2011 Annual Maintenance Schedule April Edition Page 1 of 2



**Richard Boughton** Outage Coordination

To: NEPOOL Participants

From: Richard Boughton

## Subject: 2011 Annual Maintenance Schedule – April Edition

Date: April 4, 2011

Following this transmittal letter, you will find the 2011 Annual Maintenance Schedule (AMS) – April Edition dated April 4, 2011, with rounded weekly planned outage totals only, and an Operable Capacity Analysis for April 2011 through May 2011. This schedule covers the remainder of the first 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.

# 2011 AMS - APRIL EDITION - DATED APRIL 4, 2011

April Edition of the 2011 AMS - dated April 4, 2011 reflects all planned maintenance requests for April 2011- May 2011 that have been submitted to the ISO through March 31, 2011. Those generator owners who have not yet submitted their anticipated maintenance schedules are encouraged to do so.

**Special Note:** All Outages are now required to be submitted through ISO-NEs generation outage scheduling software known as CROW. Only requests to shorten previously submitted outages which remain within the same time period, and outage cancellations will be accepted through <u>opamoreq@iso-ne.com</u>. Please contact customer service with any questions in regards to this new process.

# **2011 OPERABLE CAPACITY ANALYSIS**

The Operable Capacity Analysis for April 2011 through May 2011 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 500 MW for week beginning May 7<sup>th</sup>.

### Peak Load Exposures (PLE)

After being adjusted for Other Demand Resources, ODR, the Peak Load Exposure (PLE) for the spring of the 2011 procurement period is 22,881 MW and reflects the seasonal peak load based on the 2011 CELT Report.

### Generating Unit Capabilities

Resource Capacity Supply Obligations, CSO, are based upon data as of March 31, 2011 and includes Energy Management System (EMS) assets. New unit additions are factored into the New Generation column at the appropriate points in time.

## Miscellaneous Assumptions

The weekly Total Known Maintenance values include all generation scheduled out-of-service as reflected within this edition of the 2011 AMS.

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#### Unplanned Outage Allotment

Allowances for unplanned outages, as documented in ISO New England OP-5, range from 2,100 MW during the winter/summer months to 3,600 MW.

External Transmission

No maintenance of Hydro-Quebec Phase II or Highgate has been included in the analysis.

#### Weekly Operating Reserve

The weekly operating reserve is equal to one hundred percent (100%) 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 around the time of the winter peak load due to the unavailability of gas.

If you have any questions or comments concerning this edition of the 2011 AMS or Operable Capacity Analysis, If you have any comments or suggestions please feel free to contact Richard Boughton at (413) 540-4752, Rachel Wilkins-Thurman (413) 540-4261, or Joanne Bialas at (413) 535-4162 or by email at opamoreq@iso-ne.com

	ISO-NE 2011 OPERABLE CAPACITY ANALYSIS April 4, 2011 - 50/50 FORECAST This analysis is a tabulation of weekly assessments shown in one single table. The information shows the operable capacity situation under assumed conditions for each week. It is not expected that the system peak will occur every week during June, July, and August.														
	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	T MW	NET LOAD OBLIGATION MW	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	OPCAP MARGIN W/ OP4 actions through OP4 Step 6 MW
Saturday)	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
4/16/2011	30,967	360	0	7,622	2,700	0	21,010	17,008	2,000	19,008	2,000	550	2,550	375	2,925
4/23/2011	30,983	360	0	7,521	2,700	0	21,120	16,745	2,000	18,745	2,370	550	2,920	375	3,295
4/30/2011	31,216	293	0	7,398	3,400	0	20,710	16,719	2,000	18,719	1,990	550	2,540	375	2,915
5/7/2011	30,862	293	0	6,012	3,400	0	21,740	20,242	2,000	22,242	(500)	550	50	375	425
5/14/2011	30,605	293	0	3,069	3,400	0	24,430	21,209	2,000	23,209	1,220	550	1,770	375	2,145
5/21/2011	30,528	293	0	2,220	3,400	0	25,200	22,107	2,000	24,107	1,090	550	1,640	375	2,015
5/28/2011	30,460	293	0	1,529	3,400	0	25,820	22,881	2,000	24,881	940	550	1,490	375	1,865

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)

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. (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 2011 CELT Report adjusted for Other Demand Resources. (LTOCM application-Case Output-System Results-LOAD FORECAST MW)

9. Operating Reserve Requirement based on 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)

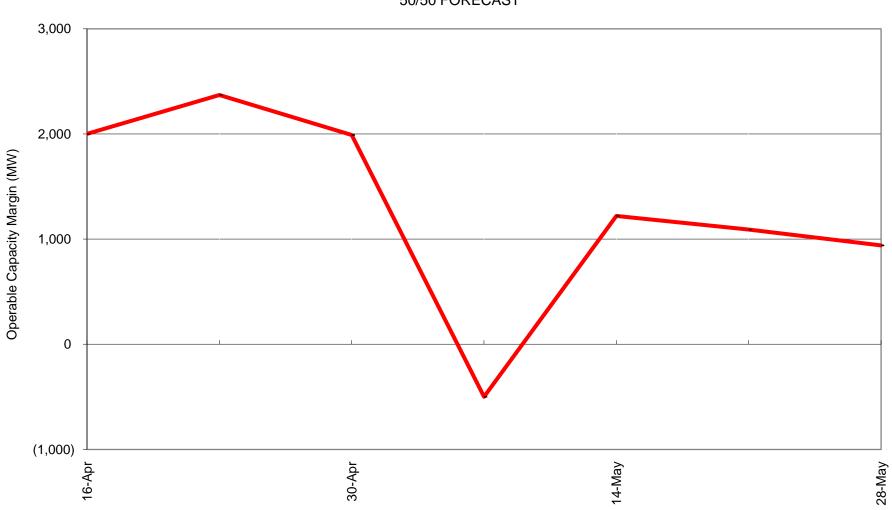
12. OP 4 Action 2 Real-time Demand Response based on OP4 Appendix A. Reserve Margins and Distribution Loss Factor Gross Ups are Included.

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

April 2011 - May 2011, W/B Saturday