicable. In an import-constrained Capacity Zone, the cost minimization will not consider blocks of capacity not needed to meet the import-constrained Capacity Zone's Local Sourcing Requirement when price separation occurs between the import-constrained Capacity Zone and the Rest-of-Pool Capacity Zone. The cost minimization may result in offers below the Capacity Clearing Price not clearing, and in certain de-list bids (Permanent De-List Bids and Dynamic De-List Bids) below the Capacity Clearing Price clearing.¹⁵

Importantly, the market clearing algorithm as described above (seeking to minimize total costs to consumers) has never been used in the clearing of a Forward Capacity Auction because all auctions to date have stopped at the floor price. The eighth Forward Capacity Auction, to be conducted in February 2014 for the Capacity Commitment Period beginning on June 1, 2017, will be the first Forward Capacity Auction without a floor price.¹⁶ It was this timing, and the imminent utilization of the cost-minimization approach, that prompts the instant filing.

The decision to pursue minimization of total consumer costs in the final clearing of the Forward Capacity Auction was made before the ISO had sufficient time to scrutinize the clearing mechanics and to develop the detailed procedures and software (the "market clearing engine") that would implement the final clearing solution.

The ISO now has had ample time to consider the details of the ultimate market clearing process, and has identified two significant problems with the cost minimization approach. First, the FCM rules contain other important provisions that will significantly limit the ability of the market clearing engine to effectively select a cost-minimizing solution. Specifically, an important technique

¹⁴ See *Devon Power LLC*, Proposed Settlement Agreement, Docket No. ER03-563 (filed March 6, 2006) at Section III, Part D § 6, (*accepted in Devon Power LLC*, 115 FERC ¶ 61,340, *order on reh'g*, 117 FERC ¶ 61,133 (2006)).

¹⁵ Tariff Section III.13.2.7.4 (emphasis added).

¹⁶ *ISO New England Inc.*, 142 FERC ¶ 61,107 (2013) at PP 127-28.

that would be used by the market clearing engine in seeking to minimize total consumer costs would be to clear smaller, but more expensive, quantities of capacity to get closer to the needed amount of capacity at a lower overall cost. In doing so, it may be necessary to increase the cost in a particular capacity zone in the service of lowering total system-wide costs. However, increasing the cost in that particular capacity zone may be effectively prohibited by other FCM provisions, such as: (i) the requirement to clear, generally, any new offer below the capacity clearing price,¹⁷ which would largely preclude the market clearing engine from avoiding large “lumpy” offers in seeking to lower total consumer costs; and (ii) the requirement that the market clearing engine ignore, in an import-constrained capacity zone, capacity that is not needed to meet the zone’s Local Sourcing Requirement,¹⁸ which would make it much more difficult to raise the price in an import-constrained zone. With these important provisions effectively limiting the ability of the market clearing engine to minimize total system costs, it is appropriate to find another approach.¹⁹

Second, given these restrictions, the total consumer cost minimization approach is needlessly complex. Minimizing total costs requires the market clearing engine to solve for both the capacity clearing price and for the cleared quantities simultaneously. This is a non-linear mixed integer problem with equilibrium constraints that is very difficult to solve. Moreover, the techniques used to solve the problem are not standard and rely on heuristics. While this extra complexity (and the associated extra risk) might be worthwhile if the market clearing engine were otherwise unconstrained in seeking an optimal solution, as discussed above it is not. Given that fact, the extra complexity of the cost minimization approach presents risk without associated advantages.²⁰

To address these problems, the Rule Changes replace the market clearing engine’s goal of minimizing total consumer costs with the goal of maximizing social surplus. Social surplus (sometimes called social welfare) is in this case the sum of consumer surplus²¹ and supplier surplus,²² and this value is at its maximum when demand equals supply. The lumpiness of the supply curve in the Forward Capacity Auction, again, creates complexities, but having the market clearing engine seek to maximize social surplus instead of minimize total costs has several advantages.²³

¹⁷ See Tariff Section III.13.2.5.1.

¹⁸ See Tariff Section III.13.2.7.4.

¹⁹ See Gillespie Testimony at 5.

²⁰ See Gillespie Testimony at 6.

²¹ Consumer surplus is the difference between the amount that consumers would be willing to pay and the amount they actually pay.

²² Supplier surplus is the difference between the amount that suppliers are actually paid and the amount that they would have been willing to accept.

²³ See Gillespie Testimony at 6.

Maximizing social surplus in clearing the Forward Capacity Auction suffers from neither of the major infirmities associated with minimizing total consumer costs. Maximizing social surplus does not require the simultaneous calculation of price and quantity in one complex optimization problem. Rather, it first determines the cleared quantity of each bid in a well-defined optimization problem that maximizes the social surplus, with the clearing price being determined *ex post* in a separate pricing problem. Maximizing social surplus is a problem that can be solved using conventional techniques and is well-tested and well-understood. Social surplus maximization is the standard optimization technique employed by the ISO in its markets, and is most notably used in the energy market. Using conventional techniques and commercial solvers greatly reduces the complexity and risk associated with clearing the market, which is a significant consideration when an auction is expected to clear more than \$1 billion in a single year. Furthermore, use of less complex, standard optimization techniques makes the auction results more transparent than under an approach relying on application-specific heuristics. This is an important consideration for instilling confidence in the auction results. Finally, because of the limits placed on the cost minimization approach described above, the ISO does not expect that this change will result in auction results that are appreciably different than those that would have resulted from the existing market clearing engine. However, the Rule Changes will ensure that those results are achieved with less complexity and risk.²⁴

IV. DESCRIPTION OF RULES CHANGES

To effectuate the change described above, Section III.13.2.7.4 of the Tariff is being revised to state that, where the requirement that offers and bids clear or not clear in whole prohibits the descending clock auction from clearing the precise amount of capacity required, then the auctioneer shall analyze the aggregate supply curve “to determine cleared capacity offers and Capacity Clearing Prices that result in procuring at least the amount of capacity required while seeking to maximize social surplus for the associated Capacity Commitment Period.” In the remainder of Section III.13.2.7.4, other references to cost minimization are also being revised to instead refer more generally to the clearing algorithm. Furthermore, in Sections III.13.2.3.3(a), III.13.2.3.3(b), III.13.2.3.3(c), III.13.2.5.1, III.13.2.7.5, and III.13.2.7.7, references to the market clearing engine’s cost minimization function are being revised or deleted as appropriate.

The Rule Changes also include three minor clarifications to related Tariff provisions. First, in Section III.13.2.3.1, a sentence that addresses the circumstance of a capacity zone with a lower auction starting price than the end-of-round price declared by the auctioneer is being deleted. This provision became moot with the implementation of a uniform starting price for all capacity zones²⁵ and it is hence appropriate to delete it, as well as to make minor conforming changes to the remainder of that section. Second, in Section III.13.2.3.3, language is being revised to state that

²⁴ See Gillespie Testimony at 8.

²⁵ *ISO New England Inc. and New England Power Pool Participants Committee*, 131 FERC § 61,065 (2010) at PP 136-39.

capacity from new resources above the auction starting price will not be included in the supply curve. This is because, as written, the language could inappropriately result in the Capacity Clearing Price being greater than the auction starting price, which is expressly prohibited by other terms of Section III.13.2.3.3. Third, in Section III.13.2.7.4, language is being revised to state that any type of de-list bid, rather than only a certain subset of de-list bid types, might clear at prices below the Capacity Clearing Price as a result of the rationing rules and the functioning of the market clearing engine. Upon review, the ISO has concluded that the restriction of this provision to a subset of de-list bid types was inadvertent and inappropriate.

V. STAKEHOLDER PROCESS

The NEPOOL Markets Committee, at its June 4-5, 2013 meeting, voted to recommend NEPOOL Participants Committee support for the Rule Changes based on a show of hands, with one abstention within the Transmission Sector, one abstention within the Supplier Sector, 29 abstentions within the Publicly Owned Entity Sector, and one abstention within the End User Sector recorded. The Participants Committee, at its June 25-27, 2013 meeting, supported the Rule Changes as part of its Consent Agenda, with abstentions noted.²⁶

VI. REQUESTED EFFECTIVE DATE

The Filing Parties request that the Commission permit the Rule Changes that are being submitted in this filing to become effective without suspension or hearing on September 2, 2013. This effective date will ensure that the Rule Changes will be effective for the eighth FCA.

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.²⁷ However, the Rule Changes are associated with the FCM and 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.

²⁶ The Consent Agenda for a Participants Committee meeting, similar to the Consent Agenda for a Commission open meeting, is a group of actions (each recommended by a Technical Committee or subgroup established by the Participants Committee) to be taken by the Participants Committee through approval of a single motion at a meeting. All recommendations voted on as part of the Consent Agenda are deemed to have been voted on individually and independently. In this case, the Participants Committee's approval of the June 25-27, 2013 Consent Agenda included its support for the Rule Changes filed herein.

²⁷ 18 C.F.R. § 35.13 (2012).

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

- ♦ This transmittal letter;
- ♦ Marked sections of the Tariff reflecting the Rule Changes effected by this filing;
- ♦ Clean sections of the Tariff incorporating the Rule Changes;
- ♦ Testimony of Andrew Gillespie, 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 Rule Changes submitted with this filing become effective on September 2, 2013.

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 http://www.iso-ne.com/regulatory/ferc/nepool/gov_ptcpts_eserved.pdf. 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 VII of this transmittal letter.

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

35.13(b)(6) - The ISO's approval of these Rule Changes is evidenced by this filing. These Rule Changes 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.

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VIII. CONCLUSION

For the foregoing reasons, the Filing Parties respectfully request that the Commission approve the Rule Changes as described herein without condition or change.

Respectfully submitted,

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III.13.2. Annual Forward Capacity Auction.

III.13.2.1. Timing of Annual Forward Capacity Auctions.

Except with respect to the first six Forward Capacity Auctions (as described in Section III.13.1.10), each Forward Capacity Auction will be conducted beginning on the first Monday in the February that is approximately three years and four months before the beginning of the associated Capacity Commitment Period (unless, no later than the immediately preceding December 1, an alternative date is announced by the ISO), or, where exigent circumstances prevent the start of the Forward Capacity Auction at that time, as soon as possible thereafter.

III.13.2.2. Amount of Capacity Purchased in Each Forward Capacity Auction.

Each Forward Capacity Auction shall procure one hundred percent of the Installed Capacity Requirement (net of HQICCs) approved by the Commission for the associated Capacity Commitment Period, except as a result of the Capacity Rationing Rule, as described in Sections III.13.2.6 and III.13.2.7.4. The sum of the Hydro-Quebec Interconnection Capability Credits and import capacity purchased over the Phase I/II HVDC-TF interconnection shall not exceed the capacity transfer limit of those facilities, as determined by the ISO.

III.13.2.3. Conduct of the Forward Capacity Auction.

The Forward Capacity Auction shall be a descending clock auction, which will determine, subject to the provisions of Section III.13.2.7, the Capacity Clearing Price for each Capacity Zone modeled in that Forward Capacity Auction pursuant to Section III.12.4, and the Capacity Clearing Price for certain offers from New Import Capacity Resources and Existing Import Capacity Resources pursuant to Section III.13.2.3.3(d). The Forward Capacity Auction shall determine the outcome of all offers and bids accepted during the qualification process and submitted during the auction. Each Forward Capacity Auction shall be conducted as a series of rounds, which shall continue (for up to five consecutive Business Days, with up to eight rounds per day, absent extraordinary circumstances) until the Forward Capacity Auction is concluded for all modeled Capacity Zones in accordance with the provisions of Section III.13.2.3.3. Each round of the Forward Capacity Auction shall consist of the following steps, which shall be completed simultaneously for each Capacity Zone included in the round:

III.13.2.3.1. Step 1: Announcement of Start-of-Round Price and End-of-Round Price.

For each round, the auctioneer shall announce a single Start-of-Round Price (the highest price associated with a round of the Forward Capacity Auction) and a single (lower) End-of-Round Price (the lowest price

associated with a round of the Forward Capacity Auction). ~~If a Capacity Zone has a Forward Capacity Auction Starting Price (determined in accordance with Section III.13.2.4) below the End-of-Round Price, then that Capacity Zone shall not be included in the round.~~ In the first round, the Start-of-Round Price shall equal the ~~highest~~ Forward Capacity Auction Starting Price ~~of for~~ all modeled Capacity Zones. In each round after the first round, the Start-of-Round Price shall equal the End-of-Round Price from the previous round.

III.13.2.3.2. Step 2: Compilation of Offers and Bids.

The auctioneer shall compile all of the offers and bids for that round, as follows:

(a) Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources.

(i) The Project Sponsor for any New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource accepted in the qualification process for participation in the Forward Capacity Auction may submit an offer (a “New Capacity Offer”) indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource (in the associated modeled Capacity Zone during the qualification process) during the Capacity Commitment Period at that round’s prices. A New Capacity Offer shall be defined by the submission of one to five prices, each strictly less than the Start-of-Round Price but greater than or equal to the End-of-Round Price, and an associated quantity in the associated modeled Capacity Zone. Each price shall be expressed in units of dollars per kilowatt-month to an accuracy of at most three digits to the right of the decimal point, and each quantity shall be expressed in units of MWs to an accuracy of at most three digits to the right of the decimal point. Such a New Capacity Offer shall imply a supply curve indicating quantities offered at all of that round’s prices, pursuant to the convention of Section III.13.2.3.2(a)(iii).

(ii) If the Project Sponsor of a New Generating Capacity Resource, a New Import Capacity Resource, or New Demand Resource elects to offer in a Forward Capacity Auction, the Project Sponsor must offer the resource’s full FCA Qualified Capacity at the Forward Capacity Auction Starting Price in the first round of the auction. A New Capacity Offer for a resource may in no event be for greater capacity than the resource’s full FCA Qualified Capacity at any price. A New Capacity Offer for a resource may not be for less capacity than the resource’s Economic

Minimum Limit at any price, except where the New Capacity Offer is for a capacity quantity of zero.

(iii) Let the Start-of-Round Price and End-of-Round Price for a given round be P_S and P_E , respectively. Let the m prices ($1 \leq m \leq 5$) submitted by a Project Sponsor for a modeled Capacity Zone be p_1, p_2, \dots, p_m , where $P_S > p_1 > p_2 > \dots > p_m \geq P_E$, and let the associated quantities submitted for a New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource be q_1, q_2, \dots, q_m . Then the Project Sponsor's supply curve, for all prices strictly less than P_S but greater than or equal to P_E , shall be taken to be:

$$S(p) = \begin{cases} q_0, & \text{if } p > p_1, \\ q_1, & \text{if } p_2 < p \leq p_1, \\ q_2, & \text{if } p_3 < p \leq p_2, \\ \dots & \dots, \\ q_m, & \text{if } p \leq p_m. \end{cases}$$

where, in the first round, q_0 is the resource's full FCA Qualified Capacity and, in subsequent rounds, q_0 is the resource's quantity offered at the lowest price of the previous round.

(iv) [Reserved.]

(v) A New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource may not include any capacity in a New Capacity Offer during the Forward Capacity Auction at any price below the resource's New Resource Offer Floor Price. The amount of capacity included in each New Capacity Offer at each price shall be included in the aggregate supply curves at that price as described in Section III.13.2.3.3.

(b) **Bids from Existing Capacity Resources Accepted in Qualification.** Static De-List Bids, Permanent De-List Bids, and Export Bids from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources submitted and accepted in the qualification process (or as directed by the Commission) shall be automatically bid into the appropriate round(s) of the Forward Capacity Auction, such that each such resource's summer Qualified Capacity will be included in the aggregate supply curves as described in Section III.13.2.3.3. until any Static De-List Bid, Permanent De-List Bid, or Export Bid clears in the Forward Capacity Auction, as described in Section III.13.2.5.2, and

is removed from the aggregate supply curves. Administrative Export De-List Bids shall be automatically entered into the first round of the Forward Capacity Auction at the Forward Capacity Auction Starting Price. If the amount of capacity associated with Export Bids for an interface exceeds the transfer limit of that interface (minus any accepted Administrative De-List Bids over that interface), then the set of Export Bids associated with that interface equal to the interface's transfer limit (minus any accepted Administrative De-List Bids over that interface) having the highest bid prices shall be included in the auction as described above; capacity for which Export Bids are not included in the auction as a result of this provision shall be entered into the auction pursuant to Section III.13.2.3.2(c).

(c) **Existing Capacity Resources Not Having Accepted De-List or Export Bids and Self-Supplied FCA Resources.** Each Existing Generating Capacity Resource, Existing Import Capacity Resource, and Existing Demand Resource that did not submit a Static De-List Bid, a Permanent De-List Bid, an Export Bid, or an Administrative Export De-List Bid in its Existing Capacity Qualification Package, or an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource that did not have any such bid accepted in the qualification process, and each existing Self-Supplied FCA Resource shall be automatically entered into each round of the Forward Capacity Auction at its FCA Qualified Capacity, such that the resource's FCA Qualified Capacity will be included in the aggregate supply curves as described in Section III.13.2.3.3, except where such resource, if permitted, submits an appropriate Dynamic De-List Bid, as described in Section III.13.2.3.2(d). Each new Self-Supplied FCA Resource shall be automatically entered into each round of the Forward Capacity Auction at its designated self-supplied quantity at prices at or above the resource's New Resource Offer Floor Price, such that the resource's designated self-supply quantity will be included in the aggregate supply curves as described in Section III.13.2.3.3.

(d) **Dynamic De-List Bids.** In any round of the Forward Capacity Auction in which prices are below \$1.00/kW-month, any Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource (but not any Self-Supplied FCA Resources) may submit a Dynamic De-List Bid at prices below \$1.00/kW-month. Such a bid shall be defined by the submission of one to five prices, each less than \$1.00/kW-month (or the Start-of-Round Price, if lower than \$1.00/kW-month) but greater than or equal to the End-of-Round Price, and a single quantity associated with each price. Such a bid shall be expressed in the same form as specified in Section III.13.2.3.2(a)(i) and shall imply a curve indicating quantities at all of that round's relevant prices, pursuant to the convention of Section III.13.2.3.2(a)(iii). The curve may in no case increase the quantity offered as the price decreases. A dynamic De-List Bid may not offer less capacity than the resource's Economic Minimum Limit at any

price, except where the amount of capacity offered is zero. All Dynamic De-List Bids are subject to a reliability review as described in Section III.13.2.5.2.5, and if not rejected for reliability reasons, shall be included in the round in the same manner as Static De-List Bids as described in Section III.13.2.3.2(b). Where a resource elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5 to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply after the Capacity Commitment Period associated with the Forward Capacity Auction in which the offer clears, the capacity associated with any resulting Capacity Supply Obligation may not be subject to a Dynamic De-List Bid in subsequent Forward Capacity Auctions for Capacity Commitment Periods for which the Project Sponsor elected to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply. Where a Lead Market Participant submits any combination of Dynamic De-List Bid, Static De-List Bid, Export Bid, and Administrative Export De-List Bid for a single resource, none of the prices in a set of price-quantity pairs associated with a bid may be the same as any price in any other set of price-quantity pairs associated with another bid for the same resource.

(e) **Repowering.** Offers and bids associated with a resource participating in the Forward Capacity Auction as a New Generating Capacity Resource pursuant to Section III.13.1.1.1.2 (resources previously counted as capacity resources) shall be addressed in the Forward Capacity Auction in accordance with the provisions of this Section III.13.2.3.2(e). The Project Sponsor shall offer such a New Generating Capacity Resource into the Forward Capacity Auction in the same manner and pursuant to the same rules as other New Generating Capacity Resources, as described in Section III.13.2.3.2(a). As long as any capacity is offered from the New Generating Capacity Resource, the amount of capacity offered is the amount that the auctioneer shall include in the aggregate supply curve at the relevant prices, and the quantity of capacity offered from the associated Existing Generating Capacity Resource shall not be included in the aggregate supply curve. If any portion of the New Generating Capacity Resource clears in the Forward Capacity Auction, the associated Existing Generating Capacity Resource shall be permanently de-listed as of the start of the associated Capacity Commitment Period. If at any price, no capacity is offered from the New Generating Capacity Resource, then the auctioneer shall include capacity from the associated Existing Generating Capacity Resource at that price, subject to any bids submitted and accepted in the qualification process for that Existing Generating Capacity Resource pursuant to Section III.13.1.2.5. Bids submitted and accepted in the qualification process for an Existing Generating Capacity Resource pursuant to Section III.13.1.2.5 shall only be entered into the Forward Capacity Auction after the associated New Generating Capacity Resource is fully withdrawn (that is, the Forward Capacity Auction reaches a price at which the resource's New Capacity Offer is zero capacity), and shall only then be subject to the reliability review described in Section III.13.2.5.2.5.

(f) **Conditional Qualified New Generating Capacity Resources.** Offers associated with a resource participating in the Forward Capacity Auction as a Conditional Qualified New Generating Capacity Resource pursuant to Section III.13.1.1.2.3(f) shall be addressed in the Forward Capacity Auction in accordance with the provisions of this Section III.13.2.3.2(f). The Project Sponsor shall offer such a Conditional Qualified New Generating Capacity Resource into the Forward Capacity Auction in the same manner and pursuant to the same rules as other New Generating Capacity Resources, as described in Section III.13.2.3.2(a). An offer from at most one resource at a Conditional Qualified New Generating Capacity Resource's location will be permitted to clear (receive a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction. As long as a positive quantity is offered at the End-of-Round Price in the final round of the Forward Capacity Auction by the resource having a higher queue priority at the Conditional Qualified New Generating Capacity Resource's location, as described in Section III.13.1.1.2.3(f), then no capacity from the Conditional Qualified New Generating Capacity Resource shall clear. If at any price greater than or equal to the End-of-Round Price in the final round of the Forward Capacity Auction, zero quantity is offered from the resource having higher queue priority at the Conditional Qualified New Generating Capacity resource's location, as described in Section III.13.1.1.2.3(f), then the auctioneer shall consider capacity offered from the Conditional Qualified New Generating Capacity Resource in the determination of clearing, including the application of Section III.13.2.7.

(g) **Mechanics.** Offers and bids that may be submitted during a round of the Forward Capacity Auction must be received between the starting time and ending time of the round, as announced by the auctioneer in advance. The ISO at its sole discretion may authorize a participant in the auction to complete or correct its submission after the ending time of a round, but only if the participant can demonstrate to the ISO's satisfaction that the participant was making reasonable efforts to complete a valid offer submission before the ending time of the round, and only if the ISO determines that allowing the completion or correction will not unreasonably disrupt the auction process. All decisions by the ISO concerning whether or not a participant may complete or correct a submission after the ending time of a round are final.

III.13.2.3.3. Step 3: Determination of the Outcome of Each Round.

The auctioneer shall use the offers and bids for the round as described in Section III.13.2.3.2 to determine the aggregate supply curves for the New England Control Area and for each modeled Capacity Zone included in the round. The aggregate supply curve for the New England Control Area (the "Total System

Capacity”) shall reflect at each price the sum of (the amount of capacity offered in all Capacity Zones modeled as import-constrained Capacity Zones at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources)) plus (the amount of capacity offered in the Rest-of-Pool Capacity Zone at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources)) plus (for each Capacity Zone modeled as an export-constrained Capacity Zone, the lesser of the amount of capacity offered in the Capacity Zone at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources) or the Capacity Zone’s Maximum Capacity Limit) plus (for each interface between the New England Control Area and an external Control Area, the lesser of that interface’s approved capacity transfer limit (net of tie benefits) or the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources). In computing the Total System Capacity, ~~the total~~ capacity associated with any New Capacity Zone Offer at any price greater than the Forward Capacity Auction Starting Price ~~for that Capacity Zone is taken to will not be~~ included in the tally of total capacity at the Forward Capacity Auction Starting Price for that Capacity Zone. In no event shall the Capacity Clearing Price for a Capacity Zone be greater than the Forward Capacity Auction Starting Price for that Capacity Zone. On the basis of these aggregate supply curves, the auctioneer shall determine the outcome of the round for each modeled Capacity Zone as follows:

(a) **Import-Constrained Capacity Zones.**

For a Capacity Zone modeled as an import-constrained Capacity Zone, if either of the following two conditions is met during the round:

- (1) the aggregate supply curve for the import-constrained Capacity Zone, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Capacity Zone’s Local Sourcing Requirement; or
- (2) the Total System Capacity, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs);

then the Forward Capacity Auction for that Capacity Zone is concluded, ~~except as required to minimize the total cost for the associated Capacity Commitment Period, as described in Section III.13.2.7~~, and such Capacity Zone will not be included in further rounds of the Forward Capacity

Auction. The Capacity Clearing Price for that Capacity Zone shall be set at the highest price at which either of the two conditions above are satisfied, subject to the other provisions of this Section III.13.2. If neither of the two conditions above are met in the round, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement (net of HQICCs)) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and that Capacity Zone will be included in the next round of the Forward Capacity Auction.

(b) **Rest-of-Pool Capacity Zone.** For the Rest-of-Pool Capacity Zone, if the Total System Capacity adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs), then the Forward Capacity Auction for the Rest-of-Pool Capacity Zone is concluded, ~~except as required to minimize the total cost for the associated Capacity Commitment Period, as described in Section III.13.2.7,~~ and the Rest-of-Pool Capacity Zone will not be included in further rounds of the Forward Capacity Auction. The Capacity Clearing Price for the Rest-of-Pool Capacity Zone shall be set at the highest price at which the Total System Capacity is less than or equal to the Installed Capacity Requirement (net of HQICCs), subject to the other provisions of this Section III.13.2. If the Total System Capacity exceeds the Installed Capacity Requirement (net of HQICCs) at the End-of-Round Price, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement (net of HQICCs)) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and the Rest-of-Pool Capacity Zone will be included in the next round of the Forward Capacity Auction.

(c) **Export-Constrained Capacity Zones.** For a Capacity Zone modeled as an export-constrained Capacity Zone, if both of the following two conditions are met during the round:

(i) the aggregate supply curve for the export-constrained Capacity Zone, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), is equal to or below the Capacity Zone's Maximum Capacity Limit; and

(ii) the Total System Capacity, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs);

then the Forward Capacity Auction for that Capacity Zone is concluded, ~~except as required to minimize the total cost for the associated Capacity Commitment Period, as described in Section III.13.2.7,~~ and such Capacity Zone will not be included in further rounds of the Forward Capacity Auction. The Capacity Clearing Price for that Capacity Zone shall be set at the highest price at which both of the conditions above are satisfied, subject to the other provisions of this Section III.13.2. If it is not the case that both of the two conditions above are satisfied in the round, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement) and the quantity of excess supply in the export-constrained Capacity Zone (the amount of capacity offered at the End-of-Round Price in the export-constrained Capacity Zone minus the Maximum Capacity Limit of the export-constrained Capacity Zone) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and that Capacity Zone will be included in the next round of the Forward Capacity Auction.

(d) **Treatment of Import Capacity.** Where the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between the New England Control Area and an external Control Area is less than or equal to that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the capacity offers from those resources shall be treated as capacity offers in the modeled Capacity Zone associated with that interface. Where the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between the New England Control Area and an external Control Area is greater than that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the following provisions shall apply (separately for each such interface):

(i) For purposes of determining which capacity offers from the New Import Capacity Resources and Existing Import Capacity Resources over the interface shall clear and at what price, the offers over the interface shall be treated in the descending-clock auction as if they comprised a separately-modeled export-constrained capacity zone, with an aggregate supply

curve consisting of the offers from the New Import Capacity Resources and Existing Import Capacity Resources over the interface.

(ii) The amount of capacity offered over the interface that will be included in the aggregate supply curve of the modeled Capacity Zone associated with the interface shall be the lesser of the following two quantities: the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over the interface; and the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF).

(iii) The Forward Capacity Auction for New Import Capacity Resources and Existing Import Capacity Resources over the interface is concluded when the following two conditions are both satisfied: the amount of capacity offered from New Import Capacity Resource and Existing Import Capacity Resources over the interface is less than or equal to the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF); and the Forward Capacity Auction is concluded in the modeled Capacity Zone associated with the interface.

(e) **Treatment of Export Capacity.** Any Export Bid or any Administrative Export De-List Bid that is used to export capacity through an export interface connected to an import-constrained Capacity Zone from another Capacity Zone, or through an export interface connected to the Rest-of-Pool Capacity Zone from an export-constrained Capacity Zone in the Forward Capacity Auction will be modeled in the Capacity Zone where the export interface that is identified in the Existing Capacity Qualification Package is located. The Export Bid or Administrative Export De-List Bid clears against the Capacity Clearing Price in the Capacity Zone where the Export Bid or Administrative Export De-List Bid is modeled.

(i) Then the MW quantity equal to the relevant Export Bid or Administrative Export De-List Bid from the resource associated with the Export Bid or Administrative Export De-List Bid will be de-listed in the Capacity Zone where the resource is located. If the export interface is connected to an import-constrained Capacity Zone, the MW quantity procured will be in addition to the Local Sourcing Requirement of the import-constrained Capacity Zone.

(ii) If the Export Bid or Administrative Export De-List Bid does not clear, then the resource associated with the Export Bid or Administrative Export De-List Bid will not be de-listed in the Capacity Zone where the resource is located.

(f) **Treatment of Real-Time Emergency Generation Resources.** In determining when the Forward Capacity Auction is concluded, no more than 600 MW of capacity from Real-Time Emergency Generation Resources shall be counted towards meeting the Installed Capacity Requirement (net of HQICCs). If the sum of the Capacity Supply Obligations of Real-Time Emergency Generation Resources exceeds 600 MW, the Capacity Clearing Price, or in the case of Inadequate Supply or Insufficient Competition, the payment as described in Section III.13.2.8, (as adjusted pursuant to Section III.13.2.7.3(b)) paid to all Real-Time Emergency Generation Resources shall be adjusted by the ratio of 600 MW divided by the total of the final Capacity Supply Obligations of Real-Time Emergency Generation Resources. The acceptance of a Real-Time Emergency Generation Resource Static De-list Bid, Dynamic De-list Bid, or Permanent De-list Bid shall be based on the effective Capacity Clearing Price as described in Section III.13.2.7.

III.13.2.3.4. Determination of Final Capacity Zones.

(a) For all Forward Capacity Auctions up to and including the sixth Forward Capacity Auction (for the Capacity Commitment Period beginning June 1, 2015), after the Forward Capacity Auction is concluded for all modeled Capacity Zones, the final set of distinct Capacity Zones that will be used for all purposes associated with the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals, shall be those having distinct Capacity Clearing Prices as a result of constraints between modeled Capacity Zones binding in the running of the Forward Capacity Auction. Where a modeled constraint does not bind in the Forward Capacity Auction, and as a result adjacent modeled Capacity Zones clear at the same Capacity Clearing Price, those modeled Capacity Zones shall be a single Capacity Zone used for all purposes of the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals.

(b) For all Forward Capacity Auctions beginning with the seventh Forward Capacity Auction (for the Capacity Commitment Period beginning June 1, 2016) the final set of distinct Capacity Zones that will be used for all purposes associated with the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals, shall be those described in Section III.12.4.

III.13.2.4. Forward Capacity Auction Starting Price.

The Forward Capacity Auction Starting Price for each Capacity Zone in the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, 2016 shall be \$15/kW-month. Thereafter, the Forward Capacity Auction Starting Price will be adjusted after each Forward Capacity Auction using a rolling three-year average of the Handy-Whitman Index of Public Utility Construction Costs. References in this Section III.13 to the Forward Capacity Auction Starting Price shall mean the Forward Capacity Auction Starting Price for the Forward Capacity Auction associated with the relevant Capacity Commitment Period.

III.13.2.5. Treatment of Specific Offer and Bid Types in the Forward Capacity Auction.

III.13.2.5.1. Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources.

A New Capacity Offer (other than one from a Conditional Qualified New Generating Capacity Resource) clears (receives a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction if the Capacity Clearing Price is greater than or equal to the price specified in the offer, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6. An offer from a Conditional Qualified New Generating Capacity Resource clears (receives a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6, if all of the following conditions are met: (i) the Capacity Clearing Price is greater than or equal to the price specified in the offer; (ii) capacity from that resource is considered in the determination of clearing as described in Section III.13.2.3.2(f); and (iii) such offer minimizes the ~~total~~ costs for the associated Capacity Commitment Period, subject to Section III.13.2.7.7(c).

The amount of capacity that receives a Capacity Supply Obligation through the Forward Capacity Auction shall not exceed the quantity of capacity offered from the New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource at the Capacity Clearing Price.

III.13.2.5.2. Bids and Offers from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources.

III.13.2.5.2.1. Permanent De-List Bids.

Except as provided in Section III.13.2.5.2.5 and Section III.13.2.5.2.7, a Permanent De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6.

III.13.2.5.2.2. Static De-List Bids and Export Bids.

Except as provided in Section III.13.2.5.2.5 and Section III.13.2.5.2.7, a Static De-List Bid or an Export Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6.

III.13.2.5.2.3. Dynamic De-List Bids.

A Dynamic De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6. If more Dynamic De-List Bids are submitted at a price than are needed to clear the market, such Dynamic De-List Bids shall be cleared pro-rata, but in no case less than a resource's Economic Minimum Limit.

III.13.2.5.2.4. Administrative Export De-List Bids.

An Administrative Export De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) regardless of the Capacity Clearing Price and regardless of whether there is Inadequate Supply or Insufficient Competition in the Capacity Zone.

III.13.2.5.2.5. Bids Rejected for Reliability Reasons.

The ISO shall review each Non-Price Retirement Request, Permanent De-List Bid, Static De-List Bid, Export Bid, Administrative Export De-List Bid, and Dynamic De-List Bid entered into the Forward Capacity Auction to determine whether the capacity associated with that Non-Price Retirement Request or de-list bid is needed for reliability reasons during the Capacity Commitment Period associated with the Forward Capacity Auction. The capacity shall be deemed needed for reliability reasons if the absence of the capacity would result in the violation of any NERC or NPCC (or their successors) criteria, or ISO New England System Rules. Non-Price Retirement Requests and de-list bids shall not be rejected

pursuant to this Section III.13.2.5.2.5 solely on the basis that acceptance of the Non-Price Retirement Request or de-list bid may result in the procurement of less capacity than the Installed Capacity Requirement (net of HQICCs) or Local Sourcing Requirement for Load Zones or aggregations of Load Zones considered for modeling in a Forward Capacity Auction. Where a Non-Price Retirement Request would otherwise be accepted, or a Permanent De-List Bid, Static De-List Bid, Export Bid, Administrative Export De-List Bid, or Dynamic De-List Bid would otherwise clear in the Forward Capacity Auction, but the ISO has determined that some or all of the capacity associated with the Non-Price Retirement Request or de-list bid is needed for reliability reasons, then the de-list bid having capacity needed for reliability will not clear in the Forward Capacity Auction and the Non-Price Retirement Request will not be approved as described in Section III.13.1.2.3.1.5.3, and the following provisions will apply:

(a) The Lead Market Participant shall be notified that its de-list bid did not clear for reliability reasons at the later of: (i) immediately after the end of the Forward Capacity Auction round in which the auction price reaches the price of the de-list bid; or (ii) as soon as practicable after the time at which the ISO has determined that the de-list bid must be rejected for reliability reasons. In no event, however, shall a Lead Market Participant be notified that a bid submitted pursuant to Section III.13.1.2.5 and accepted in the qualification process for an Existing Generating Capacity Resource did not clear for reliability reasons if the associated New Generating Capacity Resource remains in the Forward Capacity Auction. In such a case, the Lead Market Participant shall be notified that its bid did not clear for reliability reasons at the later of: (i) immediately after the end of the Forward Capacity Auction round in which the auction price reaches the price of the bid; (ii) immediately after the end of the Forward Capacity Auction round in which the associated New Generating Capacity Resource is fully withdrawn (that is, the Forward Capacity Auction reaches a price at which the resource's New Capacity Offer is zero capacity); or (iii) as soon as practicable after the time at which the ISO has determined that the bid must be rejected for reliability reasons.

(i) In the case of Non-Price Retirement Request, the Lead Market Participant will be notified whether or not the request has been rejected for reliability reasons within 90 days of the submission of the request.

(b) A resource that has a de-list bid rejected pursuant to this Section III.13.2.5.2.5 shall be compensated pursuant to the terms set out in Section III.13.2.5.2.5.1. An Existing Generating Capacity Resource or Existing Demand Resource that has a Non-Price Retirement Request rejected pursuant to this Section III.13.2.5.2.5 shall have the option to retire pursuant to Section III.2.5.2.5.3(a)(iii) or to continue

operation and be compensated pursuant to Section III.13.2.5.2.5.1. A resource receiving payment under this Section III.13.2.5.2.5 and Section III.13.2.5.2.5.1 shall have the obligations of resources with Capacity Supply Obligations as described in Section III.13.6.1. Such resources shall be counted towards the Installed Capacity Requirement (net of HQICCs) for the Capacity Commitment Period.

(c) The ISO shall review the results of each annual reconfiguration auction and determine whether the reliability need which prevented the de-listing of the resource has been met through the annual reconfiguration auction. The ISO may also attempt to address the reliability concern through other reasonable means (including transmission enhancements).

(d) If the reliability need that prevented the de-listing of the resource is met through a reconfiguration auction or other means, the resource shall be de-listed, be relieved of its Capacity Supply Obligation and no longer be eligible to receive the compensation specified in Section III.13.2.5.2.5(b). The ISO shall enter bids at the Forward Capacity Auction Starting Price to replace the capacity on behalf of load in subsequent annual reconfiguration auctions associated with the Capacity Commitment Period (and subsequent Capacity Commitment Periods, in the case of a Permanent De-List Bid).

(e) If a Permanent De-List Bid that would otherwise clear in a Forward Capacity Auction or a Non-Price Retirement Request is rejected for reliability reasons, that resource, or portion thereof, as applicable, is no longer eligible to participate as an Existing Generating Capacity Resource in any reconfiguration auction, Forward Capacity Auction or Capacity Supply Obligation Bilateral for that and subsequent Capacity Commitment Periods. If the resource, or portion thereof, continues to be needed for reliability reasons, it shall be counted as capacity in the Forward Capacity Auction and shall be compensated as described in Section III.13.2.5.2.5.1 until such time as it is no longer needed for reliability reasons.

(f) [Reserved.]

(g) The ISO shall review with the Reliability Committee (i) the status of any prior rejected delist bids reported to the Commission in an FCA results filing pursuant to Section 13.8.2, and (ii) the status of any Non-Price Retirement Request that has been rejected for reliability reasons and has elected to continue to operate, prior to the New Capacity Qualification Deadline in accordance with Section 4.1(c) of Attachment K of the ISO OATT.

In instances where an identified reliability need results in the rejection of a Non-Price Retirement Request, or the rejection of a Permanent De-List Bid, Export Bid, Administrative Export De-List Bid, Static De-List Bid, or Dynamic De-List Bid while executing an FCA, the ISO shall (i) review each specific reliability need with the Reliability Committee in accordance with the timing provided for in the ISO New England Operating Documents and, (ii) update the current system Needs Assessments pursuant to Section 4.1(c) of Attachment K of the ISO OATT. For de-list bids, this review and update will follow ISO's filing of the FCA results with the Commission pursuant to Section 13.8.2. System needs associated with Non-Price Retirement Requests that are rejected for reliability reasons will be reviewed with the Reliability Committee prior to the notification of the Lead Market Participant that has submitted the Non-Price Retirement Request consistent with Section 13.2.5.2.5(a)(i).

III.13.2.5.2.5.1. Compensation for Bids Rejected for Reliability Reasons.

(a)(i) In cases where a Static De-List Bid, Export Bid, Administrative Export De-List Bid, Dynamic De-List Bid, or partial Permanent De-List Bid would otherwise clear in the Forward Capacity Auction but the de-list bid has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource qualifies for payment under Section III.13.2.5.2.5.1(a)(ii), the resource will be paid by the ISO in the same manner as all other capacity resources, except that payment shall be made on the basis of its de-list bid as accepted for the Forward Capacity Auction for the relevant Capacity Commitment Period instead of the Forward Capacity Market Clearing Price. Under this Section, accepted Dynamic De-list Bids filed with the Commission as part of the FCA results filing are subject to review and approval by the Commission pursuant to the "just and reasonable" standard of Section 205 of the Federal Power Act.

(a)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(a)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the de-list bid was rejected. Once qualified under this Section III.13.2.5.2.5.1(a)(ii), the resource will have a Capacity Supply Obligation for the 12-month Capacity Commitment Period for which the de-list bid was rejected.

(b)(i) In cases where a Permanent De-List Bid for the capacity of an entire resource would otherwise clear in the Forward Capacity Auction but the Permanent De-List Bid has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource qualifies for payment under Section III.13.2.5.2.5.1(b)(ii), the resource will be paid either (i) in the same manner as all other capacity resources, except that payment shall be made on the basis of its de-list bid as accepted for the Forward Capacity Auction for the relevant Capacity Commitment Period instead of the Forward Capacity Market

Clearing Price or (ii) under the terms of a cost-of-service agreement pursuant to Section III, Appendix I. Resources must notify the ISO of their election within six months after the ISO files the results of the relevant Forward Capacity Auction with the Commission. A resource that has had a Permanent De-List Bid rejected for reliability reasons and does not notify the ISO of its election as described in this paragraph will be paid on the basis of the resource's Permanent De-List Bid as accepted for the Forward Capacity Auction. Cost-of-service agreements must be filed with and approved by the Commission, and cost-of-service compensation may not commence until the Commission has approved the use of cost-of-service rates for the unit in question or has accepted the use of the cost-of-service rates subject to refund while the rate is reviewed. In no event will payment under the cost-of-service agreement start prior to the start of the relevant Capacity Commitment Period for which the Permanent De-List Bid was submitted. Resources that elect payment based on the accepted Permanent De-List Bid may file with the Commission pursuant to Section 205 of the Federal Power Act to update its Permanent De-List Bid if the unit is retained for reliability for a period longer than the Capacity Commitment Period for which the Permanent De-List Bid was originally submitted.

(b)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(b)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the Permanent De-List Bid was rejected. Once qualified under this Section III.13.2.5.2.5.1(b)(ii), the resource will have a Capacity Supply Obligation for the 12-month Capacity Commitment Period for which the Permanent De-List Bid was rejected. If a resource continues to be needed for reliability in Capacity Commitment Periods following the Capacity Commitment Period for which the Permanent De-List Bid was rejected, payment pursuant to Section III.13.2.5.2.5.1(b)(i) will continue and will terminate upon 120 day notice from the ISO to the resource that it is no longer needed for reliability.

(c)(i) In cases where a Non-Price Retirement Request for less than the entire resource has been submitted and the request has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource has not elected to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), the resource will continue to be paid in the same manner as other listed capacity resources until such time as the resource is no longer needed for reliability. In cases where a Non-Price Retirement Request for the entire resource has been submitted and the request has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource has not elected to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), the resource may elect to either (i) continue to be paid in the same manner as other listed capacity resources until such time as the resource is no longer needed for reliability, or (ii) the resource may elect to receive cost-of-service

compensation pursuant to Section III, Appendix I. Resources must notify the ISO of their election within six months after the ISO files the results of the relevant Forward Capacity Auction with the Commission. A resource that has had a Non-Price Retirement Request rejected for reliability reasons and does not notify the ISO of its election as described in this paragraph will be paid in the same manner as other listed capacity resources. Cost-of-service agreements must be filed with and approved by the Commission, and cost-of-service compensation may not commence until the Commission has approved the use of cost-of-service rates for the unit in question or has accepted subject to refund while the rate is reviewed. In no event will compensation under the cost-of-service agreement start prior to the start of the relevant Capacity Commitment Period for which the Non-Price Retirement Request was rejected.

(c)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(c)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the Non-Price Retirement Request was rejected. Once qualified under this Section III.13.2.5.2.5.1(c)(ii), compensation will be provided for the 12-month Capacity Commitment Period for which the Non-Price Retirement Request was rejected. If a resource continues to be needed for reliability in Capacity Commitment Periods following the Capacity Commitment Period for which the Non-Price Retirement Request was rejected, payment pursuant to Section III.13.2.5.2.5.1 will continue and will terminate upon 120 day notice from the ISO to the resource that it is no longer needed for reliability.

(d) The difference between payments based on resource de-list bids or cost-of-service compensation as detailed in this Section III.13.2.5.2.5.1 and payments based on the market clearing price for the Forward Capacity Market under this Section III.13.2.5.2.5.1 shall be allocated to Regional Network Load within the affected Reliability Region.

(e) **Compensation for Existing Generating Capacity Resources at Stations with Common Costs that are Retained for Reliability.** If a Static De-List Bid or Permanent De-List Bid from an Existing Generating Capacity Resource that is associated with a Station having Common Costs is rejected for reliability reasons, the Existing Generating Capacity Resource will be paid as follows: (i) if one or more Existing Generating Capacity Resources at the Station assume a Capacity Supply Obligation through the normal clearing of the Forward Capacity Auction and one or more Existing Generating Capacity Resources are retained for reliability, then the Existing Generating Capacity Resources retained for reliability will be paid the sum of the Asset-Specific Going Forward Costs for the assets comprising that Existing Generating Capacity Resource; or (ii) if no Existing Generating Capacity Resources at the

Station assumes a Capacity Supply Obligation through the normal clearing of the Forward Capacity Auction and one or more Existing Generating Capacity Resources are retained for reliability, then each Existing Generating Capacity Resource retained for reliability will be paid the sum of the Asset-Specific Going Forward Costs for the assets associated with that Existing Generating Capacity Resource plus a portion of the Station Going Forward Common Costs (such that the full amount of Station Going Forward Common Costs are allocated to the Existing Generating Capacity Resources retained for reliability).

III.13.2.5.2.5.2. Incremental Cost of Reliability Service From Non-Price Retirement Request Resources:

In cases where an Existing Generating Capacity Resource or Existing Demand Resource has had a Non-Price Retirement Request for the entire resource rejected for reliability reasons pursuant to Section III.13.2.5.2.5, does not elect to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), and must make a capital improvement to the unit to remain in operation in order to continue to operate to meet the reliability need identified by the ISO, the resource may make application to the Commission pursuant to Section 205 of the Federal Power Act to receive just and reasonable compensation of the capital investment pursuant to the following:

(a) **Notice to State Utility Commissions, the ISO and Stakeholder Committees of Expectation that a Capital Expense will be Necessary to Meet the Reliability Need Identified by ISO New England:** A resource seeking to avail itself of the recovery mechanism provided in this Section must notify the state utility commissions in the states where rate payers will fund the capital improvement, the ISO, and the Participants Committee of its intent to make the capital expenditure and the need for the expenditure. This notification must be made at least 120 days prior to the resource making the capital expenditure.

(b) **Required Showing Made to the Federal Energy Regulatory Commission:** In order to receive just and reasonable compensation for a capital expenditure under this Section, a resource must file an explanation of need with the Commission that explains why the capital expenditure is necessary in order to meet the reliability need identified by the ISO. This showing must demonstrate that the expenditure is reasonably determined to be the least-cost commercially reasonable option consistent with Good Utility Practice to meet the reliability need identified by the ISO. If the resource elects cost-of-service treatment pursuant to Section III.13.2.5.2.5.1(c), the Incremental Cost of Reliability Service filing described in this Section must be made separately from and may be made in advance of the resource's cost-of-service filing.

(c) **Allocation:** Costs of capital expenditures approved by the Commission under this provision shall be allocated to Regional Network Load within the affected Reliability Region.

III.13.2.5.2.5.3. Retirement of Resources

(a)(i) A resource, or portion thereof, that submits a Non-Price Retirement Request pursuant to Section III.13.1.2.3.1.5 will be retired coincident with the commencement of the Capacity Commitment Period for which the Non-Price Retirement Request is submitted if the request is approved, or if not approved the resource nonetheless elects to retire pursuant to Section III.13.2.5.2.5.3(a)(iii). If the Non-Price Retirement Request is approved after the resource has a Capacity Supply Obligation for the Capacity Commitment Period for which the Non-Price Retirement Request was submitted, the resource, or portion thereof, will be retired coincident with the end of Capacity Supply Obligation under Section III.13.2.5.2.5.1(c)(ii). The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(a)(ii) An Existing Generating Capacity Resource or Existing Demand Resource with an approved Non-Price Retirement Request may retire the resource, or portion thereof, earlier than the Capacity Commitment Period for which its Non-Price Retirement Request has been approved if it is able to transfer the relevant Capacity Supply Obligation of the resource to another resource through one or more approved Capacity Supply Obligation Bilateral transactions as described in Section III.13.5.1 or reconfiguration auctions as described in Section III.13.4.1. A resource, or portion thereof, electing to retire pursuant to this provision must notify the ISO in writing of its election to retire and the date of retirement. The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(a)(iii) In cases where an Existing Generating Capacity Resource or Existing Demand Resource has submitted a Non-Price Retirement Request and the request is not approved because the resource is determined to be needed for reliability pursuant to Section III.13.2.5.2.5, the portion of the resource subject to the Non-Price Retirement Request may nonetheless retire as permitted by applicable law coincident with the commencement of the Capacity Commitment Period for which the Non-Price Retirement Request is submitted by notifying ISO within six months of receiving the notice from the ISO that the Non-Price Retirement Request has not been approved for reliability reasons. Such an election will

be binding. A resource making an election pursuant to this Section III.13.2.5.2.5.3(a)(iii) will not be eligible for compensation pursuant to Sections III.13.2.5.2.5.1 or III.13.2.5.2.5.2. The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(b)(i) A resource that has submitted a non-partial Permanent De-List Bid that has cleared in the Forward Capacity Auction may retire the resource as of the Capacity Commitment Period for which its Permanent De-List Bid has cleared or earlier as described in Section III.13.2.5.2.5.3(b)(ii) by notifying the ISO in writing of its election to retire and the date of retirement. The date specified for retirement is subject to the limit for resource inactivity set out in Section III.13.2.5.2.5.3(d). The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date of retirement.

(b)(ii) A resource with a cleared non-partial Permanent De-List Bid may retire the resource earlier than the Capacity Commitment Period for which its Permanent De-List Bid has cleared if it is able to transfer the entire Capacity Supply Obligation of the resource to another resource through one or more approved Capacity Supply Obligation Bilateral transactions as described in Section III.13.5.1 or reconfiguration auctions as described in Section III.13.4. A resource electing to retire pursuant to this provision must notify ISO in writing of its election to retire and the date of retirement. The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date on retirement.

(c) A resource that has never been counted as a capacity resource may retire the asset by notifying the ISO in writing of its election to retire and the date of retirement. The date specified for retirement is subject to the limit for resource inactivity set out in Section III.13.2.5.2.5.3(d). The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date of retirement.

(d) A resource that does not operate commercially for a period of three calendar years will be deemed by the ISO to be retired. The interconnection rights for the unit will terminate and the status of the unit will be converted to retired on the date of retirement. Where a generator has submitted an application to repower under Schedule 22 or 23 of the OATT, the current interconnection space will be maintained beyond the three years unless the application under Schedule 22 or 23 is withdrawn

voluntarily or by the operation of those provisions. Where an application is withdrawn under Schedule 22 or 23, the three year period will be calculated from the last day of commercial operation of the resource.

III.13.2.5.2.6. [Reserved.]

III.13.2.5.2.7. Treatment of De-List and Export Bids When the Capacity Clearing Price is Set Administratively.

Where the Capacity Clearing Price is set pursuant to Section III.13.2.8 (Inadequate Supply and Insufficient Competition), and as a result a Permanent De-List Bid, Static De-List Bid, or Export Bid clears that would not otherwise have cleared, then the de-listed or exported capacity will not be replaced in the current Forward Capacity Auction (that is, the amount of capacity procured in the Forward Capacity Auction shall be the Installed Capacity Requirement (net of HQICCs) or Local Sourcing Requirement, as appropriate, minus the amount of the de-listed or exported capacity that results from the application of administratively determined prices) and shall be included in subsequent annual reconfiguration auctions (that is, the amount of capacity procured in subsequent annual reconfiguration auctions shall be increased by the amount of the de-listed or exported capacity).

III.13.2.6. Capacity Rationing Rule.

Except for Dynamic De-List Bids, Export Bids, and offers from New Import Capacity Resources and Existing Import Capacity Resources, offers and bids in the Forward Capacity Auction must clear or not clear in whole, unless the offer or bid specifically indicates that it may be rationed. A resource may elect to be rationed to either its Economic Minimum Limit or a level above its Economic Minimum Limit. These levels are submitted pursuant to Section III.13.1.1.2.2.3. Offers from New Import Capacity Resources and Existing Import Capacity Resources are subject to rationing, except where such rationing would violate any applicable physical minimum flow requirements on the associated interface. Export Bids may elect to be rationed generally, but regardless of such election will always be subject to potential rationing where the associated external interface binds. If more Dynamic De-List Bids are submitted at a price than are needed to clear the market, the bids shall be cleared pro-rata, subject to honoring the Economic Minimum Limit of the resources. Where an offer or bid may be rationed, such rationing may not result in procuring an amount of capacity that is below the associated resource's Economic Minimum Limit.

III.13.2.7. Determination of Capacity Clearing Prices.

The Capacity Clearing Price in each Capacity Zone shall be the price established by the descending clock Forward Capacity Auction as described in Section III.13.2.3, subject to the other provisions of this Section III.13.2.

III.13.2.7.1. Import-Constrained Capacity Zone Capacity Clearing Price Floor.

The Capacity Clearing Price in an import-constrained Capacity Zone shall not be lower than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone. If after the Forward Capacity Auction is conducted, the Capacity Clearing Price in an import-constrained Capacity Zone is less than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone, all resources clearing in the import-constrained Capacity Zone shall be paid based on the Capacity Clearing Price in the Rest-of-Pool Capacity Zone during the associated Capacity Commitment Period.

III.13.2.7.2. Export-Constrained Capacity Zone Capacity Clearing Price Ceiling.

The Capacity Clearing Price in an export-constrained Capacity Zone shall not be higher than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone. If after the Forward Capacity Auction is conducted, the Capacity Clearing Price in an export-constrained Capacity Zone is higher than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone, all resources clearing in the export-constrained Capacity Zone shall be paid based on the Capacity Clearing Price in the Rest-of-Pool Capacity Zone during the associated Capacity Commitment Period.

III.13.2.7.3. Capacity Clearing Price Floor.

In the Forward Capacity Auctions for the Capacity Commitment Periods beginning on June 1, 2013, June 1, 2014, June 1, 2015, and June 1, 2016 only, the following additional provisions regarding the Capacity Clearing Price shall apply in all Capacity Zones (and in the application of Section III.13.2.3.3(d)(iii)):

(a) [Reserved.]

(b) The Capacity Clearing Price shall not fall below 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 below \$3.15). Where the Capacity Clearing Price reaches 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 reaches \$3.15), offers shall be prorated such that no more than the Installed Capacity Requirement (net of HQICCs) is procured in the Forward Capacity Auction, as follows:

- (i) The total payment to all listed capacity resources during the associated Capacity Commitment Period shall be equal to 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 shall be equal to \$3.15) times the Installed Capacity Requirement (net of HQICCs) applicable in the Forward Capacity Auction.
- (ii) Payments to individual listed resources shall be prorated based on the total number of MWs of capacity clearing in the Forward Capacity Auction (receiving a Capacity Supply Obligation for the associated Capacity Commitment Period).
- (iii) Suppliers may instead prorate their bid MWs of participation in the Forward Capacity Market by partially de-listing one or more resources. Regardless of any such proration, the full amount of capacity that cleared in the Forward Capacity Auction will be ineligible for treatment as new capacity in subsequent Forward Capacity Auctions (except as provided under Section III.13.1.1.1.2).
- (iv) Any proration shall be subject to reliability review. Where proration is rejected for reliability reasons, the resource's payment shall not be prorated as described in subsection (ii) above, and the difference between its actual payment based on the Capacity Clearing Price and what its payment would have been had prorationing not been rejected for reliability reasons shall be allocated to Regional Network Load within the affected Reliability Region. In this case, the total payment described in subsection (i) above will increase accordingly.
- (v) Any election to prorate bid MWs associated with a New Capacity Offer that clears in the Forward Capacity Auction shall also apply in subsequent Forward Capacity Auctions for Capacity Commitment Periods for which the Project Sponsor elected to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5.

III.13.2.7.3A Treatment of Imports.

At the Capacity Clearing Price, if the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between an external Control Area and the New England Control Area is greater than that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF):

- (a) the full amount of capacity offered at that price from Existing Import Capacity Resources associated with contracts listed in Section III.13.1.3.3(c) shall clear, unless that amount of capacity is greater than the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), in which case the capacity offered at that price from Existing Import Capacity Resources associated with contracts listed in Section III.13.1.3.3(c) shall be rationed such that the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) is not exceeded; and
- (b) if there is space remaining over the interface after the allocation described in subsection (a) above, then the capacity offered at that price from New Import Capacity Resources and Existing Import Capacity Resources other than Existing Import Capacity Resources associated with the contracts listed in Section III.13.1.3.3(c) will be rationed such that the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) is not exceeded. If the capacity offered at that price by any single New Import Capacity Resource or Existing Import Capacity Resource that is not associated with the contracts listed in Section III.13.1.3.3(c) is greater than the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the capacity offered by that resource that is above the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) shall not be included in the rationing.

III.13.2.7.4. Effect of Capacity Rationing Rule on Capacity Clearing Price.

Where the requirement that offers and bids clear or not clear in whole (Section III.13.2.6) prohibits the descending clock auction in its normal progression from clearing a Capacity Zone at the precise amount of capacity required, then the auctioneer shall analyze the aggregate supply curve to determine cleared capacity offers and Capacity Clearing Prices ~~whether to clear more excess capacity at a lower Capacity Clearing Price or to clear less or no excess capacity at a higher Capacity Clearing Price, and shall choose the alternative~~ that results in procuring at least the amount of capacity required while seeking to ~~minimize the total cost~~ maximize social surplus for the associated Capacity Commitment Period ~~by enumerating as many combinations of non-rationable offers and bids as practicable~~. In an import-constrained Capacity Zone, the ~~cost minimization~~ clearing algorithm will not consider blocks of capacity not needed to meet the import-constrained Capacity Zone's Local Sourcing Requirement when price separation occurs between the import-constrained Capacity Zone and the Rest-of-Pool Capacity Zone. The ~~cost minimization~~ clearing algorithm may result in offers below the Capacity Clearing Price not clearing, and

in ~~certain~~ de-list bids (~~Permanent De List Bids and Dynamic De List Bids~~) below the Capacity Clearing Price clearing.

III.13.2.7.5. Effect of Decremental Repowerings on the Capacity Clearing Price.

Where the effect of accounting for certain repowering offers and bids (as described in Section III.13.2.3.2(e)) results in the auction not clearing at the lowest price for the required quantity of capacity, then the auctioneer will conduct additional auction rounds of the Forward Capacity Auction as necessary to minimize ~~total~~ capacity costs.

III.13.2.7.6. Minimum Capacity Award.

Each offer (excluding offers from Conditional Qualified New Generating Capacity Resources that do not satisfy the conditions specified in Sections III.13.2.5.1(i)-(iii)) clearing in the Forward Capacity Auction shall be awarded a Capacity Supply Obligation at least as great as the amount of capacity offered at the End-of-Round Price in the final round of the Forward Capacity Auction. For Intermittent Power Resources and Intermittent Settlement Only Resources, the Capacity Supply Obligation for months in the winter period (as described in Section III.13.1.5) shall be adjusted based on its winter Qualified Capacity as determined pursuant to Section III.13.1.1.2.2.6 and Section III.13.1.2.2.2.

III.13.2.7.7. Tie-Breaking Rules.

Where the provisions in this Section III.13.2 for clearing the Forward Capacity Auction (system-wide or in a single Capacity Zone) result in a tie – that is, where two or more resources offer sufficient capacity at prices that would clear the auction at the same minimum ~~total~~ costs – the auctioneer shall apply the following rules (in sequence, as necessary) to determine clearing:

- (a) The auctioneer shall clear the resources in such a manner as to maximize the total amount of capacity procured.
- (b) If multiple projects may be rationed, they will be rationed proportionately.
- (c) Where clearing either the offer associated with a resource with a higher queue priority at a Conditional Qualified New Generating Capacity Resource's location or the offer associated with the Conditional Qualified New Generating Capacity Resource would result in equal ~~total~~ costs, the offer associated with the resource with the higher queue priority shall clear.

(d) The offer associated with the Project Sponsor having the lower market share in the capacity auction (including Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources) shall be cleared.

III.13.2.7.8. [Reserved.]

III.13.2.7.9 Capacity Carry Forward Rule.

III.13.2.7.9.1. Trigger.

The capacity carry forward rule shall be triggered in an import-constrained Capacity Zone if all of the following conditions are met:

- (a) the sum of the amount of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction in the Capacity Zone is less than or equal to zero;
- (b) there is not Inadequate Supply in the Forward Capacity Auction in the Capacity Zone; and
- (c) at the Capacity Clearing Price, the sum of the amount of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction plus the amount of capacity carried forward due to rationing is greater than zero. The amount of capacity carried forward due to rationing shall equal the amount of capacity above the Local Sourcing Requirement procured in that Capacity Zone in the previous Forward Capacity Auction as a result of the Capacity Rationing Rule.

III.13.2.7.9.2. Pricing.

If the capacity carry forward rule is triggered, then the Capacity Clearing Price for the Capacity Zone shall be the lesser of: (1) \$0.01 below the price at which the last New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource in the Capacity Zone to withdraw withdrew from the Forward Capacity Auction; or (2) the Offer Review Trigger Price for a combustion turbine, as set forth in Section III.A.21.1.1; provided, however, that if in the Capacity Zone there is Insufficient Competition and no capacity offered from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources has been withdrawn from the Forward Capacity Auction, then

the Capacity Clearing Price shall equal the Offer Review Trigger Price for a combustion turbine, as set forth in Section III.A.21.1.1.

III.13.2.8. Inadequate Supply and Insufficient Competition.

In the case of either Inadequate Supply or Insufficient Competition, as defined in this Section III.13.2.8, the Forward Capacity Auction shall still be used to the extent possible; that is, the remedy for Inadequate Supply or Insufficient Competition shall be limited to the Capacity Zones having Inadequate Supply or Insufficient Competition.

III.13.2.8.1. Inadequate Supply.

III.13.2.8.1.1. Inadequate Supply in an Import-Constrained Capacity Zone.

An import-constrained Capacity Zone will be considered to have Inadequate Supply if at the Forward Capacity Auction Starting Price the amount of capacity offered in the import-constrained Capacity Zone through New Capacity Offers is less than the amount of New Capacity Required in that Capacity Zone. In an import-constrained Capacity Zone, “New Capacity Required” shall mean the Capacity Zone’s Local Sourcing Requirement, minus the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus capacity otherwise obligated in the Capacity Zone for the Capacity Commitment Period; in the Rest-of-Pool Capacity Zone, “New Capacity Required” shall mean the Installed Capacity Requirement (net of HQICCs), minus the Local Sourcing Requirement of each modeled import-constrained Capacity Zone, minus, for each modeled export-constrained Capacity Zone, the lesser of the Capacity Zone’s Maximum Capacity Limit or the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Rest-of-Pool Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus capacity otherwise obligated in the Rest-of-Pool Capacity Zone for the Capacity Commitment Period.

(a) Where an import-constrained Capacity Zone has Inadequate Supply, Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources (other than those still subject to a multi-year Capacity Commitment Period election as described in Sections III.13.1.1.2.2.4 and III.13.1.4.2.2.5) in that Capacity Zone, other than such resources, or portions thereof,

that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, shall be paid 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply during the associated Capacity Commitment Period, and New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources in the Forward Capacity Auction in that Capacity Zone shall be paid the Forward Capacity Auction Starting Price during the associated Capacity Commitment Period (and subsequent Capacity Commitment Periods, as elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5).

(b) In an import-constrained Capacity Zone having Inadequate Supply, the difference between the amount of capacity offered in the Capacity Zone through New Capacity Offers and the amount of New Capacity Required in that Capacity Zone shall be included in subsequent annual reconfiguration auctions.

(c) Inadequate Supply in one or more import-constrained Capacity Zones shall not affect Capacity Zones having adequate supply.

(d) Any availability penalty assessed during the associated Capacity Commitment Period pursuant to Section III.13.7.2.7.1.2 on a resource in an import-constrained Capacity Zone having Inadequate Supply will be assessed at a rate equal to 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply.

III.13.2.8.1.2. System-Wide Inadequate Supply.

The New England Control Area will be considered to have system-wide Inadequate Supply if at the Forward Capacity Auction Starting Prices, the total amount of capacity offered in the Forward Capacity Auction is less than the Installed Capacity Requirement (net of HQICCs).

(a) In the case of system-wide Inadequate Supply, Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources other than such resources, or portions thereof, that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, shall be paid 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply during the associated Capacity Commitment Period, and New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources in the Forward Capacity Auction shall be paid the Forward Capacity Auction Starting Price during the associated Capacity Commitment Period (and subsequent Capacity Commitment Periods, as elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5).

(b) In the case of system-wide Inadequate Supply, the difference between the total amount of capacity offered in the Forward Capacity Auction and the Installed Capacity Requirement (net of HQICCs) shall be included in subsequent annual reconfiguration auctions.

(c) System-wide Inadequate Supply will not affect the Forward Capacity Auction in Capacity Zones having adequate supply, except that in those Capacity Zones having adequate supply, New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources shall be paid the Capacity Clearing Price, and Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources other than such resources, or portions thereof, that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, will be paid the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply.

(d) If there is system-wide Inadequate Supply, but the amount of capacity offered in an export-constrained Capacity Zone, including imports as appropriate, is greater than the Maximum Capacity Limit in that export-constrained Capacity Zone, the Forward Capacity Auction in the export-constrained Capacity Zone shall be unaffected, and in that case the price paid to Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Rest-of-Pool Capacity Zone shall be the higher of: (1) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply; or (2) the price in the export-constrained Capacity Zone.

III.13.2.8.2. Insufficient Competition.

The Forward Capacity Auction shall be considered to have Insufficient Competition system-wide or in any import-constrained Capacity Zone if the following two conditions are both satisfied:

(a) at the Forward Capacity Auction Starting Price, the amount of capacity offered from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources is less than the Installed Capacity Requirement (net of HQICCs) or the Local Sourcing Requirement, as applicable; and

(b) at the Forward Capacity Auction Starting Price:

- (i) less than 300 MW of capacity is offered from New Generating Capacity Resources and New Demand Resources (the ISO shall revisit the appropriateness of the 300 MW threshold in the case of an import-constrained Capacity Zone having a Local Sourcing Requirement of less than 5000 MW);
- (ii) the amount of capacity offered from New Generating Capacity Resources and New Demand Resources is more than the amount of New Capacity Required but less than twice the amount of New Capacity Required; or
- (iii) any Market Participant's total capacity from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources is pivotal. A Market Participant shall be considered pivotal if, at the Forward Capacity Auction Starting Price, some capacity from that Market Participant's potential New Generating Capacity Resources, New Import Capacity Resources, or New Demand Resources is required to satisfy the Installed Capacity Requirement (net of HQICCs) or the Local Sourcing Requirement, as applicable.

If the Forward Capacity Auction has Insufficient Competition, New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources shall be paid the Capacity Clearing Price during the associated Capacity Commitment Period, and Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources (other than those still subject to a multi-year Capacity Commitment Period election as described in Sections III.13.1.1.2.2.4 and III.13.1.4.2.2.5) shall be paid the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Insufficient Competition during the associated Capacity Commitment Period. Any availability penalty assessed during the associated Capacity Commitment Period pursuant to Section III.13.7.2.7.1.2 on a resource in an import-constrained Capacity Zone having Insufficient Competition will be assessed at a rate equal to the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Insufficient Competition.

III.13.2.9. [Reserved.]

III.13.2. Annual Forward Capacity Auction.

III.13.2.1. Timing of Annual Forward Capacity Auctions.

Except with respect to the first six Forward Capacity Auctions (as described in Section III.13.1.10), each Forward Capacity Auction will be conducted beginning on the first Monday in the February that is approximately three years and four months before the beginning of the associated Capacity Commitment Period (unless, no later than the immediately preceding December 1, an alternative date is announced by the ISO), or, where exigent circumstances prevent the start of the Forward Capacity Auction at that time, as soon as possible thereafter.

III.13.2.2. Amount of Capacity Purchased in Each Forward Capacity Auction.

Each Forward Capacity Auction shall procure one hundred percent of the Installed Capacity Requirement (net of HQICCs) approved by the Commission for the associated Capacity Commitment Period, except as a result of the Capacity Rationing Rule, as described in Sections III.13.2.6 and III.13.2.7.4. The sum of the Hydro-Quebec Interconnection Capability Credits and import capacity purchased over the Phase I/II HVDC-TF interconnection shall not exceed the capacity transfer limit of those facilities, as determined by the ISO.

III.13.2.3. Conduct of the Forward Capacity Auction.

The Forward Capacity Auction shall be a descending clock auction, which will determine, subject to the provisions of Section III.13.2.7, the Capacity Clearing Price for each Capacity Zone modeled in that Forward Capacity Auction pursuant to Section III.12.4, and the Capacity Clearing Price for certain offers from New Import Capacity Resources and Existing Import Capacity Resources pursuant to Section III.13.2.3.3(d). The Forward Capacity Auction shall determine the outcome of all offers and bids accepted during the qualification process and submitted during the auction. Each Forward Capacity Auction shall be conducted as a series of rounds, which shall continue (for up to five consecutive Business Days, with up to eight rounds per day, absent extraordinary circumstances) until the Forward Capacity Auction is concluded for all modeled Capacity Zones in accordance with the provisions of Section III.13.2.3.3. Each round of the Forward Capacity Auction shall consist of the following steps, which shall be completed simultaneously for each Capacity Zone included in the round:

III.13.2.3.1. Step 1: Announcement of Start-of-Round Price and End-of-Round Price.

For each round, the auctioneer shall announce a single Start-of-Round Price (the highest price associated with a round of the Forward Capacity Auction) and a single (lower) End-of-Round Price (the lowest price

associated with a round of the Forward Capacity Auction). In the first round, the Start-of-Round Price shall equal the Forward Capacity Auction Starting Price for all modeled Capacity Zones. In each round after the first round, the Start-of-Round Price shall equal the End-of-Round Price from the previous round.

III.13.2.3.2. Step 2: Compilation of Offers and Bids.

The auctioneer shall compile all of the offers and bids for that round, as follows:

(a) Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources.

(i) The Project Sponsor for any New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource accepted in the qualification process for participation in the Forward Capacity Auction may submit an offer (a “New Capacity Offer”) indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource (in the associated modeled Capacity Zone during the qualification process) during the Capacity Commitment Period at that round’s prices. A New Capacity Offer shall be defined by the submission of one to five prices, each strictly less than the Start-of-Round Price but greater than or equal to the End-of-Round Price, and an associated quantity in the associated modeled Capacity Zone. Each price shall be expressed in units of dollars per kilowatt-month to an accuracy of at most three digits to the right of the decimal point, and each quantity shall be expressed in units of MWs to an accuracy of at most three digits to the right of the decimal point. Such a New Capacity Offer shall imply a supply curve indicating quantities offered at all of that round’s prices, pursuant to the convention of Section III.13.2.3.2(a)(iii).

(ii) If the Project Sponsor of a New Generating Capacity Resource, a New Import Capacity Resource, or New Demand Resource elects to offer in a Forward Capacity Auction, the Project Sponsor must offer the resource’s full FCA Qualified Capacity at the Forward Capacity Auction Starting Price in the first round of the auction. A New Capacity Offer for a resource may in no event be for greater capacity than the resource’s full FCA Qualified Capacity at any price. A New Capacity Offer for a resource may not be for less capacity than the resource’s Economic Minimum Limit at any price, except where the New Capacity Offer is for a capacity quantity of zero.

(iii) Let the Start-of-Round Price and End-of-Round Price for a given round be P_S and P_E , respectively. Let the m prices ($1 \leq m \leq 5$) submitted by a Project Sponsor for a modeled Capacity Zone be p_1, p_2, \dots, p_m , where $P_S > p_1 > p_2 > \dots > p_m \geq P_E$, and let the associated quantities submitted for a New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource be q_1, q_2, \dots, q_m . Then the Project Sponsor's supply curve, for all prices strictly less than P_S but greater than or equal to P_E , shall be taken to be:

$$S(p) = \begin{cases} q_0, & \text{if } p > p_1, \\ q_1, & \text{if } p_2 < p \leq p_1, \\ q_2, & \text{if } p_3 < p \leq p_2, \\ \dots & \dots, \\ q_m, & \text{if } p \leq p_m. \end{cases}$$

where, in the first round, q_0 is the resource's full FCA Qualified Capacity and, in subsequent rounds, q_0 is the resource's quantity offered at the lowest price of the previous round.

(iv) [Reserved.]

(v) A New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource may not include any capacity in a New Capacity Offer during the Forward Capacity Auction at any price below the resource's New Resource Offer Floor Price. The amount of capacity included in each New Capacity Offer at each price shall be included in the aggregate supply curves at that price as described in Section III.13.2.3.3.

(b) **Bids from Existing Capacity Resources Accepted in Qualification.** Static De-List Bids, Permanent De-List Bids, and Export Bids from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources submitted and accepted in the qualification process (or as directed by the Commission) shall be automatically bid into the appropriate round(s) of the Forward Capacity Auction, such that each such resource's summer Qualified Capacity will be included in the aggregate supply curves as described in Section III.13.2.3.3. until any Static De-List Bid, Permanent De-List Bid, or Export Bid clears in the Forward Capacity Auction, as described in Section III.13.2.5.2, and is removed from the aggregate supply curves. Administrative Export De-List Bids shall be automatically entered into the first round of the Forward Capacity Auction at the Forward Capacity Auction Starting Price. If the amount of capacity associated with Export Bids for an interface exceeds the transfer limit of

that interface (minus any accepted Administrative De-List Bids over that interface), then the set of Export Bids associated with that interface equal to the interface's transfer limit (minus any accepted Administrative De-List Bids over that interface) having the highest bid prices shall be included in the auction as described above; capacity for which Export Bids are not included in the auction as a result of this provision shall be entered into the auction pursuant to Section III.13.2.3.2(c).

(c) **Existing Capacity Resources Not Having Accepted De-List or Export Bids and Self-Supplied FCA Resources.** Each Existing Generating Capacity Resource, Existing Import Capacity Resource, and Existing Demand Resource that did not submit a Static De-List Bid, a Permanent De-List Bid, an Export Bid, or an Administrative Export De-List Bid in its Existing Capacity Qualification Package, or an Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource that did not have any such bid accepted in the qualification process, and each existing Self-Supplied FCA Resource shall be automatically entered into each round of the Forward Capacity Auction at its FCA Qualified Capacity, such that the resource's FCA Qualified Capacity will be included in the aggregate supply curves as described in Section III.13.2.3.3, except where such resource, if permitted, submits an appropriate Dynamic De-List Bid, as described in Section III.13.2.3.2(d). Each new Self-Supplied FCA Resource shall be automatically entered into each round of the Forward Capacity Auction at its designated self-supplied quantity at prices at or above the resource's New Resource Offer Floor Price, such that the resource's designated self-supply quantity will be included in the aggregate supply curves as described in Section III.13.2.3.3.

(d) **Dynamic De-List Bids.** In any round of the Forward Capacity Auction in which prices are below \$1.00/kW-month, any Existing Generating Capacity Resource, Existing Import Capacity Resource, or Existing Demand Resource (but not any Self-Supplied FCA Resources) may submit a Dynamic De-List Bid at prices below \$1.00/kW-month. Such a bid shall be defined by the submission of one to five prices, each less than \$1.00/kW-month (or the Start-of-Round Price, if lower than \$1.00/kW-month) but greater than or equal to the End-of-Round Price, and a single quantity associated with each price. Such a bid shall be expressed in the same form as specified in Section III.13.2.3.2(a)(i) and shall imply a curve indicating quantities at all of that round's relevant prices, pursuant to the convention of Section III.13.2.3.2(a)(iii). The curve may in no case increase the quantity offered as the price decreases. A dynamic De-List Bid may not offer less capacity than the resource's Economic Minimum Limit at any price, except where the amount of capacity offered is zero. All Dynamic De-List Bids are subject to a reliability review as described in Section III.13.2.5.2.5, and if not rejected for reliability reasons, shall be included in the round in the same manner as Static De-List Bids as described in Section III.13.2.3.2(b).

Where a resource elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5 to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply after the Capacity Commitment Period associated with the Forward Capacity Auction in which the offer clears, the capacity associated with any resulting Capacity Supply Obligation may not be subject to a Dynamic De-List Bid in subsequent Forward Capacity Auctions for Capacity Commitment Periods for which the Project Sponsor elected to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply. Where a Lead Market Participant submits any combination of Dynamic De-List Bid, Static De-List Bid, Export Bid, and Administrative Export De-List Bid for a single resource, none of the prices in a set of price-quantity pairs associated with a bid may be the same as any price in any other set of price-quantity pairs associated with another bid for the same resource.

(e) **Repowering.** Offers and bids associated with a resource participating in the Forward Capacity Auction as a New Generating Capacity Resource pursuant to Section III.13.1.1.1.2 (resources previously counted as capacity resources) shall be addressed in the Forward Capacity Auction in accordance with the provisions of this Section III.13.2.3.2(e). The Project Sponsor shall offer such a New Generating Capacity Resource into the Forward Capacity Auction in the same manner and pursuant to the same rules as other New Generating Capacity Resources, as described in Section III.13.2.3.2(a). As long as any capacity is offered from the New Generating Capacity Resource, the amount of capacity offered is the amount that the auctioneer shall include in the aggregate supply curve at the relevant prices, and the quantity of capacity offered from the associated Existing Generating Capacity Resource shall not be included in the aggregate supply curve. If any portion of the New Generating Capacity Resource clears in the Forward Capacity Auction, the associated Existing Generating Capacity Resource shall be permanently de-listed as of the start of the associated Capacity Commitment Period. If at any price, no capacity is offered from the New Generating Capacity Resource, then the auctioneer shall include capacity from the associated Existing Generating Capacity Resource at that price, subject to any bids submitted and accepted in the qualification process for that Existing Generating Capacity Resource pursuant to Section III.13.1.2.5. Bids submitted and accepted in the qualification process for an Existing Generating Capacity Resource pursuant to Section III.13.1.2.5 shall only be entered into the Forward Capacity Auction after the associated New Generating Capacity Resource is fully withdrawn (that is, the Forward Capacity Auction reaches a price at which the resource's New Capacity Offer is zero capacity), and shall only then be subject to the reliability review described in Section III.13.2.5.2.5.

(f) **Conditional Qualified New Generating Capacity Resources.** Offers associated with a resource participating in the Forward Capacity Auction as a Conditional Qualified New Generating Capacity

Resource pursuant to Section III.13.1.1.2.3(f) shall be addressed in the Forward Capacity Auction in accordance with the provisions of this Section III.13.2.3.2(f). The Project Sponsor shall offer such a Conditional Qualified New Generating Capacity Resource into the Forward Capacity Auction in the same manner and pursuant to the same rules as other New Generating Capacity Resources, as described in Section III.13.2.3.2(a). An offer from at most one resource at a Conditional Qualified New Generating Capacity Resource's location will be permitted to clear (receive a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction. As long as a positive quantity is offered at the End-of-Round Price in the final round of the Forward Capacity Auction by the resource having a higher queue priority at the Conditional Qualified New Generating Capacity Resource's location, as described in Section III.13.1.1.2.3(f), then no capacity from the Conditional Qualified New Generating Capacity Resource shall clear. If at any price greater than or equal to the End-of-Round Price in the final round of the Forward Capacity Auction, zero quantity is offered from the resource having higher queue priority at the Conditional Qualified New Generating Capacity resource's location, as described in Section III.13.1.1.2.3(f), then the auctioneer shall consider capacity offered from the Conditional Qualified New Generating Capacity Resource in the determination of clearing, including the application of Section III.13.2.7.

(g) **Mechanics.** Offers and bids that may be submitted during a round of the Forward Capacity Auction must be received between the starting time and ending time of the round, as announced by the auctioneer in advance. The ISO at its sole discretion may authorize a participant in the auction to complete or correct its submission after the ending time of a round, but only if the participant can demonstrate to the ISO's satisfaction that the participant was making reasonable efforts to complete a valid offer submission before the ending time of the round, and only if the ISO determines that allowing the completion or correction will not unreasonably disrupt the auction process. All decisions by the ISO concerning whether or not a participant may complete or correct a submission after the ending time of a round are final.

III.13.2.3.3. Step 3: Determination of the Outcome of Each Round.

The auctioneer shall use the offers and bids for the round as described in Section III.13.2.3.2 to determine the aggregate supply curves for the New England Control Area and for each modeled Capacity Zone included in the round. The aggregate supply curve for the New England Control Area (the "Total System Capacity") shall reflect at each price the sum of (the amount of capacity offered in all Capacity Zones modeled as import-constrained Capacity Zones at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources)) plus (the amount of capacity offered in the

Rest-of-Pool Capacity Zone at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources)) plus (for each Capacity Zone modeled as an export-constrained Capacity Zone, the lesser of the amount of capacity offered in the Capacity Zone at that price (excluding capacity offered from New Import Capacity Resources and Existing Import Capacity Resources) or the Capacity Zone's Maximum Capacity Limit) plus (for each interface between the New England Control Area and an external Control Area, the lesser of that interface's approved capacity transfer limit (net of tie benefits) or the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources). In computing the Total System Capacity, capacity associated with any New Capacity Offer at any price greater than the Forward Capacity Auction Starting Price will not be included in the tally of total capacity at the Forward Capacity Auction Starting Price for that Capacity Zone. In no event shall the Capacity Clearing Price for a Capacity Zone be greater than the Forward Capacity Auction Starting Price for that Capacity Zone. On the basis of these aggregate supply curves, the auctioneer shall determine the outcome of the round for each modeled Capacity Zone as follows:

(a) **Import-Constrained Capacity Zones.**

For a Capacity Zone modeled as an import-constrained Capacity Zone, if either of the following two conditions is met during the round:

- (1) the aggregate supply curve for the import-constrained Capacity Zone, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Capacity Zone's Local Sourcing Requirement; or
- (2) the Total System Capacity, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs);

then the Forward Capacity Auction for that Capacity Zone is concluded and such Capacity Zone will not be included in further rounds of the Forward Capacity Auction. The Capacity Clearing Price for that Capacity Zone shall be set at the highest price at which either of the two conditions above are satisfied, subject to the other provisions of this Section III.13.2. If neither of the two conditions above are met in the round, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-

Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement (net of HQICCs)) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and that Capacity Zone will be included in the next round of the Forward Capacity Auction.

(b) **Rest-of-Pool Capacity Zone.** For the Rest-of-Pool Capacity Zone, if the Total System Capacity adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs), then the Forward Capacity Auction for the Rest-of-Pool Capacity Zone is concluded and the Rest-of-Pool Capacity Zone will not be included in further rounds of the Forward Capacity Auction. The Capacity Clearing Price for the Rest-of-Pool Capacity Zone shall be set at the highest price at which the Total System Capacity is less than or equal to the Installed Capacity Requirement (net of HQICCs), subject to the other provisions of this Section III.13.2. If the Total System Capacity exceeds the Installed Capacity Requirement (net of HQICCs) at the End-of-Round Price, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement (net of HQICCs)) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and the Rest-of-Pool Capacity Zone will be included in the next round of the Forward Capacity Auction.

(c) **Export-Constrained Capacity Zones.** For a Capacity Zone modeled as an export-constrained Capacity Zone, if both of the following two conditions are met during the round:

(i) the aggregate supply curve for the export-constrained Capacity Zone, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), is equal to or below the Capacity Zone's Maximum Capacity Limit; and

(ii) the Total System Capacity, adjusted as necessary in accordance with Section III.13.2.6 (Capacity Rationing Rule), equals or is less than the Installed Capacity Requirement (net of HQICCs);

then the Forward Capacity Auction for that Capacity Zone is concluded and such Capacity Zone will not be included in further rounds of the Forward Capacity Auction. The Capacity Clearing Price for that Capacity Zone shall be set at the highest price at which both of the conditions above

are satisfied, subject to the other provisions of this Section III.13.2. If it is not the case that both of the two conditions above are satisfied in the round, then the auctioneer shall publish the quantity of system-wide excess supply at the End-of-Round Price (the amount of capacity offered at the End-of-Round Price in all modeled Capacity Zones minus the Installed Capacity Requirement) and the quantity of excess supply in the export-constrained Capacity Zone (the amount of capacity offered at the End-of-Round Price in the export-constrained Capacity Zone minus the Maximum Capacity Limit of the export-constrained Capacity Zone) and the quantity of capacity from Demand Resources by type at the End-of-Round Price, and that Capacity Zone will be included in the next round of the Forward Capacity Auction.

(d) **Treatment of Import Capacity.** Where the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between the New England Control Area and an external Control Area is less than or equal to that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the capacity offers from those resources shall be treated as capacity offers in the modeled Capacity Zone associated with that interface. Where the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between the New England Control Area and an external Control Area is greater than that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the following provisions shall apply (separately for each such interface):

(i) For purposes of determining which capacity offers from the New Import Capacity Resources and Existing Import Capacity Resources over the interface shall clear and at what price, the offers over the interface shall be treated in the descending-clock auction as if they comprised a separately-modeled export-constrained capacity zone, with an aggregate supply curve consisting of the offers from the New Import Capacity Resources and Existing Import Capacity Resources over the interface.

(ii) The amount of capacity offered over the interface that will be included in the aggregate supply curve of the modeled Capacity Zone associated with the interface shall be the lesser of the following two quantities: the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over the interface; and the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF).

(iii) The Forward Capacity Auction for New Import Capacity Resources and Existing Import Capacity Resources over the interface is concluded when the following two conditions are both satisfied: the amount of capacity offered from New Import Capacity Resource and Existing Import Capacity Resources over the interface is less than or equal to the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF); and the Forward Capacity Auction is concluded in the modeled Capacity Zone associated with the interface.

(e) **Treatment of Export Capacity.** Any Export Bid or any Administrative Export De-List Bid that is used to export capacity through an export interface connected to an import-constrained Capacity Zone from another Capacity Zone, or through an export interface connected to the Rest-of-Pool Capacity Zone from an export-constrained Capacity Zone in the Forward Capacity Auction will be modeled in the Capacity Zone where the export interface that is identified in the Existing Capacity Qualification Package is located. The Export Bid or Administrative Export De-List Bid clears against the Capacity Clearing Price in the Capacity Zone where the Export Bid or Administrative Export De-List Bid is modeled.

(i) Then the MW quantity equal to the relevant Export Bid or Administrative Export De-List Bid from the resource associated with the Export Bid or Administrative Export De-List Bid will be de-listed in the Capacity Zone where the resource is located. If the export interface is connected to an import-constrained Capacity Zone, the MW quantity procured will be in addition to the Local Sourcing Requirement of the import-constrained Capacity Zone.

(ii) If the Export Bid or Administrative Export De-List Bid does not clear, then the resource associated with the Export Bid or Administrative Export De-List Bid will not be de-listed in the Capacity Zone where the resource is located.

(f) **Treatment of Real-Time Emergency Generation Resources.** In determining when the Forward Capacity Auction is concluded, no more than 600 MW of capacity from Real-Time Emergency Generation Resources shall be counted towards meeting the Installed Capacity Requirement (net of HQICCs). If the sum of the Capacity Supply Obligations of Real-Time Emergency Generation Resources exceeds 600 MW, the Capacity Clearing Price, or in the case of Inadequate Supply or Insufficient Competition, the payment as described in Section III.13.2.8, (as adjusted pursuant to Section III.13.2.7.3(b)) paid to all Real-Time Emergency Generation Resources shall be adjusted by the ratio of 600 MW divided by the total of the final Capacity Supply Obligations of Real-Time Emergency

Generation Resources. The acceptance of a Real-Time Emergency Generation Resource Static De-list Bid, Dynamic De-list Bid, or Permanent De-list Bid shall be based on the effective Capacity Clearing Price as described in Section III.13.2.7.

III.13.2.3.4. Determination of Final Capacity Zones.

(a) For all Forward Capacity Auctions up to and including the sixth Forward Capacity Auction (for the Capacity Commitment Period beginning June 1, 2015), after the Forward Capacity Auction is concluded for all modeled Capacity Zones, the final set of distinct Capacity Zones that will be used for all purposes associated with the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals, shall be those having distinct Capacity Clearing Prices as a result of constraints between modeled Capacity Zones binding in the running of the Forward Capacity Auction. Where a modeled constraint does not bind in the Forward Capacity Auction, and as a result adjacent modeled Capacity Zones clear at the same Capacity Clearing Price, those modeled Capacity Zones shall be a single Capacity Zone used for all purposes of the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals.

(b) For all Forward Capacity Auctions beginning with the seventh Forward Capacity Auction (for the Capacity Commitment Period beginning June 1, 2016) the final set of distinct Capacity Zones that will be used for all purposes associated with the relevant Capacity Commitment Period, including for the purposes of reconfiguration auctions and Capacity Supply Obligation Bilaterals, shall be those described in Section III.12.4.

III.13.2.4. Forward Capacity Auction Starting Price.

The Forward Capacity Auction Starting Price for each Capacity Zone in the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, 2016 shall be \$15/kW-month. Thereafter, the Forward Capacity Auction Starting Price will be adjusted after each Forward Capacity Auction using a rolling three-year average of the Handy-Whitman Index of Public Utility Construction Costs. References in this Section III.13 to the Forward Capacity Auction Starting Price shall mean the Forward Capacity Auction Starting Price for the Forward Capacity Auction associated with the relevant Capacity Commitment Period.

III.13.2.5. Treatment of Specific Offer and Bid Types in the Forward Capacity Auction.

III.13.2.5.1. Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources.

A New Capacity Offer (other than one from a Conditional Qualified New Generating Capacity Resource) clears (receives a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction if the Capacity Clearing Price is greater than or equal to the price specified in the offer, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6. An offer from a Conditional Qualified New Generating Capacity Resource clears (receives a Capacity Supply Obligation for the associated Capacity Commitment Period) in the Forward Capacity Auction, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6, if all of the following conditions are met: (i) the Capacity Clearing Price is greater than or equal to the price specified in the offer; (ii) capacity from that resource is considered in the determination of clearing as described in Section III.13.2.3.2(f); and (iii) such offer minimizes the costs for the associated Capacity Commitment Period, subject to Section III.13.2.7.7(c).

The amount of capacity that receives a Capacity Supply Obligation through the Forward Capacity Auction shall not exceed the quantity of capacity offered from the New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource at the Capacity Clearing Price.

III.13.2.5.2. Bids and Offers from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources.

III.13.2.5.2.1. Permanent De-List Bids.

Except as provided in Section III.13.2.5.2.5 and Section III.13.2.5.2.7, a Permanent De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6.

III.13.2.5.2.2. Static De-List Bids and Export Bids.

Except as provided in Section III.13.2.5.2.5 and Section III.13.2.5.2.7, a Static De-List Bid or an Export Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price

specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6.

III.13.2.5.2.3. Dynamic De-List Bids.

A Dynamic De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) if the Capacity Clearing Price is less than or equal to the price specified in the bid, except possibly as a result of the Capacity Rationing Rule described in Section III.13.2.6. If more Dynamic De-List Bids are submitted at a price than are needed to clear the market, such Dynamic De-List Bids shall be cleared pro-rata, but in no case less than a resource's Economic Minimum Limit.

III.13.2.5.2.4. Administrative Export De-List Bids.

An Administrative Export De-List Bid clears in the Forward Capacity Auction (does not receive a Capacity Supply Obligation for the associated Capacity Commitment Period) regardless of the Capacity Clearing Price and regardless of whether there is Inadequate Supply or Insufficient Competition in the Capacity Zone.

III.13.2.5.2.5. Bids Rejected for Reliability Reasons.

The ISO shall review each Non-Price Retirement Request, Permanent De-List Bid, Static De-List Bid, Export Bid, Administrative Export De-List Bid, and Dynamic De-List Bid entered into the Forward Capacity Auction to determine whether the capacity associated with that Non-Price Retirement Request or de-list bid is needed for reliability reasons during the Capacity Commitment Period associated with the Forward Capacity Auction. The capacity shall be deemed needed for reliability reasons if the absence of the capacity would result in the violation of any NERC or NPCC (or their successors) criteria, or ISO New England System Rules. Non-Price Retirement Requests and de-list bids shall not be rejected pursuant to this Section III.13.2.5.2.5 solely on the basis that acceptance of the Non-Price Retirement Request or de-list bid may result in the procurement of less capacity than the Installed Capacity Requirement (net of HQICCs) or Local Sourcing Requirement for Load Zones or aggregations of Load Zones considered for modeling in a Forward Capacity Auction. Where a Non-Price Retirement Request would otherwise be accepted, or a Permanent De-List Bid, Static De-List Bid, Export Bid, Administrative Export De-List Bid, or Dynamic De-List Bid would otherwise clear in the Forward Capacity Auction, but the ISO has determined that some or all of the capacity associated with the Non-Price Retirement Request or de-list bid is needed for reliability reasons, then the de-list bid having capacity needed for reliability

will not clear in the Forward Capacity Auction and the Non-Price Retirement Request will not be approved as described in Section III.13.1.2.3.1.5.3, and the following provisions will apply:

(a) The Lead Market Participant shall be notified that its de-list bid did not clear for reliability reasons at the later of: (i) immediately after the end of the Forward Capacity Auction round in which the auction price reaches the price of the de-list bid; or (ii) as soon as practicable after the time at which the ISO has determined that the de-list bid must be rejected for reliability reasons. In no event, however, shall a Lead Market Participant be notified that a bid submitted pursuant to Section III.13.1.2.5 and accepted in the qualification process for an Existing Generating Capacity Resource did not clear for reliability reasons if the associated New Generating Capacity Resource remains in the Forward Capacity Auction. In such a case, the Lead Market Participant shall be notified that its bid did not clear for reliability reasons at the later of: (i) immediately after the end of the Forward Capacity Auction round in which the auction price reaches the price of the bid; (ii) immediately after the end of the Forward Capacity Auction round in which the associated New Generating Capacity Resource is fully withdrawn (that is, the Forward Capacity Auction reaches a price at which the resource's New Capacity Offer is zero capacity); or (iii) as soon as practicable after the time at which the ISO has determined that the bid must be rejected for reliability reasons.

(i) In the case of Non-Price Retirement Request, the Lead Market Participant will be notified whether or not the request has been rejected for reliability reasons within 90 days of the submission of the request.

(b) A resource that has a de-list bid rejected pursuant to this Section III.13.2.5.2.5 shall be compensated pursuant to the terms set out in Section III.13.2.5.2.5.1. An Existing Generating Capacity Resource or Existing Demand Resource that has a Non-Price Retirement Request rejected pursuant to this Section III.13.2.5.2.5 shall have the option to retire pursuant to Section III.2.5.2.5.3(a)(iii) or to continue operation and be compensated pursuant to Section III.13.2.5.2.5.1. A resource receiving payment under this Section III.13.2.5.2.5 and Section III.13.2.5.2.5.1 shall have the obligations of resources with Capacity Supply Obligations as described in Section III.13.6.1. Such resources shall be counted towards the Installed Capacity Requirement (net of HQICCs) for the Capacity Commitment Period.

(c) The ISO shall review the results of each annual reconfiguration auction and determine whether the reliability need which prevented the de-listing of the resource has been met through the annual

reconfiguration auction. The ISO may also attempt to address the reliability concern through other reasonable means (including transmission enhancements).

(d) If the reliability need that prevented the de-listing of the resource is met through a reconfiguration auction or other means, the resource shall be de-listed, be relieved of its Capacity Supply Obligation and no longer be eligible to receive the compensation specified in Section III.13.2.5.2.5(b). The ISO shall enter bids at the Forward Capacity Auction Starting Price to replace the capacity on behalf of load in subsequent annual reconfiguration auctions associated with the Capacity Commitment Period (and subsequent Capacity Commitment Periods, in the case of a Permanent De-List Bid).

(e) If a Permanent De-List Bid that would otherwise clear in a Forward Capacity Auction or a Non-Price Retirement Request is rejected for reliability reasons, that resource, or portion thereof, as applicable, is no longer eligible to participate as an Existing Generating Capacity Resource in any reconfiguration auction, Forward Capacity Auction or Capacity Supply Obligation Bilateral for that and subsequent Capacity Commitment Periods. If the resource, or portion thereof, continues to be needed for reliability reasons, it shall be counted as capacity in the Forward Capacity Auction and shall be compensated as described in Section III.13.2.5.2.5.1 until such time as it is no longer needed for reliability reasons.

(f) [Reserved.]

(g) The ISO shall review with the Reliability Committee (i) the status of any prior rejected delist bids reported to the Commission in an FCA results filing pursuant to Section 13.8.2, and (ii) the status of any Non-Price Retirement Request that has been rejected for reliability reasons and has elected to continue to operate, prior to the New Capacity Qualification Deadline in accordance with Section 4.1(c) of Attachment K of the ISO OATT.

In instances where an identified reliability need results in the rejection of a Non-Price Retirement Request, or the rejection of a Permanent De-List Bid, Export Bid, Administrative Export De-List Bid, Static De-List Bid, or Dynamic De-List Bid while executing an FCA, the ISO shall (i) review each specific reliability need with the Reliability Committee in accordance with the timing provided for in the ISO New England Operating Documents and, (ii) update the current system Needs Assessments pursuant to Section 4.1(c) of Attachment K of the ISO OATT. For de-list bids, this review and update will follow ISO's filing of the FCA results with the Commission pursuant to Section 13.8.2. System needs associated with Non-Price Retirement Requests that are rejected for reliability reasons will be reviewed with the

Reliability Committee prior to the notification of the Lead Market Participant that has submitted the Non-Price Retirement Request consistent with Section 13.2.5.2.5(a)(i).

III.13.2.5.2.5.1. Compensation for Bids Rejected for Reliability Reasons.

(a)(i) In cases where a Static De-List Bid, Export Bid, Administrative Export De-List Bid, Dynamic De-List Bid, or partial Permanent De-List Bid would otherwise clear in the Forward Capacity Auction but the de-list bid has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource qualifies for payment under Section III.13.2.5.2.5.1(a)(ii), the resource will be paid by the ISO in the same manner as all other capacity resources, except that payment shall be made on the basis of its de-list bid as accepted for the Forward Capacity Auction for the relevant Capacity Commitment Period instead of the Forward Capacity Market Clearing Price. Under this Section, accepted Dynamic De-list Bids filed with the Commission as part of the FCA results filing are subject to review and approval by the Commission pursuant to the “just and reasonable” standard of Section 205 of the Federal Power Act.

(a)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(a)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the de-list bid was rejected. Once qualified under this Section III.13.2.5.2.5.1(a)(ii), the resource will have a Capacity Supply Obligation for the 12-month Capacity Commitment Period for which the de-list bid was rejected.

(b)(i) In cases where a Permanent De-List Bid for the capacity of an entire resource would otherwise clear in the Forward Capacity Auction but the Permanent De-List Bid has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource qualifies for payment under Section III.13.2.5.2.5.1(b)(ii), the resource will be paid either (i) in the same manner as all other capacity resources, except that payment shall be made on the basis of its de-list bid as accepted for the Forward Capacity Auction for the relevant Capacity Commitment Period instead of the Forward Capacity Market Clearing Price or (ii) under the terms of a cost-of-service agreement pursuant to Section III, Appendix I. Resources must notify the ISO of their election within six months after the ISO files the results of the relevant Forward Capacity Auction with the Commission. A resource that has had a Permanent De-List Bid rejected for reliability reasons and does not notify the ISO of its election as described in this paragraph will be paid on the basis of the resource’s Permanent De-List Bid as accepted for the Forward Capacity Auction. Cost-of-service agreements must be filed with and approved by the Commission, and cost-of-service compensation may not commence until the Commission has approved the use of cost-of-service rates for the unit in question or has accepted the use of the cost-of-service rates subject to refund

while the rate is reviewed. In no event will payment under the cost-of-service agreement start prior to the start of the relevant Capacity Commitment Period for which the Permanent De-List Bid was submitted. Resources that elect payment based on the accepted Permanent De-List Bid may file with the Commission pursuant to Section 205 of the Federal Power Act to update its Permanent De-List Bid if the unit is retained for reliability for a period longer than the Capacity Commitment Period for which the Permanent De-List Bid was originally submitted.

(b)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(b)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the Permanent De-List Bid was rejected. Once qualified under this Section III.13.2.5.2.5.1(b)(ii), the resource will have a Capacity Supply Obligation for the 12-month Capacity Commitment Period for which the Permanent De-List Bid was rejected. If a resource continues to be needed for reliability in Capacity Commitment Periods following the Capacity Commitment Period for which the Permanent De-List Bid was rejected, payment pursuant to Section III.13.2.5.2.5.1(b)(i) will continue and will terminate upon 120 day notice from the ISO to the resource that it is no longer needed for reliability.

(c)(i) In cases where a Non-Price Retirement Request for less than the entire resource has been submitted and the request has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource has not elected to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), the resource will continue to be paid in the same manner as other listed capacity resources until such time as the resource is no longer needed for reliability. In cases where a Non-Price Retirement Request for the entire resource has been submitted and the request has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 and the resource has not elected to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), the resource may elect to either (i) continue to be paid in the same manner as other listed capacity resources until such time as the resource is no longer needed for reliability, or (ii) the resource may elect to receive cost-of-service compensation pursuant to Section III, Appendix I. Resources must notify the ISO of their election within six months after the ISO files the results of the relevant Forward Capacity Auction with the Commission. A resource that has had a Non-Price Retirement Request rejected for reliability reasons and does not notify the ISO of its election as described in this paragraph will be paid in the same manner as other listed capacity resources. Cost-of-service agreements must be filed with and approved by the Commission, and cost-of-service compensation may not commence until the Commission has approved the use of cost-of-service rates for the unit in question or has accepted subject to refund while the rate is reviewed. In no

event will compensation under the cost-of-service agreement start prior to the start of the relevant Capacity Commitment Period for which the Non-Price Retirement Request was rejected.

(c)(ii) A resource will qualify for payment under Section III.13.2.5.2.5.1(c)(i) if the ISO has not notified the resource that it is no longer needed for reliability reasons by 12:00 a.m. on June 1 of the year preceding the commencement of the Capacity Commitment Period for which the Non-Price Retirement Request was rejected. Once qualified under this Section III.13.2.5.2.5.1(c)(ii), compensation will be provided for the 12-month Capacity Commitment Period for which the Non-Price Retirement Request was rejected. If a resource continues to be needed for reliability in Capacity Commitment Periods following the Capacity Commitment Period for which the Non-Price Retirement Request was rejected, payment pursuant to Section III.13.2.5.2.5.1 will continue and will terminate upon 120 day notice from the ISO to the resource that it is no longer needed for reliability.

(d) The difference between payments based on resource de-list bids or cost-of-service compensation as detailed in this Section III.13.2.5.2.5.1 and payments based on the market clearing price for the Forward Capacity Market under this Section III.13.2.5.2.5.1 shall be allocated to Regional Network Load within the affected Reliability Region.

(e) **Compensation for Existing Generating Capacity Resources at Stations with Common Costs that are Retained for Reliability.** If a Static De-List Bid or Permanent De-List Bid from an Existing Generating Capacity Resource that is associated with a Station having Common Costs is rejected for reliability reasons, the Existing Generating Capacity Resource will be paid as follows: (i) if one or more Existing Generating Capacity Resources at the Station assume a Capacity Supply Obligation through the normal clearing of the Forward Capacity Auction and one or more Existing Generating Capacity Resources are retained for reliability, then the Existing Generating Capacity Resources retained for reliability will be paid the sum of the Asset-Specific Going Forward Costs for the assets comprising that Existing Generating Capacity Resource; or (ii) if no Existing Generating Capacity Resources at the Station assumes a Capacity Supply Obligation through the normal clearing of the Forward Capacity Auction and one or more Existing Generating Capacity Resources are retained for reliability, then each Existing Generating Capacity Resource retained for reliability will be paid the sum of the Asset-Specific Going Forward Costs for the assets associated with that Existing Generating Capacity Resource plus a portion of the Station Going Forward Common Costs (such that the full amount of Station Going Forward Common Costs are allocated to the Existing Generating Capacity Resources retained for reliability).

III.13.2.5.2.5.2. Incremental Cost of Reliability Service From Non-Price Retirement Request Resources:

In cases where an Existing Generating Capacity Resource or Existing Demand Resource has had a Non-Price Retirement Request for the entire resource rejected for reliability reasons pursuant to Section III.13.2.5.2.5, does not elect to retire pursuant to Section III.13.2.5.2.5.3(a)(iii), and must make a capital improvement to the unit to remain in operation in order to continue to operate to meet the reliability need identified by the ISO, the resource may make application to the Commission pursuant to Section 205 of the Federal Power Act to receive just and reasonable compensation of the capital investment pursuant to the following:

- (a) **Notice to State Utility Commissions, the ISO and Stakeholder Committees of Expectation that a Capital Expense will be Necessary to Meet the Reliability Need Identified by ISO New England:** A resource seeking to avail itself of the recovery mechanism provided in this Section must notify the state utility commissions in the states where rate payers will fund the capital improvement, the ISO, and the Participants Committee of its intent to make the capital expenditure and the need for the expenditure. This notification must be made at least 120 days prior to the resource making the capital expenditure.

- (b) **Required Showing Made to the Federal Energy Regulatory Commission:** In order to receive just and reasonable compensation for a capital expenditure under this Section, a resource must file an explanation of need with the Commission that explains why the capital expenditure is necessary in order to meet the reliability need identified by the ISO. This showing must demonstrate that the expenditure is reasonably determined to be the least-cost commercially reasonable option consistent with Good Utility Practice to meet the reliability need identified by the ISO. If the resource elects cost-of-service treatment pursuant to Section III.13.2.5.2.5.1(c), the Incremental Cost of Reliability Service filing described in this Section must be made separately from and may be made in advance of the resource's cost-of-service filing.

- (c) **Allocation:** Costs of capital expenditures approved by the Commission under this provision shall be allocated to Regional Network Load within the affected Reliability Region.

III.13.2.5.2.5.3. Retirement of Resources

- (a)(i) A resource, or portion thereof, that submits a Non-Price Retirement Request pursuant to Section III.13.1.2.3.1.5 will be retired coincident with the commencement of the Capacity Commitment Period for

which the Non-Price Retirement Request is submitted if the request is approved, or if not approved the resource nonetheless elects to retire pursuant to Section III.13.2.5.2.5.3(a)(iii). If the Non-Price Retirement Request is approved after the resource has a Capacity Supply Obligation for the Capacity Commitment Period for which the Non-Price Retirement Request was submitted, the resource, or portion thereof, will be retired coincident with the end of Capacity Supply Obligation under Section III.13.2.5.2.5.1(c)(ii). The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(a)(ii) An Existing Generating Capacity Resource or Existing Demand Resource with an approved Non-Price Retirement Request may retire the resource, or portion thereof, earlier than the Capacity Commitment Period for which its Non-Price Retirement Request has been approved if it is able to transfer the relevant Capacity Supply Obligation of the resource to another resource through one or more approved Capacity Supply Obligation Bilateral transactions as described in Section III.13.5.1 or reconfiguration auctions as described in Section III.13.4.1. A resource, or portion thereof, electing to retire pursuant to this provision must notify the ISO in writing of its election to retire and the date of retirement. The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(a)(iii) In cases where an Existing Generating Capacity Resource or Existing Demand Resource has submitted a Non-Price Retirement Request and the request is not approved because the resource is determined to be needed for reliability pursuant to Section III.13.2.5.2.5, the portion of the resource subject to the Non-Price Retirement Request may nonetheless retire as permitted by applicable law coincident with the commencement of the Capacity Commitment Period for which the Non-Price Retirement Request is submitted by notifying ISO within six months of receiving the notice from the ISO that the Non-Price Retirement Request has not been approved for reliability reasons. Such an election will be binding. A resource making an election pursuant to this Section III.13.2.5.2.5.3(a)(iii) will not be eligible for compensation pursuant to Sections III.13.2.5.2.5.1 or III.13.2.5.2.5.2. The interconnection rights, or relevant portion thereof, for the resource will terminate and the status of the resource, or portion thereof, will be converted to retired on the date of retirement, consistent with the provisions of Schedules 22 and 23 of the OATT.

(b)(i) A resource that has submitted a non-partial Permanent De-List Bid that has cleared in the Forward Capacity Auction may retire the resource as of the Capacity Commitment Period for which its Permanent De-List Bid has cleared or earlier as described in Section III.13.2.5.2.5.3(b)(ii) by notifying the ISO in writing of its election to retire and the date of retirement. The date specified for retirement is subject to the limit for resource inactivity set out in Section III.13.2.5.2.5.3(d). The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date of retirement.

(b)(ii) A resource with a cleared non-partial Permanent De-List Bid may retire the resource earlier than the Capacity Commitment Period for which its Permanent De-List Bid has cleared if it is able to transfer the entire Capacity Supply Obligation of the resource to another resource through one or more approved Capacity Supply Obligation Bilateral transactions as described in Section III.13.5.1 or reconfiguration auctions as described in Section III.13.4. A resource electing to retire pursuant to this provision must notify ISO in writing of its election to retire and the date of retirement. The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date on retirement.

(c) A resource that has never been counted as a capacity resource may retire the asset by notifying the ISO in writing of its election to retire and the date of retirement. The date specified for retirement is subject to the limit for resource inactivity set out in Section III.13.2.5.2.5.3(d). The interconnection rights for the resource will terminate and the status of the resource will be converted to retired on the date of retirement.

(d) A resource that does not operate commercially for a period of three calendar years will be deemed by the ISO to be retired. The interconnection rights for the unit will terminate and the status of the unit will be converted to retired on the date of retirement. Where a generator has submitted an application to repower under Schedule 22 or 23 of the OATT, the current interconnection space will be maintained beyond the three years unless the application under Schedule 22 or 23 is withdrawn voluntarily or by the operation of those provisions. Where an application is withdrawn under Schedule 22 or 23, the three year period will be calculated from the last day of commercial operation of the resource.

III.13.2.5.2.6. [Reserved.]

III.13.2.5.2.7. Treatment of De-List and Export Bids When the Capacity Clearing Price is Set Administratively.

Where the Capacity Clearing Price is set pursuant to Section III.13.2.8 (Inadequate Supply and Insufficient Competition), and as a result a Permanent De-List Bid, Static De-List Bid, or Export Bid clears that would not otherwise have cleared, then the de-listed or exported capacity will not be replaced in the current Forward Capacity Auction (that is, the amount of capacity procured in the Forward Capacity Auction shall be the Installed Capacity Requirement (net of HQICCs) or Local Sourcing Requirement, as appropriate, minus the amount of the de-listed or exported capacity that results from the application of administratively determined prices) and shall be included in subsequent annual reconfiguration auctions (that is, the amount of capacity procured in subsequent annual reconfiguration auctions shall be increased by the amount of the de-listed or exported capacity).

III.13.2.6. Capacity Rationing Rule.

Except for Dynamic De-List Bids, Export Bids, and offers from New Import Capacity Resources and Existing Import Capacity Resources, offers and bids in the Forward Capacity Auction must clear or not clear in whole, unless the offer or bid specifically indicates that it may be rationed. A resource may elect to be rationed to either its Economic Minimum Limit or a level above its Economic Minimum Limit. These levels are submitted pursuant to Section III.13.1.1.2.2.3. Offers from New Import Capacity Resources and Existing Import Capacity Resources are subject to rationing, except where such rationing would violate any applicable physical minimum flow requirements on the associated interface. Export Bids may elect to be rationed generally, but regardless of such election will always be subject to potential rationing where the associated external interface binds. If more Dynamic De-List Bids are submitted at a price than are needed to clear the market, the bids shall be cleared pro-rata, subject to honoring the Economic Minimum Limit of the resources. Where an offer or bid may be rationed, such rationing may not result in procuring an amount of capacity that is below the associated resource's Economic Minimum Limit.

III.13.2.7. Determination of Capacity Clearing Prices.

The Capacity Clearing Price in each Capacity Zone shall be the price established by the descending clock Forward Capacity Auction as described in Section III.13.2.3, subject to the other provisions of this Section III.13.2.

III.13.2.7.1. Import-Constrained Capacity Zone Capacity Clearing Price Floor.

The Capacity Clearing Price in an import-constrained Capacity Zone shall not be lower than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone. If after the Forward Capacity Auction is conducted, the Capacity Clearing Price in an import-constrained Capacity Zone is less than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone, all resources clearing in the import-constrained Capacity Zone shall be paid based on the Capacity Clearing Price in the Rest-of-Pool Capacity Zone during the associated Capacity Commitment Period.

III.13.2.7.2. Export-Constrained Capacity Zone Capacity Clearing Price Ceiling.

The Capacity Clearing Price in an export-constrained Capacity Zone shall not be higher than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone. If after the Forward Capacity Auction is conducted, the Capacity Clearing Price in an export-constrained Capacity Zone is higher than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone, all resources clearing in the export-constrained Capacity Zone shall be paid based on the Capacity Clearing Price in the Rest-of-Pool Capacity Zone during the associated Capacity Commitment Period.

III.13.2.7.3. Capacity Clearing Price Floor.

In the Forward Capacity Auctions for the Capacity Commitment Periods beginning on June 1, 2013, June 1, 2014, June 1, 2015, and June 1, 2016 only, the following additional provisions regarding the Capacity Clearing Price shall apply in all Capacity Zones (and in the application of Section III.13.2.3.3(d)(iii)):

(a) [Reserved.]

(b) The Capacity Clearing Price shall not fall below 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 below \$3.15). Where the Capacity Clearing Price reaches 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 reaches \$3.15), offers shall be prorated such that no more than the Installed Capacity Requirement (net of HQICCs) is procured in the Forward Capacity Auction, as follows:

(i) The total payment to all listed capacity resources during the associated Capacity Commitment Period shall be equal to 0.6 times CONE (or in the case of the Forward Capacity Auction for the Capacity Commitment Period beginning June 1, 2016 shall be equal to \$3.15) times the Installed Capacity Requirement (net of HQICCs) applicable in the Forward Capacity Auction.

(ii) Payments to individual listed resources shall be prorated based on the total number of MWs of capacity clearing in the Forward Capacity Auction (receiving a Capacity Supply Obligation for the associated Capacity Commitment Period).

(iii) Suppliers may instead prorate their bid MWs of participation in the Forward Capacity Market by partially de-listing one or more resources. Regardless of any such proration, the full amount of capacity that cleared in the Forward Capacity Auction will be ineligible for treatment as new capacity in subsequent Forward Capacity Auctions (except as provided under Section III.13.1.1.1.2).

(iv) Any proration shall be subject to reliability review. Where proration is rejected for reliability reasons, the resource's payment shall not be prorated as described in subsection (ii) above, and the difference between its actual payment based on the Capacity Clearing Price and what its payment would have been had prorationing not been rejected for reliability reasons shall be allocated to Regional Network Load within the affected Reliability Region. In this case, the total payment described in subsection (i) above will increase accordingly.

(v) Any election to prorate bid MWs associated with a New Capacity Offer that clears in the Forward Capacity Auction shall also apply in subsequent Forward Capacity Auctions for Capacity Commitment Periods for which the Project Sponsor elected to have the Capacity Supply Obligation and Capacity Clearing Price continue to apply pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5.

III.13.2.7.3A Treatment of Imports.

At the Capacity Clearing Price, if the amount of capacity offered from New Import Capacity Resources and Existing Import Capacity Resources over an interface between an external Control Area and the New England Control Area is greater than that interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF):

(a) the full amount of capacity offered at that price from Existing Import Capacity Resources associated with contracts listed in Section III.13.1.3.3(c) shall clear, unless that amount of capacity is greater than the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), in which case the capacity offered at that

price from Existing Import Capacity Resources associated with contracts listed in Section III.13.1.3.3(c) shall be rationed such that the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) is not exceeded; and

(b) if there is space remaining over the interface after the allocation described in subsection (a) above, then the capacity offered at that price from New Import Capacity Resources and Existing Import Capacity Resources other than Existing Import Capacity Resources associated with the contracts listed in Section III.13.1.3.3(c) will be rationed such that the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) is not exceeded. If the capacity offered at that price by any single New Import Capacity Resource or Existing Import Capacity Resource that is not associated with the contracts listed in Section III.13.1.3.3(c) is greater than the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF), then the capacity offered by that resource that is above the interface's approved capacity transfer limit (net of tie benefits, or net of HQICC in the case of the Phase I/II HVDC-TF) shall not be included in the rationing.

III.13.2.7.4. Effect of Capacity Rationing Rule on Capacity Clearing Price.

Where the requirement that offers and bids clear or not clear in whole (Section III.13.2.6) prohibits the descending clock auction in its normal progression from clearing a Capacity Zone at the precise amount of capacity required, then the auctioneer shall analyze the aggregate supply curve to determine cleared capacity offers and Capacity Clearing Prices that result in procuring at least the amount of capacity required while seeking to maximize social surplus for the associated Capacity Commitment Period. In an import-constrained Capacity Zone, the clearing algorithm will not consider blocks of capacity not needed to meet the import-constrained Capacity Zone's Local Sourcing Requirement when price separation occurs between the import-constrained Capacity Zone and the Rest-of-Pool Capacity Zone. The clearing algorithm may result in offers below the Capacity Clearing Price not clearing, and in de-list bids below the Capacity Clearing Price clearing.

III.13.2.7.5. Effect of Decremental Repowerings on the Capacity Clearing Price.

Where the effect of accounting for certain repowering offers and bids (as described in Section III.13.2.3.2(e)) results in the auction not clearing at the lowest price for the required quantity of capacity, then the auctioneer will conduct additional auction rounds of the Forward Capacity Auction as necessary to minimize capacity costs.

III.13.2.7.6. Minimum Capacity Award.

Each offer (excluding offers from Conditional Qualified New Generating Capacity Resources that do not satisfy the conditions specified in Sections III.13.2.5.1(i)-(iii)) clearing in the Forward Capacity Auction shall be awarded a Capacity Supply Obligation at least as great as the amount of capacity offered at the End-of-Round Price in the final round of the Forward Capacity Auction. For Intermittent Power Resources and Intermittent Settlement Only Resources, the Capacity Supply Obligation for months in the winter period (as described in Section III.13.1.5) shall be adjusted based on its winter Qualified Capacity as determined pursuant to Section III.13.1.1.2.2.6 and Section III.13.1.2.2.2.

III.13.2.7.7. Tie-Breaking Rules.

Where the provisions in this Section III.13.2 for clearing the Forward Capacity Auction (system-wide or in a single Capacity Zone) result in a tie – that is, where two or more resources offer sufficient capacity at prices that would clear the auction at the same minimum costs – the auctioneer shall apply the following rules (in sequence, as necessary) to determine clearing:

- (a) The auctioneer shall clear the resources in such a manner as to maximize the total amount of capacity procured.
- (b) If multiple projects may be rationed, they will be rationed proportionately.
- (c) Where clearing either the offer associated with a resource with a higher queue priority at a Conditional Qualified New Generating Capacity Resource’s location or the offer associated with the Conditional Qualified New Generating Capacity Resource would result in equal costs, the offer associated with the resource with the higher queue priority shall clear.
- (d) The offer associated with the Project Sponsor having the lower market share in the capacity auction (including Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources) shall be cleared.

III.13.2.7.8. [Reserved.]

III.13.2.7.9 Capacity Carry Forward Rule.

III.13.2.7.9.1. Trigger.

The capacity carry forward rule shall be triggered in an import-constrained Capacity Zone if all of the following conditions are met:

- (a) the sum of the amount of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction in the Capacity Zone is less than or equal to zero;
- (b) there is not Inadequate Supply in the Forward Capacity Auction in the Capacity Zone; and
- (c) at the Capacity Clearing Price, the sum of the amount of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction plus the amount of capacity carried forward due to rationing is greater than zero. The amount of capacity carried forward due to rationing shall equal the amount of capacity above the Local Sourcing Requirement procured in that Capacity Zone in the previous Forward Capacity Auction as a result of the Capacity Rationing Rule.

III.13.2.7.9.2. Pricing.

If the capacity carry forward rule is triggered, then the Capacity Clearing Price for the Capacity Zone shall be the lesser of: (1) \$0.01 below the price at which the last New Generating Capacity Resource, New Import Capacity Resource, or New Demand Resource in the Capacity Zone to withdraw withdrew from the Forward Capacity Auction; or (2) the Offer Review Trigger Price for a combustion turbine, as set forth in Section III.A.21.1.1; provided, however, that if in the Capacity Zone there is Insufficient Competition and no capacity offered from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources has been withdrawn from the Forward Capacity Auction, then the Capacity Clearing Price shall equal the Offer Review Trigger Price for a combustion turbine, as set forth in Section III.A.21.1.1.

III.13.2.8. Inadequate Supply and Insufficient Competition.

In the case of either Inadequate Supply or Insufficient Competition, as defined in this Section III.13.2.8, the Forward Capacity Auction shall still be used to the extent possible; that is, the remedy for Inadequate Supply or Insufficient Competition shall be limited to the Capacity Zones having Inadequate Supply or Insufficient Competition.

III.13.2.8.1. Inadequate Supply.

III.13.2.8.1.1. Inadequate Supply in an Import-Constrained Capacity Zone.

An import-constrained Capacity Zone will be considered to have Inadequate Supply if at the Forward Capacity Auction Starting Price the amount of capacity offered in the import-constrained Capacity Zone through New Capacity Offers is less than the amount of New Capacity Required in that Capacity Zone. In an import-constrained Capacity Zone, “New Capacity Required” shall mean the Capacity Zone’s Local Sourcing Requirement, minus the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus capacity otherwise obligated in the Capacity Zone for the Capacity Commitment Period; in the Rest-of-Pool Capacity Zone, “New Capacity Required” shall mean the Installed Capacity Requirement (net of HQICCs), minus the Local Sourcing Requirement of each modeled import-constrained Capacity Zone, minus, for each modeled export-constrained Capacity Zone, the lesser of the Capacity Zone’s Maximum Capacity Limit or the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus the total amount of capacity of Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Rest-of-Pool Capacity Zone (that is not permanently de-listed for the Capacity Commitment Period), minus capacity otherwise obligated in the Rest-of-Pool Capacity Zone for the Capacity Commitment Period.

(a) Where an import-constrained Capacity Zone has Inadequate Supply, Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources (other than those still subject to a multi-year Capacity Commitment Period election as described in Sections III.13.1.1.2.2.4 and III.13.1.4.2.2.5) in that Capacity Zone, other than such resources, or portions thereof, that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, shall be paid 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply during the associated Capacity Commitment Period, and New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources in the Forward Capacity Auction in that Capacity Zone shall be paid the Forward Capacity Auction Starting Price during the associated Capacity Commitment Period (and subsequent Capacity Commitment Periods, as elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5).

(b) In an import-constrained Capacity Zone having Inadequate Supply, the difference between the amount of capacity offered in the Capacity Zone through New Capacity Offers and the amount of New Capacity Required in that Capacity Zone shall be included in subsequent annual reconfiguration auctions.

(c) Inadequate Supply in one or more import-constrained Capacity Zones shall not affect Capacity Zones having adequate supply.

(d) Any availability penalty assessed during the associated Capacity Commitment Period pursuant to Section III.13.7.2.7.1.2 on a resource in an import-constrained Capacity Zone having Inadequate Supply will be assessed at a rate equal to 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply.

III.13.2.8.1.2. System-Wide Inadequate Supply.

The New England Control Area will be considered to have system-wide Inadequate Supply if at the Forward Capacity Auction Starting Prices, the total amount of capacity offered in the Forward Capacity Auction is less than the Installed Capacity Requirement (net of HQICCs).

(a) In the case of system-wide Inadequate Supply, Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources other than such resources, or portions thereof, that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, shall be paid 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply during the associated Capacity Commitment Period, and New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources in the Forward Capacity Auction shall be paid the Forward Capacity Auction Starting Price during the associated Capacity Commitment Period (and subsequent Capacity Commitment Periods, as elected pursuant to Section III.13.1.1.2.2.4 or Section III.13.1.4.2.2.5).

(b) In the case of system-wide Inadequate Supply, the difference between the total amount of capacity offered in the Forward Capacity Auction and the Installed Capacity Requirement (net of HQICCs) shall be included in subsequent annual reconfiguration auctions.

(c) System-wide Inadequate Supply will not affect the Forward Capacity Auction in Capacity Zones having adequate supply, except that in those Capacity Zones having adequate supply, New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources shall be paid the

Capacity Clearing Price, and Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources other than such resources, or portions thereof, that have no Capacity Supply Obligation or are designated as Self-Supplied FCA Resources for the Capacity Commitment Period, will be paid the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply.

(d) If there is system-wide Inadequate Supply, but the amount of capacity offered in an export-constrained Capacity Zone, including imports as appropriate, is greater than the Maximum Capacity Limit in that export-constrained Capacity Zone, the Forward Capacity Auction in the export-constrained Capacity Zone shall be unaffected, and in that case the price paid to Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources in the Rest-of-Pool Capacity Zone shall be the higher of: (1) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Inadequate Supply; or (2) the price in the export-constrained Capacity Zone.

III.13.2.8.2. Insufficient Competition.

The Forward Capacity Auction shall be considered to have Insufficient Competition system-wide or in any import-constrained Capacity Zone if the following two conditions are both satisfied:

(a) at the Forward Capacity Auction Starting Price, the amount of capacity offered from Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources is less than the Installed Capacity Requirement (net of HQICCs) or the Local Sourcing Requirement, as applicable; and

(b) at the Forward Capacity Auction Starting Price:

(i) less than 300 MW of capacity is offered from New Generating Capacity Resources and New Demand Resources (the ISO shall revisit the appropriateness of the 300 MW threshold in the case of an import-constrained Capacity Zone having a Local Sourcing Requirement of less than 5000 MW);

(ii) the amount of capacity offered from New Generating Capacity Resources and New Demand Resources is more than the amount of New Capacity Required but less than twice the amount of New Capacity Required; or

(iii) any Market Participant's total capacity from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources is pivotal. A Market Participant shall be considered pivotal if, at the Forward Capacity Auction Starting Price, some capacity from that Market Participant's potential New Generating Capacity Resources, New Import Capacity Resources, or New Demand Resources is required to satisfy the Installed Capacity Requirement (net of HQICCs) or the Local Sourcing Requirement, as applicable.

If the Forward Capacity Auction has Insufficient Competition, New Generating Capacity Resources, New Import Capacity Resources, and New Demand Resources shall be paid the Capacity Clearing Price during the associated Capacity Commitment Period, and Existing Generating Capacity Resources, Existing Import Capacity Resources, and Existing Demand Resources (other than those still subject to a multi-year Capacity Commitment Period election as described in Sections III.13.1.1.2.2.4 and III.13.1.4.2.2.5) shall be paid the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Insufficient Competition during the associated Capacity Commitment Period. Any availability penalty assessed during the associated Capacity Commitment Period pursuant to Section III.13.7.2.7.1.2 on a resource in an import-constrained Capacity Zone having Insufficient Competition will be assessed at a rate equal to the lower of: (1) the Capacity Clearing Price; or (2) 1.1 times the Capacity Clearing Price for the most recent Forward Capacity Auction not having Insufficient Competition.

III.13.2.9. **[Reserved.]**

1 Forward Capacity Market (“FCM”).¹ In 2008, I joined the ISO’s Market
2 Development Department as a Principal Analyst, with responsibilities for
3 developing design improvements in New England’s electricity markets, including
4 drafting appropriate market rules and manuals to implement those improvements.
5 During this time, I have participated in various design solutions, including
6 coordination with other ISO departments and stakeholders in New England’s
7 competitive wholesale electricity market.

8

9 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
10 **PROCEEDING?**

11 A: The purpose of my testimony is to explain revisions to the FCM rules (the “Rule
12 Changes”) that revise the market clearing function of the Forward Capacity
13 Auction such that it will seek to maximize social surplus instead of minimize total
14 costs. As I explain below, this revision will have little effect on actual clearing
15 outcomes, but will achieve those outcomes with less complexity and risk.

16

17 **II. BACKGROUND AND DESCRIPTION OF THE RULE CHANGES**

18

19 **Q: PLEASE DESCRIBE GENERALLY THE UNDERLYING ISSUE WITH**
20 **THE CLEARING OF THE FORWARD CAPACITY AUCTION THAT IS**
21 **ADDRESSED BY THE RULE CHANGES.**

¹ Capitalized terms used but not defined in this testimony have the meaning given to such terms in the ISO New England Inc. Transmission, Markets and Services Tariff (“Tariff”).

1 A: The Forward Capacity Auction is a descending clock auction, in which, generally,
2 capacity is withdrawn by suppliers as the price is progressively lowered in each
3 successive auction round until the amount of capacity offered reaches the amount
4 of capacity needed. In any run of the Forward Capacity Auction, it is extremely
5 unlikely that the auction will stop naturally at the precise intersection of supply
6 and demand, in such a way as to require no further work to determine the set of
7 cleared resources and clearing prices. The primary reason for this is that the
8 supply curve is not continuous (*i.e.*, the supply curve is “lumpy”). Pursuant to the
9 FCM rules, most offers from new capacity resources and most de-list bids from
10 existing resources must clear or not clear in whole, unless the offer or bid
11 specifically elects to be rationable. Given the fixed sizes of most capacity
12 resources, this limitation eases participation in the capacity market and produces
13 more efficient outcomes. As a result of this constraint, however, the supply curve
14 in the auction contains a series of vertical “steps” that, barring a significant
15 coincidence, will prevent the auction from clearing at the precise amount of
16 capacity required.

17

18 **Q: HOW DOES THE FORWARD CAPACITY AUCTION ADDRESS THIS**
19 **ISSUE?**

20 A: While the descending-clock auction ably performs its role in winnowing the
21 relevant resources and prices to the right neighborhood, in the specific area where
22 supply and demand intersect, there are (because of the lumpiness of the supply
23 curve and multiple zones) in general a number of potential solutions regarding

1 which resources should clear and at what prices. Choosing which of the possible
2 solutions to be final involves making some subjective decisions about the proper
3 outcome. When the FCM was initially designed, the ISO and stakeholders agreed
4 that the market clearing engine should select the final solution that best minimizes
5 the total cost of capacity that would ultimately be paid by consumers. This
6 approach is reflected in the current FCM rules.

7

8 **Q: HAS THIS COST MINIMIZATION APPROACH BEEN USED IN**
9 **FORWARD CAPACITY AUCTIONS TO DATE?**

10 A: No. The market clearing algorithm as described above (seeking to minimize total
11 costs to consumers) has never been used in the clearing of a Forward Capacity
12 Auction because all auctions to date have stopped at the floor price. The eighth
13 Forward Capacity Auction, to be conducted in February 2014 for the Capacity
14 Commitment Period beginning on June 1, 2017, will be the first Forward Capacity
15 Auction without a floor price. It was this timing, and the imminent utilization of
16 the cost-minimization approach, that prompts the instant filing.

17

18 **Q: WHY IS THE ISO PROPOSING TO REPLACE THE CONSUMER COST**
19 **MINIMIZATION APPROACH?**

20 A: The decision to pursue minimization of total consumer costs in the final clearing
21 of the Forward Capacity Auction was made before the ISO had sufficient time to
22 scrutinize the clearing mechanics and to develop the detailed procedures and

1 software (the “market clearing engine”) that would implement the final clearing
2 solution.

3

4 The ISO now has had ample time to consider the details of the ultimate market
5 clearing process, and has identified two significant problems with the cost
6 minimization approach. First, the FCM rules contain other important provisions
7 that will significantly limit the ability of the market clearing engine to effectively
8 select a cost-minimizing solution. Specifically, an important technique that would
9 be used by the market clearing engine in seeking to minimize total consumer costs
10 would be to clear smaller, but more expensive, quantities of capacity to get closer
11 to the needed amount of capacity at a lower overall cost. In doing so, it may be
12 necessary to increase the cost in a particular capacity zone in the service of
13 lowering total system-wide costs. However, increasing the cost in that particular
14 capacity zone may be effectively prohibited by other FCM provisions, such as: (i)
15 the requirement to clear, generally, any new offer below the capacity clearing
16 price, which would largely preclude the market clearing engine from avoiding
17 large “lumpy” offers in seeking to lower total consumer costs; and (ii) the
18 requirement that the market clearing engine ignore, in an import-constrained
19 capacity zone, capacity that is not needed to meet the zone’s Local Sourcing
20 Requirement, which would make it much more difficult to raise the price in an
21 import-constrained zone. With these important provisions effectively limiting the
22 ability of the market clearing engine to minimize total system costs, it is
23 appropriate to find another approach.

1 Second, given these restrictions, the total consumer cost minimization approach
2 is needlessly complex. Minimizing total costs requires the market clearing engine
3 to solve for both the capacity clearing price and for the cleared quantities
4 simultaneously. This is a non-linear mixed integer problem with equilibrium
5 constraints that is very difficult to solve. Moreover, the techniques used to solve
6 the problem are not standard and rely on heuristics. While this extra complexity
7 (and the associated extra risk) might be worthwhile if the market clearing engine
8 were otherwise unconstrained in seeking an optimal solution, as discussed above
9 it is not. Given that fact, the extra complexity of the cost minimization approach
10 presents risk without associated advantages.

11

12 **Q: HOW DO THE RULE CHANGES ADDRESS THESE PROBLEMS?**

13 A: To address these problems, the Rule Changes replace the market clearing engine's
14 goal of minimizing total consumer costs with the goal of maximizing social
15 surplus. Social surplus (sometimes called social welfare) is in this case the sum of
16 consumer surplus (the difference between the amount that consumers would be
17 willing to pay and the amount they actually pay) and supplier surplus (the
18 difference between the amount that suppliers are actually paid and the amount that
19 they would have been willing to accept), and this value is at its maximum when
20 demand equals supply. The lumpiness of the supply curve in the Forward
21 Capacity Auction, again, creates complexities, but having the market clearing
22 engine seek to maximize social surplus instead of minimize total costs has several
23 advantages.

1 **Q: WHAT ARE THE ADVANTAGES OF HAVING THE FORWARD**
2 **CAPACITY AUCTION CLEARING MECHANISM SEEK TO MAXIMIZE**
3 **SOCIAL SURPLUS INSTEAD OF MINIMIZE TOTAL CONSUMER**
4 **COSTS?**

5 A: Maximizing social surplus in clearing the Forward Capacity Auction suffers from
6 neither of the major infirmities associated with minimizing total consumer costs.
7 Maximizing social surplus does not require the simultaneous calculation of price
8 and quantity in one complex optimization problem. Rather, it first determines the
9 cleared quantity of each bid in a well-defined optimization problem that
10 maximizes the social surplus, with the clearing price being determined *ex post* in a
11 separate pricing problem. Maximizing social surplus is a problem that can be
12 solved using conventional techniques and is well-tested and well-understood.
13 Social surplus maximization is the standard optimization technique employed by
14 the ISO in its markets, and is most notably used in the energy market. Using
15 conventional techniques and commercial solvers greatly reduces the complexity
16 and risk associated with clearing the market, which is a significant consideration
17 when an auction is expected to clear more than \$1 billion in a single year.
18 Furthermore, use of less complex, standard optimization techniques makes the
19 auction results more transparent than under an approach relying on application-
20 specific heuristics. This is an important consideration for instilling confidence in
21 the auction results. Finally, because of the limits placed on the cost minimization
22 approach described above, the ISO does not expect that this change will result in
23 auction results that are appreciably different than those that would have resulted

1 from the existing market clearing engine. However, the Rule Changes will ensure
2 that those results are achieved with less complexity and risk.

3

4 **Q: PLEASE DESCRIBE THE SPECIFIC RULE CHANGES THAT WILL**
5 **ACCOMPLISH THIS.**

6 A: To effectuate the change described above, Section III.13.2.7.4 of the Tariff is
7 being revised to state that, where the requirement that offers and bids clear or not
8 clear in whole prohibits the descending clock auction from clearing the precise
9 amount of capacity required, then the auctioneer shall analyze the aggregate
10 supply curve “to determine cleared capacity offers and Capacity Clearing Prices
11 that result in procuring at least the amount of capacity required while seeking to
12 maximize social surplus for the associated Capacity Commitment Period.” In the
13 remainder of Section III.13.2.7.4, other references to cost minimization are also
14 being revised to instead refer more generally to the clearing algorithm.
15 Furthermore, in Sections III.13.2.3.3(a), III.13.2.3.3(b), III.13.2.3.3(c),
16 III.13.2.5.1, III.13.2.7.5, and III.13.2.7.7, references to the market clearing
17 engine’s cost minimization function are being revised or deleted as appropriate.

18

19 **Q: DO THE RULE CHANGES INCLUDE ANY OTHER REVISIONS?**

20 A: Yes, the Rule Changes also include three minor clarifications to related Tariff
21 provisions. First, in Section III.13.2.3.1, a sentence that addresses the
22 circumstance of a capacity zone with a lower auction starting price than the end-
23 of-round price declared by the auctioneer is being deleted. This provision became

1 moot with the implementation of a uniform starting price for all capacity zones
2 and it is hence appropriate to delete it, as well as to make minor conforming
3 changes to the remainder of that section. Second, in Section III.13.2.3.3, language
4 is being revised to state that capacity from new resources above the auction
5 starting price will not be included in the supply curve. This is because, as written,
6 the language could inappropriately result in the Capacity Clearing Price being
7 greater than the auction starting price, which is expressly prohibited by other
8 terms of Section III.13.2.3.3. Third, in Section III.13.2.7.4, language is being
9 revised to state that any type of de-list bid, rather than only a certain subset of de-
10 list bid types, might clear at prices below the Capacity Clearing Price as a result
11 of the rationing rules and the functioning of the market clearing engine. Upon
12 review, the ISO has concluded that the restriction of this provision to a subset of
13 de-list bid types was inadvertent and inappropriate.

14

15 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

16 A: Yes.

1 I declare, under penalty of perjury, that the foregoing is true and correct.

2

3 Executed on July 1, 2013.

4

5

6



7 Andrew G. Gillespie

8 Principal Analyst

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