UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

ISO New England Inc. and
New England Power Pool

Docket No. ER05-795-004

ORDER ACCEPTING COMPLIANCE REPORT

(Issued March 7, 2007)

1. On September 7, 2006, ISO New England Inc. (ISO-NE) filed its Regulation Clearing Price report (September Report) in compliance with the Commission's March 7, 2006 order,[1] which directed ISO-NE to analyze the combined effects of two alternative resource selection and compensation methods for the New England Regulation Market; namely, the currently effective method and a method that, among other things, would select resources that minimize total bid-costs. In this order, we will accept ISO-NE's compliance report, as discussed below.

Background

2. On April 7, 2005, ISO-NE and New England Power Pool (NEPOOL) jointly filed proposed changes to Phase I of ISO-NE's Ancillary Services Market project (ASM Phase I). (At its March 11, 2005 meeting, the NEPOOL Participants Committee had voted 95.27 percent in favor of supporting the elements of the ASM Phase I filing.) The proposal would change the way that ISO-NE selects and compensates generators to provide Regulation service.[2]

3. A primary motivation for the filing was to adopt a form of pricing that paid generators for the amount of Regulation service provided as well as the amount of capacity devoted to Regulation service. Previously, generators were paid based only on the amount of capacity reserved for Regulation. But Regulation service requires generators to ramp up and down frequently, and such operations create wear and tear on

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[1] *ISO New England Inc.*, 114 FERC ¶ 61,248 (2006) (March Order).

[2] The Regulation Market is the mechanism for selecting and paying generation needed to manage small changes in system electrical load. Section III.1.11.5 of ISO-NE's tariff contains provisions for Regulation service. ISO-NE, FERC Electric Tariff No. 3, Substitute First Revised Sheet No. 7117.

generation equipment. Therefore, the ASM Phase I filing sought to establish a pricing component that specifically paid generators for the actual amount of Regulation service provided in real time, in addition to the amount of capacity reserved for Regulation.

4. To accomplish this objective, the proposal would use a three-part mechanism to pay generators. First, a Regulation clearing price would be paid to generators based on the amount of Regulation capacity that they make available. Second, additional payments—"mileage" payments—would be made to each generator based on the actual amount of Regulation service provided and the associated ramping. Both of these payments would be based on a single, market-clearing price paid to all generators. Third, each generator would be paid for unit-specific energy opportunity costs incurred while providing Regulation service. This third component would differ among Regulation providers.

5. In addition to these pricing changes, ASM Phase I would change the method for selecting generators to provide Regulation service. Specifically, ASM Phase I proposed to select generators based on the objective of minimizing total customer payments for Regulation service, given the proposed pricing method, rather than minimizing total bid-costs.

6. The Commission accepted the ASM Phase I proposal, but shared some of the concerns expressed by protestors.[3] There were two major concerns. First, different generators would be paid different amounts for providing the same service, because each generator would be paid its unit-specific energy opportunity cost in the third component of the pricing mechanism. (This is in contrast to the first two pricing components—the capacity payment and the mileage payment—where each generator would receive the same price per unit, based on the highest accepted Regulation Capacity bid price.) Protestors argued that the opportunity cost feature was unduly discriminatory and would fail to send proper price signals to the market regarding the value of additional Regulation capacity. The second concern was that ASM Phase I would not select the set of generators that could provide Regulation service at the lowest total bid-cost.

7. In light of these concerns, the Commission required ISO-NE to file either a plan addressing how it intends to re-introduce opportunity costs into the regulation clearing price (as opposed to resource-specific opportunity costs included in payments to individual resources) or an explanation as to how such a requirement would impose undue constraints on resources. The Commission also required ISO-NE to file a report to evaluate the effects of re-introducing opportunity costs into the clearing price on the ability to adopt a selection process that simultaneously minimizes resources' costs of providing Regulation and total expected consumer payments. ISO-NE filed a report on December 5, 2005, noting that the Regulation Market had been in service for only two

[3] *ISO New England Inc.*, 111 FERC ¶ 61,364, *clarified,* 112 FERC ¶ 61,247 (2005); *see also* March Order, 114 FERC ¶ 61,248 at P 5.

months and that additional experience was required to fully analyze and assess the market design. The Commission accepted the report, while noting its limitations, and accepted ISO-NE's offer to submit a second report in six months after additional experience had been gained. The Commission required that, in the second report, ISO-NE analyze the combined effects of alternative selection methods and compensation methods using two alternatives: (i) the ASM Phase I method, and (ii) a second method where all selected generators receive the same market-clearing price (reflecting the highest sum of capacity and opportunity costs) and where resources are selected so as to minimize total bid-costs.

<u>September 7 Compliance Report</u>

8. ISO-NE filed the second report on September 7, 2006. The September Report compares the two alternatives using two lines of analysis. One line of analysis, using the second method, simulates the spot market for all hours between October 2005 and April 2006, and compares the aggregate results with the actual results (with minor adjustments) under the ASM Phase I method that was used during this period. The other line provides a detailed analysis of the selection and pricing process for a single hour in December 2005, showing the detailed calculations for each generating resource in each iteration of the process. In both lines of analysis, the September Report found that total customer payments would be lower under ASM Phase I method than under the second method, while total bid-costs would be modestly (about 3 percent) lower under the second method.

<u>Notice of Filing and Responsive Pleadings</u>

9. Notice of the filing was published in the *Federal Register*, 71 Fed. Reg. 54,644 (2006), with interventions and protests due on or before September 28, 2006. NE Energy, Inc. and Lake Road Generating Company, L.P. (NE/Lake Road) filed a timely motion to intervene and protest. The NRG Companies filed a timely protest.[4]

10. The NRG Companies complain that ISO-NE's filing does not comply with the Commission's directive to submit a plan to re-introduce opportunity costs into the Regulation clearing price. The NRG Companies also argue that the current method for selecting and pricing Regulation results in higher total costs and is discriminatory among generators because it provides pay-as-bid compensation for opportunity costs.

11. NE/Lake Road argue that ISO-NE's report fails to comply with the Commission's order because the report's example did not include a scenario where a different set of generators is selected under the alternative selection methods. NE/Lake Road modified ISO-NE's example by altering the bid parameters of one of the resources so that a

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[4] The NRG Companies consist of: NRG Power Marketing Inc. (NRG PMI), Connecticut Jet Power LLC, Devon Power LLC, Middletown Power LLC, Montville Power LLC, Norwalk Power LLC, and Somerset Power LLC.

different set of generators is selected under the alternative selection methods. NE/Lake Road conclude that its revised example shows that the existing ASM Phase I market creates a bias to select generators with opportunity costs.

12. ISO-NE filed reply comments to the protests. ISO-NE states that the protesting parties have provided nothing to seriously question the central finding of the conclusions in ISO-NE's September Report. ISO-NE explains that, while including opportunity costs in the clearing price might be appropriate under a different market design, it would not be an appropriate approach within the existing regulation market design. This design, ISO-NE further explains, reduces producer risk premiums and customer payments by not requiring producers to make the very difficult predictions about their expected opportunity costs. Thus, simply introducing opportunity costs into a clearing price within this structure would increase consumer payments and producer revenues without necessarily increasing market efficiency.

13. ISO-NE also states that the ISO and its stakeholders are considering several additional improvements to the existing Regulation Market such as co-optimization of energy, reserves, and Regulation, which its market monitor has recommended. However, ISO-NE notes that the timing for implementing any changes must take into consideration other important projects that have a higher effect on stakeholders, such as implementation of the Forward Capacity Market settlement, developments and implementation of long term transmission rights, and transmission planning improvements. In addition, ISO-NE reiterates that any changes in the Regulation Market must consider whether the incremental economic benefits would offset the costs of implementing the changes.

Commission Determination

14. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2006), the timely, unopposed motion to intervene serves to make the entity that filed it a party to this proceeding.

15. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2006), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept ISO-NE's answer because it has provided information that assisted us in our decision-making process.

16. We will accept ISO-NE's compliance report, as discussed below. The information in the filing shows that under the supply conditions during the October 2005-to-April 2006 period (and during the single hour in December 2005 examined in the filing), the ASM Phase I method of selection and compensation resulted in lower customer payments and slightly higher supplier as-bid costs than the second method. While NE/Lake Road correctly observes that the ISO-NE example failed to include a scenario where a different set of generators is selected under the two alternatives studied, we see no reason at this time to require ISO-NE to submit a revised study. NE/Lake Road provided a revised

study with different generators selected under the two alternatives. The NE/Lake Road study's conclusions are not inconsistent with the ISO-NE study, i.e., that that second method results in lower supplier as-bid costs and higher customer payments compared to the ASM Phase I method.

17. While the ASM Phase I method can produce lower customer payments than the second method, we remain concerned that the ASM Phase I method over time fails to select the generators that can provide Regulation service at the lowest as-bid costs. As a result, some selected generators have higher costs than some rejected generators. The lower-cost rejected generators would have been willing to accept a lower payment than some of the high-cost selected generators. Thus, in principle, there should be a compensation method that results in lower customer payments than the ASM Phase I method when the suppliers with the lowest as-bid costs are selected.

18. The study that the Commission directed in the March Order was intended to shed light on whether paying the same price to all selected Regulation suppliers would allow ISO-NE to minimize both total supplier as-bid costs and total customer payments. Upon further reflection, however, it is clear that the study that the Commission directed ISO-NE to conduct does not fully answer this question, because the compensation rules underlying the second method would over-compensate Regulation suppliers—the rules would pay all suppliers more than the marginal as-bid cost of Regulation supply.[5] A

[5] The second method would over-compensate Regulation suppliers, since it would result in compensation greater than the as-bid costs of every accepted supplier, including the marginal supplier. Each selected generator would receive the clearing price twice; namely, once in the capacity payment and once in the mileage payment. The clearing price under the second method is composed of two components of the marginal supplier's as-bid costs: its Regulation Offer Price and its estimated opportunity costs. Thus, each supplier would receive twice the marginal as-bid cost of Regulation service.

Competition among Regulation suppliers would likely induce a typical supplier to reduce its Regulation Offer Price to half of its actual capacity costs, since suppliers receive the clearing price twice. Competition is not likely to induce suppliers to reduce their opportunity costs, however, because opportunity costs are equal to the difference between the applicable LMP and the supplier's energy bid price. Even in competitive markets, suppliers are not likely to adjust their respective energy bid prices in order to reduce expected opportunity costs—even though the Regulation clearing price is paid twice—because the energy bid price is also used to determine whether and how much of the supplier's energy is selected in the energy market. Adjusting the energy bid price could adversely affect a supplier's revenues in the energy market, and energy market revenues are substantially greater than those in the Regulation Market. There are a number of ways that the second method's compensation rule could be modified to remove the double payment of opportunity costs. For example, the clearing price could be modified so as to include the marginal supplier's Regulation Offer Price plus half of its expected opportunity costs.

modified second method with a different compensation rule—one that paid each Regulation supplier a lower amount that reflected the marginal as-bid cost of supply—would have resulted in lower customer payments. We do not know at this time how the total customer payments under such a modified second method would compare with those under the ASM Phase I method.

19. We understand that ISO-NE and its stakeholders continue to examine the Regulation Market for ways to improve it.[6] We appreciate that ISO-NE and its stakeholders are also considering and developing other, major market design changes, and that it cannot implement all of these changes at once. Therefore, we will not require a further filing regarding the Regulation Market in this docket at this time. However, we urge ISO-NE and its stakeholders to consider the guidance and observations in this order in their ongoing evaluation of the New England Regulation markets.[7]

The Commission orders:

ISO-NE's September 7, 2006 compliance report is hereby accepted, as discussed in the body of this order.

By the Commission.

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Philis J. Posey,
Acting Secretary.

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[6] Indeed, one result of this examination is a proposal filed and accepted in Docket No. ER07-201 that would modify the formula for selecting generators to provide Regulation service so that the actual costs of providing such service can be further reduced. *See ISO New England Inc.,* Docket No. ER07-201-000 (Jan. 4, 2007) (unpublished letter order).

[7] Consistent with the concerns raised in other RTO markets (*see PJM Interconnection, LLC,* 114 FERC ¶61,201 (2006)), we encourage the parties in ISO-NE to consider the appropriate role of demand response and the potential effects on the development and compensation of demand response when examining ways to improve the Regulation Market.