

Joanne Bialas

Outage Coordination

To: NEPOOL Participants

From: Joanne Bialas

Subject: 2013-14 First Future Year Annual Maintenance Schedule – Draft #2

Date: April 18, 2013

Following this transmittal letter, you will find the 2013-14 First Future Year Annual Maintenance Schedule (AMS) – Draft #2 dated April 18, 2013 which reflects all planned maintenance requests and also includes any known long-term Forced Outages outage requests submitted through April 15, 2013. This schedule covers the fourth Forward Capacity Market procurement period from June 1, 2013 through May 31, 2014. Participants that own entitlements in units must contact the Lead Participant to obtain the maintenance schedule for each unit.

2013-14 AMS – DRAFT #2 - DATED APRIL 18, 2013

Draft #2 of the 2013-14 AMS - dated April 18, 2013 reflects all planned maintenance requests for June 1, 2013- May 31, 2014 that have been submitted to the ISO through April 15, 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 June 1, 2013 through May 31, 2014 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 2, 473 MW for week beginning June 1st. *Please note that there may be generation outages due to gas pipeline outages that are currently tentatively scheduled for some weeks in, summer, and early-fall that may further decrease the operable capacity margin.*

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 are 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 April 15, 2013 and includes Energy Management System (EMS) assets only. 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 2,100 MW to 3,600 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 or Joanne Bialas at (413) 535-4162 or by email at opamoreq@isone.com.

ISO-NE 2013 OPERABLE CAPACITY ANALYSIS

April 18, 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.

	OPCAP SUPPLY								LOAD OBLIGATIONS			OPCAP MARGINS				
STUDY WEEK (Week Beginning,	AVAILABLE OPCAP MW	NODE AVAIL CAPACITY MW	NON COMMERCIA L 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	FROM OP4 ACTIVE REAL-TIME DR MW	MARGIN w/ OP4 actions through OP4 Step 2 MW	FROM OP4 REAL-TIME EMER. GEN MW	OPCAP MARGIN w/ OP4 actions through OP4 Step 6 MW	
Saturday)	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	
06/01/2013	29,427	1,183	50	1.268	2.800	0	26,592	26,690	2,375	29,065	(2,473)	467	(2,006)	234	(1,772)	
06/08/2013	29,427	1,183	50	1,259	2,800	0	26,601	26,690	2,375	29,065	(2,464)	467	(1,997)	234	(1,763)	
06/15/2013	29,427	1,183	50	995	2,800	0	26,865	26,690	2,375	29,065	(2,200)	467	(1,733)	234	(1,499)	
06/22/2013	29,427	1,183	50	995	2,800	0	26,865	26,690	2,375	29,065	(2,200)	467	(1,733)	234	(1,499)	
06/29/2013	29,427	1,183	50	995	2,100	0			2,375	29,065		467	(1,033)	234	(799)	
	- /						27,565	26,690			(1,500)	467				
07/06/2013	29,427	1,183	50	995 995	2,100	0	27,565	26,690	2,375	29,065	(1,500)	467	(1,033)	234	(799)	
07/13/2013	29,427	1,183	50		2,100		27,565	26,690	2,375	29,065	(1,500)		(1,033)	234	(799)	
07/20/2013	29,427	1,183	50	995	2,100	0	27,565	26,690	2,375	29,065	(1,500)	467	(1,033)	234	(799)	
07/27/2013	29,427	1,183	50	998	2,100	0	27,562	26,690	2,375	29,065	(1,503)	467	(1,036)	234	(802)	
08/03/2013	29,427	1,183	50	998	2,100	0	27,562	26,690	2,375	29,065	(1,503)	467	(1,036)	234	(802)	
08/10/2013	29,427	1,183	50	1,000	2,100	0	27,560	26,690	2,375	29,065	(1,505)	467	(1,038)	234	(804)	
08/17/2013	29,427	1,183	50	996	2,100	0	27,564	26,690	2,375	29,065	(1,501)	467	(1,034)	234	(800)	
08/24/2013	29,427	1,183	50	1,002	2,100	0	27,558	26,690	2,375	29,065	(1,507)	467	(1,040)	234	(806)	
08/31/2013	29,427	1,183	50	1,002	2,100	0	27,558	26,690	2,375	29,065	(1,507)	467	(1,040)	234	(806)	
09/07/2013	29,427	1,183	50	1,032	2,100	0	27,528	26,690	2,375	29,065	(1,537)	467	(1,070)	234	(836)	
09/14/2013	29,427	803	50	2,835	2,100	0	25,345	22,701	2,375	25,076	269	467	736	234	970	
09/21/2013	29,427	1,183	50	3,242	2,100	0	25,318	22,609	2,375	24,984	334	467	801	234	1,035	
09/28/2013	29,568	1,183	50	6,276	2,100	0	22,425	16,499	2,375	18,874	3,551	467	4,018	234	4,252	
10/05/2013	29,568	1,183	50	5,773	2,100	0	22,928	16,534	2,375	18,909	4,019	467	4,486	234	4,720	
10/12/2013	29,568	1,183	50	4,245	2,100	0	24,456	17,468	2,375	19,843	4,613	467	5,080	234	5,314	
10/19/2013	29,568	1,183	50	3,756	2,100	0	24,945	17,836	2,375	20,211	4,734	467	5,201	234	5,435	
10/26/2013	29,568	1,183	50	3,794	2,100	0	24,907	18,045	2,375	20,420	4,487	467	4,954	234	5,188	
11/02/2013	29,568	1,183	50	3,555	2,100	0	25,146	18,162	2,375	20,537	4,609	467	5,076	234	5,310	
11/09/2013	29,568	1,183	50	3,290	2,100	0	25,411	18,510	2,375	20,885	4,526	467	4,993	234	5,227	
11/16/2013	29,568	1,183	50	2,325	2,100	0	26,376	19,255	2,375	21,630	4,746	467	5,213	234	5,447	
11/23/2013	29,568	1,183	50	830	2,100	348	27,524	19,982	2,375	22,357	5,167	467	5,634	234	5,868	
11/30/2013	29,722	1,183	50	2,238	2,100	0	26,617	20,188	2,375	22,563	4,054	404	4,458	168	4,626	
12/07/2013	29,722	1,183	50	1.341	2,100	1,492	26,022	20,188	2,375	22,303	3,167	404	3,571	168	3,739	
12/14/2013	29,722	1,183	50	810	2,100	1,492	26,364	20,480	2,375	22,866	3,498	404	3,902	168	4,070	
			50		2,100	2,242			2,375	22,929		404	3,435	168		
12/21/2013	29,722	1,183		653			25,960	20,554			3,031				3,603	
12/28/2013	29,722	1,183	50	252	2,100	2,849	25,754	20,554	2,375	22,929	2,825	404	3,229	168	3,397	
01/04/2014	29,722	1,183	50	1,006	2,100	3,479	24,370	20,830	2,375	23,205	1,165	404	1,569	168	1,737	
01/11/2014	29,722	1,183	50	755	2,100	3,893	24,208	21,299	2,375	23,674	534	404	938	168	1,106	
01/18/2014	29,722	1,183	50	755	2,100	3,893	24,208	21,299	2,375	23,674	534	404	938	168	1,106	
01/25/2014	29,722	1,183	50	396	2,100	3,686	24,774	21,299	2,375	23,674	1,100	404	1,504	168	1,672	
02/01/2014	29,722	1,183	50	396	2,100	3,065	25,394	21,075	2,375	23,450	1,944	404	2,348	168	2,516	
02/08/2014	29,722	1,183	50	396	2,100	2,652	25,807	20,805	2,375	23,180	2,627	404	3,031	168	3,199	
02/15/2014	29,722	1,183	50	396	2,100	2,238	26,221	20,776	2,375	23,151	3,070	404	3,474	168	3,642	
02/22/2014	29,722	1,183	50	261	2,100	1,600	26,995	20,511	2,375	22,886	4,109	404	4,513	168	4,681	
03/01/2014	29,722	1,183	50	762	2,100	1,165	26,928	19,515	2,375	21,890	5,038	404	5,442	168	5,610	
03/08/2014	29,722	1,183	50	1,044	2,100	506	27,306	19,162	2,375	21,537	5,769	404	6,173	168	6,341	
03/15/2014	29,722	1,183	50	1,040	2,100	95	27,721	18,965	2,375	21,340	6,381	404	6,785	168	6,953	
03/22/2014	29,722	1,183	50	1,106	2,100	0	27,749	18,597	2,375	20,972	6,777	404	7,181	168	7,349	
03/29/2014	29,568	1,183	50	3,187	2,100	0	25,514	18,023	2,375	20,398	5,116	467	5,583	234	5,817	
04/05/2014	29,568	1,183	50	2,870	2,100	0	25,831	17,524	2,375	19,899	5,932	467	6,399	234	6,633	
04/12/2014	29,568	1,183	50	3,276	2,100	0	25,425	17,271	2,375	19,646	5,779	467	6,246	234	6,480	
04/19/2014	29,568	1,183	50	3,095	2,100	0	25,606	16,757	2,375	19,132	6,474	467	6,941	234	7,175	
04/26/2014	29,568	1,183	50	2,914	2,100	0	25,787	16,490	2,375	18,865	6,922	467	7,389	234	7,623	
05/03/2014	29,568	1,183	50	3,717	2,100	0	24,984	16,463	2,375	18,838	6,146	467	6,613	234	6,847	
05/10/2014	29,568	1,183	50	2,786	2,100	0	25,915	20.223	2,375	22,598	3,317	467	3,784	234	4,018	
05/17/2014	29,568	1,183	50	1,906	2,100	0	26,795	21,216	2,375	23,591	3,204	467	3,671	234	3,905	
05/24/2014	29,568	1,183	50	869	2,100	0	27,832	22,138	2.375	24,513	3,319	467	3,786	234	4,020	
03/24/2014	23,000	1,100	30	003	2,100	U	21,002	22,130	2,313	24,010	3,319	407	3,700	234	4,020	

^{1.} Available OPCAP MW based on resource Capacity Supply Obligations, CSO. Does not include Settlement Only Generators.

^{2.} External Node Available Capacity MW based on external Capacity Supply Obligations, CSO .

^{3.} New resources that have acquired a CSO but have not become commercial.

^{4.} Planned Outages is the total of Generator/DARD Outages for the period. This value would also include any known long-term Forced Outages.

^{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.

^{6.} 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.

^{7.} Net OpCap Supply MW Available (1 + 2 + 3 - 4 - 5 - 6 = 7)

^{8.} Peak Load Forecast per data included in the 2013 CELT Report adjusted for Other Demand Resources.

^{9.} Operating Reserve Requirement based on 125% of first largest contingency plus 50% the second largest contingency.

^{10.} Total Net Load Obligation per the formula(8 + 9 = 10)

^{11.} Net OPCAP Margin MW = Net Op Cap Supply MW minus Net Load Obligation (7 - 10 = 11)

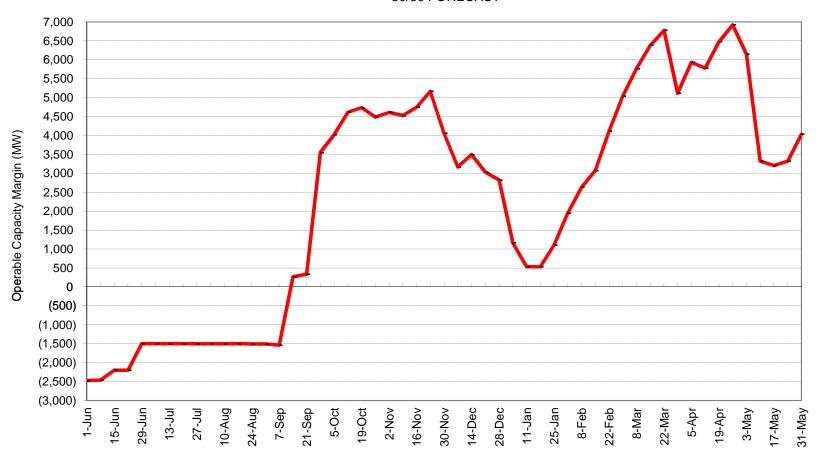
^{12.} OP 4 Action 2 Real-time Demand Response based on OP4 Appendix A. Reserve Margins and Distribution Loss Factor Gross Ups are Included.

^{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 - CSO - 50/50 FORECAST



June 1, 2013 - May 31, 2014, W/B Saturday