

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Electric Storage Participation in Markets	)	Docket Nos. RM16-23-000;
Operated by Regional Transmission	)	AD16-20-000
Organizations and Independent System	)	
Operators	)	

**COMMENTS OF THE  
NEW ENGLAND POWER POOL PARTICIPANTS COMMITTEE**  
(February 13, 2017)

The New England Power Pool (“NEPOOL”) Participants Committee<sup>1</sup> offers for consideration by the Federal Energy Regulatory Commission (the “Commission”) these comments on the Notice of Proposed Rulemaking issued by the Commission in the above-captioned docket(s) on November 17, 2016 (the “NOPR”).<sup>2</sup> In this NOPR, the Commission proposes to amend its regulations under the Federal Power Act to “remove barriers to the participation of electric storage resources and distributed energy resource aggregations” in the organized wholesale electric markets.

NEPOOL has a detailed, Commission-approved stakeholder process for considering changes to its markets, and that process has not been undertaken to consider the particular rule changes contemplated in the NOPR as to how energy storage resources could participate in the wholesale markets. Because of the broad business interests that are represented by NEPOOL’s members, it is near certain that individual NEPOOL members will submit their individual views to the Commission on the NOPR. NEPOOL submits these comments not to take any position on

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<sup>1</sup> Capitalized terms used but not defined in this filing are intended to have the meanings given to such terms in the Second Restated New England Power Pool Agreement (the “Second Restated NEPOOL Agreement”), the Participants Agreement, or the ISO New England Inc. Transmission, Markets and Services Tariff (“ISO-NE Tariff”).

<sup>2</sup> Notice of Proposed Rulemaking, Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, Docket Nos. RM16-23-000, AD16-20-000 (Nov. 17, 2016) (“NOPR”).

specific views, but rather to urge the Commission in any final rule to allow sufficient flexibility so that the New England stakeholders can develop, in conjunction with ISO-NE, detailed rules that work best for the region and can implement those changes on a schedule that is compatible with other important initiatives currently underway or planned for in New England.

## **I. BACKGROUND & COMMENTS**

### **A. Current Participation of Energy Storage Resources in the New England Wholesale Markets**

Even before the NOPR, energy storage resources are able to participate in the New England wholesale markets in a variety of ways.<sup>3</sup> New England market rules currently offer a flexible framework under which energy storage assets can participate in the wholesale markets as a generator, load, or both, depending on the facility's physical and operational characteristics.<sup>4</sup> Participation models for energy storage resources supplying electricity to the wholesale markets include participation as a generator, a Settlement-Only Generator, a Demand Resource ("DR"), or an Alternative Technology Regulation Resource ("ATRR").<sup>5</sup> In each of the New England wholesale electric markets, an energy storage resource is able to be the resource that sets the clearing price, depending on how that resource participates in the markets.<sup>6</sup>

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<sup>3</sup> The ways in which energy storage resources currently are able to participate in the New England wholesale markets are described in detail in ISO-NE's response to the Commission's data request in Docket No. AD16-20. *See* Electric Storage Participation in Regions with Organized Wholesale Electric Markets, Docket No. AD16-20, Response to Electric Storage Data Request of ISO-NE (May 16, 2016) (the "*ISO-NE Response to Electric Storage Data Request*").

<sup>4</sup> *See id.*

<sup>5</sup> The ATRR is a construct that was developed in 2008 in the New England wholesale markets to enable energy storage devices to participate in the Regulation Market in a manner that specifically acknowledges the physical and operational characteristics and capabilities of energy storage devices.

<sup>6</sup> In each market, the clearing price may be set by any of the following: in the Real-Time Energy Market, by a storage resource registered as dispatchable Generator Assets; in the Day-Ahead Energy Market, by storage resources of one MW and above offered into the market as a Generator Resource, Asset Related Demand or Dispatchable Asset Related Demand ("DARD"); in the Forward Capacity Market, by storage resources qualifying as a new Generator Resource or as a Demand Resource ("DR"); in the Forward Reserve Market, by storage resources assigned to meet performance requirements; and in the Regulation

Large-scale energy storage resources have a long-standing history of participating as generators in the New England wholesale markets and recently, a 16.2 MW battery project in Yarmouth, Maine entered the market.<sup>7</sup> An energy storage resource that has a maximum net output of at least one MW and/or has an interconnection of 115 kV or above can participate in any or all of the region’s wholesale energy, capacity, reserve and regulation markets as a generation resource.<sup>8</sup> In New England, pumped storage hydropower provides most of the region’s grid-scale energy storage. The pumped storage resources that currently participate in the New England wholesale markets register as dispatchable generation resources for their discharge operations. They also register as a Dispatchable Asset Related Demand (“DARD”) resource in order to purchase energy for pumping to store energy and to modify those purchases in Real-Time in response to dispatch instructions.<sup>9</sup> To improve the way that pumped storage hydro-generating resources are modeled and dispatched, the ISO-NE Tariff was recently revised (as approved by the Commission in 2016) to establish new modeling practices and bidding parameters for DARD that better reflect the operating characteristics and physical capabilities of

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Market, by storage resources or an aggregation of storage resources (one MW or greater) offering ATRR. As of March 1, 2017, DARDs will also be able to set the Real-Time Energy Market price, and as of June 1, 2018, DR will be able to set the energy price in the Day-Ahead and Real-Time Energy Markets.

<sup>7</sup> NextEra Energy Resources has been operating its 16.2 MW battery array in Maine since December 2016.

<sup>8</sup> Generators, including energy storage devices operating as generators, currently may choose whether to register as dispatchable or non-dispatchable. In the energy markets, such an energy storage device will be a real-time and day-ahead wholesale price setter. For definitions of Generator Asset and Asset Registration Process (and all other defined terms), *see* Section I.2.2 of the ISO-NE Tariff.

<sup>9</sup> With respect to load received by the energy storage asset, the energy storage asset may purchase that energy through the wholesale market if it is registered as an Asset Related Demand or as a DARD. Of the two, only a DARD may submit bids to buy energy in both the Day-Ahead and Real-Time Energy Markets because it is dispatchable. Asset Related Demands may submit bids to buy energy in the Day-Ahead Energy Market, but are price takers in the Real-Time Energy Market.

the pumps associated with these facilities.<sup>10</sup> These NEPOOL-supported market enhancements will become effective March 1, 2017.

Smaller energy storage devices may register as Settlement Only Resources,<sup>11</sup> including those energy storage devices with a maximum output less than one MW, which are required to register as Settlement Only Resources if they choose to participate in the wholesale markets as generators. Under the current rules, these smaller, Settlement Only Resources cannot bid into the Real-Time Energy Market or the Day-Ahead Energy Market, but are settled as wholesale power resources based on the applicable Locational Marginal Price when and where they provide Energy in real-time. These smaller resources, if located behind the customer meter, are able to participate as a DR if their output does not exceed the greater of five MW or the demand of the end-use customer where the generator is connected. Starting June 1, 2018, dispatchable DRs in New England will be able to bid into both the Day-Ahead Energy Market and the Real-Time Energy Market and participate in the Real-Time Operating Reserve Market.<sup>12</sup> Such resources may participate today in the Regulation Market as an ATRR.

**B. Any Commission Action(s) or Final Decision on the NOPR should be Sufficiently Flexible to Account for Regional Differences and Priorities**

New England has made substantial progress in enhancing opportunities for energy storage to participate meaningfully in its markets, and NEPOOL appreciates the Commission's thoughtful attention and efforts dedicated to further enhancing the integration of energy storage within the wholesale power market structure. To be clear, NEPOOL does not take a substantive position on the Commission's proposals in the NOPR. A final rule in this proceeding, however,

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<sup>10</sup> For more information on the recently approved market enhancements for DARD pumps, *see* <https://www.iso-ne.com/participate/support/customer-readiness-outlook/market-enhancements-dard-pumps-project>.

<sup>11</sup> *See* the definition of "Settlement Only Resource" in Section I.2.2 of the ISO-NE Tariff.

<sup>12</sup> New England does not currently have a Day-Ahead Operating Reserve Market.

could have a significant impact on the wholesale markets in New England, which are complex, or on the schedule for planned market improvements. Commission-directed rule changes that are too prescriptive can have potentially unexpected interactions operationally and among each other and with neighboring markets. NEPOOL, in conjunction with ISO-NE, engages in a full and robust dialogue among the many affected business interests in New England that very carefully accounts for such circumstances. More particularly, the NEPOOL stakeholder process is designed to identify, refine and ultimately work through complex issues with solutions that are best suited for the New England markets, interests, infrastructure and resources.

Accordingly, NEPOOL urges that Commission action(s) on this NOPR, including any final rule, be sufficiently flexible both procedurally and substantively to permit final approval and implementation of New England's solutions in a timeframe that takes into account regional differences and priorities and allows for discussions within the NEPOOL stakeholder process to establish rules consistent with its underlying market design.

Procedurally, any final rule resulting from the NOPR will require both a compliance filing and sufficient time for implementation. With respect to implementation timing, NEPOOL urges the Commission not to direct an implementation deadline without the opportunity for a full and complete understanding of the broader implications of such a deadline on the region's other priorities, informed by discussion and input from New England stakeholders. As the Commission is aware, NEPOOL and ISO-NE are currently in the process of working on rule changes to address other identified regional priorities. In that regard, NEPOOL has worked closely with ISO-NE to develop and review the region's 2017-18 Work Plan (the "Work Plan"), which informally sets forth the regional business priorities for 2017-18.<sup>13</sup> The Work Plan has

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<sup>13</sup> Latest Version of New England's 2017-18 Annual Work Plan is available at: [https://www.iso-ne.com/static-assets/documents/2016/12/awp\\_december\\_update\\_reflecting\\_feedback.pdf](https://www.iso-ne.com/static-assets/documents/2016/12/awp_december_update_reflecting_feedback.pdf).

been presented to and discussed by NEPOOL and state officials and all stakeholders were given an opportunity to question and comment on the Work Plan.

While enhancing energy storage participation in the organized wholesale markets is a highly important and desired goal,<sup>14</sup> the region has numerous other high priority activities and projects to address substantial challenges of significance facing the region, some of which may have an even greater impact on market efficiency, customer savings and system reliability. Implementing changes consistent with the reforms contemplated in the NOPR could take substantial time and effort and ISO-NE has limited resources available to develop the region's numerous major initiatives. For these reasons, NEPOOL urges the Commission to ensure that any final decision issued in this proceeding include sufficient flexibility to allow the region to implement the decision while also achieving the other substantial initiatives in the Work Plan for 2017-18.

Substantively, NEPOOL urges that any final rule resulting from the NOPR accommodate different region-specific details. By way of example, any final rule should take into account market rules currently being implemented in the region to eliminate barriers to the entry of energy storage into the wholesale markets, and should be fashioned in such a way that it does not delay the implementation of such regional initiatives that have already been approved by the Commission, including the market enhancements that will become effective in March 2017 relating to the participation of pump storage hydro-generating resources. Other regions have

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<sup>14</sup> In fact, as reflected in the Work Plan, ISO-NE is currently evaluating the participation of storage in New England's markets to determine if any additional enhancements could be recommended. Additionally, as stated in ISO-NE's response to the Commission's data request in Docket No. AD16-20, "[t]he ISO plans to discuss with its stakeholders the development of rules and software to enable storage resources to more fully participate in the Real-Time Energy Market as dispatchable resources while continuing to participate in the regulation market as ATRRs. This will enable energy storage resources to continue to provide energy neutral regulation service while adding the capability to provide real-time reserves." *ISO-NE Response to Electric Storage Data Request*, at p. 11.

markets that may differ in very relevant respects and whether and how energy storage resources participate may also be very different. In short, NEPOOL stresses that the Commission should not apply a one-size-fits-all solution to a problem that will likely have unique issues in different markets.

## **II. CONCLUSION**

NEPOOL respectfully requests that the Commission consider these comments prior to issuance of any final rule. NEPOOL further urges that any subsequent action by the Commission on the NOPR, including any final rule, allow each region to develop an approach through its stakeholder process that, while responsive to broad direction from the Commission, allows each region to define specific changes in a way that can meet its own unique needs and to implement those changes on a schedule that is compatible with other regional initiatives currently underway.

Respectfully submitted,

NEPOOL Participants Committee

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Its Attorneys

Dated: February 13, 2017

**CERTIFICATE OF SERVICE**

I hereby certify that I caused a copy of the foregoing document to be served electronically upon each person designated on the official service list compiled by the Secretary of the Federal Energy Regulatory Commission.

Dated at Hartford, Connecticut this 13th day of February 2017.

*/s/ Jennifer E. Galiette* \_\_\_\_\_

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