



November 28, 2007

**Via Hand Delivery**

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

**Re: ISO New England Inc., FERC Docket No. ER08-61-000; Response to  
Deficiency Letter**

Dear Secretary Salas:

ISO New England Inc. (the "ISO") provides the following responses to the questions posed by the Commission in the deficiency letter issued on November 16, 2007 in the above-captioned docket.

The Commission's questions address the ISO's October 16, 2007 emergency request for changes to Market Rule 1<sup>1</sup> to address a market anomaly that presents a potential opportunity for market manipulation. The ISO requested expedited consideration of the October 16 filing and an effective date of October 17, 2007.

The ISO appreciates the opportunity to answer these questions.

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<sup>1</sup> Capitalized terms not otherwise defined herein have the meanings ascribed thereto in the ISO New England Transmission, Markets and Services Tariff (the "Tariff"), of which Market Rule 1 is Section III.

## I. RESPONSES TO DEFICIENCY LETTER

1. **Does your proposal to restrict Day-Ahead NCPC credits apply only to external transactions over non-PTF facilities that connect the New England control area with an External Node in a neighboring control area, or does it apply to external transactions over PTF facilities as well?**

The proposal applies to all External Transactions, whether or not associated with interconnecting facilities that are either PTF or non-PTF.

**Section II.F.44 (b) of the Transmission, Markets and Services Tariff cites the AC facilities that make up the New York/New England interface as an example of PTF facilities. (Section II.F.44 (b) states: “For external interfaces where advance physical reservations are not required (e.g., external interfaces solely made up of PTF, such as the AC facilities that make up the New York/New England interface), scheduling and Curtailment of External Transactions shall be based on economic merit order in accordance with the ISO System Rules.”) Are the facilities that connect the New England control area with the Roseton External Node in New York that were congested for certain hours in October 2007 classified as PTF facilities? Are there other PTF facilities that connect the New England control area with External Nodes in neighboring control areas? If so, please identify them.**

In the New England market system, an External Node is a “*proxy bus*” that is used for purposes of facilitating transactions between control areas. An External Node is associated with physical facilities, but is not considered to be comprised of physical facilities. By contrast, PTF facilities are *physical* transmission lines located within the New England Control Area.

The Roseton External Node is associated with certain AC transmission lines that connect the New York and New England Control Areas. The New England portion of the AC transmission lines are classified as PTF.

The following PTF facilities also connect the New England Control Area to External Control Areas:

- Quebec: Highgate
- New York: 1385 Cable

- New Brunswick: Orrington - Keswick (396 line)<sup>2</sup>

The non-PTF facilities that connect the New England Control Area to External Control Areas are:

- New York/Long Island: Cross Sound Cable
- Quebec: Phase II HVDC

[Note: This question should refer to Section II.44(b) of the ISO Tariff, not to Section II.F.44(b).]

**2. Does the lack of congestion pricing in external transactions apply (i) only to external transactions over non-PTF facilities, or alternatively, (ii) to all external transactions?**

For External Transactions, a Congestion Component is not applied to any of the External Nodes in either the day-ahead or real-time energy markets, whether or not the node is associated with PTF or non-PTF facilities.

- 3. If the lack of congestion pricing in external transactions applies to all external transactions, we seek further explanation as to whether Market Rule 1 permits or requires such congestion pricing.**
- a. Please fully explain whether the use of congestion pricing in external transactions is permitted or required by the provisions of Sections III.2.6(a) and III.2.5(a), which appear to state that the Day-Ahead and Real-Time prices for both internal and external nodes shall be calculated to reflect the incremental cost of serving load at the node, and that the incremental cost shall include the cost of congestion.**

As a preface to responding to this question, the ISO did not propose any changes to the application of “congestion pricing” at External Nodes in the October 16, 2007 filing in this proceeding. Rather, the key issue that the ISO is seeking to address involves an asymmetry in the allocation of charges and credits for Net Commitment Period Compensation (“NCPC”) costs at External Nodes. However, the ISO understands that

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<sup>2</sup> The Commission recently gave conditional approval to “roll in” as PTF the Orrington-Keswick (396) line owned by the Maine Electric Power Company. *See ISO New England Inc.*, 121 FERC ¶ 61,097 (2007).

the Commission is seeking to fully understand the underlying issues associated with pricing and charges at External Nodes, which includes concepts associated with congestion pricing.

Sections III.2.5(a) and III.2.6(a) address the calculation of real-time and day-ahead nodal prices, respectively. These sections address both internal nodes (located within the New England Control Area) and External Nodes. These sections also contemplate that nodal prices may sometimes include Congestion Costs.

In the Day-Ahead Energy Market, transactions clear economically at the External Node based solely on an economic evaluation of the bids and offers at the external location. In the Day-Ahead Energy Market, congestion at the External Node occurs when more transactions than are possible given interface limits would occur absent some form of economic rationing. Transactions submitted at an External Node (imports, exports, and virtual supply and demand) are cleared relative to each other subject to the constraint that the net transaction schedule not exceed the External Node's TTC. In this way, the clearing of transactions at the External Node follows the same optimization logic as the clearing of supply and demand at any other location in the wholesale electricity market. The shadow price of binding constraints at the External Node fully reflect the marginal cost of serving the next increment of load at the External Node. However, the shadow price of binding External Node constraints does not establish the clearing price. Rather, at the External Node the published clearing is the clearing price of the adjacent internal nodes.

Because the clearing price at an External Node in the Day-Ahead Energy Market is always equal to the price at the adjacent internal nodes, the administration of External Transactions at the External Node may result in some transactions clearing the market that have higher bid or offer values than the published clearing price. Consequently, it is possible that Market Participant exports that reflect a willingness to pay a price higher than the LMP of the adjacent internal node will clear if there are import transactions available. This difference is paid to the Market Participant that submitted the applicable External Transaction through an NCPC credit pursuant to Sections III.F.2.3.4 and III.F.2.4.4 of Market Rule 1. The difference between bid or offer values and the clearing price is not reflected in the Congestion Cost component of the LMP at the External Node. The cost of congestion at the External Node is realized as an NCPC payment. The decision to reflect congestion at External Nodes in the Day-Ahead Energy Market via NCPC payments rather than through LMPs was made to provide consistency between the pricing at the External Node in day ahead and in real time.

In the Real-Time Energy Market, the clearing price at an External Node is always equal to the price at the adjacent internal nodes. There is never any financial congestion at External Nodes in real-time because transactions over external interfaces are physically scheduled so that the level of net transaction schedules always remains at or below the

interface's transfer limit (*i.e.*, the external interface constraint does not bind). By contrast, rather than reducing flow on internal facilities by curtailing transactions, internal congestion is managed via the economic dispatch of generation on either side of a binding constraint resulting in Congestion Costs which are reflected in the LMPs. The difference in the way that internal and external constraints are managed is the reason that Congestion Costs only occur on internal nodes.

**b. Please explain how and why these provisions fail to address the gaming concern presented in your filing.**

As explained above, the problem identified in the ISO's October 16, 2007 filing involves an asymmetry in the allocation of charges and credits for NCPC costs at External Nodes. The problem identified by the ISO does not directly arise from the application of "congestion pricing" mechanisms, and thus modifying the Day-Ahead Energy Market congestion management scheme for External Nodes may not solve the gaming issue identified in the ISO's filing. However, the ISO recognizes that changes to the manner in which congestion pricing is applied to External Nodes could form the basis for alternative approaches to resolving the problem. At this time, the ISO has not formulated a proposal, and is not aware of any third-party proposals, for addressing the identified problem using an alternative approach based on changes to congestion pricing at External Nodes.

**c. Please include a fuller explanation of whether and, if so, why Mr. Montalvo's reference to Section III.7.2.2 of Market Rule 1 (which states that congestion pricing will not apply to transactions over non-PTF facilities, but does not appear to discuss congestion pricing for transactions over PTF facilities) supports the practice not to use congestion pricing in external transactions over PTF facilities.**

As explained above, in addition to Section III.7.2.2 of Market Rule 1, other provisions of the rules (including Sections III.2.5(a) and III.2.6(a)) also combine to result in there being no Congestion Costs associated with External Nodes in either the day-ahead or real-time markets.

**d. Please explain how Section III.7.2.2 requires use of restrictions on Day-Ahead NCPC credits instead of use of congestion pricing in external transactions; and whether additional tariff provisions need to be modified to address what appear to be tariff provisions that already govern the issue presented.**

The answers to prior questions address the application of "congestion pricing" to External Nodes and the need to address the problem identified in the ISO's October 16, 2007 filing through changes to the NCPC crediting mechanism. No additional tariff provisions need to be modified to address the issue presented.

- 4. The LMP White Paper cited by Mr. Montalvo provides an explanation for why congestion pricing is not needed for external transactions. It states at page B-24: “Since an external interface constraint can never become binding, the next economic MW is the same for the External Node as that for the adjacent NEPOOL system. Consequently, the energy and congestion components of the LMP at the External Node are always the same as the adjacent NEPOOL system.” However, in your filing, you state that the interface constraint with New York was binding for several hours during October 2007. Moreover, you propose that the NCPC Credit restriction will apply “if a constraint on an intertie between the New England Control Area and an adjacent Control Area is binding in the Day-Ahead Energy Market in a given hour.” Since external interface constraints can become binding, please explain why congestion pricing should not be used in external transactions.**

The first quoted statement refers to the Real-Time Energy Market and reflects the manner in which, as described above in response to Question 3.a, transactions over external interfaces are physically managed so that the level of transactions remains below the interface’s transfer limit during real-time operations. By contrast, the ISO’s filing addresses gaming in the Day-Ahead Energy Market, and the gaming concern does not arise in the Real-Time Energy Market. For purposes of the Day-Ahead Energy Market, an external interface can be “binding” as an initial matter if the net quantity of price insensitive transactions (*i.e.*, fixed or extremely high priced exports and fixed or extremely low priced imports) exceeds the TTC of the interface. The ISO clears available dispatchable transactions to balance the external interfaces; *i.e.*, to bring the net schedule equal to the TTC. The scheduling of resources in the Day-Ahead Energy Market respects the resulting net schedule on the interface. See also page B-23 of the LMP White Paper addressing the Day-Ahead Energy Market (which is the relevant market for purposes of this proceeding).

- 5. Please explain whether or not the potential opportunity for gaming and market manipulation arises only when ISO-NE reduces the Total Transfer Capability (TTC) of the external interface, as was the case in October 2007.**

The opportunity for gaming or market manipulation can occur at any level of TTC. However, the external interface is more likely to be binding in terms of transactions when the TTC is reduced.

**If the gaming opportunity exists whether or not such a derating occurs, please provide specific examples of scenarios when the interface is binding and how manipulation could occur in each case, *i.e.*, (a) when the interface is at normal capacity and (b) when the TTC is reduced.**

**Example 1: The interface is at normal capacity**

Assume the following:

- interface TTC is 1,200 MW
- total day-ahead load obligation equals 400,000 MWh
- total net fixed exports (fixed exports less fixed imports) equals 1,250 MW

A Market Participant has submitted a fixed export transaction for 100 MW and a 100 MW dispatchable import transaction for \$500/MWh. A dispatchable import transaction is needed to clear the amount of the fixed export that exceeds the interface TTC of 1200 MW. In this case, 50 MW of the import would clear at \$500. Assume the clearing price is at the adjacent internal node is \$75/MWh. The Market Participant would collect  $(\$500-75) \times 50 \text{ MW} = \$21,250$  in NCPC credits and would be allocated a few cents per MWh in NCPC charges  $(\$21,250/400,000)$ .

**Example 2: The TTC is reduced**

Assume the following:

- interface TTC has been reduced to 250 MW
- the total DA load obligation equal 400,000 MWh
- the total net fixed exports (fixed exports less fixed imports) equal 1,250 MW

A Market Participant has submitted a fixed export transaction for 100 MW and a 100 MW dispatchable import transaction for \$500/MWh. One or more dispatchable import transactions are needed to clear the amount of the fixed exports that exceed the interface TTC of 250 MW. In this case, 100 MW of the import would clear at \$500. Assume the clearing price is at the adjacent internal node is \$75/MWh. The Market Participant would collect  $(\$500-75) \times 100 \text{ MW} = \$42,500$  in NCPC credits and would be allocated a few cents per MWh in NCPC charges  $(\$42,500/400,000)$ .

**If the gaming opportunity arises only when the interface is derated, please confirm that manipulation can occur only if the information on the reduction of the TTC is available to market participants at 10:00 a.m., i.e., gaming would not have been possible on October 3, 4 and 9, if ISO-NE reduced the TTC for the affected hours after 10:00 a.m.**

As the example above illustrate, it is more likely that the strategy will succeed when the interface TTC is derated, but the strategy is still available to a participant under all conditions. A forecasted reduction in operating-day TTC whether it is forecasted at 10:00 a.m., 12:00 noon or 2:00 p.m. the day-ahead could result in inappropriate payments being made to a Market Participant that submitted a combination of off-setting External Transaction imports and exports.

## **II. CONCLUSION AND REQUEST FOR TECHNICAL CONFERENCE**

The ISO urges that the Commission accept the revisions to Market Rule 1 contained in the October 16 filing with its requested effective date of October 17, 2007. To the extent necessary to facilitate the Commission's review of the October 16 filing, the ISO requests that the Commission schedule a technical conference to provide Staff and all interested parties an opportunity to discuss the technical aspects of the filing more fully. Such a technical conference may also reduce the likelihood of future litigation on these matters.

As directed in the deficiency letter, six copies of this response are filed with the Commission, and a seventh copy is being provided directly to Michael Isimbabi of the Office of Energy Market Regulation. An electronic copy of this filing is being sent to all members and alternates of the NEPOOL Participants Committee,<sup>3</sup> who represent all of the Governance Participants. A paper copy of this filing is also being provided to the governors and electric utility regulatory agencies for the six New England states that comprise the New England Control Area. The names and addresses of these governors and regulatory agencies are shown in Attachment 4 to the ISO's October 16, 2007 filing.

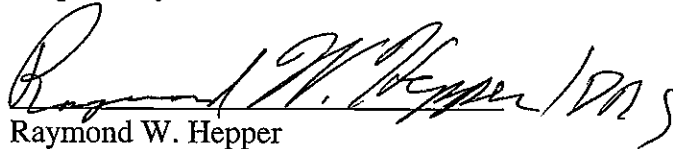
As directed in the deficiency letter, included with this filing is a form of notice of amendment to the ISO's October 16, 2007 filing in this proceeding suitable for publication in the Federal Register.

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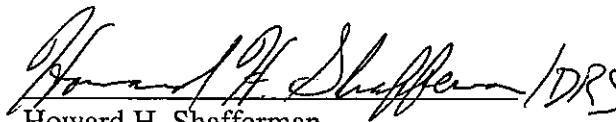
<sup>3</sup> See Section 17.11(e) of the Participants Agreement.

Please acknowledge receipt of this filing by date-stamping and returning the extra copy of this transmittal letter in the enclosed pre-posted, pre-addressed envelope.

Respectfully submitted,



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Attachment

cc :

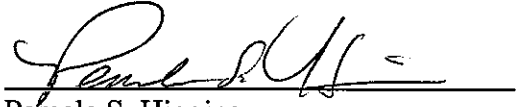
Michael Isimbabi, Office of Energy Market Regulation

Governance Participants (electronically) and Governors and Energy Regulatory Agencies  
of the six New England states.

## 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 these proceedings.

Dated at Washington, D.C. this 28<sup>th</sup> day of November, 2007.

A handwritten signature in black ink, appearing to read "Pamela S. Higgins", is written over a horizontal line.

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

ISO New England Inc.            )

Docket No. ER08-61-000

**NOTICE OF FILING**

(\_\_\_\_\_, 2007)

Take notice that on November 28, 2007, ISO New England Inc. (the "ISO") submitted a response to the questions posed in the deficiency letter issued by the Commission on November 16, 2007 in Docket No. ER08-61-000, which response shall constitute an amendment to the ISO's October 16, 2007 Emergency Filing of Changes to Market Rule 1.

Any person desiring to intervene or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's web site at <http://www.ferc.gov> using the "FERRIS" link, select "Docket #" and follow the instructions (call 202-208-2222 for assistance). Protests and interventions may be filed electronically via the Internet in lieu of paper; see 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site under the "e-Filing" link.

Comment Date: \_\_\_\_\_, 2007

Kimberly D. Bose  
Secretary