150 FERC ¶ 61,007 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,

and Norman C. Bay

ISO New England Inc.
New England Power Pool Participants
Committee

ER15-257-001 ER15-257-002

Docket Nos. ER15-257-000

ORDER ACCEPTING TARIFF REVISIONS

(Issued January 9, 2015)

1. On October 31, 2014, as corrected on January 5, 2015, pursuant to section 205 of the Federal Power Act, ¹ ISO New England Inc. (ISO-NE) and the New England Power Pool (NEPOOL) Participants Committee (collectively, the Filing Parties) submitted revisions to ISO-NE's Transmission, Markets and Services Tariff (Tariff) to fully integrate demand response resources into its wholesale energy markets, including its reserve markets (October 31, 2014 Filing). In its January 5, 2015 submittal, ISO-NE clarified that a small number of the proposed Tariff revisions should have an effective

¹ 16 U.S.C. § 824d (2006).

² ISO New England Inc., ISO New England Inc. Transmission, Markets and Services Tariff, I.2, I.2 Rules of Construction; Definitions, (68.0.0); III.1, III.1 Market Operations, (23.0.0); III.2, III.2 LMPs and Real-Time Reserve Clearing Prices Calculation, 13.0.0; III.2, III.2 LMPs and Real-Time Reserve Clearing Prices Calculation, 14.0.0; III.3, III.3 Accounting and Billing, (16.0.0); III.8, III.8A. Demand Response Baselines, (7.0.0); III.8B Dem. Resp. Base, III.8B Demand Response Baselines, (4.0.0); III.9, III.9 Forward Reserve Market, (12.0.0); III.10, III.10 Real-Time Reserve, (2.0.0); III.13.1, III.13.1 Forward Capacity Auction Qualification, (29.0.0); III.13.5, III.13.5 Bilateral Contracts in the Forward Capacity Market, (14.0.0); III.13.6, III.13.6 Rights and Obligations of Capacity Resources, (19.0.0); III.13.7, III.13.7 Performance, Payments and Charges in the FCM, (37.0.0); Appendix E1, Appendix E1 Load Response Program, (13.0.0); and Appendix E2 Load Res Pro, Appendix E2 Load Response Program, (3.0.0).

date of June 1, 2017,³ rather than January 12, 2015, as initially requested. As discussed below, the Commission accepts the proposed Tariff revisions, effective January 12, 2015, and June 1, 2017, as requested.

I. Background

2. On August 19, 2011, the Filing Parties proposed a two-stage implementation process to incorporate demand response resources into ISO-NE's wholesale energy markets in compliance with Order No. 745. Stage one involves Tariff rules defining how a demand response resource participates in the ISO-NE energy market during an initial transition period that began in June of 2012, and stage two involves implementing additional Tariff rules that provide for the full integration of demand response resources into the wholesale energy markets starting in June 2017. The October 31, 2014 Filing includes proposed tariff revisions to implement stage two of the two-stage implementation process.

³ The Tariff Revisions with a requested effective date of June 1, 2017 are: ISO New England Inc., ISO New England Inc. Transmission, Markets and Services Tariff, III.2, III.2 LMPs and Real-Time Reserve Clearing Prices Calculation, 14.0.0. The remainders of the Tariff revisions listed in footnote 2 have a requested effective date of January 12, 2015.

⁴ Demand Response Compensation in Organized Wholesale Energy Markets, Order No. 745, 76 Fed. Reg. 16,658 (Mar. 24, 2011), FERC Stats. & Regs. ¶ 31,322, order on reh'g and clarification, Order No. 745-A, 137 FERC ¶ 61,215 (2011).

⁵ The Commission largely accepted ISO-NE's proposed Tariff revisions in the following orders: *ISO New England Inc.*, 138 FERC ¶ 61,042 (2012) (order on ISO-NE's Order No. 745 Compliance Filing); *ISO New England Inc. and New England Power Pool*, Docket No. ER12-947-000 (Apr. 17, 2012) (delegated letter order accepting ISO-NE's Demand Response FCM Conforming Changes); *ISO New England Inc. and New England Power Pool*, Docket No. ER12-1550-000 (May 29, 2012) (delegated letter order accepting ISO-NE's Market Rule 1 Clarifications to the Transition Period Rules for Demand Response); *ISO New England Inc.*, 142 FERC ¶ 61,027 (2013) (order on ISO-NE's Market Rule 1 Demand Response FCM Conforming Changes for Full Integration); and *ISO New England Inc.*, 144 FERC ¶ 61,140 (2013) (order on ISO-NE's Market Rule 1 Clarifications to the Full Integration Rules for Demand Response and Revisions to Address the Treatment of Net Supply).

- 3. The Filing Parties explain that the proposed Tariff revisions will enable demand response resources to provide operating reserves and participate in the forward reserve market upon full integration into the energy markets in June 2017. The Filing Parties further explain that integrating demand response resources into the existing operating reserve and forward reserve market structures furthers the objective of allowing resources to supply energy, capacity, and reserves to the market under common product definitions with comparable obligations and compensation. The Filing Parties state that these changes also will enable more efficient co-optimization of resource dispatch and expand the pool of resources available to supply energy and operating reserves in real-time and on a forward basis, providing for a more reliable electric system and increasing competition.
- 4. According to the Filing Parties, the proposed Tariff revisions would (a) implement a common dispatch model for demand response resources that are capable of producing Net Supply, which will allow ISO-NE to properly account for reserves from these resources; (b) integrate demand response resources into the existing operating reserves structure; (c) permit demand response resources to participate in the forward reserve market; (d) revise the auditing rules for demand response resources; (e) change the demand response baseline adjustment factor; and (f) implement a number of ancillary market rule changes that will improve demand response measurement and verification. The proposed Tariff revisions also include a series of conforming and non-substantive changes to the market rules to further clarify the Tariff.
- 5. The Filing Parties request that the majority of the rule changes become effective on January 12, 2015, so that they will be in place before market participants submit offers for the 9th forward capacity auction (FCA 9), scheduled to begin February 2, 2015. They further request that the changes to Tariff sections III.2.7(a) and III.2.7(g) become effective June 1, 2017.

A. Common Dispatch Model

6. The Filing Parties explain that ISO-NE currently models a single demand response asset that can both reduce its load and inject energy into the electric grid (provide Net Supply) as two separate assets, a demand response asset and a Net Supply generator asset, respectively. The Filing Parties explain that such an asset is unable to provide generation to the system until its load is first reduced to a level below the output of the

⁶ Net Supply is energy injected at the Retail Delivery Point by a Demand Response Asset with Distributed Generation. Tariff section I.2.2. Definitions.

generator. By modeling the load reduction and generation capabilities separately, the system misses this dependency and may over-count available reserves.⁷

7. The Filing Parties state that the proposed Tariff revisions would implement a common dispatch model that will account for both the load reduction and any Net Supply provided to the electric grid as a single asset. The Filing Parties assert that accounting for both demand reduction and Net Supply from a single demand response asset will eliminate the potential for over-estimating available reserves from a resource that can provide Net Supply. In addition, they assert that the common dispatch model also will facilitate the correct accounting for average avoided peak distribution losses. ISO-NE explains that only the settlement of load reductions measured at a Retail Delivery Point will be increased by the average avoided peak distribution losses, whereas Net Supply will not be increased.

B. Integrating Demand Response Resources into Operating Reserves

- 8. The Filing Parties state that the proposed Tariff changes will allow demand response resources to provide operating reserves in the same manner as other resources without altering the existing co-optimized energy and real-time operating reserves market structures, by adding specificity to issues that are unique to demand response resources. These changes include revisions to demand response resources' energy market offer parameters to allow such resources to provide 10-minute and/or 30-minute reserves. ¹¹
- 9. The Filing Parties also explain that the way in which demand response resources will be designated to provide operating reserves will be identical to how other resources are currently designated to provide operating reserves. The Filing Parties explain that many of the proposed changes simply involve updating the language of existing operating

⁷ Transmittal Letter at 8-9, Henry Y. Yoshimura Testimony (Yoshimura Testimony) at 20-21. Henry Y. Yoshimura is the Director of Demand Resource Strategy for ISO-NE.

⁸ Transmittal Letter at 8.

⁹ The Filing Parties explain that reductions in load at the Retail Delivery Point will result in the reduction of distribution losses, whereas Net Supply does not result in a reduction in distribution losses. Transmittal Letter at 9; Yoshimura Testimony at 23-24.

¹⁰ Yoshimura Testimony at 23-24.

¹¹ Transmittal Letter at 9-10.

reserve provisions to include demand response resources. For example, ISO-NE altered definitions to make operating reserve designations equivalent between "on-line" generators and demand response resources that have been dispatched, and between "off-line" generators and demand response resources that have not been dispatched. The Filing Parties state that the proposal also makes comparable language changes to fast start eligibility and the definitions of "Ten-Minute Spinning Reserve," "Ten-Minute Non-Spinning Reserve," and "Thirty-Minute Operating Reserve."

10. The Filing Parties also propose to require that all demand response assets associated with a demand response resource be located within a single Dispatch Zone and Reserve Zone to address the way in which reserve pricing is established. In addition, the proposed Tariff revisions require demand response resources to submit one-minute interval data in real-time in order to provide 10-minute reserves, which will allow ISO-NE to determine whether the resource has responded in time to allow for the recovery of area control error (ACE) and avoid a North American Electric Reliability Corporation (NERC) violation. ¹⁵

C. <u>Integrating Demand Response Resources into Forward Reserve</u> <u>Markets</u>

11. The Filing Parties' proposed Tariff changes integrate demand response resources into the existing forward reserve market structure by revising the eligibility, resource performance, and compensation provisions. The Filing Parties do not propose any changes to the basic design of the forward reserve market. The Filing Parties state that the Tariff revisions modify eligibility requirements to reflect on/off-line states and fast-start capabilities, and alter forward capacity market provisions that reference these requirements accordingly. The Filing Parties also state that the proposed Tariff revisions update the performance and compensation provisions so that demand response resources

¹² Transmittal Letter at 10-11.

¹³ A Dispatch Zone is a subset of Nodes located within a Load Zone established by ISO-NE for each Capacity Commitment Period, pursuant to Section III.13.1.4.6.1.

¹⁴ ISO-NE establishes Reserve Zones to reflect areas within the New England Transmission System that require local 30-minute contingency response as part of normal system operations in order to satisfy local second contingency response reliability criteria. Tariff section III.2.7.

¹⁵ Transmittal Letter at 11-12.

that assume forward reserve obligations will be paid at the same compensation rate as other resources, will forego any real-time reserve payment for megawatts compensated as forward reserve, and will be assessed similar charges for non-performance.¹⁶

12. The Filing Parties clarify that under the proposed Tariff revisions, the portion of a demand response resource's performance that is not associated with Net Supply would be subject to the "gross up" for avoided peak distribution losses, and, therefore, the measurement and compensation of a demand response resource in the forward reserve market must distinguish between performance that results from a reduction in load and performance that results from Net Supply. 17 The Filing Parties explain that the gross up is applied as part of the settlement process, rather than as part of the reserve designation process, to avoid over-estimating the amount of reserves that are available in real-time at a specific location. The Filing Parties clarify further that avoided distribution losses are not considered when determining the amount of reserves that a resource can provide in real-time. The Filing Parties explain that due to the variable nature of avoided losses and the difficulty in estimating them in real-time, the present real-time reserve designation process for generators does not consider avoided losses. The Filing Parties state that ISO-NE is reluctant to rely on avoided distribution losses to meet NERC reserve requirements given that such avoided losses may not materialize when a specific set of resources are dispatched in real-time. Therefore, the Filing Parties state that ISO-NE plans to continue the current practice of not considering potential avoided losses in the real-time reserve designation process. 18

D. Auditing Rule Revisions

13. The Filing Parties state that the proposed Tariff revisions incorporate language pertaining to demand response resources into the existing framework to calculate and audit the 10-minute and 30-minute reserve capabilities of resources providing operating reserves or participating in the forward reserve market, to specify offer parameter auditing requirements for demand response resources, and to make minor changes to the forward capacity market auditing rules. ¹⁹

¹⁶ Transmittal Letter at 14-15.

¹⁷ Transmittal Letter at 15.

¹⁸ Yoshimura Testimony at 26-27.

¹⁹ Transmittal Letter at 16.

E. Demand Response Baseline Adjustment Factor Alterations

- 14. The Filing Parties explain that, to determine a demand response resource's real-time capability and to quantify such resources' responsiveness to dispatch instructions, ISO-NE relies on a baseline to represent the level at which the demand response resource is expected to consume energy during the operating day when not being dispatched to reduce demand. The Filing Parties state that the current practice of estimating a resource's baseline after the end of the operating day can yield significantly inaccurate real-time availability estimates.
- 15. The Filing Parties propose to utilize historical interval meter data, which will be adjusted throughout the operating day using 5-minute real-time telemetry data to forecast a demand response resource's availability to provide reserves in real-time. The Filing Parties state that the initial estimated demand forecast will be computed using the existing demand response baseline method. The Filing Parties further state that rather than updating the baseline once a day after the operating day is over, real-time telemetry data received during the operating day will be used to adjust the demand forecast at various points throughout the operating day. The Filing Parties further explain that the adjustment procedure will be performed frequently and will be based on telemetry data from recent historical intervals. ²¹

F. Ancillary Market Rule Changes

16. The Filing Parties state that the proposed changes also include rules to: (1) adjust the baseline of demand response resources experiencing a scheduled or a forced curtailment; (2) reset demand response baselines; (3) constrain the adjusted baseline of demand response resources capable of producing Net Supply; and (4) modify metering requirements for non-controllable, behind-the-meter generation and for market participants that install their own revenue quality meters.

²⁰ Section III.8B.5.

²¹ The Filing Parties state that the adjustment will be calculated every 15 minutes throughout the operating day, using three five-minute meter data intervals taken from the three intervals that start 25 minutes before, and end 10 minutes before, the quarter hour interval for which the adjustment calculation is performed. Transmittal Letter at 13.

II. Notice of Filing

- 17. Notice of the proposed Tariff revisions was published in the *Federal Register*, 79 Fed. Reg. 66,709 (2014), with interventions and protests due on or before November 21, 2014.
- 18. Dominion Resources Services, Inc., ²² Electric Power Supply Association (EPSA), PSEG Companies, ²³ Exelon Corporation, the Attorney General for the State of Connecticut, Northeast Utilities Companies (NU Companies), ²⁴ the Connecticut Office of Consumer Counsel, EnerNOC, Inc. (EnerNOC), and New England Power Generators Association, Inc. (NEPGA), filed timely motions to intervene. NEPGA also filed a protest. The Connecticut Public Utilities Regulatory Authority filed a notice of intervention. The United Illuminating Company (United Illuminating) and the New England States Committee on Electricity (NESCOE) filed motions to intervene out-of-time. NU Companies, NESCOE, ISO-NE, and NEPOOL filed answers to NEPGA's protest.

III. <u>Discussion</u>

A. <u>Procedural Matters</u>

- 19. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2014), the notice 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) (2014), the Commission grants United Illuminating's and NESCOE's late-filed motions to intervene given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

²² On behalf of Dominion Energy Marketing, Inc., Dominion Nuclear Connecticut, Inc., and Dominion Manchester Street, Inc.

²³ PSEG Power LLC, PSEG Energy Resources & Trade LLC, and PSEG Power Connecticut LLC.

²⁴ 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.

21. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept NU Companies, NESCOE, ISO-NE, NEPOOL, and EnerNOC's answers because they provided information that assisted us in our decision-making process.

B. Comments and Protests

- 22. NEPGA's protest contends that, as detailed in its recent complaint (NEPGA Complaint), ²⁵ the Commission should reject the proposed revisions because the United States Court of Appeals for the District of Columbia Circuit held in *Electric Power Supply Association v. FERC (EPSA)* that the Commission lacks jurisdiction under the Federal Power Act to regulate rates for supply-side demand response resources. ²⁶ NEPGA asserts that this lack of jurisdiction extends to all Commission-jurisdictional markets including the forward capacity market and the forward reserve market. NEPGA requests that the Commission refrain from rendering a decision in this proceeding until it has rendered a decision on the NEPGA Complaint.
- 23. NEPGA also argues that compensating demand response resources providing operating reserves for avoided line losses creates unduly discriminatory compensation between demand response resources and generation resources in real-time. NEPGA contends that ISO-NE cannot reflect the higher level of reserves afforded by demand response resources avoiding line losses in ISO-NE's reserve designation, so demand response resources will be paid for providing operating reserves that ISO-NE cannot employ as supply in its system dispatch. NEPGA asserts that this will create distortions in the operating reserve market and create unduly discriminatory treatment between demand response resources and generation resources. NEPGA requests that, if the Commission accepts the Filing Parties' proposed Tariff revisions, the Commission should order the Filing Parties to alter the proposal so that demand response resources are not compensated for avoided line losses.

²⁵ Complaint Requesting Fast Track Processing of NEPGA, Docket No. EL15-21-000 (filed November 14, 2014) (NEPGA Complaint). NEPGA asked the Commission to direct ISO-NE to disqualify supply-side demand response capacity resources from participating in FCA 9, for the 2018/2019 Capacity Commitment Period, and to revise its tariff to exclude such resources from participating as supply in the forward capacity market going forward.

²⁶ 753 F.3d 216, 220-24 (D.C. Cir. 2014).

24. EnerNOC supports the Filing Parties' proposal, reiterating the importance of having the rule changes in effect prior to FCA 9 so that demand response resources will be able to evaluate potential risks and price their offers appropriately.

C. Answers

- 25. NU Companies, NESCOE, and EnerNOC argue that the Commission should evaluate the October 31, 2014 Filing on its merits alone and that NEPGA's contention that the *EPSA* decision renders demand response resources ineligible to participate in the forward reserves market is invalid. NU Companies, NESCOE, and EnerNOC state that NEPGA's arguments are flawed, and that they mischaracterize and inaccurately apply the *EPSA* decision to the instant proceeding. EnerNOC states that NEPGA's assertion that the Commission should find that the *EPSA* decision renders demand response resources ineligible to participate in the reserve markets, is beyond the scope of this proceeding. Further, EnerNOC argues that even if *EPSA* were binding, the Commission has jurisdiction over all ancillary services.
- 26. ISO-NE asserts that the Commission should dismiss NEPGA's arguments because the *EPSA* decision has not yet become effective and, moreover, NEPGA's argument is irrelevant to the October 31, 2014 Filing because the *EPSA* proceeding does not pertain to ancillary services (including reserves) or capacity markets.²⁷ ISO-NE also reiterates the importance of having the rule changes in effect prior to FCA 9 so that demand response resources will be able to evaluate their potential risks and price their offers.²⁸
- 27. Similarly, NEPOOL states that if the Commission determines either pursuant to a mandate from the courts or otherwise to preclude demand response resources from participating in the wholesale power markets, there would be numerous tariff changes required to address such circumstances, and that unless or until that occurs, it is just and reasonable to define clearly how demand response resources will be treated in the wholesale power markets. NEPOOL also asserts that the Commission should separately consider the October 31, 2014 Filing and act within the statutorily required time period, without regard to the timing of its action on the NEPGA Complaint.
- 28. With respect to NEPGA's argument regarding compensating demand response resources providing operating reserves for avoided line losses, ISO-NE and NEPOOL argue, as reiterated by EnerNOC, that the proposed treatment of avoided distribution

²⁷ ISO-NE Answer at 4-5.

²⁸ *Id.* at 5.

losses is entirely consistent with the compensation for avoided line losses provided to demand resources in the capacity and energy markets, which the Commission has found to be just and reasonable, as well as the treatment of losses applicable to generation resources that provide operating reserves.²⁹ ISO-NE contends that the Commission has accepted, as just and reasonable, tariff provisions in both the capacity and energy markets compensating demand resources that reduce load for estimated avoided losses. ISO-NE further contends that compensating demand resources for avoided losses recognizes that reducing load by one megawatt decreases needed generation by more than one megawatt on average across time and locations, and that given this physical reality, avoided losses are added to the load reduction produced by a demand resource in order to treat that reduction comparably with generation. ISO-NE asserts that not compensating demand response resources that provide operating reserves for avoided losses would be inconsistent with the practice found to be just and reasonable in the capacity and energy markets.³⁰

D. <u>Commission Determination</u>

- 29. We accept the Filing Parties' proposed Tariff revisions, effective January 12, 2015 and June 1, 2017, as detailed above, as requested. The Filing Parties' proposed Tariff revisions appear to be just and reasonable, and have not been shown to be unjust, unreasonable, unduly discriminatory or preferential or otherwise unlawful, and the changes are consistent with ISO-NE's Commission-approved plan to fully integrate demand response resources into ISO-NE's wholesale electricity markets. While we acknowledge that the *EPSA* decision creates uncertainty for demand response resources in FERC-jurisdictional wholesale markets, we find it appropriate at this time to proceed with these market enhancements until further action is taken.
- 30. We agree with the Filing Parties and find that, under a common market structure, all resources will have comparable obligations and be paid the comparable price for delivery. Furthermore, we find that under such a market structure, dispatching resources for energy and operating reserves can be co-optimized to produce the most efficient market outcome. In addition, we concur with the Filing Parties that expanding the pool of resources available to supply energy and operating reserves in real-time and on a forward basis will enhance competition and reliability.

²⁹ *Id.* at 6.

³⁰ *Id.* at 7-8.

- 31. We do not find merit in NEPGA's argument that compensating demand response resources providing operating reserves for avoided line losses creates unduly discriminatory compensation. Rather, we agree with the Filing Parties that the provisions proposed here provide for compensation consistent with that provided to demand resources in the capacity and energy markets for avoided losses, and also consistent with ISO-NE's proposal to credit load reductions for average avoided peak distribution losses, which the Commission previously approved.³¹
- 32. Finally, the issues NEPGA raises in this proceeding with respect to the *EPSA* decision are already before the Commission in the NEPGA Complaint and we find that proceeding to be the appropriate venue for resolving these issues.³²

The Commission orders:

The proposed Tariff changes are hereby accepted, to become effective January 12, 2015 and June 1, 2017, as discussed in the body of this order.

By the Commission. Commissioner Honorable is not participating.

(SEAL)

Nathaniel J. Davis, Sr., Deputy Secretary.

³¹ ISO New England Inc., 138 FERC ¶ 61,042 (2012); ISO New England Inc., 142 FERC ¶ 61,027, at PP 12, 52, 56-57 (2013); ISO New England Inc., 144 FERC ¶ 61,140, at P 18 (2013); ISO New England Inc., 146 FERC ¶ 61,175, at PP 2, 8, 29 (2014).

³² See, e.g., Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 524–25 (1978) (confirming that agencies have discretion to develop their own procedures); Tennessee Gas Pipeline Co. v. FERC, 972 F.2d 376, 381 (D.C. Cir. 1992) ("The agency is entitled to make reasonable decisions about when and in what type of proceeding it will deal with an actual problem."); Richmond Power & Light v. FERC, 574 F.2d 610, 624 (D.C. Cir. 1978) ("Agencies have wide leeway in controlling their calendars").