

UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT

IN THE
UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

JAN 19 2018

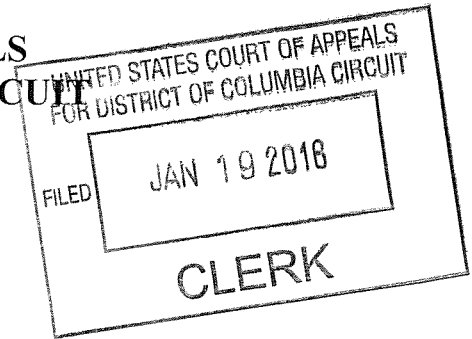
NEW ENGLAND POWER GENERATORS
ASSOCIATION, INC.,

Petitioner,

v.

FEDERAL ENERGY
REGULATORY COMMISSION,

Respondent.



No. _____

16-1023

PETITION FOR REVIEW

Pursuant to section 313(b) of the Federal Power Act, 16 U.S.C. § 8251(b), Rule 15(a) of the Federal Rules of Appellate Procedure and Rule 15 of the Rules of this Court, the New England Power Generators Association, Inc. respectfully petitions this Court for review of the following orders of the Federal Energy Regulatory Commission entered on May 30, 2014 and November 19, 2015:

ISO New England Inc. and New England Power Pool,
Order on Tariff Filing and Instituting Section 206
Proceeding, Docket Nos. ER14-1050-000, ER14-1050-
001, and EL14-52-000, 147 FERC ¶ 61,172 (May 30,
2014); and

ISO New England Inc. and New England Power Pool,
Order Denying Rehearing, Docket Nos. ER14-1050-002
and EL14-52-001, 153 FERC ¶ 61,223 (Nov. 19, 2015).

Respectfully submitted,

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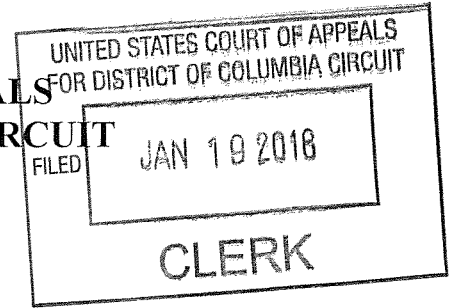
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New England Power Generators Association, Inc.

Dated: January 19, 2016

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Respondent.

No 16-1023

CORPORATE DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Rule 26.1 of the Rules of this Court, petitioner New England Power Generators Association, Inc. (“NEPGA”) states as follows:

NEPGA, a not-for-profit entity duly organized under the laws of the Commonwealth of Massachusetts, is a trade association that advocates for the business interests of non-utility competitive electric power generators in New England. NEPGA has no corporate parents and does not issue stock. NEPGA therefore does not have a corporate parent that owns 10 percent or more of its stock.

NEPGA’s member companies represent approximately 26,000 megawatts of installed capacity throughout the New England region. NEPGA’s member

companies are responsible for generating and supplying electric power for sale within the New England bulk power system, and are active participants in the regional capacity and wholesale electricity markets in New England.

Respectfully submitted,



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New England Power Generators Association, Inc.

Dated: January 19, 2016

CERTIFICATE OF SERVICE

Pursuant to Rule 15(c) and Rule 25 of the Federal Rules of Appellate Procedure, I hereby certify that I have this day served a copy of the foregoing documents by First-Class Mail or electronically upon each person designated on the official service list maintained by the Secretary of the Federal Energy Regulatory Commission in the proceedings below (a copy of which is attached) and upon the Solicitor of the Federal Energy Regulatory Commission at the following address:

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888 First Street, N.E.
Washington, D.C. 20426

Robert H. Solomon
Solicitor
FEDERAL ENERGY
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888 First Street, N.E.
Washington, D.C. 20426

Dated at Boston, Massachusetts, this 19th day of January, 2016.

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Bruce F. Anderson

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147 FERC ¶ 61,172
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

Docket Nos. ER14-1050-000
ER14-1050-001
EL14-52-000

ORDER ON TARIFF FILING AND INSTITUTING SECTION 206 PROCEEDING

(Issued May 30, 2014)

1. On January 17, 2014, ISO New England Inc. (ISO-NE) and the New England Power Pool (NEPOOL) Participants Committee jointly submitted, pursuant to section 205 of the Federal Power Act (FPA)¹ and section 11.1.5 of the ISO-NE Participants Agreement,² two alternate proposals to revise ISO-NE's Transmission, Markets and Services Tariff (Tariff). Each proposal is intended to address fleet-wide resource performance problems in New England. ISO-NE's proposal involves significant changes to the Forward Capacity Market (FCM) design, while NEPOOL's proposal involves incremental changes to the energy and ancillary services market and the FCM while largely maintaining the existing FCM rules. We find that neither proposal standing alone has been shown to be just and reasonable. We will institute a proceeding under

¹ 16 U.S.C. § 824d (2012).

² Section 11.1.5 of the Participants Agreement, commonly referred to as the "jump ball" provision, provides, in pertinent part, that if a Market Rule proposal that differs from that proposed by ISO-NE is approved by a Participants Committee vote of 60 percent or more, ISO-NE "shall, as part of any required Section 205 filing," describe the alternate Market Rule proposal in sufficient detail to permit reasonable review by the Commission and also explain its reasons for not adopting the alternate proposal and why it believes its own proposal is superior. Section 11.1.5 provides that the Commission may "adopt any or all of ISO[-NE]'s Market Rule proposal or the alternate Market Rule proposal as it finds ... to be just and reasonable and preferable."

section 206 of the FPA³ in Docket No. EL14-52-000 and require ISO-NE to submit Tariff revisions reflecting a modified version of its proposal and an increase in the Reserve Constraint Penalty Factors, consistent with NEPOOL's proposal. We will also establish a refund effective date of the date on which the Secretary publishes the notice of the Commission's section 206 proceeding in the *Federal Register*.

I. Background

2. ISO-NE operates the FCM through which it procures capacity on a three-year forward basis.⁴ Capacity suppliers make offers into an annual Forward Capacity Auction (FCA) in which ISO-NE procures the amount of capacity needed in a one-year period (the Installed Capacity Requirement), and suppliers of the capacity that clears each FCA take on Capacity Supply Obligations, committing to provide capacity for the relevant Capacity Commitment Period, three years in the future. This Capacity Supply Obligation requires a capacity resource to, among other things, offer into the day-ahead energy market, leave that offer open throughout the operating day, and follow ISO-NE's dispatch instructions. In addition, a capacity resource must be available to operate during certain Tariff-defined reserve deficiencies, known as Shortage Events,⁵ or the resource will be subject to penalties under the Tariff. In exchange for the Capacity Supply Obligation, the capacity resource receives capacity payments in each month of the Capacity Commitment Period.

II. Summary of the Instant Filings

A. ISO-NE's Proposal

3. According to ISO-NE, the current FCM design contains a flawed incentive structure that perpetuates fleet-wide resource performance problems and, as a result, is

³ 16 U.S.C. § 824e (2012).

⁴ ISO-NE determines the Installed Capacity Requirement such that the probability of disconnecting non-interruptible customers due to resource deficiency will be, on average, no more than once in ten years. Tariff, § III.12, III.12 Calculation of Capacity Requirements, 8.0.0 (2013).

⁵ A Shortage Event is a period of 30 or more contiguous minutes during which the supply of energy and reserves is insufficient to meet the demand for energy and the real-time reserve requirement. Tariff § III.13.7.1.1.1.

now failing to ensure reliability in a cost-effective manner.⁶ ISO-NE argues that capacity resources rarely face financial consequences for failing to perform, and therefore have little incentive to make investments to ensure that they can reliably provide what the region needs: energy and reserves when supply is scarce. ISO-NE asserts that the “negligible” consequences for non-performance under the current FCM design results in adverse selection of capacity resources, and encourages resources that are likely to be poor performers to participate in the market when they should exit.

4. ISO-NE proposes to address these problems by linking capacity revenues to resource performance during reserve deficiencies. Describing its proposed fix as a “Pay for Performance” market design, ISO-NE seeks to implement a two-settlement process, whereby a capacity resource’s total capacity revenue is comprised of a Capacity Base Payment and a Capacity Performance Payment (two-settlement capacity market design).

5. The first settlement entails a Capacity Base Payment established through the FCA. Resources that take on a Capacity Supply Obligation receive a Capacity Base Payment, which is determined for each resource by multiplying the amount of MW associated with its Capacity Supply Obligation by the FCA clearing price. ISO-NE states that a resource that clears in the FCA takes on a “forward position,” meaning that it acquires both a physical obligation to offer the MW amount of its Capacity Supply Obligation into the energy market during the Capacity Commitment Period, as well as a financial obligation to cover the resource’s share of the system’s total energy and reserve requirements during Capacity Scarcity Conditions. A Capacity Scarcity Condition is measured in 5-minute intervals and exists in a Capacity Zone whenever the real-time energy price includes a Reserve Constraint Penalty Factor⁷ triggered by (1) the system minimum 30-minute

⁶ ISO-NE identifies several specific flaws in the current FCM that it alleges are inconsistent with sound market design: (1) the Shortage Event mechanism bases a resource’s capacity payments on the resource’s “availability” rather than its performance; (2) the Shortage Event mechanism allows numerous exemptions for non-performance under which resources are deemed fully “available” despite their inability to provide energy or reserves; (3) a resource’s capacity payments may not be reduced by more than its total FCM revenue, which means it cannot lose money by taking on a Capacity Supply Obligation even if it entirely fails to perform; (4) the penalty rate is needlessly complex, too low to be effective, and “defies economic logic” because the penalties “actually decrease, rapidly, as the length of the scarcity condition increases;” and (5) results in a “systemic bias towards clearing less reliable resources.” ISO-NE Tariff Filing at Att. I-1a, 10-17.

⁷ Reserve Constraint Penalty Factors are rates, in \$/MWh, that are used within the real-time dispatch and pricing algorithm to reflect the value of Operating Reserve

(continued..)

reserve requirement, (2) the system 10-minute reserve requirement, or (3) the zonal 30-minute reserve requirements.

6. The second settlement entails a Capacity Performance Payment, determined for each resource by measuring its performance against its forward position (i.e., its share of the system's requirements at the time of each Capacity Scarcity Condition). If a resource provides more than its share of energy and reserves, it will receive a positive Capacity Performance Payment; if it provides less than its share, it will receive a negative Capacity Performance Payment. The Capacity Performance Payment is calculated using an administratively-determined rate specified in the Tariff, known as the Capacity Performance Payment Rate.⁸ ISO-NE states that the Capacity Performance Payment Rate is calculated based on two economic principles. First, when new entry is necessary to satisfy the Installed Capacity Requirement, the sum of the prospective entrant's Capacity Base Payment and the expected Capacity Performance Payment is at least as large as the net cost of new entry. Second, if a resource's expected performance is zero during scarcity conditions over the entire Capacity Commitment Period, its total expected negative Capacity Performance Payment should fully offset the Capacity Base Payments. ISO-NE states that the Capacity Performance Payment Rate is designed to achieve its loss-of-load probability standard of "one day in ten years," as described in its Planning Procedure No. 3.

7. ISO-NE states that even resources without Capacity Supply Obligations are eligible to receive Capacity Performance Payments, in order to incent all resources to provide energy and reserves when system reliability is at heightened risk. Further, because capacity resources are able to offer their capacity in blocks with different prices, allowing all resources to be eligible for Capacity Performance Payments will allow capacity resources to receive Capacity Performance Payments for blocks of their capacity that do not clear in the FCA but nonetheless provide energy and reserves during Capacity Scarcity Conditions.

8. As detailed below, ISO-NE proposes no exemptions from negative Capacity Performance Payments for non-performance, so if a capacity resource deviates from its forward position, its Capacity Performance Payments are adjusted regardless of what

Shortages. ISO-NE Tariff § I.2.2. The Reserve Constraint Penalty Factor acts as a cap on the price that ISO-NE may pay to procure additional reserves. Reaching this cap signals that the system is in a reserve deficiency.

⁸ ISO-NE proposes to phase-in this rate as follows: \$2,000/MWh for the period June 1, 2018 through May 31, 2021; \$3,500/MWh for the period June 1, 2021 through May 31, 2024; and \$5,455/MWh for the open-ended period starting June 1, 2024.

caused the deviation. In order to lessen a resource's downside risk, however, ISO-NE's proposal contains a "stop-loss" mechanism that limits—on both a monthly and annual basis—the amount of money a resource can lose as a result of its performance. Further, under ISO-NE's proposed bidding rules and market monitoring provisions, the risk premium that a resource includes in its bid is separate from the net-going forward cost reflected in the bid, in order to allow the market monitor to analyze the two components separately.

9. ISO-NE also seeks to raise the current trigger for Internal Market Monitor review of de-list bids, from \$1.00/kW-month to \$3.94/kW-month; the Internal Market Monitor would mitigate bids above the increased threshold only if the bid is from a resource associated with a Lead Market Participant that is found to be a pivotal supplier. A Lead Market Participant will be considered pivotal if any of the capacity from the existing resources controlled by that Lead Market Participant is needed to satisfy the capacity requirements either system-wide or in an import-constrained Capacity Zone.

10. ISO-NE's proposal also provides a mechanism for resources to trade their performance bilaterally under certain conditions, to mitigate the risk of negative Capacity Performance Payments during periods shorter than a month, or on shorter notice than a Capacity Supply Obligation can be shed. ISO-NE explains that these bilaterals do not affect either party's Capacity Supply Obligation, or the associated rights and obligations under their Capacity Supply Obligations; rather, the bilaterals serve only to modify each resource's Capacity Performance Score⁹ for purposes of calculating their Capacity Performance Payments.

B. NEPOOL's Proposal

11. NEPOOL agrees there are fleet-wide performance problems but proposes to address those problems by increasing performance incentives in ISO-NE's energy and ancillary services markets and modifying the current FCM design to include a new "performance" metric for measuring "availability." NEPOOL states that its proposal reflects a preferred approach that better addresses the concerns that are motivating changes to the New England markets through incremental change to the reserve and capacity markets rather than a "major and unnecessary redefinition of the FCM

⁹ A resource's Capacity Performance Score, for each five-minute interval in which a Capacity Scarcity Condition exists in the Capacity Zone in which the resource is located, shall equal the resource's Actual Capacity Provided during the interval minus the product of the resource's Capacity Supply Obligation and the applicable Capacity Balancing Ratio. Tariff § III.13.7.2.4.

product.”¹⁰ NEPOOL further states that rule changes to the energy and ancillary services markets, rather than to the capacity market, can better ensure adequate procurement of energy and operating reserves. Thus, NEPOOL asserts that, with “implementation of reforms to the Energy and Ancillary Services markets — those made in the recent past, those approved and to be implemented, and those included in the NEPOOL Proposal — a redesigned capacity product as dramatic as ISO-NE is proposing is unnecessary and unjustified.”¹¹

12. In the energy market, NEPOOL proposes to increase the existing Reserve Constraint Penalty Factors for 30-Minute Operating Reserves, from \$500/MWh to \$1,000/MWh, and for 10-Minute Non-Spinning Reserves, from \$850/MWh to \$1,500/MWh. These changes to the Reserve Constraint Penalty Factors would increase the price that ISO-NE may pay to procure energy and reserves in real-time. NEPOOL asserts that this will enhance performance incentives by addressing real-time price formation in the hourly markets, rather than trying to “mimic” those real-time incentives by redefining the capacity product.

13. In the FCM, NEPOOL proposes to replace the existing Shortage Event mechanism with a new Equivalent Peak Period Forced Outage Rate, or “EFORp,” metric that measures “performance based on availability during all ‘EFORp Hours.’”¹² NEPOOL states that ISO-NE would calculate an annual EFORp Hour Availability Score for each capacity resource, based on the resource’s availability in the EFORp Hours of that Capacity Commitment Period and using the definition of “availability” in the existing FCM.¹³ NEPOOL states that ISO-NE would then compare the resource’s EFORp Hour Availability Score for that Capacity Commitment Period to the resource’s average

¹⁰ NEPOOL Transmittal at 14.

¹¹ NEPOOL Transmittal at 19.

¹² EFORp Hours are defined as the hours from 1:00pm to 5:00pm, Monday through Friday (excluding holidays), during June, July, and August; and the hours from 5:00pm to 7:00pm, Monday through Friday (excluding holidays), during December and January. ISO-NE Tariff Filing at Att. N-1a (NEPOOL Transmittal), 12.

¹³ For each Shortage Event, ISO-NE calculates a Shortage Event Availability Score for each resource having a Capacity Supply Obligation. The score is the resource’s “available” MW divided by its Capacity Supply Obligation, subject to exemptions for unavailability due to following ISO-NE’s dispatch, starting or ramping limitations, transmission outages, having a self-schedule request denied by ISO-NE, or transmission construction delays. Tariff § III.13.7.1.1.3(a)-(j).

EFORp Hour Availability Score during the historical 5-year period used to establish the Installed Capacity Requirement for that Capacity Commitment Period.

14. NEPOOL states that at the end of each Capacity Commitment Period, ISO-NE would calculate charges and credits for each resource at 150 percent of the FCA clearing price, subject to annual caps, based on how each resource's availability in that Capacity Commitment Period compared to its five-year historical availability. NEPOOL states that ISO-NE would then aggregate these charges and credits and, based on whether there is a net surplus or deficit, would either refund or charge load based on the Capacity Load Obligation of each Load Serving Entity.

III. Notice of Filing, Interventions, Comments, Protests, and Answers

15. Notice of the tariff filing was published in the *Federal Register*, 79 Fed. Reg. 4683 (2014), with interventions and protests due on or before February 7, 2014. On January 17, 2014, ISO-NE and NEPOOL jointly filed a motion to extend the comment date to February 12, 2014. On January 23, 2014, the Commission granted ISO-NE and NEPOOL's joint motion.

16. Numerous entities filed interventions, and many of those entities also filed comments, protests, or both.¹⁴

17. On February 12, 2014, ISO-NE filed an answer in opposition to NEPOOL's proposal (ISO-NE February 12 Answer). On February 27, 2014, NRG, Indicated Generators, and NEPOOL filed answers to ISO-NE's February 12 Answer; Maine PUC and Maine Public Advocate filed an answer to ISO-NE's February 12 Answer and to ISO-NE's External Market Monitor's comments; and GDF SUEZ, Connecticut, Rhode Island PUC, and United Illuminating, Dominion, and Entergy Nuclear filed answers to various comments and protests in this proceeding.¹⁵ On March 3, 2014, ISO-NE filed an answer to protests and comments submitted in response to ISO-NE's proposal (ISO-NE March 3 Answer). On March 18, 2014, NEPOOL filed an answer to ISO-NE's March 3 Answer. On March 28, 2014, NextEra filed an answer to ISO-NE's March 3 Answer.

18. On February 27, 2014, NEPOOL filed a motion for discovery, requesting that the Commission direct ISO-NE to produce information related to market operations during the 2013-2014 winter season. On March 4, 2014, ISO-NE filed an answer to NEPOOL's motion for discovery (ISO-NE March 4 Answer). On March 6, 2014, NEPOOL filed an

¹⁴ See Appendix A.

¹⁵ On February 28, 2014, GDF SUEZ filed an errata to its answer.

answer to ISO-NE's March 4 Answer and Public Systems filed an answer in support of NEPOOL's motion for discovery.¹⁶ On March 7, 2014, Connecticut, Rhode Island, and United Illuminating filed an answer to ISO-NE's March 4 Answer.

IV. Discussion

A. Procedural Matters

19. 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.

20. 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 Brookfield's and NextEra's late-filed motions to intervene given their interests in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

21. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2013), prohibits an answer to an answer or protest unless otherwise ordered by the decisional authority. We will accept the answers filed in this proceeding because they provided information that assisted us in our decision-making process.

22. We deny NEPOOL's motion for discovery. NEPOOL filed its motion under Rule 401 of the Commission's Rules of Practice and Procedure, which is located in Subpart D of Part 385.¹⁷ Subpart D is entitled "Discovery Procedures for Matters Set for Hearing Under Subpart E."¹⁸ Rule 401(a) under Subpart D provides that "this subpart applies to discovery in proceedings set for hearing under subpart E of this part, and to such other proceedings as the Commission may order."¹⁹ Because we have not set this matter for hearing, formal discovery is not available in this proceeding. While the Commission has in rare circumstances directed discovery in proceedings not set for hearing, discovery is not necessary here because the written evidentiary record provides a sufficient basis for resolving the issues relevant to this proceeding.

¹⁶ On March 11, 2014, Public Systems filed an errata to its answer.

¹⁷ 18 C.F.R. § 385.401 (2013).

¹⁸ 18 C.F.R. Subpart D (2013).

¹⁹ 18 C.F.R. § 385.401(a) (2013).

B. Substantive Matters

23. As a threshold matter and pursuant to our authority under section 206 of the FPA, we find that ISO-NE's existing Tariff is unjust and unreasonable, because it fails to provide adequate incentives for resource performance, thereby threatening reliable operation of the system and forcing consumers to pay for capacity without receiving commensurate reliability benefits. Turning to the proposals before us, we find that ISO-NE's proposal to address the resource performance problems by correcting the flaws in the FCM payment design, has not been shown to be just and reasonable and may be unjust, unreasonable, unduly discriminatory or preferential as-filed. As discussed in more detail below, we find that ISO-NE's proposal unduly discriminates against energy efficiency resources, and potentially sends improper price signals in the event of an intra-zonal transmission constraint. Further, ISO-NE's proposal does not respond to the region's resource performance problems with the requisite speed. As ISO-NE acknowledges, the region's resource performance problems are threatening system reliability now. However, the impact of ISO-NE's proposal will not be fully reflected in real-time resource performance until 2018. ISO-NE has not adequately demonstrated how a proposal that purports to address immediate resource performance problems but does not provide an increased performance incentive for the next four years is a just and reasonable solution.

24. We similarly find that NEPOOL's proposal has not been shown to be just and reasonable. As noted above, NEPOOL's proposal seeks to address the resource performance problems through a new performance metric—the EFORp metric—in the FCM and increased Reserve Constraint Penalty Factors to improve scarcity pricing in the real-time markets. While the increased Reserve Constraint Penalty Factors represent an incremental improvement in real-time price signals which provides an increased incentive for resources to perform in real-time, the proposal has not been shown to be just and reasonable in two primary respects. First, NEPOOL's proposed EFORp metric is flawed.²⁰ By measuring a resource's performance only against its own historical

²⁰ Brookfield Comments at 15, Indicated Generators Protest at 33-34, Maine PUC Protest at 19, GDF SUEZ Comments at 3, ISO-NE February 12 Answer at 34-39, Massachusetts DPU and New Hampshire PUC Comments at 18-21, External Market Monitor Comments at 4. The External Market Monitor states that the proposed EFORp metric is flawed and proposed several revisions to the metric, including: (1) eliminate the 50 percent excess payment or penalty for over- or under-performance; (2) measure over- and under-performance against the historic average EFORp for all resources, not the historic average for the unit itself; (3) measure performance in the peak hours in which the resource is called upon; and (4) eliminate the stop loss provisions. External Market Monitor Comments at 26.

performance, NEPOOL's proposed EFORp metric may inappropriately reward poorly-performing resources and penalize highly-performing resources, which could further erode reliability in the region.²¹ Further, NEPOOL's proposal to calculate charges and credits for each resource at 150 percent of the FCA clearing price, subject to annual caps, based on how each resource's availability in that Capacity Commitment Period compared to its five-year historical availability, could provide an incentive for a capacity resource to reduce its measured performance over the next four years to lower the five-year historical EFORp Hour Availability Score against which its performance would be measured starting in the 2018-2019 Capacity Commitment Period. Second, NEPOOL's proposal is deficient because, while the Reserve Constraint Penalty Factor changes are a step in the right direction, they alone do not provide a sufficient incentive to fully address the region's resource performance problems and they do not correct the fundamental flaws in the FCM design, which NEPOOL acknowledges have contributed to poor resource performance.²²

25. Thus, while we find neither proposal to be just and reasonable, we find that most of the provisions in ISO-NE's proposal, as modified herein, together with increases to the Reserve Constraint Penalty Factors, from NEPOOL's proposal, provide a just and reasonable incentive structure that will help ensure reliability. Accordingly, as discussed below, we will largely adopt ISO-NE's proposal, save for ISO-NE's proposed treatment of energy efficiency resources, and direct further modifications. We will also adopt the Reserve Constraint Penalty Factor increases as reflected in NEPOOL's proposal. We will direct ISO-NE to submit a compliance filing within 45 days of the date of this order with Tariff revisions reflecting the provisions directed herein.

26. As nearly all parties in this proceeding—including ISO-NE and NEPOOL—recognize, the performance of capacity resources in New England has substantially

²¹ In addition, the EFORp mechanism, when measured using a resource's own historical performance, may not provide a performance incentive over the long-term. While reduced performance in one year relative to a resource's historical average performance will result in a penalty, this reduced performance will also lower that resource's historical average performance (the 5-year average EFORp) which could then lead to increased payments in future years if the resource's performance returns to its historical average level.

²² While we acknowledge that the External Market Monitor's revisions could improve NEPOOL's EFORp metric, we find that the EFORp metric would still be flawed because it would measure performance in terms of "availability," would do so only in certain peak hours of the year, and would maintain numerous exemptions for non-performance.

declined in recent years to a level that has jeopardized ISO-NE's ability to reliably operate the electric system.²³ As ISO-NE explains, the overall rate of unplanned outages across the entire New England generating fleet has more than doubled since 2007, and the average response rate for generators dispatched following a contingency is only 71 percent.²⁴ These conditions evidence that the current market construct has not sufficiently influenced capacity suppliers' longer-term investment and retirement decisions to ensure that their resources can reliably provide energy and reserves when called upon, particularly during reserve deficiencies. For example, as multiple parties assert, the existing FCM treats many resources as if they are fully available to operate during Shortage Events, and pays them accordingly, even when those resources are unable to deliver energy or reserves at that time. These existing payment features of the FCM not only fail to incent resource performance, but also perversely select less reliable resources over more reliable resources because a capacity supplier's decision to forego investments that would improve resource performance allows it to offer into the FCA at a lower price.²⁵ For these reasons, we find that the existing Tariff, specifically, the FCM payment design, is unjust and unreasonable.

27. As detailed herein, we direct ISO-NE to submit a compliance filing within 45 days of the date of this order with Tariff revisions to (1) implement its two-settlement capacity market design with the modifications discussed below, and (2) increase the Reserve Constraint Penalty Factors for 30-minute operating reserves to \$1,000/MWh and for 10-minute non-spinning reserves to \$1,500/MWh. Because the increased Reserve Constraint Penalty Factors may impact specific elements of ISO-NE's two-settlement capacity market design, including the ultimate Capacity Performance Payment Rate, we will also direct ISO-NE to include in its compliance filing either any Tariff adjustments that it believes are necessary in light of the Commission's decision to implement the Reserve Constraint Penalty Factor changes, or an explanation as to why no such adjustments are necessary.

²³ ISO-NE Transmittal at 10-11 (citing Att. I-1b, 2-5); NEPOOL Transmittal at 7; External Market Monitor Comments at 3; Massachusetts DPU and New Hampshire PUC Comments at 9-11; HQUS Comments at 3-5; New England Natural Gas Industry Comments at 1-2; Public Systems Protest at 2; NRG Protest at Test of Judith Lagano, 3-4; Consumer Advocates at 11-12; National Grid Comments at 3-7; EnerNOC Protest at 1; Entergy Comments at 11; EMCOS Protest at 13; NGSA Comments at 5-7; and GDF SUEZ Comments at 2-4.

²⁴ ISO-NE Transmittal at 11, n.17 (citing Att. I-1b at 36-52).

²⁵ ISO-NE Transmittal at 3-4, ISO-NE Tariff Filing at Att. I-1C, 22.

28. We next turn to disputed issues specific to either ISO-NE's proposal or NEPOOL's proposal.

1. ISO-NE's Proposal

a. Capacity Resource Performance Measurement

i. ISO-NE's Proposal

29. As explained above, ISO-NE's proposed two-settlement capacity market design modifies the capacity product to measure resources' performance based on their delivery of energy or reserves during Capacity Scarcity Conditions. In support of this change, ISO-NE states that the existing FCM poorly defines the capacity product and, as a result, fails to procure the product the region needs, namely reliable energy and reserves when supply is scarce. ISO-NE explains that the existing FCM rules measure resources' performance by their "availability," but that the rules include numerous exemptions under which resources that are not able to provide energy or reserves during a reserve deficiency are nonetheless deemed "available" and eligible to collect their full capacity payments.

ii. Comments, Protests, and Answers

30. GDF SUEZ, HQUS, National Grid, and the NGSa support ISO-NE's proposal as filed, stating that it will provide the proper incentives for improved capacity resource performance and that it is resource neutral. Massachusetts DPU and New Hampshire PUC state that the reliability of the New England electricity grid could be at risk without significant changes to the FCM's system of incentives and penalties in the near term.²⁶

31. However, most commenters object to ISO-NE's proposal,²⁷ many of whom argue that the proposal fundamentally redefines the capacity product and inappropriately attempts to address resource performance concerns in the capacity market rather than in

²⁶ Massachusetts DPU and New Hampshire PUC Comments at 11.

²⁷ See comments or protests of: Brookfield at 1, Connecticut, Rhode Island PUC, United Illuminating at 16-18, Dominion at 1, EMCOS at 1 and 3, Energy Efficiency Stakeholders at 7-8, Energy Management at 1, Indicated Generators at 2, Industrial Energy Consumers at 1 and 5, Maine PUC at 1-2, NextEra at 5, Northeast Utilities at 4, NRG at 1, PSEG at 1, Public Systems at 9, and United Illuminating at 2. Of these protesters, five are from the generation sector and there are two from each of the following sectors: transmission, supplier, end users, publicly owned and state regulatory entities.

the energy and ancillary services markets.²⁸ Multiple parties assert that it is inappropriate to link resources' capacity revenues to their real-time performance, and that a capacity market should provide stable revenues to facilitate long-term planning, while the type of performance incentive ISO-NE seeks should be provided through the energy and ancillary services markets.²⁹ NRG states that suppliers face a "settlement for deviations" that occurs several years after the forward commitment is established, in contrast to the next-day settlement that takes place in the energy markets, and capacity payments are settled by evaluating a resource's "performance" against a level of output that is almost certain to differ from the resource's forward Capacity Supply Obligation.

32. While Brookfield affirms that capacity resources are fully expected to perform when dispatched by ISO-NE in the energy market, it also argues that a clear separation of compensation, characteristics, incentives, and non-performance penalties should exist in each individual market in order to send appropriate price signals. Dominion states that ISO-NE's proposal will distort price signals sent to load, explaining that instead of changing the manner in which scarcity is reflected in real-time prices, ISO-NE instead seeks to remove appropriate and needed energy scarcity pricing from the real-time energy markets and embed it in the capacity product. Dominion contends that from a market design standpoint, it is essential that both generation and load see the true cost of energy in real-time price signals and make investment decisions based on those signals.³⁰ NRG also states that ISO-NE's proposal lacks the requisite price transparency of a well-functioning two-settlement capacity market design, stating that the price signals under ISO-NE's proposal would be static and insensitive to the severity of real-time scarcity, and would flow through only to suppliers.³¹ Entergy Nuclear states that if the energy market is failing to provide adequate incentives or is providing artificially suppressed price signals, the energy market should be reformed instead of the FCM, and the FCM should remain a long-term planning market.

33. NEPOOL asserts that the current FCM has provided a mechanism for reasonably predictable and stable revenues that are critical to longer-term retirement and investment

²⁸ See generally comments or protests of: Brookfield at 3, Connecticut, Rhode Island PUC, and United Illuminating at 3-4, Dominion at 21, Indicated Generators at 3, Maine PUC at 15, NEPOOL at 14, PSEG at 9, and Public Systems at 9.

²⁹ Brookfield Comments at 4-5 and 15, Dominion Comments at 19-20, NEPOOL Comments at 15-16, and NRG Protest at 23-24.

³⁰ Dominion Answer at 16.

³¹ NRG Answer at 3.

decisions.³² NEPOOL also asserts that one of ISO-NE's primary goals is to incent certain flexible resources, such as fast-start, fast-ramping, or dual-fuel-capable units, but that the Forward Reserve Market, not the FCM, was designed for that purpose.

34. Maine PUC contends that ISO-NE would be the only grid operator to change the capacity product so that operational incentives are embedded in the capacity market rather than in the energy and reserves markets. Thus, Maine PUC argues that ISO-NE's proposal would move New England away from what they believe is the Commission's interest in developing a common set of best practices.³³

iii. ISO-NE's Answer

35. ISO-NE contends that Commission policy and accepted capacity market Tariff provisions affirm that capacity market design can and does appropriately incorporate performance requirements.³⁴ ISO-NE states that in order to ensure that the reliability objective is met in a cost-effective manner, as would occur in a fully functional energy-only market, the capacity market must procure the actual delivery of energy and reserves during scarcity conditions. However, ISO-NE states that the current capacity market only pays resources to be available during scarcity conditions. Therefore, resources routinely receive their full capacity payments regardless of whether they do, or are even able to, provide energy or reserves during periods of scarcity. For example, ISO-NE states that it has documented capacity payments of \$674 million to a set of resources that have provided on average only 17 percent of their Capacity Supply Obligations as actual energy or reserves.³⁵

³² NEPOOL Comments at 7-8.

³³ Maine PUC Protest at 15.

³⁴ ISO-NE February 12 Answer at 13 (also citing Commission staff report on Centralized Capacity Market Design Elements, Docket No. AD13-7-000 (August 23, 2013). “[e]ffective performance requirements for capacity markets achieve their resource adequacy goals and customers receive the benefit of the capacity for which they paid.... [E]xisting [performance] requirements penaliz[e] capacity resources for outages after-the-fact by reducing the amount of capacity they can offer in future auctions. However, ineffective performance incentives (or a lack of consequences for failure to meet the standards) have the potential to adversely affect the ability of centralized capacity markets to deliver on the goal of ensuring resource adequacy in real-time.”).

³⁵ ISO-NE February 12 Answer at 15-16 (citing White January 17 Testimony at 23-24).

iv. Commission Determination

36. Based on the record before us, we are persuaded that ISO-NE's proposal to modify the FCM to incorporate a two-settlement capacity market design that measures the performance of capacity resources during Capacity Scarcity Conditions represents a just and reasonable approach to addressing resource performance concerns in the New England region. The overarching goal of the FCM is to help ensure reliability by procuring adequate resources. However, the level of reliability the FCM provides is determined in large part by how the market rules define resource adequacy. Under the existing FCM design, if ISO-NE procures an amount of nameplate capacity that exceeds the region's net Installed Capacity Requirement for a given Capacity Commitment Period, resource adequacy is assumed to have been achieved. While ISO-NE has met this standard in all Capacity Commitment Periods to date, this belies the largely undisputed evidence in this record of the region's resource performance problems. As discussed above, the record here shows that resource performance in the region has deteriorated in recent years.³⁶ We conclude that ISO-NE has persuasively demonstrated that revising its FCM market design to more closely link capacity revenues to real-time performance will address this concern by providing better incentives for investment decisions appropriate for the New England region. ISO-NE's proposed approach to the problem of resource performance is also consistent with the overall purpose of the FCM: to help ensure reliability through resource adequacy.

37. We disagree with assertions that ISO-NE's proposal inappropriately ties capacity revenues to real-time performance, or that the proposed two-settlement capacity market design is fundamentally at odds with the existing FCM construct. Compensating capacity resources based on their real-time performance, by increasing or decreasing their total capacity revenue, represents an approach that is similar to the current market construct that penalizes capacity resources for failing to perform in certain circumstances. Under the existing FCM rules, a resource's "availability" during a Shortage Event is determined based on whether the resource is able to operate in a given hour. If a resource is partially or fully unavailable during a Shortage Event, the resource is subject to penalties under the Tariff.³⁷

38. Further, regardless of whether there is a Shortage Event, under the current FCM rules a resource with a Capacity Supply Obligation must offer into the day-ahead energy market, leave that offer open throughout the operating day, and follow the ISO-NE

³⁶ *Supra* P 26.

³⁷ Tariff § III.13.7.2.7.1.2 ("Availability Penalties").

dispatch instructions.³⁸ The obligation to follow ISO-NE's dispatch instructions is, in effect, an obligation to provide energy or reserves subject to the resource's operating parameters, and the Commission has explicitly referred to New England capacity resources' energy market obligations as "performance" obligations.³⁹ A capacity resource's failure to meet any of these energy market obligations may be a Tariff violation.⁴⁰

39. Thus, under the existing FCM, capacity revenues are already linked to real-time performance. ISO-NE's proposal fortifies that existing link by not only providing for penalties, but also compensating capacity resources based on their real-time performance. This change, while significant, is not fundamentally at odds with the existing FCM construct.

40. As to arguments that operational performance is better incentivized through the energy and ancillary services markets than the capacity market, we acknowledge that similar results could potentially be achieved through each of these markets individually, or a combination thereof, as the Commission is directing be instituted in this proceeding. Here, ISO-NE chose to address this issue through the FCM, while NEPOOL sought to address it through the energy market. As we discuss above, based on the record here we find that parts of each proposal, taken together, represent a just and reasonable approach to address the resource performance problems facing the New England region. Accordingly, we do not believe it is necessary in this proceeding to choose between addressing operational performance through the capacity market or the energy market.⁴¹

³⁸ See Tariff § III.13.6.1.1.1; Tariff § III.1.10.1A(d)(vi); Tariff § III.1.7.20(b); *see also New England Power Generators Assoc., Inc. v. ISO New England Inc.*, 144 FERC ¶ 61,157, at PP 48-49 (2013) (*NEPGA*) ("A plain reading of these provisions imposes on capacity resources straightforward requirements to: (1) offer into both the day-ahead and real-time energy markets a MW amount equal to or greater than its Capacity Supply Obligation when the resource is physically available; (2) respond to ISO-NE's directives to start, shutdown or change output levels; and (3) keep supply offers open throughout the operating day.").

³⁹ *NEPGA*, 144 FERC ¶ 61,157 at P 55 ("Although the Tariff imposes strict performance obligations on capacity resources, it also recognizes that certain events may cause a capacity resource to be unable to follow dispatch instructions.").

⁴⁰ *NEPGA*, 144 FERC ¶ 61,157 at PP 60-61.

⁴¹ We note that this issue was discussed at length at the Commission's September 25, 2013 Technical Conference on Centralized Capacity Markets in Regional

(continued..)

b. Performance Risk and Exemptions for Non-Performance

i. ISO-NE's Proposal

41. As noted above, ISO-NE's proposal contains no exemptions for non-performance, on the principle that suppliers, not consumers, are in the best position to manage risk and incorporate associated costs into their offers. If a capacity resource fails to deliver its share of energy or reserves during a reserve deficiency, its capacity payment is reduced regardless of the reason for its non-performance. ISO-NE explains that while a resource that performs poorly could lose more than the amount of its Capacity Base Payment, this is an important aspect of sound market design because it motivates suppliers to take steps to ensure that their resources are able to perform when needed and eliminates the "free option problem," whereby it is profitable for even the poorest performing resources to remain in the capacity market because they have nothing to lose. However, ISO-NE's proposal also contains multiple mechanisms to help mitigate the risk to suppliers, including: (1) a monthly and annual stop-loss mechanism, (2) Capacity Performance Bilaterals, and (3) the phase-in of the Capacity Performance Payment Rate.

42. Under the monthly stop-loss limit, in any one month, the maximum amount that can be subtracted from a resource's Capacity Base Payment for that month is the resource's Capacity Supply Obligation quantity times the FCA starting price. Under the annual stop-loss limit, the maximum amount that a capacity resource can lose is equal to three times the resource's maximum monthly potential net loss. ISO-NE states that a resource that hits its monthly or annual stop-loss limit early in the commitment period can, with strong performance in subsequent scarcity conditions, finish the year with a net financial position better than the monthly or annual stop-loss limit. ISO-NE asserts that this design element helps to reduce the frequency with which resources may reach the stop-loss limit and provides a resource an incentive to perform in the event that its losses have reached the monthly or annual stop-loss limit.

43. ISO-NE's proposal also allows resources to mitigate their performance risk through Capacity Performance Bilaterals, which allow resources to bilaterally trade their Performance Scores to mitigate the risk of negative Capacity Performance Payments during periods shorter than a month, or on shorter notice than a Capacity Supply Obligation can be shed. A Capacity Performance Bilateral allows a resource with a Capacity Performance Score greater than zero during a particular five-minute interval of a Capacity Scarcity Condition to transfer some or all of its Capacity Performance Score to another resource for that same five-minute interval, but only if both resources were

Transmission Organizations and Independent System Operators, Docket No. AD13-7-000, as well as in the written post-technical conference comments in that proceeding.

subject to the same Capacity Scarcity Condition. ISO-NE explains that these bilaterals do not affect either party's Capacity Supply Obligation, or the associated rights and obligations thereunder; rather, the bilaterals serve only to modify each resource's Capacity Performance Score for purposes of calculating their Capacity Performance Payments.

44. Lastly, ISO-NE proposes to mitigate resources' performance risk by phasing-in the Capacity Performance Payment Rate: \$2,000/MWh for the period June 1, 2018 through May 31, 2021; \$3,500/MWh for the period June 1, 2021 through May 31, 2024; and \$5,455/MWh for the open-ended period starting June 1, 2024. ISO-NE explains that the phase-in will provide participants with an opportunity to gain experience with the new market design before the full Capacity Performance Payment Rate goes into effect. ISO-NE also states that the phase-in will allow ISO-NE to evaluate market participants' behavior in response to the new market design and potentially propose modifications to the Capacity Performance Payment Rate if appropriate.

ii. Comments and Protests

45. As to the lack of exemptions, HQUS believes that the level of financial risk under ISO-NE's proposed design is manageable and set at appropriate levels to incent performance. HQUS contends that without the risk of significant financial losses capacity suppliers will have little incentive to make changes to increase performance.

46. National Grid supports ISO-NE's proposed no-exemption structure, asserting that exemptions break the link between performance and payment that is essential for reliability and cost-effectiveness. NGSA also argues that any new FCM payment structure should minimize exemptions that shift responsibility to other capacity suppliers.⁴²

47. However, several commenters state that there should be certain exemptions for non-performance due to reasons outside the resource's control.⁴³ These requested exemptions include: (1) either all, or only unplanned, transmission outages; (2) non-performance due to following ISO-NE dispatch instructions; (3) force majeure events; (4) self-commitment denied by ISO-NE; (5) planned outages approved by ISO-NE; and,

⁴² NGSA Comments at 11.

⁴³ EnerNOC Comments at 8, Entergy Nuclear Comments at 7-9, Renewable Energy New England and First Wind Comments at 6-7, Massachusetts DPU and New Hampshire PUC Comments at 12-13, NESCOE Comments at 4-5, and Vermont Agencies Comments at 3.

with the most support, (6) circumstances beyond the resource owner's control.⁴⁴ NextEra seeks an exemption for unplanned or unforeseen transmission outage, rather than all transmission outages, because the risks of planned transmission outages can be managed through bilateral availability contracts. NextEra asserts that this narrow exemption would address ISO-NE's concerns that a broad exemption for any transmission outage would create distortions in the market.⁴⁵

48. Some protesters contend that without the referenced exemptions, ISO-NE's proposal is unjust and unreasonable and will add unnecessary and unmanageable risk to the market, which will force generators to include risk premiums in their offers or exit the capacity market altogether.⁴⁶ According to protesters, this will cause consumers to pay more, either through higher prices due to risk premiums or as a result of needing to procure additional capacity resources to replace the exiting resources.⁴⁷

49. Energy Management asserts that ISO-NE's no-exemption proposal would undermine investment in all new generation, but that the impact would be particularly adverse to investment in new renewable resources, and thus contrary to both federal and state energy policies. Specifically, Energy Management explains that while most renewable energy in New England would be intermittent in nature and thus subject to unpredictable weather events beyond control of the project owners, ISO-NE has refused to allow any accommodations that would exclude such resources from weather-related penalties. Energy Management explains that the rationale for imposing penalties depends upon the presumption that the affected party has some degree of control over the intended result; where a party has no such control, imposing a penalty is a purely punitive action that can have no effect on performance or reliability. Energy Management states that the Commission should reject ISO-NE's penalty proposal or, in the alternative, condition its

⁴⁴ Indicated Generators Comments at 28-30, Entergy Nuclear Comments at 7-9, Renewable Energy New England and First Wind Comments at 7, NextEra Comments at 6-8. GDF SUEZ Answer at 1. While it originally filed comments supportive of having no exemptions, GDF SUEZ states in its answer that there should be an exemption due to transmission outages because ISO-NE and transmission operators can and do control the extent of outages on these facilities.

⁴⁵ NextEra Protest at 23-26.

⁴⁶ Indicated Generators Comments at 6, Entergy Nuclear Comments at 6-7

⁴⁷ Renewable Energy New England and First Wind Comments at 7, NESCOE Comments at 4-5, Industrial Energy Consumers Comments at 13-14.

implementation upon an exemption for intermittent renewable resources regarding weather-related events beyond the control of project owners.⁴⁸

50. NRG states that, when transmission constraints are binding in the day-ahead or real-time markets, the incentive the Capacity Performance Payment Rate is intended to provide will conflict with ISO-NE's scheduling and dispatch objectives.⁴⁹ NRG asserts that when there are transmission constraints, some generators will receive dispatch instructions to produce less energy than they are physically able to generate, and may not even be committed to run, even though there is a Capacity Scarcity Condition. NRG contends that in those situations capacity suppliers would be charged negative Capacity Performance Payments even though they may exceed their operating costs and, absent the transmission constraint, the suppliers' resources could immediately provide energy and reserves to fulfill their full pro-rata allocation for the scarcity interval. NRG argues that generators in this situation will have an incentive to bid below their costs to avoid negative Capacity Performance Payments by increasing the likelihood that they will be dispatched to deliver energy and reserves.

51. Public Systems assert that ISO-NE's proposal punishes resources that have made prudent investments, operate reliably, and follow ISO-NE's dispatch instructions.⁵⁰ Public Systems state that since there are no exemptions even where a resource is out for scheduled maintenance, the penalty may have the perverse incentive of discouraging maintenance because without such an exemption a resource faces greater performance risk during times when it is conducting maintenance. Public Systems also argue that because ISO-NE does not offer suppliers a clear mechanism to manage uncontrollable non-performance risks, consumers will ultimately pay for the costs of ISO-NE's proposal because suppliers will increase their supply offers to account for the new, unhedgeable risk.

52. Brookfield argues that accepting ISO-NE's proposal would impose undue penalties on resources following dispatch instructions to address transmission or voltage issues, posturing, or largest system contingency protection. Brookfield also opposes potentially lowering payments to intermittent resources, stating that intermittent resources

⁴⁸ Energy Management Comments at 5-6.

⁴⁹ NRG Protest at Test. of Susan Pope, 11-12.

⁵⁰ Public Systems Comments at 21.

are already penalized through the reduced qualification of megawatts relative to their nameplate ratings in the FCM.⁵¹

53. As to the phasing-in of the Capacity Performance Payment Rate, NESCOE and HQUS are supportive of ISO-NE's proposal. They state that during the early years of ISO-NE's proposal, market participants will have an opportunity to gain experience with this new design and modify, if needed, their offers to mitigate the financial risk.⁵²

54. Entergy Nuclear and NextEra argue that the Capacity Performance Payment Rate should not be phased-in. Entergy Nuclear states that with the discrete and limited exemptions, there should be more immediate robust penalties for unexcused capacity performance failures during Shortage Events. Entergy Nuclear contends that parties have more than three years notice and will be able to factor these new rates into their offers in the next FCA (which will be in February 2015 for delivery beginning June 2018).⁵³ NRG contends that the lower Capacity Performance Payment Rate will expose existing capacity suppliers to significant potential losses, but will not send the appropriate price signal to justify new entry.⁵⁴

55. As to the stop-loss mechanism, HQUS is supportive, stating that because the limits are based on auction starting prices, capacity suppliers will have the ability to calculate, prior to the FCA, their total exposure to financial losses and incorporate these risks into their valuation of a Capacity Supply Obligation and offer into the auctions accordingly. However, NextEra suggests that if the Commission adopts ISO-NE's proposal, the Commission require ISO-NE to implement a monthly stop-loss threshold of 2.5 times the monthly clearing price, rather than tie the stop-loss to the FCA starting price. Brookfield requests that if ISO-NE's proposal is accepted, the Commission require ISO-NE to specify that both import capacity resources and resources in different capacity zones can trade their Capacity Performance Scores bilaterally.⁵⁵

56. The External Market Monitor supports ISO-NE's proposal but recommends two modifications affecting the phase-in approach. First, the External Market Monitor

⁵¹ Brookfield Comments at 6-9.

⁵² NESCOE Comments at 6 and HQUS Comments at 15-16.

⁵³ Entergy Nuclear Comments at 10-11 and NextEra Comments at 6-8.

⁵⁴ NRG Protest at 11.

⁵⁵ Brookfield Comments at 14.

recommends that the Commission reject ISO-NE's proposed schedule to increase the Capacity Performance Payment Rate beyond the initial value of \$2,000/MWh. The External Market Monitor states that the proposed initial Capacity Performance Payment Rate of \$2,000/MWh is reasonable because it implies a value of lost load of roughly \$30,000/MWh, which is consistent with the External Market Monitor's estimated value of lost load of \$20,000-30,000/MWh. However, it asserts that ISO-NE's proposed Capacity Performance Payment Rate of \$5,455/MWh, which would go into effect for the Capacity Commitment Period 2024-2025, implies a value of lost load of roughly \$120,000/MWh based on actual shortages in 2013, a level that the External Market Monitor states exceeds even the highest estimates of the value of lost load.⁵⁶

57. Second, the External Market Monitor recommends that the Commission consider requiring the introduction of a slope or steps in the Capacity Performance Payment Rate to distinguish between small and deep shortages. The External Market Monitor states that ISO-NE's proposal does not appropriately recognize that the probability of losing load increases as the operating reserve shortage grows, and that, if the reliability value of a resource is based on its contribution to avoiding load-shedding events, efficient shortage pricing should be substantially lower for small shortages and much higher for deep shortages. The External Market Monitor asserts that, by failing to adhere to this principle, ISO-NE's proposal will tend to shift overall compensation to more flexible resources in a manner that substantially exceeds the relative reliability value of these resources. The External Market Monitor suggests that this issue could be addressed through a Capacity Performance Payment Rate step structure, whereby ISO-NE could impose a \$1,000/MWh rate for shortages less than one-half of its 30-minute reserves, \$2,000/MWh for shortages greater than one-half of its 30-minute reserves, and \$3,000/MWh for ten-minute reserve shortages.⁵⁷

iii. Answers

58. ISO-NE states that exclusion of exemptions is required by sound economic and market design principles because a supplier's pricing in of all risks of non-performance provides essential price signals of both a resource's cost and its reliability.⁵⁸ ISO-NE states that because its proposal employs a well-defined forward product definition, a supplier can hedge non-performance risk, in whole or in part, with financial

⁵⁶ External Market Monitor Comments at 16-17.

⁵⁷ External Market Monitor Comments at 17-19.

⁵⁸ ISO-NE March 3 Answer at 37-38 (citing White January 17 Testimony at 51-52 and ISO-NE February 12 Answer at 18-27).

intermediaries that are not capacity suppliers.⁵⁹ ISO-NE explains that because most capacity resources either perform well or are owned by a supplier with a portfolio of capacity resources that naturally provides considerable diversification against performance risk, the actual number of resources that would incorporate a positive risk premium in their capacity supply offers is small. ISO-NE disputes NEPOOL's analysis suggesting that without certain exemptions most resource types will suffer financially,⁶⁰ claiming that its own analysis reveals that, most resources, including those with performance as low as 40 percent, will earn greater net capacity revenue than under the existing rules.⁶¹

59. ISO-NE also argues that using a different reliability standard to calculate the Capacity Performance Payment Rate, such as value of lost load as the External Market Monitor suggests, would result in a different estimate of expected annual scarcity hours.⁶² ISO-NE explains that it is not free to unilaterally change its reliability standards, and the appropriateness of the applicable and longstanding reliability standard is not a question before the Commission in this proceeding.⁶³ Additionally, ISO-NE argues that the External Market Monitor's recommended stepped Capacity Performance Payment Rate is unnecessary and disagrees that this change would provide a material benefit. ISO-NE explains that by measuring scarcity conditions in five-minute increments, its proposal accomplishes much of the goal the External Market Monitor seeks, but in a much simpler manner. Specifically, less severe Capacity Scarcity Conditions tend to be shorter in duration and have less of a financial impact, while more severe events tend to last longer and have a larger financial impact.⁶⁴

60. Some protesters assert that, due to the risk inherent in ISO-NE's proposal, hedging with financial intermediaries will be expensive and will force suppliers to incorporate this hedging cost into their supply offers.⁶⁵ Maine PUC and Maine Public Advocate question

⁵⁹ ISO-NE February 12 Answer at 22.

⁶⁰ ISO-NE March 3 Answer at 9-11.

⁶¹ ISO-NE February 12 Answer at 24-25.

⁶² ISO-NE March 3 Answer at 16-17.

⁶³ ISO-NE March 3 Answer at 17-18.

⁶⁴ ISO-NE March 3 Answer at 19-21.

⁶⁵ Maine PUC and Maine Public Advocate Answer at 4, Indicated Generators Answer at 4-6.

ISO-NE's conclusion that only 1,034 MW would incorporate risk premiums up to a maximum of \$3.30 per kW-month and that, given the tight capacity supply evident in the eighth FCA, these high prices could very well set the clearing price for all of the capacity supply units if they are needed to meet the Installed Capacity Requirement.⁶⁶ Indicated Generators argue that capacity suppliers are unlikely to find adequate hedging options because constrained zones will have little or no excess supply capable of providing a physical hedge and because suppliers will be inclined to reserve any surplus capacity to hedge their own portfolio of resources.⁶⁷ Indicated Generators assert that if suppliers cannot adequately hedge their risk, they may elect to self-schedule, which will not only allow ISO-NE to pick winners and losers by accepting or rejecting self-schedule requests but will also disrupt price formation in the energy market.⁶⁸

61. Connecticut, Rhode Island PUC, and United Illuminating state that ISO-NE's proposal does not implement a traditional two-settlement forward contract structure because the quantity to be supplied is uncertain and ISO-NE has exclusive rights to set the timing and quantity of delivery required. However, if the Commission chooses ISO-NE's proposal, Connecticut, Rhode Island PUC, and United Illuminating urge the Commission to reject the Capacity Performance Payment Rate of \$5,455/kW-month as excessively high.⁶⁹ Challenging ISO-NE's assessment of the likely impacts of its proposal, NRG contends that the assessment fails to consider how the phase-in will affect retirements during the six years before the full Capacity Performance Payment Rate is implemented and whether any new entry will take place in response under the lower Capacity Performance Payment Rates.⁷⁰

iv. Commission Determination

62. While we generally agree with ISO-NE that as part of its proposed two-settlement capacity market design, exemptions for non-performance should be minimal, we find that an exemption is appropriate in instances where an intra-zonal transmission constraint may lead to improper price signals to capacity resources. Therefore, we will direct

⁶⁶ Maine PUC and Maine Public Advocate Answer at 5.

⁶⁷ Indicated Generators Answer at 4-5.

⁶⁸ Indicated Generators Answer at 9.

⁶⁹ Connecticut, Rhode Island PUC, and United Illuminating February 27 Answer at 20-23.

⁷⁰ NRG Answer at 10.

ISO-NE to submit a compliance filing with Tariff revisions reflecting such an exemption, as described below. We further find that ISO-NE's proposed Tariff revisions reflecting multiple mechanisms to help mitigate the risk to suppliers are just and reasonable, including: (1) a monthly and annual stop-loss mechanism, (2) Capacity Performance Bilaterals, and (3) the phase-in of the Capacity Performance Payment Rate. Accordingly we will require ISO-NE to submit Tariff revisions reflecting those mechanisms as part of the compliance filing directed here. These Tariff revisions must be submitted within 45 days of the date of this order.

63. As an initial matter, we agree with ISO-NE that in a fully-functioning and uncapped energy market, resources only earn scarcity revenue if they can actually deliver energy during periods of scarcity. In such a market, if a resource fails to perform it is not compensated, regardless of fault. ISO-NE's two-settlement capacity market design replicates the performance incentives that would exist in an uncapped energy market by linking payments to performance during scarcity conditions. It follows that a resource that acquires a Capacity Supply Obligation through the two-settlement capacity market design adopted here does not merit compensation when it fails to perform in accordance with that obligation, regardless of fault.

64. While a resource faces uncertainty about whether it will actually be able to provide energy or reserves during a given scarcity period, ISO-NE's proposed two-settlement capacity market design relies on placing some measure of risk on capacity suppliers to incent them to develop and maintain their resources such that they can reliably perform and ensure that consumers receive benefits commensurate with the costs they incur in the capacity market. We generally agree with ISO-NE that under this market design suppliers, not consumers, are in the best position to assess and price the performance risk associated with their resources. This includes risks beyond a resource's control, including weather-related outages. Because suppliers are expected to price this risk into their offers, it is fair to assume that those resources with better performance characteristics will include a lower risk premium than other resources and be more likely to clear, thereby improving overall fleet performance.

65. However, in certain limited circumstances, the Capacity Performance Payment may lead to improper price signals that could prevent ISO-NE from efficiently dispatching resources. The intent of the Capacity Performance Payment is to signal, through scarcity pricing, an area where more energy and reserves are needed to resolve a Capacity Scarcity Condition. Depending on market conditions during the Capacity Scarcity Condition, the area could include one or more Capacity Zones or the entire ISO-NE footprint. When a Capacity Scarcity Condition exists only in one (or more) Capacity Zone(s) but not in the rest of the ISO-NE footprint, the Capacity Performance Payment would apply only to resources in the zone(s) experiencing the Capacity Scarcity Condition. In these circumstances, capacity outside the affected zone(s) would be capable of producing additional energy, but inter-zonal transmission constraints would

prevent ISO-NE from delivering the energy from the rest of the footprint to the affected zone(s). In essence, a shortage would be occurring in the import-constrained zone(s) but not in the rest of ISO-NE's footprint. It would be inefficient to signal through Capacity Performance Payments the need for additional energy in the rest of the footprint, because additional energy from that area would not help alleviate the shortage in the import-constrained zone(s).

66. While ISO-NE's proposal avoids this inefficiency in instances of inter-zonal transmission constraints, it fails to do so for *intra*-zonal transmission constraints. As with inter-zonal transmission constraints, a planned or unplanned transmission outage can create a binding transmission constraint within a zone that is experiencing a Capacity Scarcity Condition, which could prevent ISO-NE from delivering all of the producible energy on the export side of the constraint within the zone to loads on the import side of the constraint. However, unlike with *inter*-zonal transmission constraints, ISO-NE's proposal would apply Capacity Performance Payments to resources on the export side of an *intra*-zonal transmission constraint. This would send the wrong price signal, as resources on the export side would be incented to maximize their provision of energy or reserves in order to maximize their Capacity Performance Payments for the duration of the Capacity Scarcity Condition, even though that additional energy production would not be useful or efficient because it cannot reach the import-side of the constraint.

67. This improper price signal is problematic because it incents a generating resource on the export side of the constraint to submit energy market offer prices that are below its actual marginal operating costs in order to be dispatched at the greatest quantity possible and thereby maximize its Capacity Performance Payment.⁷¹ ISO-NE's proposal does not

⁷¹ While this improper price signal could also incent a generating resource on the export side of the constraint to provide energy above the level at which ISO-NE dispatches it, ISO-NE's proposal adequately addresses this problem with the following proposed Tariff language:

A Generating Capacity Resource's Actual Capacity Provided during a Capacity Scarcity Condition shall be the sum of the resource's output during the interval plus the resource's Real-Time Reserve Designation (including any regulation capability available but not used for energy) during the interval; *provided, however, that if the resource's output was limited during the Capacity Scarcity Condition as a result of a transmission system limitation, then the resource's Actual Capacity Provided may not be greater than the resource's Desired Dispatch Point during the interval.*

Tariff, § III.13.7, Performance, Payments and Charges in the FCM, 31.0.0 (2014) (emphasis added).

address this inefficient incentive. A comprehensive solution is to avoid creating the inefficient incentive in the first place by exempting all resources within a zone experiencing a Capacity Scarcity Condition and which are located on the export side of a binding transmission constraint. With such an exemption, when a binding intra-zonal transmission constraint arises, the price signal on the export side would properly be lower than the price signal on the import side. We will therefore direct ISO-NE to submit Tariff revisions to address the improper price signals in this scenario or further explain why the exemption is not necessary. ISO-NE must submit these Tariff revisions as part of the compliance filing required within 45 days of the date of this order.

68. Some protesters also assert that an exemption is warranted for resources that under-perform as a result of following ISO-NE's dispatch instructions.⁷² We disagree. This assertion is merely a variant of the argument that exemptions should be given for circumstances beyond their control, an idea we also reject. During scarcity conditions, ISO-NE seeks to dispatch for energy or put on reserve all resources that are capable of providing energy or reserves. Protesters argue that after following ISO-NE's dispatch instructions resources may be unable to provide energy or reserves during a Capacity Scarcity Condition, due to start time or ramp rate constraints. However, in this situation these resources are not providing equivalent reliability contributions as compared to other higher performing resources and thus should not be compensated equally.

69. We further find that other aspects of ISO-NE's proposal appropriately help balance or limit capacity suppliers' risk exposure, and we adopt them as part of the two-part settlement design implemented here. Specifically, ISO-NE must submit in its compliance filing due within 45 days of the date of this order the Tariff provisions as submitted here reflecting the monthly and annual stop-loss mechanisms, Capacity Performance Bilaterals, and the phase-in of the Capacity Performance Payment Rate.

70. Regarding the stop-loss mechanisms, while some protesters argue that the annual stop-loss limit is too high and could result in a resource losing more than its Capacity

⁷² We also disagree with protesters' assertions that not allowing such an exemption will create a perverse incentive to ignore dispatch instructions. Not allowing an exemption for following dispatch instructions does not create an incentive to ignore dispatch instructions because during scarcity conditions, the dispatch software directs resources to produce at a level that maximizes the sum of the energy and reserves they can provide during each interval, subject to the resource's offered capabilities and the transmission network's capabilities. Thus, we agree with ISO-NE that a supplier's financial incentives to maximize its resource's capabilities to provide energy and reserves are fully aligned with the system's dispatch objectives to make maximum use of those capabilities during scarcity conditions.

Base Payment, we agree with ISO-NE that the ability for a market participant's capacity revenues to become negative is an important aspect of its proposed market design because it provides an incentive for resource owners to make investments and maintain their resources to help mitigate the risk of non-performance and helps ensure paying consumers receive commensurate reliability benefits. Further, we note that for a resource to reach the annual stop-loss limit, the number of hours of Capacity Scarcity Conditions would have to significantly exceed the amount of such scarcity conditions the region has experienced in recent years.

71. We acknowledge protesters'⁷³ concerns that the stop-loss limits could produce a skewed risk profile because the limits are calculated using the FCA *starting price*, whereas the Capacity Base Payment from which a resource's negative performance payments are deducted is calculated using the FCA *clearing price*. However, we find that establishing the stop-loss limit based on the auction starting price is appropriate because the auction starting price is known in advance, and therefore allows a resource to calculate its maximum risk exposure for a Capacity Commitment Period based on its offer price. To the extent the auction clearing price is higher than the resource's offer price, its risk exposure for that Capacity Commitment Period will be reduced.⁷⁴

72. Regarding Capacity Performance Bilaterals, while we acknowledge protesters' concerns that there is uncertainty about whether a market for the bilaterals will develop, we are not persuaded that such uncertainty renders this aspect of ISO-NE's proposal unjust and unreasonable. Protesters' arguments on this point are concerned with the liquidity of the Capacity Performance Bilaterals, not the Tariff rules governing the agreements. Although uncertainty is unavoidable when predicting the liquidity of any new bilateral market, that uncertainty alone does not persuade us to conclude that the market will not materialize and, therefore, will not allow resources to hedge against their performance risk.

73. Regarding the phase-in of the Capacity Performance Payment Rate, we disagree with protesters' assertion that the phase-in should be eliminated and that ISO-NE should instead implement the full \$5,455/MWh rate from the outset. We agree with ISO-NE and others that the phase-in will allow suppliers to gain experience with the new market design at reduced risk exposure before the full Capacity Performance Payment Rate goes into effect. Further, as ISO-NE explains, the phase-in will allow ISO-NE to evaluate market participants' behavior under the new market design and assess whether the phase-in levels and the ultimate Capacity Performance Payment Rate need to be adjusted

⁷³ NRG Protest at 11, Indicated Generators Protest at 28-30.

⁷⁴ See ISO-NE Tariff Filing, at Att. I-1c, 206.

in response. This type of reevaluation is particularly important in light of our directive below that ISO-NE increase the Reserve Constraint Penalty Factors and submit a compliance filing to explain any necessary adjustments to accommodate that increase.

74. We also disagree with the External Market Monitor and other protesters who assert that the Capacity Performance Payment Rate should be set based on the value of lost load, rather than the cost of new entry. The Capacity Performance Payment Rate is designed to achieve the “one day in 10 years” reliability standard established by the Northeast Power Coordinating Council,⁷⁵ and the appropriateness of that longstanding reliability standard is not in question in this proceeding. We are not persuaded that setting the Capacity Performance Payment Rate at the value of lost load would provide adequate incentive for new entry, when required, and would therefore meet this reliability standard.

75. Lastly, we note that, in addition to the stop-loss mechanism, bilaterals, and phase-in discussed above, ISO-NE’s two-settlement capacity market design, as implemented here, allows resources to mitigate their risk by offering their capacity in blocks. We expect this feature of ISO-NE’s market design to provide resources some flexibility to manage their risk exposure through bidding strategies designed to reflect the varying levels of performance risk associated with different levels of output for a particular resource. We find that, taken together, the above aspects of ISO-NE’s proposal properly balance the region’s need for more reliable resources with suppliers’ need to have a quantifiable risk profile in order to secure financing for new resources and calculate the appropriate level of investment to maintain existing resources. While the risk premiums reflected in ISO-NE’s two-settlement capacity market design may increase costs to consumers, we find that, given the nature of the fleet-wide resource performance problems facing the New England region, the market design appropriately balances the increased costs to consumers against the added reliability benefits consumers will receive from a resource fleet with more appropriate incentives and capability to reliably perform when needed.

c. Treatment of Certain Classes of Resources

i. ISO-NE’s Proposal

76. ISO-NE states that its proposal is resource neutral and will pay suppliers providing the same service the same compensation, regardless of what technology they use.⁷⁶ ISO-

⁷⁵ ISO-NE March 3 Answer at 17-18; ISO-NE Tariff Filing, at Att. I-1c, 107-108.

⁷⁶ ISO-NE Transmittal at 6.

NE asserts that this is not unfair to older or less flexible resources because resources should be compensated based on what they contribute to maintaining system reliability. ISO-NE states that resources are not compensated this way under the current FCM and that this has created a disincentive for investors to develop units with greater capabilities because resources that are not capable of contributing significantly to reliability get paid the same as units that are highly capable.

77. ISO-NE states that it will continue to assess the performance of demand response resources based on the load reductions they achieve, and that those resources will therefore be eligible for Capacity Performance Payments in the same way as all other resources. ISO-NE also notes that prior to the first Capacity Commitment Period under ISO-NE's proposal, ISO-NE plans to implement its Commission-approved design to fully integrate demand response resources into the energy markets. ISO-NE states that after that integration, demand response resources may participate in the real-time energy and ancillary services markets without a Capacity Supply Obligation and that such resources will be compensated for their performance – in the form of load reductions and, if applicable, reserves provided – during Capacity Scarcity Conditions at the Capacity Performance Payment Rate, consistent with the treatment of all resources under ISO-NE's proposal.⁷⁷

78. ISO-NE states that energy efficiency resources are included in the On Peak Demand Resource and Seasonal Peak Demand Resource categories and that, under current Tariff rules, they demonstrate performance by submitting data to ISO-NE substantiating their energy load reduction during certain peak hours, as defined in the Tariff for each resource type. ISO-NE explains that, therefore, energy efficiency resources' performance is the amount of energy load reduction they provide during defined on-peak hours, and is zero in all other hours. ISO-NE states that an energy efficiency resource's performance during a Capacity Scarcity Condition will be determined based on its average load reduction in the applicable hour.⁷⁸

ii. Comments and Protests

79. Renewable Energy New England and First Wind state that renewable resources can meet their performance obligations under ISO-NE's proposal because wind and solar resources are predictably variable, which gives resource owners and ISO-NE the ability to forecast and rely on the performance of these resources. Further, Renewable Energy New England and First Wind explain that, unlike fossil resources, wind and solar

⁷⁷ ISO-NE Testimony of Matthew White at 151-152.

⁷⁸ ISO-NE Testimony of Matthew White at 152-153.

resources are only eligible to provide a fraction of their nameplate capacity into the FCM and therefore can over-perform relative to their Capacity Supply Obligations.

80. Public Systems, PSEG, and Connecticut, Rhode Island PUC, and United Illuminating argue that ISO-NE's proposal will create a bias in the FCM toward resources with high availability factors, quick-start resources, and some types of demand response resources, while creating a bias against intermittent resources and mid-range resources without quick-start capabilities.⁷⁹

81. EnerNOC asserts that ISO-NE's proposed treatment of resources unduly discriminates against demand response resources. EnerNOC explains that because ISO-NE's proposal would tie a resource's capacity revenue payment to its provision of energy or reserves during scarcity conditions, a resource would need access to both the energy and reserves markets in order to avoid significant payment reductions. EnerNOC states that if demand response resources are not allowed to participate in ISO-NE's reserve markets, then during a scarcity event where locational marginal prices fail to reach the level that a demand response resource offered in the energy market, that demand response resource would not be dispatched by ISO-NE to provide energy and would incur substantial capacity penalties.⁸⁰ EnerNOC states that because demand response resources are not yet allowed to participate in ISO-NE's reserves market, they will have their capacity revenues decreased for not providing a service that they are not yet allowed to provide. EnerNOC requests that the applicability of ISO-NE's proposal to demand response resources be deferred until the reserves market Tariff rules are effective in advance of the applicable FCA. EnerNOC states that ISO-NE has authorized EnerNOC to state that ISO-NE would not object to a compliance filing directing such a deferral.⁸¹ EnerNOC further states that ISO-NE has indicated that it intends to file reserves market rules for demand response resources pursuant to FPA section 205 in the fourth quarter of 2014 with an effective date in January 2015, in time for the ninth FCA.⁸²

82. Energy Efficiency Stakeholders, Connecticut, Rhode Island PUC, and United Illuminating argue that ISO-NE's proposed treatment of resources discriminates against energy efficiency resources and may dissuade them from participating in the FCM.

⁷⁹ Public Systems Comments at 13, PSEG Protest at 12, Connecticut, Rhode Island PUC, and United Illuminating Comments at 41-43.

⁸⁰ EnerNOC Comments at 9.

⁸¹ EnerNOC Comments at 1-4, 11.

⁸² EnerNOC Comments at n 12.

Energy Efficiency Stakeholders assert that the performance requirements in ISO-NE's proposal are not aligned with energy efficiency resources' passive, non-dispatchable nature because such resources cannot respond to operational contingencies in real time. Energy Efficiency Stakeholders state that under ISO-NE's proposal energy efficiency resources may not receive full payment for their verified performance of the obligation they assumed and may be forced to incur additional measurement and verification costs to avoid further penalties, even though these resources' contribution to resource adequacy would be the same as it is under the existing Tariff.⁸³

83. Brookfield states that import capacity resources should not face a reduced payment for non-performance if an external transaction is not dispatched by ISO-NE due to an inaccurate locational marginal price forecast or latency in scheduling protocols. Brookfield further states that an import capacity resource does not have the flexibility to react to intra-hour scarcity events because of scheduling practices among neighboring jurisdictions. Additionally, Brookfield notes that if ISO-NE's locational marginal price forecast is inaccurate, it may not clear the appropriate amount of external transactions to meet load. In these cases, an import capacity resource would be penalized due to ISO-NE error or scheduling delays beyond its control. While ISO-NE's proposal would permit resources to submit a Capacity Performance Bilateral to assign a portion of its score for that interval to another resource, Brookfield argues that this provision does not explicitly apply to external transactions that are not associated with import capacity resources.⁸⁴

iii. Answers

84. Connecticut, Rhode Island PUC, and United Illuminating state that the Peak Energy Rent deduction exemption should continue to apply to passive demand response resources, such as energy efficiency resources, that do not participate in the energy markets and therefore have no opportunity to earn back energy revenues that the Peak Energy Rent mechanism deducts.⁸⁵

⁸³ Energy Efficiency Stakeholders Comments at 6-7.

⁸⁴ Brookfield Comments at 11-14.

⁸⁵ Connecticut, Rhode Island PUC, United Illuminating Answer at 3 and n.5

iv. Commission Determination

85. We find that ISO-NE's proposed treatment of resources unduly discriminates against energy efficiency resources. We will therefore direct ISO-NE to submit Tariff revisions to address this issue as discussed below.

86. As an initial matter, we reject protesters' contentions that ISO-NE's proposal unduly discriminates against intermittent resources and mid-range resources without quick-start capabilities. Under ISO-NE's proposal, resources are compensated without regard to technology type. To the extent resources have different capabilities to provide energy and reserves during a Capacity Scarcity Condition, those resources are not similarly situated, and therefore it is not unduly discriminatory to compensate those resources differently based on their respective capabilities. We also note that ISO-NE estimates resources with performance rates as low as 40 percent will be better off financially under its proposal than under the existing FCM rules.⁸⁶ Further, as Renewable Energy New England and First Wind explain, wind and solar resources should benefit from ISO-NE's proposal because they are predictably variable and necessarily have nameplate capacity exceeding their Capacity Supply Obligations.⁸⁷

87. We also reject the arguments that the two-settlement capacity market design unduly discriminates against import resources. In terms of resource scheduling and offer flexibility, import resources are not similarly situated to resources that are within ISO-NE's footprint. As a general principle, it would be preferable for resources in any market to have the ability to adjust their offers in a way that maximizes their ability to respond to price signals in real-time. However, there are technical limitations to offer flexibility.⁸⁸ For import resources, offer flexibility is particularly complicated because intertie transactions between neighboring systems—e.g., between ISO-NE and the New York Independent System Operator (NYISO)—require coordination between independent system operators to economically optimize the interchange schedule. This coordination requires communication and complex calculations, both of which take time.⁸⁹ Further,

⁸⁶ ISO-NE February 12 Answer at 25 (citing Test. of Paul Hibbard and Todd Schatzki at 23).

⁸⁷ Renewable Energy New England and First Wind Comments at 5.

⁸⁸ Even resources within New England cannot update their offers less than 30 minutes prior to a given operating hour. *See ISO New England Inc. & New England Power Pool*, 145 FERC ¶ 61,014 (2013).

⁸⁹ *See, e.g., ISO New England Inc.*, 139 FERC ¶ 61,047 (2012) (accepting tariff revisions to implement Coordinated Transaction Scheduling between ISO-NE and

(continued..)

each independent system operator schedules its fleet in a way that it deems necessary to maintain reliability in its own region. To the extent an import resource is disadvantaged under the two-settlement capacity market design as a result of the scheduling practices in the resource's home region, that disadvantage is the direct result of the resource not being similarly situated to the resources within New England.

88. While EnerNOC argues that ISO-NE's two-part settlement design unduly discriminates against demand response resources, we expect that its concerns will be addressed by our requirement, discussed *infra* at section IV.2.iii, that ISO-NE increase the Reserve Constraint Penalty Factors for 30-Minute Operating Reserves, from \$500/MWh to \$1,000/MWh, and 10-Minute Non-Spinning Reserves, from \$850/MWh to \$1,500/MWh.⁹⁰ EnerNOC expresses concern that demand response resources could incur substantial penalties if energy prices failed to reach the level at which a demand response resource offered in the energy market during a Capacity Scarcity Condition. However, once ISO-NE increases its Reserve Constraint Penalty Factor for 30-Minute Operating Reserves to \$1,000/MWh, as directed here, then when ISO-NE experiences a Capacity Scarcity Condition,⁹¹ energy prices should equal or exceed \$1,000/MWh and demand response resources offered into the energy market during that Capacity Scarcity Condition should be dispatched, thus addressing EnerNOC's concerns regarding penalties

NYISO, subject to a compliance filing); *see also ISO New England Inc. & New England Power Pool Participants Committee*, 146 FERC ¶ 61,190, at P 15 (2014) (summarizing ISO-NE's explanation that economic optimization of interchange schedules under Coordinated Transaction Scheduling requires evaluation by both ISO-NE's and NYISO's dispatch systems, which occurs sequentially and takes approximately 30 minutes).

⁹⁰ The Commission takes note of the May 23, 2014 decision of the U.S. Court of Appeals for the District of Columbia Circuit in *Elec. Power Supply Ass'n v. FERC*, No. 11-1486. The Commission is still considering both the scope of and possible next steps with respect to that court decision.

⁹¹ This does not address the possibility that demand response resources would not be dispatched during a zonal Capacity Scarcity Condition, since the zonal Reserve Constraint Penalty Factor is only \$250/MWh. However, we note that ISO-NE has experienced only 105 minutes of zonal operating reserve shortages since April 23, 2008. *See* ISO-NE, *RCPF Events through 4_2014 5.19.2014.xlsx*, at sheets 'Summary_local_oct06_dec09' and 'Summary_local_jan10_apr14', available at http://www.iso-ne.com/markets/othrmkts_data/fcm/doc/opr_reserve_deficiency_info_hist_data_updated_5_21_2014.zip.

associated with Capacity Scarcity Conditions.⁹² This is because energy offers, including those from demand response resources, cannot exceed the \$1,000/MWh offer cap.⁹³

89. However, we find that ISO-NE's proposal is unduly discriminatory with respect to the treatment of energy efficiency resources. As protesters explain, ISO-NE's proposal assumes that energy efficiency resources provide zero performance in off-peak hours, which means those resources must either incur significant costs to measure and verify their load reductions around-the-clock, rather than only in certain peak hours of the year, or face guaranteed negative Capacity Performance Payments during any Capacity Scarcity Condition during off-peak hours. While it is necessary to track the performance of other types of resources around-the-clock under ISO-NE's proposed market design, this is not the case for energy efficiency resources. Energy efficiency resources are not similarly situated to other capacity resources because they do not actively perform in real-time—they represent a pre-determined level of load reduction that is constant as a percentage of that resource's load—and therefore are not able to respond to the ISO-NE proposal's performance incentive. Therefore, we direct ISO-NE to submit as part of the compliance filing required within 45 days of the date of this order, Tariff revisions ensuring that energy efficiency resources' Capacity Performance Payments are calculated only for Capacity Scarcity Conditions during hours in which demand reduction values are calculated under the Tariff for that particular type of resource.

d. Bidding Rules/Market Monitoring

i. ISO-NE's Proposal

90. ISO-NE states that under its proposed bidding rules, a de-list bid will include four separate components: (1) net going-forward costs, (2) expectations about the resource's Capacity Performance Payments, (3) risk premium assumptions, and (4) opportunity costs. ISO-NE asserts that the risk premium that a resource includes in its bid is separate from the resource's net going-forward cost in order to allow the Internal Market Monitor to analyze the two components separately. ISO-NE states that "[a]ny risk that can be quantified and analytically supported and that is not already reflected in the formula for net going-forward costs may be included in the risk premium component."⁹⁴ ISO-NE

⁹² NEPOOL states that its proposed Reserve Constraint Penalty Factor levels, which we adopt in this order at section IV.B.2.a.iii, will ensure that all demand response resources would be fully available to ISO-NE for real-time dispatch in order to maintain operating reserve levels. NEPOOL Transmittal at 10.

⁹³ See Tariff § III.1.10.1A(d)(ix).

⁹⁴ ISO-NE Tariff Filing at Att. I-1a, 60.

explains that the Internal Market Monitor may only mitigate the de-list bids of those resources associated with a Lead Market Participant that is found to be pivotal,⁹⁵ and will evaluate those de-list bids in two ways. First, for units that are part of a multi-unit portfolio, the Internal Market Monitor will examine whether the risk premium for each unit in the portfolio reflects consistent assumptions. Second, the Internal Market Monitor will compare risk premiums across all market participants to determine whether a particular resource's risk premium is consistent with competitive market behavior.

91. ISO-NE's proposal also raises the trigger for the Internal Market Monitor's review of a de-list bid, from \$1.00/kW-month to \$3.94/kW-month. This trigger is known as the Dynamic De-List Bid Threshold. ISO-NE argues that, ideally, the Dynamic De-List Bid Threshold should be set at the competitive bid of the marginal unit. ISO-NE's proposed \$3.94/kW-month level for the Dynamic De-List Bid is based on the recent historical going forward costs of representative fossil steam units, adjusted for expected net performance penalties. In ISO-NE's view, these are the types of existing resources most likely to seek to leave the auction, and therefore, could be the marginal unit when ISO-NE does not need new capacity.⁹⁶ ISO-NE states that the Internal Market Monitor will mitigate bids above the \$3.94/kW-month threshold only if the bid is from a resource associated with a Lead Market Participant that is determined to be a pivotal supplier.⁹⁷ ISO-NE explains that a Lead Market Participant will be considered pivotal if any of the capacity from the existing resources controlled by that Lead Market Participant is needed to satisfy the capacity requirements either system-wide or in an import-constrained Capacity Zone.

⁹⁵ ISO-NE states that since the FCM can clear without accepting the capacity supply offers of a non-pivotal supplier, the non-pivotal supplier cannot exercise unilateral market power and cannot profitably raise price to a non-competitive level. In addition, ISO-NE states that the pivotal supplier test detects and screens for whether an individual resource could raise clearing prices due to its market power. ISO-NE, Tariff Filing, at Att. I-1E, 20-21 (Joint Testimony of David LaPlante and Seyed Parviz Gheblealivand).

⁹⁶ See ISO-NE Tariff Filing at Att. I-1e, 53-61 (Aff. of David LaPlante and Seyed Parviz Gheblealivand on behalf of ISO New England).

⁹⁷ A Lead Market Participant, for purposes of the FCM, is the entity designated to participate in that market on behalf of an Existing Capacity Resource or a New Capacity Resource. ISO-NE Tariff § I.2.2.

ii. Comments and Protests

92. Public Systems argue that ISO-NE's proposal to treat risk premiums as a distinct component of de-list bids eliminates the Internal Market Monitor's previous, well-defined formula for assessing risk, and replaces it with a vague and standard-less review of a resource's risk documentation.⁹⁸ They contend that ISO-NE's proposal does not specify how the Internal Market Monitor will verify whether a resource's risk premium is legitimate and will allow market participants to submit data that is not only "subject to bias" but also largely subjective and speculative. Connecticut, Rhode Island PUC, and United Illuminating argue that ISO-NE's proposal creates challenges to effective detection and mitigation of market power necessary to protect consumers and, as a result, consumers will likely see increased costs.⁹⁹ They assert that the proposal limits the Internal Market Monitor's pre-auction review of de-list bids¹⁰⁰ and quadruples the dynamic bid threshold to \$3.94, obligating customers to pay \$1.527 billion in capacity charges. Therefore, Connecticut, Rhode Island PUC, and United Illuminating state that maintaining current review practices is essential to protect the market and capacity customers from attempts to exercise market power. They note that even the Internal Market Monitor has expressed concerns that a threshold higher than \$1.00/kW-month could provide an opportunity to exercise market power.¹⁰¹

93. Entergy Nuclear states that if the Commission accepts ISO-NE's proposal, it is essential that generators can factor risk premiums into their capacity offers and that those risk premiums are not inappropriately mitigated by the Internal Market Monitor.¹⁰²

94. NextEra argues that if the Commission accepts ISO-NE's proposal, it should require ISO-NE to modify the Internal Market Monitor's proposed pivotal supplier test to

⁹⁸ Public Systems Comments at 26.

⁹⁹ Connecticut, Rhode Island PUC, and United Illuminating Comments at 47.

¹⁰⁰ Connecticut, Rhode Island PUC, and United Illuminating contend that, in prior proceedings, the market monitor assured the Commission that it had no expectation that it would be "overburdened in meeting its obligations" in conducting its pre-auction review. Connecticut, Rhode Island PUC, and United Illuminating Comments at 52-53 (citing *ISO New England Inc.*, 135 FERC ¶ 61,029, at P 321 (2011)).

¹⁰¹ Connecticut, Rhode Island PUC, and United Illuminating Comments at 50-51 (citing *ISO New England Inc.*, 135 FERC ¶ 61,029 at P 313).

¹⁰² Entergy Nuclear Comments at 9-10.

evaluate portfolios based on ownership and control, rather than the Lead Market Participant, because some Lead Market Participants submit supply offers that they do not control. NextEra asserts that the proposed pivotal supplier test could lead to over mitigation based on an errant finding that the Lead Market Participant is a pivotal supplier.¹⁰³ NextEra argues that under ISO-NE's proposal, a capacity supplier may offer a resource's capacity in blocks with different offer prices, but that this action could be perceived as physical or economic withholding, constituting a violation of the Commission's anti-manipulation regulations in 18 C.F.R. Part 1c. NextEra thus seeks confirmation that a capacity resource abiding by the rules of ISO-NE's proposal will not be deemed in violation of the anti-manipulation regulations.¹⁰⁴

iii. Answers

95. ISO-NE argues that NextEra's protest regarding the pivotal supplier test should be rejected. ISO-NE explains that it has no access to underlying contractual relationships between Lead Market Participants and other entities with an interest in particular resources, and thus has no way to ascertain with certainty which entity has authority to determine the capacity supply offer price associated with a specific resource. Accordingly, ISO-NE explains, the only feasible approach to avoid the potential for masked market power is to consider all resources offered by the same Lead Market Participant as a portfolio in which the Lead Market Participant plays a potential role in the capacity supply offer pricing.¹⁰⁵

iv. Commission Determination

96. We find the bidding rules and market monitoring provisions in ISO-NE's proposal to be a just and reasonable component of the two-settlement capacity market design adopted here. Therefore, we direct ISO-NE to submit those Tariff provisions as part of the compliance filing required within 45 days of the date of this order. ISO-NE's proposal allows suppliers to include in their bids "[a]ny risk that can be quantified and analytically supported and that is not already reflected in the formula for net going forward costs."¹⁰⁶ As ISO-NE explains, ISO-NE's proposal allows each company to

¹⁰³ NextEra Protest at 6-8.

¹⁰⁴ NextEra Protest at 29-30.

¹⁰⁵ ISO-NE March 3 Answer at 26-27.

¹⁰⁶ Tariff, § III.13.1 Forward Capacity Auction Qualification (22.0.0), § III.13.1.2.3.2.1.4.

evaluate its risks using its own methodology, rather than following a single methodology dictated by the Internal Market Monitor, because calculating risk is more complex under ISO-NE's proposal than under the existing FCM rules. We agree that this is appropriate given the complexity and company-specific nature of valuing performance risk.

97. We are not persuaded that this approach creates an overly vague standard of review or hinders the detection and mitigation of market power, as various protesters argue. Under ISO-NE's proposal, market participants must provide "documentation separately detailing any risk premium included in the bid" and the documentation "should address all components of physical and financial risk reflected in the bid, including, for example, catastrophic events, a higher than expected amount of reserve deficiencies, and performing scheduled maintenance during reserve deficiencies."¹⁰⁷ As ISO-NE explains, the Internal Market Monitor will analyze a risk premium to determine whether it is (1) consistent with assumptions across the market participant's portfolio and (2) consistent with competitive market behavior, based on all market participants' risk premiums. If the Internal Market Monitor is concerned about a particular risk premium, it may ask the market participant for additional information.¹⁰⁸

98. Because these types of risk premiums have not yet been analyzed by the Internal Market Monitor, there is necessarily uncertainty both in how suppliers will value the risks specific to this market design and how the Internal Market Monitor will assess those calculations. However, this uncertainty does not supplant or undermine ISO-NE's stated standard of review, i.e., whether a market participant's risk premiums reflect consistent assumptions and are consistent with competitive market behavior; rather it emphasizes the importance of assessing risk premiums across all market participants and communicating with those market participants about their risks. While risk valuation can be complex, it is by no means a new discipline, and we are persuaded that the types of performance risks under ISO-NE's proposal can be adequately quantified and shown to be reasonable. We agree with ISO-NE that the risks associated with ISO-NE's proposal appear to be "within the bounds of other risks routinely absorbed and priced by the financial community."¹⁰⁹ We further note that, as a competitive market design, ISO-NE's proposal creates an incentive for resources to submit offers that accurately reflect their risks, rather than inflating them, in order to increase the likelihood that they will clear in

¹⁰⁷ Tariff, § III.13.1 Forward Capacity Auction Qualification (22.0.0), § III.13.1.2.3.2.1.4.

¹⁰⁸ Tariff, § III.13.1 Forward Capacity Auction Qualification (22.0.0), § III.13.1.2.3.2.1.1.

¹⁰⁹ ISO-NE March 3, 2014 Answer at 14, Att. A at 5-23 (Mudge Testimony).

the FCA. We expect that, as market participants and the Internal Market Monitor gain familiarity with the new market design and the number of competitive bids and risk premiums submitted and reviewed increases over time, the uncertainty concerning risk premiums that exist at the outset will diminish.

99. We further disagree with NextEra that the Internal Market Monitor is likely to over-mitigate offers based on a Lead Market Participant's submission of a supply offer for resources that it does not control. ISO-NE's proposed tariff language states that Lead Market Participants will be evaluated for pivotal supplier status based on "the amount of capacity from all of the Existing Capacity Resources controlled by the Lead Market Participant for the resource submitting the bid...."¹¹⁰ Based upon this Tariff language, a Lead Market Participant may seek to justify to the Internal Market Monitor that a resource for which it has submitted a supply offer is not under its control and may seek to have the capacity from such resource removed from the pivotal supplier test calculation. We agree with ISO-NE that because ISO-NE is not privy to a Lead Market Participant's contractual arrangements with resource owners, it is impractical to expect the Internal Market Monitor to determine which entity other than the Lead Market Participant exercises control over the resource.

100. As to NextEra's concern that a capacity supplier that offers its capacity in blocks with different offer prices due to different risk premiums may be found to be withholding capacity from the FCM, we cannot definitively conclude that such an action will never constitute withholding. As noted above, we expect that a resource's ability to offer its capacity in blocks provides an important opportunity for resources to manage their resources' performance risk. However, as with any offer under ISO-NE's proposal, the risk premium associated with a resource's offer-blocks must be consistent with competitive market behavior and will accordingly be subject to review by the Internal Market Monitor as necessary.

2. NEPOOL's Reserve Constraint Penalty Factor Changes

a. NEPOOL's Proposal

101. NEPOOL proposes to increase the current, system-wide Reserve Constraint Penalty Factor values for Thirty-Minute Operating Reserves from \$500/MWh to \$1,000/MWh and for Ten-Minute Non-Spinning Reserves from \$850/MWh to \$1,500/MWh.¹¹¹ NEPOOL states that the Reserve Constraint Penalty Factor serves as a

¹¹⁰ Tariff, § III.13.1 Forward Capacity Auction Qualification (22.0.0), § III.13.1.2.3.2

¹¹¹ NEPOOL Transmittal at 9.

price cap for the real-time price of each reserve product, and thus, its proposal to raise Reserve Constraint Penalty Factor levels would establish more efficient price signals to the marketplace during reserve shortages.¹¹² NEPOOL further states that higher Reserve Constraint Penalty Factor levels will: (1) ensure that all Demand Response resources will be fully available to ISO-NE for real-time dispatch in order to maintain operating reserve levels; (2) attract more reserve resources to the market; (3) better encourage market participants to schedule in the Day-Ahead Energy Market and pursue other hedging activities to limit and manage their exposure to real-time prices; and (4) decrease the amount of total Net Commitment Period Compensation incurred.¹¹³ NEPOOL asserts that the use of Reserve Constraint Penalty Factors to set efficient prices during operating reserve shortages has been endorsed by the Commission.¹¹⁴

i. Comments and Protests

102. Maine PUC and Consumer Advocates state that they support an increase to the Reserve Constraint Penalty Factors because it appropriately encourages price-responsive demand and will avoid the high risk premiums of ISO-NE's proposal.¹¹⁵ NEPOOL counters ISO-NE's criticisms that the proposed Reserve Constraint Penalty Factors increase is an order of magnitude too small by stating that its proposal is not designed to mimic the effect of the ISO-NE proposal but is adequate to enhance economic incentives in the real-time markets.¹¹⁶

103. GDF SUEZ argues that increasing Reserve Constraint Penalty Factors will only exaggerate the inefficiency of the existing Peak Energy Rent deduction. GDF SUEZ contends that even under existing scarcity pricing provisions, real-time energy prices generally exceed the Peak Energy Rent proxy rate and result in the Peak Energy Rent

¹¹² NEPOOL Transmittal at 9-10.

¹¹³ NEPOOL Transmittal at 10-11.

¹¹⁴ NEPOOL Transmittal at 10 (citing *Wholesale Competition in Regions with Organized Elec. Markets*, Order No. 719, 73 Fed. Reg. 64,100 (2008), FERC Stats. & Regs. ¶ 31,281 (2008)).

¹¹⁵ Maine PUC Protest at 18-19 and Consumer Advocates Comments at 4-5, 12.

¹¹⁶ NEPOOL Comments at 28.

deduction from capacity revenues equivalent to a significant portion of the real-time energy price.¹¹⁷

104. Massachusetts DPU and New Hampshire PUC oppose NEPOOL's proposed increases to the Reserve Constraint Penalty Factors because they believe it would result in higher prices and increased volatility in the hourly energy prices and volatility in the total procurement costs from year to year without providing a way for customers to appropriately respond to those price signals, and because it would likely make financing new generation more difficult.¹¹⁸ In addition, Indicated Generators state that the Reserve Constraint Penalty Factor changes will not address load under-scheduling in the day-ahead market.¹¹⁹

ii. Answers

105. Dominion contends that with the offer flexibility changes,¹²⁰ as well as the Reserve Constraint Penalty Factor changes proposed by NEPOOL, significantly higher real-time locational marginal prices during constrained or reserve shortage conditions will provide very strong incentives for gas-fired resources to make sure they have back-up fuel provisions in place.¹²¹

106. ISO-NE argues that NEPOOL has provided no explanation or justification for the proposed Reserve Constraint Penalty Factor increases and no analysis attempting to demonstrate that these proposed adders will have any useful effect on investment in reliability.¹²² ISO-NE states that higher energy prices during scarcity conditions due to increases in the Reserve Constraint Penalty Factor values could have similar effects on suppliers' incentives, but only if the higher energy market prices are of a comparable magnitude to the Pay for Performance incentives. ISO-NE asserts that the Reserve

¹¹⁷ GDF SUEZ Comments at 18-19.

¹¹⁸ Massachusetts DPU and New Hampshire PUC Comments at 17.

¹¹⁹ Indicated Generators Comments at 34-35.

¹²⁰ Dominion explains that the offer flexibility changes include the opportunity to make intra-day hourly re-offers, and notes that these measures are designed to ensure that offers are not "stale." Dominion Answer at 4.

¹²¹ Dominion Answer at 5.

¹²² ISO-NE February 12 Answer at 6-7.

Constraint Penalty Factor increases are insufficient to cover the costs needed to retrofit any existing gas-fired resources in ISO-NE's fleet with dual-fuel capability.¹²³

iii. Commission Determination

107. We find that NEPOOL's proposed Reserve Constraint Penalty Factors in combination with ISO-NE's proposal, as modified, represent a just and reasonable solution to the region's resource performance problems. Accordingly, we will direct ISO-NE to submit as part of the compliance due within 45 days of the date of this order Tariff revisions increasing the Reserve Constraint Penalty Factors for 30-Minute Operating Reserves, from \$500/MWh to \$1,000/MWh, and 10-Minute Non-Spinning Reserves, from \$850/MWh to \$1,500/MWh.

108. ISO-NE acknowledges that increasing the Reserve Constraint Penalty Factors could help incent performance but argues that NEPOOL's proposed increases are insufficient to address the region's resource performance problems. However, the Reserve Constraint Penalty Factor changes are not intended to be a complete panacea to the region's resource performance problems, but rather part of a comprehensive solution that will enhance performance incentives in the near-term until ISO-NE's proposal, as adopted here, begins impacting real-time performance. While Massachusetts DPU and New Hampshire PUC argue that the Reserve Constraint Penalty Factor changes could increase price volatility through a price signal to which consumers have no way to respond, we find it to be part of a just and reasonable solution, given the urgency of the reliability concerns facing the New England region and the incremental nature of the increases to the Reserve Constraint Penalty Factors. Further, we direct ISO-NE to implement both the Reserve Constraint Penalty Factors and the two-settlement FCM design because we find that there is value to providing incentives in both the FCM and the energy and ancillary services markets. This is because different combinations of revenue streams make sense for different resources.

109. Additionally, because the immediacy of energy market price signals provides strong incentives to gas-fired generators to bolster fuel availability, the Reserve Constraint Penalty Factor changes should help address in the near-term the gas-electric coordination issues that have contributed to resource non-performance.¹²⁴ In other words, resources will be incentivized to ensure they are deliverable during a Capacity Scarcity

¹²³ ISO-NE February 12 Answer at 33, Test. of Paul Hibbard and Todd Schatzki at 10.

¹²⁴ *ISO New England Inc. and New England Power Pool*, 145 FERC ¶ 61,014 (2013).

Condition due to the Reserve Constraint Penalty Factor changes going into effect immediately.

110. As discussed above, because the increased Reserve Constraint Penalty Factors may impact specific elements of ISO-NE's proposal, we will also direct ISO-NE to submit as part of its compliance filing due within 45 days of the date of this order either Tariff revisions reflecting any adjustments that it believes are necessary in light of the Commission's decision to implement Reserve Constraint Penalty Factor changes, or an explanation as to why no such adjustments are necessary. With respect to GDF SUEZ's concern regarding the interaction of the increased Reserve Constraint Penalty Factors and the Peak Energy Rent mechanism, we dismiss its comments as beyond the scope of this proceeding. The potential inefficiency that GDF SUEZ protests exists independent of, and is not impacted by, the increase to the Reserve Constraint Penalty Factors. The purpose of increasing the Reserve Constraint Penalty Factors is to increase performance incentives, which can be provided in the form of either rewards or penalties, depending on whether the resource has been scheduled in the day-ahead market. However, the Peak Energy Rent deduction does not affect the incremental incentives to produce energy, because a resource's Peak Energy Rent deduction will be the same whether or not it produces energy.

111. In cases where, as here, the Commission institutes a proceeding under section 206, section 206(b) of the FPA requires that the Commission establish a refund effective date that is no earlier than publication of notice of the Commission's initiation of its proceeding in the *Federal Register*, and no later than five months subsequent to that date. We establish a refund date to be the earliest date possible in order to provide maximum protection to customers, i.e., the date that notice of initiation of the section 206 proceeding in Docket No. EL14-52-000 is published in the *Federal Register*.

The Commission orders:

(A) ISO-NE's proposal and NEPOOL's proposal are hereby rejected, as discussed in the body of this order.

(B) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Commission by section 402(a) of the Department of Energy Organization Act and by the FPA, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R., Chapter 1), the Commission hereby institutes a proceeding in Docket No. EL14-52-000, as discussed in the body of this order.

(C) ISO-NE is hereby directed to submit a compliance filing within 45 days of the date of this order, as discussed in the body of this order.

(D) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of the proceeding ordered in Ordering Paragraph (B) above, under section 206 of the FPA.

(E) The refund effective date established pursuant to section 206 (b) of the FPA will be the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (E) above.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A – Interventions, Comments, and Protests

- Denotes Notice of Intervention rather than Motion to Intervene.

* - Denotes filing made out-of-time.

^ - Denotes filing of a subsequent errata or supplemental pleading.

Interventions	
Algonquin Gas Transmission, LLC	Consolidated Edison Energy, Inc. and Consolidated Edison Solutions, Inc.
America's Natural Gas Alliance	Dept. of Public Utilities of the Commonwealth of Massachusetts and the State of New Hampshire Public Utilities Commission #
American Wind Energy Association *	Dominion Resources Services, Inc., on behalf of Dominion Energy Marketing, Inc., Dominion Energy Manchester Street, Inc., and Dominion Nuclear Connecticut, Inc.
Attorney General for the State of Connecticut *	Dynegy Marketing and Trade, LLC, and Casco Bay Energy Company, LLC
Bay State Gas Company, The Berkshire Gas Co., EnergyNorth Natural Gas, Inc., City of Holyoke, Massachusetts Gas and Electric Department, Northern Utilities, The Southern Conn. Gas Company, Westfield Gas & Electric Dept., and Fitchburg Gas and Electric Light Company	Eastern Massachusetts Consumer-Owned Systems
Brookfield Energy Marketing LP	Energy Management Inc.
Calpine Corporation	EnerNOC, Inc.
Connecticut Municipal Electric Energy Cooperative, Massachusetts Municipal Wholesale Electric Company, New Hampshire Electric Cooperative, Inc., Vermont Public Power Supply Authority, and Vermont Electric Cooperative	Entergy Nuclear Power Marketing, LLC
Connecticut Public Utilities Regulatory Authority and motion to intervene by the Commissioner of the Connecticut Department of Energy and Environmental	EquiPower Resource Management, LLC

Protection #	
Interventions, cont.	
Essential Power, LLC, Essential power Newington, LLC, and Essential Power Massachusetts, LLC	New England Power Generators Association, Inc. and the Electric Power Supply Association
Exelon Corporation	New England States Committee on Electricity
First Wind Energy, LLC	New Hampshire Office of Consumer Advocate
GDF SUEZ Energy Marketing NA, Inc.	NextEra Energy Resources, LLC ^
H.Q. Energy Services (U.S.) Inc.	Northeast Energy Efficiency Partnerships, Inc.
Industrial Energy Consumer Group	Northeast Utilities Service Company
Iroquois Gas Transmission System, L.P.	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, NRG Kendall LLC and Energy Curtailment Specialists Inc.
Long Island Power Authority	Potomac Economics *
Maine Public Advocate Office	PSEG Power LLC, PSEG Power Connecticut LLC and PSEG Energy Resources & Trade LLC.
Maine Public Utilities Commission #	Renewable Energy New England, Inc.
Maritimes & Northeast Pipeline, L.L.C.	Repsol Energy North America Corporation
Massachusetts Attorney General	Rhode island Public Utilities Commission #
Massachusetts Electric Company, Nantucket Electric Company and Narragansett Electric Company d/b/a National Grid	Tennessee Gas Pipeline Company, L.L.C.
Millennium Power Partners, L.P.	TransCanada Power Marketing Ltd.*
Natural Gas Supply Association	United Illuminating Company

NEPOOL Industrial Customer Coalition	Vermont Department of Public Service
Interventions, cont.	
Vermont Public Service Board #	
Verso Paper Corp.	
Vitol Inc.	

Comments and Protests	
America's Natural Gas Alliance (ANGA)	Connecticut Public Utilities Regulatory Authority, Connecticut Office of Consumer Counsel, Attorney General for the State of Connecticut, Connecticut Department of Energy and Environmental Protection, the United Illuminating Company and the Rhode Island Public Utilities Commission (Connecticut, Rhode Island PUC, and United Illuminating)
American Wind Energy Association (AWEA) *	Department of Public Utilities of the Commonwealth of Massachusetts and the State of New Hampshire Public Utilities Commission (Massachusetts DPU and New Hampshire PUC)
Brookfield Energy Marketing LP (Brookfield)	Dominion Resources Services, Inc., on behalf of Dominion Energy Marketing, Inc., Dominion Energy Manchester Street, Inc., and Dominion Nuclear Connecticut, Inc. (Dominion)
Connecticut Municipal Electric Energy Cooperative, Massachusetts Municipal Wholesale Electric Company, New Hampshire Electric Cooperative, Inc., Vermont Public Power Supply Authority, and Vermont Electric Cooperative (Public Systems)	Eastern Massachusetts Consumer-Owned Systems (EMCOS)
Conn. Office of Consumer Counsel, Maine Office of the Public Advocate, Mass. Office of the Attorney General, and the	Energy Management, Inc. (Energy Management)

New Hampshire Office of Consumer Advocate (Consumer Advocates)	
EnerNOC, Inc. (EnerNOC)	Massachusetts Electric Company, Nantucket Electric Company and Narragansett Electric Company d/b/a National Grid (National Grid)
Entergy Nuclear Power Marketing, LLC (Entergy Nuclear)	Natural Gas Supply Association (NGSA)
Exelon Corporation, EquiPower Resources Management, LLC, Essential Power, LLC, Dynegy Marketing and Trade, LLC and Casco Bay Energy Company, LLC (Indicated Generators)	New England Power Generators Association, Inc. and the Electric Power Supply Association (NEPGA and EPSA)
GDF SUEZ Energy Marketing NA, Inc. (GDF SUEZ)	New England States Committee on Electricity (NESCOE)
H.Q. Energy Services (U.S.) Inc. (HQUS)	NEPOOL Participants Committee (NEPOOL)
Industrial Energy Consumer Group (Industrial Energy Consumers)	Algonquin Gas Transmission, LLC, Iroquois Gas Transmission System, L.P., Maritimes & Northeast Pipeline, L.L.C., Portland Natural Gas Transmission System, and Tennessee Gas Pipeline Company, L.L.C.; National Grid; Northeast Gas Association; New England Local Distribution Companies (Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire Gas Company; EnergyNorth Natural Gas, Inc., d/b/a Liberty Utilities; Connecticut Natural Gas Corporation; Fitchburg Gas and Electric Light Company; City of Holyoke, Massachusetts Gas and Electric Department; Northern Utilities, Inc.; The Southern Connecticut Gas Company; and Westfield Gas & Electric Department); Repsol Energy North America, and GDF Suez Gas North America (New England Natural Gas Industry)
Maine Public Utilities Commission (Maine PUC)	NextEra Energy Resources, LLC (NextEra) ^
Northeast Energy Efficiency Partnerships, Northeast Utilities Companies, Vermont Energy Investment Corporation, and	

Environment Northeast (Energy Efficiency Stakeholders)	
Northeast Utilities Service Company, on behalf of the Northeast Utilities Companies The Northeast Utilities Companies are The Connecticut Light and Power Company, Western Massachusetts Electric Company, Public Service Company of New Hampshire, and NSTAR Electric Company (Northeast Utilities)	
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. (NRG) ^	
Potomac Economics (External Market Monitor)	
PSEG Power LLC, PSEG Power Connecticut LLC and PSEG Energy Resources & Trade LLC. (PSEG)	
Renewable Energy New England, Inc. and First Wind Energy, LLC (Renewable Energy New England and First Wind)	
The United Illuminating Company (United Illuminating)	
United States Senate	
Vermont Department of Public Service and Vermont Public Service Board (Vermont Agencies)	

153 FERC ¶ 61,223
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

ISO New England Inc. and
New England Power Pool

Docket Nos. ER14-1050-002
EL14-52-001

ORDER DENYING REHEARING

(Issued November 19, 2015)

1. On January 17, 2014, ISO New England Inc. (ISO-NE) and the New England Power Pool Participants Committee (NEPOOL) submitted, pursuant to section 205 of the Federal Power Act (FPA)¹ and section 11.1.5 of the ISO-NE Participants Agreement,² alternative proposals intended to address fleet-wide resource performance problems in New England (January 17 Filing). By order issued May 30, 2014, the Commission *sua sponte* invoked FPA section 206³ and found, *inter alia*, that: (1) ISO-NE's existing Forward Capacity Market (FCM) payment design was unjust and unreasonable; (2) neither ISO-NE's proposal nor NEPOOL's proposal, standing alone, had been shown to be just and reasonable; and (3) aspects of the two proposals, in combination and as modified by the Commission, constituted a just and reasonable solution to the region's

¹ 16 U.S.C. § 824d (2012).

² Section 11.1.5 of the Participants Agreement, commonly referred to as the "jump ball" provision, provides, in pertinent part, that if a Market Rule proposal that differs from that proposed by ISO-NE is approved by a Participants Committee vote of 60 percent or more, ISO-NE "shall, as part of any required Section 205 filing," describe the alternate Market Rule proposal in sufficient detail to permit reasonable review by the Commission and also explain its reasons for not adopting the alternate proposal and why it believes its own proposal is superior. Section 11.1.5 provides that the Commission may "adopt any or all of ISO[-NE]'s Market Rule proposal or the alternate Market Rule proposal as it finds ...to be just and reasonable and preferable."

³ 16 U.S.C. § 824e (2012).

resource performance problems.⁴ Therefore, the Commission directed ISO-NE to submit revisions to its Transmission, Markets and Services Tariff (Tariff) to increase the Reserve Constraint Penalty Factors in its real-time markets, as proposed by NEPOOL, and implement a modified version of the two-settlement capacity market design that ISO-NE proposed.⁵ Multiple parties submitted requests for rehearing or requests for clarification of the May 30 Order.⁶ In this order, we deny rehearing and dismiss as moot the requests for clarification.

I. Background

2. In the January 17 Filing, ISO-NE proposed changes to the FCM which were intended to link resources' capacity revenues to their performance during reserve deficiencies. ISO-NE sought to implement a two-settlement FCM process, whereby a capacity resource's total capacity revenue is comprised of a Capacity Base Payment and a Capacity Performance Payment (two-settlement capacity market design). The Capacity Base Payment would be determined by the associated Forward Capacity Auction (FCA) clearing price, and the Capacity Performance Payment would be determined by the

⁴ *ISO New England Inc. and New England Power Pool*, 147 FERC ¶ 61,172, at PP 23-26 (2014) (May 30 Order).

⁵ Docket No. EL14-52-000 was assigned to the FPA section 206 proceeding.

⁶ The following parties filed requests for rehearing or clarification: Connecticut Municipal Electric Energy Cooperative, Massachusetts Municipal Wholesale Electric Co., New Hampshire Electric Cooperative, Inc., Vermont Public Power Supply Authority, and Vermont Electric Cooperative (collectively, Public Systems); Connecticut Public Utilities Regulatory Authority, Connecticut Office of Consumer Counsel, George Jepsen, Attorney General for the State of Connecticut, Connecticut Department of Energy and Environmental Protection, United Illuminating Co., and Rhode Island Public Utilities Commission (collectively, Connecticut and Rhode Island); Dominion Resources Services, Inc. (Dominion); Exelon Corp., Equipower Resources Management, LLC, Essential Power, LLC, Dynegy Marketing and Trade, LLC, and Casco Bay Energy Co., LLC (collectively, Indicated Generators); Potomac Economics, Ltd. (Potomac Economics); New England Power Generators Association, Inc. (NEPGA); New England Power Pool Participants Committee (NEPOOL); NextEra Energy Resources, LLC (NextEra); PSEG Power LLC, PSEG Energy Resources & Trade LLC, PSEG Power Connecticut LLC, 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. (collectively, PSEG and NRG).

resource's performance – in the form of delivery of energy and/or reserves in real-time – during reserve deficiencies, known as Capacity Scarcity Conditions.

3. NEPOOL agreed that fleet-wide performance problems exist but argued that a major FCM redesign, as ISO-NE proposed, was unnecessary to address them. Instead, NEPOOL proposed to increase the performance incentives in ISO-NE's energy and ancillary services markets and replace the metric by which capacity resource "availability" is determined. First, NEPOOL proposed to increase the existing Reserve Constraint Penalty Factors for 30-Minute Operating Reserves, from \$500/MWh to \$1,000/MWh, and for 10-Minute Non-Spinning Reserves, from \$850/MWh to \$1,500/MWh. These Reserve Constraint Penalty Factor changes would increase the price that ISO-NE may pay to procure energy and reserves in real-time. Second, NEPOOL proposed to change the FCM rules by replacing the existing Shortage Event mechanism with a new Equivalent Peak Period Forced Outage Rate, or "EFORp," metric that measures a resource's performance based on its availability during all EFORp Hours. NEPOOL asserted that these incremental changes to the real-time markets and capacity markets, when combined with other recent market rule changes, would ensure adequate procurement of energy and operating reserves when the New England system is stressed.

4. In the May 30 Order, the Commission instituted a section 206 proceeding, finding that the existing Tariff was unjust and unreasonable because it failed to provide adequate incentives for resource performance, thereby threatening reliable operation of the system and forcing consumers to pay for capacity without receiving commensurate reliability benefits. The Commission found that neither ISO-NE's nor NEPOOL's proposal, standing alone, had been shown to be just and reasonable. However, the Commission also found that a modified version of ISO-NE's proposal combined with the higher Reserve Constraint Penalty Factors in NEPOOL's alternative proposal provided a just and reasonable solution. The Commission, therefore, directed ISO-NE to submit Tariff revisions in a compliance filing to implement a modified version of ISO-NE's two-settlement capacity market and to increase the Reserve Constraint Penalty Factors.

5. With regard to the modifications to the two-settlement capacity market design, the Commission directed ISO-NE to submit Tariff revisions (1) to ensure that energy efficiency resources' Capacity Performance Payments are calculated only for Capacity Scarcity Conditions during hours in which demand reduction values are calculated under the Tariff for that particular type of resource;⁷ and (2) to create an exemption from the application of Capacity Performance Payments for resources on the export side of an intra-zonal transmission constraint during a Capacity Scarcity Condition, or further

⁷ May 30 Order, 147 FERC ¶ 61,172 at P 89.

explain why such an exemption is not necessary.⁸ The Commission also directed ISO-NE to submit Tariff revisions reflecting any adjustments that it believes are necessary in light of the Commission's decision to implement Reserve Constraint Penalty Factor changes, or an explanation as to why no such adjustments are necessary.⁹

6. On July 14, 2014, ISO-NE submitted its compliance filing, and on October 2, 2014, the Commission issued an order accepting in part, subject to condition, and rejecting in part ISO-NE's compliance filing, and directing a further compliance filing.¹⁰ In the October 2 Order, the Commission accepted ISO-NE's Tariff revisions regarding the increased Reserve Constraint Penalty Factors, the treatment of energy efficiency resources, and ISO-NE's proposal to retain the Capacity Performance Payment Rate and the dynamic de-list bid threshold at the levels that ISO-NE originally proposed in the January 17 Filing. However, the Commission rejected ISO-NE's proposed Tariff revisions concerning intra-zonal transmission constraints.

7. The rejected Tariff provision contained ISO-NE's proposed solution to the potential improper price signal issue that the Commission identified in the May 30 Order. ISO-NE asserted that exempting resources on the export side of an intra-zonal transmission constraint from application of Capacity Performance Payments, as the Commission suggested, would create other distortionary incentives. Therefore, ISO-NE argued that a superior solution would be to credit those resources only for the reserves, not for the energy, they provide during Capacity Scarcity Conditions because only reserves have a positive marginal value on the export side of a transmission constraint.

8. In the October 2 Order, the Commission rejected ISO-NE's proposed solution to the intra-zonal transmission constraint issue because, based upon additional information submitted by ISO-NE and other parties, the Commission found that an exemption is not necessary. More specifically, the Commission found that the additional information indicated that the improper price signal problem that the Commission identified in the May 30 Order is of limited geographic scope, and that the incentive for capacity resources to submit energy market offers below their actual costs is weaker than the Commission contemplated.¹¹

⁸ *Id.* P 67.

⁹ *Id.* P 110.

¹⁰ *ISO New England Inc.*, 149 FERC ¶ 61,009 (2014) (October 2 Order).

¹¹ October 2 Order, 149 FERC ¶ 61,009 at PP 56-62.

9. Connecticut and Rhode Island,¹² Dominion Resources Services, Inc. (Dominion), Indicated Generators,¹³ NextEra Energy Resources, LLC (NextEra), Potomac Economics, PSEG Companies and NRG Companies (PSEG and NRG), and Public Systems¹⁴ filed requests for rehearing of the May 30 Order. The New England Power Generators Association (NEPGA) and NEPOOL filed requests for clarification of the May 30 Order.

II. Discussion

10. The requests for rehearing and clarification in this proceeding raise issues regarding: (1) rejection of NEPOOL's proposal, (2) adoption of the modified version of ISO-NE's two-settlement capacity market design, (3) adoption of the two-settlement capacity market design and the increased Reserve Constraint Penalty Factors in combination, (4) exemptions for resource non-performance, (5) certain parameters of the two-settlement capacity market design, (6) market power mitigation rules under the two-settlement capacity market design, and (7) the Peak Energy Rent adjustment mechanism. We will address the requests for rehearing and clarification in that sequence.

A. Rejection of NEPOOL's Proposal

1. Requests for Rehearing

11. Connecticut and Rhode Island argue that the Commission erred in rejecting NEPOOL's proposal on the basis that the EFORp metric is flawed. Connecticut and Rhode Island contend that the Commission dismissed the EFORp metric because it would measure performance in terms of "availability," and that, in doing so, the Commission ignored arguments and evidence showing that "retaining an availability-based capacity

¹² Connecticut and Rhode Island consist of: the Connecticut Public Utilities Regulatory Authority, the Connecticut Office of Consumer Counsel, George Jepsen, Attorney General for the State of Connecticut, the Connecticut Department of Energy and Environmental Protection, the United Illuminating Company, and the Rhode Island Public Utilities Commission.

¹³ Indicated Generators consist of: Exelon Corporation; Equipower Resources Management, LLC; Essential Power, LLC; Dynegy Marketing and Trade, LLC; and Casco Bay Energy Company, LLC.

¹⁴ Public Systems consist of: Connecticut Transmission Municipal Electric Energy Cooperative, Massachusetts Municipal Wholesale Electric Company, New Hampshire Electric Cooperative, Inc., Vermont Public Power Supply Authority, and Vermont Electric Cooperative.

product is just and reasonable.”¹⁵ Connecticut and Rhode Island argue that the Commission arbitrarily and capriciously faulted the EFORp metric for maintaining “numerous exemptions for nonperformance,” without identifying which exemptions are unacceptable and why.¹⁶ Connecticut and Rhode Island contend that, contrary to the Commission’s assertion, the fact that the EFORp metric would measure availability only in certain peak hours of the year is a strength, not a weakness, because those hours are precisely the times when capacity is scarce and an outage created by a capacity deficiency is most likely to occur.¹⁷ Connecticut and Rhode Island assert that the Commission failed to consider Potomac Economics’ adjustments to the EFORp metric and failed to consider other proposed improvements to the capacity market rules.¹⁸ Connecticut and Rhode Island argue that the Commission erred by departing from its practice of giving weighted consideration to the stakeholder process and vote.¹⁹

12. Public Systems argue that the Commission erred in finding that increasing the Reserve Constraint Penalty Factors would not, by itself, provide a sufficient incentive to address the region’s resource performance problems.²⁰ Public Systems contend that the Commission failed to consider that the increased Reserve Constraint Penalty Factors, combined with other existing and future energy market enhancements, could adequately address the region’s resource performance problems.²¹

¹⁵ Connecticut and Rhode Island Request for Rehearing at 8. Connecticut and Rhode Island specifically cite to passages from their protest to the January 17 Filing stating that an “availability-defined capacity product” provides incentives to a broad range of asset types and requires plant managers to run their facilities “consistent with good utility practice, without being distracted by the need to predict dispatch practices and unforeseen transmission outages that may cause capacity scarcity conditions.” *Id.* at 8-9.

¹⁶ *Id.* at 9.

¹⁷ *Id.*

¹⁸ *Id.* at 11-12.

¹⁹ *Id.* at 30 (citing *Pub. Serv. Comm’n of Wis. v. FERC*, 545 F.3d 1058, 1062 (D.C. Cir. 2008); *ISO New England Inc. and New England Power Pool*, 126 FERC ¶ 61,180, at P 15 (2009)).

²⁰ Public Systems Request for Rehearing at 23-24.

²¹ *Id.* at 24.

2. Commission Determination

13. We deny rehearing of the Commission's determination that NEPOOL's proposal has not been shown to be just and reasonable.

14. In the May 30 Order, the Commission concluded that NEPOOL's EFORp metric was flawed for several reasons, including that it: (1) only measures a resource's performance against its own historical performance; (2) could provide resources an incentive to lower their performance over the next four years in order to lower the performance score against which their performance would be measured after the EFORp metric is implemented; (3) would measure performance in terms of "availability," and would do so only in certain peak hours of the year; and (4) would maintain numerous exemptions for non-performance.²² Connecticut and Rhode Island erroneously assert that the Commission ignored evidence or argument concerning the appropriateness of NEPOOL's EFORp metric. As explained below, the Commission did, in fact, consider the evidence and arguments to which Connecticut and Rhode Island cite.

15. Connecticut and Rhode Island argue that, in rejecting the EFORp metric because it is based on resource availability, the Commission ignored testimony indicating that an availability-based metric is just and reasonable.²³ We disagree. The testimony to which Connecticut and Rhode Island cite involves the FCM payment structure that was in place prior to the two-settlement capacity market design, and that testimony is belied by record evidence showing a substantial decline in fleet-wide resource performance under that payment structure.²⁴ As the Commission explained in the May 30 Order, that payment structure "treats many resources as if they are fully available to operate during Shortage Events, and pays them accordingly, even when those resources are unable to deliver energy or reserves at that time."²⁵ The Commission found that payment structure to be

²² May 30 Order, 147 FERC ¶ 61,172 at P 24, n.22.

²³ Connecticut and Rhode Island Request for Rehearing at 8 (citing Connecticut and Rhode Island Protest at 10-12, Att. C at 6:6-7:5, 8:15-16:4; Connecticut and Rhode Island Answer at 13, 16; Potomac Economics Comments at 15, 25-26).

²⁴ May 30 Order, 147 FERC ¶ 61,172 at P 26 (explaining that resource performance has declined to a level that has jeopardized ISO-NE's ability to reliably operate the electric system, the overall rate of unplanned outages has doubled since 2007, and the average response rate for generators dispatched following a contingency is only 71 percent).

²⁵ *Id.*

unjust and unreasonable because it “not only fail[s] to incent resource performance, but also perversely select[s] less reliable resources over more reliable resources.”²⁶ The Commission rejected the EFORp metric because, in addition to its other flaws, it would perpetuate that payment structure by continuing to measure resource performance in terms of “availability,” as defined under the existing market rules, and would do so only in certain peak hours of the year.²⁷ As explained in the May 30 Order and again below, the existing FCM’s availability-based compensation structure has contributed to the region’s resource performance problems by failing to adequately incent resource performance and by perversely selecting less reliable resources over more reliable resources.²⁸

16. We similarly reject Connecticut and Rhode Island’s assertion that the measurement of resource availability only in certain peak hours of the year is not a flaw, but rather is one of the EFORp metric’s strengths. As the Commission explained, recent resource performance in New England has shown that the region needs resources that provide energy or reserves during reserve deficiencies. We are not persuaded that the EFORp metric would procure that product. Because reserve deficiencies can occur at any time of year, not just in the peak hours included in the EFORp metric, the EFORp metric would not appropriately value resources’ contributions during reserve deficiencies that occur outside of EFORp Hours. Further, the EFORp metric measures resource availability in EFORp Hours regardless of whether any reserve deficiencies actually occur in those hours. This could result not only in a resource being paid a premium even if no reserve deficiencies occur, but also in a resource being paid a premium where it performed poorly during a reserve deficiency but made up for that by performing well during the EFORp hours in which there is no deficiency. In short, the EFORp metric would not only perpetuate the payment structure that the Commission found to be problematic in the May 30 Order, it would also exacerbate the flaws in that payment

²⁶ *Id.*

²⁷ As to Connecticut and Rhode Island’s assertion that the Commission ignored Potomac Economics’ arguments concerning availability-based performance measurement and the EFORp metric, *see* Connecticut and Rhode Island Request for Rehearing at 8, n. 11, the Commission did in fact address Potomac Economics’ arguments on this issue in the May 30 Order. *See* May 30 Order, 147 FERC ¶ 61,172 at n.22. We note that Potomac Economics’ argument is also contradicted by the record evidence of the resource performance problems under the “availability” definition that has been in place in New England, and that the EFORp metric would perpetuate.

²⁸ *See id.* P 26; *infra* Section II.B.2.

structure by measuring resources' availability in fewer hours of the year, and would do so regardless of whether any reserve deficiencies occurred in those hours.

17. Connecticut and Rhode Island argue that the Commission erred by faulting the EFORp metric for maintaining numerous exemptions for nonperformance without identifying which exemptions are unacceptable and why. This argument misses the point. While it is possible that different exemptions have contributed to the region's resource performance problems in different proportions, the record does not indicate how much each individual exemption has contributed to the poor resource performance reflected in the record. Further, it is unnecessary to identify how much each exemption has contributed to the resource performance problems. The salient points are that (1) the combined effect of those exemptions is a flawed market construct that treats resources as if they have fully performed when, in fact, they did not perform, and (2) the EFORp metric would maintain *all* of those exemptions and, in addition to its other flaws, would do so without paying resources based on their provision of energy and reserves during reserve deficiencies. Thus, the Commission appropriately identified this as one of the EFORp metric's shortcomings.

18. Connecticut and Rhode Island further argue that the Commission's criticisms of the EFORp metric are speculative. We disagree. The Commission identified specific flaws in the EFORp metric and explained how those flaws could further erode reliability in the region. It was not necessary for the Commission to prove that the EFORp metric would, in fact, erode reliability.²⁹

19. Contrary to Connecticut and Rhode Island's assertions, the Commission did not ignore evidence or argument that the EFORp metric would enhance performance incentives.³⁰ The evidence and argument to which Connecticut and Rhode Island cite

²⁹ See, e.g., *Sacramento Mun. Util. Dist. v. FERC*, 616 F.3d 520, 531 (D.C. Cir. 2010) ("Neither *Electric Consumers* nor any other case law prevents the Commission from making findings based on 'generic factual predictions' derived from economic research and theory."); *Wis. Pub. Power Inc. v. FERC*, 493 F.3d 239, 260-61 (D.C. Cir. 2007) ("It is well-established that an 'agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to particularly deferential review, as long as they are reasonable.") (quoting *Earthlink, Inc. v. FCC*, 462 F.3d 1, 12 (D.C. Cir. 2006)).

³⁰ Connecticut and Rhode Island Request for Rehearing at 10 (citing Connecticut and Rhode Island Protest at 12-15).

concerns the EFORp metric's use of EFORp Hours, which, as discussed above, the Commission fully considered and found to be problematic.³¹

20. We disagree with Public Systems' assertion that the Commission erred in finding that the increase in Reserve Constraint Penalty Factors would not, by itself, be sufficient to address the region's resource performance problems. No party in this proceeding, including NEPOOL, which proposed the increased Reserve Constraint Penalty Factors, has provided evidence showing that increasing the Reserve Constraint Penalty Factors for 30-Minute Operating Reserves, from \$500/MWh to \$1,000/MWh, and 10-Minute Non-Spinning Reserves, from \$850/MWh to \$1,500/MWh, will adequately address the region's resource performance problems. Further, the evidence to which Public Systems cite does not support such a showing.³² That evidence either (1) is based on the flawed premise that the Capacity Performance Payment Rate must be based on the value of lost load,³³ or (2) merely supports the notion that the necessary incentive level could be achieved solely through the energy and ancillary services markets if the Reserve Constraint Penalty Factors are increased to levels above those that NEPOOL proposed.³⁴ In the May 30 Order, the Commission explicitly rejected the former premise.³⁵

³¹ See May 30 Order, 147 FERC ¶ 61,172 at P 24 n.22; *supra* P 16.

³² See Public Systems Request for Rehearing at 24 n.22 (citing Eastern Massachusetts Consumer-Owned Systems Protest and Comments, Test. of William Bottiggi at 13-14; Connecticut and Rhode Island Comments and Protest, Att. A, Att. C, Att. B; NEPOOL Comments, Att. A at 56-61, Att. B at 10-13).

³³ See Connecticut and Rhode Island Comments and Protest, Att. C at 24-25.

³⁴ See Eastern Massachusetts Consumer-Owned Systems Feb. 12, 2014 Protest and Comments, Test. of William Bottiggi at 13-14. Public Systems also attempts to support its argument by citing testimony that NEPOOL submitted. See Public Systems Request for Rehearing at 24 (citing NEPOOL Comments, Att. A at 56-61, Att. B at 10-13). However, that testimony does not indicate that increasing the Reserve Constraint Penalty Factors will, by itself, adequately address the region's resource performance problems. Rather, it merely indicates that increasing the Reserve Constraint Penalty Factors will provide a performance incentive, which is consistent with the Commission's findings in the May 30 Order.

³⁵ May 30 Order, 147 FERC ¶ 61,172 at P 74; *see also infra* PP 84-87 (explaining, *inter alia*, that the record does not support the conclusion that calculating the Capacity Performance Payment Rate based on the value of lost load would satisfy the 1-day-in-10-years reliability standard under current system conditions).

21. As to the evidence indicating that the energy and ancillary services markets could provide the necessary incentive, the Commission acknowledged that possibility in the May 30 Order, but explained that the specific values that NEPOOL proposed were insufficient for that purpose.³⁶ We further note that the record does not contain evidence showing what Reserve Constraint Penalty Factor levels would be necessary to fully address the region's resource performance problems. Additionally, in directing ISO-NE to implement both NEPOOL's proposed increase to the Reserve Constraint Penalty Factors and the two-settlement capacity market design, the Commission explained that "there is value in providing incentives in both the FCM and the energy and ancillary services markets."³⁷ Thus, while it may be possible to produce the necessary performance incentive entirely through the energy and ancillary services markets, the record before us is insufficient for developing such an incentive, and there may be disadvantages to such an approach. We, therefore, find that the Commission properly concluded that the increase in Reserve Constraint Penalty Factors that NEPOOL proposed, i.e., the only increase to the Reserve Constraint Penalty Factors that is supported by the record, would not, by itself, be sufficient to address the region's resource performance problems.³⁸

22. Similarly, we reject Public Systems' and Connecticut and Rhode Island's contentions that the Commission failed to consider whether the increased Reserve Constraint Penalty Factors, combined with other market enhancements, will improve resources' availability and could adequately address the region's resource performance problems. The actual and potential market rule changes to which these parties cite do not alter our analysis, because they do not address the fundamental flaws in the FCM payment structure. Furthermore, while some of the market rule changes that Public Systems highlight could provide an incremental performance incentive, the record does not support a finding that those changes, when combined with the increased Reserve Constraint Penalty Factors, would provide a performance incentive sufficient to solve the region's resource performance problems. As for the one change that Connecticut and

³⁶ May 30 Order, 147 FERC ¶ 61,172 at P 24.

³⁷ *Id.* P 108.

³⁸ Furthermore, even assuming *arguendo* that the record could support a specific solution that relied only on the energy and ancillary services markets, that fact does not undermine the justness and reasonableness of the Commission's chosen solution. See, e.g., *Me. Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 470-71 (D.C. Cir. 2008), *rev'd in part on other grounds sub nom. NRG Power Mktg., LLC v. Me. Pub. Utils. Comm'n*, 558 U.S. 165 (2010); *City of Winnfield, La. v. FERC*, 744 F.2d 871, 875-76 (D.C. Cir. 1984).

Rhode Island specifically identify, i.e., NEPOOL's proposed change to the "Poorly Performing Resources" provision in section III.13.7.1.1.5 of the Tariff,³⁹ we are not persuaded that that change would provide a sufficient performance incentive. That market rule change would not only maintain the problematic FCM payment structure but would also impact only those resources whose availability scores were less than 40 percent in multiple years.⁴⁰

Lastly, we reject Connecticut and Rhode Island's assertion that the Commission's practice is to assign "weights to each proposal commensurate with the level of stakeholder support each garnered at the Participants Committee vote,"⁴¹ and that the Commission departed from that practice in this case. While the Commission's practice is to give weight to stakeholder voting in its consideration of any proposal,⁴² the Commission's consideration of stakeholder voting is not as formalistic as Connecticut and Rhode Island assert. Moreover, as the Commission has stated previously, "stakeholder support alone cannot ultimately prove that a rate design is just and reasonable."⁴³

B. Adoption of a Modified Version of ISO-NE's Proposal

1. Requests for Rehearing

23. Multiple parties request rehearing of the Commission's decision to adopt a modified version of ISO-NE's two-settlement capacity market design.⁴⁴

³⁹ See Connecticut and Rhode Island Request for Rehearing at 12, n.19.

⁴⁰ See January 17 Filing, Att. N-1b at 16:22-17:9.

⁴¹ Connecticut and Rhode Island Request for Rehearing at 30.

⁴² See, e.g., *Am. Elec. Power Serv. Corp. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 122 FERC ¶ 61,083, at P 172 (2008).

⁴³ *Id.*

⁴⁴ Connecticut and Rhode Island, PSEG and NRG, and Public Systems. Dominion, Indicated Generators, NextEra, and Potomac Economics also request rehearing of specific aspects of the two-settlement capacity market design. Those rehearing requests are addressed *infra* sections II.D and II.E.

24. Connecticut and Rhode Island argue that the Commission erred by finding most aspects of the two-settlement capacity market design just and reasonable without considering the impacts on customer charges.⁴⁵ Connecticut and Rhode Island assert that they showed that ISO-NE's proposal would increase capacity charges "to levels beyond the bounds of reasonableness" because, they allege, the Capacity Performance Payment Rate is incorrectly based on the 1-day-in-10-years loss of load expectation, rather than on the value of lost load,⁴⁶ and because the risks imposed on suppliers will drive them to withdraw their capacity from the New England market, which will produce "fake shortages."⁴⁷ Connecticut and Rhode Island also argue that the Commission failed to consider the role that demand response resources play in resolving reserve deficiencies.⁴⁸

25. Multiple parties argue that the Commission erroneously determined that the two-settlement capacity market design does not unduly discriminate against mid-range resources that lack quick start capability.⁴⁹ PSEG and NRG assert that, although the two settlement capacity market design does not facially distinguish among technology types, it will have very different, predictable impacts on different types of units.⁵⁰

⁴⁵ Connecticut and Rhode Island Request for Rehearing at 13.

⁴⁶ More specifically, Connecticut and Rhode Island argue that using the value of lost load is "the only reasonable economic method to assess whether the charges customers pay are commensurate with the benefits they receive," *id.* at 14, and that the Commission erred in using the loss of load expectation approach because it ties the performance payment rate to the cost of new entry for a generator, "which has no bearing on the value of the reliability benefit for customers," *id.* at 15. Connecticut and Rhode Island further argue that the Commission's approach is unprecedented, *id.* (citing *Wholesale Competition in Regions with Organized Electric Markets*, 125 FERC ¶ 61,071 (2008); 119 FERC ¶ 61,306, at P 75 (2007)), and disregards the value that customers place on new capacity, instead focusing exclusively on the cost of producing more supply. *Id.* Connecticut and Rhode Island contend that such an approach is likely to create signals for increased capacity resources when customers would not be willing to pay for that supply based on the cost of a new generator. *Id.* These arguments, and other arguments concerning the value of lost load, are addressed *infra* section II.E.

⁴⁷ Connecticut and Rhode Island Request for Rehearing at 15-17.

⁴⁸ *Id.* at 15.

⁴⁹ PSEG and NRG Request for Rehearing at 19; Public Systems Request for Rehearing at 18.

⁵⁰ PSEG and NRG Request for Rehearing at 19.

PSEG and NRG contend that, “to show undue discrimination, the petitioner must demonstrate that the two classes of customers are similarly situated *for purposes of the rate*.”⁵¹ PSEG and NRG claim that the “purpose of the rate,” in this case, is to incentivize resource performance, not to penalize mid-range units without quick start capability.⁵²

26. PSEG and NRG argue that the Commission erred in addressing the performance issues through the two-settlement capacity market design when the same goal potentially could have been achieved through the energy and ancillary services markets with less disruption and less discrimination.⁵³ Pointing to the Commission’s acknowledgement that the energy and ancillary services markets could potentially be used to achieve the same performance incentive as the two-settlement capacity market design, PSEG and NRG assert that the Commission should have taken that approach because doing so “would be expected to have much less discriminatory impact because it would not severely *penalize* an entire class of units for lacking particular operational capabilities.”⁵⁴ PSEG and NRG argue that the two-settlement capacity market design would only be justified by “showing that discriminatory pricing was the *only way* to achieve the alleged benefits it sought.”⁵⁵

27. Multiple parties argue that the Commission’s standard for determining when resources are similarly situated in this context is unduly narrow because it ignores the reliability contributions of resources that do not have quick start capability, and ignores other reliability characteristics such as fuel diversity.⁵⁶ PSEG and NRG argue that the owners of mid-merit resources have made investments in those resources in reliance on existing market rules, and the Commission’s adoption of the two-settlement capacity

⁵¹ PSEG and NRG Request for Rehearing at 21 (quoting “*Complex*” *Consol. Edison Co. of NY v. FERC*, 165 F.3d 992, 1013 (D.C. Cir. 1999)) (emphasis added by PSEG and NRG).

⁵² PSEG and NRG Request for Rehearing at 21.

⁵³ *Id.* at 21-22.

⁵⁴ *Id.* at 21 (emphasis in original).

⁵⁵ *Id.* at 22 (quoting *Transcontinental Gas Pipe Line v. FERC*, 998 F.2d 1313, 1321, 1322 (5th Cir. 1993)) (internal quotations omitted) (emphasis added by PSEG and NRG).

⁵⁶ *Id.* at 22-23; Public Systems Request for Rehearing at 18.

market design impermissibly devalues those sunken investments in long-lived assets.⁵⁷ Public Systems argue that the Commission has already adopted other market mechanisms to ensure that flexible resources receive additional revenues reflecting the benefits they provide, and that the two-settlement capacity market design risks double-compensating resources for those benefits.⁵⁸ Public Systems contend that, the two-settlement capacity market design ignores the difference between resource adequacy and resource performance—a distinction that the Commission has acknowledged in the past.⁵⁹ PSEG and NRG argue that the Commission’s treatment of energy efficiency resources undermines the Commission’s rationale for denying the claims of undue discrimination.⁶⁰

28. PSEG and NRG argue that the shift from compensating resources based on their availability to compensating them based on their performance represents a fundamental shift in the New England capacity market, and the Commission cannot lawfully rationalize its decision by downplaying the significance of this shift. PSEG and NRG assert that the Commission erred by comparing the two-settlement capacity market design to an energy-only market, because this line of reasoning “appears to conflate lost opportunity costs with penalties.”⁶¹ PSEG and NRG contend that, in an energy-only market, units are “only penalized for failure to deliver energy in real-time *if they fail to follow dispatch instructions*.”⁶²

29. Connecticut and Rhode Island argue that the Commission erred by misapprehending the differences between availability-defined capacity and performance-defined capacity.⁶³ They argue that ISO-NE’s proposal radically changes the capacity product, and the Commission’s attempt to minimize the difference demonstrates a

⁵⁷ PSEG and NRG Request for Rehearing at 23.

⁵⁸ Public Systems Request for Rehearing at 17 (citing *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, FERC Stats. & Regs. ¶ 31,324 (2011), *reh’g denied*, Order No. 755-A, 138 FERC ¶ 61,123 (2012)).

⁵⁹ Public Systems Request for Rehearing at 17 (citing *ISO New England Inc.*, 144 FERC ¶ 61,204, AT P 30 (2013), *reh’g denied*, 147 FERC ¶ 61,026 (2014)).

⁶⁰ PSEG and NRG Request for Rehearing at 24.

⁶¹ *Id.* at 9.

⁶² *Id.* (emphasis in original).

⁶³ Connecticut and Rhode Island Request for Rehearing at 20.

fundamental misunderstanding of availability and performance. They argue that, contrary to the Commission's assertion, a resource's must-offer obligation is not an obligation to perform, but rather an obligation to be available to perform subject to the resource's operational characteristics.⁶⁴ They contend that an availability metric considers a resource's operational characteristics and other relevant considerations, whereas a performance metric is "strictly indifferent to a resource's ability to perform."⁶⁵ They assert that, because the Commission misapprehended the difference between availability and performance, it erroneously ignored evidence and dismissed concerns that a performance-based capacity product cannot be hedged.⁶⁶ They contend that their expert witness concluded that, because these risks cannot be hedged, "suppliers will simply 'hedge their risks by submitting higher delist bids in the auction[.]'" which is unfair to customers.⁶⁷

30. Public Systems argue that, by pointing to methods by which a capacity resource can hedge its performance risks, the Commission fails to identify the statutory authority allowing it to require utilities to become "wholesalers of insurance" as well as electric capacity.⁶⁸ They further state that the new performance rules will unreasonably favor market participants with large portfolios.⁶⁹ Lastly, Public Systems state that the new rules overpay for flexibility and unreasonably and discriminatorily pay capacity resources more to respond to scarcity than to prevent it.⁷⁰

2. Commission Determination

31. We deny rehearing of the Commission's decision to adopt a modified version of ISO-NE's proposal.

⁶⁴ *Id.* at 21.

⁶⁵ *Id.*

⁶⁶ *Id.* at 23 (citing Connecticut and Rhode Island Protest at 25, n.3; Dykes Test. at 5:11-17; Connecticut and Rhode Island Answer at 20-21; Falk Supp. Test. at 14:11-18:18).

⁶⁷ *Id.* (quoting Falk Test. at 80:10-15)

⁶⁸ Public Systems Request for Rehearing at 15.

⁶⁹ *Id.* at 15-16.

⁷⁰ *Id.* at 16-18.

32. Multiple parties⁷¹ assert that the two-settlement capacity market design is fundamentally at odds with the existing FCM construct because the two-settlement capacity market design emphasizes resource performance rather than resource availability. Whether the two market designs are similar or different ultimately does not determine whether the two-settlement capacity market design is just and reasonable. Nonetheless, we disagree that the two market designs are fundamentally at odds with each other. The two designs have similarities, i.e., they serve the same fundamental purpose and share an important design principle, and they have differences, e.g., the treatment of a resource's operational characteristics. This fact does not undermine the justness and reasonableness of the two-settlement capacity market design.

33. The fundamental purpose of the FCM is to procure sufficient resources to meet the reliability objective, and encouraging better performance from capacity resources helps to achieve this purpose. As the Commission explained in the May 30 Order, under both the existing FCM construct and the two-settlement capacity market design, a resource's capacity revenues are intended to be linked to the resource's real-time performance. In this way, the two constructs are similar, but the previous mechanism to link capacity revenue and real-time performance was flawed, as evidenced by the documented deterioration of resource performance. The mechanics of the new Capacity Performance Payment significantly strengthen the linkage and thus provide the strong incentives for resource performance that were previously missing.⁷² This is, in part, because a resource's operational characteristics are valued differently under the two constructs.

34. Under the existing FCM design, a resource's operational characteristics do not impact its capacity revenues—i.e., the market design does not consider a resource's operational characteristics in determining that resource's value. Under the two-settlement capacity market design, a resource's operational characteristics can impact the resource's capacity revenues (positively or negatively) during Capacity Scarcity Conditions because operational characteristics impact the resource's ability to provide the capacity product desired—i.e., the market design does consider a resource's operational

⁷¹ Connecticut, Rhode Island, Public Systems, PSEG and NRG.

⁷² The degree of difference between these two market designs is attributable to both the payment structure and the available exemptions, or lack thereof, under each design. Therefore, we note that the rationale set forth in the instant section also supports the Commission's decision to not allow exemptions from Capacity Performance Payments. Similarly, the Commission's rationale for not allowing exemptions also supports the Commission's determination that the two-settlement payment structure is just and reasonable. We address the arguments specifically challenging the lack of exemptions under the two-settlement capacity market design *infra* section II.D.

characteristics in determining a resource's value during times of system stress.⁷³ Notwithstanding parties' assertions to the contrary, this aspect of the two-settlement capacity market design is consistent with the FCM's fundamental purpose to help ensure reliability through resource adequacy. Resources' provision of energy and reserves, during Capacity Scarcity Conditions is critical to maintaining reliability, so compensating resources in part based on their ability to provide that service ensures that they are properly compensated for their contributions to system reliability. As the Commission explained when it originally accepted ISO-NE's FCM, the FCM represents an "appropriate market structure to ensure that generating resources are appropriately compensated based on their location and contribution to system reliability and provides incentives to attract new infrastructure where needed."⁷⁴

35. PSEG and NRG assert that the Commission "artificially downplay[ed] the significance of the change."⁷⁵ The level of significance, however, is beside the point. The relevant point is that the change is consistent with the FCM's fundamental purpose, to help ensure reliability through resource adequacy, and one of the FCM's design principles, i.e., that a resource's capacity revenues should be adjusted based on its performance. Furthermore, as the Commission explained in the May 30 Order, the fact that the existing FCM has largely compensated resources based on their availability, with little regard to their performance, has contributed to the region's resource performance problems by failing to adequately incent resource performance and by perversely selecting less reliable resources over more reliable resources.⁷⁶ To address this

⁷³ Contrary to Public Systems' assertion, the two-settlement capacity market design does not ignore the fact that capacity resources provide reliability year-round. Under the two-settlement capacity market design, capacity resources receive capacity revenues year-round. At times when there is no Capacity Scarcity Condition, the capacity revenues are based solely on each resource's Capacity Base Payment. When there is a Capacity Scarcity Condition, the capacity revenues are based on both the Capacity Base Payment and the Capacity Performance Payment. The fact that the two-settlement capacity market design compensates resources differently depending on how stressed the system is does not mean that the market design ignores resources' contributions to the system when it is less stressed. Rather, it means that the market design appropriately values resources' based on their ability to help ensure reliability during both stressed and unstressed system conditions.

⁷⁴ *Devon Power LLC*, 115 FERC ¶ 61,340, at P 71 (2006).

⁷⁵ PSEG and NRG Request for Rehearing at 9.

⁷⁶ May 30 Order, 147 FERC ¶ 61,172 at P 26.

shortcoming, the Commission found the two-settlement capacity market design to be just and reasonable exactly because it strengthens the tie between a resource's compensation and its performance and, in so doing, encourages better performance and reliability. While it is possible that a properly designed availability-based capacity market can provide the necessary performance incentives, the availability-based payment design under the existing FCM rules has not done so. Thus, contrary to parties' assertions, it is the existing FCM payment design, not the two-settlement capacity market design, that has operated in a manner that is inconsistent with the fundamental purpose of the FCM.

36. Connecticut and Rhode Island argue that the Commission misapprehended the differences between "availability-defined capacity" and "performance-defined capacity" and, as a result, erroneously dismissed concerns that the latter cannot be hedged.⁷⁷ We disagree. The Commission did not misapprehend the differences between the two-settlement capacity market design and the existing FCM design. While Connecticut and Rhode Island interpret the differences and similarities between the two market designs differently than we do, we are not persuaded by their interpretation. Connecticut and Rhode Island list ways in which the two market designs are different, and assert that those differences undermine the Commission's statement that the market designs are similar.⁷⁸ However, as explained above, the difference that Connecticut and Rhode Island highlights—i.e., that the two approaches treat a resource's operational characteristics differently—does not render the two market designs fundamentally at odds.⁷⁹

37. We disagree with Public Systems' and PSEG and NRG's arguments that the Commission's comparison of the two-settlement capacity market design to an uncapped energy market is flawed. In the May 30 Order, the Commission explained that the two-settlement capacity market design was consistent with certain economic principles underlying an uncapped energy market—i.e., that (1) linking a resource's revenues to its performance during scarcity conditions provides a performance incentive, and (2) "resources only earn scarcity revenue if they can actually deliver energy during periods of scarcity."⁸⁰ Regardless of any comparison, the relevant question is whether

⁷⁷ Connecticut and Rhode Island Request for Rehearing at 20-22.

⁷⁸ *Id.* at 21.

⁷⁹ *See supra* PP 32-35.

⁸⁰ May 30 Order, 147 FERC ¶ 61,172 at P 63.

the principles the Commission cited are economically sound.⁸¹ As explained here and in the May 30 order, we believe those principles to be sound, and the fact that the two-settlement capacity market design replicates performance incentives consistent with those principles gives us confidence that the two-settlement capacity market design will produce just and reasonable rates.⁸²

38. Public Systems contend that the two-settlement capacity market design impermissibly requires resources to be “wholesalers of insurance.”⁸³ To the extent Public Systems contends that resources must hedge against risk, we note that resource owners may choose to hedge against various risks, through insurance or other means. The May 30 Order does not require them to do so.

39. We also disagree with Public Systems’ assertion that the two-settlement capacity market design is unreasonably biased in favor of entities with large resource portfolios. It is plausible that an entity with a large portfolio of poorly performing resources could have more difficulty hedging its performance risks than could an entity with a small portfolio of high-performing resources. In other words, regardless of the size of an entity resource portfolio, its ability to hedge its performance risk largely depends on the expected performance of its resources.

40. Connecticut and Rhode Island assert that the Commission did not consider the impacts that the two-settlement capacity market design would have on customers. We disagree. The Commission found that the risk premiums reflected in ISO-NE’s two-settlement capacity market design may increase costs to consumers, but that, given the nature of the fleet-wide resource performance problems facing the New England region, the two-settlement capacity market design appropriately balances the increased costs to consumers against the added reliability benefits consumers will receive from a resource

⁸¹ The latter of these two principles is relevant to the issue of whether it is appropriate to allow exemptions from Capacity Performance Payments. We address the arguments on that issue *infra* section II.D.

⁸² See *Cent. Hudson Gas & Elec. Corp. v. FERC*, 783 F.3d 92, 109 (2nd Cir. 2015) (“FERC may permissibly rely on economic theory alone to support its conclusions so long as it has applied the relevant economic principles in a reasonable manner and adequately explained its reasoning”) (citing *Sacramento Mun. Util. Dist. v. FERC*, 616 F.3d 520, 531 (D.C. Cir. 2010); *Wis. Pub. Power Inc. v. FERC*, 493 F.3d 239, 260-61 (D.C. Cir. 2007); *Associated Gas Distribs. v. FERC*, 824 F.2d 981, 1008 (D.C. Cir. 1987)).

⁸³ Public Systems Request for Rehearing at 15-16.

fleet with more appropriate incentives and capability to reliably perform when needed.⁸⁴ In reaching this conclusion the Commission indeed considered the specific factors raised by Connecticut and Rhode Island.⁸⁵

41. We also disagree with Connecticut and Rhode Island's assertion that the Commission failed to consider the role that demand response plays in resolving reserve deficiencies. Regardless of how the Capacity Performance Payment Rate is calculated, demand response resources are allowed to participate in the two-settlement capacity market design and are subject to the same Capacity Performance Payment Rate as all other resources.⁸⁶ Thus, the two-settlement capacity market design equally values the reliability contributions of demand response resources and generation resources.

42. Connecticut and Rhode Island also assert that the Commission failed to respond to their argument that the two-settlement capacity market design will impose unreasonable risks on suppliers, which will drive them from the market and produce "fake shortages" of capacity as those resources leave the FCM but continue to participate in the energy and ancillary services markets. This argument is speculative and unsupported by the record. Further, the FCM is designed to reflect such shortages through a clearing price that represents the demand for resources that are willing to take on a three-year forward commitment. In this way, the FCM clearing price reflects the value that consumers, through the load serving entities from which they purchase electric service, place on ensuring reliability three years hence. If resources leave the FCM, the auction clearing price will signal the need for additional capacity, and other resources—that more reliably or affordably provide the product that the region needs—can be expected to respond to that price signal and replace the withdrawn resources. The record does not support a finding that the two-settlement capacity market design will "drive" resources from the FCM or that any withdrawals that do occur will create a persistent, problematic shortage.

43. Multiple parties argue that the Commission incorrectly found that the two-settlement capacity market design does not unduly discriminate against mid-range

⁸⁴ May 30 Order, 147 FERC ¶ 61,172 at P 75.

⁸⁵ See, e.g., *id.* PP 62-75 (addressing the financial risks associated with the two-settlement capacity market design, including the Capacity Performance Payment rate).

⁸⁶ The Commission takes note of a pending U.S. Supreme Court decision in *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014), *cert. granted*, Nos. 14-840, 14-841. The Commission continues to consider both the scope and possible next steps with respect to the Court's upcoming decision.

resources that lack quick-start capability.⁸⁷ We disagree. We acknowledge that, although the two-settlement capacity market design is facially neutral with respect to different types of resources, it could impact different types of resources differently. Rather than overlook this fact, the Commission in the May 30 Order explained that it is an important aspect of the two-settlement capacity market design.⁸⁸ Furthermore, we note that the non-baseload, non-fast-start resources that the parties claim will be unduly discriminated against under the new performance rules can still expect to receive capacity revenues unless they *completely* fail to perform during all Capacity Scarcity Conditions. In fact, the impact analysis that ISO-NE submitted as part of its initial filing in this proceeding indicates that a greater number of combined-cycle gas units – the resource type that most closely fits the non-baseload, non-fast-start description – are expected to remain more profitable under the new performance rules than under the previous rules.⁸⁹

44. We are also unpersuaded by PSEG and NRG’s assertion that the Commission could have achieved the same goal through the energy and ancillary services markets with less discriminatory impact than the two-settlement capacity market design, because using the energy and ancillary service markets “would not severely *penalize* an entire class of units for lacking particular operational attributes.”⁹⁰ Regardless of whether one characterizes the Capacity Performance Payments as a “penalty” or an *ex post* settlement, resources will be compensated differently based on the level of service they provide, regardless of which market or markets provide the requisite performance incentive.⁹¹

⁸⁷ PSEG, NRG, and Public Systems.

⁸⁸ May 30 Order, 147 FERC ¶ 61,172 at P 86 (“To the extent resources have different capabilities to provide energy and reserves during Capacity Scarcity Conditions, those resources are not similarly situated, and therefore it is not unduly discriminatory to compensate those resources differently based on their respective capabilities.”).

⁸⁹ ISO-NE, Tariff Filing, at Attachment I-1g (Jan. 17, 2014) (Affidavit of Todd Schatzki); *id.* at Appendix B (Impact Assessment by Analysis Group, Inc.). The analysis results show that under all three equilibrium scenarios, fewer megawatts of combined-cycle gas units become uneconomic under the two-settlement capacity market rules than under the status quo FCM rules.

⁹⁰ PSEG and NRG Request for Rehearing at 21 (PSEG and NRG’s emphasis).

⁹¹ We note that, under the two-settlement capacity market design, a resource does not receive its Capacity Base Payments and Capacity Performance Payments separately. Rather, for each month of a Capacity Commitment Period, a resource receives one payment for that month—after the month has passed and ISO-NE has determined the

(continued ...)

Just as the operational characteristics of a mid-range resource without quick-start capability can limit the amount of revenue it receives under the two-settlement capacity market design, those operational characteristics would similarly limit the amount of revenue the resource would receive in the energy and ancillary services markets.⁹²

45. We disagree with PSEG and NRG's assertion that the Commission's standard for determining whether resources are similarly situated in the context of this proceeding is unduly narrow because it only considers whether resources will be on-line during unpredictable Capacity Scarcity Conditions. The two-settlement capacity market design compensates resources for their overall contribution to reliability in *all* hours, not only during Capacity Scarcity Conditions. When a Capacity Scarcity Condition does not apply to a resource, which is the case in the vast majority of hours,⁹³ all resources are treated the same because all resources are contributing equally to overall system reliability. The fact that performance is valued more highly during Capacity Scarcity Conditions, and that a resource can receive net negative Capacity Performance Payments if its performance during times of system stress is poor, does not mean that the two-settlement capacity market design ignores reliability contributions outside Capacity Scarcity Conditions. Rather, it means that a resource's overall capacity revenues are based on that resource's contribution to reliability under different system conditions. We also disagree with PSEG and NRG's argument concerning fuel diversity. While fuel diversity can contribute to reliability, a diverse fuel mix will not ensure reliability if the resource fleet does not provide the level of performance that the region needs. The two-settlement capacity market design is tailored to provide the level of performance that the region needs, and to do so in a way that is fuel- and technology-neutral.

resource's performance during that month—which represents both the Capacity Base Payment and the Capacity Performance Payment.

⁹² We also note that providing the necessary performance incentive solely through the energy and ancillary services markets, as multiple parties prefer, could potentially discriminate in ways that providing the incentive through a combination of the ISO-NE markets does not. *See* May 30 Order, 147 FERC ¶ 61,172 at P 108 (explaining that there is value in providing incentives in both the FCM and the energy and ancillary services markets, because different combinations of revenue streams make sense for different resources).

⁹³ ISO-NE calculated that, when the system needs new entry, it expects that there will be 21.2 hours of Capacity Scarcity Conditions per year. *See* ISO-NE Tariff Filing, Att. I-1c at 107.

46. We are not persuaded by PSEG and NRG's argument that the Commission's adoption of the two-settlement capacity market design impermissibly devalues the investments that entities have already made in mid-merit resources. As an initial matter, we note that the record does not support a finding that those resources will, in fact, experience a drop in value under the two-settlement capacity market design. ISO-NE estimated that resources with performance rates as low as 40 percent will be better off financially under the two-settlement capacity market design than under the previous FCM rules.⁹⁴ As a result, it is reasonable to expect that many mid-merit resources will actually increase in value under the two-settlement capacity market design. Furthermore, to the extent that investments in existing resources are devalued, that change in value is a result of the changing capacity needs in the New England region, to which the two-settlement capacity market design is a response, not the cause.

47. We also disagree with PSEG and NRG's argument that the Commission's findings regarding energy efficiency resources undermine the Commission's rationale for determining that the two-settlement capacity market design does not unduly discriminate against mid-range resources that lack quick start capability. PSEG and NRG assert that the Commission acknowledged that "energy efficiency resources provide zero performance in off-peak hours," but then ignored that fact by stating that energy efficiency resources "represent a pre-determined level of load reduction that is constant as a percentage of that resource's load."⁹⁵ Contrary to PSEG and NRG's assertion, energy efficiency resources can perform in off-peak hours, and the Commission explicitly acknowledged that fact.

48. As the Commission explained in the May 30 Order, ISO-NE's original proposal in this proceeding "*assumes* that energy efficiency resources provide zero performance in off-peak hours."⁹⁶ The Commission found that aspect of ISO-NE's proposal to be unduly discriminatory, explaining that such an assumption is inappropriate because it would require energy efficiency resources—which can, and often do, perform in off-peak hours—to incur significant costs to monitor and verify their load reductions around-the-clock. As the Commission explained, it is unnecessary to track the performance of energy efficiency resources around-the-clock because, unlike all other types of resources, energy efficiency resources by design do not *actively* perform in real-time and, therefore,

⁹⁴ ISO-NE Feb. 12, 2014 Answer at 25 (citing Test. of Paul Hibbard and Todd Schatzki at 23).

⁹⁵ PSEG and NRG Request for Rehearing at 24 (quoting May 30 Order, 147 FERC ¶ 61,172 at P 89) (internal quotations omitted).

⁹⁶ May 30 Order, 147 FERC ¶ 61,172 at P 89.

are not able to respond to real-time performance incentives.⁹⁷ The Commission's acknowledgement that this fundamental difference warrants an exemption for energy efficiency resources does not undermine the Commission's findings that the other types of resources are similarly situated to one another.

49. Public Systems argue that the two-settlement capacity market design risks double-compensating resources that receive compensation for providing ancillary services, such as frequency regulation service. We disagree. The two-settlement capacity market design compensates resources for providing the capacity product the region needs, whereas the ancillary services market compensates resources for certain additional benefits they provide to the system beyond their ability to operate consistent with their Capacity Supply Obligations. The fact that a resource's real-time performance can impact the revenue it receives from both the capacity market and the energy and ancillary services markets does not mean the resource is overcompensated. Rather, it means that the resource's attributes are providing multiple system benefits and the resource is being compensated accordingly.⁹⁸

C. Adopting Aspects of ISO-NE's and NEPOOL's Proposals in Combination

1. Requests for Rehearing

50. Connecticut and Rhode Island argue that the Commission erred by predetermining that the combined incentive scheme represented by the increased Reserve Constraint Penalty Factors and the two-settlement capacity market design is just and reasonable. They argue that the record contains no evidence showing that the combination of these two changes will produce a just and reasonable result.⁹⁹ Connecticut and Rhode Island further argue that the Commission erred in establishing a narrow section 206 proceeding and failed to provide the parties with adequate notice of its intention to adopt a combined

⁹⁷ *Id.*

⁹⁸ For example, if a resource provides frequency regulation service during a reserve deficiency, that resource is supporting system reliability in two separate, but related, ways: (1) by satisfying its share-of-system obligation, consistent with its Capacity Supply Obligation, and (2) by helping to regulate the frequency of the transmission grid. As long as the compensation for each service is commensurate with the benefits the resource is providing, compensating that resource for those two services does not constitute overcompensation.

⁹⁹ Connecticut and Rhode Island Request for Rehearing at 31.

incentive scheme consisting of aspects of ISO-NE's and NEPOOL's proposals. They assert that, by failing to provide an opportunity to meaningfully consider and respond to the combined scheme, the Commission has violated the Due Process Clause and the Administrative Procedures Act.¹⁰⁰

51. PSEG and NRG argue that the Commission erred by instituting an FPA section 206 proceeding and thereby "injecting substantial uncertainty and further disruption into the market."¹⁰¹ PSEG and NRG contend that, under the "jump ball" provision in the Tariff, the Commission did not need to establish an FPA section 206 proceeding to implement a rate that consists of aspects of both ISO-NE's proposal and NEPOOL's proposal.¹⁰² PSEG and NRG request that the Commission either "clarify its reasons for establishing a separate proceeding and the specifics of the rates that would apply as of the refund effective date in the event that refund is deemed necessary[,]" or "grant rehearing and find that the FPA section 206 proceeding is either constrained in scope, or was unnecessary."¹⁰³ PSEG and NRG further assert that the Commission heightened this uncertainty by establishing a refund effective date of one day after publication in the Federal Register, rather than suspending the rate for the 5-month maximum period allowed under the FPA.¹⁰⁴

52. Public Systems argue that the Commission should treat ISO-NE's compliance filing as a supplement to its section 205 filing, and should clarify that interveners may protest it as such. Public Systems specifically request that the Commission clarify "that its review of the compliance filing will include substantive concerns, and not merely the procedural question whether ISO-NE complied with the obligation to make a filing addressing certain topics."¹⁰⁵

¹⁰⁰ *Id.* at 32 (citing *Pub. Serv. Comm'n of Ky. v. FERC*, 397 F.3d 1004, 1012 (D.C. Cir. 2005) (*PSC of Kentucky*)).

¹⁰¹ PSEG and NRG Request for Rehearing at 25.

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 26.

¹⁰⁵ *Id.* at 25-26.

2. Commission Determination

53. We deny rehearing of the Commission's decision simultaneously to adopt NEPOOL's proposed Reserve Constraint Penalty Factors and a modified version of ISO-NE's two-settlement capacity market design. Contrary to multiple parties' assertions, the record contains sufficient evidence that simultaneously adopting the increased Reserve Constraint Penalty Factors and the two-settlement capacity market design constitutes a just and reasonable solution to the region's resource performance problems.

54. As the Commission explained in the May 30 Order, the two-settlement capacity market design together with the increased Reserve Constraint Penalty Factors provide a just and reasonable incentive structure that will help ensure reliability.¹⁰⁶ Increasing the Reserve Constraint Penalty Factors is a change to the real-time energy and reserves markets that will provide an immediate, incremental incentive for improved resource performance.¹⁰⁷ The two-settlement capacity market design is a change to the capacity market that will provide a more significant performance incentive but will not produce revenues reflecting that incentive until 2018.¹⁰⁸ The Commission continues to find that an effective combination of increased Reserve Constraint Penalty Factors and the two-settlement capacity market design will provide the requisite incentive structure need to help ensure reliability in New England. As the Commission has acknowledged, it is possible that, in the future, the Reserve Constraint Penalty Factors could impact resource performance in a way that could warrant adjusting the Capacity Performance Payment Rate. However, the Commission has also explained why no such adjustment is appropriate at this time.¹⁰⁹

¹⁰⁶ May 30 Order, 147 FERC ¶ 61,172 at P 25.

¹⁰⁷ *Id.* P 108.

¹⁰⁸ *Id.*; see also *ISO New England Inc. and New England Power Pool Participants Committee*, 152 FERC ¶ 61,190, at P 45 (accepting ISO-NE tariff provisions that implement a program to help ensure reliability during the winter seasons prior to the two-settlement capacity market design being implemented in 2018).

¹⁰⁹ As the Commission explained in the October 2 Order, due to the speculative nature of the relationship between the values used for the Reserve Constraint Penalty Factors and the value used for the Capacity Performance Payment Rate, it is appropriate for any necessary adjustments to the \$5,455/MWh Capacity Performance Payment Rate to be based on the increased Reserve Constraint Penalty Factors' actual impacts on system parameters. October 2 Order, 149 FERC ¶ 61,009 at P 24, *reh'g*, 153 FERC ¶ 61,224 at PP 16-17.

55. Connecticut and Rhode Island argue that the Commission violated the Due Process Clause and the Administrative Procedures Act by failing to provide the parties with adequate notice that it would adopt a solution comprised of elements of ISO-NE's proposal and NEPOOL's proposal.¹¹⁰ We disagree. The parties in this proceeding did, in fact, have notice and opportunity to present evidence and argument on the issue of whether the combined solution is just and reasonable. From the outset of this proceeding, the proposed solutions to the region's resource performance problems involved changes to the FCM and the energy and ancillary services markets, including simultaneous changes to both. Thus, Connecticut and Rhode Island had notice that the Commission might adopt either of the proposed solutions, or individual aspects of those solutions. At the initial stage of the proceeding, Connecticut and Rhode Island had the opportunity to submit—and did, in fact, submit—evidence and argument concerning the increased Reserve Constraint Penalty Factors, the two-settlement capacity market design, and the merits of adopting a performance incentive structure involving both the FCM and the energy and ancillary services markets. At the compliance stage of the proceeding, they also had the opportunity to submit—and did, in fact, submit—evidence and argument on whether the increased Reserve Constraint Penalty Factors might impact specific elements of the two-settlement capacity market design.¹¹¹ Further, the parties have also had the opportunity to raise their arguments concerning this issue on rehearing.¹¹²

56. We are also unpersuaded by PSEG and NRG's argument that by instituting a section 206 proceeding rather than acting under the "jump-ball provision," the Commission in the May 30 Order caused substantial uncertainty and disrupted the market. Aside from their vague and unsupported allegations, no other ensuing pleadings and filings, nor ISO-NE's compliance filing, revealed any such confusion. In any case, the Commission properly invoked its section 206 authority to find that ISO-NE's existing tariff was unjust and unreasonable "because it fails to provide adequate incentives for resource performance, thereby threatening reliable operation of the system and forcing

¹¹⁰ Connecticut and Rhode Island Request for Rehearing at 32 (citing *PSC of Kentucky*, 397 F.3d at 1012).

¹¹¹ See May 30 Order, 147 FERC ¶ 61,172 at P 110; October 2 Order, 149 FERC ¶ 61,009 at PP 14-30.

¹¹² See, e.g., *State of Cal. ex rel. Lockyer v. FERC*, 329 F.3d 700, 711 (9th Cir. 2003) ("the Commission provided all the procedural protections required by the Fifth Amendment and FPA when it carefully considered all the evidence and arguments that the petitioners offered in their petitions for rehearing and motions to intervene."); see also *ANR Pipeline Co. and TC Offshore LLC*, 143 FERC ¶ 61,225, at PP 57, 60 (2011).

consumers to pay for capacity without receiving commensurate reliability benefits,”¹¹³ a finding supported by overwhelming record evidence and not within the scope of the “jump-ball provision.” Further, the Commission did not merely adopt ISO-NE’s and NEPOOL’s proposals outright; the Commission provided for further processes under its section 206 authority by directing ISO-NE to submit as part of its compliance filing either tariff revisions reflecting any adjustments that it believes are necessary in light of the Commission’s decision to implement Reserve Constraint Penalty Factor changes, or an explanation as to why no such adjustments are necessary.¹¹⁴ Thus, regardless of whether the “jump-ball provision” allows the Commission to adopt any or all aspects of *both* proposals, as PSEG and NRG allege,¹¹⁵ the Commission in the May 30 Order took action and made findings beyond those contemplated in the “jump-ball provision,” and which required the Commission to invoke section 206. Having instituted a section 206 proceeding, the Commission was statutorily required to establish a refund effective date.¹¹⁶

57. Lastly, we dismiss as moot Public Systems’ request to clarify the scope of the compliance proceeding that the Commission instituted in the May 30 Order. Public Systems request that the Commission treat ISO-NE’s compliance filing as a supplement to its section 205 filing and clarify that interveners can protest the substance of ISO-NE’s compliance filing. ISO-NE submitted its compliance filing on July 14, 2014, and

¹¹³ May 30 Order, 147 FERC ¶ 61,172 at P 23; *see also id.* P 26.

¹¹⁴ *Id.* P 110.

¹¹⁵ We make no finding as to whether PSEG and NRG correctly interpret the “jump-ball provision” in that regard.

¹¹⁶ 16 U.S.C. § 824e(b) (2012) (“Whenever the Commission institutes a proceeding under this section, the Commission *shall* establish a refund effective date.”) (emphasis added). We dismiss as moot PSEG and NRG’s request that we “clarify the specifics of the rates that would apply as of the refund effective date in the event that refund is deemed necessary.” PSEG and NRG Request for Rehearing at 25. Section 206(b) of the FPA provides that the Commission may order refunds “of any amounts *paid*, for the period subsequent to the refund effective date through a date fifteen months after such refund effective date, *in excess of those which would have been paid under the just and reasonable rate . . . which the Commission orders to be thereafter observed and in force.*” 16 U.S.C. § 824e(b) (2012) (emphasis added). Because the Commission has established the just and reasonable rate in this proceeding prior to any payments being made under that rate, there is now no basis on which to calculate refunds in this proceeding.

multiple parties, including Public Systems, filed protests raising numerous substantive issues. In the October 2 Order, the Commission rejected in part and accepted in part ISO-NE's compliance filing, subject to a further compliance filing.¹¹⁷ In doing so, the Commission addressed the merits of the various protests to the compliance filing, including Public Systems' protest.¹¹⁸ Because the Commission has already addressed the substantive issues that Public Systems raised in the compliance proceeding, we dismiss as moot Public Systems' request to clarify the scope of that proceeding.

D. Exemptions for Resource Non-Performance

1. Requests for Rehearing and Clarification

58. Dominion, Indicated Generators, NextEra, PSEG and NRG, and Public Systems request rehearing of the Commission's determination that a capacity market design that includes no exemptions for resource non-performance is just and reasonable.

59. Dominion argues that the Commission erred in accepting ISO-NE's two-settlement capacity market design without allowing an exemption from penalties in situations where electric transmission outages make it impossible for capacity resources to supply energy or operating reserves during a scarcity event. Accordingly, Dominion requests that the Commission grant rehearing and direct ISO-NE to exempt capacity resources from penalties when a planned or unplanned transmission outage prevents or limits resources from supplying their share of energy or operating reserves during a scarcity event.¹¹⁹

60. Dominion contends that the Commission's rejection of an exemption for transmission outages is inconsistent with the very rationale it employed in accepting ISO-NE's proposal. Dominion explains that if a resource is not available during a scarcity event because of a planned or unplanned transmission outage, no amount of incentives or penalties will result in the resource being available. Therefore, Dominion argues that if a resource is willing and able to perform but cannot do so because of a transmission outage that is beyond its control, it is neither just nor reasonable to penalize the resource through a reduction in the capacity payments it receives for being available to ISO-NE.¹²⁰

¹¹⁷ The Commission accepted ISO-NE's second compliance filing in *ISO New England Inc.*, Docket No. ER14-2419-002 (Jan. 15, 2015) (delegated letter order).

¹¹⁸ October 2 Order, 149 FERC ¶ 61,009 at P 1.

¹¹⁹ Dominion Request for Rehearing at 1-2.

¹²⁰ *Id.* at 8.

Dominion also argues that the Commission's decision to accept ISO-NE's no-exemptions policy is contrary to the Commission's recent decision in *New England Power Generators Association, Inc. v. ISO New England, Inc.*, 144 FERC ¶ 61,157 (2013) (*NEPGA*), where the Commission found "that a demonstrated inability to procure fuel or transportation, as opposed to an economic determination not to procure fuel or transportation, may legitimately affect whether a capacity resource is physically available under the Tariff, and therefore may excuse non-performance."¹²¹

61. Dominion also argues that the Commission does not explain how a resource could factor in the risk of planned or unplanned transmission outages in its offers three years before the applicable Capacity Commitment Period. Dominion asserts that the Commission does not explain how these resources "with better performance characteristics" could incorporate a lower risk premium in their offer when transmission outages have nothing to do with the performance characteristics of generation resources.¹²²

62. Dominion argues that reliance on what may be just and reasonable in a hypothetical fully-functioning uncapped energy market is not a valid justification for rejecting an exemption from penalties based on transmission outages or constraints.¹²³ Dominion states that the notion that ISO-NE operates a fully-functioning uncapped energy market is a fiction, which cannot serve as a legitimate basis for the Commission's acceptance of ISO-NE's proposal.¹²⁴

63. Indicated Generators contend that the Commission has not given proper consideration to the comments from numerous market participants regarding exemptions for transmission outages, force majeure events, maintenance outages, and when a resource is following an ISO-NE dispatch instruction. Therefore, Indicated Generators argue that the Commission incorrectly concluded that capacity suppliers are uniquely situated to control for non-performance.¹²⁵ Indicated Generators assert that the Commission did not address their arguments demonstrating that excusing non-performance caused by circumstances not reasonably anticipated or under the control of

¹²¹ *Id.*

¹²² *Id.* at 10.

¹²³ *Id.* at 7.

¹²⁴ *Id.* at 8.

¹²⁵ Indicated Generators Request for Rehearing at 5-6.

the supplier is both established industry practice and consistent with rational economic theory. Indicated Generators state that virtually all transactions within the Commission's jurisdiction excuse non-performance in circumstances beyond a contracting party's reasonable control.¹²⁶ In addition, Indicated Generators argue that the Commission failed to address arguments that, contrary to ISO-NE's assertions, ISO-NE is most often the best-positioned party to manage non-performance risk.

64. Indicated Generators argue that the May 30 Order results in an unjust and unreasonable redistribution of non-performance risk to entities that have no control over such risk and no viable means to abate it. For example, Indicated Generators state that the Capacity Performance Bilateral market that the Commission accepted in the May 30 Order does not exist at present. In addition, Indicated Generators state that the results of FCA 8 strongly suggest that there will not be adequate uncommitted capacity to support a robust Capacity Performance Bilateral market.¹²⁷ Indicated Generators argue that this could have significant deleterious effects on the marketplace and reliability overall if suppliers depart from the marketplace to avoid the onerous burdens associated with unexcused non-performance. Therefore, Indicated Generators state that the Commission should grant rehearing and order ISO-NE to recognize non-performance exemptions in those limited instances in which suppliers truly have no ability to control for the risk of non-performance – transmission outages, maintenance outages, force majeure events, and when following dispatch instructions from ISO-NE.¹²⁸

65. NextEra contends that by rejecting all exemptions to the two-settlement capacity market design the Commission acted in an arbitrary and capricious manner.¹²⁹ NextEra states that transmission outages and the timing for transmission owners to fix problems on the transmission system are completely out of the control of capacity resources. NextEra further asserts that the Commission failed to address how the May 30 Order could assume a “fully-functioning” market, while on the same day the Commission granted an exemption for renewables that will depress capacity prices paid to capacity

¹²⁶ *Id.* at 6-7.

¹²⁷ *Id.* at 9-11.

¹²⁸ *Id.* at 11.

¹²⁹ NextEra Request for Rehearing at 2.

resources.¹³⁰ NextEra contends that it is arbitrary and unreasonable for the Commission to make conflicting policy decisions without an explanation.¹³¹

66. PSEG and NRG argue that the May 30 Order's failure to recognize appropriate exemptions from non-performance penalties is unreasonable because events beyond a resource's control that prevent it from delivering energy during a Capacity Scarcity Condition are precisely the kind of events that are best addressed through shared risk management.¹³² PSEG and NRG contend that allocation of these risks to consumers, spread broadly over the entire system, makes economic sense. PSEG and NRG further argue that many dispatch decisions are not based on a security-constrained economic dispatch, and that holding generators financially responsible for decisions by system operators that are opaque to the generators is both unfair and inefficient and represents a significant transfer of risk.¹³³

67. Public Systems argue that the Commission erred by defining capacity resource performance as producing energy or reserves during a Capacity Scarcity Condition regardless of whether ISO-NE has asked a resource to provide such energy or reserves.¹³⁴ Public Systems assert that ISO-NE may not dispatch capacity resources for energy or reserves during scarcity conditions in many situations, including when (i) transmission outages or constraints prevent ISO-NE from delivering the resource's energy or reserves where they are needed; (ii) the resource is offline due to an ISO-NE-approved, scheduled maintenance outage; or (iii) ISO-NE previously scheduled or dispatched the resource in such a way that its operational characteristics now prevent it from being available during the scarcity condition. Public Systems argue that these situations do not represent failures by the resource to provide capacity, but rather represent situations beyond the resource's control that render it temporarily inaccessible or undeliverable where it is needed. Public Systems state that the rules approved in the May 30 Order fail to

¹³⁰ Specifically, NextEra states that the Commission issued an order in which an annual exemption for up to 200 MW (capacity rating) of renewables would be permitted to enter the market without mitigation at \$0/kW-month, which the Commission acknowledged would put downward pressure on capacity clearing prices. *Id.* at 9 (citing *ISO New England, Inc.*, 147 FERC ¶ 61,173 (2014)).

¹³¹ *Id.* at 10.

¹³² PSEG and NRG Request for Rehearing at 11-13.

¹³³ *Id.* at 13-18.

¹³⁴ Public Systems Request for Rehearing at 6-9.

acknowledge that in some of these situations even an ideal capacity resource—i.e., one that is well-maintained and operated, with instantaneous starting and ramping ability—would produce no energy. Public Systems argue that the approved rules will, therefore, deprive even such an ideal resource of substantial portions of its capacity revenues. Public Systems further contend that potentially penalizing capacity resources for conditions beyond their control violates the FPA’s requirement that there be some meaningful relationship between an entity’s actions and the costs or revenues it is assigned.¹³⁵

68. PSEG, NRG, and Public Systems request rehearing on several related issues, including the basis on which the Commission adopted the no-exemptions design and the impacts of the design on different market participants. Public Systems argue that the Commission failed to adequately explain its reasoning for why the absence of exemptions from non-performance charges is just and reasonable.¹³⁶ Public Systems, PSEG and NRG assert that the Commission erroneously denied that the two-settlement capacity market design represents a fundamental change,¹³⁷ and found the new performance definition reasonable because it mimics what would happen in an uncapped energy market. However, Public Systems contend that there is no reason to assume that an uncapped energy market is inherently reasonable. Public Systems aver that, in order to be reasonable, an uncapped energy market might give resources more autonomy in scheduling outages and in determining the timing and level of their operation, and that capacity resources in the FCM do not have such autonomy. Similarly, PSEG and NRG assert that the Commission’s comparison of the new rules to outcomes in an uncapped energy market are inappropriate because foregone energy market revenues are not analogous to penalties for failing to deliver energy. Public Systems also argue that the new performance rules fail to properly value the reliability benefits that capacity resources provide during non-scarcity conditions, when those resources may be helping prevent a reserve deficiency.¹³⁸

69. Lastly, NEPGA and NEPOOL each request clarification of the Commission’s finding that an exemption is appropriate in instances where an intra-zonal transmission constraint may lead to improper price signals. NEPGA asserts that, at a June 20, 2014 NEPOOL Markets Committee meeting, ISO-NE appeared to interpret the Commission’s

¹³⁵ *Id.* at 9-11.

¹³⁶ *Id.* at 13-14.

¹³⁷ *Id.*; PSEG and NRG Request for Rehearing at 8-11.

¹³⁸ Public Systems Request for Rehearing at 18.

directive as allowing ISO-NE to base the exemption on nodal pricing in the energy markets.¹³⁹ NEPGA argues that such an approach does not identify every situation where an intra-zonal constraint would limit the ability of a resource to provide energy or reserves across the constraint.¹⁴⁰ Therefore, NEPGA requests that the Commission clarify that it intended for ISO-NE to exempt resources not only when the dispatch software indicates a constraint exists, but also when generators follow dispatch instructions that limit their output.¹⁴¹ Similarly, NEPOOL requests that the Commission clarify that the exemption should apply not only to resources whose performance is limited by intra-zonal congestion, but also to resources whose performance is limited by un-modeled transmission constraints.¹⁴²

2. Commission Determination

70. We deny rehearing on the issue of exemptions from Capacity Performance Payments when a capacity resource fails to deliver energy or reserves due to a transmission outage or some other factor beyond the resource's control. In addition, we dismiss as moot NEPGA's and NEPOOL's requests for clarification.

71. Dominion, Indicated Generators, PSEG, and NRG assert that the Commission erred by failing to recognize exemptions from Capacity Performance Payments when a resource's non-performance is the result of factors beyond the resource owner's control—specifically, non-performance caused by a transmission outage, force majeure event, following ISO-NE's dispatch instructions, or being on a maintenance outage. These parties argue that the risk of non-performance in those situations is properly borne by, and spread across, transmission customers. We disagree. Exemptions within the two-settlement capacity market design represent a reallocation of performance risk from capacity suppliers to consumers. We are not persuaded by the requesting parties' arguments that such a reallocation is appropriate here.

72. NextEra and Public Systems argue that the Commission erred in justifying the lack of exemptions by assuming the existence of an uncapped energy market, which they assert does not exist in New England. However, by agreeing with ISO-NE that it is appropriate for a capacity market construct to mimic, to the extent practicable, the

¹³⁹ NEPGA Request for Clarification at 3.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 4.

¹⁴² NEPOOL Request for Clarification at 7.

performance incentives of an uncapped energy market, the Commission did not assume or suggest that an uncapped energy market exists in New England. Rather, as explained above, the Commission merely referenced certain economic principles underlying an uncapped energy market, and found it appropriate for the two-settlement capacity market design to adhere to those principles.¹⁴³ The specific principle that the Commission cited in relation to the lack of exemptions—i.e., that “resources only earn scarcity revenue if they can actually deliver energy during periods of scarcity”¹⁴⁴—supports the notion that the risk of non-performance under the two-settlement capacity market design, including risk that may be beyond a resource owner’s control, is most appropriately borne by capacity suppliers, rather than consumers.

73. Dominion argues that resources will not be capable of accurately pricing the risk of transmission outages into their offers three years in advance of the delivery year because such outages are unpredictable. However, as the Commission noted in the May 30 Order, evaluating the risk of factors beyond one’s control is neither impossible nor uncommon in numerous market contexts.¹⁴⁵ Capacity suppliers have knowledge of their resources’ locations on the transmission system, as well as knowledge of the types and probabilities of transmission outages, or dispatch constraints, that might affect their ability to provide energy and reserves to load. Based on that knowledge, resource owners can calculate the likelihood that a particular resource’s performance will be affected by such constraints. Using that information, resource owners can then calculate a risk premium, which they are permitted to include in their capacity supply offers.

74. While it is true that there is uncertainty in these types of risk premium calculations, as the Commission acknowledged in the May 30 Order,¹⁴⁶ that uncertainty does not render the market design unjust and unreasonable.¹⁴⁷ Indeed, uncertainty is, to some extent, unavoidable in a market. For example, when a resource owner submits an offer into any forward capacity market, it does so based on its expectations regarding numerous uncertain variables, including construction costs, maintenance costs, the

¹⁴³ See *supra* P 37.

¹⁴⁴ May 30 Order, 147 FERC ¶ 61,172 at P 63.

¹⁴⁵ *Id.* P 98.

¹⁴⁶ *Id.*

¹⁴⁷ See, e.g., *New England Power Generators Ass’n, Inc. v. FERC*, 707 F.3d 364, 369 (2013) (rejecting argument that uncertainty regarding rate stability constitutes legal injury).

regulatory environment, and what the energy market price is likely to be in the delivery year. The fact that a resource owner must make its bid based on uncertain, and sometimes unknowable, variables does not necessarily render the market design unjust and unreasonable. As with those risks, capacity suppliers, not consumers, are in the best position to assess and price the performance risk associated with their resources. Thus, the Commission correctly found that it is appropriate to adjust resources' Capacity Performance Payments when they fail to perform, regardless of the reason for their non-performance.

75. Furthermore, while it is possible that the lack of exemptions will produce higher capacity prices, we reiterate that consumers will receive commensurate benefits for any such rate increase. This is because the lack of exemptions will produce a stronger performance incentive for resources, which will increase the probability that consumers will receive the capacity product that they paid for, through their load serving entities, during the most critical hours of the year. With the lack of exemptions under the two-settlement capacity market design, consumers are not as reliant upon specific capacity resources. That is, if a resource that assumed a Capacity Supply Obligation cannot perform during a Capacity Scarcity Condition, load serving entities' payment for that capacity will instead be redirected to those resources that can deliver the required product. Similarly, the increased performance incentive can be expected to reduce price spikes in the real-time markets, and therefore reduce the rates that load serving entities, and ultimately consumers, pay. Therefore, we continue to find that the benefits of using such a market design in the New England region are commensurate with, and may in fact outweigh, the associated costs.

76. We reject Dominion's assertion that the Commission's decision to not allow exemptions is at odds with *NEPGA*. As relevant here, *NEPGA* addressed the question of whether, under the Tariff rules in place at that time, a demonstrated inability to procure fuel, or transportation of that fuel, could excuse a capacity resource's failure to satisfy its performance obligations.¹⁴⁸ The Commission found that, under the then-existing Tariff rules, an inability to procure fuel or transportation "may legitimately affect whether a capacity resource is physically available under the Tariff, and therefore may excuse nonperformance."¹⁴⁹

77. *NEPGA* does not bear on the issue of non-performance exemptions under the two-settlement capacity market design, because that case involved Tariff provisions that differ from those adopted in the May 30 Order. *NEPGA* concerned FCM rules under

¹⁴⁸ See *id.* P 47.

¹⁴⁹ *Id.*

which a resource could be excused for non-performance in certain circumstances.¹⁵⁰ The May 30 Order changed those FCM rules by, among other things, removing non-performance exemptions. This difference alone renders *NEPGA* inapposite to the issue of exemptions under the two-settlement capacity market design. However, *NEPGA* is also distinguishable because the performance obligations at issue in *NEPGA* were different from those at issue in the instant case.¹⁵¹

78. Public Systems also argue that failing to include an exemption from Capacity Performance Payments for resources that fail to deliver energy or reserves due to a factor beyond the resource owner's control violates cost causation principles.¹⁵² We disagree. Under the two-settlement capacity market design, a capacity resource is paid for taking on a forward obligation to, *inter alia*, provide energy or reserves up to its share of the system's needs during Capacity Scarcity Conditions. As in many other forward-contract structures, the seller of the contract is not relieved of its obligation to deliver the product at the delivery time if circumstances beyond its control prevent it from doing so. In the event of such a failure to deliver, the seller must settle for the deviation from its obligation at the spot price.

79. In the two-settlement capacity market design, the Capacity Performance Payment Rate, rather than the real-time energy price, serves as the spot price for settling

¹⁵⁰ See, e.g., *id.* P 55 ("Although the Tariff imposes strict performance obligations on capacity resources, it also recognizes that certain events may cause a capacity resource to be unable to follow dispatch instructions. In particular, Forced Outages, Force Majeure events and other events that result in a capacity resource not being physically available may excuse a capacity resource from following dispatch instructions.") (internal citations omitted); *id.* P 56 ("If a capacity resource cannot procure fuel or transportation in real time in order to run at dispatch levels beyond its day-ahead commitment (or when not scheduled in the day-ahead market), then the resource is not physically available to perform for a reason beyond the resource's control for those additional hours and/or incremental MWs; thus the resource may be excused for non-performance.").

¹⁵¹ The performance obligations at issue in *NEPGA* were, *inter alia*, the submission of a day-ahead offer and the response to dispatch instructions. In contrast, the performance obligation at issue in the instant proceeding is the provision of a particular resource's share of the system's needs during a Capacity Scarcity Condition.

¹⁵² Public Systems Request for Rehearing at 9.

deviations.¹⁵³ Thus, for a resource that fails to deliver energy or reserves due to a factor beyond its control, the Capacity Performance Payment does not represent the assessment of an unassociated cost; rather, it represents the resource's settlement for deviating from its forward obligation. While we acknowledge that a resource may occasionally be unable to deliver energy or reserves due to factors such as a transmission outage or a dispatch decision by ISO-NE, the resource is permitted to include a reasonable estimate of the frequency of such occurrences in the risk premium component of its capacity supply offer. Thus, the resource has the opportunity to recover the costs associated with such non-performance risks. Additionally, a resource that undertakes the investment and maintenance actions necessary to maximize the probability that it can perform during Capacity Scarcity Conditions can reasonably expect that it will have opportunities to perform in excess of its share of the system's needs during some Capacity Scarcity Conditions, thereby partially or fully offsetting any negative Capacity Performance Payments it might be assessed during other Capacity Scarcity Conditions.

80. We dismiss as moot NEPGA's and NEPOOL's requests for clarification. NEPGA and NEPOOL request, in effect, that the Commission clarify the scope of the exemption it expects ISO-NE to adopt in addressing the intra-zonal transmission constraint issue that the Commission identified in the May 30 Order. However, in the October 2 Order, the Commission found that, based on the additional evidence submitted at the compliance stage of the proceeding, such an exemption is not necessary.¹⁵⁴ Because the Commission has found such an exemption to be unnecessary, we find NEPGA's and NEPOOL's requests to clarify the scope of that exemption to be moot.¹⁵⁵ For the same reason, we

¹⁵³ We note that using the Capacity Performance Payment Rate as the basis for settling deviations provides market participants with certainty as to what the spot price for such settlements will be.

¹⁵⁴ October 2 Order, 149 FERC ¶ 61,009 at PP 56-62. The Commission directed ISO-NE to submit an additional compliance filing to reflect the Commission's finding that such an exemption was unnecessary. *Id.* at 56. ISO-NE submitted the additional compliance filing on November 3, 2014, and the Commission accepted that compliance filing on January 15, 2015. *ISO New England Inc.*, Docket No. ER14-2419-002, at 1-2 (Jan. 15, 2015) (delegated letter order).

¹⁵⁵ NEPOOL additionally seeks clarification as to whether an exemption is appropriate when, during a Capacity Scarcity Condition, the output of a resource on the export side of a capacity zone interface is limited due to a reduction in transfer capability between capacity zones resulting from a transmission outage or de-rate. However, if we assume that the capacity zone on the export side of the interface is not experiencing a Capacity Scarcity Condition, then the resource in question will not be subject to Capacity

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also deny Public Systems' request for rehearing concerning whether the Commission failed "to fully define the problem of applying PI to resources on the export side of an intra-zonal transmission constraint, and err[ed] in failing to direct [ISO-NE] to fix the problem properly."¹⁵⁶

E. Capacity Market Design Parameters

1. Performance Payment Rate

a. Requests for Rehearing

81. Connecticut, Rhode Island, and Potomac Economics argue that the Commission erred in accepting ISO-NE's Capacity Performance Payment Rate because it creates an energy market shortage price based on planning requirements rather than a reasonable estimate of the value of energy during shortage conditions.¹⁵⁷ Potomac Economics also argues that the Commission erred in failing to base the Capacity Performance Payment Rate on economic principles that would indicate the value of energy in the operating horizon. In addition, Potomac Economics argues that the Commission erred in failing to recognize that the Capacity Performance Payment Rate and the Reserve Constraint Penalty Factors are additive, and that the Commission thereby adopted an aggregate rate that exceeds the level supported by evidence in the record. Potomac Economics argues that the Commission erred in failing to recognize that the Capacity Performance Payment

Performance Payments. If, instead, we assume that both capacity zones are in Capacity Scarcity Conditions, the reduced transfer capability across the zonal interface is not distinguishable from any other inter-zonal transmission congestion that might limit a capacity resource's output, and the Commission rejected calls for an exemption in such a situation in the May 30 Order, 147 FERC ¶ 61,172 at PP 63, 68, for the same reasons articulated above: Exemptions from Capacity Performance Payments within the two-settlement market design merely represent a reallocation of performance risk from capacity suppliers to consumers, and we find that suppliers, not consumers, are in the best position to assess and price the performance risk associated with their resources. *See supra* PP 71-75.

¹⁵⁶ Public Systems Request for Rehearing at 5.

¹⁵⁷ Potomac Economics Request for Rehearing at 3-4; Connecticut and Rhode Island Request for Rehearing at 14-16.

Rate should increase as shortages become deeper in order to reasonably and efficiently reflect system conditions.¹⁵⁸

82. Potomac Economics argues that there is no reason the Capacity Performance Payment Rate alone needs to provide the revenue necessary to incent new investment, as it is well understood that the marginal incentive to invest in new resources is provided by a combination of capacity and energy revenues.¹⁵⁹ Potomac Economics states that ISO-NE's sloped demand curve, which the Commission approved on April 1, 2014, is based on the net cost of new entry. Potomac Economics asserts that basing the demand curve on the net cost of new entry ensures that capacity market revenues, together with energy and ancillary services market revenues, are sufficient to cover the cost of new entry up to at least the planning requirement that meets the 1-day-in-10-years reliability criterion. Potomac Economics contends that if the Capacity Performance Payment Rate were lowered, ISO-NE's sloped demand curve would still establish capacity prices that will ensure the 1-day-in-10-years standard is satisfied.¹⁶⁰

83. Potomac Economics contends that the Commission erred by not addressing its proposal to adopt a Capacity Performance Payment Rate that would increase as a reserve shortage deepens. Potomac Economics states that it is indisputable that energy and operating reserves become more valuable as operating reserve shortages deepen because the probability of having to shed load increases exponentially. Potomac Economics notes that a single, flat Capacity Performance Payment Rate will not provide as substantial a signal during the deepest shortages to incent suppliers within and outside of New England to provide all available energy under these conditions to avoid involuntary load loss.

b. Commission Determination

84. We deny rehearing on the issue of whether the \$5,455/MWh Capacity Performance Payment Rate and the phase-in Capacity Performance Payment Rates are just and reasonable.¹⁶¹ Multiple parties contend that the two-settlement capacity market

¹⁵⁸ Potomac Economics Request for Rehearing at 3-4.

¹⁵⁹ *Id.* at 5-6.

¹⁶⁰ *Id.* at 7.

¹⁶¹ We note that, concurrently with this order, the Commission is issuing an order on rehearing in the compliance proceeding that the Commission initiated in the May 30 Order. *See ISO New England Inc.*, 153 FERC ¶ 61,224. In that compliance proceeding, the Commission explicitly directed ISO-NE to address whether it is appropriate to adjust

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design will produce unjust and unreasonable rates for consumers because the Capacity Performance Payment Rate is based on the 1-day-in-10-years reliability standard, rather than on the real-time value that consumers place on additional supply when supply is not meeting demand in real-time—which is commonly referred to as the value of lost load.¹⁶² We disagree.

85. The Capacity Performance Payment Rate is based on the number of expected annual scarcity hours for the New England power system. Using the 1-day-in-10-years resource adequacy criterion, which is established by the Northeast Power Coordinating Council and is the basis for the Installed Capacity Requirement in the New England region, ISO-NE calculated an expected 21.2 hours of scarcity per year.¹⁶³ In the May 30 Order, the Commission explained that it was “not persuaded that setting the Capacity Performance Payment Rate at the value of lost load would provide adequate incentive for new entry, when required, and would therefore meet [the 1-day-in-10-years] reliability standard.”¹⁶⁴ We remain unpersuaded on this issue, as the record does not support the conclusion that calculating the Capacity Performance Payment Rate based on the value of lost load would satisfy the 1-day-in-10-years reliability standard under current system conditions, where consumers do not see wholesale prices in real-time and, therefore, are unable to assign value to lost load in real-time.

86. Potomac Economics argues that basing the Capacity Performance Payment Rate on a planning criterion does not reflect the value of energy in the operating horizon.¹⁶⁵ Similarly, Connecticut and Rhode Island assert that this approach “disregards customers’ value of reliability and, consequently, far outstrips the reasonable range of values that

the Capacity Performance Payment Rate to reflect the increased Reserve Constraint Penalty Factors. While Potomac Economics has raised arguments concerning that issue in its request for rehearing of the May 30 Order, we find that the arguments on that issue are more appropriately raised in the compliance proceeding. Accordingly, we dismiss Potomac Economics’ request for rehearing on that issue here as beyond the scope of the instant proceeding. However, we note that the Commission is addressing nearly identical arguments from other entities in the companion order. *See id.* PP 15-22.

¹⁶² *See* Connecticut and Rhode Island Request for Rehearing at 14; Potomac Economics Request for Rehearing at 5.

¹⁶³ January 17 Filing, Att. I-1c at 107.

¹⁶⁴ May 30 Order, 147 FERC ¶ 61,172 at P 74.

¹⁶⁵ Potomac Economics Request for Rehearing at 5.

customers place on avoiding an electric power outage,”¹⁶⁶ and “ties the cost of reliability (i.e., the performance rate) to the cost of new entry for a new generator, which has no bearing on the value of the reliability benefit for customers.”¹⁶⁷ We disagree with these assertions.

87. Consumers receive reliability benefits by, *inter alia*, procuring—through the capacity, energy, and ancillary services markets—a resource fleet that provides energy and reserves during reserve deficiencies. As the Commission has explained, the incentive for resources to provide that product can be provided through the capacity market, the energy and ancillary services markets, or a combination of those markets. The combined price that load serving entities pay in those markets reflects the value that consumers place on reliability. An important difference between the current FCM rules and the two-settlement capacity market design is that the level of reliability benefits that consumers are purchasing through their load serving entities’ capacity payments will be more transparent. Thus, rather than disregard the value of reliability to consumers, the two-settlement capacity market design should more accurately reflect that value than the existing FCM does. While it is possible that basing the Capacity Performance Payment Rate on the value that consumers place on lost load in real-time could accurately reflect the value that consumers place on reliability, this would require that consumers see, and have the ability to respond to, lost load in real-time. We are not persuaded that demand-side price transparency in New England is sufficient to allow consumers to see and respond to wholesale prices in this way.

88. As to Connecticut and Rhode Island’s assertion that the cost of new entry has no bearing on consumers’ reliability benefits, this assertion ignores the FCM’s purpose, which is, in part, to ensure reliability by procuring capacity that is sufficient to meet demand.¹⁶⁸ Because load serving entities, and ultimately consumers, must pay the cost of new entry when new generation resources are required, the cost of new entry is inextricably linked to the value of the reliability benefit that consumers receive for their capacity market payments.

¹⁶⁶ Connecticut and Rhode Island Request for Rehearing at 14.

¹⁶⁷ *Id.* at 15.

¹⁶⁸ See, e.g., *Me. Pub. Utils. Comm’n v. FERC*, 520 F.3d 464, 260 (D.C. Cir. 2008), *rev’d in part on other grounds*, *NRG Power Marketing, LLC v. Me. Pub. Utils. Comm’n*, 558 U.S. 165, 168-170 (2010); *Conn. Dept. of Pub. Util. Control v. FERC*, 569 F.3d 477, 480 (D.C. Cir. 2009).

89. While Potomac Economics argues that the demand curve that ISO-NE uses in the FCA will ensure that the region procures enough resources to satisfy the 1-day-in-10-years reliability standard, we are not persuaded that it will do so reliably and efficiently in the absence of adequate performance incentives. Potomac Economics is correct that ISO-NE's demand curve is based on the cost of new entry. However, it is also the product of a simulation analysis that accounts for the expected performance of the New England fleet. While the demand curve will procure an amount of capacity necessary to satisfy the 1-day-in-10-years reliability standard, a demand curve accompanied by strong performance incentives will be farther to the left, and thus need to procure fewer megawatts to meet the reliability standard, than a demand curve without strong performance incentives. A low Capacity Performance Payment Rate—i.e., one that does not satisfy the principle that a resource that does not perform at all should receive zero revenue—will result in poor performing resources remaining in the market despite providing unreliable service, and ISO-NE will have to procure a greater quantity of installed capacity in an attempt to ensure reliability, thereby increasing consumer costs.¹⁶⁹ Furthermore, if resource performance in a delivery year deteriorates to a level that is lower than that which the demand curve assumes, such performance can threaten reliability. Thus, as the Commission explained in the May 30 Order, merely procuring an amount of nameplate capacity that meets the region's net Installed Capacity Requirement does not necessarily produce, and recently has not produced, the level of resource performance necessary to ensure reliability.¹⁷⁰ It is the demand curve and the Installed Capacity Requirement *plus* the incentive to perform that ensures the 1-day-in-10-years reliability standard is satisfied.

90. Lastly, concerning Potomac Economics' argument that, at a minimum, the Capacity Performance Payment Rate should be altered so that it increases as shortages become deeper, we acknowledge that such an approach might be sound. However, assuming *arguendo* that Potomac Economics' alternative would be just and reasonable, it is well-established that there can be more than one just and reasonable rate.¹⁷¹ Thus, the existence of another potentially just and reasonable approach does not render unjust and

¹⁶⁹ January 17 Filing, Att. I-1c at 102.

¹⁷⁰ See May 30 Order, 147 FERC ¶ 61,172 at P 36.

¹⁷¹ See, e.g., *Me. Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 470-71 (D.C. Cir. 2008), *rev'd in part on other grounds sub nom. NRG Power Mktg., LLC v. Me. Pub. Utils. Comm'n*, 558 U.S. 165 (2010); *City of Winnfield, La. v. FERC*, 744 F.2d 871, 875-76 (D.C. Cir. 1984).

unreasonable the Capacity Performance Payment Rate that the Commission adopted in the May 30 Order.¹⁷²

2. Monthly Stop-Loss

a. Request for Rehearing

91. Connecticut, Rhode Island, and NextEra argue that the Commission erred by holding that ISO-NE's monthly stop-loss mechanism was just and reasonable, even though it creates a skewed risk profile. NextEra argues that the Commission ignored the fact that the auction starting price is arbitrary, apparently finding that the "auction starting price is known in advance, and therefore allows a resource to calculate its maximum risk exposure for a Capacity Commitment Period based on its offer price."¹⁷³ NextEra argues that it is not the auction starting price, but rather the projected auction clearing price (and the associated monthly and annual stop-loss limits), that sets the risk profile for a market participant.

92. Connecticut, Rhode Island, and NextEra contend that the monthly stop-loss mechanism places the greatest risks on capacity resources when the FCA clearing price is low and places potentially insignificant risks on capacity resources when FCA clearing prices are high. Connecticut, Rhode Island, and NextEra assert that this leads to excess non-performance risk when clearing prices are low, and little or no non-performance risk when clearing prices are at or near the starting price.¹⁷⁴ NextEra contends that the skewed risk profile associated with the Commission-approved monthly stop-loss limits shifts to consumers the costs associated with the higher non-performance risks that occur when FCA prices are projected to be low.¹⁷⁵

¹⁷² We also note that the approach the Commission adopted is, in fact, similar to Potomac Economics' recommended alternative because less severe Capacity Scarcity Conditions are likely to be shorter in duration, and therefore have less financial impact, than more severe events, which are likely to be longer in duration and have a larger financial impact.

¹⁷³ NextEra Request for Rehearing at 6 (citing May 30 Order, 147 FERC ¶ 61,172 at P 71).

¹⁷⁴ *Id.* at 1-2; Connecticut and Rhode Island Request for Rehearing at 24-26.

¹⁷⁵ NextEra Request for Rehearing at 6-7.

93. NextEra contends that the Commission should grant rehearing to find ISO-NE's monthly stop-loss limit unjust and unreasonable and direct ISO-NE to implement NextEra's monthly stop-loss methodology, which is based directly on the existing monthly stop-loss limit. NextEra states that, if the Commission does not grant rehearing and direct the adoption of its stop-loss proposal, the Commission should set the issue for hearing or direct stakeholders to develop monthly stop-loss limits that do not result in a skewed risk profile.

b. Commission Determination

94. We deny rehearing on the monthly stop-loss mechanism that the Commission adopted in the May 30 Order. We acknowledge that there are trade-offs to basing the stop-loss limits on either the auction starting price or the auction clearing price, and it is possible that both approaches could be just and reasonable. As the Commission explained in the May 30 Order, a key benefit of using the auction starting price is that it is known in advance, which allows resource owners to calculate, prior to participating in an FCA, its maximum net loss exposure. The resource owners can communicate this maximum risk exposure to third parties, which may help the resource owners secure financing that will enable them to participate in the FCA.¹⁷⁶ Given the necessary uncertainty associated with a new market design, such as the two-settlement capacity market design, it is important to provide resource owners a degree of certainty with respect to their maximum financial exposure. Thus, because it provides that certainty, we continue to find it appropriate to base the monthly stop-loss limit on the auction starting price.

95. Connecticut, Rhode Island, and NextEra argue that the stop-loss protections are strongest when capacity is scarce and the market clears at a high price, and weakest when there is a capacity surplus and the market clears at a low price. Connecticut and Rhode Island assert that a capacity resource will face no risk if an auction clears at the auction starting price. As an initial matter, we note that Connecticut and Rhode Island are incorrect that a resource faces no risk if an auction clears at the auction starting price. Connecticut and Rhode Island's argument focuses only on the *net* financial risk associated with a resource. Even assuming *arguendo* that, due to the auction clearing at the auction starting price, a resource owner faces no risk of receiving net-negative capacity market revenues for a particular resource, the fact remains that, regardless of the auction clearing price, a resource owner would still face the risk that it might lose a significant portion of its Capacity Base Payment if the resource performs poorly. Further, even if such a resource hits its stop-loss limit, that resource still has an incentive to perform well in the remaining months of the Capacity Commitment Period, because it

¹⁷⁶ January 17 Filing, Att. I-1c at 174.

has a financial incentive to earn back some of the capacity revenues that it lost in earlier months.¹⁷⁷ We also reiterate that, even if an auction clears at the auction starting price, in order for a resource owner to reach the annual stop-loss limit for a resource, the number of hours of Capacity Scarcity Conditions would have to significantly exceed the amount of such scarcity conditions the region has experienced in recent years.¹⁷⁸

96. We acknowledge, as did the May 30 Order, that as the auction clearing price increases above a resource's offer price, the resource owner's financial risk associated with that resource decreases, because the resource owner can bear more negative Capacity Performance Payments before its capacity revenues reach zero or become net-negative.¹⁷⁹ However, this is true regardless of which price is used to calculate the stop-loss limit. Furthermore, this aspect of the stop-loss mechanism does not change the fact that the resource owner has an incentive to perform in order to avoid losing capacity revenues. To the extent this aspect of the stop-loss mechanism is worse if the mechanism is based on the auction starting price rather than the auction clearing price, we continue to find that, given our interest in providing certainty to resources seeking to participate in a Forward Capacity Auction, the certainty provided by basing the stop-loss limit on the auction starting price outweighs this potential downside of doing so.¹⁸⁰

97. We also note that, as ISO-NE explained, setting the stop-loss limit at the auction starting price is beneficial because if a stop-loss limit is frequently reached it will weaken the incentives for poorly-performing resources to make investments that improve their performance, thereby adversely affecting the capacity market's ability to ensure reliability.¹⁸¹

F. Market Power Mitigation Rules

1. Requests for Rehearing

98. Public Systems assert that the market monitoring regimen ISO-NE has devised to address the risks associated with the two-settlement capacity market design is inadequate,

¹⁷⁷ *Id.* Att. I-1c at 195.

¹⁷⁸ *Id.* Att. I-1c at 188-191; May 30 Order, 147 FERC ¶ 61,172 at P 70.

¹⁷⁹ May 30 Order, 147 FERC ¶ 61,172 at P 71.

¹⁸⁰ *See id.*

¹⁸¹ January 17 Filing, Att. I-1c at 176.

because key components of the market monitoring rules remain vague and are contrary to provisions the Commission has approved in other regional transmission organizations.¹⁸² Public Systems argue that the determination to not require more specificity in the market power mitigation regimen is inconsistent with *Southwest Power Pool, Inc.*, 144 FERC ¶ 61,224, at PP 296-98, 321 (2013) (*Southwest Power Pool*), because the rules are “subject to bias,” cannot be “independently verified,” and employ the use of “unspecified methods” for the calculation of costs.¹⁸³

99. Connecticut and Rhode Island assert that the market monitoring provisions create an overly vague standard of review that will not allow the market monitor to identify an exercise of market power.¹⁸⁴ Connecticut and Rhode Island assert that the adoption of the \$3.94 per kW-month dynamic de-list bid threshold will permit suppliers with market power to set the market clearing price with no market monitor review.¹⁸⁵ Connecticut and Rhode Island argue that exempting pivotal suppliers from mitigation below the dynamic de-list bid threshold of \$3.94 per kW-month inappropriately prejudices the appropriateness of that threshold and fails to consider how the combined ISO-NE and NEPOOL proposals that the Commission adopted could change the assumptions and values underlying the calculation.¹⁸⁶

2. Commission Determination

100. We deny rehearing of the Commission’s adoption of the market monitoring and mitigation provisions. Public Systems argue that allowing risk premiums to be included in dynamic de-list bids ignores Commission precedent and is illogical.¹⁸⁷ We disagree. Allowing resource owners to include appropriate risk premiums in their dynamic de-list bids is logical because such risk premiums, as with the other components of a dynamic de-list bid, represent legitimate costs. Further, the precedent to which Public Systems cite, *Southwest Power Pool*, does not support their argument.

¹⁸² Public Systems Request for Rehearing at 18-19.

¹⁸³ *Id.* at 21-22.

¹⁸⁴ Connecticut and Rhode Island Request for Rehearing at 27.

¹⁸⁵ *Id.* at 29.

¹⁸⁶ *Id.*

¹⁸⁷ Public Systems Request for Rehearing at 18-19.

101. In *Southwest Power Pool* the risk premiums at issue were common elements of offers submitted in Commission-jurisdictional markets, for which there are standardized calculation methodologies that are easily applied to different market participants. In contrast, as the Commission explained in the May 30 Order, the risk premiums associated with non-performance risks under the two-settlement capacity market design require a more complex calculation that depends on the company-specific nature of valuing performance risk. In any case, the Commission's adoption of the market monitoring provisions here is consistent with the Commission's rationale for rejecting the market monitoring provisions at issue in *Southwest Power Pool*. In both cases the Commission was motivated by ensuring that the relevant market monitoring provisions ensure that risk premiums are verifiable and calculated consistently.

102. We also disagree with Connecticut, Rhode Island, and Public Systems' arguments that the Commission erred by adopting a dynamic de-list bid threshold of \$3.94 per kW-month.¹⁸⁸ As ISO-NE explained in the underlying filing, the Internal Market Monitor attempts to set the dynamic de-list bid threshold at the estimated offer of the marginal resource in the FCA under the two-settlement capacity market design.¹⁸⁹ The \$3.94 per kW-month value that the Commission adopted in the May 30 Order is based on a formula, the inputs into which—the Capacity Performance Payment Rate, the expected Capacity Balancing Ratio, and the expected hours of Capacity Scarcity Conditions—were all supported by substantial evidence.¹⁹⁰ Furthermore, we note that the two-settlement capacity market design changes the level of risk associated with a Capacity Supply Obligation and, therefore, changes the level of the competitive offer into the auction relative to the offers under the existing FCM rules.¹⁹¹ The record does not support a

¹⁸⁸ With regard to Connecticut and Rhode Island's argument that the Commission erred in adopting the \$3.94 per kW-month dynamic de-list bid threshold without considering the impact that the increased Reserve Constraint Penalty Factors might have on that value, we dismiss that argument as beyond the scope of this proceeding. The Commission provided parties the opportunity to present evidence and argument on that issue in the compliance proceeding that the Commission instituted in the May 30 Order. We note that Connecticut and Rhode Island also raised this argument on rehearing in the compliance proceeding, and the Commission is addressing that argument in an order issued concurrently with the instant order. See *ISO New England Inc.*, 153 FERC ¶ 61,224 at PP 24-28.

¹⁸⁹ January 17 Filing, Att. I-1e at 55.

¹⁹⁰ See, e.g., January 17 Filing, Att. I-1c at 72-74, 88-111.

¹⁹¹ January 17 Filing, Att. I-1e at 55.

determination that retaining the \$1.00 per kW-month dynamic de-list bid threshold associated with the existing FCM rules would be appropriate under the two-settlement capacity market design.¹⁹²

103. Connecticut, Rhode Island, and Public Systems argue that the Commission erred by limiting market power mitigation to pivotal suppliers.¹⁹³ We disagree. While it is possible that a non-pivotal supplier could offer at a level above its net going-forward costs, thereby raising the auction clearing price if that supplier's resource is the marginal unit, this is true regardless of whether the dynamic de-list bid threshold is set at \$3.94 per kW-month, \$1.00 per kW-month, or some lesser value. The important point is that, due to the competitive nature of a FCA, a non-pivotal supplier has an incentive not to engage in such behavior, i.e., it has an incentive to bid at the level representing its net going-forward cost. This is because, if a resource is not pivotal, overstating its net going-forward costs puts it at greater risk of not clearing in the auction and, as a result, not receiving capacity revenues. Therefore, as ISO-NE explains it, "a non-pivotal supplier cannot exercise unilateral market power and profitably raise price to a non-competitive level."¹⁹⁴ Pivotal suppliers, on the other hand, have an opportunity to exercise market power in a way that will profitably raise the auction clearing price to non-competitive levels, because such suppliers know that they are guaranteed to clear the auction. Given the difference in market power held by pivotal versus non-pivotal suppliers, we continue to find it appropriate for the Internal Market Monitor to mitigate the dynamic de-list bids only of pivotal suppliers.

¹⁹² We note that, pursuant to the Tariff, the dynamic de-list bid threshold is recalculated no less often than once every three years and the recalculation results must be filed with the Commission after the Internal Market Monitor reviews the results with stakeholders. Tariff § III.13.1, III.13.1 Forward Capacity Auction Qualification (26.0.0) at III.13.1.2.3.1.A. On June 30, 2015, the Commission approved ISO-NE and NEPOOL's Tariff revisions to change the dynamic de-list bid threshold from \$3.94/kW-month to \$5.50/kW-month. *ISO New England Inc.*, 151 FERC ¶ 61,270, at PP 39-41 (2015).

¹⁹³ Public Systems Request for Rehearing at 22-23.

¹⁹⁴ January 17 Filing, Att. I-1e at 20-21.

3. Peak Energy Rent Deduction

a. Request for Rehearing

104. Indicated Generators contend that the Commission incorrectly dismissed, as beyond the scope of the proceeding, arguments that the Peak Energy Rent mechanism should be adjusted. Indicated Generators assert that any benefits from increasing the Reserve Constraint Penalty Factors will be negated by the existing Peak Energy Rent provisions, placing those provisions squarely within the scope of this proceeding. Indicated Generators assert that the increased Reserve Constraint Penalty Factors coupled with Peak Energy Rent deduction will incent generators to clear in the real-time market, rather than the day-ahead market, in order to benefit from the increased Reserve Constraint Penalty Factor. Indicated Generators argue that the two-settlement capacity market design obviates the need for the Peak Energy Rent deduction and the Commission should, therefore, direct ISO-NE to eliminate the Peak Energy Rent deduction in its entirety by FCA 9.¹⁹⁵

b. Commission Determination

105. We deny Indicated Generators' request for rehearing regarding the Peak Energy Rent deduction. While we acknowledge that the Peak Energy Rent deduction might incent resources to clear in the real-time market rather than the day-ahead market, we reiterate that this potential inefficiency exists independent of the increase in Reserve Constraint Penalty Factors that the Commission directed in this proceeding. In fact, this potential inefficiency has existed since ISO-NE designed the Peak Energy Rent adjustment.¹⁹⁶ The Commission approved the Peak Energy Rent deduction, notwithstanding the potential inefficiency, because the Peak Energy Rent adjustment served an important function, i.e., it acted as a hedge against price spikes.¹⁹⁷ Although a change in the Reserve Constraint Penalty Factors could impact that potential inefficiency,

¹⁹⁵ Indicated Generators Request for Rehearing at 12-14.

¹⁹⁶ See, e.g., *Devon Power LLC*, 111 FERC ¶ 63,063, at PP 397-399 (2005) (noting ISO-NE's acknowledgement of potential inefficiencies caused by using real-time prices to calculate the peak energy rent deduction in ISO-NE's Locational Installed Capacity (LICAP) market, and ISO-NE's arguments as to why those inefficiencies do not warrant altering the peak energy rent mechanism).

¹⁹⁷ *Devon Power LLC*, 115 FERC ¶ 61,340, at PP 24, 29 (2006) (approving the FCM with the same peak energy rent adjustment that was developed for the LICAP market).

we are not persuaded that it is necessary to alter the Peak Energy Rent adjustment in this proceeding.¹⁹⁸ Thus, we continue to find that changes to the Peak Energy Rent deduction are beyond the scope of this proceeding.

106. Further, we note that, on March 6, 2015, ISO-NE and NEPOOL filed Tariff revisions to eliminate the Peak Energy Rent adjustment starting with the Capacity Commitment Period that begins on June 1, 2019 (FCA 10). On May 5, 2015, the Commission approved those revisions, effective May 6, 2015.¹⁹⁹ As the Commission noted in the May 2015 Order, to the extent entities believe further changes to the Peak Energy Rent adjustment are necessary, we encourage stakeholders to utilize the stakeholder process to consider such Tariff revisions.²⁰⁰

The Commission orders:

(A) The requests for rehearing of the May 30 Order are hereby denied, as discussed in the body of this order.

¹⁹⁸ We note that it is risky for a resource to not commit in the day-ahead market, with the hope that real-time demand will exceed ISO-NE's forecast and the resource will be taken in the real-time market. As a result, we are not persuaded that generators will be more inclined to clear in the real-time market versus the day-ahead market. Thus, the potential inefficiency associated with the Peak Energy Rent adjustment is not necessarily problematic.

¹⁹⁹ *ISO New England Inc.*, 151 FERC ¶ 61,096 (2015) (May 2015 Order). We also note that, on January 30, 2015, the Commission denied a complaint seeking modification or elimination of ISO-NE's Peak Energy Rent adjustment mechanism. *See New England Power Generators Ass'n, Inc. v. ISO New England Inc.*, 150 FERC ¶ 61,053 (2015).

²⁰⁰ May 2015 Order, 151 FERC ¶ 096 at P11.

(B) The requests for clarification of the May 30 Order are hereby dismissed as moot, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.