



**Richard Boughton**  
Outage Coordination

To: NEPOOL Participants

From: Richard Boughton

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

Date: November 5, 2010

Following this transmittal letter, you will find the 2010-11 Annual Maintenance Schedule (AMS) – October Edition dated November 5, 2010, with rounded weekly planned outage totals only, and an Operable Capacity Analysis for November 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 – NOVEMBER EDITION - DATED NOVEMBER 5, 2010**

November Edition of the 2010-11 AMS - dated November 5, 2010 reflects all planned maintenance requests for November 2010- May 2011 that have been submitted to the ISO through November 2, 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.

**2010-11 OPERABLE CAPACITY ANALYSIS**

The Operable Capacity Analysis for November 2010 through May 2011 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of positive 470 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 November 3, 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 Richard Boughton at (413) 540-4752 or Joanne Bialas at (413) 535-4162 or by email at [opamoreq@iso-ne.com](mailto:opamoreq@iso-ne.com)

# ISO-NE 2010 OPERABLE CAPACITY ANALYSIS

November 5, 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 OPCAP MW	NON COMMERCIAL CAPACITY MW	KNOWN OUTAGES	UNPLANNED OUTAGES MW	GEN RISK DUE TO GAS SUP MW	LZ EXPORT LTD AVAIL OPCAP 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]		
11/20/2010	30,156	424	0	1,900	3,600	0	28,292	25,080	19,505	1,800	21,305	3,770	670	4,440	520	400
11/27/2010	30,156	424	0	1,900	3,600	0	28,238	25,080	20,234	1,800	22,034	3,050	670	3,720	520	400
12/4/2010	30,457	387	0	1,700	3,200	0	28,797	25,940	20,433	1,800	22,233	3,710	670	4,380	520	400
12/11/2010	30,457	387	0	1,100	3,200	0	29,348	26,540	20,720	1,800	22,520	4,020	670	4,690	520	400
12/18/2010	30,457	387	0	800	3,200	0	29,623	26,840	20,731	1,800	22,531	4,310	670	4,980	520	400
12/25/2010	30,457	387	0	700	3,200	0	29,803	26,940	20,793	1,800	22,593	4,350	670	5,020	520	400
1/1/2011	30,296	368	0	300	2,800	0	30,011	27,560	21,064	1,800	22,864	4,700	670	5,370	520	400
1/8/2011	30,296	368	0	300	2,800	2,000	30,011	25,560	21,526	1,800	23,326	2,230	670	2,900	520	400
1/15/2011	30,296	368	0	300	2,800	2,000	29,982	25,560	21,526	1,800	23,326	2,230	670	2,900	520	400
1/22/2011	30,296	368	0	300	2,800	2,000	29,980	25,560	21,526	1,800	23,326	2,230	670	2,900	520	400
1/29/2011	30,296	368	0	400	3,100	2,000	29,933	25,160	21,305	1,800	23,105	2,050	670	2,720	520	400
2/5/2011	30,296	368	0	700	3,100	2,000	29,547	24,860	21,040	1,800	22,840	2,020	670	2,690	520	400
2/12/2011	30,296	368	0	1,200	3,100	2,000	29,098	24,360	21,011	1,800	22,811	1,550	670	2,220	520	400
2/19/2011	30,296	368	0	1,300	3,100	2,000	28,955	24,260	20,751	1,800	22,551	1,710	670	2,380	520	400
2/26/2011	30,296	368	0	1,700	3,100	0	28,617	25,860	19,770	1,800	21,570	4,290	670	4,960	520	400
3/5/2011	30,296	300	0	2,700	2,200	0	27,614	25,700	19,424	1,800	21,224	4,480	670	5,150	520	400
3/12/2011	30,296	300	0	2,300	2,200	0	27,948	26,100	19,229	1,800	21,029	5,070	670	5,740	520	400
3/19/2011	30,296	300	0	2,100	2,200	0	28,235	26,300	18,867	1,800	20,667	5,630	670	6,300	520	400
3/26/2011	30,097	300	0	3,600	2,700	0	26,485	24,100	18,306	1,800	20,106	3,990	670	4,660	520	400
4/2/2011	30,097	300	0	4,700	2,700	0	25,408	23,000	17,803	1,800	19,603	3,400	670	4,070	520	400
4/9/2011	30,097	300	0	4,600	2,700	0	25,470	23,100	17,553	1,800	19,353	3,750	670	4,420	520	400
4/16/2011	30,097	300	0	4,900	2,700	0	25,173	22,800	17,047	1,800	18,847	3,950	670	4,620	520	400
4/23/2011	30,097	300	0	3,900	2,700	0	26,196	23,800	16,785	1,800	18,585	5,210	670	5,880	520	400
4/30/2011	30,097	300	0	4,600	3,400	0	25,537	22,400	16,758	1,800	18,558	3,840	670	4,510	520	400
<b>5/7/2011</b>	<b>30,097</b>	<b>300</b>	<b>0</b>	<b>4,400</b>	<b>3,400</b>	<b>0</b>	<b>25,747</b>	<b>22,600</b>	<b>20,325</b>	<b>1,800</b>	<b>22,125</b>	<b>470</b>	<b>670</b>	<b>1,140</b>	<b>520</b>	<b>400</b>
5/14/2011	30,097	300	0	1,900	3,400	0	28,175	25,100	21,296	1,800	23,096	2,000	670	2,670	520	400
5/21/2011	30,097	300	0	600	3,400	0	29,451	26,400	22,198	1,800	23,998	2,400	670	3,070	520	400
5/28/2011	30,097	300	0	400	3,400	0	29,738	26,600	22,976	1,800	24,776	1,820	670	2,490	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 OPCAP 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 Exposure per data included in the 2010 CELT Report. (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

