



**Ingrid Canaday**  
Outage Coordination

To: NEPOOL Participants

From: Ingrid Canaday

**Subject: 2013-14 Current Year Annual Maintenance Schedule**

Date: July 30, 2013

Following this transmittal letter, you will find the 2013-14 Annual Maintenance Schedule (AMS) dated July 30, 2013 with an Operable Capacity Analysis (with forecasted external transactions) for August 3, 2013 - May 31, 2014. This schedule covers the fourth 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.

**2013-14 AMS- DATED July 30, 2013**

The 2013-14 AMS - dated July 30, 2013 reflects all planned maintenance requests and also includes any known long-term Forced Outages for August 3, 2013 - May 31, 2014 that have been submitted to the ISO through July 22, 2013. Those generator owners who have not yet submitted their anticipated maintenance schedules for Procurement Period 2013-14 are encouraged to do so.

**2013-14 OPERABLE CAPACITY ANALYSIS**

The Operable Capacity Analysis for August 3, 2013 - May 31, 2014 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 2,149 MW during the summer for week beginning September 7<sup>th</sup> and for the winter week beginning January 18<sup>th</sup> a negative 346 MW.

**Peak Load Exposures (PLE)**

After being adjusted for Other Demand Resources, ODR, the Peak Load Exposure (PLE) for the summer and winter of 2013-14 is 26,690 MW and 21,299 MW respectively, and reflects the seasonal peak load based on the 2013 CELT Report.

**Generating Unit Capabilities**

Resource Capacity Supply Obligations, CSO, are based upon data as of July 22, 2013 and include Energy Management System (EMS) assets. New unit additions are factored into the New Generation column at the appropriate points in time.

**Interchange**

Only external resources with a Capacity Supply Obligation, CSO, are represented in the analysis.



Unplanned Outage Allotment

Allowances for unplanned outages, as documented in ISO New England SOP-OUTSCH.0030.0040 range from 2,700 MW to 3,400 MW during the winter and summer months.

External Transmission

Maintenance outages of Hydro-Quebec Phase II and Highgate are included in the analysis when the Capacity Supply Obligation (CSO) is impacted.

Weekly Operating Reserve

The weekly operating reserve is equal to one hundred twenty five percent (125%) 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 due to the unavailability of gas.

If you have any questions or comments concerning this edition of the 2013-14 AMS or Operable Capacity Analysis, or if you have any comments or suggestions please feel free to contact Rachel Wilkins-Thurman at (413) 540-4261, Joanne Bialas (413) 535-4162, or Ingrid Canaday (413) 535-4329, or by email at [opamoreq@iso-ne.com](mailto:opamoreq@iso-ne.com).

# ISO-NE 2013-2014 OPERABLE CAPACITY ANALYSIS

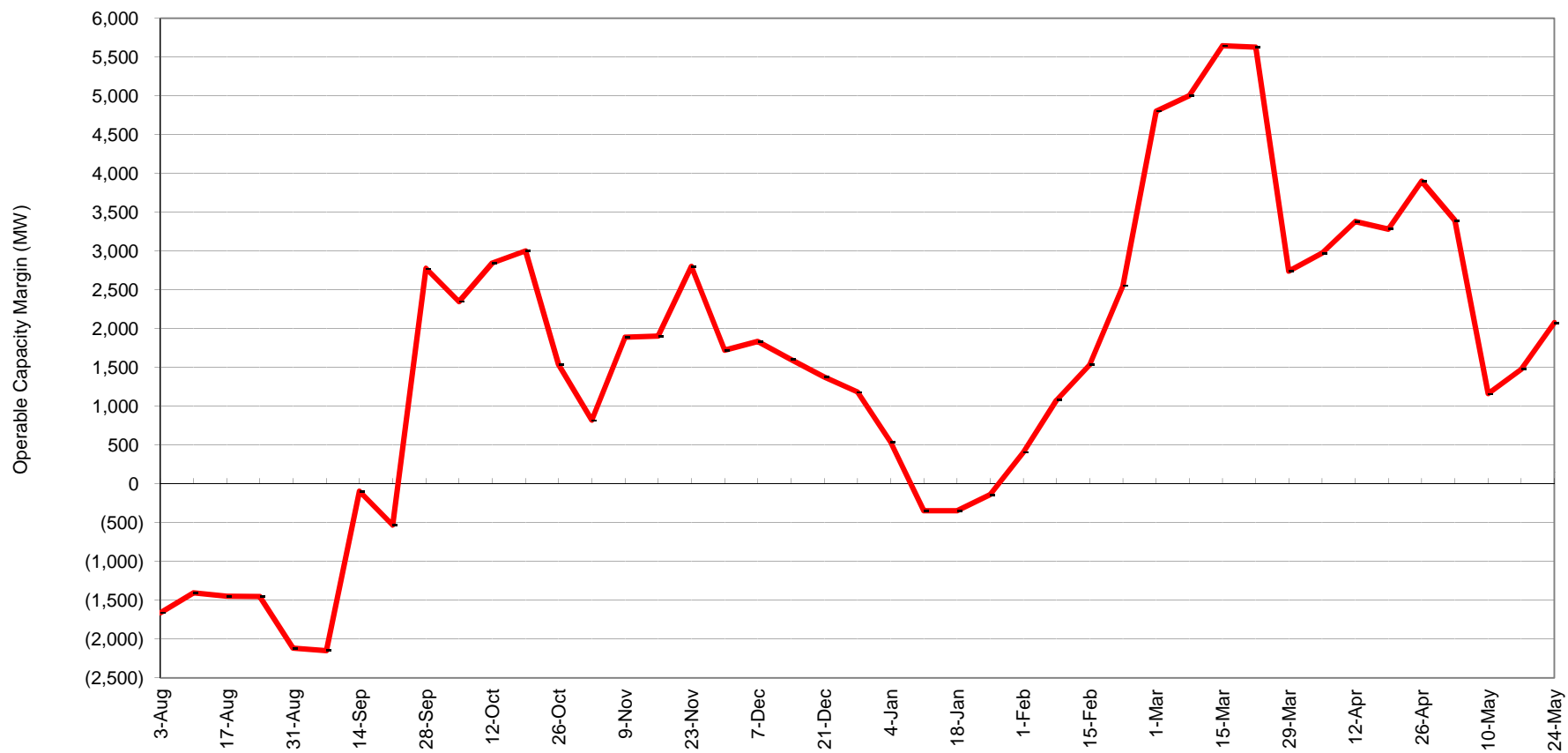
**July 30, 2013 - 50/50- FORECAST - CSO**

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 and Mid September.

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 CSO MW	ALLOWANCE FOR UNPLANNED OUTAGES MW	GAS AT RISK MW	NET OPCAP SUPPLY MW	PEAK LOAD FORECAST MW	OPER RESERVE REQUIREMENT 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]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
08/03/2013	29,748	1,039	0	1,286	2,100	0	27,401	26,690	2,375	29,065	(1,664)	352	(1,312)	163	(1,149)
08/10/2013	29,748	1,039	0	1,026	2,100	0	27,661	26,690	2,375	29,065	(1,404)	352	(1,052)	163	(889)
08/17/2013	29,748	1,039	0	1,070	2,100	0	27,617	26,690	2,375	29,065	(1,448)	352	(1,096)	163	(933)
08/24/2013	29,748	1,039	0	1,076	2,100	0	27,611	26,690	2,375	29,065	(1,454)	352	(1,102)	163	(939)
08/31/2013	29,458	1,183	0	1,593	2,100	0	26,948	26,690	2,375	29,065	(2,117)	429	(1,688)	234	(1,454)
<b>09/07/2013</b>	<b>29,458</b>	<b>1,183</b>	<b>0</b>	<b>1,625</b>	<b>2,100</b>	<b>0</b>	<b>26,916</b>	<b>26,690</b>	<b>2,375</b>	<b>29,065</b>	<b>(2,149)</b>	<b>429</b>	<b>(1,720)</b>	<b>234</b>	<b>(1,486)</b>
09/14/2013	29,458	803	0	3,180	2,100	0	24,981	22,701	2,375	25,076	(95)	429	334	234	568
09/21/2013	29,458	1,183	0	4,091	2,100	0	24,450	22,609	2,375	24,984	(534)	429	(105)	234	129
09/28/2013	29,560	1,183	38	6,330	2,800	0	21,651	16,499	2,375	18,874	2,777	467	3,244	234	3,478
10/05/2013	29,560	1,183	38	6,724	2,800	0	21,257	16,534	2,375	18,909	2,348	467	2,815	234	3,049
10/12/2013	29,560	1,183	38	5,290	2,800	0	22,691	17,468	2,375	19,843	2,848	467	3,315	234	3,549
10/19/2013	29,560	1,183	38	4,769	2,800	0	23,212	17,836	2,375	20,211	3,001	467	3,468	234	3,702
10/26/2013	29,560	989	114	5,107	3,600	0	21,956	18,045	2,375	20,420	1,536	467	2,003	234	2,237
11/02/2013	29,560	1,183	114	5,899	3,600	0	21,358	18,162	2,375	20,537	821	467	1,288	234	1,522
11/09/2013	29,560	1,183	114	4,481	3,600	0	22,776	18,510	2,375	20,885	1,891	467	2,358	234	2,592
11/16/2013	29,560	1,183	114	3,721	3,600	0	23,536	19,255	2,375	21,630	1,906	467	2,373	234	2,607
11/23/2013	29,560	1,183	114	2,099	3,600	0	25,158	19,982	2,375	22,357	2,801	467	3,268	234	3,502
11/30/2013	29,714	1,183	114	3,524	3,200	0	24,287	20,188	2,375	22,563	1,724	404	2,128	168	2,296
12/07/2013	29,714	1,183	114	2,743	3,200	379	24,689	20,480	2,375	22,855	1,834	404	2,238	168	2,406
12/14/2013	29,714	1,183	114	1,744	3,200	1,597	24,470	20,491	2,375	22,866	1,604	404	2,008	168	2,176
12/21/2013	29,714	1,183	114	1,122	3,200	2,384	24,305	20,554	2,375	22,929	1,376	404	1,780	168	1,948
12/28/2013	29,714	1,183	122	1,116	3,200	2,590	24,113	20,554	2,375	22,929	1,184	404	1,588	168	1,756
01/04/2014	29,714	1,183	122	1,397	2,800	3,078	23,744	20,830	2,375	23,205	539	404	943	168	1,111
01/11/2014	29,714	1,183	122	1,481	2,800	3,409	23,329	21,299	2,375	23,674	(345)	404	59	168	227
<b>01/18/2014</b>	<b>29,714</b>	<b>1,183</b>	<b>122</b>	<b>1,482</b>	<b>2,800</b>	<b>3,409</b>	<b>23,328</b>	<b>21,299</b>	<b>2,375</b>	<b>23,674</b>	<b>(346)</b>	<b>404</b>	<b>58</b>	<b>168</b>	<b>226</b>
01/25/2014	29,714	1,183	122	755	2,800	3,928	23,536	21,299	2,375	23,674	(138)	404	266	168	434
02/01/2014	29,714	1,183	122	755	3,100	3,308	23,856	21,075	2,375	23,450	406	404	810	168	978
02/08/2014	29,714	1,183	122	764	3,100	2,895	24,260	20,805	2,375	23,180	1,080	404	1,484	168	1,652
02/15/2014	29,714	1,183	122	753	3,100	2,481	24,685	20,776	2,375	23,151	1,534	404	1,938	168	2,106
02/22/2014	29,714	1,183	122	621	3,100	1,861	25,437	20,511	2,375	22,886	2,551	404	2,955	168	3,123
03/01/2014	29,714	1,183	122	1,986	2,200	140	26,693	19,515	2,375	21,890	4,803	404	5,207	168	5,375
03/08/2014	29,714	1,183	122	2,280	2,200	0	26,539	19,162	2,375	21,537	5,002	404	5,406	168	5,574
03/15/2014	29,714	1,183	122	1,833	2,200	0	26,986	18,965	2,375	21,340	5,646	404	6,050	168	6,218
03/22/2014	29,714	1,183	122	2,218	2,200	0	26,601	18,597	2,375	20,972	5,629	404	6,033	168	6,201
03/29/2014	29,714	1,183	122	5,181	2,700	0	23,138	18,023	2,375	20,398	2,740	467	3,207	234	3,441
04/05/2014	29,560	1,183	122	5,294	2,700	0	22,871	17,524	2,375	19,899	2,972	467	3,439	234	3,673
04/12/2014	29,560	1,183	122	5,139	2,700	0	23,026	17,271	2,375	19,646	3,380	467	3,847	234	4,081
04/19/2014	29,560	1,183	122	5,749	2,700	0	22,416	16,757	2,375	19,132	3,284	467	3,751	234	3,985
04/26/2014	29,560	1,183	122	4,700	3,400	0	22,765	16,490	2,375	18,865	3,900	467	4,367	234	4,601
05/03/2014	29,560	1,183	122	5,233	3,400	0	22,232	16,463	2,375	18,838	3,394	467	3,861	234	4,095
05/10/2014	29,560	1,183	122	3,705	3,400	0	23,760	20,223	2,375	22,598	1,162	467	1,629	234	1,863

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 CSO MW	ALLOWANCE FOR UNPLANNED OUTAGES MW	GAS AT RISK MW	NET OPCAP SUPPLY MW	PEAK LOAD FORECAST MW	OPER RESERVE REQUIREMENT 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]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
05/17/2014	29,560	1,183	122	2,397	3,400	0	25,068	21,216	2,375	23,591	1,477	467	1,944	234	2,178
05/24/2014	29,560	1,183	122	874	3,400	0	26,591	22,138	2,375	24,513	2,078	467	2,545	234	2,779
<p>1. Available OPCAP MW based on resource Capacity Supply Obligations, CSO. Does not include Settlement Only Generators.</p> <p>2. External Node Available Capacity MW based on external Capacity Supply Obligations, CSO .</p> <p>3. New resources that have acquired a CSO but have not become commercial.</p> <p>4. Planned Outages is the total of Generator/DARD Outages for the period. This value would also include any known long-term Forced Outages.</p> <p>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.</p> <p>7. Generation at Risk due to Gas Supply pertains to gas fired capacity expected to be at risk during cold weather conditions or gas pipeline maintenance outages.</p> <p>8. Net OpCap Supply MW Available (1 + 2 + 3 - 4 - 5 - 6 - 7 = 8)</p> <p>9. Peak Load Forecast per data included in the 2013 CELT Report adjusted for Other Demand Resources.</p> <p>10. Operating Reserve Requirement based on 125% of first largest contingency plus 50% the second largest contingency.</p> <p>11. Total Net Load Obligation per the formula(9 + 10 = 11)</p> <p>12. Net OPCAP Margin MW = Net Op Cap Supply MW minus Net Load Obligation (8 - 11 = 12)</p> <p>13. OP 4 Action 2 Real-time Demand Response. Reserve Margins and Distribution Loss Factor Gross Ups are Included.</p> <p>14. OPCAP Margin taking into account Real Time Demand Response through OP4 Step 2 (12 + 13 = 14)</p> <p>15. OP 4 Action 6 Emergency Generation Response without the Voltage Reduction requiring &gt; 10 Minutes. Real Time Emergency Generation is capped at 600MW. Reserve Margins and Distribution Loss Factor Gross Ups are Included.</p> <p>16. OPCAP Margin taking into account Real Time Demand Response and Real Time Emergency Generation through OP4 Step 6 (14 + 15 = 16); This does not include Emergency Energy Transactions (EETs).</p>															

New England Operable Capacity Margins - CSO  
50/50 FORECAST



August 3, 2013 - May 31, 2014, W/B Saturday