

LAW OFFICES  
**BALLARD SPAHR ANDREWS & INGERSOLL, LLP**  
601 13<sup>TH</sup> STREET NW, SUITE 1000 SOUTH  
WASHINGTON, DC 20005-3807  
202-661-2200  
FAX: 202-661-2299  
WWW.BALLARDSPAHR.COM

PHILADELPHIA, PA  
BALTIMORE, MD  
BETHESDA, MD  
DENVER, CO  
LAS VEGAS, NV  
PHOENIX, AZ  
SALT LAKE CITY, UT  
VOORHEES, NJ  
WILMINGTON, DE

**HOWARD H. SHAFFERMAN**  
DIRECT DIAL: (202) 661-2205  
PERSONAL FAX: (202) 626-9036  
E-MAIL: HHS@BALLARDSPAHR.COM

February 12, 2007

**BY ELECTRONIC FILING**

Honorable Magalie Roman Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re: Massachusetts Municipal Wholesale Electric Company v. ISO New England Inc.; Docket No. EL07-32-000; Answer of ISO New England Inc.**

Dear Ms. Salas:

Enclosed for electronic filing in the referenced docket is the Answer of ISO New England Inc. to Complaint of Massachusetts Municipal Wholesale Electric Company.

If there are any questions concerning this filing, please call me at (202) 661-2205.

Very truly yours,

*/s/ Howard H. Shafferman*

Howard H. Shafferman  
Counsel for  
ISO New England Inc.

Enclosures

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

Massachusetts Municipal Wholesale	)	
Electric Company,	)	
<i>Complainant,</i>	)	Docket No. EL07-32-000
	)	
v.	)	
ISO New England Inc.	)	
<i>Respondent.</i>	)	

**ANSWER OF ISO NEW ENGLAND INC.**

ISO New England Inc. (the “ISO”), in accordance with Rules 206(f) and 213 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”),<sup>1</sup> hereby answers the Complaint filed in this docket by the Massachusetts Municipal Wholesale Electric Company (“MMWEC”) on behalf of a number of Massachusetts towns and cities<sup>2</sup> (collectively, the “Towns”).

As demonstrated herein below, contrary to the speculative allegations raised in MMWEC’s Complaint, the ISO has acted in compliance with the ISO New England Inc. Transmission, Markets and Services Tariff, FERC Electric Tariff No. 3 (the “Tariff”),<sup>3</sup> and

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<sup>1</sup> 18 C.F.R. §§ 385.206(f) and 213 (2006).  
<sup>2</sup> Specifically, the Towns of Ashburnham, Boylston, Groton, Holden, the City of Holyoke, the Towns of Littleton, Paxton, Shrewsbury, Sterling, Templeton, West Boylston, the City of Westfield, and the Towns of Hingham, Hull, Mansfield, and North Attleborough.  
<sup>3</sup> Capitalized terms not otherwise defined herein have the meanings ascribed thereto in the Tariff.

without undue discrimination. Further, the results of the Day-Ahead Energy Market for the August 2, 2006 Operating Day as well as the Real-Time Prices for August 2, 2006 were correct. In short, MMWEC's Complaint is without merit and stems from MMWEC's mistaken bidding strategy for August 1 and 2.<sup>4</sup> For the foregoing reasons, the Commission should deny the Complaint.

## **I. SUMMARY OF COMPLAINT**

The Complaint concerns the Demand Bids in the Day-Ahead Energy Market for the Operating Day of August 2, 2006 ("August 2 Operating Day") that MMWEC submitted on behalf of the Towns, and the August 2, 2006 Real-Time Prices ("August 2 Real-Time Prices"). MMWEC acts as agent for the Towns in the submission of bids and other information incident to participation in the Day-Ahead and Real-Time Energy Markets in New England. As explained in greater detail below, MMWEC submitted identical (except for MW levels) price-sensitive Demand Bids for the Towns in the Day-Ahead Energy Market for the August 2 Operating Day. However, not all of the Demand Bids cleared in the Day-Ahead Energy Market. In accordance with the Tariff, each of the Town's whose bids did not clear in the Day-Ahead Energy Market had to purchase the balance of the power needed to meet their load obligations at the August 2 Real-Time Prices.

MMWEC's Complaint alleges, without basis, that the ISO: (1) applied the Tariff inconsistently or otherwise erred by engaging in undue discrimination or preference when determining which Demand Bids to clear in the Day-Ahead Energy Market and which Demand

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<sup>4</sup> See Exhibits 1 and 3 hereto ("HEAT Ticket" and transcript of related ISO-MMWEC conversation).

Bids to “move to the Real Time market” on August 2, 2006;<sup>5</sup> and (2) failed to promptly and uniformly notify generators when the \$1000/MWh Reserve Shortage Condition Energy Price was placed in effect, thereby limiting the ability of generators to quickly react to that price signal and resulting in higher real-time energy prices for the Towns’ load that did not clear in the Day-Ahead Energy Market.<sup>6</sup>

MMWEC also claims that the ISO incorrectly applied its Tariff with respect to MMWEC’s November 16, 2006 Request for Billing Adjustment (“RBA”) regarding the foregoing issues, and violated its Tariff by denying MMWEC access to confidential information to support MMWEC’s suspicion of potential withholding on the August 2 Operating Day. Finally, MMWEC claims that the ISO “refused to correct” the Real-Time charges assessed to the Towns that may have been inaccurate due to software errors that impacted the August 2 Real-Time Prices.<sup>7</sup>

## **II. EXECUTIVE SUMMARY OF ANSWER**

As explained further in Section V below, the Complaint should be denied for the following reasons:

- The ISO processed the Towns' price-sensitive Demand Bids in the Day-Ahead Energy Market for the August 2 Operating Day in accordance with the terms of the Tariff, and in a non-discriminatory manner.
- MMWEC’s own bidding strategy produced the results of which MMWEC complains; no discrimination in the form of favoritism toward non-MMWEC

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<sup>5</sup> Complaint at 1-2, 9-12.

<sup>6</sup> Complaint at 3-4, 12-14.

<sup>7</sup> Complaint at 4-5, 14-16.

bidders, or otherwise, among the Towns, occurred in the treatment of the Towns' bids.

- MMWEC's estimate of financial impacts is based on faulty calculations; there were no "overcharges." The incremental costs based on Real-Time Prices for the remaining partially uncleared load of the Towns (in hours where the Towns' Day-Ahead bids were eligible to clear based on price, but where supply was insufficient at that price) is approximately \$249,000. This is an appropriate result based on the filed Day-Ahead and Real-Time Energy Market settlement rules.
- The ISO conducted its operations and administered the Markets on August 2 in a manner consistent with the Tariff, including properly following the relevant notification procedures which do not include a requirement to provide individual notifications of Reserve Shortage Conditions to generators.
- The ISO properly followed the Tariff and committed no errors in clearing the remaining portion of the Towns' load in the Real-Time Energy Market.
- The Billing Policy allows a Market Participant access to Confidential Information only in extremely limited circumstances; with the Internal Market Monitoring Unit having reviewed and found no evidence of physical withholding on August 2, and with MMWEC failing to provide any reason to believe that such withholding occurred, the ISO properly denied the RBA's request for other Market Participants' confidential data. To do otherwise would have countenanced a fishing expedition into proprietary data of other Market Participants.
- The ISO reviewed the errors raised in MMWEC's Request for Billing Adjustment and found that there were no errors with respect to the clearing of the price-sensitive Demand Bids that MMWEC submitted on behalf of the Towns or the final Real-Time Prices.
- Although the ISO investigated each of the alleged errors raised in MMWEC's RBA, the RBA Decision did not address the merits because they were not of a type eligible for review and correction through the RBA process established in the Billing Policy; any correction of the alleged errors would have involved changes to day-ahead schedules as well as real-time system dispatch.

In sum, the Complaint is nothing more than a frivolous attempt to shift the adverse consequences of MMWEC's bidding strategy (*i.e.*, using price-sensitive Demand Bids – reflecting insufficient price levels in certain hours – on one of the hottest days of the year) onto the ISO and other Market Participants.

The ISO notes that MMWEC has requested Alternative Dispute Resolution (“ADR”) in this proceeding. The ISO is willing to participate in mediation sponsored by the Dispute Resolution Service. The ISO believes that ADR could be useful to explore potential alternative methods to apportion “partial clearing” situations among the Towns with respect to a set of identical bids submitted by MMWEC on their behalf. As demonstrated herein below, however, no relief is appropriate under the Complaint and, the Commission should act without further delay.

### **III. CORRESPONDENCE AND COMMUNICATIONS**

All correspondence and communications concerning this Answer should be sent to the following persons, who should be added to the official service list, at the addresses shown:

Raymond W. Hepper  
Monica Gonzalez\*  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040  
Tel: (413) 535-4000  
Fax: (413) 535-4379  
rhepper@iso-ne.com  
mgonzalez@iso-ne.com

Howard H. Shafferman\*  
Daniel R. Simon  
Jack N. Semrani  
Ballard Spahr Andrews & Ingersoll, LLP  
601 13<sup>th</sup> Street, N.W., Suite 1000 South  
Washington, D.C. 20005  
Tel: (202) 661-2200  
Fax: (202) 661-2299  
hhs@ballardspahr.com  
simond@ballardspahr.com  
semranij@ballardspahr.com

\*Persons designated for service

### **IV. BACKGROUND**

On August 1, 2006, MMWEC submitted identical (except for MW levels) price-sensitive Demand Bids of \$200/MWh for Day-Ahead Energy Market for the August 2 Operating Day in both the West Central Mass. (“WCMA”) and Southeastern Mass. (“SEMA”) Load Zones on behalf of the Towns. There were certain hours in the August 2 Day-Ahead Energy Market for

which the Day-Ahead LMPs equaled \$200; however, not all of the Towns' bids cleared due to insufficient supply at that price level. Consequently, each of the Towns whose bids did not clear in the Day-Ahead Energy Market had to purchase the power needed to meet their respective load obligations at the Real-Time Energy Market prices for August 2, which had been set to \$1000/MWh during certain hours, to reflect the Reserve Shortage Conditions declared by the ISO on that date.

On August 15, 2006 and August 29, 2006, MMWEC contacted the ISO's Customer Service staff regarding the clearance of the Towns' Demand Bids in the Day-Ahead Energy Market for the August 2 Operating Day. The ISO's Customer Service staff issued two "HEAT Tickets"<sup>8</sup> regarding MMWEC's inquiries – HEAT Ticket Nos. 118721<sup>9</sup> and 119376,<sup>10</sup> respectively – and sent its responses to MMWEC on September 25, 2006.

Subsequently, on November 16, 2006, MMWEC submitted an RBA on behalf of the Towns specifically disputing certain Real-Time charges relating to the August 2 Real-Time Prices. For the reasons further discussed in Section V below, on December 21, 2006, the ISO issued a decision on MMWEC's RBA ("RBA Decision") indicating that the alleged errors raised in the RBA were not eligible for review or correction under the RBA process.

As demonstrated below, the ISO has acted in compliance with the Tariff and without undue discrimination. Further, the results of the Day-Ahead Energy Market for the August 2 Operating Day and the August 2 Real-Time Prices were correct. The losses MMWEC claims are

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<sup>8</sup> A "HEAT Ticket" is the means used by the ISO to track a Customer's call to Customer Service and the followup actions taken in response to the call.

<sup>9</sup> See HEAT Ticket No. 118721, Attachment E to the Complaint.

simply the result of its chosen strategy for participating in the dual-settlement New England energy markets. To understand how MMWEC's bidding strategy – executed with knowledge that August 2 would be one of the hottest days of 2006 – produced higher costs than other bidding strategies would have, it will be helpful to provide a brief overview of New England's wholesale electricity markets and explain the operating conditions faced by the ISO and Market Participants on August 1 and 2, 2006.

**A. The Day-Ahead and Real-Time Energy Markets in New England**

The ISO operates both Day-Ahead and Real-Time Energy Markets that settle LMPs – on a nodal basis for generators, and on a zonal basis for load. The Day-Ahead Energy Market is financially binding and allows Market Participants to make forward purchases and sales of power for delivery, in real-time, for the Operating Day following the submission of Day-Ahead bids and offers.

Load-serving entities (“LSEs”) can protect themselves against volatility in the Real-Time Energy Market by purchasing power in the Day-Ahead Energy Market. Real-Time Energy Market LMPs may turn out to be higher or lower than the corresponding values in the Day-Ahead Energy Market, based on actual conditions experienced during the Operating Day. Market Participants are free to formulate and utilize their own bidding strategies, subject to review by the ISO's Market Monitoring Unit, as appropriate.<sup>11</sup>

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(...continued)

<sup>10</sup> See HEAT Ticket No. 119376, attached as Exhibit 1 hereto.

<sup>11</sup> See generally Appendix A to Tariff Section III.

## 1. The Day-Ahead Energy Market

The Day-Ahead Energy Market – on the most simplified level – produces hourly LMPs by clearing Supply Offers against Demand Bids. These offers and bids are submitted by 12:00 noon on the day before the Operating Day in question.<sup>12</sup> By 4:00 p.m. each day, the ISO develops a Day-Ahead Energy Market schedule based on the clearing process, and determines the Day-Ahead LMPs resulting from that schedule.<sup>13</sup>

Market Participants may submit price-sensitive Demand Bids in the Day-Ahead Energy Market that, in essence, express a willingness to buy X MW at Y location so long as the price is less than \$Z.<sup>14</sup> These price-sensitive bids are contrasted with “fixed” Demand Bids which express a willingness to buy X MW at Y location at whatever clearing price is produced in the Day-Ahead Energy Market. Of course, price-sensitive Demand Bids potentially limit the amount of an LSE's load that is supplied on a financially binding basis through the Day-Ahead Energy Market. LSEs may opt out to purchase the difference needed to cover their load in the Real-Time Energy Market if they anticipate that it will be less expensive, or through a bilateral contract.

## 2. The Real-Time Energy Market

The Real-Time Energy Market produces nodal and zonal LMPs every five minutes during the Operating Day. These LMPs reflect Real-Time load, Supply Offers (as they may be updated during the Re-Offer Period), hourly Self-Schedules, self-curtailments, and general system

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<sup>12</sup> See generally Tariff Section III.1.10.1A *et seq.*

<sup>13</sup> See Tariff Section III.1.10.8(b).

<sup>14</sup> See Tariff Section III.1.10.1A(a)(i).

conditions. Any deviations in the Real-Time Energy Market from the amount of purchases or sales scheduled in the Day-Ahead Energy Market are settled at the applicable Real-Time Price.<sup>15</sup>

As the Operating Day commences, during the dispatching process, the ISO implements and adjusts the Current Operating Plan to maintain reliability and minimize the cost of supplying energy, reserves and other required services. The Current Operating Plan includes hourly scheduling of External Transactions in the Real-Time Energy Market throughout the Operating Day. The ISO updates the Current Operating Plan as required, and updates the hourly dispatch of generators on a continuous basis, for Regulation and Energy.<sup>16</sup> Market Participants are able to adjust (Self-Schedule) the output of their Resources on an hour-by-hour basis by notifying the ISO no later than 30 minutes prior to the hour of the requested hourly change.

#### **B. Operating Conditions on August 1 and 2, 2006**

The beginning of August is normally one of the hottest periods of the year in New England, producing peak demand for electricity. The ISO's morning report which was published on the ISO's website by the Forecast Department on the morning of August 2, 2006, had expected temperatures in Boston and Hartford of 100 and 103 degrees respectively. The morning report also anticipated the need for implementation of our emergency capacity procedure known as Operating Procedure No. 4 ("OP4"). In addition, the all-time New England peak for electricity usage was set on August 2 at 28,679 MWh (reconstituted).

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<sup>15</sup> See Tariff Section III.1.10.1(c)(i).

<sup>16</sup> See Section III.1.11.1 of the Tariff ("The ISO shall adjust the output of Pool-Scheduled Resource increments as necessary: (a) to maintain reliability, and subject to that constraint, to minimize the cost of supplying the energy, reserves, and other services required by the Market Participants and the operation of the New England Control Area; (b) to balance load and generation, maintain scheduled tie flows, and provide frequency support within (continued...)

During periods of extreme heat (such as experienced on August 1 and 2) generating units are greatly stressed, forced outages occur, and some units must reduce their output due to ambient temperature and humidity conditions. On August 2, a peak energy use day, certain units were not able to reach their Summer Claimed Capability due to ambient air conditions. Other units tripped as a result of running at their maximum output levels under the extreme heat conditions. As recognized by MMWEC,<sup>17</sup> the 620 MW Wyman 4 unit located in Yarmouth, Maine, tripped around 12:30 p.m. as a result of running at its maximum output level. This unit returned to service later in that day. These circumstances were not atypical of an extremely hot day in New England. Importantly, the total amount of capacity unavailable was within the forecasted amount.<sup>18</sup>

### **C. Summary**

MMWEC, on behalf of the Towns, submitted price-sensitive Demand Bids in the Day-Ahead Energy Market for one of the hottest days of the year. As detailed in Section V below, the manner in which MMWEC's price-sensitive Demand Bids (which in a number of hours were too low to clear all of the Towns' bids with available supply) cleared in Day-Ahead Energy Market is not inconsistent with the Tariff. The adverse results of MMWEC's bidding strategy, as detailed in the Complaint, had nothing to do with the ISO, which complied with its terms and acted in a non-discriminatory manner. In fact, the ISO made no errors with regards to the clearing of

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(...continued)

the New England Control Area; and (c) to minimize unscheduled interchange that is not frequency related between the New England Control Area and other Control Areas.”).

<sup>17</sup> Complaint at 8.

<sup>18</sup> As Section III.1.10.1(d) provides, the ISO conducts a seven-day forecast which projects the likelihood of Emergency Conditions. The forecasted amount of unavailable capacity was 1017 MW.

MMWEC's Demand Bids. Instead, as further evidenced below, MMWEC has only its mistaken bidding strategy to blame.

## V. ANSWER

As summarized in Section II above, the Commission should deny the Complaint because the ISO: (i) processed the Towns' price-sensitive Demand Bids in the Day-Ahead Energy Market in accordance with the terms of the Tariff, and in a non-discriminatory manner; and (ii) properly followed the Tariff and committed no errors in clearing the remaining portion of the Towns' load in the Real-Time Energy Market.

### A. **The ISO Processed the Towns' Price-Sensitive Demand Bids in the Day-Ahead Energy Market in Accordance with the Terms of the Tariff, and in a Non-Discriminatory Manner**

The Complaint asserts that the ISO failed to follow its Tariff, or acted in a discriminatory manner, with respect to the hours in which some of the Towns' bids cleared in the Day-Ahead Energy Market.<sup>19</sup> This assertion is incorrect.

To understand the processing of the Towns' price-sensitive Demand Bids in the Day-Ahead Energy Market, it will be helpful to provide a brief overview of the automated process of the ISO's software utilized to clear the Demand Bids in the Day-Ahead Energy Market. As discussed in Section IV, above, the ISO develops the Day-Ahead schedule and posts zonal prices for load based on Supply Offers and Demand Bids.<sup>20</sup> All infra-marginal Demand Bid blocks (i.e., blocks showing a willingness to pay more than lowest clearing Supply Offer price for

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<sup>19</sup> Complaint at 9.

<sup>20</sup> See Tariff Sections III.10.8(a) and III.2.2(b).

available supply) clear in their entirety. Marginal Demand Bid blocks partially clear up to the amount of available supply offered at or below the bid price.

If there are multiple Demand Bids that are identically priced, such bids are referred to as “price-tied” Demand Bids. When Demand Bids are price-tied and marginal, they are cleared based on the order in which they are fed into the ISO scheduling and dispatch software (“SPD”). There is no explicit connection between the order in which data are input to SPD and the order in which the data were input into the market database.

For the August 2 Operating Day, all of the Towns’ hourly Demand Bids in the two *zones* – WCMA and SEMA – and certain *hours* – 1300-1800 in WCMA and 1300-1700 in SEMA – that are at issue in the Complaint<sup>21</sup> were price-sensitive and specified \$200.00 as the price limit, *i.e.*, the price above which they are unwilling to purchase in the Day-Ahead Energy Market. Importantly, as illustrated in the charts attached as Exhibit 2, the price limit in these bids was too low during the pertinent hours to clear with available Supply Offers except during one hour and two hours in the WCMA and SEMA zones respectively. Even within those three hours, there was not enough supply offered *at prices at or below* that of the Towns’ Demand Bids. Consequently, only a certain number of the Towns’ Demand Bids were able to clear at the price specified by MMWEC for the three hours in question. Therefore, in accordance with the Tariff, the energy load of those Towns that did not clear all of their requirements in the Day-Ahead Energy Market would purchase the balance in the Real-Time Energy Market instead.

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<sup>21</sup> See Attachment B to the Complaint.

As noted, MMWEC's hourly Demand Bids for the Towns had identical price limits (\$200/MWh) for all of the Towns' Demand Bids and for all 24 hours of the August 2 Operating Day. Under normal circumstances, the amount of energy supplies offered in the Day-Ahead Energy Market at a given price during a hot summer day fluctuates throughout the day, following the expected fluctuations in the demand. Therefore, if it wished to avoid the expected volatility in Real-Time Prices for August 2, MMWEC could have either varied the specified price at which it was willing to forgo purchasing in the Day-Ahead Energy Market in accordance with expected offer price fluctuations or it could have submitted "fixed" Demand Bids.

The Complaint's allegations of discrimination are premised on MMWEC's speculation that price-sensitive bids – at the same level as the Towns' – may have been submitted by other Market Participants and cleared in the Day-Ahead Energy Market to the exclusion of the Towns' Demand Bids.<sup>22</sup> However, no Demand Bids with the same limits as MMWEC's were submitted in the Day-Ahead Energy Market for the August 2 Operating Day.<sup>23</sup> MMWEC also alleges discrimination among the Towns because some Towns' bids cleared and others did not. As explained above, when Demand Bids are price-tied and marginal, as in the case with MMWEC, they are cleared based on the order in which they are fed into the ISO SPD up to the available supply offered at or below the Demand Bid price at the location. Thus, no discrimination in the form of favoritism toward non-MMWEC bidders, or otherwise, among the Towns, occurred in the treatment of the Towns' bids.

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<sup>22</sup> Complaint at 2, 10.

<sup>23</sup> See Affidavit of John Norden at page 4, Attachment 1 hereto ("Norden Affidavit").

In any event, MMWEC's claim that the Towns were invoiced, in aggregate, approximately \$1,701,697.65 beyond what they would have paid had their bids been accepted in the Day-Ahead Market<sup>24</sup> is based on faulty calculations. During the August 2 Operating Day in the pertinent hours ending 1300-1800 in WCMA and 1300-1700 in SEMA, there was not enough supply offered-in at low enough price levels to fully clear all of the bids of all of the Towns. Indeed, as stated above, in *all but three hours* of the hours addressed in Attachment B to the Complaint, the Demand Bids were too low for *any* of the Towns' bids to clear *at all*. This means that the calculation in Attachment B to the Complaint greatly exaggerates the alleged and incorrect "harm." The incremental cost of higher Real-Time Prices for the remaining portions of the Towns' Demand Bids that were marginal but did not clear (due to limited supply available at prices at or below those bids) totals approximately \$249,000, not \$1.7 million.<sup>25</sup>

MMWEC subsequently regretted its bidding strategy for the August 2 Operating Day. On August 29, 2006, several weeks after the close of the Day-Ahead Energy Market and posting of Day-Ahead prices for the August 2 Operating Day,<sup>26</sup> MMWEC submitted a Customer Service

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<sup>24</sup> Complaint at 7.

<sup>25</sup> See the final page of Exhibit 2 for the elements of the \$249,000 figure.

MMWEC's calculations in Attachment B to the Complaint are also faulty because they do not credit the value of some of the bids that were partially cleared. Also, MMWEC's calculation uses MW amounts based on Real-Time loads instead of the load included in the Day-Ahead Demand Bids, which creates further inaccuracies.

<sup>26</sup> Even if there had been an error in the Day-Ahead Energy Market, the ISO would not have been able to correct it under the provisions of Section III.2.9 of the Tariff. In particular, Section III.2.9(b) provides that:

Day-Ahead Energy Market results are final when published except as provided in this subsection. If the ISO determines based on reasonable belief that there may be one or more errors in the Day-Ahead Energy Market results for an Operating Day due to database, software or similar errors of the ISO or its systems, the ISO shall post on the ISO website prior to 12:01 a.m. of the applicable Operating Day, a notice that the results are provisional and subject to correction. Any Day-Ahead Energy Market results for which no notice is posted shall be final and not subject to correction or other adjustment, and shall be used for purposes of settlement. The ISO shall confirm within three

(continued...)

Request for the ISO to re-clear the Day-Ahead Energy Market in order for MMWEC to assess the losses resulting from MMWEC's "inadvertently"-submitted price-sensitive, rather than fixed, Demand Bids.<sup>27</sup> Specifically, the MMWEC staff member making the call stated:

We had a bunch of *price-sensitive bids that inadvertently were in there* and they got curtailed which is we know that's appropriate and we're not asking you go back and fix all that stuff.<sup>28</sup>

This is a telling admission by MMWEC and it sums up the central flaw in the Complaint: MMWEC seeks to blame the ISO for the adverse results of the bidding strategy that it pursued.

**B. The ISO Properly Followed the Tariff and Committed No Errors in Clearing the Remaining Portion of the Towns' Load in the Real-Time Energy Market**

MMWEC seeks, on behalf of the Towns whose bids did not clear in the Day-Ahead Energy Market during the hours in question, to avoid the high prices produced in the August 2 Real-Time Energy Market. Its effort is premised on asserting that the ISO "violated" the Tariff in connection with its handling of the Reserve Shortage Condition occurring that day or otherwise committed a to-date-uncorrected "error" that resulted in higher Real-Time Prices. As further explained below, MMWEC is wrong in both respects.

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(...continued)

business days of the close of the applicable Operating Day whether there was an error in any provisional Day-Ahead Energy Market results and shall post a notice stating its findings.

These "finality" provisions have been modified to some extent since August 2, 2006 (see Letter Order issued December 18, 2006 in Docket No. ER07-92-000), but this principle still stands. For convenient reference, the version of Sections III.2.9(a) and (b) that was in effect is included in Exhibit 7 hereto.

<sup>27</sup> See Exhibit 3 hereto for a transcript of excerpts from MMWEC call to Customer Service correlating to HEAT Ticket No. 119376 (the HEAT Ticket itself is Exhibit 1). The ISO's Customer Service staff properly denied MMWEC's request to re-clear the Day-Ahead Energy Market even if such request was for MMWEC to assess its losses. Under Section III.2.9 of Market Rule 1, any Day-Ahead Energy Market results for which no notice of potential error is posted by 12:01 a.m. of the applicable Operating Day are final and not subject to correction.

<sup>28</sup> In the telephone conversation excerpted in Exhibit 3, the MMWEC representative also explained what MMWEC was asking the ISO to do: "...that's really I think what [MMWEC management is] trying to find out is, is what would the day-ahead have been had we been in it." The HEAT Ticket in Exhibit 1 reflects the ISO's response.

(continued...)

1. The ISO Conducted Its Operations and Administered the Markets on August 2 in a Manner Consistent with the Tariff

As described in Section IV.B above, the hot and humid weather conditions on August 2 contributed to a number of outages and reductions as well as recorded electricity usage in New England. The cumulative impact of those events led to a Reserve Shortage Condition Pricing Event.<sup>29</sup> When such conditions occur, the Reserve Shortage Condition Energy Price was set in accordance with Section III.2.5(d) of the Tariff, as it was in effect on August 1-2, 2006.<sup>30</sup>

In its Complaint, MMWEC argues that the ISO failed “to promptly and uniformly notify generators that the \$1000/MWh Reserve Shortage Condition Energy Price was placed in effect.”<sup>31</sup> Failing to provide such individualized notification, MMWEC alleges, “failed to provide a reasonable opportunity for generators to respond promptly to this price signal,” thus implying that such notification could have resulted in increased output and lower Real-Time Prices. As explained below, neither the Tariff nor any other governing documents requires any such individualized notification, and the ISO properly followed the relevant notification procedures.

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(...continued)

<sup>29</sup> Tariff Section III.1.3.2 (*see* definition of “Reserve Shortage Condition”).

<sup>30</sup> *Id.* (*see* definition of “Reserve Shortage Condition Energy Price”). *See also* Tariff Section III.2.5(d) (version in effect on August 1-2, 2006). With the October 1, 2006 effective date of Phase II of the Ancillary Service Markets (*see* ISO filings in Docket No. ER06-613), the Reserve Shortage Condition provisions of Section III.2.5(d) were discontinued. For ease of reference, the version of Tariff Section III.2.5 that was in effect on August 1-2, 2006 is Exhibit 4 hereto.

<sup>31</sup> Complaint at 12.

First, MMWEC fails to identify<sup>32</sup> any provision in the Tariff or ISO New England Manuals that requires the ISO to separately notify each generator when Reserve Shortage Conditions exist. That is because no such requirement exists. Instead, the ISO implemented the following notification requirements of Section 2.5.16.3 of ISO New England Manual for Markets Operations, Manual M-11:

- (3) When the ISO declares a Reserve Shortage Condition:
  - (a) The ISO will notify Market Participants *by making a posting on the ISO Website* indicating the Reliability Region(s) in which the Reserve Shortage Condition exists.

As required in Manual M-11, the ISO posted the following Special Notice on its website at 12:48 p.m.:

ISO New England is experiencing deficiencies in Operating Reserve and is implementing a Reserve Shortage Condition/Reserve Shortage Condition Pricing Event in all zones. This condition is expected to exist for the following date and hours;

Date: 8/2/06

Expected duration: 12:30 through 18:00.

During a Reserve Shortage Condition/Reserve Shortage Condition Pricing Event, ISO Web site prices may differ from the prices posted on Generator Rigs. Generators should still follow Dispatch Instructions.<sup>33</sup>

Second – and more generally – the idea that generators were unaware on August 1 and 2 of the need for additional supply of energy, capacity and reserves is easily dismissed. Even the

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<sup>32</sup> See MMWEC's argument on this point at Complaint at 12-13.

<sup>33</sup> The instruction that generators follow Dispatch Instructions is particularly important on days such as August 2. A generator's unauthorized attempt to increase output could jeopardize reliability.

broader general public was well-informed about the crisis conditions on August 1 and 2. All major newspapers in the region carried stories and headlines describing the looming all-time system peak.<sup>34</sup> In addition to the media's widespread awareness of the conditions in New England, the ISO's website, on August 2, was replete with notices informing Market Participants and the public at large that conditions were very tight.<sup>35</sup>

Other August 2 notices giving all Market Participants notice of stressed conditions include: (i) a special request for Emergency Energy Transactions posted at 9:43 a.m. on August 2; (ii) opening of the interruption period for Price Response and Demand Response loads; and (iii) implementation of actions 1 through 10 and, subsequently, actions 11 and 12, of OP4.<sup>36</sup> Multiple notices indicating stressed conditions also were issued on August 1, including a

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<sup>34</sup> The widespread public awareness of the conditions in New England on August 1 and 2, 2006, include: ISO personnel were interviewed by Good Morning America, New England Cable News, Channel 22 (Springfield, MA), CBS 3 (Springfield, MA), Channel 7 WHDH (Boston, MA), The Boston Channel - Channel 5 WCVB (Boston, MA), Fox 25, Channel 56 WLVI (Boston, MA), Channel 10 (Providence, RI), WBZ TV (Boston, MA), Channel 4 (Boston, MA), and NBC 30 (Hartford, CT). Articles by major New England newspapers and national press and wire sources include:

- (i) On August 1: USA Today, "Heat wave strains power grids in half of nation"; Associated Press, "Heat cooks eastern part of USA" (Reprinted in CNN, USA Today, WHSH, North County Times CA, Forbes, Houston Chronicle, Wall Street Journal, CBS News, Boston Herald); Associated Press, "Heat wave hits Connecticut; record power use expected" (Reprinted in Stamford Advocate, New York Newsday, and other outlets); Boston Herald, "Utilities predict record-breaker;" The Hartford Courant, "Whew! Power Demand May Set Mark;" The Republican (Springfield, MA), "Temperature set on broil in Wmass;" Associated Press, "With Extreme Heat, Experts Say Record Demand For Electricity Is A Possibility" (Reprinted in WCAX-TV News Vermont and WCSH TV Maine); Reuters, "Demand for electricity expected to hit record today"; and
- (ii) On August 2: Associated Press (CT), "Heat wave produces record power consumption, keeps state sweltering;" Associated Press (RI), "ISO New England asks customers to conserve power in heat;" The New York Times, "Electrical Use Hits New Highs in Much of U.S."

<sup>35</sup> The relevant notices issued by the ISO for both August 1 and 2, 2006 are provided in Exhibit 5 hereto.

<sup>36</sup> See Norden Affidavit at page 3.

Master/Local Control Center Procedure No. 22 (“M/LCC #2”) Abnormal Conditions Alert which continued into August 2, as well as the implementation of many actions of OP4.<sup>37</sup>

In addition, MMWEC’s Complaint speculates that generators engaged in physical or economic withholding on August 2, driving up Real-Time Prices.<sup>38</sup> This speculation is unavailing. Other than mere speculation, MMWEC fails to provide any evidence to support its suspicion that any physical or economic withholding occurred on August 2, 2006. Contrary to MMWEC’s speculations, the review of the outages and reductions that the ISO’s Internal Market Monitoring Unit (“INTMMU”) conducted on August 2, as required in Market Rule 1 and Manual M-11,<sup>39</sup> showed no evidence of withholding.<sup>40</sup>

Pursuant to Market Rule 1 and Manual M-11, under Reserve Shortage Conditions, the INTMMU was obligated to review all unit outages and reductions before and during such events before the ISO posted the final Real-Time Prices.<sup>41</sup> Specifically, Section III.2.5(d) required that the INTMMU review whether “a Reserve Shortage Condition and the subsequent adjustments to the affected Energy and Loss Components of the nodal Real-Time Prices . . . were the result of physical withholding.” As the Chao Affidavit confirms, the INTMMU reviewed the outage and

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<sup>37</sup> *See id.* In addition, it should be noted that Market Participants can subscribe to listservs to receive the notices described above via e-mail when published to the ISO’s website. Briefly, the ISO divides the notices into different categories, allowing individual Market Participants to best determine which category of notices to receive, if not all of the notices issued. MMWEC representatives are subscribed to the Emergency Operations System Notices distribution list, among others. *See Norden Affidavit* at pages 3-4.

<sup>38</sup> Complaint at 15-16.

<sup>39</sup> For instance, Section III.2.5(d) references the INTMMU’s role in reviewing outages and reductions. Manual 11, Section 2.5.16.3, as in effect at that time, reiterated the same point. For convenient reference, a copy of this provision of Manual 11 as it existed at the time, is attached as Exhibit 6 hereto.

<sup>40</sup> *See Affidavit of Hung-po Chao* at page 2, Attachment 2 hereto (“Chao Affidavit”).

<sup>41</sup> *See id.*

reduction before the ISO posted the final Real-Time Prices, and found no evidence of withholding.<sup>42</sup> Under Section III.2.5(d), to the extent physical withholding had been found as a result of the INTMMU’s review, the Real-Time Nodal Prices would not have been adjusted to reflect the \$1000/MWh scarcity pricing:

If the Internal Market Monitoring Unit, in conjunction with the Independent Market Monitoring Unit, determines that the Reserve Shortage Condition and the subsequent adjustments to the affected Energy and Loss Components of the nodal Real-Time Prices as set under this Section 2.5(d) were the result of physical withholding (as defined in Appendix A to Market Rule 1) by one or more Market Participants, the affected nodal Real-Time Prices will not be adjusted in the price finalization as set forth in Section III.2.9.

The INTMMU found no evidence of withholding on August 2, and thus the final Real-Time Prices for August 2 correctly reflected the \$1000/MWh scarcity pricing.

In a related matter, MMWEC argues that the ISO unlawfully denied – in the RBA Decision – the Towns’ access to confidential market information to explore their concern that market participants may have engaged in physical withholding, and that such information was “necessary” to substantiate and resolve the billing dispute.<sup>43</sup> As explained below, the Commission should reject this argument because the ISO acted in accordance with the Tariff (including the Billing Policy).

The Billing Policy (Attachment D to the Tariff; *see* Section 6.5(a)) allows a Market Participant access to Confidential Information *only* in extremely limited circumstances; that is, if such access is *required* to determine if it has a substantive basis for filing an RBA with the ISO.

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<sup>42</sup> *See id.*

<sup>43</sup> Complaint at 14-16.

With the INTMMU already having reviewed and found no evidence of physical withholding on August 2, and with MMWEC failing to provide any reason to believe that such withholding occurred, the ISO properly denied the RBA's request for other Market Participants' confidential data. The ISO's Information Policy does not allow the ISO to provide such data any time a Market Participant merely alleges that physical withholding may have taken place, premised on unfavorably high prices. To grant the request so that MMWEC could examine whether withholding occurred would have required release of all bid data from all Resources, obviously an impermissible fishing expedition into other Market Participants' proprietary information. The ISO's handling of the RBA's request for confidential data thus conformed with the requirements of the Tariff, and the ISO was not, and is not, required to take any additional steps.

2. The ISO Committed No Uncorrected Errors Resulting in Higher Real-Time Prices

In the Complaint, MMWEC states that it "believes" – but offers no evidentiary support – that there were "many irregularities on August 2" in the form of unspecified errors by the ISO which resulted in incorrect and high Real-Time Prices.<sup>44</sup> This belief is incorrect. The software errors did not result in higher Real-Time Prices for August 2.

By way of background, the software errors that occurred on August 2 were associated with the declaration of the Reserve Shortage Condition Pricing Event. In accordance with Section III.2.5(d), the Real-Time LMPs for August 2 were determined by running the solved calculator cases through a Reserve Shortage software application. Due to a problem with the Reserve Shortage software stemming from a problem with an "Oracle View" in the markets

database, multiple energy components were calculated in the software post processor. The ISO's information technology department corrected this problem, and the correct prices (reflecting minor changes as indicated below) were determined prior to posting final Real-Time Prices on August 5, 2006, as required by Tariff Section III.2.9(a).

On August 2, the ISO issued "Market Notices" via the Special Notice process to notify Market Participants that there were problems with the Reserve Shortage Condition software which could result in incorrect data being published to pages such as the "Current Five-Minute Prices" and "Current Hourly Data by Location and LMP Map." The ISO's Market Notices also notified Market Participants that the Real-Time LMPs were provisional until finalized by the ISO.

MMWEC's argument that the software errors resulted in higher Real-Time prices for August 2 is unclear and, in any event, meritless. While, on the one hand, MMWEC says it is concerned that these software errors may have resulted in inaccurate and higher prices, it also admits that the ISO corrected them. Accordingly, the ISO corrected the software errors that occurred on August 2 prior to when the prices were finalized and billed to Customers. Also, the final Locational Marginal Price for the SEMA and WCMA regions in the pertinent hours (ending 1300-1800) were unaffected by the errors, and upon correction the Locational Marginal Price at the trading hub changed only in the hour ending 1400, and only by one penny, raising it from \$998.48 to \$998.49.<sup>45</sup>

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(...continued)

<sup>44</sup> Complaint at 14.

<sup>45</sup> Norden Affidavit at page 4.

In sum, the final Real-Time Prices for August 2 were not affected by any uncorrected software errors, Tariff violations, or any other unlawful actions that raised Real-Time Prices, and MMWEC has provided no evidence to the contrary.<sup>46</sup>

**C. The ISO Properly Applied the Tariff With Respect to MMWEC’s RBA Related to Certain Real-Time Charges Associated with the August 2 Real-Time Prices**

On November 16, 2006, pursuant to Section 6 of the Billing Policy, MMWEC filed an RBA seeking adjustments relating to the partial clearing of the Towns’ load and the high prices on the August 2 Operating Day, asserting Tariff violations and errors by the ISO.<sup>47</sup> Section 6 of the Billing Policy sets for the process by which a disputing party can seek resolution of billing disputes that result from errors “concerning any Disputed Amounts resulting from the determination of a market clearing price or Transmission, Markets and Services Tariff rate by the ISO.”<sup>48</sup> The RBA process set forth in the Billing Policy is a means to correct errors; however, not all alleged disputes regarding ISO bills are eligible for review and correction under the RBA process.

On November 21, 2006, pursuant to Section 6.3.2 of the Billing Policy, the ISO issued a notice of its receipt of MMWEC’s RBA to all Covered Entities and the Chair of the NEPOOL,

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<sup>46</sup> However, it bears noting that the Tariff prohibits the ISO from re-settling the Real-Time Energy Market once prices are final, so even if errors persisted at this time (which they did not), granting MMWEC its requested relief would violate the filed rate. Specifically, the contemporaneous version of Tariff Section III.3.7.1 provided that the ISO cannot correct errors that affect the real-time system dispatch unless identified prior to the issuance of final statements. Furthermore, the contemporaneous version of Tariff Section III.3.7.2 provided that calculations made by scheduling or dispatch software “are not subject to retroactive correction and resettlement. The ISO will settle and bill ... the real-time market as actually dispatched.” For convenient reference, the versions of Sections III.3.7.1 and III.3.7.2 in effect on August 1-2, 2006 are Exhibit 7 hereto.

<sup>47</sup> See Attachment A to the Complaint.

<sup>48</sup> Section 6.1 of the Billing Policy.

Budget and Finance Subcommittee. Following its notice, the ISO initiated its review of the claims raised MMWEC's RBA, as the Billing Policy requires the ISO to provide a written decision regarding the RBA within 20 business days of the notice issuance.

Consistent with the Billing Policy, and contrary to the MMWEC's allegations, the ISO investigated the errors claimed in MMWEC's RBA. Based on this investigation, the ISO determined that even if any "errors" had occurred (which, as addressed above, the ISO maintain they did not occur, with the exception of the software errors which were timely corrected), they were not of a type eligible for correction under the RBA process because the assertion of "errors" was – ultimately – designed to achieve changes to the Day-Ahead Energy Market results and the final Real-Time Prices.<sup>49</sup>

Specifically, Section III.3.7 of the Tariff (as in effect August 1-2, 2006) identified the types of errors that are eligible for billing adjustments under the RBA process. As the ISO explained in the RBA Decision, pursuant to that section, only "[e]rrors in Market Participants' statements resulting from errors in settlement software, errors in data entry by ISO personnel, and Settlement production problems, that do not affect the day-ahead schedules or real-time system dispatch" are eligible for billing adjustments. The ISO further explained that pursuant to Section III.3.7, "[c]alculations made by scheduling or dispatch software, operational decisions involving ISO discretion which affect scheduling or real-time operation . . . are not subject to retroactive

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<sup>49</sup> The ISO's RBA Decision is appended to MMWEC's Complaint behind Attachment C. The RBA Decision specifically states: "After review of the claims made in your submission, as further addressed below, we have determined that the errors raised in your RBA are not eligible for review or correction under the RBA process."

correction and resettlement.”<sup>50</sup> This outcome is also consistent with Section III.2.9(a)-(e) of Market Rule 1 which provides that results of both the Day-Ahead and Real-Time Energy Market results are final and not subject to correction through billing adjustments.

To be clear, the ISO reviewed the errors raised in MMWEC’s RBA and found that there were no errors with respect to the clearing of the price-sensitive Demand Bids that MMWEC submitted on behalf of the Towns or the final Real-Time Prices. Based on this investigation, the ISO also determined that the software errors experienced on August 2 had been corrected in accordance with the Tariff; specifically, the ISO corrected those software errors prior to finalizing prices and billing Customers. Although the ISO investigated each of the alleged errors raised in MMWEC’s RBA, the RBA Decision did not address the results of the ISO’s investigation (*i.e.*, the merits of the RBA claims) because the errors were not of a type eligible for review and correction through the RBA process established in the Billing Policy. The alleged errors could not be corrected through the RBA process as they would have involved changes to day-ahead schedules as well as real-time system dispatch.

## **VI. COMPLIANCE WITH RULE 213(C) OF THE COMMISSION’S RULES OF PRACTICE AND PROCEDURE**

### **A. Disputed Factual and Material Allegations (and Law Upon Which this Answer Relies)**

As discussed in greater detail in Section V above, the ISO disputes the following key factual and material allegations raised in the Complaint:

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<sup>50</sup> Market Rule 1, Section III.3.7.2

- Complaint at 1-2, 9-12, 17:** The ISO applied the Tariff inconsistently or otherwise erred by engaging in undue discrimination or preference when determining which Demand Bids to clear in the Day-Ahead Energy Market and which Demand Bids to “move to the Real Time market” on August 2, 2006. MMWEC’s total calculation of the overcharges assessed to the Towns amounts to approximately \$1,701,697.65 above what they would have paid, had their bids been accepted in the Day-Ahead Energy Market.
- ISO Response:** See Section V.A. of this Answer. The ISO processed the Towns’ price-sensitive Demand Bids in the Day-Ahead Energy Market in accordance with the terms of the Tariff, and in a non-discriminatory manner. MMWEC’s own bidding strategy produced the results of which MMWEC complains. Further, MMWEC’s estimate of financial impacts is based on faulty calculations. There were no “overcharges.” The incremental costs based on Real-Time Prices for the remaining partially uncleared load of the Towns (in hours in which the Towns’ Day-Ahead bids were eligible to clear based on price, but where supply was insufficient at that price) is approximately \$249,000. This is an appropriate result based upon the filed Day-Ahead and Real-Time Energy Market settlement rules. The ISO relies upon Sections III.1.10.8(a), III.2.2(b), III.2.9, and III.3.7 of the version of the Tariff in effect on August 1-2, 2006.
- Complaint at 4-5, 12-14:** The ISO failed to promptly and uniformly notify generators when the \$1000/MWh Reserve Shortage Condition Energy Price was placed in effect, thereby limiting the ability of generators to quickly react to that price signal and resulting in higher real-time energy prices for the Towns’ load that did not clear in the Day-Ahead Energy Market. The ISO acknowledged that software errors had occurred during August 2, 2006 but refused to correct the charges assessed to the Towns.
- ISO Response:** See Sections V.B.1 and 2 of this Answer. The ISO properly followed the Tariff and committed no uncorrected errors in clearing the remaining portion of the Towns’ load in the Real-Time Energy Market. Software errors were corrected prior to posting the final Real-Time prices. The ISO relies upon Sections III.1.3.2, III.2.5(d), and III.2.9(a) of the version of the Tariff in effect on August 1-2, 2006.
- Complaint at 4-5, 14-16:** The ISO violated its Tariff by denying the Towns access to confidential information regarding possible physical withholding necessary to substantiate their RBA.
- ISO Response:** See Section V.B.1 of this Answer. The Billing Policy allows a Market Participant access to Confidential Information only in extremely limited circumstances; this is, if such access is required to determine if it has a substantive basis for filing an RBA with the ISO. With the INTMMU already having reviewed and found no evidence of physical withholding on August 2, and with MMWEC failing to provide any reason to believe that such withholding occurred,

the ISO properly denied the RBA's request for other Market Participants' confidential data. Indeed, to do otherwise would have countenanced a fishing expedition into proprietary data of other Market Participants. The ISO relies upon Exhibit ID to Section I of the Tariff, and Section III.2.5(d) of the version of the Tariff in effect on August 1-2, 2006.

- **Complaint at 4:** The ISO refused to investigate and resolve the billing errors raised in MMWEC's RBA.
- **ISO Response:** See Section V.C of this Answer. The ISO reviewed the errors raised in MMWEC's RBA and found that there were no errors with respect to the clearing of the price-sensitive Demand Bids that MMWEC submitted on behalf of the Towns or the final Real-Time Prices. Although the ISO investigated each of the alleged errors raised in MMWEC's RBA, the RBA Decision did not address the merits because they were not of a type eligible for review and correction through the RBA process established in the Billing Policy. The alleged errors could not be corrected through the RBA process as they would have involved changes to day-ahead schedules as well as real-time system dispatch. The ISO relies upon Section III.3.7 of the version of the Tariff in effect on August 1-2, 2006.

The ISO's responses to other points raised by MMWEC are reflected in the discussion in Section V, above.

## **B. Attachments**

The following documents are attached to this Answer:

- Attachment 1: Affidavit of John Norden
- Attachment 2: Affidavit of Hung-po Chao, Ph.D.
- Exhibit 1: HEAT Ticket No. 119376
- Exhibit 2: Charts showing MMWEC Day-Ahead Demand Bids vs. LMPs
- Exhibit 3: Transcript of portions of MMWEC-ISO telephone conversation initiating HEAT Ticket No. 119376
- Exhibit 4: Section III.2.5(d) of the Tariff as in effect on August 1-2, 2006
- Exhibit 5: Copies of notices issued by the ISO on August 1 and 2, 2006
- Exhibit 6: Manual M-11, Section 2.5.16.3 as in effect on August 1-2, 2006
- Exhibit 7: Sections III.2.9, III.3.7.1 and III.3.7.2 as in effect on August 1-2, 2006

## VII. CONCLUSION

WHEREFORE, for the foregoing reasons, the ISO respectfully requests the Commission to deny the Complaint.

Respectfully submitted,

ISO NEW ENGLAND INC.

By /s/ Raymond W. Hepper  
Raymond W. Hepper  
Vice President and Assistant General Counsel  
Monica Gonzalez  
Regulatory Counsel  
ISO New England Inc.  
One Sullivan Road  
Holyoke, MA 01040  
(413) 535-4000 (ph)  
(413) 535-4379 (fax)  
rhepper@iso-ne.com  
mgonzalez@iso-ne.com

By /s/ Howard H. Shafferman  
Howard H. Shafferman  
Daniel R. Simon  
Jack N. Semrani  
Ballard Spahr Andrews & Ingersoll, LLP  
601 13<sup>th</sup> Street, N.W., Suite 1000 South  
Washington, D.C. 20005  
(202) 661-2200 (ph)  
(202) 661-2299 (fax)  
hhs@ballardspahr.com  
simond@ballardspahr.com  
semranij@ballardspahr.com

February 12, 2007

**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 12th day of February, 2007.

/s/ \_\_\_\_\_  
Pamela Higgins  
Ballard Spahr Andrews & Ingersoll, LLP  
601 13th Street, N.W., Suite 1000 South  
Washington, D.C. 20005  
(202) 661-2258

# **Attachment 1**

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

Massachusetts Municipal Wholesale	)	
Electric Company,	)	Docket No. EL07-32-000
<i>Complainant,</i>	)	
v.	)	
ISO New England Inc.	)	
<i>Respondent.</i>	)	
	)	

**AFFIDAVIT OF JOHN NORDEN**

I, John Norden, being duly sworn, depose and state as follows:

1. My name is John Norden. My business address is One Sullivan Road, Holyoke, Massachusetts 01040-2841.
2. I currently serve as Manager of Market Administration at ISO New England. I have served in this position since October 2005. This position is responsible for the administration of the Day Ahead, Real-Time, FTR, and Forward Reserve Wholesale Electricity Markets in New England.
3. I have worked for the ISO and, prior to that, NEPOOL since 1994. From 1994 to 1997, I served as a NEPEX Pool Coordinator, where I coordinated the secure and economic operation of the NEPOOL Participants generation and transmission resources. In 1997, I became an Operations Shift Supervisor, where I supervised and directed the on shift operation of the New England Bulk Power System. From 1999-2001, I served as the ISO's Supervisor for Control Room Operations. From 2001 to 2003, I served as the

- ISO's Supervisor for Operations Training, Documentation and Compliance. From 2003 to 2005, I served as Manager for Operations Training, Documentation and Compliance.
4. Before my employment with NEPOOL and the ISO, I served as a Plant Accountant/Associate Plant Accountant from 1983 to 1985 and then as an Energy Production Supervisor for Fitchburg Gas & Electric Light Co. from 1985 to 1987. From 1987-94, I served as a REMVEC (Local Control Center) System Operator for New England Power Service Co.
  5. I received a B.S. from Fitchburg State College in 1985.
  6. The purpose of my affidavit is to explain (i) the factual background and circumstances involving New England Control Area system conditions on August 2, 2006, in light of weather and demand conditions; (ii) steps the ISO took in notifying Market Participants regarding such conditions; (iii) a brief comparison of the bids MMWEC submitted for the August 2 Day-Ahead Energy Market with the rest of the market; and (iv) the ISO's software errors MMWEC mentions in its complaint.
  7. The ISO's morning report which was published to the ISO's website by our Forecast Department on the morning of August 2, 2006 had expected temperatures in Boston and Hartford of 100 and 103 degrees respectively. The morning report also anticipated the need for implementation of our emergency capacity procedure known as Operating Procedure No. 4 ("OP4").
  8. The ISO provided notice leading up to the actual implementation of OP4 for August 2nd.
  9. For instance, the ISO posted notices of emergency and shortage conditions on its website for public viewing. Those notices are still available on the ISO's website and are included herein as Exhibit No. 5.

10. The ISO began issuing such notices on August 1, 2006. Specifically, on August 1 at 6:28 a.m., the ISO issued a notice that it had declared Master/Local Control Center Procedure No. 2 that “may last until Wednesday 8/2/2006.” This procedure alerts Market Participants, among others, when abnormal conditions exist or are anticipated. Later that day, the ISO also implemented several actions of OP4, a Reserve Shortage Condition and a public press release declaring a Power Watch. On the evening of August 1, the ISO cancelled the OP4 conditions, Reserve Shortage Condition and the Power Watch.
11. In addition to the Master/Local Control Center Procedure No.2 that remained in effect for August 2<sup>nd</sup>, the ISO also issued a public press advisory on August 1 requesting voluntary electricity conservation for the next two days. On August 2, the ISO continued this process and began issuing notices about problems expected that afternoon. For example:
  - (a) The ISO issued its morning report as detailed above indicating that it anticipated the need for implementation of our emergency capacity procedure known as OP4.
  - (b) The ISO posted Notices on its website indicating the various implementations of actions under OP4, a Reserve Shortage Condition Pricing Event as well as requests for Emergency Energy Transactions and Demand Response interruptions.
  - (c) The ISO issued a public press release at 12:15 p.m. declaring a Power Watch encouraging a reduction in electricity usage due to high demands on the system.
12. Market Participants also can subscribe to specific listservers whereby a notice published to the ISO’s website is automatically sent to the subscribers, including the Emergency Operations System Notices listserv. I have conferred with the ISO’s Manager of Market Support Services, who worked with the ISO’s IT department, to investigate these distribution lists. They were able to confirm that several MMWEC representatives

subscribed to the distribution lists that would have received the notices I discuss above both before and after August 1-2, including the Emergency Operations System Notices category.

13. On August 2, New England set an all-time peak for electricity usage of 28,679MWh (reconstituted). During periods of extreme heat such as experienced on the 2nd, generating units are greatly stressed, forced outages occur and some units must reduce their output.
14. MMWEC also speculates that other price-sensitive bids may have been submitted by other Market Participants at the same levels as those submitted by the Towns for the August 2 Day-Ahead Energy Market during 1300-1800 in the West Central Mass. zone and 1300-1700 in the Southeast Mass. zones. The ISO has reviewed the bids submitted for that day, and I can confirm that no Demand Bids with the same limits as those submitted by the Towns were submitted in the Day-Ahead Energy Market for the August 2 Operating Day.
15. MMWEC also speculates that software errors may have resulted in inaccurate and higher prices. The ISO corrected the software errors that occurred on August 2 prior to finalizing prices and billing Customers. Also, the final Locational Marginal Price for the SEMA and WCMA regions in the pertinent hours (ending 1300-1800) were unchanged by the errors, and upon correction the Locational Marginal Price at the trading hub changed only in the hour ending 1400, and only by one penny, raising it from \$998.48 to \$998.49.

16. This concludes my Affidavit.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on February 12, 2007

/s/ John Norden  
John Norden

## **Attachment 2**

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

<b>Massachusetts Municipal Wholesale</b>	)	
<b>Electric Company,</b>	)	<b>Docket No. EL07-32-000</b>
<b>Complainant,</b>	)	
<b>v.</b>	)	
<b>ISO New England Inc.</b>	)	
<b>Respondent.</b>	)	

**AFFIDAVIT OF HUNG-PO CHAO**

1. My name is Hung-po Chao. I serve as Director of the Internal Market Monitoring Unit of ISO New England Inc. (“ISO-NE” or the “ISO”). Our offices are located at One Sullivan Road, Holyoke, MA 01040.
2. I joined ISO-NE in my current position in October 2005. Prior to joining ISO-NE, I worked at the Electric Power Research Institute (“EPRI”) since 1979 and was a Consulting Professor at Stanford University since 1996.
3. I hold a Ph.D. in operations research and economics from Stanford University and a B.S. in electrical engineering from National Taiwan University in Taiwan.
4. The purpose of this affidavit is to describe the general responsibilities of the Internal Market Monitoring Unit (“INTMMU”), the specific responsibilities of the INTMMU to review generating unit outages for potential economic and physical withholding during Reserve Shortage Conditions, and the actions undertaken by the INTMMU to carry out this responsibility during the Reserve Shortage Conditions occurring during the August 2, 2006 Operating Day.
5. The INTMMU’s overall responsibilities, as pertinent to the Complaint in this proceeding, include monitoring the ISO-NE markets, among other things, for evidence of physical and economic withholding and other conduct generally deemed to be anti-competitive. In specified circumstances, as described in

Appendix A to Market Rule 1, the INTMMU has the authority to impose mitigation measures on market participants to combat anti-competitive, market distorting activities. Market Rule 1 is Section III of the ISO New England Transmission, Markets and Services Tariff (the “Tariff”).

6. Under the version of Market Rule 1 and related manuals in effect on August 1 and 2, 2006, the INTMMU had specific responsibilities in the event that ISO-NE declared a Reserve Shortage Condition. That is, Section III.2.5(d) reflected that the INTMMU was required to review whether a “Reserve Shortage Condition and the subsequent adjustments to the affected Energy and Loss Components of the nodal Real-Time Prices ... were the result of physical withholding (as defined in Appendix A to Market Rule 1) by one or more Market Participants.” Manual M-11, Section 2.5.16.3, as in effect at that time, reflected that same requirement.
7. On August 2, 2006, the INTMMU reviewed generator outages and reductions for all Market Participants for the August 2, 2006 Operating Day prior to the adjustment, finalization, and posting of Real-Time Prices. This process entails a careful review of bids and offers, Day-Ahead and Real-Time financial positions for generators and portfolios, operational and system conditions, conversations with ISO-NE operations, and conversations with Market Participants. As a result of this review, the INTMMU found no evidence of physical withholding. This review was completed on August 3, 2006, before final Real-Time Prices were posted by ISO-NE.
8. This concludes my affidavit.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 12, 2007

/s/  
Hung-po Chao, Ph.D.

# **Exhibit 1**

08/29/2006 10:26:48am sfitzgerald

Sean spoke with Tim Pete and he would like to know if the ISO would re-run the Day Ahead Market for August 2nd? The reason: MWEC inadvertently submitted Price Sensitive Demand Bids for roughly \$200 to \$300 in NEMA when they should have submitted Fixed bids. This error in bidding caused higher cost to participants inadvertently which Tim believes could be corrected if ISO agrees to re-run the DA market for 8-2-06.

Sean spoke with Dennis Robinson in Market Admin and he recommended I assign a tab to Market admin and he would meet with John Norden to discuss our response. Waiting for Dennis to reply.

From: Fitzgerald, Sean  
Sent: Tuesday, August 29, 2006 10:37 AM  
To: Robinson, Dennis  
Subject: HEAT Ticket 119376

Dennis, I updated HEAT ticket 119376 for MWEC. I also assigned a tab for your group. Please let me know what the final decision will be?

Thanks,

Sean Fitzgerald  
Customer Service Specialist  
Direct Phone: 413-535-4040 · Fax: 413-535-4156 · E-mail: sfitzgerald@iso-ne.com  
ISO New England Inc.  
One Sullivan Road  
Holyoke, Massachusetts 01040-2841  
Visit us on our web site at <http://www.iso-ne.com>

This issue is resolved. We will not rerun the Market for August 2nd. This was communicated to Tim Pete.

From: Fitzgerald, Sean  
Sent: Monday, September 25, 2006 3:01 PM  
To: 'tpeet@mmwec.org'  
Subject: Response to Ticket #119376 (sent on behalf of Dave Cavanaugh)  
Importance: High

From: Cavanaugh, David  
Sent: Monday, September 25, 2006 2:51 PM

To: Fitzgerald, Sean  
Subject: Response to Ticket #119376

Dear Tim:

Massachusetts Municipal Wholesale Electric Company (MMWEC) contacted ISO New England (ISO) via the HEAT Customer inquiry tracking tool to inquire as to whether ISO would re-clear the August 2, 2006 Day Ahead Market based on a bidding concern by MMWEC.

HEAT ticket #119376 inquired as to whether the ISO would re-clear the Day Ahead Market as a result of MMWEC inadvertently submitting \$200 Price Sensitive demand bids to the SEMA zone than Fixed demand bids. The inadvertent bids resulted in MMWEC having to pay the higher real time LMPs to meet their load obligation. The ISO will not re-run the Day Ahead market for August 2, 2006 based on the existing language in Section III.2.9 (b) of Market Rule 1. ISO-NE did not determine that there were errors in the Day Ahead clearing due to database, software or similar errors of the ISO or its systems and therefore it was not declared provisional. Section III.2.9 (b) is shown below for your convenience.

III.2.9 (b) Day-Ahead Energy Market results are final when published except as provided in this subsection. If the ISO determines based on reasonable belief that there may be one or more errors in the Day-Ahead Energy Market results for an Operating Day due to database, software or similar errors of the ISO or its systems, the ISO shall post on the ISO website prior to 12:01 a.m. of the applicable Operating Day, a notice that the results are provisional and subject to correction. Any Day-Ahead Energy Market results for which no notice is posted shall be final and not subject to correction or other adjustment, and shall be used for purposes of settlement. The ISO shall confirm within three business days of the close of the applicable Operating Day whether there was an error in any provisional Day-Ahead Energy Market results and shall post a notice stating its findings.

David A. Cavanaugh  
Manager, Market Support Services

Voice: 413-540-4237

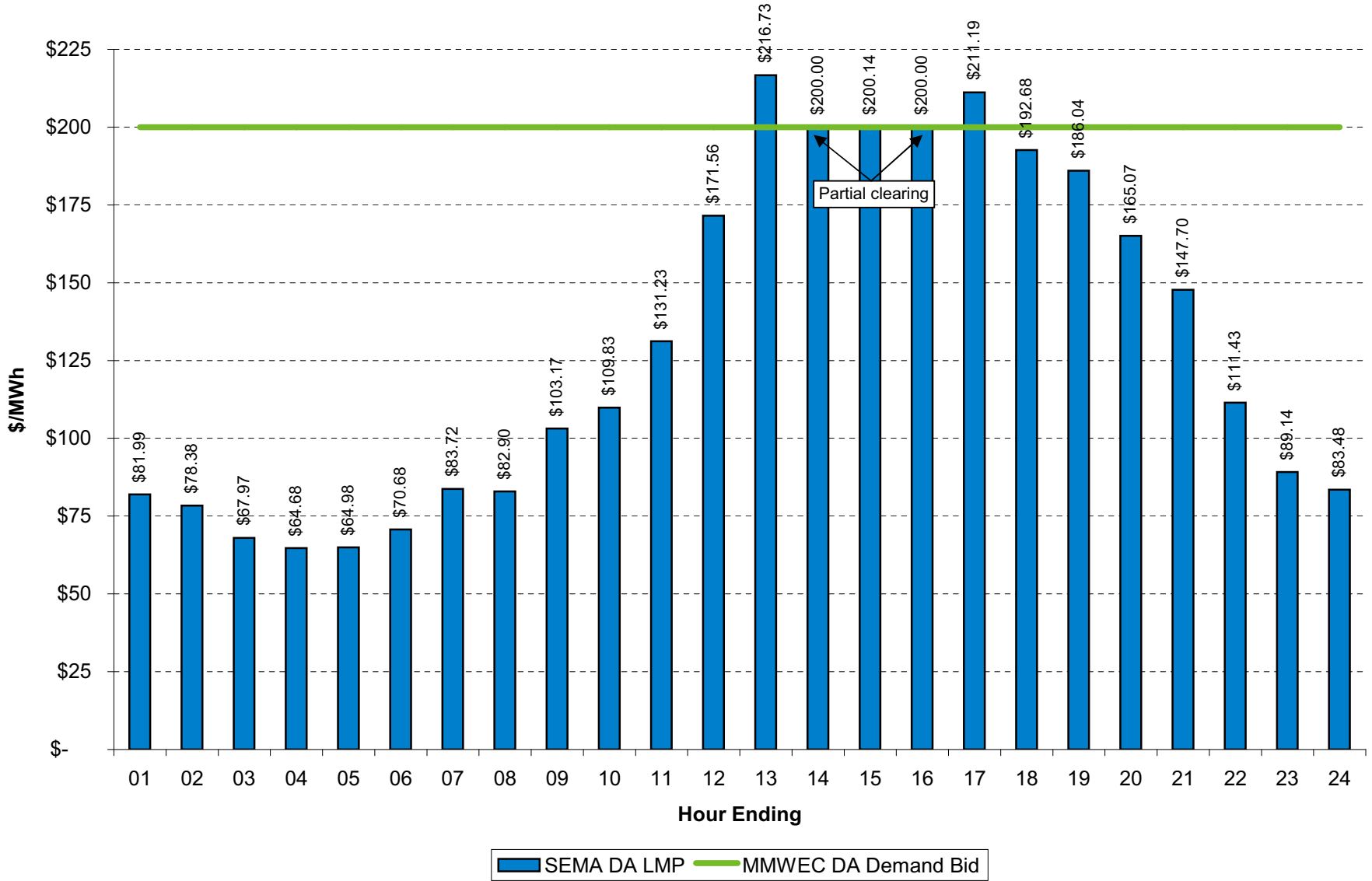
Mobile: 413-896-6757

Fax: 413-535-4156

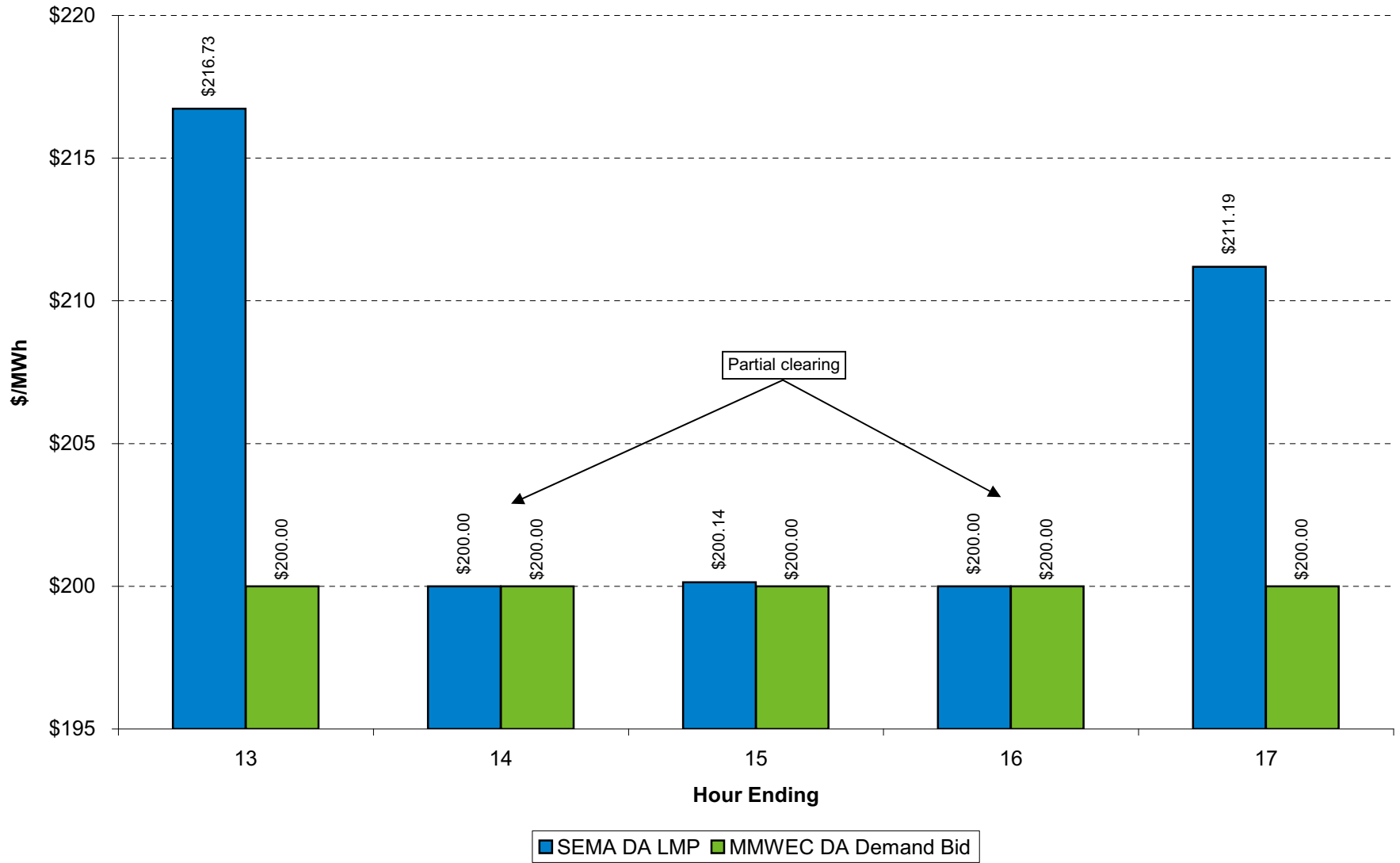
---

## **Exhibit 2**

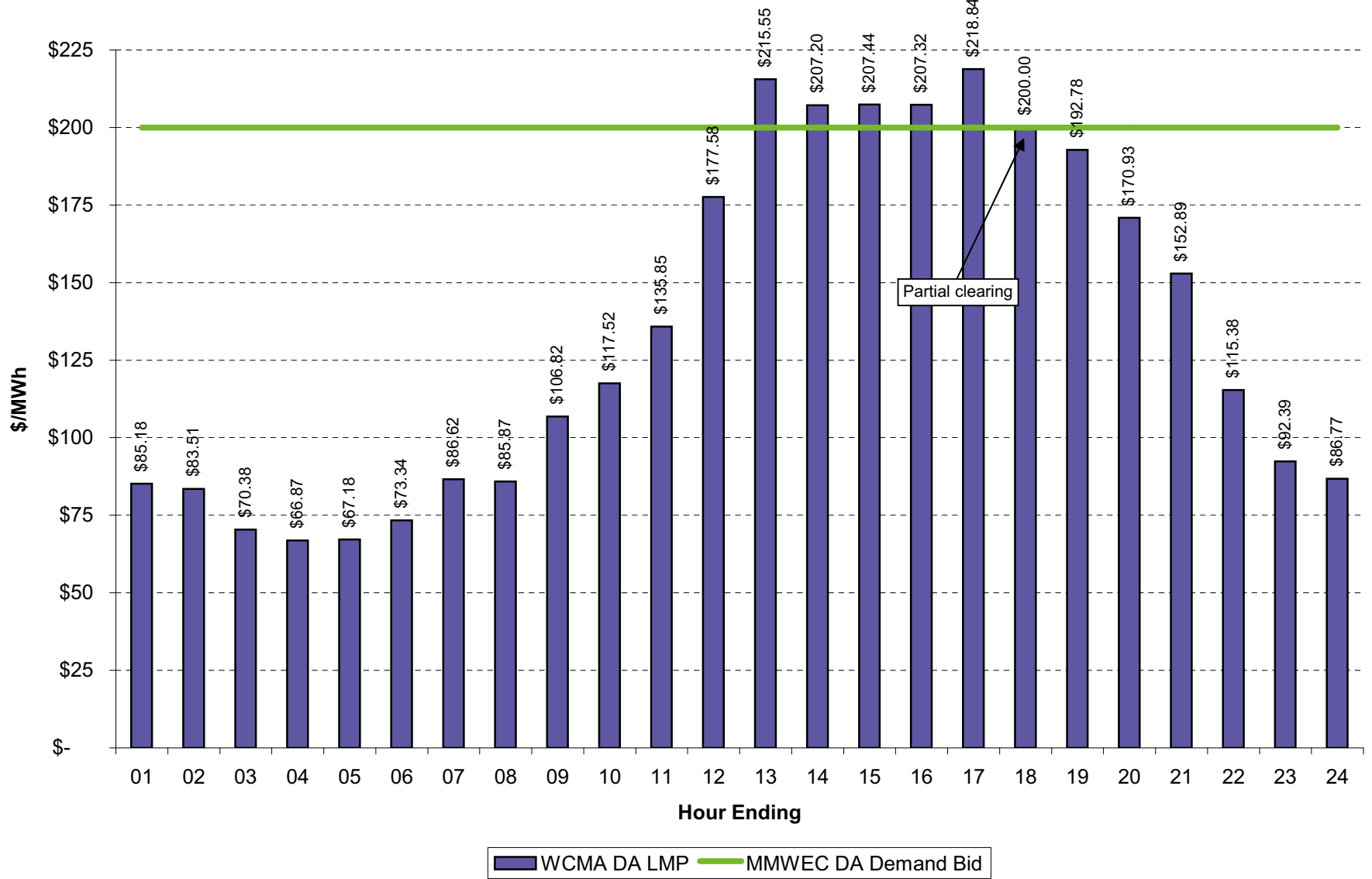
### SEMA Load Zone Day-Ahead LMPs: August 2, 2006



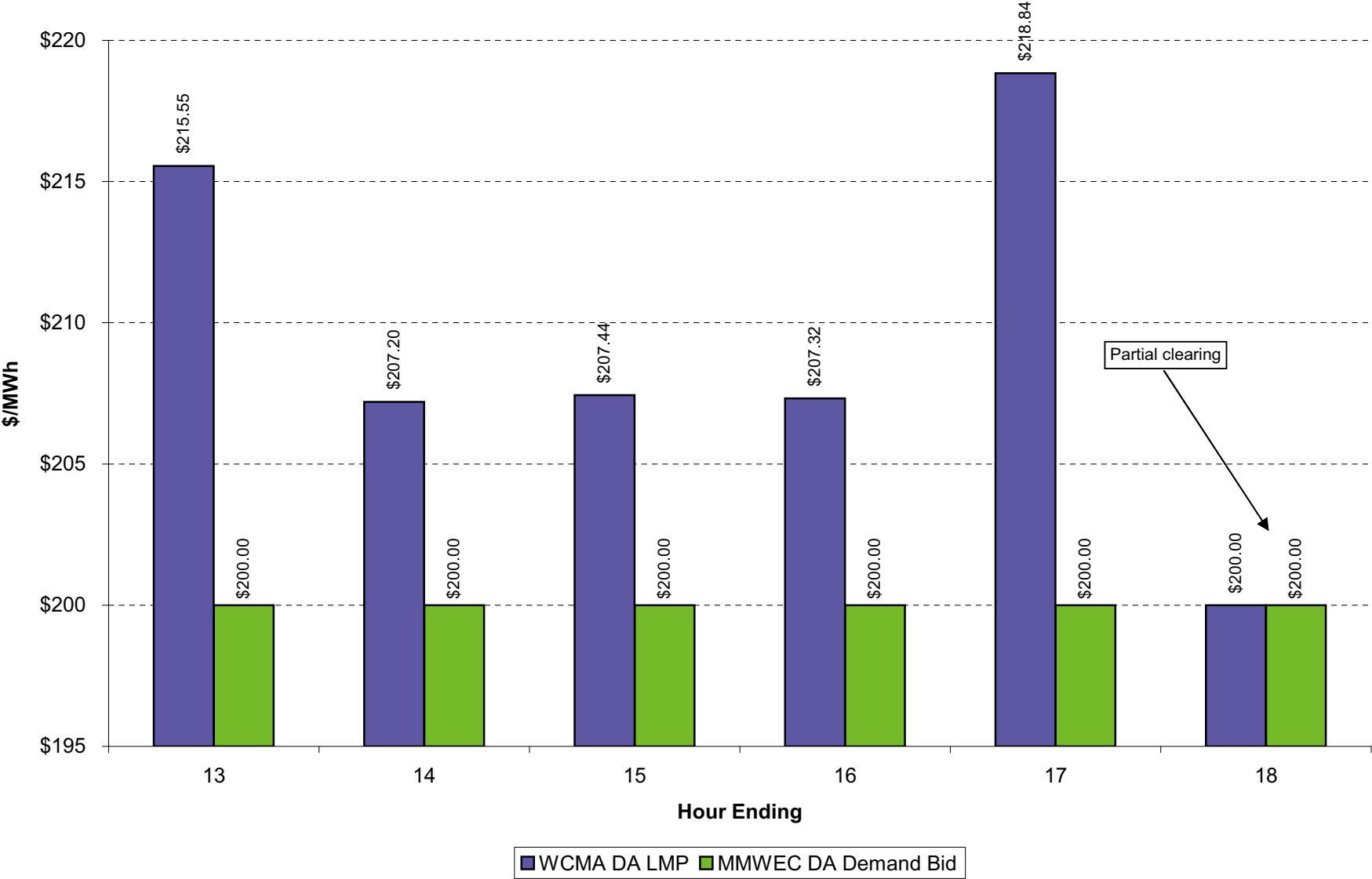
### SEMA Load Zone Day-Ahead LMPs: August 2, 2006



### WCMA Load Zone Day-Ahead LMPs: August 2, 2006



### WCMA Load Zone Day-Ahead LMPs: August 2, 2006



MMWEC Participants - August 2, 2006

Summary of Results of MMWEC Price Sensitive Bidding Strategy in Hours where DA LMP ≥ \$200.00

WCMA Zone

Hour	DA LMP	MMWEC DA Bid Price	DA Bid Eligible to Clear?	MMWEC DA Bid MW	Cleared MW	RT LMP	Incremental RT Cost* for Uncleared MW
1300	\$ 215.55	\$ 200.00	No	308.4	0	\$ 544.92	\$ 101,578
1400	\$ 207.20	\$ 200.00	No	314.1	0	\$ 999.74	\$ 248,937
1500	\$ 207.44	\$ 200.00	No	316.7	0	\$ 1,015.94	\$ 256,052
1600	\$ 207.32	\$ 200.00	No	316.0	0	\$ 1,001.55	\$ 250,977
1700	\$ 218.84	\$ 200.00	No	313.5	0	\$ 1,014.47	\$ 249,430
1800	\$ 200.00	\$ 200.00	Yes	307.8	89.2	\$ 392.89	\$ 42,166
TOTAL							\$ 1,149,139

SEMA Load Zone

Hour	DA LMP	MMWEC DA Bid Price	DA Bid Eligible to Clear?	MMWEC DA Bid MW	Cleared MW	RT LMP	Incremental RT Cost* for Uncleared MW
1300	\$ 216.73	\$ 200.00	No	140.6	0	\$ 536.60	\$ 44,974
1400	\$ 200.00	\$ 200.00	Yes	144.8	1.1	\$ 986.14	\$ 112,968
1500	\$ 200.14	\$ 200.00	No	146.4	0	\$ 1,004.34	\$ 117,735
1600	\$ 200.00	\$ 200.00	Yes	146.9	28.6	\$ 990.68	\$ 93,537
1700	\$ 211.19	\$ 200.00	No	146.3	0	\$ 1,003.40	\$ 115,900
TOTAL							\$ 485,115

\* Incremental RT Cost is the difference between the DA LMP and the RT LMP multiplied by the uncleared MW.

## MMWEC Demand Bidding Results for August 2, 2006

### I. WCMA Zone

- a. MMWEC submitted price sensitive demand bids of \$200/Mwh for 12 participants in the WCMA zone for all 24 hours
- b. WCMA DA LMP for hours 1300 through 1700 exceeded \$200/Mwh; none of the bids for the 12 participants cleared
- c. WCMA DA LMP for hour 1800 was \$200/Mwh.
  - The total of MMWEC's bids for the 12 participants: 307.8 MW.
  - Amount cleared through partial clearing mechanism: 89.2 MW
  - Number of MMWEC Participants with cleared demand: 4
- d. WCMA RT LMP for hour 1800: \$392.89/Mwh
  - Value of DA clearing versus RT balancing market: \$192.89/MWh
  - Value 89.2 MW DA demand: \$17,206
  - Additional RT Cost for uncleared 218.6 MW bids: \$42,166

### II. SEMA Zone

- a. MMWEC submitted price sensitive demand bids of \$200/Mwh for 4 participants in the SEMA zone for all 24 hours
- b. SEMA DA LMP for hours 1300 ,1500, 1700 exceeded \$200/Mwh; none of the bids for the 4 participants cleared
- c. SEMA DA LMP for hour 1400 was \$200/Mwh.
  - The total of MMWEC's bids for the 4 participants: 144.8 MW.
  - Amount cleared through partial clearing mechanism: 1.1 MW
  - Number of MMWEC Participants with cleared demand: 1
- d. SEMA RT LMP for hour 1400: \$986.14/Mwh
  - Value of DA clearing versus RT balancing market: \$786.14/MWh
  - Value 1.1 MW DA demand: \$865
  - Additional RT Cost for uncleared 143.7 MW bids: \$112,968
- e. SEMA DA LMP for hour 1600 was \$200/Mwh.
  - The total of MMWEC's bids for the 4 participants: 146.9 MW.
  - Amount cleared through partial clearing mechanism: 28.6 MW
  - Number of MMWEC Participants with cleared demand: 1
- f. SEMA RT LMP for hour 1600: \$990.68/Mwh
  - Value of DA clearing versus RT balancing market: \$790.68/MWh
  - Value 28.6 MW DA demand: \$22,613
  - Additional RT Cost for uncleared 118.3 MW bids: \$93,537

### III. Summary of MMWEC's Demand Bidding Results from I & II

Additional cost in RT Market for Uncleared DA Bids: \$248,671 (total of amounts in I.d., II.d, and II.f. above)

## **Exhibit 3**

**TRANSCRIPT OF PORTIONS OF 8/29/06 TELEPHONE CONVERSATION BETWEEN  
SEAN FITZGERALD, ISO-NE CUSTOMER SERVICE AND TIM PEET, MMWEC**

\* \* \*

PEET: See, here's the problem...

FITZGERALD: Yes.

PEET: We had a bunch of price-sensitive bids that inadvertently were in there and they got curtailed which is we know that's appropriate and we're not asking you go back and fix all that stuff.

FITZGERALD: Right.

PEET: But what happened was, let's say the municipals lost 1.2 million dollars or whatever the number added up to be.

FITZGERALD: Right.

PEET: If they were in the day-ahead, the day-ahead would have cleared higher, at some higher level...

FITZGERALD: Yeah.

PEET: ...and that's going to reduce the losses that they would have incurred. So that's really what I think the management of MMWEC is trying to do, is say, it really wasn't 1.2 million dollars but had you been in the day-ahead the day-ahead would have cleared, I'm just going to make a number up, say you had a very steep supply, demand-supply curve...

FITZGERALD: Yeah.

PEET: ...and let's say it cleared instead of \$216 or \$200, it cleared at \$350...

FITZGERALD: Right.

PEET: ...just making up a number, and that would cut into the losses that they had, and that's really I think what they're trying to find out is, is what would the day-ahead have been had we been in it.

FITZGERALD: OK.

\* \* \*

PEET: We put the forecast in and they drive the loads from that and then those loads were in as price sensitive bids at \$200 and \$300 for NEMA. NEMA cleared. Because that was an

appropriate number. We had a procedure that said when loads were forecasted to be high that they would be switched to fixed bids.

FITZGERALD: So they should have been fixed is what you're saying.

PEET: It should have been fixed and what happened was none of us were aware that there were price sensitives in there and we had other things we were worrying about that day. And long story short, it came to our attention somewhat in the afternoon that they were and we went oh shit and we knew we got curtailed and the rest is all history.

\* \* \*

## **Exhibit 4**

minute intervals during an hour will be integrated to determine the nodal Real-Time Prices for that hour.

- (c) For any interval during any hour in the Operating Day that the ISO has declared a Minimum Generation Emergency, the affected nodal Real-Time Prices calculated under this Section III.2.5. shall be set equal to zero for all Nodes within the New England Control Area and all External Nodes if the Minimum Generation Emergency was declared on a New England Control Area wide basis or shall be set equal to zero for all Nodes and External Nodes within a sub-region if the Minimum Generation Emergency was declared within the sub-region.
- (d) For any interval during any hour in the Operating Day for which the ISO has declared a Reserve Shortage Condition

Pricing Event, the affected nodal Real-Time Prices

calculated under this Section III.2.5 shall be set as follows:

- (i) The Energy Component of the affected nodal Real-Time Price shall be set to the higher of the Reserve Shortage Condition Energy Price or the Energy Component of the nodal Real-Time Price if the actions by the System Operator have not been sufficient to restore the Operating Reserves to the required levels as defined in ISO Operating Procedure No. 8,
- (ii) If an External Dispatchable Transaction purchase has been scheduled and the MWs of the External Dispatchable Transaction purchase are sufficient to restore the Operating Reserves to the required levels, then the Energy Component of the affected nodal Real-Time Prices shall be set to the higher of the Offer Price of the External Dispatchable Transaction purchase or the Energy Component of the nodal Real-Time Prices.

If a Reserve Shortage Condition Pricing Event has been declared on a New England Control Area wide basis, the Energy Component of the Real-Time Price for all Nodes within the New England Control Area and all External Nodes shall be used in the calculation above. If a Reserve Shortage Condition Pricing Event has been declared that excludes one or more Reliability

Regions of the New England Control Area from the Reserve Shortage Condition Pricing Event, the nodal Real-Time Prices for all Nodes and External Nodes within the excluded Reliability Region(s) shall not be adjusted.

A Reliability Region will be excluded from the Reserve Shortage Condition Pricing Event when the Interface Limit Calculation software indicates that the Reliability Region is export-constrained. A Reliability Region is export-constrained when the sum of the actual flows on the transmission lines that comprise the interface is equal to the transfer limit for the interface.

When a Reliability Region is export-constrained, the output of generating Resources within the region can only be increased to satisfy increases in load that is also located within the region.

The output of generating Resources within the region cannot be increased to serve load in the remainder of the New England Control Area.

The Loss Component of any nodal Real-Time Prices adjusted under Section (d) will be adjusted by the factor  $[\text{Loss Component}_{\text{initial}}/\text{Energy Component}_{\text{initial}}]$  times  $\text{Energy Component}_{\text{adjusted}}$ .

The affected nodal Real-Time Prices will then be calculated by summing the Energy, Loss, and Congested Components and those nodal Real-Time Prices will be used to calculate the hourly Locational Marginal Prices.

If the Internal Market Monitoring Unit, in conjunction with the Independent Market Monitoring Unit, determines that the Reserve Shortage Condition and the subsequent adjustments to the affected Energy and Loss Components of the nodal Real-Time Prices as set under this Section 2.5(d) were the result of physical withholding (as defined in *Appendix A* to Market Rule 1) by one or more Market Participants, the affected nodal Real-Time Prices will not be adjusted in the price finalization as set forth in Section III.2.9.

### **III.2.6 Calculation of Day-Ahead Nodal Prices.**

- (a) For the Day-Ahead Energy Market, Day-Ahead Prices shall be determined on the basis of the least-cost, security-constrained unit commitment and dispatch, model flows and system conditions resulting from the load

## **Exhibit 5**



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**Name:** Implementing M/LCC 2 Alert at 06:00 on Tuesday, 08/01/2006

**Date:** Tue Aug 1, 2006 06:28:00

**Description:** At 06:00 on Tuesday, 08/01/2006, ISO New England declared Master/Local Control Center Procedure No. 2 (M/LCC 2) for All of New England. This may last until Wednesday 08/02/2006.

**Category:** Emergency Operations System Notices

● [Master Local Control Center Procedures](#)



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**Name:** Special Request for Emergency Energy Transactions for Tuesday, 08/01/2006, HE 16-22

**Date:** Tue Aug 1, 2006 14:58:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is expecting this condition to exist for the following date and hours;

Date: Tuesday, August 1, 2006  
Hour Ending: 16:00

Thru

Date: Tuesday, August 1, 2006  
Hour Ending: 22:00

ISO New England is requesting the submittal of Emergency Energy Transactions (EETs) during this time period. Please see the [EES Upload and Download File Formats](#) document for details on EET submittals.

**Category:** Emergency Operations System Notices

- [SOP- RTMKTS.0120.0020 Implement Capacity Remedial Action](#)



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**Name:** OP 4 Implemented at 15:00 on 08/01/2006 for all of New England except for the state of Maine

**Date:** Tue Aug 1, 2006 15:13:00

**Description:** ISO New England has implemented Actions 1, 2, 3, 4, 5, 6, 7, 8 & 10 of Operating Procedure No. 4 (OP 4), at 15:00 on Tuesday 08/01/2006 for all of New England except for the state of Maine.

**Category:** Emergency Operations System Notices

- [ISO New England Operating Procedure No. 4 Action During A Capacity Deficiency](#)



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**Name:** Reserve Shortage Condition has been Implemented for Tuesday, 08/01/2006, 16:00-22:00

**Date:** Tue Aug 1, 2006 16:25:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is implementing a Reserve Shortage Condition in all zones except the state of Maine. This condition is expected to exist for the following date and hours:

Date: Tuesday, August 1, 2006

Expected duration: 16:00 thru 22:00

During a Reserve Shortage Condition, ISO Web site prices may differ from the prices posted on Generator RIGs. Generators should still follow Dispatch Instructions.

**Category:** Emergency Operations System Notices



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**Name:** OP 4 Implemented at 16:00 on 08/01/2006 for all of New England except for the state of Maine

**Date:** Tue Aug 1, 2006 16:32:00

**Description:** ISO New England has implemented Actions 9 and 11 of Operating Procedure No. 4 (OP 4), at 16:00 on Tuesday 08/01/2006 for all of New England except for the state of Maine.

**Category:** Emergency Operations System Notices



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**Name:** CORRECTION: Reserve Shortage Condition has been Implemented for Tuesday, 08/01/2006, 17:00-22:00, including the state of Maine

**Date:** Tue Aug 1, 2006 17:11:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is implementing a Reserve Shortage Condition in all zones including the state of Maine This condition is expected to exist for the following date and hours:

Date: Tuesday, August 1, 2006

Expected duration: 17:00 thru 22:00

During a Reserve Shortage Condition, ISO Web site prices may differ from the prices posted on Generator RIGs. Generators should still follow Dispatch Instructions.

NOTE: This Notice has been revised to correct the begin time of the Reserve Shortage Condition, including the state of Maine, from 16:00 to 17:00.

**Category:** Emergency Operations System Notices



power watch

**FOR IMMEDIATE RELEASE**

**Tuesday, August 1, 2006 at 4:15 p.m.**

**Contact:**

Ellen Foley, ISO New England Inc. (413) 535-4139  
Erin O'Brien, ISO New England Inc. (413) 540-4565  
Kenneth McDonnell, ISO New England Inc. (413) 540-4555

**Attention**

Broadcast News Editors

A **Power Watch** advisory has been issued by ISO New England Inc.

**Please broadcast the message below immediately.** Your assistance is appreciated.  
For additional information, contact the individuals listed above.

## POWER WATCH DECLARED FOR TODAY

ISO NEW ENGLAND INC., THE OPERATOR OF THE REGION'S BULK POWER SYSTEM, HAS DECLARED A **POWER WATCH** FOR NEW ENGLAND, EXCLUDING THE STATE OF MAINE, BEGINNING TODAY, TUESDAY, AUGUST 1, 2006, AT 4:15 P.M. TODAY'S HEAT AND HUMIDITY HAS INCREASED ELECTRICITY USE AND CREATED THE NEED FOR CONSUMERS TO CONSERVE ELECTRICITY. THE POWER WATCH IS EXPECTED TO REMAIN IN EFFECT FOR THE REMAINDER OF TODAY.

CONSUMERS ACROSS NEW ENGLAND (EXCEPT IN MAINE) ARE ENCOURAGED TO REDUCE THEIR ELECTRICITY USAGE AS SOON AS POSSIBLE, CONSISTENT WITH THEIR HEALTH AND SAFETY.

CONSUMERS CAN HELP BY SHUTTING OFF UNNECESSARY LIGHTS AND ELECTRICAL APPLIANCES, MINIMIZING THE USE OF AIR CONDITIONING, AND DOING ACTIVITIES SUCH AS LAUNDRY IN THE LATE EVENING OR EARLY MORNING HOURS. BUSINESSES CAN HELP BY TURNING OFF ALL UNNECESSARY LIGHTS AND OFFICE EQUIPMENT, SUCH AS COMPUTERS, WHEN NOT IN USE.

YOUR COOPERATION IS APPRECIATED.



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**Name:** OP 4 Cancelled at 18:30 on 08/01/2006

**Date:** Tue Aug 1, 2006 18:28:00

**Description:** ISO New England has cancelled Actions 9 & 11 of Operating Procedure No. 4 (OP4), at 18:30 on Tuesday 08/01/2006.

**Category:** Emergency Operations System Notices



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**Name:** Reserve Shortage Condition has been Cancelled for Tuesday, 08/01/2006, for all of New England

**Date:** Tue Aug 1, 2006 18:37:00

**Description:** ISO New England has cancelled the Reserve Shortage Condition at 18:30 for Tuesday, 08/01/2006, for all of New England.

**Category:** Emergency Operations System Notices



power watch lifted

**FOR IMMEDIATE RELEASE**

**Tuesday, August 1, 2006, 6:30 p.m.**

**Contact:**

Ellen Foley, ISO New England Inc. (413) 535-4139  
Erin O'Brien, ISO New England Inc. (413) 540-4565  
Kenneth McDonnell, ISO New England Inc. (413) 540-4555

**Attention**

Broadcast News Editors

The **Power Watch** advisory for the New England has been **lifted** by ISO New England Inc. For additional information, contact the individuals listed above.

## **POWER WATCH LIFTED FOR THE NEW ENGLAND REGION**

EFFECTIVE AT 6:30 P.M. ON TUESDAY, AUGUST 1, 2006, THE **POWER WATCH** THAT WAS ISSUED BY ISO NEW ENGLAND INC., THE OPERATOR OF THE REGION'S BULK POWER SYSTEM, HAS BEEN **LIFTED**.

DUE TO THE ANTICIPATED HEAT AND HUMIDITY FORECASTED FOR TOMORROW, ISO NEW ENGLAND CONTINUES TO REQUEST THAT CONSUMERS VOLUNTARILY CONSERVE THEIR ELECTRICITY USE BEGINNING TOMORROW MORNING (WEDNESDAY, AUGUST 2, 2006), CONSISTENT WITH THEIR HEALTH AND SAFETY.

CONSUMERS CAN HELP BY SHUTTING OFF UNNECESSARY LIGHTS AND ELECTRICAL APPLIANCES, MINIMIZING THE USE OF AIR CONDITIONING, AND DOING ACTIVITIES SUCH AS LAUNDRY IN THE LATE EVENING OR EARLY MORNING HOURS. BUSINESSES CAN HELP BY TURNING OFF ALL UNNECESSARY LIGHTS AND OFFICE EQUIPMENT, SUCH AS COMPUTERS, WHEN NOT IN USE.

YOUR COOPERATION IS APPRECIATED.

**FOR IMMEDIATE RELEASE**

## Contact:

Ellen Foley, ISO New England Inc. (413) 535-4139

Erin O'Brien, ISO New England Inc. (413) 540-4565

Kenneth McDonnell, ISO New England Inc. (413) 540-4555

## ISO New England Requests Voluntary Electricity Conservation Precautionary Step Due to Expected High Temperatures

Holyoke, MA – August 1, 2006 – The extreme weather forecasted for the New England region over the next two days may drive regional electricity use to record levels. Although power resources are forecasted to be adequate, supplies could be tight and ISO New England, operator of the region's bulk power system, is requesting that consumers voluntarily conserve electricity as a prudent, precautionary measure to help keep supply and demand in balance during this high heat and humidity.

“We are asking customers to voluntarily conserve electricity as a precautionary step because high demand for electricity during severe temperatures can stress the region’s power system,” said Stephen G. Whitley, ISO New England’s Senior Vice President and Chief Operating Officer. “In the past, the public’s response to voluntary conservation requests has been very effective.”

Taking simple, practical steps to reduce electricity use, particularly between the hours of 1:00 p.m. and 8:00 p.m., will help maintain system reliability. ISO New England suggests several ways to reduce electricity consumption and advises that these measures be taken consistent with health and safety.

- Raise air conditioning thermostats by a few degrees if health permits. A suggested temperature range for summer is between 74°F–78°F.
- Turn off unneeded lights and appliances.
- Turn off unnecessary office equipment.
- Shut off air conditioners when leaving home for extended periods.
- Defer laundry and other chores requiring electricity until the evening hours.

New England’s electricity usage is forecast to reach record-breaking levels on Wednesday, August 2, with demand potentially reaching 28,030 megawatts (MW). Preliminary data shows that New England’s current all-time record for electricity usage is 27,395 MW, which was set on July 18, 2006. Last summer, the region set a summer demand peak of 26,885 MW on July 27, 2005.

With electricity demand expected to set a new record for the second time this summer, regional energy-efficiency efforts are increasingly important. ISO New England recently unveiled the *Take Charge New England*<sup>™</sup> campaign, an initiative aimed at residential and commercial customers to promote simple yet effective steps for becoming more energy efficient. Information and tips for managing electricity use year round are available at [www.takecharge-ne.org](http://www.takecharge-ne.org).



[Home](#) > [System Operations](#) > [Morning Report](#)

## Morning Report

 [Download a CSV file of the Morning Report.](#)

For the weekly forecast, please refer to the [Seven-Day Forecast](#).

For an explanation of this report please refer to the [Morning Report Explained](#).

### 1. Report Date

Wednesday, Aug 2 2006 | 08:32:34 EDT

### 2. Peak Load (MW)

Tuesday, Aug 1 2006 hour ending 17 27,401

### 3. Operable Capacity Analysis (MW)

A. Installed Generating Capacity	30,617
B. Capacity Additions EcoMax Bid > SCC	280
C. Pre-OP4 Dispatchable Loads	0
D. Generation Outages and Reductions	2,259
E. Generation Unavailable Due To Start Time	0
F. Capacity Deliveries: Net Purchases = (-) Net Sales = (+)	
NYISO AC Ties	601
NYISO Cross Sound Cable	330
NB	-656
TransEnergie	-1,608
Net Deliveries	-1,333
G. Total Available Capacity (A+B+C-D-E-F)	29,971
H. Peak Load Forecast For Hour 16	28,490
I. Total Operating Reserve Requirement	2,040
J. Capacity Required	30,530
K. Surplus = (+) Deficiency = (-) (G - J)	-559
L. Replacement Reserve Requirement	0
M. Excess Commitment Surplus = (+) Deficiency = (-) (K - L)	-559

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### 4. Largest First Contingency (MW)

PHASE 2 1,392

**5. Annual Maintenance Schedule (A.M.S) (MW)**

Peak Load Exposure 26,970

**6. Reserve Summary (MW)**

Ten Minute Reserve Requirement: 1,392

Ten Minute Reserve Estimate: 1,392

Thirty Minute Reserve Requirement: 647

Thirty Minute Reserve Estimate: 88

Expected ICU Operation 0

Expected Actions of OP 4: 6

Additional Capacity Available from OP 4 Actions: 713

[return to top](#)**7. Interchange Summary (MW) (MW)**

	<b>TRANSFER LIMIT</b>	<b>SCHEDULED CONTRACT</b>
NYISO AC Ties	1,200	601
NYISO Cross Sound Cable	330	330
NB	-700	-656
TransEnergie	-2,118	-1,608

**8. Weather Forecast Summary for the Peak Hour**

<b>CITY</b>	<b>CONDITIONS</b>	<b>WIND</b>	<b>HIGH TEMP (°F)</b>
Boston	PARTLY CLOUDY	W-13	100
Hartford	PARTLY CLOUDY	W-11	103

**9. SAR Available**

NYISO Yes

[return to top](#)**10. Capacity of Non-Commercial Units (MW)**

Total Available 0

**11. Units Committed to Meet Minimum Replacement Reserve (MW)**

4 Units 450

**12. Solar Magnetic Disturbance Activity**

Forecast:

Alert:

Intensity:

Observed Activity:

Actions Taken or Planned by ISO-NE:

Actions Taken or Planned by Other Control Areas:

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*Morning Report Updated by System Operations and Reliability Operations*

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 [Download a CSV file of the Morning Report.](#)



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**Name:** OP 4 Implemented on 8/2/06 @ 09:00 for all of New England

**Date:** Wed Aug 2, 2006 09:12:00

**Description:** ISO New England has implemented Action 1 of Operating Procedure No. 4 (OP4), at 09:00 on 8/2/06 for All of New England.

**Category:** Emergency Operations System Notices

- ISO New England Operating Procedure No. 4 Action During A Capacity Deficiency



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**Name:** Special Request for Emergency Energy Transactions

**Date:** Wed Aug 2, 2006 09:43:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is expecting this condition to exist for the following date and hours;  
Date: 8/2/06  
Hour Ending: 15, 16 & 17

ISO New England is requesting the submittal of Emergency Energy Transactions (EETs) during this time period. Please see the [EES Upload and Download File Formats](#) document for details on EET submittals.

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**Name:** OP 4 Implemented at 12:15 on 8/2/06 for All of New England

**Date:** Wed Aug 2, 2006 12:23:00

**Description:** ISO New England has implemented Actions 2,3,4,5,6,7,8,9 & 10 of Operating Procedure No. 4 (OP4), at 12:15 on 8/2/06 for All of New England

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**Name:** Special Request for Emergency Energy Transactions

**Date:** Wed Aug 2, 2006 12:35:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is expecting this condition to exist for the following date and hours;  
Date: 8/2/06  
Hour Ending: 14, 15, 16, 17 & 18

ISO New England is requesting the submittal of Emergency Energy Transactions (EETs) during this time period. Please see the [EES Upload and Download File Formats](#) document for details on EET submittals.

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**Name:** Reserve Shortage Condition/Reserve Shortage Condition Pricing Event has been Implemented

**Date:** Wed Aug 2, 2006 12:48:00

**Description:** ISO New England is experiencing deficiencies in Operating Reserve and is implementing a Reserve Shortage Condition/Reserve Shortage Condition Pricing Event in all zones. This condition is expected to exist for the following date and hours;  
Date: 8/2/06  
Expected duration: 12:30 through 18:00.

During a Reserve Shortage Condition/Reserve Shortage Condition Pricing Event, ISO Web site prices may differ from the prices posted on Generator Rigs. Generators should still follow Dispatch Instructions.

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**Name:** OP 4 Implemented at 12:28 on 8/2/06 for All of New England

**Date:** Wed Aug 2, 2006 16:02:00

**Description:** ISO New England has implemented Action 11 of Operating Procedure No. 4 (OP4), at 12:28 on 8/2/06 for All of New England

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**Name:** OP 4 Implemented at 13:00 on 8/2/06 for All of New England

**Date:** Wed Aug 2, 2006 13:12:00

**Description:** ISO New England has implemented Action 12 of Operating Procedure No. 4 (OP4), at 13:00 on 8/2/06 for All of New England

**Category:** Emergency Operations System Notices

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power watch

**For Immediate Release**

**Wednesday, August 2, 2006, 12:15 p.m.**

**Contact:**

Ellen Foley, ISO New England Inc. (413) 535-4139  
Erin O'Brien, ISO New England Inc. (413) 540-4565  
Kenneth McDonnell, ISO New England Inc. (413) 540-4555

**Attention**

Broadcast News Editors

A **Power Watch** advisory has been issued by ISO New England Inc.  
**Please broadcast the message below immediately.** Your assistance is appreciated.  
For additional information, contact the individuals listed above.

## POWER WATCH DECLARED FOR TODAY

ISO NEW ENGLAND INC., THE OPERATOR OF THE REGION'S BULK POWER SYSTEM, HAS ISSUED A **POWER WATCH** FOR NEW ENGLAND BEGINNING **THIS AFTERNOON, AUGUST 2, 2006 AT 12:15**. THE REGION'S EXTREME HEAT AND HUMIDITY IS EXPECTED TO INCREASE ELECTRICITY USE TO RECORD-BREAKING LEVELS AND HAS CREATED THE NEED FOR CONSUMERS TO CONTINUE ELECTRICITY CONSERVATION TODAY.

CONSUMERS ACROSS NEW ENGLAND ARE ENCOURAGED TO REDUCE THEIR ELECTRICITY USE, CONSISTENT WITH THEIR HEALTH AND SAFETY, AS SOON AS POSSIBLE BOTH AT HOME AND AT WORK.

CONSUMERS CAN HELP BY SHUTTING OFF UNNECESSARY LIGHTS AND APPLIANCES, RAISING AIR CONDITIONING THERMOSTATS TO 74-78 DEGREES FAHRENHEIT, AND DOING ACTIVITIES SUCH AS LAUNDRY IN THE LATE EVENING HOURS. BUSINESSES CAN HELP BY TURNING OFF UNNECESSARY LIGHTS AND OFFICE EQUIPMENT, SUCH AS COMPUTERS, WHEN NOT IN USE.

YOUR COOPERATION IS APPRECIATED.

**FOR IMMEDIATE RELEASE**

Contact:

Ellen Foley, ISO New England. (413) 535-4139

Ken McDonnell, ISO New England Inc. (413) 540-4555

Erin O'Brien, ISO New England Inc. (413) 540-4565

## New England Consumers Set New Record for Electricity Use

### Breaks Yesterday's Record

Holyoke, MA—August 2, 2006 —New England consumers set a new record for electricity consumption today at 2:00 p.m. according to ISO New England Inc., the operator of the region's bulk power system. Preliminary data shows that regional electricity use reached 28,021 megawatts (MW) this afternoon, surpassing the record of 27,401 MW, set just yesterday, August 1. The previous record, 27,395 MW, was set last month on July 18, 2006.

Today's peak record would have been hundreds of megawatts higher if it were not for ISO New England's demand response programs and the conservation efforts of consumers.

"The extreme temperature and humidity combined to drive electricity use to record levels," said Stephen G. Whitley, ISO New England's Senior Vice President and Chief Operating Officer. "Despite the new record, the power system performed reliably with the coordinated efforts of both generation and transmission companies across New England. ISO New England also wants to thank the region's electricity consumers for responding to our calls for conservation."

ISO New England did implement operating procedures to keep pace with this record consumption, including asking consumers across New England to conserve electricity, requesting large commercial users to interrupt usage through demand-response programs, and bringing in emergency resources from neighboring systems.

Whitley said there should be enough power supplies to meet demand for the rest of the week as temperatures begin to moderate, unless there are unexpected outages on the power system.

"Maintaining a reliable power system in the face of growing electricity demand requires regional solutions that include investment in new, diverse sources of electricity, upgrades to the transmission system, and additional demand response and energy efficiency throughout the region," Whitley said.

Regional energy-efficiency efforts are increasingly important because of this record electricity consumption. ISO New England recently unveiled the *Take Charge New England<sup>SM</sup>* campaign, an initiative aimed at residential and commercial customers to promote simple yet effective steps for becoming more energy efficient. Information and tips for managing electricity use year round are available at [www.takecharge-ne.org](http://www.takecharge-ne.org).

## **Exhibit 6**

Economic Minimum Limit after a Market Participant is notified of the situation by the ISO for any units operating below Economic Minimum Limit as a result of a Minimum Generation Emergency may result in the ISO entering a Redeclaration of the generating unit's Economic Maximum Limit to match its current output level so as to create a Generator Forced Outage.

### **2.5.16.3 RESERVE SHORTAGE CONDITIONS**

- (1) During the Operating Day, the ISO will declare a Reserve Shortage Condition and issue a Reserve Shortage Condition message when either of the two following conditions is present:
  - (a) The New England Control Area is experiencing a deficiency in total ten- minute Operating Reserves or the ISO is taking actions to maintain ten-minute Operating Reserves;
  - (b) The New England Control Area is experiencing a deficiency in total Operating Reserves that has lasted for at least four (4) hours, and the ISO has begun taking actions to maintain or restore Operating Reserves.

The actions contemplated in subsections (a) and (b) above may include the scheduling of Market Participant Emergency Energy Transactions, scheduling of External Dispatchable Transactions with a Dispatch price higher than the Nodal Price at the relevant External Node, scheduling Control Area to Control Area Emergency Energy Transactions, or any other actions available to the ISO to maintain power system reliability.

It is not intended that a Reserve Shortage Condition must be declared or terminated due to transitory (generally 10-15 minutes or less in duration) reserve shortages.

A declared Reserve Shortage Condition will continue until such time as the 10 or 30 Minute Reserves have returned to sufficient levels and the ISO has reasonable expectations that the reserve deficiency will not reoccur during the current load cycle. For purposes of this calculation, a load cycle is the period of time between the current hour and the next peak hour. At that point in time, the ISO will terminate the Reserve Shortage Condition.

- (2) Prior to declaring a Reserve Shortage Condition, the appropriate actions described in the following Procedures should have been taken if time permits:
  - (a) Master/Local Control Center Procedure #2 Abnormal Conditions Alert.
  - (b) ISO New England Operating Procedure #9 Scheduling and Dispatch of External Transactions, sections on notifications and requests for Emergency Energy Transactions.
  - (c) ISO New England Operating Procedure #4 Actions During a Capacity Deficiency.
  - (d) Notifications and requests for Demand Response reductions in accordance with the ISO New England Load Response Manual.

- (3) When the ISO declares a Reserve Shortage Condition:
- (a) The ISO will notify Market Participants by making a posting on the ISO Website indicating the Reliability Region(s) in which the Reserve Shortage Condition exists. In addition, the ISO will modify the Website posting of current 5-minute data by Location to clearly indicate that Reserve Shortage Conditions exist.
  - (b) The ISO will continue to dispatch the power system in as economical a manner as possible, recognizing the reliability aspects of the dispatch.
  - (c) Real-Time LMPs for affected Real-Time Nodal Prices will be modified between the time they are calculated and the time they are made available for publishing and Settlements processing. Software will determine, based on the ISO's declaration of a Reserve Shortage Condition Pricing Event, which Real-Time Nodal Prices to modify and will make the following adjustments:
    - (i) The Energy Component of the affected Real-Time Nodal Price shall be set to the higher of the Reserve Shortage Condition Energy Price or the Energy Component of the Real-Time Nodal Price if the actions by the System Operator have not been sufficient to restore the Operating Reserves to the required levels as defined in ISO New England Operating Procedure #8,
    - (ii) If an External Dispatchable Transaction purchase has been scheduled and the MWs of the External Dispatchable Transaction purchase are sufficient to restore the Operating Reserves to the required levels, then the Energy Component of the affected Real-Time Nodal Prices shall be set to the higher of the Offer Price of the External Dispatchable Transaction purchase or the Energy Component of the Real-Time Nodal Prices.
    - (iii) If a Reserve Shortage Condition Pricing Event has been declared on a New England Control Area wide basis, the Energy Component of the Real-Time Price for all Nodes within the New England Control Area and all External Nodes shall be used in the calculation above. If a Reserve Shortage Condition Pricing Event has been declared that excludes one or more Reliability Regions of the New England Control Area from the Reserve Shortage Condition Pricing Event, the Real-Time Nodal Prices for all Nodes and External Nodes within the excluded Reliability Region(s) shall not be adjusted.
    - (iv) The Loss Component of the affected Real-Time Nodal Prices will be set equal to  $[\text{Loss Component}_{\text{initial}}/\text{Energy Component}_{\text{initial}}]$  multiplied by the Reserve Shortage Energy Price.
    - (v) The affected Real-Time Nodal Prices will then be calculated by summing the Energy, Loss, and Congestion Components and those Real-Time Nodal Prices will be used to calculate the hourly Locational Marginal Prices.
    - (vi) If the Internal Market Monitoring Unit, in conjunction with the Independent Market Monitoring Unit, determines that the Reserve Shortage Condition was

the result of physical withholding (as defined in Appendix A to Market Rule 1), the affected Real-Time Nodal Prices will not be adjusted.

- (4) The following conditions must be met in order for a generating Resource to be eligible for Reserve Shortage Opportunity Costs payments:
  - (a) The generating Resource must be following ISO dispatch instructions.
  - (b) The generating Resource must be on-line or be an off-line Resource with Claim 10 and/or Claim 30 values greater than zero.
  - (c) The generating Resource must have excess capacity not being utilized to meet the energy needs of the system (i.e. be operating below its Economic Maximum Limit).
  - (d) The generating Resource must not have been designated as constrained down in order to manage transmission congestion.
  - (e) The generating Resource must not be postured.
  - (f) The generating Resource must not be providing Regulation service.

The Reserve Shortage Opportunity Cost payments for each eligible generating Resource will be calculated based on hourly-integrated information. The formula for the hourly-integrated calculation of the Reserve Shortage Opportunity Cost is:

$$\text{OC} = [\text{EcoMax} - (\text{greater of Actual MW or DDP})] \text{ times } [\text{adjusted LMP} - (\text{MW weighted average of the Energy Offer between EcoMax and (greater of Actual MW or DDP)})]$$

The Reserve Shortage Opportunity Cost payments and charges will be as described in ***Appendix F to Market Rule 1.***

## **Exhibit 7**

### **III.2.9 Final Real-Time Prices.**

- (a) The ISO shall post the final Real-Time Prices as soon as practicable following the Operating Day, in accordance with the timeframes specified in the ISO New England Manuals, except that the posting of such final Real-Time Prices by the ISO shall not exceed five (5) business days from the applicable Operating Day. Posting of final Real-Time Prices exceeding five (5) business days from the applicable Operating Day shall be approved by the ISO Board. If the ISO is not able to calculate Real-Time Prices normally due to hardware, software, or telecommunication problems that cannot be remedied in a timely manner, the ISO will calculate Real-Time Prices as soon as practicable using the best data available. In all cases, the ISO shall calculate prices consistent with this Market Rule.

- (b) Day-Ahead Energy Market results are final when published except as provided in this subsection. If the ISO determines based on reasonable belief that there may be one or more errors in the Day-Ahead Energy Market results for an Operating Day due to database, software or similar errors of the ISO or its systems, the ISO shall post on the ISO website prior to 12:01 a.m. of the applicable Operating Day, a notice that the results are provisional and subject to correction. Any Day-Ahead Energy Market results for which no notice is posted shall be final and not subject to correction or other adjustment, and shall be used for purposes of settlement. The ISO shall confirm within three

business days of the close of the applicable Operating Day whether there was an error in any provisional Day-Ahead Energy Market results and shall post a notice stating its findings.

- (c) The ISO will publish corrected Day-Ahead Energy Market results within three business days of the close of the applicable Operating Day or the results of the Day-Ahead Energy Market for the Operating Day will stand. The ISO shall also publish a statement describing the nature of the error and the method used to correct the results.
- (d) If the ISO determines in accordance with subsection (b) that there are one or more errors in the Day-Ahead Market results for an Operating Day, the ISO shall calculate corrected Day-Ahead Energy Market results by determining and substituting for the initial results, final

administration of Market Participant supplied data shall be brought to the attention of the ISO as soon as possible and not later than the correction limit.

**III.3.7 Eligibility for Billing Adjustments.**

**III.3.7.1** Errors in Market Participant's statements resulting from errors in settlement software, errors in data entry by ISO personnel, and Settlement production problems, that do not affect the day-ahead schedule or real-time system dispatch, will be corrected as promptly as practicable. If errors are identified prior to the issuance of final statements, the market will be resettled based on the corrected information.

**III.3.7.2** Calculations made by scheduling or dispatch software, operational decisions involving ISO discretion which affect scheduling or real-time operation, and the ISO's execution of mandatory dispatch

directions, such as self-schedules or external contract conditions, are not subject to retroactive correction and resettlement. The ISO will settle and bill day-ahead market as actually scheduled and the real-time market as actually dispatched. Any post-settlement issues raised concerning operating decisions related to these markets will be corrected through revision of operations procedures and guidelines on a prospective basis.

**III.3.7.3** While errors in reporting hourly metered data may be corrected (see Section III.3.6), Market Participants have the responsibility to ensure the correctness of all other data they submit to the market system and no adjustment will be made.

**III.3.7.4** Disputes between Market Participants regarding Settlement of internal bilateral transactions shall not be subject to adjustment by the ISO, but shall be resolved directly by the Market Participants