

**To: Market Participants**

**From: Market Operations**

**Date: July 21, 2015**

**Subject: Assumptions and Other Information for the Winter 2015-2016 Forward Reserve Auction**

In accordance with the ISO New England Manual for Forward Reserve (M-36), the following information is provided to eligible Market Participants in preparation for the Winter 2015-16 Forward Reserve Auction for the Forward Reserve Procurement Period, October 1, 2015 through May 31, 2016.

#### **Auction Timeline**

The Forward Reserve Auction bidding period opens at 00:00 (midnight) on Tuesday, August 18, 2015 and closes at 12:00 (noon) on Monday, August 24, 2015. The Forward Reserve Auction results, including the proxy system clearing prices, will be posted and MIS reports distributed to auction participants by Monday, August 31, 2015.

#### **Auction Details**

The Forward Reserve Auction simultaneously clears offers for Ten-Minute Non-Spinning Reserve (TMNSR) and Thirty-Minute Operating Reserve (TMOR) to meet the Forward Reserve Requirements for each Reserve Zone.

Forward Reserve Auction Offers are submitted on a portfolio basis. Offers are submitted to Reserve Zones. A Market Participant whose offers have cleared in the Forward Reserve Auction receives a Forward Reserve Obligation for each Reserve Zone equal to the amount of that Market Participant's Forward Reserve Auction Offers that cleared in the auction. To meet their Forward Reserve Obligations, Market Participants must assign Forward Reserve to their Forward Reserve Resources on a daily basis at any time prior to the end of the re-offer period for the Operating Day such that the aggregate assignments are greater than or equal to their Forward Reserve Obligations. For further information, please review the Forward Reserve Market Asset Assignment User Interface training in ISO-TEN:

<https://isone.csod.com/client/isone/default.aspx>

The local Forward Reserve requirements for each applicable Reserve Zone are based on the 95<sup>th</sup> percentile value from historical requirements data for the previous two like Forward Reserve Procurement Periods for each applicable Reserve Zone.

The Forward Reserve requirements for the New England Control Area are based on expected system operating conditions. The TMNSR purchase amount represents the expected single contingency of the HQ Phase II Interconnection, including a TMNSR bias of 63%. The TMNSR purchase amount is increased by 20% to account for the average fleet-wide historical non-performance of resources called upon after a contingency. The TMOR purchase amount represents the expected single contingency of Seabrook. The Replacement Reserve will be equal to 180 MW.

### Forward Reserve Requirements

Reserve Zone	Reserve Category	Local 2 <sup>nd</sup> Contingency MW	External Reserve Support MW	Reserve Requirement MW
New England Control Area	TMNSR	N/A	N/A	1270
New England Control Area	TMOR	N/A	N/A	805
SWCT	TMOR	1096	1061	36
CT	TMOR	1233	1081	152
NEMA/Boston	TMOR	1386	2562	0

The New England Control Area Forward Reserve Requirements are based on a 1<sup>st</sup> contingency of 1,679 MW and a 2<sup>nd</sup> contingency of 1,249 MW.

### Forward Reserve Threshold Price Components

Between October 1, 2015, and May 31, 2016, Market Participants that clear in the Forward Reserve Auction for the Winter 2015-16 Forward Reserve Procurement Period must offer corresponding blocks of energy at or above the daily Forward Reserve Threshold Price, which is calculated as the product of the Winter 2015-16 Forward Reserve Heat Rate and the daily Forward Reserve Fuel Index. More information about the Forward Reserve Heat Rate and the Forward Reserve Fuel Index is provided below.

### Forward Reserve Heat Rate

The Forward Reserve Heat Rate is 16,876 Btu/kWh based on the 2.5 percentile value of a historical analysis of “implied heat rates.” This analysis is based on the real-time hub LMP and the lower of the distillate or natural gas fuel price indices for New England. The period of this analysis is from the start of SMD to the most recent available data.

### **Forward Reserve Fuel Index**

The daily Forward Reserve Fuel Index is the lesser of the natural gas or heating oil price indices as available one day before the Operating Day. These price indices are defined as:

- **Natural gas price index** - This price index will be the lowest of the day-ahead natural gas prices at three key New England hubs: Algonquin Citygates, Iroquois-Z2, and TGP-Z6 200L. All gas prices will be collected from the Inter-Continental Exchange. For each hub, the price will be the volume-weighted average price that is effective for the Operating Day. Prices will be collected one day before the Operating Day.
- **Heating oil price index** - This price index will be the simple average of the Buy and Sell prices of the Argus Diesel 15ppm NYH Barge Prompt index as published in the most recently available "Argus US Products" report. The price is then increased by an additional seven percent to account for transportation costs.

### **Timing of the Daily FRMTP Notification**

The Forward Reserve Market Threshold Price (FRMTP) for day  $t$  is calculated on day  $t-1$ , and the FRMTP for day  $t$  is generally made available at approximately 1:20 PM EST/EDT, and no later than 1:40 PM EST/EDT, on day  $t-1$ .

For questions or inquiries, contact Customer Support at (413) 540-4220 or send email to [custserv@iso-ne.com](mailto:custserv@iso-ne.com).