Weekly Market Summary

January 18-24, 2016

About this Report

This report contains seven sections. They are:

1) The Weekly Highlights section provides brief explanations of notable events that occurred during the week. The tables provided show market results for the current week, prior week, the same week a year ago, and the percentage change this week vs. the prior week and prior year. The highlights also include a detailed explanation of the day-ahead and real-time price separation for the current week, along with any real-time price corrections.

2) The Pricing section contains various graphs presenting information about Locational Marginal Prices (LMPs) and its components for the Hub, load zones, and external nodes. A table showing descriptive LMP statistics for these locations is also provided.

3) The Weekly Demand section contains a table describing total day-ahead and real-time load obligation (DALO & RTLO) for the current week, last week, the percentage change from last week, last year, and the percentage change from last year. In addition, there are graphs showing day-ahead demand bids and cleared volumes by type. Also included are tables for daily demand bid and virtual volumes and peak load by day with associated real-time pricing.

4) The Weekly Supply section contains tables and graphs of day-ahead generation obligation accumulated from generation, virtual supply, and imports. Information on real-time supply including, metered generation by fuel type, self scheduled MW, real-time reliability MW, marginal price settings, and external interface imports.

5) Net Commitment Period Compensation (NCPC) information will no longer be provided in this PDF report. Aggregate NCPC data will continue to be provided in the supplemental Excel file on a one week lag.

6) The Reserves section contains tables for payment and charges of reserve markets by reserve zone and load zone. Real-Time Reserve Clearing Prices, Forward Reserve Daily Threshold Prices and, real-time reserve bias implementation are also provided.

7) The last section of the report, the Glossary and Links section, contains additional information concerning each section listed above, including links to relevant pages on the ISO New England web site.

Note: A supplemental Excel file 'Weekly Market Data 53 Weeks.XLSX', located here, contains the past 53 weeks of data of various concepts including market prices, payments, charges, and MW values.

Click this icon in the section header to navigate to the glossary section, where definitions are described in more detail, with links to the ISO New England web site.

1. Weekly Highlights: January 18-24, 2016

Notable Events

- Real-Time LMPs in excess of $100/MWh were caused by binding reserve constraints and loads over the forecast in the hour ending 6:00 p.m. on Saturday, January 23, 2016.

Locational Marginal Pricing (LMPs) New England Hub; $/MWh; Average	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
Day-Ahead Energy Market; All Hours	$43.41	$34.44	26.0%	$53.44	-18.8%
Real-Time Energy Market; All Hours	$41.97	$27.45	52.9%	$36.83	14.0%

Weekly Demand Statistics (MWh)	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
Peak Load (MW - Preliminary)	19,421	18,896	2.8%	18,521	4.9%
DA Load Obligation (All Zones)	-2,592,666	-2,490,532	4.1%	-2,575,186	0.7%
RT Load Obligation (All Zones)	-2,617,634	-2,493,890	5.0%	-2,529,749	3.5%
DA Cleared Exports (All Interfaces)	-60,277	-34,461	74.9%	-26,252	129.6%
RT Scheduled Exports (All Interfaces)	-94,127	-54,779	71.8%	-52,909	77.9%

Weekly Supply Statistics	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
Input Fuel Price (Natural Gas, $/MMBtu)	$4.49	$4.37	2.7%	$6.50	-30.9%
Mass Average Input Fuel Price (Natural Gas, $/MMBtu)	$4.95	$4.58	8.2%	$8.11	-38.9%
Metered Generation (MWh)	2,197,174	2,027,451	8.4%	2,009,567	9.3%
Generation Obligation (MWh)	2,756,961	2,590,405	6.4%	2,621,554	5.2%
Self-Scheduled Generation (MWh)	1,202,445	1,187,412	1.3%	1,294,286	-7.1%
DA Cleared Imports (MWh - All Interfaces)	568,023	563,518	0.8%	604,622	-6.1%
RT Scheduled Imports (MWh - All Interfaces)	559,787	562,954	-0.6%	611,987	-8.5%

Reserve Market Payments	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
Forward Reserve Market Payments ($)	$1,021,431	$1,030,477	-0.9%	$3,126,690	-67.3%
Real-Time Reserve Market Payments ($)	$151,370	$6,360	2279.9%	$19,296	Large

Underlying natural gas data furnished by:

ICE Global markets in clear view

Day-Ahead Price Separation

- On Monday and Tuesday, January 18 and 19, elevated pricing in the Southeastern Massachusetts (SEMA) Load Zone and depressed pricing in the Maine (ME) Load Zone and the New Hampshire (NH) Load Zone was caused by several binding constraints due to patterns of load and generation.

Real-Time Price Separation

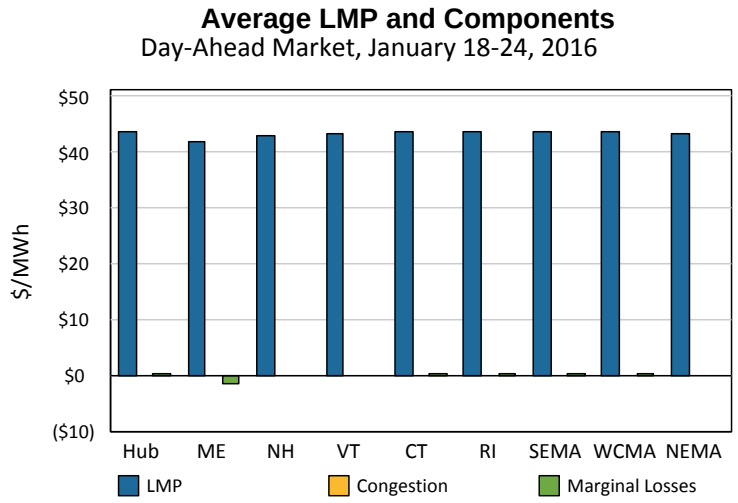
- From Monday through Wednesday, January 18-20, depressed pricing in the ME Load Zone was caused by a binding constraint on the Orrington South Interface due to patterns of load and generation.

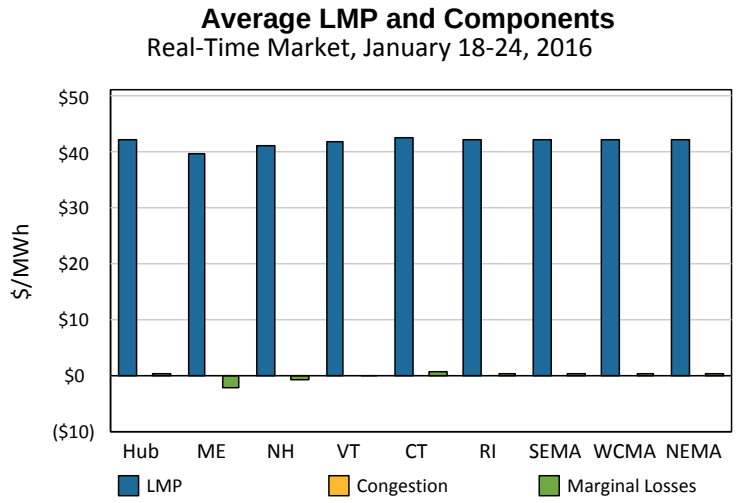
Real-Time Price Corrections

- In the hour ending 12:00 midnight on Friday, January 22 due to a data error. The LMPs for all Load Zones and the Hub were unchanged.

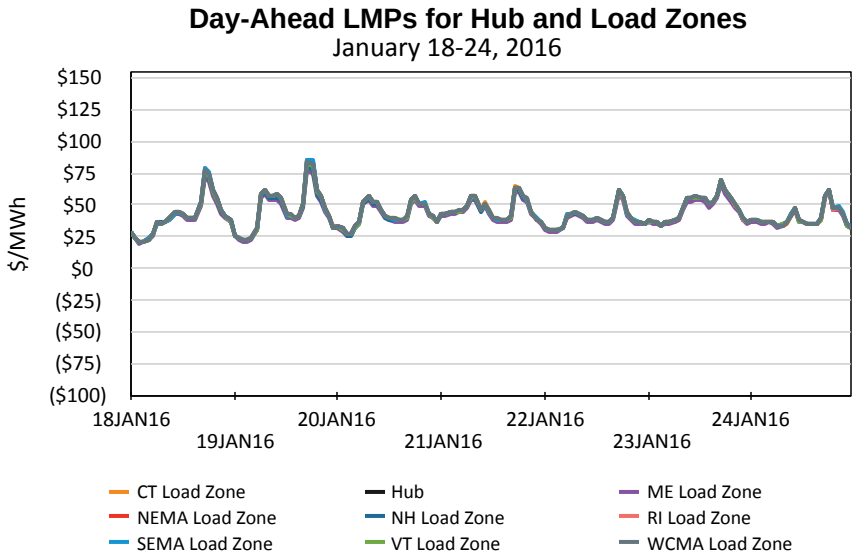
2. Pricing

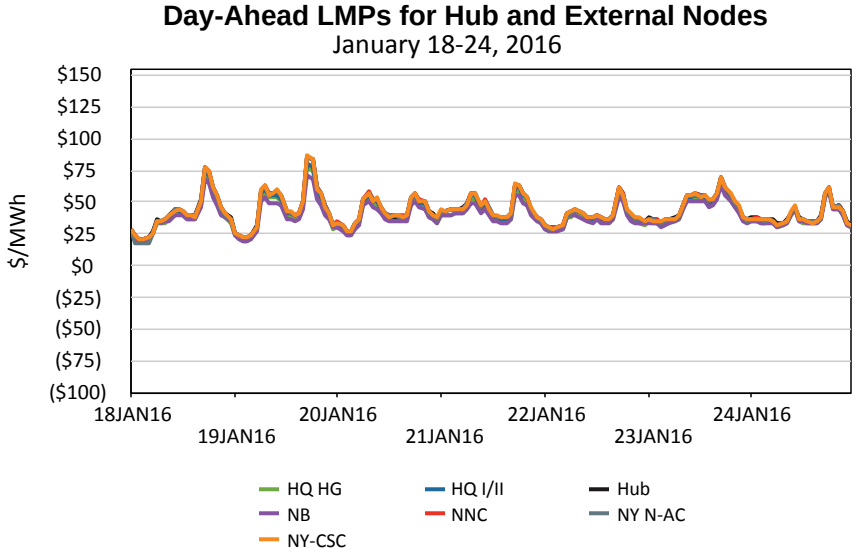
The two graphs below show the weekly average LMPs, congestion, and marginal loss components at the Hub and load zones for both the Day-Ahead and Real-Time Energy Markets.



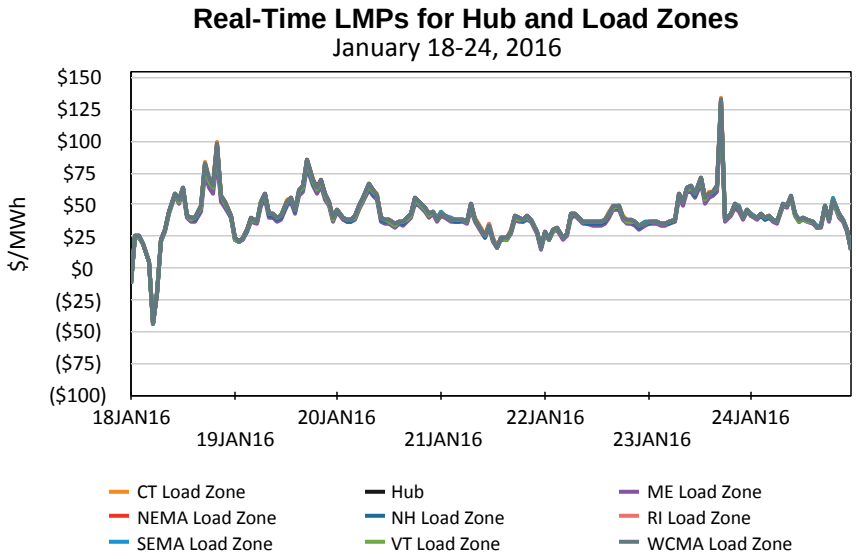


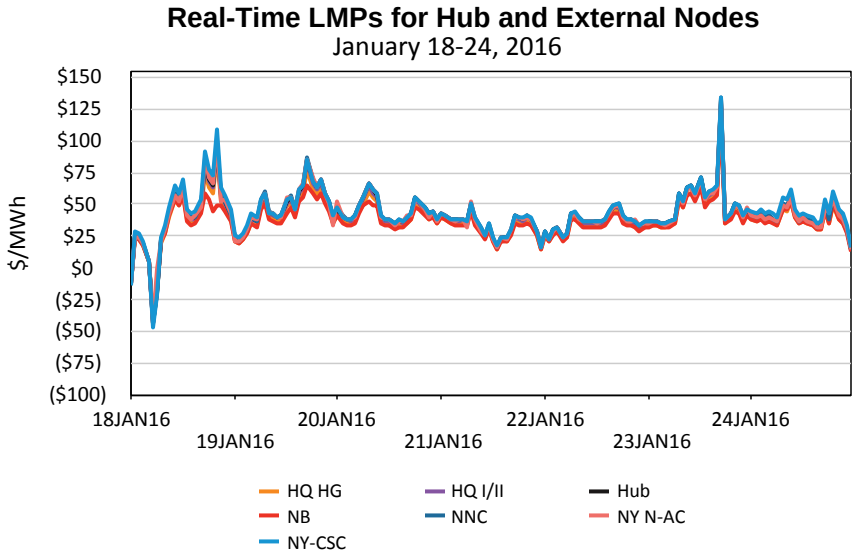
The following two graphs show hourly day-ahead LMPs for the Hub, the eight load zones, and the five external nodes. In cases where there is little or no price separation, the lines for multiple locations may be indistinguishable from each other.


Day-Ahead LMPs for Hub and Load Zones
January 18-24, 2016
$/MWh
$150
$125
$100
$75
$50
$25
$0
($25)
($50)
($75)
($100)
18JAN16
19JAN16
20JAN16
21JAN16
22JAN16
23JAN16
24JAN16
CT Load Zone
Hub
ME Load Zone
NEMA Load Zone
NH Load Zone
RI Load Zone
SEMA Load Zone
VT Load Zone
WCMA Load Zone


Day-Ahead LMPs for Hub and External Nodes
January 18-24, 2016
$/MWh
$150
$125
$100
$75
$50
$25
$0
($25)
($50)
($75)
($100)
18JAN16
19JAN16
20JAN16
21JAN16
22JAN16
23JAN16
24JAN16
HQ HG
HQ I/II
Hub
NB
NNC
NY N-AC
NY-CSC

The following two graphs show hourly real-time LMPs for the Hub, the eight load zones, and the five external nodes. In cases where there is little or no price separation, the lines for multiple locations may be indistinguishable from each other.



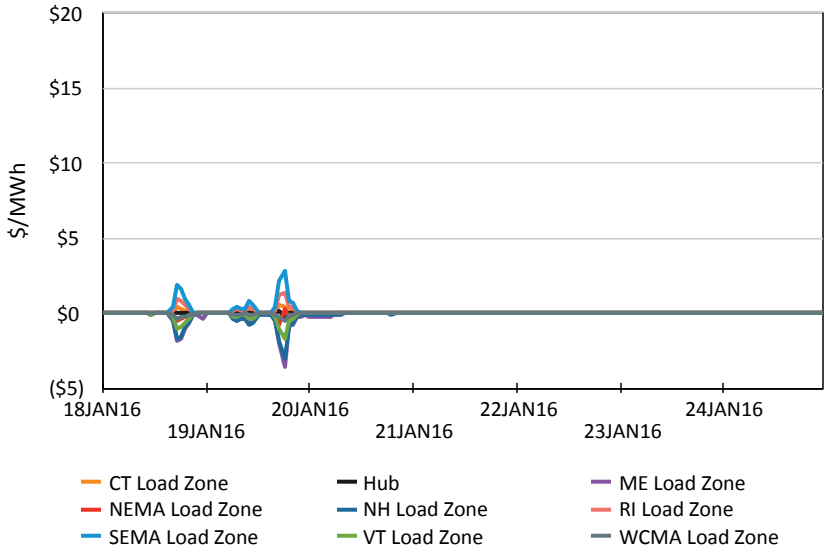


LMP Summary Statistics, January 18-24, 2016

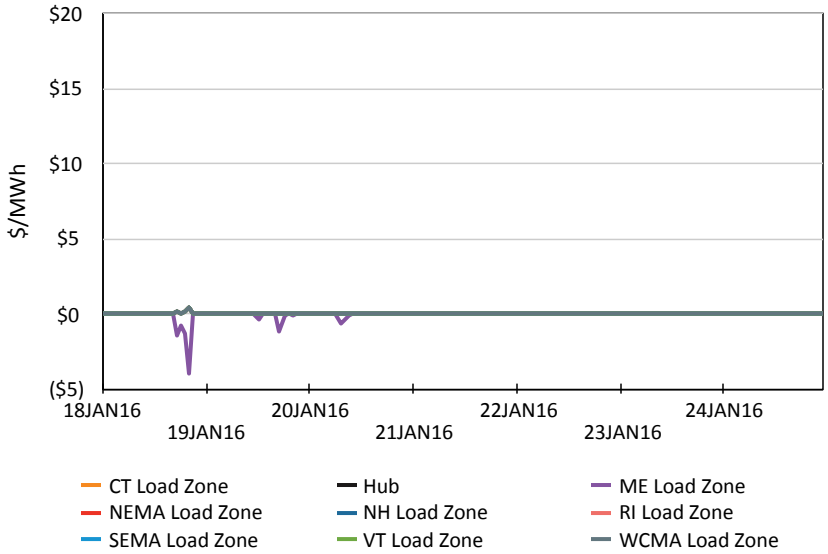
Hub/Zone/ Ext. Node	Avg DA LMP ($/MWh)	Avg RT LMP ($/MWh)	Min DA LMP ($/MWh)	Min RT LMP ($/MWh)	Max DA LMP ($/MWh)	Max RT LMP ($/MWh)	DA as % of Hub	RT as % of Hub	RT as % of DA	DA Std Dev	RT Std Dev	RT Std/DA Std
Hub	$43.41	$41.97	$20.41	-$43.64	$84.68	$132.78	1.00	1.00	0.97	11.55	17.73	1.54
ME	$41.54	$39.53	$19.91	-$42.37	$77.23	$124.63	0.96	0.94	0.95	10.57	16.46	1.56
NH	$42.89	$41.06	$20.47	-$43.42	$80.25	$130.13	0.99	0.98	0.96	11.02	17.27	1.57
VT	$43.25	$41.49	$20.16	-$43.14	$82.85	$131.12	1.00	0.99	0.96	11.43	17.47	1.53
CT	$43.38	$42.21	$20.10	-$43.32	$85.34	$133.72	1.00	1.01	0.97	11.71	17.86	1.53
RI	$43.40	$42.01	$20.38	-$43.61	$85.00	$132.67	1.00	1.00	0.97	11.52	17.69	1.54
SEMA	$43.52	$42.02	$20.49	-$43.48	$85.85	$133.32	1.00	1.00	0.97	11.67	17.69	1.52
WCMA	$43.53	$42.07	$20.44	-$43.68	$84.49	$133.04	1.00	1.00	0.97	11.55	17.76	1.54
NEMA	$43.25	$41.88	$20.50	-$43.60	$82.58	$133.29	1.00	1.00	0.97	11.37	17.67	1.55
NB Ext	$38.88	$36.71	$18.79	-$40.44	$70.92	$118.84	0.90	0.87	0.94	9.79	14.84	1.52
NY-N AC Ext	$42.86	$41.73	$18.00	-$43.28	$84.68	$130.29	0.99	0.99	0.97	11.82	17.52	1.48
HQ Ext	$42.32	$41.02	$20.10	-$42.96	$80.39	$129.96	0.97	0.98	0.97	10.99	17.31	1.57
HG Ext	$40.17	$38.38	$18.48	-$39.90	$76.99	$121.55	0.93	0.91	0.96	10.75	16.17	1.50
CSC Ext	$43.37	$43.50	$20.05	-$47.45	$87.01	$134.34	1.00	1.04	1.00	11.77	18.54	1.58
NNC Ext	$43.34	$42.40	$19.89	-$42.99	$85.32	$133.75	1.00	1.01	0.98	11.74	17.95	1.53

The next two graphs show hourly day-ahead and real-time congestion components for the Hub and each of the eight load zones. In cases where there is little or no price separation, the lines for multiple locations may be indistinguishable from each other.

Day-Ahead Congestion Component for Hub and Load Zones
January 18-24, 2016



Real-Time Congestion Component for Hub and Load Zones
January 18-24, 2016



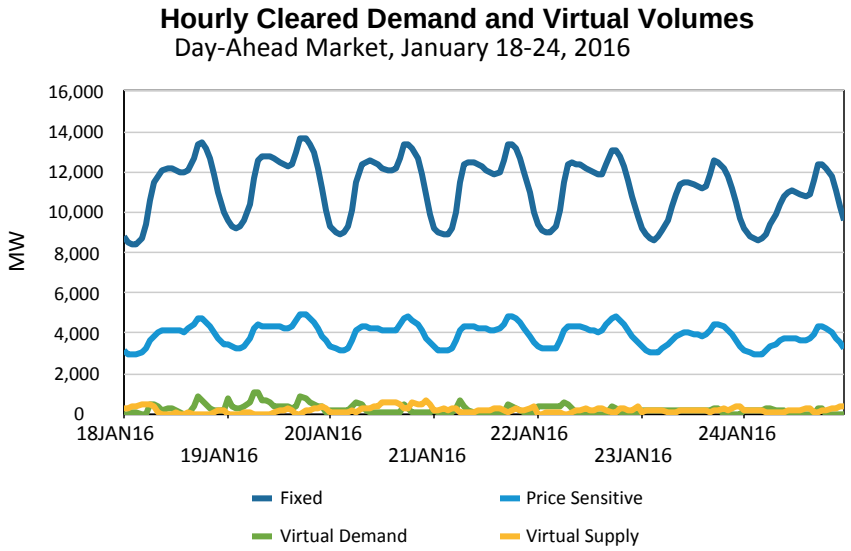
3. Energy Market Demand

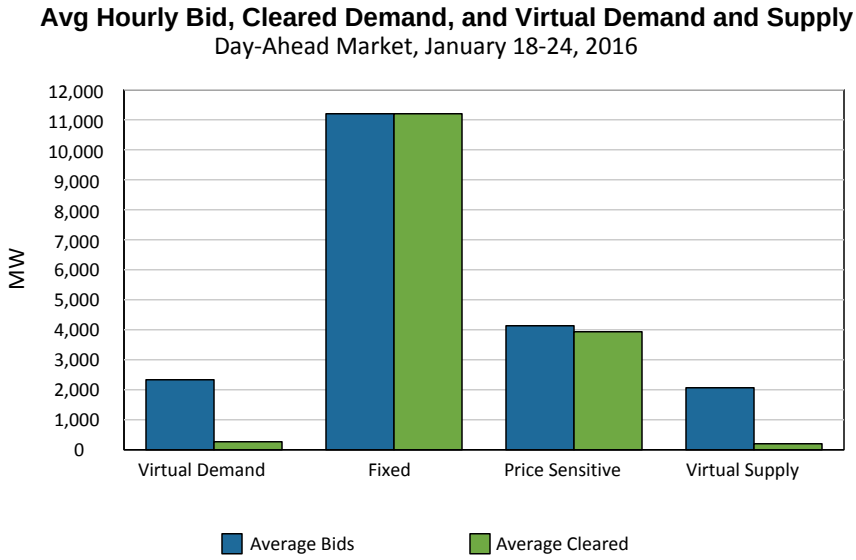
3.1 Day-Ahead Demand

The following table displays the day-ahead load obligation at the Hub, load zones, and external nodes for this week, last week, the same week a year ago and the percent change for each.

Location	This Week (MWh)	Last Week (MWh)	% Chg vs. Prior Week	Last Year (MWh)	% Chg vs. Prior Year
Hub	10,801	8,733	23.7%	7,363	46.7%
ME	228,665	219,842	4.0%	225,300	1.5%
NH	248,222	240,245	3.3%	238,484	4.1%
VT	121,782	118,106	3.1%	117,095	4.0%
CT	624,924	594,694	5.1%	634,438	-1.5%
RI	163,642	158,290	3.4%	162,324	0.8%
SEMA	299,019	281,911	6.1%	295,518	1.2%
WCMA	361,266	344,590	4.8%	362,135	-0.2%
NEMA	504,970	489,323	3.2%	502,949	0.4%
NB Ext	2,007	150	Large	2,459	-18.4%
NY-N AC Ext	37,751	13,671	176.1%	16,157	133.6%
HQ Ext	105	1	Large	2,198	-95.2%
HG Ext	0	356	-100.0%	16	-100.0%
CSC Ext	11,000	10,705	2.8%	0	Large
NNC Ext	12,907	10,052	28.4%	6,476	99.3%

Participants can bid fixed and price sensitive demand as well as submit virtual demand bids and virtual supply offers into the Day-Ahead Energy Market. The first graph below shows hourly cleared values for these four categories of bids and offers. The second graph shows average hourly values for the week.





The following table summarizes day-ahead demand bid volumes submitted and cleared at the Hub and in the eight load zones (including nodal locations within each load zone) along with virtual demand (decrement or 'decs') bids and supply (increment or 'incs') offers on the same basis.

Daily Demand Bid and Virtual Volumes by Zone (MWh)
January 18-24, 2016

Location	Date	Fixed Demand Bids	Price Sens. Bids	Dec Bids	Inc Offers	Cleared Fixed Demand	Cleared Price Sens. Demand	Cleared Decs	Cleared Incs	Total DA Demand
Hub	18JAN16	0	0	1,402	4,045	0	0	1,084	1,445	1,084
Hub	19JAN16	0	0	4,343	3,140	0	0	4,153	698	4,153
Hub	20JAN16	0	0	1,133	7,786	0	0	989	4,906	989
Hub	21JAN16	0	0	1,922	4,131	0	0	905	1,511	905
Hub	22JAN16	0	0	1,697	4,039	0	0	1,475	1,400	1,475
Hub	23JAN16	0	0	1,417	4,029	0	0	1,257	1,629	1,257
Hub	24JAN16	0	0	1,098	4,598	0	0	938	2,013	938
ME	18JAN16	28,444	3,816	10,890	6,906	28,444	3,750	790	537	32,982
ME	19JAN16	30,140	4,096	11,119	7,162	30,140	4,025	1,004	718	35,168
ME	20JAN16	29,190	4,088	10,938	6,332	29,190	3,990	508	855	33,688
ME	21JAN16	29,293	4,384	10,781	6,866	29,293	4,228	354	963	33,875
ME	22JAN16	29,053	4,234	10,343	6,949	29,053	4,060	336	826	33,450
ME	23JAN16	28,549	3,362	9,315	4,438	28,549	3,146	172	549	31,867
ME	24JAN16	27,672	3,192	9,622	5,551	27,672	2,968	3	538	30,643
NH	18JAN16	20,166	14,950	2,294	5,424	20,166	14,950	143	239	35,260
NH	19JAN16	21,173	16,178	3,129	5,640	21,173	16,178	399	290	37,750
NH	20JAN16	20,777	15,588	2,829	5,128	20,777	15,588	99	250	36,464
NH	21JAN16	20,696	15,703	3,064	5,051	20,696	15,703	34	31	36,433
NH	22JAN16	20,225	15,430	2,738	5,228	20,225	15,430	153	240	35,807
NH	23JAN16	17,832	15,841	1,694	3,271	17,832	15,841	171	2	33,845
NH	24JAN16	17,511	15,578	2,017	4,774	17,511	15,578	3	95	33,092
VT	18JAN16	1,124	16,269	652	4,714	1,124	16,269	99	654	17,493
VT	19JAN16	1,120	17,063	664	4,746	1,120	17,063	110	632	18,293
VT	20JAN16	1,160	16,493	414	4,741	1,160	16,493	3	670	17,656
VT	21JAN16	1,183	16,333	418	4,438	1,183	16,302	1	473	17,486
VT	22JAN16	1,291	16,050	414	4,584	1,291	16,050	3	479	17,344
VT	23JAN16	1,250	15,518	259	3,719	1,250	15,518	256	1,037	17,024
VT	24JAN16	1,222	14,996	671	4,710	1,222	14,964	299	828	16,485
CT	18JAN16	72,789	16,767	3,005	6,254	72,789	15,822	1,118	145	89,730
CT	19JAN16	76,111	17,873	2,979	6,254	76,111	17,016	1,119	2	94,245
CT	20JAN16	73,811	17,762	2,522	6,280	73,811	16,642	696	257	91,150
CT	21JAN16	73,433	18,158	2,680	6,216	73,433	17,038	836	115	91,308
CT	22JAN16	73,260	18,350	2,824	6,282	73,260	17,230	888	252	91,378
CT	23JAN16	69,337	15,860	2,138	3,076	69,337	14,740	751	2	84,828
CT	24JAN16	68,227	14,742	2,333	3,238	68,227	13,622	497	15	82,346
RI	18JAN16	19,272	3,678	1,799	7,985	19,272	3,678	424	510	23,374
RI	19JAN16	20,301	3,994	781	7,722	20,301	3,994	326	223	24,620
RI	20JAN16	19,984	3,912	364	7,056	19,984	3,912	189	341	24,085
RI	21JAN16	19,886	3,911	408	7,382	19,886	3,911	154	407	23,952
RI	22JAN16	19,550	3,938	929	7,260	19,550	3,938	549	308	24,036
RI	23JAN16	18,064	3,552	911	4,612	18,064	3,552	257	631	21,874
RI	24JAN16	18,238	3,472	183	6,804	18,238	3,472	40	434	21,750

Location	Date	Fixed Demand Bids	Price Sens. Bids	Dec Bids	Inc Offers	Cleared Fixed Demand	Cleared Price Sens. Demand	Cleared Decs	Cleared Incs	Total DA Demand
SEMA	18JAN16	36,123	7,134	468	4,160	36,123	6,084	407	352	42,614
SEMA	19JAN16	37,749	7,626	524	3,618	37,749	6,726	462	15	44,937
SEMA	20JAN16	36,974	7,606	184	3,674	36,974	6,486	124	32	43,584
SEMA	21JAN16	36,765	7,628	330	3,814	36,765	6,508	253	50	43,525
SEMA	22JAN16	36,397	7,834	338	3,858	36,397	6,714	278	8	43,389
SEMA	23JAN16	34,920	7,114	84	3,496	34,920	5,994	68	0	40,981
SEMA	24JAN16	33,935	6,940	290	3,760	33,935	5,820	233	4	39,988
WCMA	18JAN16	36,567	15,785	2,580	4,176	36,567	14,680	998	16	52,244
WCMA	19JAN16	38,612	16,417	2,626	4,192	38,612	15,386	576	6	54,574
WCMA	20JAN16	37,827	16,127	2,185	4,112	37,827	14,877	330	8	53,034
WCMA	21JAN16	37,578	16,192	2,324	4,198	37,578	14,943	407	97	52,928
WCMA	22JAN16	37,484	16,209	2,293	4,048	37,484	14,964	581	26	53,029
WCMA	23JAN16	34,370	15,723	634	3,457	34,370	14,484	470	2	49,324
WCMA	24JAN16	33,157	14,439	631	3,818	33,157	13,207	454	4	46,817
NEMA	18JAN16	54,253	18,492	1,833	4,652	54,253	17,532	410	0	72,194
NEMA	19JAN16	56,692	19,710	2,851	4,504	56,692	18,830	659	0	76,180
NEMA	20JAN16	55,787	19,454	3,394	5,598	55,787	18,334	1,155	958	75,276
NEMA	21JAN16	55,610	19,493	3,771	5,442	55,610	18,373	1,261	974	75,245
NEMA	22JAN16	55,240	19,548	2,516	4,485	55,240	18,428	356	0	74,024
NEMA	23JAN16	51,149	17,728	1,921	3,258	51,149	16,608	178	20	67,936
NEMA	24JAN16	50,046	17,387	2,117	4,537	50,046	16,267	44	24	66,357

3.2 Real-Time Demand

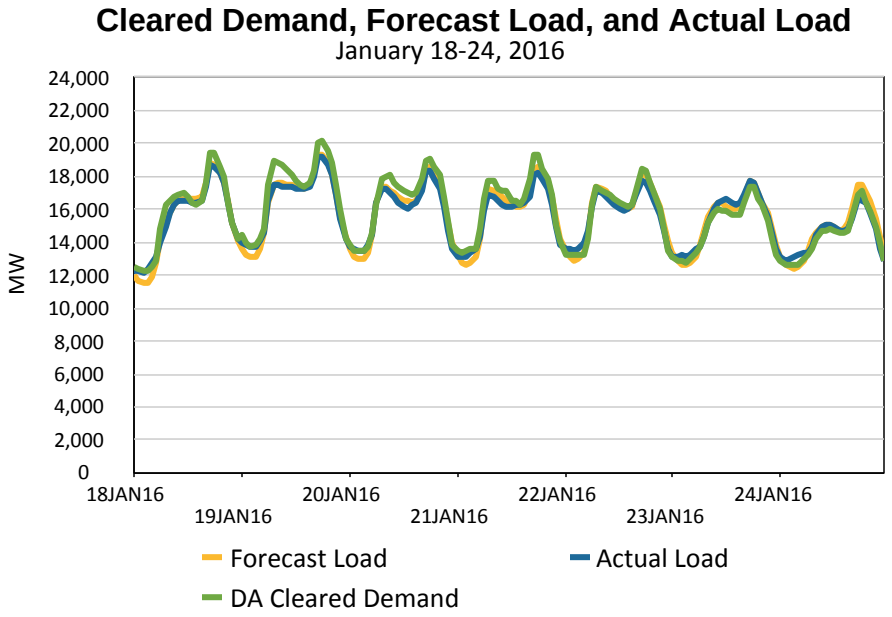
The following table displays the real-time load obligation at each load zone and external nodes for this week, last week, the same week a year ago, and the percent change for each.

Location	This Week (MWh)	Last Week (MWh)	% Chg vs. Prior Week	Last Year (MWh)	% Chg vs. Prior Year
ME	238,139	233,312	2.1%	229,219	3.9%
NH	246,081	238,092	3.4%	233,757	5.3%
VT	125,278	122,592	2.2%	119,727	4.6%
CT	634,089	596,673	6.3%	614,565	3.2%
RI	164,055	154,608	6.1%	158,671	3.4%
SEMA	298,510	282,347	5.7%	287,325	3.9%
WCMA	356,408	339,807	4.9%	349,237	2.1%
NEMA	523,127	494,655	5.8%	499,564	4.7%
NB Ext	629	210	199.5%	11,976	-94.7%
NY-N AC Ext	65,175	29,348	122.1%	32,388	101.2%
HQ Ext	188	1,144	-83.6%	0	Large
HG Ext	0	0	0.0%	0	0.0%
CSC Ext	11,000	10,700	2.8%	0	Large
NNC Ext	17,135	13,377	28.1%	8,545	100.5%

Real-Time Peak Hour System Load and Associated Hourly LMPs

Day	Hour	System Load (MW)	Hub	Maine Load Zone	NH Load Zone	VT Load Zone	CT Load Zone	RI Load Zone	SEMA Load Zone	WCMA Load Zone	NEMA Load Zone
18JAN16	18	18,969	$82.41	$74.52	$79.51	$80.46	$83.15	$82.33	$82.08	$82.54	$81.80
19JAN16	19	19,421	$68.94	$64.24	$66.65	$67.62	$69.28	$68.85	$68.75	$69.06	$68.49
20JAN16	18	18,588	$43.00	$40.27	$41.62	$42.05	$43.31	$42.90	$42.98	$43.10	$42.92
21JAN16	19	18,467	$39.23	$36.68	$37.86	$38.27	$39.62	$39.38	$39.48	$39.30	$39.18
22JAN16	18	18,041	$49.21	$46.30	$48.32	$48.94	$49.89	$48.98	$49.28	$49.43	$49.09
23JAN16	18	18,001	$132.78	$124.63	$130.13	$131.12	$133.72	$132.67	$133.32	$133.04	$133.29
24JAN16	18	16,839	$48.89	$47.41	$48.46	$48.41	$48.95	$48.60	$49.30	$49.03	$49.20

The graph below compares the hourly quantities of cleared day-ahead demand with the forecast and actual load. Cleared demand is the total of cleared fixed demand bids; cleared price sensitive demand bids, and cleared decrement bids.



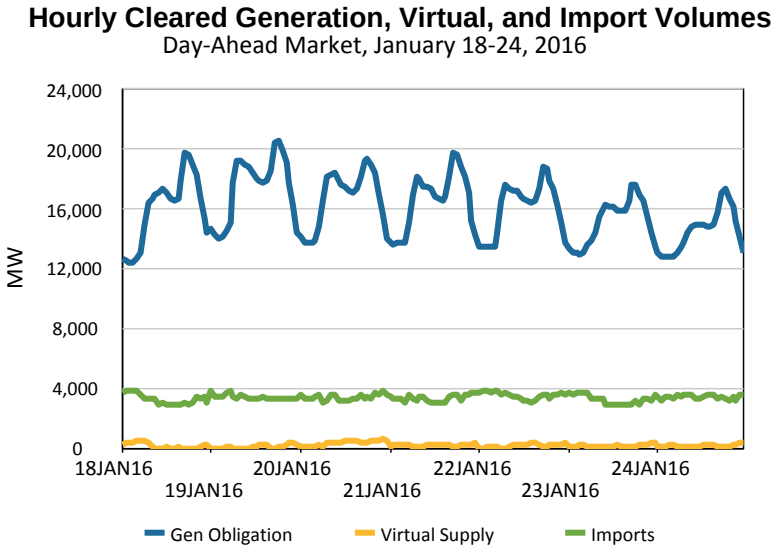
The table below compares the total quantities (MWh) of day-ahead load obligation with the real-time load obligation for each Load Zone (including nodal locations within each Load Zone) for the week. Day-ahead load obligation is composed of day-ahead cleared demand bids and cleared decrement bids. Real-time load obligation is comprised of metered load and internal bilateral contracts for load.

Zone	DA Load Obligation (MWh)	RT Load Obligation (MWh)	DA Delta (MWh)	DA % of RT
ME	231,674	238,139	-6,465	97.3%
NH	248,651	246,412	2,239	100.9%
VT	121,782	125,278	-3,496	97.2%
CT	624,984	634,089	-9,105	98.6%
RI	163,690	164,055	-365	99.8%
SEMA	299,019	298,510	509	100.2%
WCMA	384,853	388,025	-3,172	99.2%
NEMA	507,213	523,127	-15,914	97.0%

4. Energy Market Supply

4.1 Day-Ahead Supply

The following graph displays hourly day-ahead generation obligation, along with cleared day-ahead increment offers and day-ahead imports.



The following table displays the average hourly day-ahead generation obligation, along with cleared day-ahead increment offers and day-ahead imports, for this week, last week, the same week a year ago, and the percent change for each.

Type	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
Day-Ahead Generation Obligation	16,058	15,254	5.3%	15,730	2.1%
Day-Ahead Cleared Increments	183	222	-17.3%	314	-41.6%
Day-Ahead Imports	3,381	3,354	0.8%	3,599	-6.1%

The following table provides the total Day-Ahead Imports by Interface for This Week, Last Week, the same week a year ago and the percent change for each.

Location	This Week	Last Week	% Chg vs. Prior Week	Last Year	% Chg vs. Prior Year
NB Ext	137,315	120,696	13.8%	95,731	43.4%
NY-N AC Ext	163,989	176,068	-6.9%	228,616	-28.3%
HQ Ext	227,685	228,006	-0.1%	241,177	-5.6%
HG Ext	36,624	36,121	1.4%	35,957	1.9%
CSC Ext	0	0	0.0%	0	0.0%
NNC Ext	2,410	2,627	-8.3%	3,140	-23.3%

4.2 Real-Time Supply

The ISO reports daily metered generation by fuel type on a weekly basis in this report. Up to and including December 2, 2014, the output of New England's wholesale generators was reported by fuel category as shown on the left in the table below. Units that were capable of (and, at times likely) burning two or more fuels were reported in the category corresponding to their primary registered fuel type.

On December 3, 2014, ISO New England implemented the Energy Market Offer Flexibility (EMOF) Project. One of the features of the new market construct allows market generators to submit supply offers that disclose fuel "blending." If a unit co-fires two (or more) fuels, they are able to specify the percentage of each fuel's expected use over the unit's output in their supply offer. Note: This functionality was implemented to provide the unit the flexibility to represent their cost and expected use of two or more fuels. While the supply offer blending is intended to be indicative of fuel consumption, it is not a precise measure of fuels burned.

This blend percentage, is now applied to a unit's output over its operating range, and provides somewhat better insights into the amounts of electricity generated by each type of fuel. The new output categories, commencing on December 3, 2014, are shown in the table below on the right.

Pre-EMOF	Fuel Types	EMOF
Coal	Coal	Coal
	Coal/Oil	
Gas	Natural Gas	Natural Gas
	Gas/Oil	
Hydro	Pondage	Hydro
	Pumped Storage	
	Reservoir	
	Run of River	
Nuclear	Nuclear	Nuclear
Oil	Diesel Oil	Oil
	Jet Fuel Oil	
	Oil	
Refuse	Landfill Gas	Landfill Gas
	Methane/Refuse	Methane
	Refuse	Refuse
	Steam	Steam
	Steam/Refuse	
	Wood/Refuse	Wood
Solar	Solar	Solar
Wind	Wind	Wind

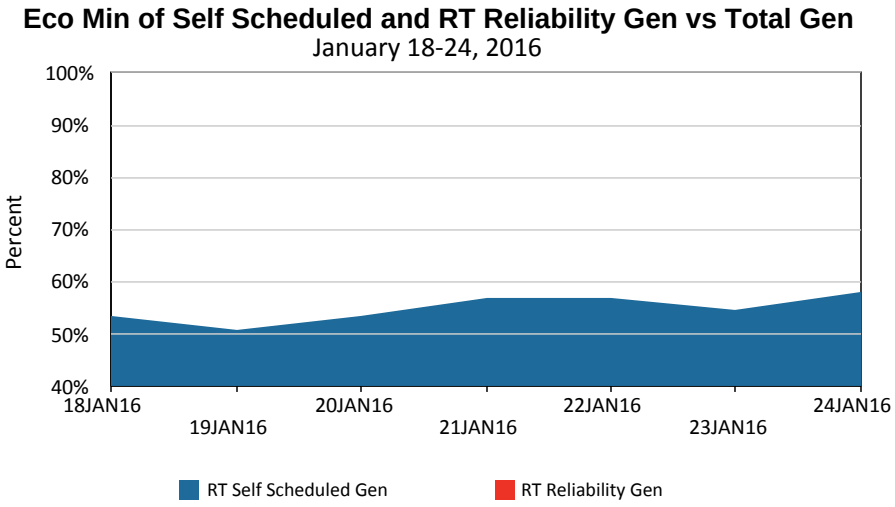
The following table provides daily and weekly totals, in megawatt-hours (MWh), of the amount of electricity produced by classified fuel type (reflecting blending) during the week. The data provided are for the full system, including "settlement only" generators that do not offer their output into the wholesale markets. Annual files of Daily Generation by Fuel Type, including the prior classification method, may be found on the ISO's web site here.

Category	Metered Generation (Megawatt hours)							
	18JAN16	19JAN16	20JAN16	21JAN16	22JAN16	23JAN16	24JAN16	Total
Coal	29,750	39,083	38,545	32,475	24,588	27,275	25,982	217,698
Hydro	29,233	28,477	27,263	24,904	24,585	26,901	23,965	185,327
Landfill Gas	1,391	1,250	1,243	1,287	1,275	1,246	1,298	8,990
Methane	122	123	122	120	125	117	114	843
Natural Gas	142,063	159,379	143,672	135,633	132,391	115,838	100,538	929,515
Nuclear	82,705	82,722	82,808	88,248	96,493	96,516	96,552	626,045
Oil	2,952	7,296	2,506	1,348	71	2,999	857	18,030
Refuse	8,746	7,674	8,905	9,036	8,888	9,252	9,659	62,159
Solar	516	647	1,282	1,585	1,312	116	821	6,278
Wind	9,065	11,165	12,581	13,039	11,144	6,267	6,600	69,860
Wood	10,368	10,081	10,544	10,212	10,423	10,415	10,389	72,431
Total	316,910	347,894	329,473	317,885	311,295	296,943	276,775	2,197,174

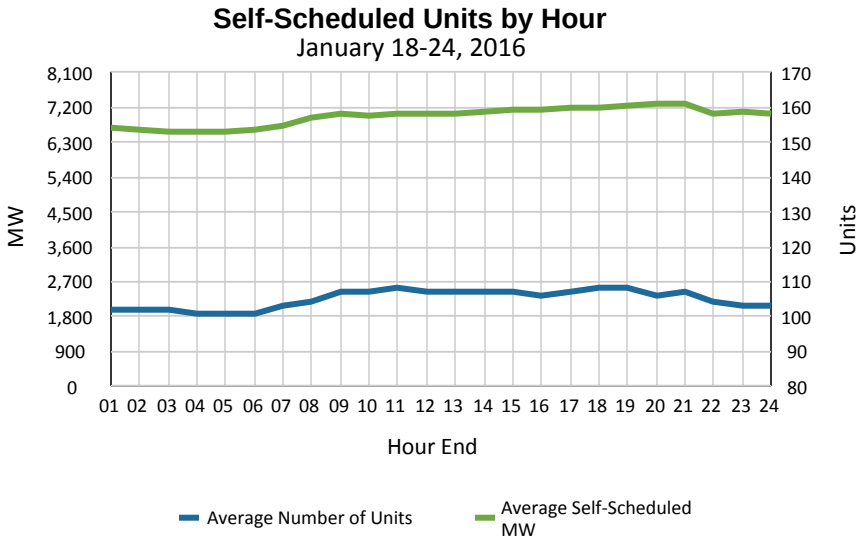
Online generators that are at their Economic Minimum output level are not eligible to set the clearing price. Real-Time Self-Scheduled Generation shown below reflects output by self-scheduled generation and by (non-dispatchable) Settlement Only Generators (SOGs). Real-Time Reliability Generation represents the aggregate economic minimum output level of generation committed for reliability reasons. The following table shows the sum of generation self scheduled (and SOGs), and that of real-time reliability committed units, and, for reference, the total daily generation in megawatts by day for the current week.

Day	Self Scheduled MWh	Real-Time Reliability MWh	Total Generation MWh
18JAN16	169,643	0	316,910
19JAN16	176,736	0	347,894
20JAN16	176,241	0	329,473
21JAN16	180,795	0	317,885
22JAN16	176,834	0	311,295
23JAN16	161,733	0	296,943
24JAN16	160,464	0	276,775

The following graph shows the total economic minimum MWh of self-scheduled generation and generation committed for reliability as a percentage of total generation.



The following graph shows the average number of self-scheduled generating units and MWh for each hour of the last week.

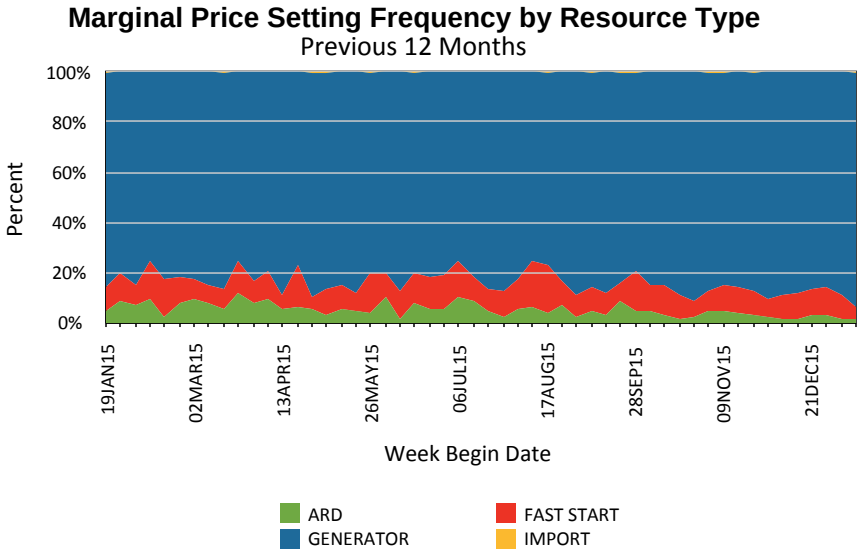


The following table provides the total real-time imports by interface for this week, last week, the same week a year ago, and the percent change for each.

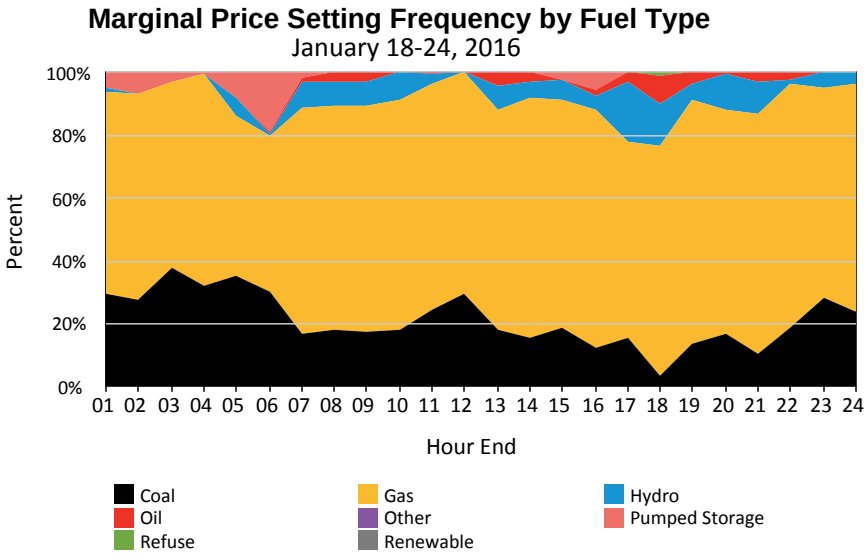
Location	This Week (MWh)	Last Week (MWh)	% Chg vs. Prior Week	Last Year (MWh)	% Chg vs. Prior Year
NB Ext	137,243	118,541	15.8%	89,273	53.7%
NY-N AC Ext	150,196	179,671	-16.4%	239,223	-37.2%
HQ Ext	233,902	225,755	3.6%	242,793	-3.7%
HG Ext	36,624	36,054	1.6%	35,958	1.9%

Location	This Week (MWh)	Last Week (MWh)	% Chg vs. Prior Week	Last Year (MWh)	% Chg vs. Prior Year
CSC Ext	0	0	0.0%	0	0.0%
NNC Ext	1,822	2,933	-37.9%	4,740	-61.6%

The following graph shows the percentage of time in which a particular resource-type was responsible for setting the price during each of the last 52 weeks.



The next graph shows the percentage of time in which a particular fuel-type, as registered, was responsible for setting the price during each hour of the last week.



5. Net Commitment Period Compensation (NCPC)

NCPC information will no longer appear in this PDF report. Aggregate NCPC data will continue to be provided in the supplemental Excel file on a one week lag.

Starting September 11, 2015, an NCPC Summary report has been published to the Market Performance Reports webpage each Thursday or Friday.

The NCPC summary will feature daily-level summary charges and will include new detailed information concerning:

- Day-ahead (DA) and real-time (RT) First Contingency payments to both internal and external payees
- DA and RT Second Contingency payments, including reliability region detail
- Voltage, Distribution, and Generator Performance Audit detail
- RT Detail for these concepts: Out of Merit, Canceled Starts, Hourly Shortfall, and Posturing payments

The new report will also include a companion spreadsheet that will contain daily, year-to-date totals for each of these concepts. The report and spreadsheet will also be posted here, select 'NCPC Summary' from the document type filter on the left side of the page.

6. Reserve Markets

The results of the most recent Forward Reserve Market Auction, covering Winter 2015-2016 Procurement Period (October-May), may be found on the ISO's Web site located here.

The following table shows the Daily Forward Reserve Daily Threshold Prices for the past week.

Forward Reserve Daily Threshold Prices
January 18-24, 2016

Day	Daily Threshold Price
18JAN16	$71.39
19JAN16	$71.39
20JAN16	$67.67
21JAN16	$60.25
22JAN16	$59.57
23JAN16	$57.88
24JAN16	$57.88

Forward Reserve Market (FRM) payments by reserve zone made during the prior week are shown in the following table. These figures are preliminary and subject to revision during the settlement process.

FRM Payment Summary by Reserve Zone
January 18-24, 2016

Reserve Zone	Reserve Product	Max FRM Payment	Total FRM Credits	Failure to Reserve Penalties	Failure to Activate Penalties	Total FRM Performance	Pct. of Max.
ALL	TMNSR	$715,735	$710,403	-$8,007	$0	$702,396	98.1%
ALL	TMOR	$321,765	$320,674	-$1,639	$0	$319,035	99.2%
ALL	ALL	$1,037,500	$1,031,077	-$9,646	$0	$1,021,431	98.5%
ROS	TMNSR	$384,495	$382,152	-$3,520	$0	$378,632	98.5%
ROS	TMOR	$123,100	$122,965	-$203	$0	$122,762	99.7%
ROS	ALL	$507,595	$505,117	-$3,723	$0	$501,394	98.8%
SWCT	TMNSR	$0	$0	$0	$0	$0	N/A
SWCT	TMOR	$91,850	$91,850	$0	$0	$91,850	100.0%
SWCT	ALL	$91,850	$91,850	$0	$0	$91,850	100.0%
CT	TMNSR	$331,240	$328,251	-$4,487	$0	$323,764	97.7%
CT	TMOR	$106,815	$105,859	-$1,436	$0	$104,423	97.8%
CT	ALL	$438,055	$434,110	-$5,923	$0	$428,187	97.7%
NEMABSTN	TMNSR	$0	$0	$0	$0	$0	N/A
NEMABSTN	TMOR	$0	$0	$0	$0	$0	N/A
NEMABSTN	ALL	$0	$0	$0	$0	$0	N/A

The following two tables show FRM charges allocated to each load zone during the prior week and the real-time reserve payments by reserve zone. These figures are also preliminary and subject to revision during the settlement process.

FRM Charge Summary by Load Zone
January 18-24, 2016

Load Zone	FRM Charge
ME	$93,354
NH	$97,994
VT	$48,858
CT	$253,117
RI	$64,927
SEMA	$117,185
WCMA	$140,390
NEMA	$205,606

Real-Time Reserve Payment Summary by Reserve Zone
January 18-24, 2016

Date	CT	NEMABSTN	ROS	SWCT	Total
18JAN16	$8	$148	$1,848	$11	$2,016
19JAN16	$153	$77	$733	$6	$970
20JAN16	$0	$77	$596	$6	$680
21JAN16	$1	$12	$24	$3	$40
22JAN16	$62	$611	$1,558	$52	$2,283
23JAN16	$22,041	$10,683	$78,672	$18,525	$129,920
24JAN16	$1,674	$1,076	$12,565	$147	$15,461
Total	$23,939	$12,684	$95,996	$18,750	$151,370

The follow table shows real-time reserve clearing prices. These figures are also preliminary and subject to revision during the settlement process.

Real-Time Reserve Clearing Prices
January 18-24, 2016

		SW Connecticut			Connecticut			NEMA/Boston			Rest Of System		
Day	Hr	TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR
18JAN16	18	$3.29	$0.00	$0.00	$3.29	$0.00	$0.00	$3.29	$0.00	$0.00	$3.29	$0.00	$0.00
19JAN16	17	$1.72	$0.00	$0.00	$1.72	$0.00	$0.00	$1.72	$0.00	$0.00	$1.72	$0.00	$0.00
20JAN16	8	$1.12	$0.00	$0.00	$1.12	$0.00	$0.00	$1.12	$0.00	$0.00	$1.12	$0.00	$0.00
20JAN16	9	$0.60	$0.00	$0.00	$0.60	$0.00	$0.00	$0.60	$0.00	$0.00	$0.60	$0.00	$0.00
21JAN16	22	$0.07	$0.00	$0.00	$0.07	$0.00	$0.00	$0.07	$0.00	$0.00	$0.07	$0.00	$0.00
22JAN16	7	$3.94	$0.00	$0.00	$3.94	$0.00	$0.00	$3.94	$0.00	$0.00	$3.94	$0.00	$0.00
23JAN16	1	$2.06	$0.00	$0.00	$2.06	$0.00	$0.00	$2.06	$0.00	$0.00	$2.06	$0.00	$0.00
23JAN16	2	$1.79	$0.00	$0.00	$1.79	$0.00	$0.00	$1.79	$0.00	$0.00	$1.79	$0.00	$0.00
23JAN16	8	$19.30	$0.00	$0.00	$19.30	$0.00	$0.00	$19.30	$0.00	$0.00	$19.30	$0.00	$0.00
23JAN16	9	$8.33	$0.00	$0.00	$8.33	$0.00	$0.00	$8.33	$0.00	$0.00	$8.33	$0.00	$0.00
23JAN16	10	$11.55	$0.00	$0.00	$11.55	$0.00	$0.00	$11.55	$0.00	$0.00	$11.55	$0.00	$0.00

Day	Hr	SW Connecticut			Connecticut			NEMA/Boston			Rest Of System		
		TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR	TMSR	TMNSR	TMOR
23JAN16	11	$5.75	$0.00	$0.00	$5.75	$0.00	$0.00	$5.75	$0.00	$0.00	$5.75	$0.00	$0.00
23JAN16	12	$3.60	$0.00	$0.00	$3.60	$0.00	$0.00	$3.60	$0.00	$0.00	$3.60	$0.00	$0.00
23JAN16	13	$16.04	$0.00	$0.00	$16.04	$0.00	$0.00	$16.04	$0.00	$0.00	$16.04	$0.00	$0.00
23JAN16	14	$0.58	$0.00	$0.00	$0.58	$0.00	$0.00	$0.58	$0.00	$0.00	$0.58	$0.00	$0.00
23JAN16	15	$1.35	$0.00	$0.00	$1.35	$0.00	$0.00	$1.35	$0.00	$0.00	$1.35	$0.00	$0.00
23JAN16	16	$1.45	$0.00	$0.00	$1.45	$0.00	$0.00	$1.45	$0.00	$0.00	$1.45	$0.00	$0.00
23JAN16	17	$1.05	$0.00	$0.00	$1.05	$0.00	$0.00	$1.05	$0.00	$0.00	$1.05	$0.00	$0.00
23JAN16	18	$50.07	$33.40	$33.40	$50.07	$33.40	$33.40	$50.07	$33.40	$33.40	$50.07	$33.40	$33.40
23JAN16	21	$4.03	$0.00	$0.00	$4.03	$0.00	$0.00	$4.03	$0.00	$0.00	$4.03	$0.00	$0.00
23JAN16	22	$2.34	$0.00	$0.00	$2.34	$0.00	$0.00	$2.34	$0.00	$0.00	$2.34	$0.00	$0.00
23JAN16	23	$0.04	$0.00	$0.00	$0.04	$0.00	$0.00	$0.04	$0.00	$0.00	$0.04	$0.00	$0.00
23JAN16	24	$3.36	$0.00	$0.00	$3.36	$0.00	$0.00	$3.36	$0.00	$0.00	$3.36	$0.00	$0.00
24JAN16	8	$8.85	$0.00	$0.00	$8.85	$0.00	$0.00	$8.85	$0.00	$0.00	$8.85	$0.00	$0.00
24JAN16	9	$2.00	$0.00	$0.00	$2.00	$0.00	$0.00	$2.00	$0.00	$0.00	$2.00	$0.00	$0.00
24JAN16	10	$1.86	$0.00	$0.00	$1.86	$0.00	$0.00	$1.86	$0.00	$0.00	$1.86	$0.00	$0.00
24JAN16	11	$1.95	$0.00	$0.00	$1.95	$0.00	$0.00	$1.95	$0.00	$0.00	$1.95	$0.00	$0.00
24JAN16	12	$1.82	$0.00	$0.00	$1.82	$0.00	$0.00	$1.82	$0.00	$0.00	$1.82	$0.00	$0.00
24JAN16	13	$4.11	$0.00	$0.00	$4.11	$0.00	$0.00	$4.11	$0.00	$0.00	$4.11	$0.00	$0.00
24JAN16	14	$3.40	$0.00	$0.00	$3.40	$0.00	$0.00	$3.40	$0.00	$0.00	$3.40	$0.00	$0.00
24JAN16	15	$1.43	$0.00	$0.00	$1.43	$0.00	$0.00	$1.43	$0.00	$0.00	$1.43	$0.00	$0.00
24JAN16	16	$0.42	$0.00	$0.00	$0.42	$0.00	$0.00	$0.42	$0.00	$0.00	$0.42	$0.00	$0.00
24JAN16	20	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00
24JAN16	21	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00	$0.54	$0.00	$0.00
24JAN16	22	$1.10	$0.00	$0.00	$1.10	$0.00	$0.00	$1.10	$0.00	$0.00	$1.10	$0.00	$0.00

The table below displays the time intervals, reserve types, and bias adjustment values for any reserve bias adjustments during this week.

Real-Time Reserve Bias
January 18-24, 2016

Day	Reserve Bias
Jan 18-24, 2016	None

7. Glossary and Links

7.1 Locational Marginal Price (LMP)

A LMP is a calculated price of wholesale electric energy at a pricing node, load zone, reliability region, or the Hub. LMPs are comprised of three components: energy, congestion, and marginal losses. The energy component is the same at all locations, while the congestion and marginal loss components can vary among locations. More information on LMPs can be found at the ISO web site located here.

Analyze: Weekly Average Day-Ahead LMP Statistics, Hub and Load Zones (53 weeks, Excel format.)
TAB NAME: 'Avg DA and RT LMP Hub and Zones'

Analyze: Weekly Average Congestion and Loss Components, Hub and Load Zones (53 weeks, Excel format.)
TAB NAME: 'Average Congestion and Loss'

7.2 Day-Ahead and Real-Time Energy Markets

Day-Ahead and Real-Time Demand

Participants can bid fixed and price sensitive asset-based demand into the Day-Ahead Energy Market. They can also submit virtual demand bids called decrement (DECs) bids as well as external transaction bids. Day-ahead load obligation (DALO) is the result of clearing the Day-Ahead Energy Market, and is easily aggregated by location. DALO is the total MWh of cleared asset demand bids, cleared locational demand bids, cleared DECs and cleared exports at all locations. Real-time load obligation (RTLO) is the total MWhs of a participant's metered load. RTLO, less DALO positions on a locational basis represents a participant's RT Adjusted Net Interchange deviation.

Analyze: Weekly Total Day-Ahead and Real-Time Load Obligation, Hub and Zones (53 weeks, Excel format)
TAB NAME: 'Total DA and RT Load Obligation'

Day-Ahead and Real-Time Supply

Participants can offer "must run" and Economic asset-based supply into the Day-Ahead Energy Market. They can also submit virtual supply offers called increment (INCs) bids as well as external transaction offers or bids. Day-ahead generation obligation (DAGO) is the result of clearing the Day-Ahead Energy Market, and is easily aggregated by location. DAGO is the total MWhs of cleared asset supply offers, cleared INC offers, and cleared imports at all locations. Real-time generation obligation deviation (RTGO) is the total MWh of a participant's metered generation less their DAGO positions.

Analyze: Weekly Total Day-Ahead Generation Obligation, Hub and Zones (53 weeks, Excel format)
TAB NAME: 'DA Supply'

Analyze: Marginal Fuel Type by Week (53 weeks, Excel format).
TAB NAME: 'Percent Marginal Fuel Type'

Analyze: Marginal Resource Type by Week (53 weeks, Excel format).
TAB NAME: 'Percent Marginal Resource Type'

System Load

System load is 'net energy' for load on the system and is defined as the sum of generation and net external interchange, less pumping load. Real-time load obligation is the sum of all revenue quality metered load within the control area plus real-time external transaction sales (purchases on the ties are ignored).

For more information on the Day-Ahead and Real-Time Energy Markets and associated charges, see the ISO web site here for day-ahead and here for real-time.

7.3 Net Commitment Period Compensation (NCPC)

Reliability payments are made to eligible generators that have a shortfall between their revenue (based on clearing prices in the energy and regulation markets), and their offer (based on their energy offer, start-up fee, and no-load fee). Certain external transactions and virtual transactions are also eligible for these payments. These "make-whole" payments for reliability are calculated through the NCPC settlement process.

For more information on the Day-Ahead and Real-Time Energy Markets and associated charges, see the ISO web site here for day-ahead and here for real-time.

7.4 Reserve Market

The reserve markets are composed of the Forward Reserve Market (FRM) and Real-Time Reserve Markets. The FRM is the procurement mechanism for delivery of reserve products to meet TMNSR and TMOR requirements in New England during on-peak hours. Market Participants submit offers for FRM obligations in specific reserve zones to the Forward Reserve Market Auction, which occurs twice annually prior to each Seasonal Capability Period.

The real-time LMP calculation process simultaneously sets Real-Time Reserve Market Clearing Prices (RMCP) for Ten-Minute Spinning Reserve (TMSR), Ten-Minute Non-Spinning Reserve (TMNSR), and Thirty-Minute Operating Reserve (TMOR).

For more information on the Forward Reserve Market and Real-Time Reserve Market, see the ISO web site located here.

Analyze: Total Forward Reserve Market Results, by Week (53 weeks, Excel format)
TAB NAME: 'Total Forward Reserve Market'

Document Revision History		
Date	**Version**	**Remarks**
1/28/2016	Original	Initial posting.