

147 FERC ¶ 61,173
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

ISO New England Inc. and New England Power Pool Participants Committee Docket No. ER14-1639-000

ORDER ACCEPTING TARIFF REVISIONS

(Issued May 30, 2014)

1. On April 1, 2014, pursuant to section 205 of the Federal Power Act (FPA),¹ ISO New England Inc. (ISO-NE) and the New England Power Pool Participants Committee (NEPOOL) (together, Filing Parties) jointly filed revisions to the ISO-NE Transmission, Markets and Services Tariff (Tariff) to establish a system-wide sloped demand curve and related parameters for use in ISO-NE's Forward Capacity Market (FCM) (Demand Curve Changes). As discussed below, we will accept the proposed revisions, subject to condition, effective June 1, 2014, as requested.

I. Background

2. ISO-NE administers the FCM, in which eligible resources compete in an annual Forward Capacity Auction (FCA), to provide capacity three years in advance of the relevant delivery year.² To determine the amount of capacity that ISO-NE needs to procure in an FCA, the New England region is modeled both as a whole, i.e., as the system-wide New England Control Area, and by capacity zone.³ The amount of capacity

¹ 16 U.S.C. § 824d (2012).

² ISO-NE has held eight FCAs to date, with FCA 1 held in February 2008.

³ The zones include: Maine, Connecticut, Northeastern Massachusetts/Boston (NEMA/Boston), and Rest-of-Pool.

needed system-wide in an FCA is the net Installed Capacity Requirement (net ICR),⁴ and the amount of capacity needed within a given capacity zone is the Local Sourcing Requirement for that zone.⁵

3. Currently, ISO-NE's FCM uses a vertical demand curve. Under normal conditions, an auction produces a single clearing price for all cleared resources at the point where the vertical demand curve and the supply curve intersect. However, under certain conditions the prices paid to cleared resources may be administratively determined by the Tariff and differ based on whether a resource is new or existing.⁶

4. Prior to FCA 8, which was held in February 2014, ISO-NE determined that there was the potential for a capacity shortage in the auction, after many years of operating with a capacity surplus and that the administrative pricing provisions in the Tariff could be invoked. Thus, in November 2013, ISO-NE submitted a proposal to raise the Tariff-set administrative prices for FCA 8. By order issued January 24, 2014, the Commission accepted ISO-NE's proposal, subject to condition.⁷ In that proceeding, ISO-NE posited that a sloped demand curve would be a long-term solution to the issues presented in the filing, obviating the need for administrative pricing rules, and stated its intention to file a sloped demand curve with the Commission in the summer of 2014. Recognizing ISO-NE's commitment to develop a sloped demand curve in the near future, the Commission directed ISO-NE to submit a sloped demand curve by April 1, 2014, to allow sufficient time for implementation prior to FCA 9.⁸

⁴ The ICR is the level of capacity required to meet the reliability requirements defined for the New England Control Area. Tariff section I.2.2 (50.0.0). The net ICR is the ICR minus the Hydro-Quebec Interconnection Capability Credit (HQICC). *See, e.g.*, Tariff section III.13.2.2 (18.0.0).

⁵ The Local Sourcing Requirement is the minimum amount of capacity that must be located within an import-constrained Load Zone. Tariff section I.2.2 (50.0.0).

⁶ Administrative pricing can be triggered by (1) the Inadequate Supply Rule; (2) the Insufficient Competition Rule; and (3) the Capacity Carry Forward Rule. *See* Tariff sections III.13.2.8.1, et seq., III.13.2.8.2, and III.13.2.7.9.

⁷ *ISO New England Inc.*, 146 FERC ¶ 61,038 (2014) (January 24, 2014 Order).

⁸ *Id.* P 30.

II. Summary of the Filing

5. On April 1, 2014, the Filing Parties submitted the proposed Demand Curve Changes in response to the January 24, 2014 Order. The Demand Curve Changes establish a system-wide, rather than zonal, sloped demand curve construct in the FCM. As further detailed below, these Demand Curve Changes (1) define the shape of the system-wide sloped demand curve; (2) extend from five to seven years the period that a new resource may elect to receive its initial clearing price; (3) establish a limited exemption for certain renewable resources; (4) eliminate the system-wide administrative pricing rules; and (5) include other conforming changes.⁹

6. The Filing Parties state that the Demand Curve Changes received a vote of support of 74.08 percent in the Markets Committee and 69.53 percent in the Participants Committee. The Filing Parties note that the New England States Committee on Electricity, representing the unanimous position of all six states, supported the proposal. The Filing Parties request an effective date of June 1, 2014.

III. Notice of Filings and Responsive Pleadings

7. Notice of the filing was published in the *Federal Register*, 79 Fed. Reg. 19,900 (2014), with interventions and protests due on or before April 22, 2014. Numerous parties filed timely motions to intervene or notices of intervention and some of those parties also filed comments or protests.¹⁰ On May 2, 2014, Calpine filed a motion to intervene out-of-time.

8. On April 22, 2014, NEPOOL submitted a supplement to the filing. On May 1, 2014, ISO-NE filed an answer, and on May 7, 2014, NEPOOL filed an answer. On May 9, 2014, NEPGA and EPSA jointly filed an answer to answer and to protests. On May 12, 2014, NextEra filed an answer to answer. On May 14, 2014, Brookfield filed an answer to answer. On May 15, 2014, Entergy and Exelon filed an answer to answer. On May 16, 2014, Public Systems filed an answer to answer.

⁹ ISO-NE submitted testimony in support of the Filing Parties' proposal. We use ISO-NE when referencing the testimony and the Filing Parties when referencing the Transmittal and proposal.

¹⁰ See Appendix A.

IV. Discussion

A. Procedural Matters

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2013), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

10. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2013), we will grant Calpine's late-filed motion to intervene given Calpine's interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

11. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 185.213(a)(2) (2013), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We will accept answers to the protests, because they have provided information that has assisted us in our decision-making process. However, we are not persuaded to accept the subsequent answers to answers and we will, therefore, reject them.

B. Substantive Matters

12. We will accept the Demand Curve Changes to become effective June 1, 2014, as requested. Specific aspects of the filing and relevant comments and protests are discussed by issue below.

1. Demand Curve Design

a. Filing Parties' Proposal

13. The Filing Parties state that, while ISO-NE will continue to conduct the auction according to existing market rules, the system-wide sloped demand curve will replace the ICR as the determinant of system-wide capacity demand for purposes of clearing the FCA. ISO-NE states that The Brattle Group developed a Monte Carlo simulation model that estimates the likely distribution of price, quantity, and reliability outcomes under each demand curve examined during the stakeholder process, at the end of which ISO-NE and stakeholders chose the sloped demand curve presented here. The Filing Parties state that the demand curve's shape is defined by: (1) the estimated gross cost of entry (CONE) for a new capacity resource; (2) the estimated CONE net of revenues from energy, reserve, and other markets (net CONE); and (3) well-established system planning design criteria used to ensure resource adequacy, which are based on loss of load

expectation calculations (LOLE).¹¹ More specifically, the system-wide sloped demand curve is defined by a price cap at 1.6 times the net CONE¹² at the supply quantity needed to provide a 1-in-5 LOLE level of reliability. The Filing Parties state that Monte Carlo simulations performed by The Brattle Group demonstrate that the proposed demand curve achieves 1-in-10 LOLE on average with reliability less than 1-in-5 LOLE only 7 percent of the time. The Filing Parties note that other demand curves studied by The Brattle Group would have reliability of less than 1-in-5 LOLE as much as 30 percent of the time. They contend that, of the candidate demand curves evaluated, the proposed curve's flatter slope and lower price cap will help reduce price volatility and decrease susceptibility to market power abuses.¹³

14. The Filing Parties state that the proposed demand curve is targeted at achieving the 0.1 days/year LOLE (1-in-10 LOLE) target over the long term, is flatter than some alternatives that were considered in order to avoid price volatility and reduce the incentives to exercise market power but steep enough to limit exposure to under- or over-procurement, and is more robust to accommodate net CONE estimation errors than curves that are flatter and have lower caps.¹⁴ The Filing Parties explain that the proposed cap level strikes a balance between limiting market exposure to high prices when the market is not competitive and ensuring that the cap is high enough to induce new entry, especially if the net CONE estimate is inaccurate. They explain that the proposed curve crosses net ICR at a value of approximately 1.19 times net CONE, thus paying nearly 20 percent more than net CONE at net ICR and providing a safeguard against underestimating net CONE.¹⁵ The Filing Parties state that the estimate of net CONE

¹¹ Loss of Load Expectation (LOLE) refers to the probability of disconnecting non-interruptible customers due to a resource deficiency. Tariff section I.2.2 (50.0.0). Transmittal at 6.

¹² The price cap will be 1 times gross CONE, if that results in a higher cap.

¹³ ISO-NE notes that the current vertical demand curve was the result of a settlement process, and there is no public record of analysis that suggests it would meet the one day in 10 years standard on average. Ethier Testimony at 17.

¹⁴ Transmittal at 7-8; Ethier Testimony at 18-19.

¹⁵ Ethier Testimony at 6-7. This reflects the value of avoiding risks associated with underestimating net CONE, which may result in procuring insufficient resources.

forms the basis of the demand curve, setting the curve's price parameters, including its height, and influences its slope.¹⁶

15. The Filing Parties state that estimating the net CONE value accurately in order to represent the true value that new entrants would need to enter the market is an important design criterion for the sloped demand curve to achieve the desired reliability objectives. The Filing Parties explain that, to estimate net CONE, they first had to select the appropriate reference technology. The Filing Parties state that in selecting an appropriate reference technology on which to base an estimate of CONE, it is important to consider whether (1) the reference technology is able to contribute to resource adequacy; (2) project developers will likely build a resource using the reference technology; and (3) capacity, energy, reserve, and other ancillary market revenues of the reference technology can be estimated accurately.¹⁷ Considering these principles, the Filing Parties state that the proposed reference technology used to develop the CONE and net CONE values for FCA 9 is a 2x1 combined cycle gas turbine, and the values estimated are \$14.04/kW-month and \$11.08/kW-month respectively.¹⁸

16. The Filing Parties state that a combined cycle unit is an appropriate reference technology because: (1) combined-cycle is the predominant generation technology being developed throughout the United States and the merchant project that most recently cleared in the FCM was a combined-cycle unit; (2) the prevalence of combined-cycle technology means that cost estimates have a high level of confidence; (3) the inherent uncertainty in estimating combined-cycle revenues from energy, reserve, and other ancillary markets is no worse and is in some cases better than alternative technologies; and (4) basing net CONE on the combined cycle technology reduces the risk of underprocuring capacity to meet a 1-in-10 LOLE. The Filing Parties posit that the adverse consequences of underestimating net CONE are far greater than for overestimating net CONE,¹⁹ because overestimating net CONE will affect the quantity of capacity

¹⁶ ISO-NE uses net CONE to estimate true net CONE, which it defines as the true cost of competitive new entry in the FCM and the price actually required to entice a resource to enter. *See* Ethier Testimony at 6.

¹⁷ Transmittal at 9, citing Newell/Ungate Testimony at 10.

¹⁸ Transmittal at 10. The Filing Parties propose to recalculate CONE and net CONE no less than once every three years using updated data, coincident with the recalculation of Offer Review Trigger Prices under the Minimum Offer Price Rules (MOPR). Between recalculations, ISO-NE will adjust CONE and net CONE for each FCA pursuant to methods similar to those used to adjust Offer Review Trigger Prices.

¹⁹ Ethier Testimony at 11.

procured, whereas setting net CONE below the true net CONE could result in reliability concerns.²⁰

17. ISO-NE explains that The Brattle Group and Sargent & Lundy also examined and recommended against using alternative reference technologies, such as the frame combustion turbine or the aeroderivative combustion turbine as a reference technology. The frame combustion turbine has the lowest net CONE of all evaluated technologies, ISO-NE explains, but it has not been built in New England and might not be economically viable to do so. ISO-NE also explains that aeroderivative combustion turbines are rarely built and have a considerably more expensive net CONE than the frame combustion turbine or combined cycle unit.²¹

b. Comments and Protests

18. The majority of commenters support²² the Filing Parties' proposed Demand Curve Changes as a whole. While these parties might not support every element of the sloped demand curve, if viewed in isolation, they state that it represents a balanced and comprehensive package.²³ Several parties question certain aspects of the parameters.

19. While the Mass AG states that it voted in favor of adopting the sloped demand curve, it believes it is an inadequate long term solution, because the design does not establish prices based on value to ratepayers and does not permit load serving entities to procure the required capacity at negotiated rates through self-supply. The Mass AG argues that the sloped demand curve construct is considerably more expensive than "fundamental modeling," which would consider the value of capacity to consumers, taking into account the value of lost load.²⁴ The Mass AG explains that fundamental modeling, which is often used in resource adequacy planning, should be utilized in

²⁰ At the net ICR, the price established under the demand curve would be less than true net CONE.

²¹ Newell/Ungate Testimony at 63.

²² Supporters generally include generators, state parties, project financiers, and renewable resource developers. However, municipals, such as EMCOS, argue that the entire package of changes is unduly discriminatory because it does not include an exemption from the MOPR for self-supplied resources, as discussed further below.

²³ See, e.g., NESCOE Comments at 6-7.

²⁴ Mass AG Comments at 5-6; see also Johnson Testimony at 7-11. The Mass AG

(continued...)

conjunction with statistical modeling to produce more informed capacity prices by means of a process that is both more comprehensive in terms of costs and more dynamic in the sense that it can be modeled to optimize capacity at least cost.

20. CT PURA and RI DPUC request that the Commission adopt objective and measureable performance metrics to evaluate the demand curve's performance on an annual or biennial basis. In particular, they argue that the Commission should require ISO-NE to report annually on: the capacity shortage or surplus; the number of capacity shortage events; the number of megawatts, resource type, and technology type retiring; the number of megawatts, resource type, and technology type of new capacity entry resulting from each FCA; and the role of bilateral contracts on the expected revenue stream for each new entrant.

21. NRG and PSEG assert that the proposed demand curve fails to ensure reliability, because the probability of capacity under-procurement that results in less than the 1-in-10 LOLE standard is too high at 31.4 percent. PSEG argues that ISO-NE should design a demand curve to meet the 1-in-10 LOLE standard in *all* years and not merely on average over time.²⁵ NRG also asserts that the proposed price cap of 1.6 times net CONE will fail to incent new entry until the system is at or below the 1-in-5 LOLE, which ISO-NE describes as the minimum acceptable reserve margin. NRG, therefore, argues for either shifting the demand curve to the right (so the probability of hitting the price cap is minimal), or increasing the price cap to 2 times net CONE, so the market would incent new entry prior to reaching an unacceptably low reserve margin.²⁶

22. PSEG states that ISO-NE's selection of a combined-cycle combustion turbine as the reference technology is inappropriate given the relatively small size of the New England region. PSEG argues that, based on estimated load growth of 200 MW per year, adding a benchmark 715 MW combined-cycle unit would put the region in an oversupply condition for over three years. PSEG argues that a 100-200 MW combustion turbine is a better alternative as the reference technology because it will allow ISO-NE to add incremental amounts of capacity when needed.²⁷ NU states that the Demand Curve Changes are a reasonable compromise among stakeholders, but the proposed demand

calculates that cost of capacity under the proposed demand curve is double or more than the value of the same capacity to load.

²⁵ NRG Protest at 5-6; PSEG Protest at 12-15.

²⁶ NRG Protest at 6-9.

²⁷ PSEG Protest at 16.

curve would allow capacity prices to reach the upper limits of what it finds acceptable. NU states that it does not recommend changing the technology underlying the proposed CONE values, but if the Commission considers modifications to the Demand Curve Changes, the Commission should recognize the evidence supporting using lower cost frame combustion turbine technologies to develop CONE values.²⁸

23. Dominion argues that the Filing Parties did not sufficiently explain the market clearing mechanics the auction will use when clearing import-constrained zones without sloped demand curves while clearing the Rest-of-Pool region with a sloped demand curve. Dominion asserts that the absence of clarity on this issue may lead to market confusion and instability. Therefore, Dominion requests that the Commission direct ISO-NE to submit a compliance filing providing clarifying language either in the form of a narrative explanation or through amendments to the Tariff.²⁹

24. Several parties³⁰ assert that the price cap under the proposed demand curve is not sufficiently robust over time to address forecasting errors and net CONE volatility associated with energy and ancillary services revenues. These parties state that the minimum price cap is intended to protect against the sloped demand curve “collapsing on itself”³¹ but, if ISO-NE establishes net CONE too low, the demand curve will not attract enough investment to meet its reliability targets. NEPGA and EPSA and NextEra add that this is a concern for both new and existing resources, arguing that a higher minimum price cap equal to 1.25 times gross CONE (instead of 1 times gross CONE) would protect against a capacity market design that does not allow price to rise to the level necessary to incent new resources when needed and to retain existing resources when economic.

²⁸ NU Comments at 2.

²⁹ Dominion at 4.

³⁰ NextEra, NEPGA and EPSA.

³¹ The proposed demand curve price cap is equal to the higher of (i) 1.6 times the net CONE or (ii) 1.0 times the gross CONE. The net CONE used in (i) is calculated as the gross CONE minus energy and ancillary service (E&AS) revenues. In the absence of (ii), which is the minimum price cap, if E&AS revenues are very large (e.g., due to unexpectedly high congestion), E&AS revenues could overwhelm the gross CONE, resulting in a demand curve that is very low and produces very low capacity revenues (hence the notion that the demand curve could collapse on itself.)

c. Answers

25. ISO-NE states that the proposed sloped demand curve is fully compatible with resource adequacy planning standards and is targeted specifically to satisfying the 1-in-10 LOLE criterion over the long term.³² ISO-NE states that NRG's assertion that the proposed sloped demand curve will not incent new entry until unacceptable reliability conditions exist is unfounded. ISO-NE explains that the proposed demand curve and the estimated net CONE values upon which it is based are designed to result in new entry at prices that typically would be well below the price cap and that achieve reasonable reliability results.³³

26. ISO-NE states that the parameters for the price cap reflect important considerations and tradeoffs involving price volatility, reliability, and frequency of low reliability events, considerations that protestors do not attempt to balance in their alternate proposals. ISO-NE states that the proposed demand curve, including the price cap, appropriately balances these considerations and achieves a result that is well within the zone of reasonableness.³⁴

27. ISO-NE states that PSEG fails to support its assertion that a combustion turbine is the appropriate reference technology for purposes of estimating net CONE and that ISO-NE thoroughly explained its reasons for selecting a combined-cycle unit as the reference technology in its initial filing.

28. ISO-NE also explains how the auction mechanics will work with respect to zonal curves and a sloped system-wide demand curve, in response to Dominion's comments.

d. Commission Determination

29. We find that the proposed demand curve design reasonably balances the multiple considerations identified by Filing Parties, including reducing price volatility, susceptibility to the exercise of market power, frequency of low reliability events, and avoiding falling below a 1-in-5 LOLE in any individual time period. We further find that the sloped demand curve represents an important improvement to the FCM, as it will address some of the challenges presented by the use of a vertical demand curve in previous auctions, including, among other things, the Commission's concerns regarding

³² ISO-NE Answer at 7.

³³ *Id.* at 8.

³⁴ *Id.* at 9.

price volatility and the administrative pricing provisions, as raised in the January 24, 2014 Order. Accordingly, we accept the demand curve design as just and reasonable.

30. As to the specific parameters of the demand curve (i.e., the price cap and foot), ISO-NE has demonstrated through its Monte Carlo simulation analysis that its proposed sloped demand curve can reasonably be expected to elicit sufficient capacity to meet its stated reliability objective of a 1-in-10 LOLE on average over time. We disagree with parties that suggest that meeting the 1-in-10 LOLE standard on average over time is unjust and unreasonable and that the demand curve must be designed to meet the 1-in-10 LOLE standard in all years. To do so, parties suggest that ISO-NE either shift the demand curve to the right or increase the price cap. As noted above, the Filing Parties' proposal sets the reliability objective, which we accept here.

31. We also decline to require ISO-NE to submit an annual report as CT PURA and RI DPUC request. ISO-NE is already required under its Tariff to submit its annual auction results filing after each FCA,³⁵ a report that contains much of the information CT PURA and RI DPUC request. Additionally, as the Filing Parties state, ISO-NE, the Internal Market Monitor, the external market monitor, and stakeholders will review the performance of the new sloped demand curve to determine if auction results or other events indicate that changes are warranted.

32. We disagree with PSEG's contention that because of the small size of the New England market and its associated small load growth, the Filing Parties should have selected a different reference unit with a smaller size. The size of the proxy unit need not approximate the average load growth in the market. Rather, the choice of the proxy unit and the other relevant parameters should result in a demand curve that can be expected to elicit an amount of capacity for this region that meets the stated reliability objective (the 1-in-10 LOLE). As discussed earlier, ISO-NE's proposed demand curve is consistent with this objective. Thus, we agree with the Filing Parties that the combined-cycle unit is an appropriate choice for the New England region, because it is a technology that appears likely to be developed in New England and because ISO-NE can develop cost and revenue estimates for this technology with confidence. Further, as ISO-NE notes, the price cap under the proposed demand curve design is high enough to accommodate projects that use a variety of combustion turbine technologies.³⁶

33. More important, the significance of the choice of reference unit is that its net CONE value affects the position of the demand curve. We agree with ISO-NE that the

³⁵ See Tariff section III.13.8.2.

³⁶ ISO-NE Answer at 9-10.

proposed design should produce prices that are high enough to meet the reliability standard, but not so high as to add unnecessary costs. As discussed previously, ISO-NE's Monte Carlo simulation analysis demonstrates that the proposed demand curve can reasonably be expected to elicit sufficient capacity to meet the Filings Parties' stated reliability objective, the 1-in-10 LOLE, on average over time.

34. ISO-NE states that it will reevaluate its choice of reference unit, as appropriate. We recognize that such reevaluation is important, since market activity and technology change over time, but agree with ISO-NE that there should be consistency in the use of reference technology to provide certainty to the market.

35. Regarding Dominion's concern that ISO-NE did not adequately explain the market clearing mechanics that ISO-NE will employ when clearing import-constrained zones with vertical demand curves while clearing the Rest-Of-Pool with a sloped demand curve in FCA 9, we are satisfied by ISO-NE's explanation that the rules specify that the minimum amount of capacity accepted within an import-constrained capacity zone and counted toward meeting system-wide demand is the zone's Local Sourcing Requirement. After the auction rounds have concluded for an import-constrained capacity zone, the amount of the capacity zone's Local Sourcing Requirement counts toward aggregate system supply in subsequent auction rounds at each price below which the import-constrained capacity zone auction concluded.³⁷ Having found that the Filing Parties' proposed demand curve construct is just and reasonable, we need not consider alternative designs.³⁸ To the extent parties seek additional changes, we encourage them to do so through the stakeholder process.

2. Zonal Administrative Pricing Rules

a. Filing Parties' Proposal

36. The Filing Parties state that the Demand Curve Changes eliminate the need for administrative pricing provisions established to mitigate performance concerns associated with a vertical demand curve at the system-wide level because the market will determine both the price and the quantity.³⁹ However, the Filing Parties state that there was insufficient time to develop appropriate zone-level sloped demand curves for FCA 9, to

³⁷ *Id.* 10-11.

³⁸ See *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 691 (D.C. Cir. 1995); *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984).

³⁹ Transmittal at 13.

be held in February 2015, so the administrative pricing within a zone is retained in the event of either Inadequate Supply or Insufficient Competition in that zone. The Filing Parties intend to complete the work required in order to implement sloped demand curves at the zonal level for FCA 10.⁴⁰

37. In the meantime, the Filing Parties state, the Demand Curve Changes update the administrative prices that could apply in FCA 9 at the zonal level in the event of either Inadequate Supply or Insufficient Competition. They explain that, if either of these conditions are triggered in FCA 9 at the zonal level, the payment rate for existing resources in that zone will be set using the current administrative formulas but substituting the current fixed price of \$7.025/kW-month with the higher of net CONE (\$11.08/kW-month) or the capacity clearing price for the Rest-of-Pool capacity zone.⁴¹ The Filing Parties explain that these values are appropriate because, they state, the best alternative to a competitively-determined price in an import-constrained zone is the target long-term price based on estimated net CONE or, if the system-wide price is higher, the capacity clearing price for the Rest-of-Pool capacity zone.

b. Comments and Protests

38. Several generator parties⁴² protest the zonal administrative pricing changes, asserting that the Filing Parties' proposal is inconsistent with ISO-NE's prior statements and Commission orders, pursuant to which the administrative pricing value under the Insufficient Competition and Inadequate Supply rules has been 1.1 times net CONE.⁴³ NEPGA and EPSA assert that the Commission neither directed nor approved such a change in approving the rate for the FCA 8 administrative pricing value or in its January 24, 2014 Order.

⁴⁰ In addition to zonal demand curves, the Filing Parties state that they plan to work with stakeholders to address several other issues in time for FCA 10, including calculation of the ICR and reconfiguration auctions. Transmittal at 13-14; Ethier Testimony at 25-26.

⁴¹ See Tariff sections III.13.2.8.1 and III.13.2.8.2.

⁴² NEPGA and EPSA, Entergy and Exelon.

⁴³ The parties recognize that the basis for estimating CONE has changed several times since the FCM was initiated but note that the 1.1 multiplier has never changed.

c. Answers

39. ISO-NE states that commenters have provided no valid justification why a multiplier is necessary to calculate the administrative price.⁴⁴

d. Commission Determination

40. We find that net CONE is a reasonable estimate of the price that would result from a competitive auction, and therefore we will accept the relevant Tariff revisions on this issue. While it is true that ISO-NE historically has used 1.1 times net CONE to determine administrative prices, nothing in the January 24, 2014 Order or elsewhere prohibits ISO-NE from proposing changes to the administrative pricing provisions, and, here, the proposed changes fit within the Demand Curve Changes as a whole. We note that, in establishing net CONE in the instant filing, ISO-NE expressed a preference for overestimating net CONE, in order to ensure that prices are high enough to allow merchant resources to enter the market. This differs from ISO-NE's approach to estimating cost of new entry in other circumstances, such as establishing Offer Review Trigger Prices, in which ISO-NE seeks to establish values near the low end of a competitive range.⁴⁵ Thus, we agree that net CONE, without the 1.1 multiplier, provides an appropriate estimate of the price that would result from a competitive auction.⁴⁶

41. Further, as indicated above, the Filing Parties have committed to developing zonal sloped demand curve to be in place for FCA 10. We expect the Filing Parties to submit these zonal demand curve changes by January 2, 2015, to allow sufficient time for review, approval and implementation for FCA 10.

⁴⁴ ISO-NE Answer at 14.

⁴⁵ Ethier Testimony at 7-8.

⁴⁶ We note that the price cap supported by protestors (1.1 times net CONE) is higher than the price cap previously supported by many of the same parties in Docket No. EL14-7-000 (1.1 times the Offer Review Trigger Price), and which was rejected by the Commission. *New England Power Generators Association, Inc.*, 146 FERC ¶ 61,039, at PP 53-54 (2014).

3. Price Lock-In Extension

a. Filing Parties' Proposal

42. Under the existing FCM rules, a new resource clearing the FCA may elect to receive, or “lock-in,” the capacity clearing price for that year’s FCA for up to four additional capacity commitment periods, regardless of the actual auction clearing price.⁴⁷ As part of the Demand Curve Changes, the Filing Parties propose to extend the price lock-in period to seven years, in order to set the demand curve price cap at a lower level (1.6 times net CONE), while still inducing investment. ISO-NE states that a study by The Brattle Group regarding the effects of extending the price lock-in period shows that, in order to support sufficient entry to meet the 1-in-10 LOLE without extending the lock-in period, developers required a price cap of \$23.00/kW-month (roughly 2.0 times net CONE) instead of \$17.73/kW-month (1.6 times net CONE). ISO-NE also states that the five-year lock-in period coupled with the higher price cap of \$23.00/kW-month would mean a steeper curve and, thus, greater price volatility.

43. The Filing Parties argue that, perhaps more than other considerations associated with designing a sloped demand curve, extending the price lock-in period is tied closely to circumstances specific to the New England region.⁴⁸ This is because, according to ISO-NE, the perceived risks in the FCM are unnaturally high and reflect more volatility than the initial five-year price lock-in period can ameliorate.⁴⁹ Furthermore, ISO-NE explains that choosing a price cap lower than 2 times net CONE increases the probability that resources will choose not to enter the market if they see significant regulatory risk beyond the price lock-in period. At the same time, the Filing Parties are concerned that choosing a higher price cap would leave consumers exposed to very high prices if an auction is not competitive. Consequently, the Filing Parties state that the longer price lock-in period compensates for the lower price cap proposed. ISO-NE contends that it is important to reduce near-term risks by providing a longer price lock-in period, which will send a price signal more consistent with long-run expectations of a stable and robust market. ISO-NE intends to review the need for and length of the price lock-in period after a series of auctions using the new demand curve design.

⁴⁷ Ethier Testimony at 30.

⁴⁸ Transmittal at 10.

⁴⁹ Ethier Testimony at 31.

b. Comments and Protests

44. Several parties, including First Wind, CPV, and EMI, support the lock-in extension. These parties assert that the extension is necessary to support new investment in the ISO-NE market.

45. However, numerous parties oppose the lock-in extension arguing that it effects and will perpetuate price discrimination between new and existing resources for an additional two years, thereby suppressing the FCM price and spurring additional retirements of existing capacity resources.⁵⁰ These parties contend that such price discrimination violates a fundamental economic premise of a capacity market, that resources that provide the same service should receive the same price, and that Filing Parties have not met their burden here to show that extending the price lock-in period will bring long-term benefits to offset the likely damage to existing economic capacity resources.

46. Dynegy states that the Commission rejected a similar extension of PJM Interconnection LLC's (PJM) New Entry Price Adjustment, finding that forward capacity markets are "designed to provide long-term forward price signals and not necessarily long-term revenue assurance for developers."⁵¹ Likewise, NEPGA and EPSA state that the Commission denied PJM's proposal in that case because it could lead to higher overall costs if existing capacity exists and has to be replaced by new entry.⁵² NEPGA and EPSA argue that no unique circumstances exist in New England that justify approving the extension here. NEPGA and EPSA also note that the California Independent System Operator generates economic offers in place of \$0 bids when, under certain circumstances, a resource fails to be offered into the energy market, rather than enter the MWs as price-takers.⁵³

⁵⁰ See, e.g., PSEG Protest at 9-10, Dynegy at 2-3, and NRG Protest at 9, NEPGA and EPSA Protest at 24-26, Entergy and Exelon Protest at 18-19.

⁵¹ Dynegy Protest at 3-4 (citing *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275, at P 150 (2009)).

⁵² NEPGA and EPSA Protest at 25 (citing *PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,157, at P 103 (2009)).

⁵³ NEPGA/EP SA Protest at 27 (citing *California Independent System Operator Corporation*, 136 FERC ¶ 61,238 (2011); *California Independent System Operator Corporation*, 142 FERC ¶ 61,191, at P 28 (2013)).

47. NEPGA and EPSA also assert that the lock-in extension is an inefficient mechanism to increase investor confidence in the FCA, as investors will likely consider revenue in the years after the lock-in period expires. They also argue that there is no basis to conclude that extending the period an additional two years somehow yields more price certainty. NEPGA and EPSA assert that the extended lock-in is beyond the scope of and counter to the spirit of the January 24, 2014 Order, to the extent that the Commission ordered ISO-NE to file a sloped demand curve intended to eliminate discriminatory pricing outcomes arising from the administrative pricing rules.

48. Dynegy states that ISO-NE's proposal to review the need for and appropriate length of the lock-in period after a series of auctions using the new demand curve requires more specificity. Dynegy states that, absent sufficient detail, such review undercuts the certainty ISO-NE seeks to provide to developers by implementing the lock-in extension. Dynegy also states that ISO-NE should reveal which project developers and financiers provided input to ISO-NE during development of the lock-in extension.

c. Answers

49. ISO-NE asserts that the price lock-in period extension is not beyond the scope of the January 24, 2014 Order because this is a section 205 proceeding. ISO-NE states that, while there are limitations on what can be included within the scope of a compliance filing submitted pursuant to a compliance directive in a Commission order, there are no such limitations for a filing submitted pursuant to section 205.⁵⁴ In addition, ISO-NE argues that the lock-in period extension, as well as the renewables exemption discussed below, is fairly within the scope of what is appropriate to consider when implementing a sloped demand curve because doing so involves more than a change to auction mechanics, and entails balancing of a number of objectives.⁵⁵ ISO-NE also argues that parties protesting the lock-in extension are seeking to enhance parameters in ways that are uniformly favorable to existing capacity resources, even though the proposed demand curve already contains parameters that are extremely favorable toward suppliers.⁵⁶

50. ISO-NE states that the lock-in extension increases the probability that new entrants will not demand a regulatory risk premium in their supply offers and will instead offer closer to their competitive cost, which ISO-NE states should be viewed as a price

⁵⁴ ISO-NE Answer at 4-5.

⁵⁵ *Id.* at 5.

⁵⁶ *Id.* at 3.

correction because it is a return to competitive pricing, rather than price suppression.⁵⁷ ISO-NE further states that it is illogical to argue that the lock-in extension suppresses prices due to the locked-in resources' offering into future auctions as price-takers. ISO-NE posits that all existing resources, regardless of whether they have locked in a price or not, must offer as price-takers, absent a request to de-list from the market. ISO-NE agrees that the lock-in extension will likely decrease costs to consumers but argues that it does not follow that the decreased prices are artificially low or that the entry elicited by the longer lock-in will be in excess.⁵⁸

51. ISO-NE further states that the proposed extension seeks to reduce the regulatory risk premium that project developers include when considering whether to invest in New England; developers appear to be waiting for evidence that the sloped demand curve reforms are going to be effective before moderating their investment assumptions. ISO-NE asserts that the Commission should accept the lock-in extension, which will reduce regulatory risk and allow for market outcomes to reflect these reforms that will increase market efficiency and promote new investment.⁵⁹ ISO-NE states that, as a general matter, it is not in favor of market rules that pay different prices to resources providing the same service but that, in this instance, the short-term price differential between new and existing resources will bring both short- and long-term benefits, is not unduly discriminatory, and is necessary.⁶⁰

52. ISO-NE distinguishes its proposal to extend the price lock-in period from the PJM proposal to extend its New Entry Price Adjustment, arguing that the Commission rejected PJM's proposal because it found that no party established that extending the term to five or seven years strikes a superior balance to the existing provisions.⁶¹ In contrast, ISO-NE argues, its proposed lock-in extension is necessary in the face of a capacity shortage and widespread investor perceptions that the New England market is riskier than other markets. ISO-NE indicates that the alternative is to increase the price cap above that in

⁵⁷ *Id.* at 20.

⁵⁸ *Id.* at 21.

⁵⁹ *Id.* at 22.

⁶⁰ *Id.* at 24.

⁶¹ *Id.* at 25 (citing *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 at PP 149-150).

the proposed demand curve or in other markets, an action that would expose consumers to very high prices if an auction is not competitive.⁶²

53. NEPOOL states that it would be inappropriate to reject certain elements of the Demand Curve Changes, such as the lock-in extension, solely on the basis that certain additional elements were not discussed in the Commission's January 24, Order. NEPOOL states that the lock-in extension is critically interrelated to the curve itself and if the Commission were to accept certain elements but reject other pieces of the package, it could have a profound effect on the willingness and ability of stakeholders in the future to work together to address the interests of others at the table rather than litigate every individual point of interest of contention. NEPOOL urges the Commission, if it finds certain elements of the package unacceptable for long-term implementation, to allow the package as filed to be effective for FCA 9 and allow any further desired changes also to be considered as a comprehensive package to be applied for FCA 10 and beyond.

d. Commission Determination

54. We accept the Filing Parties' proposal to extend the price lock-in period for an additional two years, as discussed below.

55. The price lock-in period is directly correlated with the sloped demand curve parameters. That is, in order for a sloped demand curve to achieve a 1-in-10 LOLE standard, a longer price lock-in period allows the price cap to be set at a lower level (i.e., 1.6 x net CONE). If ISO-NE were to maintain the current five-year lock-in, a higher price cap would be needed to achieve the same degree of reliability.

56. We find that the Filing Parties' proposal is a reasonable response to offset the foregoing concerns. The lock-in extension seeks to achieve a reasonable balance between incenting new entry and protecting consumers from very high prices, all in the context of recent conditions in ISO-NE's market. We find that Filing Parties have sufficiently demonstrated that, in the circumstances here, extending the lock-in period is an appropriate way to provide investor assurance, given that the sloped demand curve represents a significant change in the FCM design. Although a lock-in extension may result in lower market clearing prices, we emphasize that other demand curve parameters, such as a price at net ICR exceeding net CONE by 20 percent, help to assure that the demand curve construct overall will support adequate new and existing resources to achieve the stated reliability objective.

⁶² ISO-NE Answer at 26.

57. Further, the proposal is distinguishable from the PJM proposal that the Commission rejected. In that case, the Commission found that the proposed extension went beyond the intent of the original price lock-in provision, which was aimed at addressing the issue of lumpy investment in a small zone. The Commission also rejected PJM's proposal because it found that "no party has made the case that extending the [lock-in] term to five or seven years strikes a superior balance to the existing provisions."⁶³ Here, we find that the extension, as part of the package of Demand Curve Changes, is a reasonable means to address the New England region's current capacity shortage and investor perceptions regarding risk.

58. Entergy and Exelon assert that the Filing Parties have not shown that extending the price lock-in period will bring long-term benefits that will offset disadvantages to existing economic capacity resources. However, as noted above, the lock-in extension represents an attempt to balance numerous considerations. The proposed extension not only addresses specific issues unique to the New England region, such as the real risk of lack of investment when new capacity is needed and a high reliance on merchant entry, but it is also closely linked to the design of the sloped demand curve and the parameters chosen.

59. NEPGA and EPSA assert that the extension is an inefficient mechanism to increase investor confidence in the FCA, as investors will likely consider revenue in the years after the lock-in period expires. However, we agree with the Filing Parties, CPV, EMI, and others that given the current investment conditions in New England, this provision will engender additional confidence in the New England market for potential investors.

60. With respect to Dynegy's request for additional information regarding which project developers and financiers provided input to ISO-NE during the development of the proposed lock-in extension, we believe Dynegy should be able to obtain this information from ISO-NE through the stakeholder process.

61. We disagree with the assertions by several parties that any of the Demand Curve Changes, including the lock-in period extension, are beyond the scope of what the January 24, 2014 Order required. The Filing Parties submitted the Demand Curve Changes as a section 205 filing, not a compliance filing. ISO-NE had already committed to proposing a sloped demand curve in the stakeholder process and filing it with the Commission in the summer of 2014; the January 24, 2014 Order simply directed ISO-NE to file the proposal by April 1, 2014, to allow for implementation for FCA 9.⁶⁴ The

⁶³ *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 at PP 149-150.

⁶⁴ *ISO New England Inc.*, 146 FERC ¶ 61,038 at P 30.

January 24, 2014 Order did not set forth any parameters for the demand curve or limit the proposal in any way.

4. Renewable Exemption

a. Filing Parties' Proposal

62. Given the advent of a sloped demand curve, the Filing Parties propose an exemption from the capacity market's buyer-side mitigation rules, the MOPR, for Renewable Technology Resources.⁶⁵ The Filing Parties state that using a sloped demand curve limits concerns about price suppression, since small changes in quantity have a much smaller impact on price. In contrast, under a vertical demand curve, the Filing Parties explain, a renewable resource exemption would have had a large downward effect on prices.

63. The Filing Parties state that the exemption will permit 200 MW of capacity from Renewable Technology Resources to participate in the FCM without being subject to the MOPR.⁶⁶ The proposal allows any unused portion of the 200 MW to carry forward for up to three years with a possible total of 600 MW. If in any FCA the limit is met, the following FCA will return to a 200 MW limit. ISO-NE states that the limit on the amount of resources exempted, set at approximately ISO-NE's estimate of average annual load growth, is appropriate to ensure that the exemption contains a backstop to prevent systematic downward pressure on prices. The FCM would include Renewable Technology Resources in the total resources procured to ensure that it will not procure capacity beyond the target.

64. The Filing Parties contend that the exemption permits market participants to satisfy their renewable portfolio standard obligations without imposing additional costs on consumers and minimizes potential concerns about price suppression. The Filing Parties state that, in response to the Commission's suggestion that ISO-NE work with its stakeholders to design a renewable resources exemption, they developed the proposed

⁶⁵ The Filing Parties state that Renewable Technology Resources are those resources that qualify under state renewable or alternative energy portfolio standards (or, in states without a portfolio standard, qualify under that states' renewable energy goals as a renewable resource) and that are geographically located in the state in which they qualify. Transmittal at 12 (citing Tariff section III.13.1.1.1.7).

⁶⁶ Tariff section III.13.2.3.2(a)(v).

Renewable Technology Resource exemption with the support of the majority of the stakeholders.⁶⁷

b. Comments and Protests

65. Several parties, including state commissions, support the Renewable Technology Resource exemption. First Wind states that while it believes that all renewable resources should be exempted from the MOPR, the Filing Parties' proposal is a step in the right direction. NU states that allowing even a limited volume of renewable resources otherwise subject to the MOPR (and thereby unlikely to clear the FCA) to take on Capacity Supply Obligations helps reduce the double payment burden borne by customers, who otherwise must pay both for renewable resources to satisfy state renewable resource obligations and for the same amount of capacity to satisfy the ICR, which could have been fulfilled in the first place by renewable resources.⁶⁸

66. Many parties, including generators and municipals, argue that the Commission should reject the proposed exemption for Renewable Technology Resources as unjust and unreasonable, arguing that it undermines competitive entry and the resulting price suppression can accelerate the exit of capacity that would have remained in the market.

67. These parties argue that, even with a sloped demand curve, the price suppressing effects of a Renewable Technology Resource exemption remain significant, noting the small size of the New England market.⁶⁹ NEPGA and EPSA, for example, assert that because of the relative elasticity of supply at the margin, a small change in the supply curve can result in a \$0.50/kW-month to \$2.50/kW-month decrease in the FCA clearing prices. NEPGA and EPSA estimate that this could suppress capacity revenues by up to \$1 billion in a single year.⁷⁰ Additionally, these parties dispute ISO-NE's argument that load growth will capture Renewable Technology Resource growth. NextEra notes that

⁶⁷ Ethier Testimony at 38, citing *ISO New England Inc.*, 142 FERC ¶ 61,107, at P 97 (2013)).

⁶⁸ NU Comments at 7.

⁶⁹ See, e.g., protests of Brookfield, NextEra, NEPGA, EPSA, PSEG, Entergy, and Exelon.

⁷⁰ Hunger Testimony at PP 18-19. PSEG estimates that price suppression could be between \$1/kW-month and \$3/kW-month (PSEG Protest at 10-11), while Entergy and Exelon suggest that capacity prices may be suppressed by \$0.50/kW-month to \$1.50/kW-month (Entergy and Exelon at 14).

any out-of-market resource's bid into the FCA is included in the supply stack, potentially displacing what would otherwise be the marginal, price-setting resource. NextEra also states that price suppression from out-of-market resources is of greater concern when the reserve margin is below the net ICR.⁷¹ PSEG further notes ISO-NE's demand curve analysis did not include the renewables exemption, so the expected prices and reliability levels are inaccurate.⁷²

68. While these parties recognize that the Renewable Technology Resource exemption would lower costs to consumers, they argue that it would do so at the expense of incumbent merchant generators, baseload nuclear units that provide enhanced reliability,⁷³ and other resources that are capable of enhancing fuel diversity.⁷⁴ Entergy and Exelon conclude that the renewables exemption is unduly discriminatory, since all resources are similarly situated to qualify for capacity payments and corresponding capacity obligations from ISO-NE's capacity market.

69. NEPGA and EPSA state that the MOPR exemption is nearly identical to an exemption NESCOE sought, and the Commission denied, pursuant to a complaint filed in 2012.⁷⁵ These parties argue that the Commission found that the exemption would unjustly and unreasonably suppress capacity market prices and displace otherwise economic resources. Entergy and Exelon assert that the Commission should examine the structure, size, and design of the market to determine whether any blanket exemption from the MOPR is reasonable. Entergy and Exelon and Dominion add that ISO-NE proposed the exemption only two days before stakeholders voted on it and the proposal was not sufficiently vetted.⁷⁶

⁷¹ NextEra Protest at 15.

⁷² PSEG Protest at 10-11.

⁷³ Entergy and Exelon at 14.

⁷⁴ Dominion at 8-9.

⁷⁵ NEPGA and EPSA at 13 (citing *New England States Committee on Electricity v. ISO New England Inc.*, 142 FERC ¶ 61,108 at PP 35-37 (2013) (*NESCOE*)).

⁷⁶ Entergy and Exelon Protest at 9, citing NEPGA and EPSA Protest at 5-6; Dominion Protest at 5.

70. Regarding the 200 MW exemption limit, NEPGA and EPSA argue that the net ICR may not increase by 200 MW per year,⁷⁷ and that if load growth exists beyond the 200 MW per year exempted, it likely will be smaller than the minimum size of conventional entrants.⁷⁸ Therefore, NEPGA and EPSA assert that these factors will contribute to price suppression. Similarly, Entergy and Exelon state that, in some circumstances, the exemption granted in any one year could be three times the average annual load growth in ISO-NE, and load growth in any one year will not always equal average forecasted load growth or be uniform across zones. For example, they argue, entry of 200 MW of wind resources in Maine, an export-constrained zone, could drive prices down significantly to the detriment of existing resources.

71. Entergy and Exelon argue that the Filing Parties have failed to explain the effect of the exemption on zones that retain the vertical demand curve for at least one more auction. Entergy and Exelon assert also that the Filing Parties failed to explain what types of new entrants may emerge if load growth is subsumed by uneconomic resources and how ISO-NE's approach differs from PJM's approach that, according to Entergy and Exelon, the Third Circuit recently upheld, finding that state commissions cannot use a resource to offset capacity obligations in the capacity market unless the resource clears the market after bidding at or near its cost of entry.⁷⁹

72. EMCOS and Public Systems also argue that the exemption is unduly discriminatory because it does not provide a comparable exemption for self-supply resources built to meet local policy objectives. EMCOS asserts that, because self-supply resources may access debt financing at a lower cost than that available to merchants and use life-of-unit depreciation, their costs are often below the Offer Review Trigger Price. As a result, an exemption from mitigation requires a case-by-case review that they do not regard as equivalent to an automatic exemption.

73. TransCanada states that the exemption is unduly discriminatory because, due to differing state policies, two identical generating assets could be defined as a Renewable Technology Resource, or not, depending on the rules for the state in which they are located, thereby resulting in the two assets being treated differently under the proposed

⁷⁷ NEPGA and EPSA state that load growth may be lower, for example, because of improved resource availability performance, additional tie benefits, or reduced peak loads. NEPGA and EPSA Protest at 17-18.

⁷⁸ *Id.*

⁷⁹ Entergy and Exelon Protest at 10 (citing *New Jersey Bd. of Pub. Utils. v. FERC*, 744 F.3d 74, 97 (3d Cir. 2014)).

Tariff changes.⁸⁰ TransCanada requests that the Commission require that the list of generation assets qualifying for the exemption be comprised of renewable resources identified by at least one state as a renewable resource.

74. NEPGA and EPSA⁸¹ state that the Renewable Technology Resource, as well as the lock-in extension, should not take effect, if at all, until at least FCA 10, given that the New Capacity Show of Interest Window has closed and the New Capacity Qualification Review is underway.⁸² NEPGA and EPSA also argue that the Renewable Technology Resource exemption is beyond the scope of the Commission's directive in the January 24, 2014 Order.

75. Brookfield presents an alternative to the proposed exemption. Under the Brookfield proposal, a Renewable Technology Resource would offer into an FCA at its Offer Review Trigger Price or a justified lower price, just like any other resource. A Renewable Technology Resource that clears the auction based on its offer price will be treated as an existing resource in all subsequent auctions. A Renewable Technology Resource that does not clear the auction, however, would be eligible to receive a Capacity Supply Obligation (subject to the 200-600 MW cap proposed by ISO-NE) and have the same rights and obligations as all other resources that clear in the auction, but these resources will be treated as new Renewable Technology Resources until they clear economically in an auction. Prices to all resources that receive Capacity Supply Obligations would be prorated, so that the ultimate cost that load pays for capacity does not increase.⁸³

76. Brookfield purports that its proposal supports the states' public policy goals related to renewables while maintaining the integrity of the FCM through accurate price formation in the capacity markets, without increasing costs to load. Brookfield argues that load will benefit from its proposal because the effects of the renewable exemption are absorbed by all suppliers that cleared the auction – and not consumers. Brookfield states that both resources and load would see more accurate price signals and avoid

⁸⁰ TransCanada at 4.

⁸¹ NRG states that it fully endorses the protest of NEPGA with respect to how the lock-in and the renewable resource exemption result in significant price distortions and inefficient market outcomes. NRG Protest at 2.

⁸² NEPGA and EPSA Protest at 12.

⁸³ The total cost of the auction would be set as the amount of cleared MW in the auction multiplied by the respective clearing price.

sizable price distortion resulting from premature exit of resources due to price suppression.⁸⁴

77. Several parties argue that, if the Commission does not reject the proposed renewable resource exemption, either the demand curve should be shifted to the right to counter decreased revenue expectations due to an influx of renewable resources, or the Commission should direct ISO-NE to implement a mechanism – like the Brookfield proposal – to eliminate or substantially reduce the price suppression effects of the renewables exemption.⁸⁵

c. Answers

78. ISO-NE states that the renewables exemption is not beyond the scope of this proceeding because, as explained above, it vetted the entirety of the changes submitted in the instant filing through the stakeholder review process. ISO-NE states that the renewables exemption is a reasoned approach to reconciling the inherent conflict between ensuring appropriate pricing in the FCM and recognizing the state public policy objectives represented by renewable or alternative energy portfolio standards. ISO-NE states that the renewables exemption is not discriminatory because it is available to consumer-owned utilities that build renewable resources as part of a state's renewable portfolio standards program.⁸⁶

79. ISO-NE states that concerns about price suppression under the renewable technology resources exemption are overstated. ISO-NE argues that commenters asserting that the 200 MW renewables exemption cap is too high, fail to recognize that the cap is unlikely to be reached because ISO-NE assigns to renewable resources a capacity value of only approximately 20 percent of their nameplate capacity. ISO-NE states that in the first eight auctions, the cumulative qualified renewable capacity from wind and solar resources was approximately 400 MW.⁸⁷ ISO-NE argues that while it did not analyze the exemption as part of the demand curve modeling, it did include the entry of 1,100 MW of zero-priced state-sponsored natural gas-fired resources that would be prohibited under today's minimum offer price rules. ISO-NE argues that the inclusion of this 1,100 MW is a more than adequate proxy for the expected renewable entry under the

⁸⁴ Brookfield Protest at 17-18.

⁸⁵ *See, e.g.*, NRG Protest at 10-11.

⁸⁶ ISO-NE Answer at 11.

⁸⁷ *Id.* at 15.

proposed exemption.⁸⁸ ISO-NE states that the relatively high quantity of supply that has made a “show of interest” for FCA 9 suggests that the price-suppressing effect of the renewables exemption is unlikely to be greater than estimated by ISO-NE. ISO-NE also states that the renewables exemption will have no effect on energy market prices because the renewable entry is occurring pursuant to state laws and programs that are not generally conditional on capacity market participation.

80. ISO-NE states that, while the renewables exemption treats state-sponsored renewable entry differently than it treats new resources that do not qualify as Renewable Technology Resources, the Commission has found that it is appropriate to distinguish among resources that are not similarly situated in circumstances comparable to those at issue in this proceeding.⁸⁹ Therefore, ISO-NE argues, the exemption is not unduly discriminatory.

d. Commission Determination

81. We will accept the Filing Parties’ proposal to allow an exemption from the MOPR for resources that qualify as Renewable Technology Resources as just, reasonable, and not unduly discriminatory or preferential. The proposed exemption, along with the other changes proposed by the Filing Parties, is consistent with the Commission’s guidance to ISO-NE in possibly developing a MOPR exemption for renewable resources,⁹⁰ and allowing such an exemption is consistent with the Commission’s acceptance of a similar exemption in the PJM capacity market.⁹¹

82. Several parties assert that the proposed exemption is unduly discriminatory either because self-supply resources are not also exempted or because different states have different policies to encourage development of renewable resources. We disagree. The exemption is also available to all consumer-owned utilities that build renewable resources

⁸⁸ *Id.* at 16.

⁸⁹ *Id.* at 17.

⁹⁰ *ISO New England Inc.*, 142 FERC ¶ 61,107, at P 97 (2013).

⁹¹ *PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090, at P 166 (2013) (“We accept PJM’s proposal to apply the MOPR to gas-fired combustion turbine, combined-cycle, and IGCC resources. The IMM, FirstEnergy, and Dayton argue that the MOPR should apply to all resource types and that any resource type can be used to exercise market power. We agree with PJM, however, that the MOPR may be focused on those resources that are most likely to raise price suppression concerns.”).

as part of their state's renewable portfolio standards program. The proposed exemption recognizes all New England state policies, rather than favoring a particular approach. As to arguments that there should be an exemption for renewable resources built pursuant to local policies, the renewables exemption proposed here is limited to complementing state programs promoting renewable resources; as such, additional exemptions are beyond the scope of this proceeding.

83. Certain parties argue that price suppression resulting from the exemption is still a significant concern. We disagree. As ISO-NE explains, while exemptions in general can lower prices, the exemption proposed here is coupled with a sloped demand curve that will limit the impact of price suppression as compared to the existing vertical demand curve. As ISO-NE explains, if all resources offered as price takers, under the vertical demand curve the market-clearing price would be zero at a quantity equal to net ICR; under a sloped demand curve, the market-clearing price would be approximately \$13/kW-mo.⁹² The renewable resource exemption is also tied to load growth (estimated at 189 MW annually, plus an adjustment for the reserve margin required to meet the installed capacity requirement, resulting in 200 MW), so entry of renewable resources will, in most cases, only displace the new entry required to meet load growth. In such an eventuality, an FCM in equilibrium would likely clear near net CONE and attract merchant entry to meet resource retirement in ISO-NE, thus helping to mitigate any price suppressive effect of a renewable resource exemption.

84. We further find that ISO-NE's inclusion of 1,100 MW of zero-priced state-sponsored entry in its modeling adequately addresses concerns that the renewable exemption would severely suppress prices under a sloped demand curve. ISO-NE explains that it considered this zero-priced capacity and it is reflected in the demand curve parameters; in addition, ISO-NE indicates that the supply curve will not be steeper than what was assumed in the development of the curve.⁹³ The less steep the slope of a supply curve, the less an impact the renewable exemption will have. Furthermore, we agree with ISO-NE that the renewables exemption should not have any meaningful effect on energy market prices because the renewable entry is occurring pursuant to state laws and programs that are not generally conditioned upon capacity market participation.

⁹² Ethier Testimony at 39-40.

⁹³ ISO-NE states that the aggregate total "show of interest" amount for all categories of new supply exceeds 10,000 MW, which is high relative to recent auctions. ISO-NE Answer at 16.

85. We do not share concerns regarding the effect of the exemption on zones that retain the vertical demand curve for FCA 9 (and specifically on Maine, which is an export-constrained zone). While Brookfield notes that, as of April 1, 2013, approximately 1,751 MW of the 2,765 MW of renewable resources in the interconnection queue were proposed in Maine,⁹⁴ such projects may not qualify in time for FCA 9 or even be built at all. Even if 1,000 MW of renewable resources do qualify in Maine (because ISO-NE qualifies wind and solar resources for capacity market participation at approximately 20 percent of their nameplate capacity), other states in New England will likely qualify resources, leading to prorating; thus, all 200 MW would not be located in Maine.

86. Protestors state that the Renewable Technology Resources exemption is similar to the proposal in *NESCOE*, where the Commission denied a complaint seeking such an exemption. In that case, however, the Commission found that complainants failed to show that the existing Tariff without an exemption was unjust and unreasonable.⁹⁵ Nothing in that proceeding prevents ISO-NE from itself proposing an exemption under section 205 of the FPA.

87. Having found the Renewable Technology Resources exemption to be just, reasonable, and not unduly discriminatory or preferential, we need not address Brookfield's alternative proposal.⁹⁶

88. While we are accepting ISO-NE's proposed Renewable Technology Resource exemption, we note that Tariff section III.13.1.1.7(b), which outlines the requirements for qualifying as a Renewable Technology Resource, appears to limit a new resource's ability to qualify for this exemption in future auctions. The Tariff states that such resources must:

qualify as a renewable or alternative energy generating resource under any New England state's mandated (either by statute or regulation) renewable or alternative energy portfolio standards as in effect *on January 1, 2014*, or, in states without a standard, qualify under that state's renewable energy

⁹⁴ Brookfield Protest at 10, n.28.

⁹⁵ *NESCOE*, 142 FERC ¶ 61,108 at P 37 (“Merely noting the existence of another just and reasonable rate, or proposing an alternative rate, as *NESCOE* does here, does not alone show that an existing rate is unjust and unreasonable.”).

⁹⁶ See *ISO New England Inc.*, 114 FERC ¶ 61,315, at P 33 (2006) (citing *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984)).

goals as a renewable resource (either by statute or regulation) as in effect on *January 1, 2014*. (Emphasis added.)

The Tariff provision suggests that a new resource could not qualify for the exemption if it satisfied a state-mandated standard or goal in effect *after* January 1, 2014. We note that other Tariff provisions contemplate that new resources may attempt to qualify for this exemption in later auctions. For example, Tariff section III.13.1.1.1.7(c) states that a Renewable Technology Resource must “participate in a Forward Capacity Auction for a Capacity Commitment Period beginning *on or after June 1, 2018*.” Therefore, we require ISO-NE to submit a compliance filing within 60 days of the date of this order, clarifying how new resources could qualify for the exemption in future auctions.

5. Self-Supply

a. Comments and Protests

89. Several parties argue that the Commission should direct ISO-NE to include an exemption from the MOPR rules for self-supplied resources. EMCOS request that the Commission direct ISO-NE to implement a system of expanded Capacity Transfer Rights to enable them to fulfill their self-supply rights, explaining that the locational feature of the FCA discourages pooling of resources among its members and interferes with their right to finance, build, and own generating facilities to serve their load.

90. CT PURA and RI DPUC argue that a sloped demand curve may more effectively meet its objective by allowing load-serving entities to self-supply their load obligations. They request that any Commission order approving the demand curve in this proceeding provide an analysis discussing how the performance of demand curves in PJM and New York Independent System Operator, Inc. support a finding that demand curves promote entry of new resources absent long-term bilateral energy and/or capacity contracts.

91. Public Systems argues that the MOPR threatens the business model of municipals and consumer-owned utilities that rely on the FCM as a residual procurement mechanism only. Public Systems argue that, similar to PJM, ISO-NE should at least adopt a limited exemption for new self-supply resources. Otherwise, Public Systems argue, the MOPR will impede the ability of municipals and customer-owned utilities to acquire resources consistent with their obligations. Public Systems states that, should the Commission not require ISO-NE to exempt self-supply, the Commission should set for hearing whether the sloped demand curve proposal is just and reasonable without a self-supply exemption.

92. The Mass AG argues that, as long as reliability standards and use of a single reference technology continue to determine the price paid to all generators under the demand curve design, capacity costs to consumers will remain higher than the value of that capacity to them. According to the Mass AG, self-supply could achieve desirable outcomes not present in the current market design, such as long-term price stability and

fuel diversity. Thus, the Mass AG requests that the Commission reconsider allowing load to self-supply their capacity by relying on arms-length negotiated agreements and direct ISO-NE to undertake stakeholder process to develop self-supply rules while mitigating any possible prices-suppressive effects in the central capacity market.⁹⁷

b. Answers

93. ISO-NE asserts that the Commission has rejected claims that adopting certain types of buyer-side mitigation exemptions, and not others, is unduly discriminatory. ISO-NE states that the Commission has specifically found that the absence of a self-supply exemption does not constitute undue discrimination when a resource may justify a supply offer price below the applicable offer price floor through a unit-specific review process, which the FCM rules include.⁹⁸ ISO-NE further notes that the Commission has expressly found that new self-supply should be subject to offer floor mitigation.⁹⁹ Moreover, ISO-NE states that the requested self-supply exemption is itself somewhat discriminatory, as it would only be available to a limited class of market participants, namely publicly-owned utilities.

94. NEPGA and EPSA argue that requests to include a self-supply exemption are outside the scope of this proceeding. NEPGA and EPSA state that the Commission has rejected the same self-supply exemption in three recent orders, noting that the proponents here failed to address the concerns the Commission raised in denying those prior requests.¹⁰⁰

⁹⁷ Mass AG Comments at 9.

⁹⁸ ISO-NE Answer at 13.

⁹⁹ *ISO New England Inc.*, 142 FERC ¶ 61,107 at P 80 (citing *ISO New England Inc. and New England Power Pool Participants Committee*, 135 FERC ¶ 61,029, at P 232 (2011), *order on reh'g*, 138 FERC ¶ 61,027 (2012)).

¹⁰⁰ NEPGA and EPSA Answer at 8-9 (citing *ISO New England Inc. and New England Power Pool Participants Committee*, 135 FERC ¶ 61,029, at PP 230-232 (2011); *ISO New England Inc. and New England Power Pool Participants Committee*, 135 FERC ¶ 61,029 (2011), *order on reh'g and clarification*, 138 FERC ¶ 61,027 at P 70 (2012); and *ISO New England, Inc.*, 142 FERC ¶ 61,107 at P 80 (2013)).

c. Commission Determination

95. Requests for a self-supply exemption are beyond the scope of this section 205 filing. ISO-NE has not proposed such an exemption, nor was it required by the January 24, 2014 Order.

96. Nevertheless, we note that market participants can still utilize self-supplied resources without a MOPR exemption. For example, existing resources that have previously cleared in a capacity auction are not subject to the MOPR. Thus, they can be self-supplied and offered as price takers, thereby assuring themselves of clearing in the FCA. New resources that have never cleared in a capacity auction are subject to the MOPR, but ISO-NE's Tariff provides for a unit-specific review process, which allows a resource to offer below its benchmark after conferring with the IMM to demonstrate that its actual costs are below its asset-specific benchmark.¹⁰¹ Thus, any new self-supplied resource whose actual full entry costs are below the clearing price will have the opportunity to justify its costs for purposes clearing in the FCA.

6. Other Demand Curve Changes

a. Filing Parties' Proposal

97. The Filing Parties also describe a number of other conforming changes to the market rules.¹⁰² First, the Filing Parties propose that the FCA starting price will equal the price cap of the system-wide demand curve. Second, the Filing Parties propose that the FCA will purchase the amount of capacity determined by the system-wide demand curve. Third, the Filing Parties propose to replace the practice of using de-list bids as a means to limit the Capacity Supply Obligation a resource may assume in the event there is a reduction in the capacity the resource is capable of providing for the commitment period.

b. Commission Determination

98. We find that the proposed Tariff revisions intended to conform the market rules to the use of a sloped demand curve are just and reasonable and we will accept them for filing. In taking this action, we note that no party has challenged these aspects of the Demand Curve Changes.

¹⁰¹ See Tariff section III.A.21.2(b).

¹⁰² Ethier Testimony at 42-43.

The Commission orders:

(A) The proposed Tariff revisions are hereby accepted for filing, effective June 1, 2014, as discussed in the body of this order.

(B) ISO-NE is hereby directed to submit a compliance filing within 60 days of the date of this order, as discussed in the body of this order.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Motion to Intervene Only	Intervention, Comments and Protests¹⁰³
Calpine Corporation	Brookfield Energy Marketing LP*
Champlain VT, LLC d/b/a TDI New England	Connecticut Public Utilities Regulatory Authority (CT PURA) and Rhode Island Division of Public Utilities and Carriers (RI DPUC)
Consolidated Edison Energy, Inc. and Consolidated Edison Solutions, Inc.	CPV Power Development, Inc.
Emera Energy Services, Inc.	Dominion Resources Services, Inc. on behalf of Dominion Energy Marketing, Inc., Dominion Energy Manchester Street, Inc., and Dominion Nuclear Connecticut, Inc.*
GDF Suez Energy North America, Inc. on behalf of its affiliate, GDF Suez Energy Marketing NA, Inc.	Dynegy Marketing and Trade, LLC and Casco Bay Energy Company, LLC*
Granite Ridge Energy, LLC	Eastern Massachusetts Consumer-Owned Systems ¹⁰⁴ (EMCOS)*
Industrial Energy Consumer Group	Energy Management, Inc. (EMI)
Long Island Power Authority and Long Island Lighting Company d/b/a Power Supply Long Island	Entergy Nuclear Power Marketing, LLC, and Exelon Corporation*
Millennium Power Partners, L.P.	First Wind Energy, LLC
National Grid	Massachusetts Municipal Wholesale

¹⁰³ Protests denoted by an asterisk.

¹⁰⁴ Eastern Massachusetts Consumer-Owned Systems consists of Belmont Municipal Light Department, Braintree Electric Light Department, Concord Municipal Light Plant, Georgetown Municipal Light Department, Groveland Electric Light Department, Hingham Municipal Lighting Plant, Littleton Electric Light and Water Department, Merrimac Municipal Light Department, Middleton Electric Light Department, Rowley Municipal Lighting Plant, Taunton Municipal Lighting Plant, and Wellesley Municipal Light Plant.

Motion to Intervene Only	Intervention, Comments and Protests¹⁰³
	Electric Company and New Hampshire Electric Cooperative, Inc. (Public Systems)*
NEPOOL Industrial Customer Coalition	NextEra Energy Resources, LLC*
United Illuminating Company	New England Power Generators Association, Inc. (NEPGA) and Electric Power Supply Association (EPSA)*
Vermont Department of Public Service	New England States Committee on Electricity (NESCOE)
	Northeast Utilities Service Company on behalf of the Northeast Utilities Companies ¹⁰⁵
	NRG Companies ^{106*}
	Office of the Attorney General of the Commonwealth of Massachusetts (Mass AG)
	PSEG Companies ^{107*}
	TransCanada Hydro Northeast Inc. and TransCanada Power Marketing Ltd.*
Notice of Intervention	
Connecticut Public Utilities Regulatory Authority	
Maine Public Utilities Commission	
Vermont Public Service Board	

¹⁰⁵ The Northeast Utilities Companies consist of Connecticut Light and Power Company, Western Massachusetts Electric Company, Public Service Company of New Hampshire, and NSTAR Electric Company

¹⁰⁶ NRG Companies consist of NRG Power Marketing LLC, GenOn Energy Management, LLC, Connecticut Jet Power LLC, Devon Power LLC, Middletown Power LLC, Montville Power LLC, Norwalk Power LLC, NRG Canal LLC, and Energy Curtailment Specialists Inc.

¹⁰⁷ PSEG Companies consists of PSEG Power LLC, PSEG Power Connecticut LLC, and PSEG Energy Resources & Trade LLC.