

### **Richard Boughton**

**Outage Coordination** 

To: NEPOOL Participants

From: Richard Boughton

Subject: 2011-12 Current Year Annual Maintenance Schedule

Date: August 5, 2011

Following this transmittal letter, you will find the 2011-12 Annual Maintenance Schedule (AMS) – dated August 5, 2011, with rounded weekly planned outage totals only, and an Operable Capacity Analysis (with forecasted external transactions) for August 2011 through May 31, 2012. This schedule covers the second 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.

#### 2011-12 AMS - DATED August 5, 2011

The 2011-12 AMS - dated August 5, 2011 reflects all planned maintenance requests for August 2011-May 31, 2012 that have been submitted to the ISO through August 3, 2011. Those generator owners who have not yet submitted their anticipated maintenance schedules for Procurement Period 2011-12 are encouraged to do so.

#### 2011-12 OPERABLE CAPACITY ANALYSIS

The Operable Capacity Analysis for August 2011 through May 31, 2012 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 1,160 MW for week beginning September 10<sup>th</sup>. The overall margin has become less negative since new resources have been added to the overall available capacity since the last publication.

#### Peak Load Exposures (PLE)

After being adjusted for Other Demand Resources, ODR, the Peak Load Exposure (PLE) for the summer and winter of 2011-12 is 26,776 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 August 3, 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 draft of the 2011-12 AMS.

## **Unplanned Outage Allotment**

Allowances for unplanned outages, as documented in ISO New England SOP-OUTSCH.0030.0040 range from 2,100 MW to 3,600 MW during the winter and summer months.

#### **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 2011-12 AMS or Operable Capacity Analysis, If you have any comments or suggestions please feel free to contact Richard Boughton at (413) 540-4752 or Rachel Wilkins-Thurman (413) 540-4261or by email at opamoreq@iso-ne.com.

# ISO-NE 2011/2012 OPERABLE CAPACITY ANALYSIS

August 5 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	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	OPCAP FROM OP4 ACTIVE REAL-TIME DR MW	OPCAP MARGIN w/ OP4 actions through OP4	OPCAP FROM OP4 REAL- TIME EMER. GEN MW	OPCAP MARGIN w/ OP4 actions through OP4 Step 6 MW	
(Week Beginning, Saturday)	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	MW [11]	[12]	Step 2 MW [13]	[14]	[15]	
8/6/2011	29,620	1,281	0	338	2,100	0	28,460	26,776	2,000	28,776	(320)	550	230	375	605	
8/13/2011	29,628	1,281	0	306	2,100	0	28,500	26,776	2,000	28,776	(280)	550	270	375	645	
8/20/2011	29,620	1,281	0	336	2,100	0	28,460	26,776	2,000	28,776	(320)	550	230	375	605	
8/27/2011	29,625	1,281	0	323	2,100	0	28,480	26,776	2,000	28,776	(300)	550	250	375	625	
9/3/2011	29,659	1,281	0	454	2,100	0	28,390	26,776	2,000	28,776	(390)	550	160	375	535	
9/10/2011	29,700	1,281	0	1,264	2,100	0	27,620	26,776	2,000	28,776	(1,160)	550	(610)	375	(235)	
9/17/2011	30,078	1,281	0	2,702	2,100	0	26,560	22,828	2,000	24,828	1,730	550	2,280	375	2,655	
9/24/2011	30,040	1,281	0	3,657	2,100	0	25,560	22,737	2,000	24,737	820	550	1,370	375	1,745	
10/1/2011	31,573	493	0	6,400	2,800	0	22,870	16,725	2,000	18,725	4,140	550	4,690	375	5,065	
10/8/2011	31,491	493	0	8,576	2,800	0	20,610	16,761	2,000	18,761	1,850	550	2,400	375	2,775	
10/15/2011	31,647	493	0	8,076	2,800	0	21,260	17,687	2,000	19,687	1,570	550	2,120	375	2,495	
10/22/2011	31,389	493	0	6,730	2,800	0	22,350	18,052	2,000	20,052	2,300	550	2,850	375	3,225	
10/29/2011	31,060	493	0	6,440	3,600	0	21,510	18,258	2,000	20,258	1,250	550	1,800	375	2,175	
11/5/2011	31,026	493	0	5,513	3,600	0	22,410	18,374	2,000	20,374	2,040	550	2,590	375	2,965	
11/12/2011	30,823	493	0	3,961	3,600	0	23,750	18,719	2,000	20,719	3,030	550	3,580	375	3,955	
11/19/2011	30,838	493	0	1,964	3,600	0	25,770	19,458	2,000	21,458	4,310	550	4,860	375	5,235	
11/26/2011	30,522	493	0	2,144	3,600	0	25,270	20,179	2,000	22,179	3,090	550	3,640	375	4,015	
12/3/2011	30,663	493	0	2,112	3,200	0	25,840	20,393	2,000	22,393	3,450	550	4,000	375	4,375	
12/10/2011	30,569	493	0	1,036	3,200	0	26,830	20,683	2,000	22,683	4,150	550	4,700	375	5,075	
12/17/2011	30,464	493	0	613	3,200	0	27,140	20,694	2,000	22,694	4,450	550	5,000	375	5,375	
12/24/2011	30,463	493	0	603	3,200	0	27,150	20,756	2,000	22,756	4,390	550	4,940	375	5,315	
12/31/2011	30,463	493	0	603	2,800	0	27,550	21,030	2,000	23,030	4,520	550	5,070	375	5,445	
1/7/2012	30,463	493	0	605	2,800	2,000	25,550	21,495	2,000	23,495	2,050	550	2,600	375	2,975	
1/14/2012	30,755	493	0	897	2,800	2,000	25,550	21,495	2,000	23,495	2,050	550	2,600	375	2,975	
1/21/2012	30,463	493	0	605	2,800	2,000	25,550	21,495	2,000	23,495	2,050	550	2,600	375	2,975	
1/28/2012	30,448	493	0	605	3,100	2,000	25,240	21,272	2,000	23,272	1,970	550	2,520	375	2,895	
2/4/2012	30,671	493	0	853	3,100	2,000	25,210	21,005	2,000	23,005	2,200	550	2,750	375	3,125	
2/11/2012	30,378	493	0	560	3,100	2,000	25,210	20,976	2,000	22,976	2,230	550	2,780	375	3,155	
2/18/2012	30,387	493	0	571	3,100	2,000	25,210	20,714	2,000	22,714	2,500	550	3,050	375	3,425	
2/25/2012	30,378	493	0	560	3,100	0	27,210	19,726	2,000	21,726	5,480	550	6,030	375	6,405	
3/3/2012	30,479	493	0	1,284	2,200	0	27,490	19,376	2,000	21,376	6,110	550	6,660	375	7,035	
3/10/2012	30,459	493	0	1,557	2,200	0	27,190	19,180	2,000	21,180	6,010	550	6,560	375	6,935	
3/17/2012	30,346	493	0	748	2,200	0	27,890	18,816	2,000	20,816	7,070	550	7,620	375	7,995	
3/24/2012	30,382	493	0	995	2,200	0	27,680	18,250	2,000	20,250	7,430	550	7,980	375	8,355	
3/31/2012	30,337	493	0	2,272	2,700	0	25,860	17,742	2,000	19,742	6,120	550	6,670	375	7,045	
4/7/2012	30,423	493	0	2,384	2,700	0	25,830	17,491	2,000	19,491	6,340	550	6,890	375	7,265	
4/14/2012	30,350	493	0	1,878	2,700	0	26,260	16,981	2,000	18,981	7,280	550	7,830	375	8,205	
4/21/2012	30,707	493	0	2,207	2,700	0	26,290	16,716	2,000	18,716	7,570	550	8,120	375	8,495	
4/28/2012	30,415	493	0	1,945	3,400	0	25,560	16,690	2,000	18,690	6,870	550	7,420	375	7,795	
5/5/2012	30,419	493	0	1,832	3,400	0	25,680	20,452	2,000	22,452	3,230	550	3,780	375	4,155	
5/12/2012	30,311	493	0	1,533	3,400	0	25,870	21,438	2,000	23,438	2,430	550	2,980	375	3,355	
5/19/2012	30,566	493	0	877	3,400	0	26,780	22,354	2,000	24,354	2,430	550	2,980	375	3,355	
5/26/2012	30,141	493	0	0	3,400	0	27,230	23,360	2,000	25,360	1,870	550	2,420	375	2,795	

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

1 OF 2 8/3/2011 10:13 AM

<sup>(</sup> LTOCM application Case Output-System Results-column PreOutage CSO MW)

<sup>2.</sup> 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)

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

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

<sup>5.</sup> 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.

# ISO-NE 2011/2012 OPERABLE CAPACITY ANALYSIS

#### August 5 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					
															OPCAP			
															MARGIN w/			
													OPCAP		OP4			
		EXTERNAL			ALLOWANCE	GEN AT			OPER			OPCAP FROM	MARGIN w/	OPCAP FROM	actions			
		NODE AVAIL	NON		FOR	RISK DUE		PEAK LOAD	RESERVE	NET LOAD		OP4 ACTIVE	OP4 actions	OP4 REAL-	through			
STUDY WEEK	AVAILABLE	CAPACITY	COMMERCIAL	PLANNED	UNPLANNED	TO GAS	NET OPCAP	FORECAST	REQUIREME	OBLIGATION	OPCAP MARGIN	REAL-TIME DR	through OP4	TIME EMER.	OP4 Step 6			
(Week Beginning	ODOAD MIM	MW	CAPACITY MW	OUTAGES	<b>OUTAGES MW</b>	SUP MW	SUPPLY MW	MW	NT MW	MW	MW	MW	Step 2 MW	GEN MW	MW			

(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).

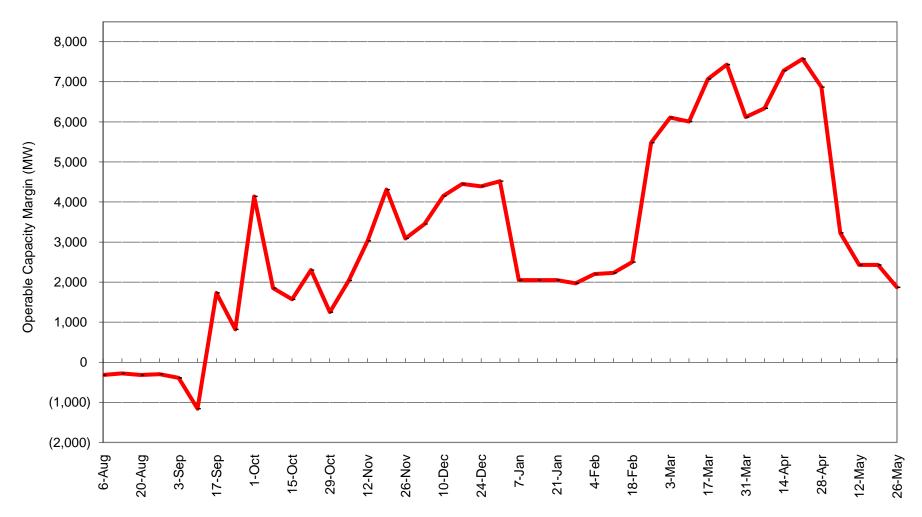
14. OP 4 Action 6 Emergency Generation Response without the Voltage Reduction requiring > 10 Minutes based on OP4 Appendix A. Real Time Emergency Generation is capped at 600MW.

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).

2 OF 2 8/3/2011 10:13 AM

# New England Operable Capacity Margins 50/50 FORECAST



August 2011 - May 2012, W/B Saturday