



**Rachel Wilkins-Thurman**  
Outage Coordination

To: NEPOOL Participants

From: Rachel Wilkins-Thurman

**Subject: 2010-11 Annual Maintenance Schedule – December Edition**

Date: December 6, 2010

Following this transmittal letter, you will find the 2010-11 Annual Maintenance Schedule (AMS) – November Edition dated December 6, 2010, with rounded weekly planned outage totals only, and an Operable Capacity Analysis for December 2010 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.

**2010-11 AMS – DECEMBER EDITION - DATED DECEMBER 6, 2010**

December Edition of the 2010-11 AMS - dated December 6, 2010 reflects all planned maintenance requests for December 2010- May 2011 that have been submitted to the ISO through December 1, 2010. Those generator owners who have not yet submitted their anticipated maintenance schedules for the AMS covering the Procurement Period 2010-11 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. Outages will only be accepted through [opamoreq@iso-ne.com](mailto:opamoreq@iso-ne.com) that requires an outage to be shortened in duration. Please contact customer service with any questions in regards to this new process.

**2010-11 OPERABLE CAPACITY ANALYSIS**

The Operable Capacity Analysis for December 2010 through May 2011 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 40 MW for week beginning May 7<sup>th</sup> . However, it is possible that additional maintenance that may be added in upcoming editions of the 2010-11 AMS will reduce those margins.

**Peak Load Exposures (PLE)**

After being adjusted for Other Demand Resources, ODR, the Peak Load Exposure (PLE) for the winter of the 2010-11 procurement period is 21,526 MW and reflects the seasonal peak load based on the 2010 CELT Report.

**Generating Unit Capabilities**

Resource Capacity Supply Obligations, CSO, are based upon data as of December 2, 2010 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 draft of the 2010-11 AMS.

Unplanned Outage Allotment

Allowances for unplanned outages, as documented in ISO New England OP-5, range from 2,100 MW during the 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 2010-11 AMS or Operable Capacity Analysis, If you have any comments or suggestions please feel free to contact Rachel Wilkins-Thurman (413) 540-4261, Richard Boughton at (413) 540-4752 or Joanne Bialas at (413) 535-4162 or by email at opamoreq@iso-ne.com

# ISO-NE 2010 OPERABLE CAPACITY ANALYSIS

**December 6, 2010 - 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.

STUDY WEEK (Week Beginning, Saturday)	OPCAP SUPPLY							LOAD OBLIGATIONS			OPCAP MARGINS				
	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	OPER RESERVE REQUIREME NT MW	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	OPCAP MARGIN w/ OP4 actions through OP4 Step 6 MW
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
12/18/2010	30,457	387	0	1,400	3,200	0	26,240	20,731	1,800	22,531	3,710	670	4,380	520	400
12/25/2010	30,457	387	0	1,400	3,200	0	26,240	20,793	1,800	22,593	3,650	670	4,320	520	400
1/1/2011	30,402	368	0	900	2,800	0	27,070	21,064	1,800	22,864	4,210	670	4,880	520	400
1/8/2011	30,402	368	0	500	2,800	2,000	25,470	21,526	1,800	23,326	2,140	670	2,810	520	400
1/15/2011	30,402	368	0	500	2,800	2,000	25,470	21,526	1,800	23,326	2,140	670	2,810	520	400
1/22/2011	30,402	368	0	500	2,800	2,000	25,470	21,526	1,800	23,326	2,140	670	2,810	520	400
1/29/2011	30,291	368	0	600	3,100	2,000	24,960	21,305	1,800	23,105	1,850	670	2,520	520	400
2/5/2011	30,291	368	0	1,100	3,100	2,000	24,460	21,040	1,800	22,840	1,620	670	2,290	520	400
<b>2/12/2011</b>	<b>30,291</b>	<b>368</b>	<b>0</b>	<b>1,600</b>	<b>3,100</b>	<b>2,000</b>	<b>23,960</b>	<b>21,011</b>	<b>1,800</b>	<b>22,811</b>	<b>1,150</b>	<b>670</b>	<b>1,820</b>	<b>520</b>	<b>400</b>
2/19/2011	30,291	368	0	1,700	3,100	2,000	23,860	20,751	1,800	22,551	1,310	670	1,980	520	400
2/26/2011	30,291	368	0	2,100	3,100	0	25,460	19,770	1,800	21,570	3,890	670	4,560	520	400
3/5/2011	30,291	300	0	3,000	2,200	0	25,390	19,424	1,800	21,224	4,170	670	4,840	520	400
3/12/2011	30,291	300	0	2,700	2,200	0	25,690	19,229	1,800	21,029	4,660	670	5,330	520	400
3/19/2011	30,291	300	0	2,300	2,200	0	26,090	18,867	1,800	20,667	5,420	670	6,090	520	400
3/26/2011	30,092	300	0	4,100	2,700	0	23,590	18,306	1,800	20,106	3,480	670	4,150	520	400
4/2/2011	30,092	300	0	6,000	2,700	0	21,690	17,803	1,800	19,603	2,090	670	2,760	520	400
4/9/2011	30,092	300	0	5,900	2,700	0	21,790	17,553	1,800	19,353	2,440	670	3,110	520	400
4/16/2011	30,092	300	0	6,300	2,700	0	21,390	17,047	1,800	18,847	2,540	670	3,210	520	400
4/23/2011	30,092	300	0	5,100	2,700	0	22,590	16,785	1,800	18,585	4,000	670	4,670	520	400
4/30/2011	30,092	300	0	5,700	3,400	0	21,290	16,758	1,800	18,558	2,730	670	3,400	520	400
<b>5/7/2011</b>	<b>30,092</b>	<b>300</b>	<b>0</b>	<b>4,900</b>	<b>3,400</b>	<b>0</b>	<b>22,090</b>	<b>20,325</b>	<b>1,800</b>	<b>22,125</b>	<b>(40)</b>	<b>670</b>	<b>630</b>	<b>520</b>	<b>400</b>
5/14/2011	30,092	300	0	2,100	3,400	0	24,890	21,296	1,800	23,096	1,790	670	2,460	520	400
5/21/2011	30,092	300	0	900	3,400	0	26,090	22,198	1,800	23,998	2,090	670	2,760	520	400
5/28/2011	30,092	300	0	400	3,400	0	26,590	22,976	1,800	24,776	1,810	670	2,480	520	400

1. Available OPCAP MW based on resource Capacity Supply Obligations, CSO, from Forward Capacity Tracking System, FCTS . Does not include Settlement Only Generators. (separate LTOCM run without any generator outages, tab Case Output-System Results-column LZ EXPORT LTD AVAIL OPCAP 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 2010 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

