



March 19, 2009

**VIA ELECTRONIC FILING**

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

Re: *ISO New England Inc. and New England Power Pool*, Docket No. ER08-54-014;  
Report of ISO New England Inc. Regarding the Implementation of Market Rule  
Changes to Permit Non-Generating Resources to Participate in the Regulation  
Market

Dear Secretary Bose:

On August 5, 2008, ISO New England Inc. (the “ISO”) and the New England Power Pool (“NEPOOL”) Participants Committee<sup>1</sup> (jointly, the “Filing Parties”) submitted to the Federal Energy Regulatory Commission (“Commission”) proposed revisions to Market Rule 1 to remove certain barriers in the market rules that prevent non-generating resources from participating in the Regulation market and to introduce a pilot program to permit Market Participants with alternative technology resources to provide and be paid for Regulation on a trial basis (“Regulation Filing”).<sup>2</sup> The Commission accepted the market rule revisions by letter order dated September 15, 2008 (“Regulation Order”). In the Regulation Filing, the ISO committed to provide the Commission quarterly reports on the ISO’s progress in implementing and carrying out the market rule revisions<sup>3</sup> and is submitting herein the sixth of its quarterly reports.

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<sup>1</sup> Capitalized terms used but not defined in this filing are intended to have the meaning given to such terms in the ISO New England Inc. Transmission, Markets and Services Tariff, FERC Electric Tariff No. 3 (“ISO Tariff”). Market Rule 1 is Section III of the ISO Tariff.

<sup>2</sup> ISO New England Inc. and New England Power Pool, Docket Nos. ER08-54-000 and ER08-54-001, Market Rule 1 revisions regarding the provision of Regulation by non-generating resources (August 5, 2008) (the “Regulation Filing”). References to the transmittal letter of the Regulation Filing are referred to herein as the “Transmittal Letter.”

<sup>3</sup> Transmittal Letter at pp. 2-3, 15.

## I. COMMUNICATIONS

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## II. BACKGROUND

In compliance with the Commission's May 7, 2008 order in Docket Nos. ER08-54-000 and ER08-54-001 (the "May 7 Order"), the ISO submitted market rule modifications to remove barriers that prevent non-generating resources from providing Schedule 3 (Regulation and Frequency Response) service of the *pro forma* OATT.<sup>4</sup> The Regulation Filing proposed Market Rule 1 revisions to allow non-generating resources to provide Regulation, subject to the qualification and operating requirements contained in the existing market rules (the "Market Rule Changes").<sup>5</sup> In recognition of the existence of certain alternative technologies that cannot provide Regulation under the existing market construct even with the Market Rule Changes, the Regulation Filing also introduced a pilot program that would permit Market Participants with resources incorporating these alternative technologies to provide and be paid for Regulation for the period of participation in the program (the "Pilot Program").<sup>6</sup> The Pilot Program is intended to allow the ISO and participating Market Participants the opportunity to evaluate the preferred manner in which such alternative technologies are able to provide Regulation and determine the

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<sup>4</sup> *Id.* at pp. 6-8.

<sup>5</sup> Transmittal Letter at pp. 8-10. As explained in the Regulation Filing, the non-generating resources that will be permitted to provide Regulation as a result of the Market Rule Changes are Dispatchable Asset Related Demand resources, which already provide other services in the New England wholesale electricity markets. Transmittal Letter at pp. 8-9.

<sup>6</sup> Transmittal Letter at pp. 11-14.

nature and extent of further revisions to market rules that are necessary to effectively incorporate alternative technologies into the Regulation market.<sup>7</sup>

As explained in the Regulation Filing, the ISO anticipates that it could take up to two years to complete, install and fully test the software changes necessary to implement the Market Rule Changes.<sup>8</sup> The Regulation Filing also noted that the Pilot Program would likely commence in November 2008 and continue for approximately eighteen months or until such time as is necessary to fully implement any market rule revisions that are the product of the Pilot Program.<sup>9</sup> The Regulation Filing explained that within twelve months of the start of the Pilot Program, the ISO anticipates beginning the process of identifying market rule changes to reflect the information and understanding it has gained during the first twelve months of the Pilot Program's operation, with the goal of reviewing those market rule changes with New England stakeholders and submitting them for the Commission's acceptance no later than eighteen months after commencement of the program.<sup>10</sup>

Recognizing that full compliance with the May 7 Order will require that the ISO work diligently to implement the Market Rule Changes, the Pilot Program and the market rule revisions that result from the Pilot Program, the ISO committed to file with the Commission quarterly updates summarizing the ISO's progress in implementing and carrying out the Market Rule Changes and the Pilot Program.<sup>11</sup> The ISO is submitting this report pursuant to the commitment it made in the Regulation Filing.

### **III. REPORT**

As initially anticipated,<sup>12</sup> the Pilot Program commenced on November 18, 2008. At that time, a single Market Participant enrolled a resource in the Pilot Program. This Market Participant has proceeded through the initial testing phase of the Pilot Program, which involves collaboration with the ISO to test the resource's capabilities and identify how the resource

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<sup>7</sup> The Filing Parties requested an effective date for the Market Rule Changes of on or after July 1, 2009, with two weeks prior notice of the actual effective date to be provided by the ISO. The Filing Parties requested an effective date for the Pilot Program of October 5, 2008. The Commission accepted these requested effective dates. Regulation Order at p. 1.

<sup>8</sup> Transmittal Letter at pp. 14-15.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* at p. 14; *see also* Market Rule 1, Appendix J – Alternative Technologies Regulation Pilot Program, Section III.J.3.

<sup>11</sup> Transmittal Letter at p. 15.

<sup>12</sup> *Id.* at p. 14.

performs under various parameters.<sup>13</sup> This participant has entered the second phase of its participation in the Pilot Program, which involves extended routine operation of the resource using the configurations agreed upon during the first phase. The ISO and the participant have the continuing ability to modify those configurations within the design constraints of the Pilot Program.<sup>14</sup> The first participant in the Pilot Program began operating a second functionally-equivalent facility at a separate but nearby location in July 2009. The second facility is providing regulation services and the participant is receiving payment for the services provided by both facilities under the terms of the Pilot Program

The ISO has had detailed discussions with thirteen additional parties interested in potentially enrolling resources in the Pilot Program. In accordance with the modified requirements for participation in the Pilot Program filed by the ISO and NEPOOL on October 13, 2009 in Docket No. ER10-52-000 several milestones must be completed by a prospective Pilot Program participant no later than November 30, 2009. The modified requirements provide a limited extension of the Pilot Program enrollment deadline.

The following four entities are participating in the Pilot Program or actively moving forward with efforts to participate:

- Beacon Power (actively providing regulation service since Nov. 18, 2008)
- Sempa Power Systems Ltd (has experienced delays completing contractual arrangements with host facilities, and now expects to begin providing regulation in the second quarter of 2010)
- VCharge, Inc. (expects to begin providing regulation late in the first quarter of 2010)
- A123 Systems, Inc. (expects to begin providing regulation in June 2010)

HQ Energy Services, Inc. met the eligibility requirements for participation in the Pilot Program. However, after completing preliminary investigations the company determined that technical considerations make participation in the Pilot Program impractical at this time. The four entities listed above will be the NEPOOL Participants providing service and receiving compensation under Market Rule 1 Appendix J, although several are working with one or more partners who may be providing services, equipment or host sites.

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<sup>13</sup> Market Rule 1, Appendix J – Alternative Technologies Regulation Pilot Program, Section III.J.7.

<sup>14</sup> Market Rule 1, Appendix J – Alternative Technologies Regulation Pilot Program, Section III.J.7.

As a group, the five eligible Participants represent a wide range of technologies, including flywheel storage, plug-in vehicle load response (so-called “smart charging” or “v1g”), plug-in vehicle distributed storage/generation that can discharge energy back onto the grid (so-called “vehicle-to-grid” or “v2g”), building-based demand response, electric/gas fuel switching to serve heating load, nanophosphate battery storage, and HVDC power electronics. This is a broad range of technologies that should provide the ISO with a rich set of operational experience and understanding of the technical challenges to be overcome that will provide tremendous value to the ISO’s analysis of appropriate changes to the rules governing New England’s Regulation market.

In late October 2009, the ISO invited all interested Market Participants to attend an informal discussion of stakeholder issues to be considered as part of the review of the regulation market rules. A meeting was held at the ISO facilities in Holyoke, Massachusetts on February 2, 2010, and was attended by fifteen interested stakeholders and three ISO staff members. The meeting provided the ISO with information and concerns to be examined and addressed during its internal analysis of appropriate changes to regulation market rules to accommodate alternative technologies. The ISO is presently reviewing the Pilot Program results already in hand, and analyzing the implications of potential rule changes to integrate these new technologies, including ideas stemming from the February 2<sup>nd</sup> meeting, as well as approaches adopted by other ISOs. This analysis will provide a necessary foundation for developing a specific proposal that ultimately will be presented to stakeholders for discussion, review and approval via the NEPOOL stakeholder process. Subject to the progress of the three eligible participants not yet on line and what those results might show, the ISO is hoping to have a proposal ready for presentation sometime in Q4 2010, perhaps sooner.

As accepted by the Commission, the Market Rule Changes that will more fully integrate Dispatchable Asset Related Demand into the Regulation market are now eligible to become effective upon notice from the ISO. The effective date ultimately designated for the Market Rule Changes depends on the ISO’s ability to develop, implement and test the software changes necessary for implementation. The timetable for the Market Rule Changes was based in large part on the need to accomplish a number of other significant information technology priorities during the second half of 2008 and the first two quarters of 2009. As noted earlier, the Market Rule Changes are intended to permit non-generating resources that already provide other services in the wholesale electricity markets to provide regulation service as well. Any *additional* Regulation market rule changes that are developed based on the results of the Pilot Program would be focused on resources that incorporate new, alternative technologies that are not currently recognized by the existing market construct. Because implementation of these two sets of market rule changes will likely involve changes to the same systems and databases, it may be expedient to implement the changes simultaneously. However, doing so may require delaying

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implementation of the Market Rule Changes until the additional market rule changes resulting from the Pilot Program are finalized and accepted by the Commission.<sup>15</sup>

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<sup>15</sup> As noted above, the Market Rule Changes, once implemented, will have the effect of permitting Dispatchable Asset Related Demand resources to participate in the Regulation market. There are currently no Dispatchable Asset Related Demands registered in New England that are technically capable of providing Regulation. Transmittal Letter at p. 15.

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#### IV. CONCLUSION

The ISO hereby submits this report to summarize the ISO's progress in implementing and carrying out the Market Rule Changes and the Pilot Program. If you have any questions or need further information with respect to this filing, please contact James Douglass at the telephone number below.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 19<sup>th</sup> day of March, 2010.

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