

**Joanne Bialas** Outage Coordination

To: NEPOOL Participants

From: Joanne Bialas

# Subject: 2010-11 Annual Maintenance Schedule – September Edition

Date: September 7, 2010

Following this transmittal letter, you will find the 2010-11 Annual Maintenance Schedule (AMS) – September Edition dated September 7, 2010, with rounded weekly planned outage totals only, and an Operable Capacity Analysis for September 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 - SEPTEMBER EDITION - DATED SEPTEMBER 7, 2010

September Edition of the 2010-11 AMS - dated September 7, 2010 reflects all planned maintenance requests for September 2010- May 2011 that have been submitted to the ISO through September 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.

# 2010-11 OPERABLE CAPACITY ANALYSIS

The Operable Capacity Analysis for September 2010 through May 2011 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 1,640 MW for week beginning September 11<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 summer and winter of the 2010-11 procurement period is 26,618 MW and 21,526 MW respectively, 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 September 1, 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.

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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 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, please feel free to contact me If you have any comments or suggestions, I can be contacted at (413) 540-4261 or you can contact Joanne Bialas at (413) 535-4162 or by email at opamoreq@iso-ne.com.

	OPCAP SUPPLY							LOAD OBLIGATIONS			OPCAP MARGINS					
STUDY WEEK (Week Beginning,	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(with no outages	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	through OP4 Step MW
Saturday)	[1]	[2]	[3]	[4]	[5]	[6]		[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
09/11/2010	30,041	342	0	1,500	2,100	0	28,516	26,780	26,618	1,800	28,418	(1,640)	670	(970)	520	(450)
09/18/2010	30,041	342	0	4,100	2,100	0	25,986	24,180	22,722	1,800	24,522	(340)	670	330	520	850
09/25/2010	30,291	300	0	4,200	2,800	0	26,135	23,590	22,632	1,800	24,432	(840)	670	(170)	520	350
10/02/2010	30,291	300	0	5,000	2,800	0	25,263	22,790	16,793	1,800	18,593	4,200	670	4,870	520	5,390
10/09/2010	30,291	300	0	4,000	2,800	0	26,333	23,790	16,829	1,800	18,629	5,160	670	5,830	520	6,350
10/16/2010	30,291	300	0	4,800	2,800	0	25,517	22,990	17,748	1,800	19,548	3,440	670	4,110	520	4,630
10/23/2010	30,291	300	0	4,500	2,800	0	25,804	23,290	18,110	1,800	19,910	3,380	670	4,050	520	400
10/30/2010	30,196	300	0	4,000	3,600	0	26,245	22,900	18,315	1,800	20,115	2,780	670	3,450	520	400
11/06/2010	30,196	300	0	4,000	3,600	0	26,194	22,900	18,430	1,800	20,230	2,670	670	3,340	520	400
11/13/2010	30,196	300	0	3,700	3,600	0	26,527	23,200	18,772	1,800	20,572	2,630	670	3,300	520	400
11/20/2010	30,196	300	0	3,000	3,600	0	27,225	23,900	17,555	1,800	19,355	4,540	670	5,210	520	400
11/27/2010	30,196	300	0	1,200	3,600	0	29,032	25,700	20,234	1,800	22,034	3,670	670	4,340	520	400
12/04/2010	30,394	368	0	1,300	3,200	0	29,119	26,260	20,433	1,800	22,233	4,030	670	4,700	520	400
12/11/2010	30,394	368	0	600	3,200	0	29,757	26,960	20,720	1,800	22,520	4,440	670	5,110	520	400
12/18/2010	30,394	368	0	600	3,200	0	29,789	26,960	20,731	1,800	22,531	4,430	670	5,100	520	400
12/25/2010	30,394	368	0	600	3,200	0	29,795	26,960	20,793	1,800	22,593	4,370	670	5,040	520	400
01/01/2011	30,394	368	0	500	2,800	0	29,848	27,460	21,064	1,800	22,864	4,600	670	5,270	520	400
01/08/2011	30,394	368	0	500	2,800	2,000	29,848	25,460	21,526	1,800	23,326	2,130	670	2,800	520	400
01/15/2011	30,394	368	0	300	2,800	2,000	30,125	25,660	21,526	1,800	23,326	2,330	670	3,000	520	400
01/22/2011	30,394	368	0	300	2,800	2,000	30,123	25,660	21,526	1,800	23,326	2,330	670	3,000	520	400
01/29/2011	30,394	368	0	500	3,100	2,000	29,853	25,160	21,305	1,800	23,105	2,050	670	2,720	520	400
02/05/2011	30,394	368	0	900	3,100	2,000	29,484	24,760	21,040	1,800	22,840	1,920	670	2,590	520	400
02/12/2011	30,394	368	0	1,400	3.100	2.000	28,995	24,260	21.011	1.800	22.811	1,450	670	2.120	520	400
02/19/2011	30,394	368	0	1,600	3,100	2,000	28,841	24,060	20,751	1,800	22,551	1,510	670	2,180	520	400
02/26/2011	30,394	368	0	1,900	3,100	0	28,481	25,760	19,770	1,800	21.570	4,190	670	4,860	520	400
03/05/2011	30,394	300	0	2,600	2,200	0	27.822	25.890	19.424	1.800	21,224	4,670	670	5,340	520	400
03/12/2011	30,394	300	0	2,400	2,200	0	28,024	26,090	19,229	1,800	21,029	5,060	670	5,730	520	400
03/19/2011	30,394	300	0	1,900	2,200	0	28,477	26,590	18,867	1,800	20,667	5,920	670	6,590	520	400
03/26/2011	30,196	300	0	3,400	2,700	0	26.823	24,400	18,306	1.800	20,106	4.290	670	4,960	520	400
04/02/2011	30,196	300	0	4,400	2,700	0	25,778	23,400	17.803	1,800	19.603	3,800	670	4,470	520	400
04/09/2011	30,196	300	0	4,500	2,700	0	25,698	23,300	17.553	1.800	19.353	3,950	670	4,620	520	400
04/16/2011	30,196	300	0	4,500	2,700	0	25,704	23,300	17.047	1,800	18.847	4,450	670	5,120	520	400
04/23/2011	30,196	300	0	3,800	2,700	0	26,359	24,000	16,785	1,800	18,585	5,410	670	6.080	520	400
04/30/2011	30,196	300	0	3,600	3,400	0	26,579	23,500	16,758	1,800	18,558	4.940	670	5.610	520	400
05/07/2011	30,196	300	0	3,800	3,400	0	26,407	23,300	20.325	1,800	22,125	1,170	670	1.840	520	400
05/14/2011	30,196	300	0	1,600	3,400	0	28,622	25,500	21,296	1,800	23.096	2,400	670	3.070	520	400
05/21/2011	30,196	300	0	400	3,400	0	29,771	26,700	21,290	1,800	23,090	2,700	670	3,070	520	400
00/21/2011	30,196	300	0	400	3,400	0	30,184	27,100	22,198	1,800	23,998	2,700	670	2,990	520	400

# **ISO-NE 2010 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.

(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.

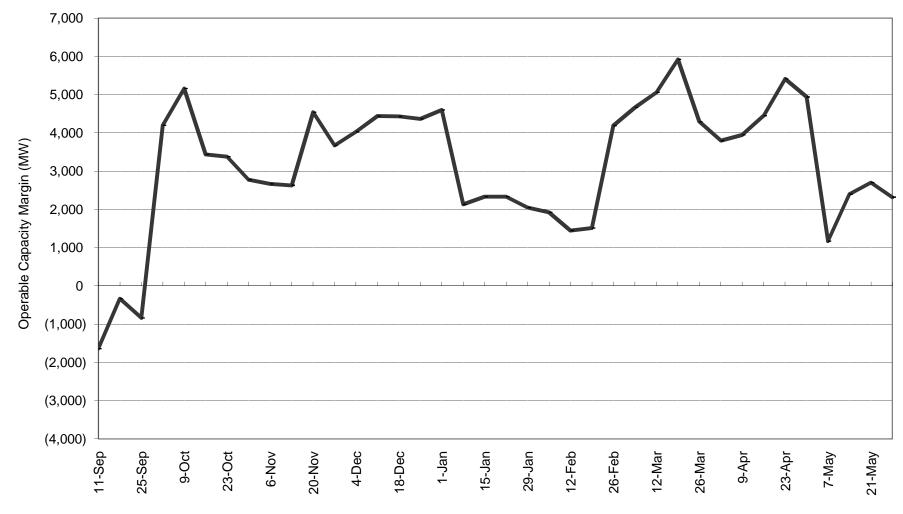
13. OPCAP Margin taking into account Real Time Demand Response through OP4 Step 2 (11 - 12 = 13).

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



September 2010 - May 2011, W/B Saturday