

Rachel Wilkins-Thurman

Outage Coordination

To: Master/LCC Heads

From: Rachel M. Wilkins-Thurman

Subject: 2014-15 First Future Year Annual Maintenance Schedule – Draft #2

Date: April 15, 2014

Following this transmittal letter, you will find the 2014-15 First Future Year Annual Maintenance Schedule (AMS) – Draft #2 dated April 15, 2014 which reflects all planned maintenance requests and also includes any known long-term Forced Outages outage requests submitted through April 4, 2014. This schedule covers the fifth Forward Capacity Market procurement period from June 1, 2014 through May 31, 2015.

Participants that own entitlements in units must contact the Lead Participant to obtain the maintenance schedule for each unit. As requested by each company submitting maintenance requests, the data is to be considered market sensitive and the distribution is in accordance with the ISO New England Information Policy. Please keep the confidentiality of the AMS in mind and do not distribute it to people outside of your organization.

2014-15 Operable Capacity Analysis

The Operable Capacity Analysis for June 1, 2014 through May 31, 2015 presently forecasts the lowest Long Term Operable Capacity Margin, LTOCM, of negative 1,698 MW for weeks beginning May 31st –June 14th. 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 2014-15 are 26,658 MW and 21,086 MW respectively, and reflects the seasonal peak load based on the 2014 CELT Report.

Generating Unit Capabilities

Resource Capacity Supply Obligations, CSO, are based upon data as of April 7, 2014 and include Energy Management System (EMS) assets only. New unit additions are factored into the Non-Commercial Capacity MW respecting forecasted in-service dates.

Interchange

External Node Available Capacity MW is based on the sum of external import and export CSO.

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External Transmission

Transmission outages of NYISO, NBSO, and Hydro-Quebec are included in the analysis when the 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

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.

Generation at Risk Due to Gas Supply Issues

A column has been included in the Operable Capacity Analysis to reflect natural gas-fired capacity that may be unavailable due to cold weather conditions or gas pipeline outages

If you have any questions or comments concerning this edition of the 2014-15AMS 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 2014 OPERABLE CAPACITY ANALYSIS

April 15, 2014 - 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							L	OAD OBLIGATION	IS	OPCAP MARGINS				
STUDY WEEK (Week Beginning,	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	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
Saturday)	[1]	[2]	[3]	[4]	[5]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
5/31/2014	29,136	1,283	68	352	2,800	0	27,335	26,658	2,375	29,033	(1,698)	489	(1,209)	211	(998)
6/7/2014 6/14/2014	29,136 29,136	1,283 1,283	68 68	352 352	2,800 2.800	0	27,335 27,335	26,658 26,658	2,375 2,375	29,033 29,033	(1,698)	489 489	(1,209)	211 211	(998) (998)
6/21/2014	29,136	1,283	68	58	2,800	0	27,629	26,658	2,375	29,033	(1,698) (1,404)	489	(915)	211	(704)
6/28/2014	29,136	1,283	68	57	2,800	0	27,629	26,658	2,375	29,033	(1,404)	489	(914)	211	(704)
7/5/2014	29,136	1,283	68	57	2,100	0	28,330	26,658	2,375	29,033	(703)	489	(214)	211	(3)
7/12/2014	29,136	1,283	68	57	2,100	0	28,330	26,658	2,375	29,033	(703)	489	(214)	211	(3)
7/19/2014	29,136	1,283	68	17	2,100	0	28,370	26,658	2,375	29,033	(663)	489	(174)	211	37
7/26/2014	29,136	1,283	68	17	2,100	0	28,370	26,658	2,375	29,033	(663)	489	(174)	211	37
8/2/2014	29,136	1,283	68	0	2,100	0	28.387	26,658	2.375	29.033	(646)	489	(157)	211	54
8/9/2014	29,136	1,283	68	0	2,100	0	28,387	26,658	2,375	29,033	(646)	489	(157)	211	54
8/16/2014	29,136	1,283	68	9	2,100	0	28,378	26,658	2,375	29,033	(655)	489	(166)	211	45
8/23/2014	29,136	1,283	68	0	2,100	0	28,387	26,658	2,375	29,033	(646)	489	(157)	211	54
8/30/2014	29,136	1,283	68	0	2,100	0	28,387	26,658	2,375	29,033	(646)	489	(157)	211	54
9/6/2014	29,136	1,283	68	0	2,100	0	28,387	26,658	2,375	29,033	(646)	489	(157)	211	54
9/13/2014	29,136	1,283	68	1,263	2,100	0	27,124	22,622	2,375	24,997	2.127	489	2,616	211	2.827
9/20/2014	29,136	1,283	68	1,751	2,100	0	26,636	22,529	2,375	24,904	1,732	489	2,221	211	2,432
9/27/2014	29,697	812	68	3,199	2,800	0	24,578	16,244	2,375	18,619	5,959	486	6.445	211	6,656
10/4/2014	29,697	618	69	6,348	2,800	0	21,236	16,280	2,375	18,655	2,581	486	3,067	211	3,278
10/11/2014	29,697	812	69	6.749	2.800	0	21,029	17,219	2,375	19,594	1,435	486	1,921	211	2,132
10/18/2014	29,697	812	69	7,949	2.800	0	19,829	17,589	2,375	19,964	(135)	486	351	211	562
10/25/2014	29,697	812	69	6,636	2,800	0	21,142	17,799	2,375	20,174	968	486	1,454	211	1,665
11/1/2014	29,697	812	82	6,626	3,600	0	20,365	17,917	2.375	20,292	73	486	559	211	770
11/8/2014	29,697	812	82	4,827	3,600	0	22,164	18,266	2,375	20,641	1,523	486	2,009	211	2,220
11/15/2014	29,697	812	82	3,207	3,600	0	23,784	19,016	2,375	21,391	2,393	486	2,879	211	3,090
11/22/2014	29,697	812	82	1,286	3,600	720	24,985	19,747	2,375	22,122	2,863	486	3,349	211	3,560
11/29/2014	29,850	812	86	800	3,200	1,439	25,309	19,969	2,375	22,344	2,965	454	3,419	202	3,621
12/6/2014	29,850	812	86	804	3,200	1,619	25,125	20,262	2,375	22,637	2,488	454	2,942	202	3,144
12/13/2014	29,850	812	86	372	3,200	1,979	25,197	20,273	2,375	22,648	2,549	454	3,003	202	3,205
12/20/2014	29,850	812	86	372	3,200	2,159	25,017	20,337	2,375	22,712	2,305	454	2,759	202	2,961
12/27/2014	29,850	812	89	372	3,200	2,519	24,660	20,337	2,375	22,712	1,948	454	2,402	202	2,604
1/3/2015	29,850	812	89	527	2,800	2,717	24,707	20,614	2,375	22,989	1,718	454	2,172	202	2,374
1/10/2015	29,850	812	89	527	2,800	3,076	24,348	21,086	2,375	23,461	887	454	1,341	202	1,543
1/17/2015	29,850	812	89	527	2,800	3,436	23,988	21,086	2,375	23,461	527	454	981	202	1,183
1/24/2015	29,850	812	89	527	2,800	3,436	23,988	21,086	2,375	23,461	527	454	981	202	1,183
1/31/2015	29,850	812	89	869	3,100	2,914	23,868	20,860	2,375	23,235	633	454	1,087	202	1,289
2/7/2015	29,850	812	89	869	3,100	2,375	24,407	20,589	2,375	22,964	1,443	454	1,897	202	2,099
2/14/2015	29,850	812	89	869	3,100	2,015	24,767	20,560	2,375	22,935	1,832	454	2,286	202	2,488
2/21/2015	29,850	812	89	869	3,100	1,655	25,127	20,294	2,375	22,669	2,458	454	2,912	202	3,114
2/28/2015	29,850	812	89	817	2,200	1,637	26,097	19,291	2,375	21,666	4,431	454	4,885	202	5,087
3/7/2015	29,850	812	89	673	2,200	1,260	26,618	18,937	2,375	21,312	5,306	454	5,760	202	5,962
3/14/2015	29,850	812	89	676	2,200	900	26,975	18,738	2,375	21,113	5,862	454	6,316	202	6,518
3/21/2015	29,850	812	89	1,357	2,200	540	26,654	18,368	2,375	20,743	5,911	454	6,365	202	6,567
3/28/2015	29,697	812	89	2,304	2,700	0	25,594	17,795	2,375	20,170	5,424	486	5,910	211	6,121
4/4/2015	29,697	812	89	2,393	2,700	0	25,505	17,275	2,375	19,650	5,855	486	6,341	211	6,552
4/11/2015	29,697	812	89	3,562	2,700	0	24,336	17,020	2,375	19,395	4,941	486	5,427	211	5,638
4/18/2015	29,697	812	89	3,575	2,700	0	24,323	16,503	2,375	18,878	5,445	486	5,931	211	6,142
4/25/2015	29,697	812	89	3,944	2,700	0	23,954	16,235	2,375	18,610	5,344	486	5,830	211	6,041
5/2/2015	29,697	812	89	2,749	3,400	0	24,449	16,208	2,375	18,583	5,866	486	6,352	211	6,563
5/9/2015	29,697	812	89	1,620	3,400	0	25,578	20,112	2,375	22,487	3,091	486	3,577	211	3,788
5/16/2015	29,697	812	89	2,157	3,400	0	25,041	21,116	2,375	23,491	1,550	486	2,036	211	2,247
5/23/2015	29,697	812	89	1,773	3,400	0	25,425 Settlement O	22,049	2,375	24,424	1,001	486	1,487	211	1,698

^{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 the sum of external Capacity Supply Obligations (CSO) imports and exports.

^{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.

^{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.

^{8.} Net OpCap Supply MW Available (1 + 2 + 3 - 4 - 5 - 7 = 8)

^{9.} Peak Load Forecast as provided in the 2014 CELT Report and adjusted for Passive Demand Resources.

^{10.} Operating Reserve Requirement based on 125% of first largest contingency plus 50% the second largest contingency.

^{11.} Total Net Load Obligation per the formula(9 + 10 = 11)

^{12.} Net OPCAP Margin MW = Net Op Cap Supply MW minus Net Load Obligation (8 - 11 = 12)

^{13.} OP 4 Action 2 Real-time Demand Response based on OP4 Appendix A. Reserve Margins and Distribution Loss Factor Gross Ups are Included.

^{14.} OPCAP Margin taking into account Real Time Demand Response through OP4 Step 2 (12 + 13 = 14)

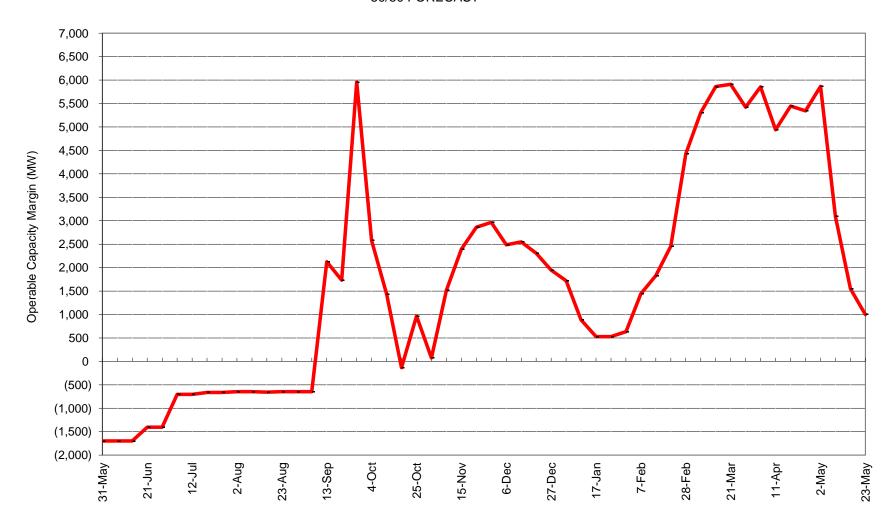
^{15.} OP 4 Action 6 Emergency Generation Response without the Voltage Reduction requiring > 10 Minutes based on OP4 Appendix A. Real Time Emergency Generation is capped at 600MW.

Reserve Margins and Distribution Loss Factor Gross Ups are Included.

^{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).

New England Operable Capacity Margins - CSO 50/50 FORECAST



June 1, 2014 - May 31, 2015, W/B Saturday