

Joanne Bialas Outage Coordination

To: NEPOOL Participants

From: Joanne Bialas

# Subject: 2012-13 Current Year Annual Maintenance Schedule

Date: November 19, 2012

Following this transmittal letter, you will find the 2012-13 Annual Maintenance Schedule (AMS) dated November 19, 2012, with rounded weekly planned outage totals only and an Operable Capacity Analysis (with forecasted external transactions) for December 2012- May 31, 2013. This schedule covers the third Forward Capacity Market procurement period.

Periodically, individual Participants will receive a copy of the AMS that depicts only the maintenance requests that they submitted to ISO New England. Participants that own entitlements in units must contact the Lead Participant to obtain the maintenance schedule for each unit.

#### 2012-13 AMS - DATED November 19, 2012

The 2012 AMS - dated November 19, 2012 reflects all planned maintenance requests for December 2012- May 31, 2013 that have been submitted to the ISO through November 14, 2012. Those generator owners who have not yet submitted their anticipated maintenance schedules for Procurement Period 2012-13 are encouraged to do so.

# 2012-13 OPERABLE CAPACITY ANALYSIS

The Operable Capacity Analysis for December 2012 - May 31, 2013 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 1,690 MW for weeks beginning January 12<sup>th</sup> and 19<sup>th</sup>. The overall margin has become less positive since resources have been removed or repositioned since the last publication.

#### Peak Load Exposures (PLE)

After being adjusted for Other Demand Resources, ODR, the Peak Load Exposure (PLE) for the winter was 21,412 MW and summer of 2012 is 26,462 MW, and reflects the seasonal peak load based on the 2012 CELT Report.

#### **Generating Unit Capabilities**

Resource Capacity Supply Obligations, CSO, are based upon data as of November 14, 2012 and includes Energy Management System (EMS) assets. New unit additions are factored into the New Generation column at the appropriate points in time.



#### Unplanned Outage Allotment

Allowances for unplanned outages, as documented in ISO New England SOP-OUTSCH.0030.0040 range from 2,700 MW to 3,400 MW during the winter and summer months.

## External Transmission

Maintenance of Hydro-Quebec Phase II and Highgate are included in the analysis when the Capacity Supply Obligation (CSO) is impacted.

## Weekly Operating Reserve

The weekly operating reserve is equal to one hundred twenty five percent (125%) of the largest contingency plus one-half (50%) of the second-largest contingency.

## Generation at Risk Due to Gas Supply Issues

A column has been included in the Operable Capacity Analysis to reflect natural gas-fired generating capability that may not be available due to the unavailability of gas.

If you have any questions or comments concerning this edition of the 2012 AMS or Operable Capacity Analysis, or if you have any comments or suggestions please feel free to contact Rachel Wilkins-Thurman at (413) 540-4261, Joanne Bialas (413) 535-4162 or by email at opamoreq@iso-ne.com.

	ISO-NE 2012-2013 OPERABLE CAPACITY ANALYSIS November 19, 2012 - 50/50 FORECAST																
This a	This analysis is a tabulation of weekly assessments shown in one single table. The information shows the operable capacity situation under assu																
	OPCAP SUPPLY								LOAD OBLIGATIONS			OPCAP MARGINS					
STUDY WEEK (Week Beginning,	AVAILABLE OPCAP MW	EXTERNAL NODE AVAIL CAPACITY MW	NON COMMERCIAL CAPACITY MW	PLANNED OUTAGES	ALLOWANCE FOR UNPLANNED OUTAGES MW	GEN AT RISK DUE TO GAS SUP MW	NET OPCAP SUPPLY MW	PEAK LOAD FORECAST MW	TMW	NET LOAD OBLIGATION MW	OPCAP MARGIN MW	OPCAP FROM OP4 ACTIVE REAL-TIME DR MW	OPCAP MARGIN w/ OP4 actions through OP4 Step 2 MW	OPCAP FROM OP4 REAL-TIME EMER. GEN MW	MW.		
Saturday)	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]		
12/01/2012	30,711	337	216	5,128	3,200	515	22,420	20,304	2,375	22,679	(260)	643	383	300	683		
12/08/2012	30,711	337	216	3,636	3,200	1,282	23,150	20,595	2,375	22,970	180	643	823	300	1,123		
12/15/2012	30,711	337	216	2,235	3,200	2,423	23,410	20,607	2,375	22,982	430	643	1,073	300	1,373		
12/22/2012	30,711	337	216	1,566	3,200	2,895	23,600	20,669	2,375	23,044	560	643	1,203	300	1,503		
12/29/2012	30,310	337	216	1,450	3,200	3,101	23,110	20,944	2,375	23,319	(210)	643	433	300	733		
01/05/2013	30,310	555	216	2,466	2,800	3,162	22,650	21,412	2,375	23,787	(1,140)	613	(527)	358	(169)		
01/12/2013	30,310	555	216	1,829	2,800	3,849	22,600	21,412	2,375	23,787	(1,190)	613	(577)	358	(219)		
01/19/2013	30,310	555	216	1,550	2,800	4,136	22,600	21,412	2,375	23,787	(1,190)	613	(577)	358	(219)		
01/26/2013	30,310	555	216	1,483	2,800	3,929	22,870	21,188	2,375	23,563	(690)	613	(77)	358	281		
02/02/2013	30,310	555	216	1,154	3,100	3,308	23,520	20,920	2,375	23,295	230	613	843	358	1,201		
02/09/2013	30,310	555	216	2,447	3,100	2,895	22,640	20,891	2,375	23,266	(630)	613	(17)	358	341		
02/16/2013	30,310	555	216	2,500	3,100	2,481	23,000	20,627	2,375	23,002	0	613	613	358	971		
02/23/2013	30,310	555	216	2,770	3,100	1,573	23,640	19,633	2,375	22,008	1,630	613	2,243	358	2,601		
03/02/2013	30,310	555	216	2,543	2,200	1,170	25,170	19,282	2,375	21,657	3,510	613	4,123	358	4,481		
03/09/2013	30,310	555	216	2,643	2,200	548	25,690	19,085	2,375	21,460	4,230	613	4,843	358	5,201		
03/16/2013	30,310	555	216	2,570	2,200	0	26,310	18,718	2,375	21,093	5,220	613	5,833	358	6,191		
03/23/2013	30,310	555	216	3,031	2,200	0	25,850	18,150	2,375	20,525	5,330	613	5,943	358	6,301		
03/30/2013	30,125	555	216	2,990	2,700	0	25,210	17,638	2,375	20,013	5,200	613	5,813	358	6,171		
04/06/2013	30,125	555	216	3,923	2,700	0	24,270	17,385	2,375	19,760	4,510	613	5,123	358	5,481		
04/13/2013	30,125	555	216	6,377	2,700	0	21,820	16,873	2,375	19,248	2,570	613	3,183	358	3,541		
04/20/2013	30,125	555	216	4,893	2,700	0	23,300	16,607	2,375	18,982	4,320	613	4,933	358	5,291		
04/27/2013	30,125	555	216	3,617	3,400	0	23,880	16,580	2,375	18,955	4,930	613	5,543	358	5,901		
05/04/2013	30,125	555	216	3,311	3,400	0	24,190	19,998	2,375	22,373	1,820	613	2,433	358	2,791		
05/11/2013	30,125	555	216	4,360	3,400	0	23,140	20,973	2,375	23,348	(210)	613	403	358	761		
05/18/2013	30,125	555	216	1,746	3,400	0	25,750	21,878	2,375	24,253	1,500	613	2,113	358	2,471		
05/25/2013	30,125	555	216	273	3,400	0	27.220	22,872	2,375	25,247	1,970	613	2,583	358	2,941		

# ISO-NE 2012-2013 OPERABLE CAPACITY ANALYSIS

1. Available OPCAP MW based on resource Capacity Supply Obligations, CSO, from Forward Capacity Tracking System, FCTS. Does not include Settlement Only Generators.

(LTOCM application Case Output-System Results-column PreOutage CSO MW)

2. External Node Available Capacity MW based on external Capacity Supply Obligations, CSO. (LTOCM application Case Output-System Results-(EXTERNAL NODE AVAIL OPCAP MW+ ZONAL EXPORT LIMITATIONS MW)

3. New resources that have not yet acquired a CSO but will become commercial in the future.

4. Planned Outages includes outages scheduled greater than or equal to 15 days in advance.

5. Allowance for Unplanned Outages includes forced outages and maintenance outages scheduled less than 14 days in advance per ISO New England Operating Procedure No. 5 Appendix A.

(LTOCM application Case Output-System Results-UNPLANNED OUTAGES MW)

6. Generation at Risk due to Gas Supply pertains to gas fired capacity expected to be at risk during cold weather conditions or gas pipeline maintenance outages, based on CSO capacity.

This value has been adjusted for gas-only units that are scheduled out of service.

(LTOCM application Case Output-System Results-GEN RISK DUE TO GAS SUP MW)

7. Total OpCap Supply Available per the formula (1 + 2 + 3 - 4 - 5 - 6 = 7)

8. Peak Load Forecast per data included in the 2012 CELT Report adjusted for Other Demand Resources. (LTOCM application-Case Output-System Results-LOAD FORECAST MW)

9. Operating Reserve Requirement based on 125% of first largest contingency plus 1/2 the second largest contingency. (LTOCM application Case Output-System Results-OPER RESERVE REQUIREMENT MW)

10. Total Load Obligation per the formula (8 + 9 = 10)

11. Net OPCAP Supply minus Net Load Obligation (7 - 10 = 11)

12. OP 4 Action 2 Real-time Demand Response based on OP4 Appendix A. Reserve Margins and Distribution Loss Factor Gross Ups are Included.

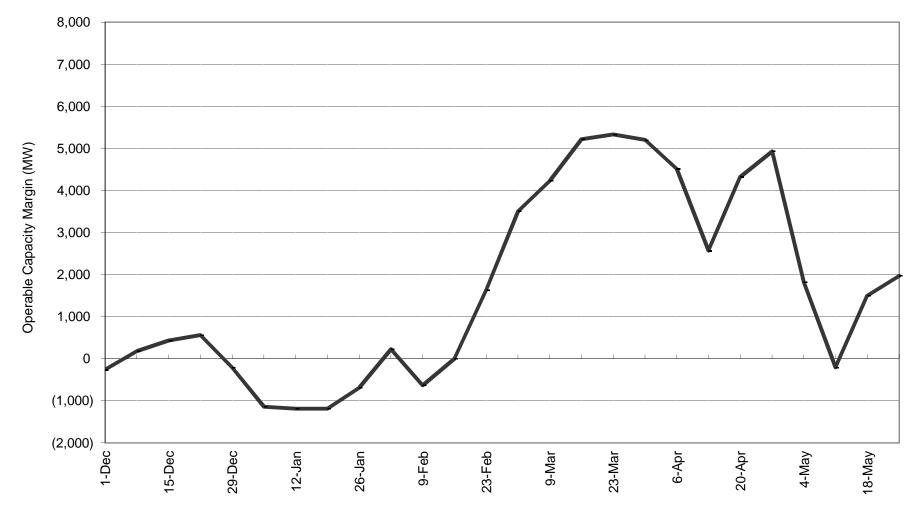
13. OPCAP Margin taking into account Real Time Demand Response through OP4 Step 2 (11 + 12 = 13).

14. OP 4 Action 6 Emergency Generation Response without the Voltage Reduction requiring > 10 Minutes based on OP4 Appendix A. Real Time Emergency Generation is capped at 600MW.

Reserve Margins and Distribution Loss Factor Gross Ups are Included.

15. OPCAP Margin taking into account Real Time Demand Response and Real Time Emergency Generation through OP4 Step 6 (13 + 14 = 15). This does not include Emergency Energy Transactions (EETs).

# New England Operable Capacity Margins 50/50 FORECAST



December 2012 - May 2013, W/B Saturday