


Market Operations Report

A faint background map of the state of New York is overlaid with a network of colored lines representing a power grid. The lines are primarily red and blue, with some green lines. The nodes of the grid are represented by small colored circles. The map is centered behind the main title and author information.

Rana Mukerji

*Senior Vice President, Market Structures
New York Independent System Operator*

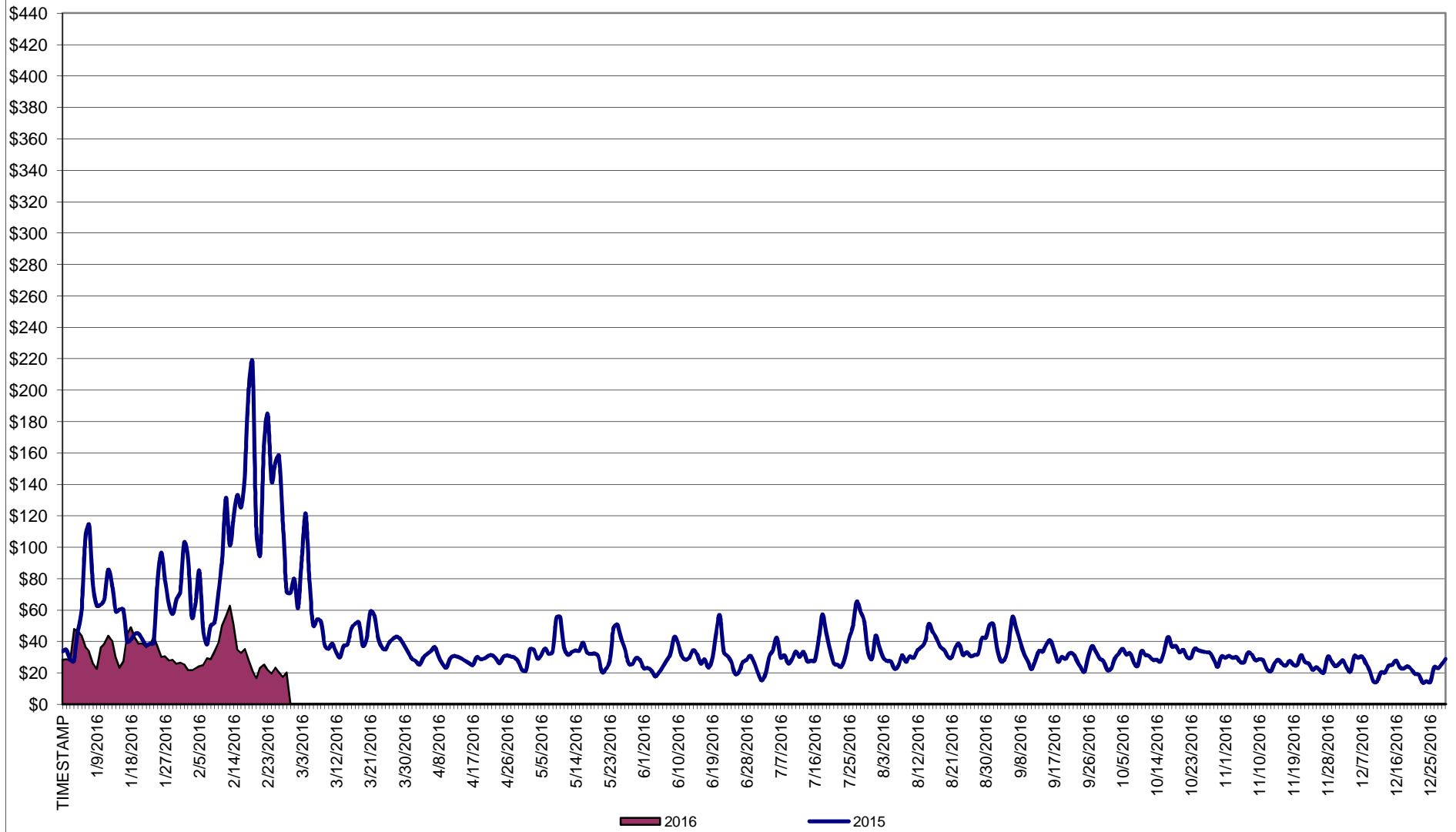
Business Issues Committee Meeting

March 17, 2016

Market Performance Highlights for February 2016

- **LBMP for February is \$28.71/MWh; lower than \$34.29/MWh in January 2016 and \$114.37/MWh in February 2015.**
 - Day Ahead and Real Time Load Weighted LBMPs are lower compared to January.
- **February 2016 average year-to-date monthly cost of \$34.02/MWh is a 61% decrease from \$87.74/MWh in February 2015.**
- **Average daily sendout is 436 GWh/day in February; lower than 439 GWh/day in January 2016 and 481 GWh/day in February 2015.**
- **Natural gas prices were lower compared to the previous month and distillate prices were higher compared to the previous month.**
 - Natural Gas (Transco Z6 NY) was \$3.01/MMBtu, down from \$3.77/MMBtu in January.
 - Natural gas prices are down 80% year-over-year
 - Jet Kerosene Gulf Coast was \$7.22/MMBtu, up from \$6.95/MMBtu in January.
 - Ultra Low Sulfur No.2 Diesel NY Harbor was \$7.41/MMBtu, up from \$7.05/MMBtu in January.
 - Distillate prices are down 46% year-over-year
- **Uplift per MWh is higher compared to the previous month.**
 - Uplift (not including NYISO cost of operations) is (\$0.07)/MWh; higher than (\$0.43)/MWh in January.
 - The Local Reliability Share is \$0.11/MWh, higher than \$0.09 in January.
 - The Statewide Share is (\$0.18)/MWh, higher than (\$0.52)/MWh in January.
 - TSA \$ per NYC MWh is \$0.00/MWh.
- Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than January.

Daily NYISO Average Cost/MWh (Energy & Ancillary Services)*
 2015 Annual Average \$44.09MWh
 February 2015 YTD Average \$87.74/MWh
 February 2016 YTD Average \$34.02/MWh



* Excludes ICAP payments.

Data reflects true-ups thru September 2015.

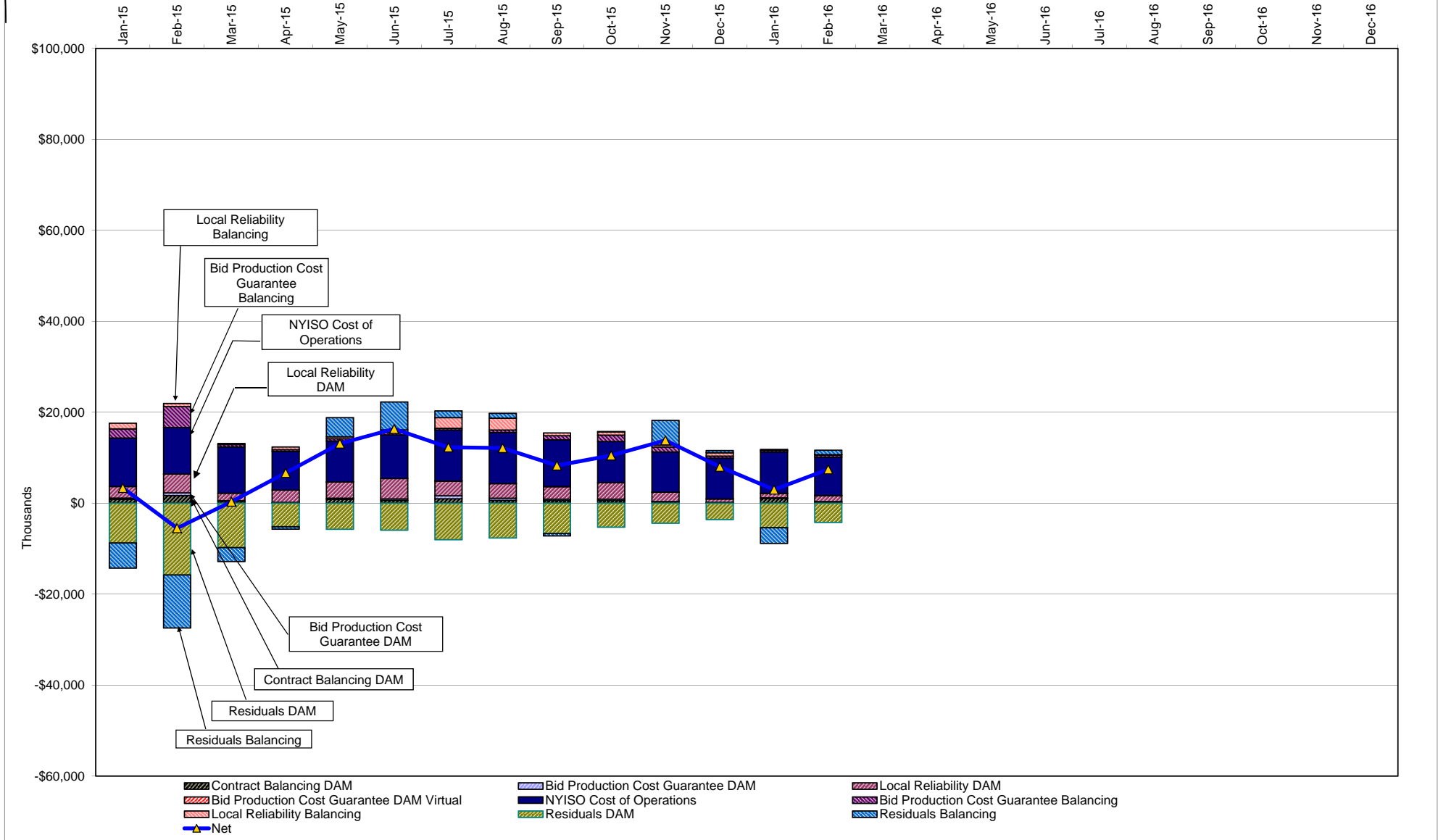
NYISO Average Cost/MWh (Energy and Ancillary Services) *
from the LBMP Customer point of view

2016	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	34.29	28.71										
NTAC	0.59	0.78										
Reserve	0.77	0.73										
Regulation	0.12	0.12										
NYISO Cost of Operations	0.64	0.65										
FERC Fee Recovery	0.09	0.10										
Uplift	(0.43)	(0.07)										
Uplift: Local Reliability Share	0.09	0.11										
Uplift: Statewide Share	(0.52)	(0.18)										
Voltage Support and Black Start	0.35	0.36										
Avg Monthly Cost	36.42	31.37										
Avg YTD Cost	36.42	34.02										
TSA \$ per NYC MWh	0.00	0.00										
2015	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	59.61	114.37	52.09	28.36	32.98	28.20	34.77	33.09	34.40	30.03	24.80	20.90
NTAC	0.32	0.35	0.41	0.64	0.56	0.80	0.54	0.60	0.63	0.54	0.68	1.06
Reserve	0.27	0.37	0.56	0.36	0.38	0.24	0.27	0.20	0.28	0.28	0.47	0.60
Regulation	0.10	0.18	0.11	0.12	0.10	0.13	0.12	0.12	0.10	0.12	0.13	0.13
NYISO Cost of Operations	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.69
Uplift	(0.48)	(1.08)	(0.68)	(0.15)	0.26	0.33	0.04	0.03	(0.15)	0.11	0.40	(0.07)
Uplift: Local Reliability Share	0.25	0.33	0.13	0.27	0.30	0.37	0.35	0.36	0.22	0.33	0.19	0.12
Uplift: Statewide Share	(0.73)	(1.41)	(0.81)	(0.42)	(0.05)	(0.04)	(0.30)	(0.33)	(0.37)	(0.22)	0.21	(0.18)
Voltage Support and Black Start	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.38
Avg Monthly Cost	60.91	115.27	53.58	30.41	35.37	30.79	36.84	35.14	36.35	32.17	27.58	23.70
Avg YTD Cost	60.91	87.74	76.64	66.82	60.96	56.02	52.77	50.20	48.59	47.17	45.65	44.09
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.17	0.50	0.07	0.06	0.01	0.00	0.00	0.00
2014	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	183.36	123.19	109.58	46.09	40.30	43.39	43.97	34.48	37.63	35.61	42.89	38.08
NTAC	0.56	0.64	0.39	1.18	0.69	0.78	0.43	0.41	0.50	0.57	0.68	0.86
Reserve	0.78	0.49	0.56	0.46	0.28	0.27	0.26	0.26	0.29	0.48	0.37	0.23
Regulation	0.27	0.21	0.22	0.13	0.12	0.12	0.12	0.13	0.11	0.12	0.11	0.08
NYISO Cost of Operations	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Uplift	0.22	0.56	0.35	(0.09)	0.07	(0.21)	(0.26)	(0.19)	(0.20)	(0.24)	(0.40)	(0.20)
Uplift: Local Reliability Share	1.43	0.75	0.62	0.15	0.51	0.32	0.29	0.27	0.26	0.26	0.24	0.13
Uplift: Statewide Share	(1.21)	(0.19)	(0.27)	(0.24)	(0.44)	(0.53)	(0.55)	(0.45)	(0.46)	(0.50)	(0.64)	(0.33)
Voltage Support and Black Start	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Avg Monthly Cost	186.24	126.14	112.15	48.82	42.51	45.39	45.57	36.14	39.38	37.59	44.71	40.09
Avg YTD Cost	186.24	157.93	142.77	121.97	108.36	97.84	89.46	82.60	78.07	74.63	72.06	69.31
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00	0.03	0.35	0.00	0.42	0.00	0.00	0.00

* Excludes ICAP payments.
Market Mitigation and Analysis
Prepared: 3/7/2016 8:01 AM

As of Jan. 2016, the annual FERC fee is recovered separately from Cost of Ops.
Data reflects true-ups thru September 2015.

NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through February 29, 2016



DAM Contract Balancing amounts are for payments made to generating units to make them whole for being dispatched below their Day-Ahead schedule, as a result of out-of-merit dispatches.
 DAM Bid Production Cost Guarantees for Virtual Transactions are included in the chart and are shown from the inception of Virtual Transactions. These values are small and cannot be identified on the chart.
 DAM residuals consist of both energy and loss revenue collections and payments. By design, there is a net over collection of revenues due to the difference between the marginal losses paid to generation and the average losses charged to loads.

NYISO Markets Transactions

2016	January	February	March	April	May	June	July	August	September	October	November	December
Day Ahead Market MWh	14,760,915	13,614,754										
DAM LSE Internal LBMP Energy Sales	54%	55%										
DAM External TC LBMP Energy Sales	4%	2%										
DAM Bilateral - Internal Bilaterals	34%	34%										
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%										
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	1%										
DAM Bilateral - Wheel Through Bilaterals	2%	2%										
Balancing Energy Market MWh	-522,919	-580,900										
Balancing Energy LSE Internal LBMP Energy Sales	-125%	-114%										
Balancing Energy External TC LBMP Energy Sales	12%	13%										
Balancing Energy Bilateral - Internal Bilaterals	19%	9%										
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%										
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	6%	5%										
Balancing Energy Bilateral - Wheel Through Bilaterals	-12%	-12%										
Transactions Summary												
LBMP	56%	56%										
Internal Bilaterals	36%	36%										
Import Bilaterals	5%	5%										
Export Bilaterals	2%	2%										
Wheels Through	1%	1%										
Market Share of Total Load												
Day Ahead Market	103.7%	104.5%										
Balancing Energy +	-3.7%	-4.5%										
Total MWh	14,237,996	13,033,853										
Average Daily Energy Sendout/Month GWh	439	436										

2015	January	February	March	April	May	June	July	August	September	October	November	December
Day Ahead Market MWh	15,961,306	14,967,371	15,059,207	12,589,321	13,291,917	14,277,299	16,573,027	16,333,932	14,740,907	13,546,033	13,338,332	13,620,002
DAM LSE Internal LBMP Energy Sales	55%	54%	53%	55%	57%	57%	62%	61%	58%	53%	53%	55%
DAM External TC LBMP Energy Sales	5%	6%	6%	4%	2%	1%	1%	1%	3%	6%	5%	1%
DAM Bilateral - Internal Bilaterals	35%	33%	33%	33%	35%	33%	30%	31%	31%	34%	33%	35%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	3%	5%	5%	6%	4%	5%	4%	4%	5%	5%	5%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	1%	2%	1%	1%	1%	1%	1%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	0%	1%	1%	1%	0%	2%	2%	2%	2%	1%	2%	2%
Balancing Energy Market MWh	-650,944	-296,616	-396,739	-409,205	-331,091	-549,794	-505,637	-228,461	-33,268	-595,704	-684,006	-628,903
Balancing Energy LSE Internal LBMP Energy Sales	-149%	-247%	-192%	-147%	-142%	-106%	-120%	-139%	-345%	-116%	-111%	-116%
Balancing Energy External TC LBMP Energy Sales	30%	113%	64%	36%	35%	16%	25%	50%	110%	13%	12%	17%
Balancing Energy Bilateral - Internal Bilaterals	13%	14%	19%	5%	6%	6%	13%	25%	239%	7%	5%	5%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	6%	8%	12%	12%	10%	4%	3%	8%	46%	5%	5%	7%
Balancing Energy Bilateral - Wheel Through Bilaterals	0%	12%	-4%	-5%	-9%	-22%	-21%	-44%	-149%	-9%	-12%	-13%
Transactions Summary												
LBMP	58%	59%	57%	57%	58%	57%	61%	61%	61%	56%	56%	54%
Internal Bilaterals	37%	34%	35%	35%	36%	35%	32%	32%	32%	36%	35%	37%
Import Bilaterals	3%	5%	5%	6%	4%	5%	5%	5%	5%	5%	6%	6%
Export Bilaterals	2%	2%	2%	2%	2%	1%	1%	1%	1%	2%	2%	2%
Wheels Through	0%	1%	1%	0%	0%	1%	1%	1%	1%	0%	1%	1%
Market Share of Total Load												
Day Ahead Market	104.3%	102.0%	102.7%	103.4%	102.6%	104.0%	103.1%	101.4%	100.2%	104.6%	105.4%	104.8%
Balancing Energy +	-4.3%	-2.0%	-2.7%	-3.4%	-2.6%	-4.0%	-3.1%	-1.4%	-0.2%	-4.6%	-5.4%	-4.8%
Total MWh	15,310,362	14,670,755	14,662,468	12,180,116	12,960,826	13,727,505	16,067,390	16,105,471	14,707,639	12,950,329	12,654,326	12,991,099
Average Daily Energy Sendout/Month GWh	462	481	436	387	409	450	512	511	473	389	396	408

+ Balancing Energy: Load(MW) purchased at Real Time LBMP.

* The signs for the detail section intuitively reflect the direction of power flow eliminating the use of double negatives when Balancing Energy is negative.

Notes: Percent totals may not equal 100% due to rounding.
Virtual Transactions are not reflected in this chart.

NYISO Markets 2016 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>DAY AHEAD LBMP</u>												
Price *	\$31.01	\$25.76										
Standard Deviation	\$10.86	\$12.46										
Load Weighted Price **	\$32.13	\$26.75										
<u>RTC LBMP</u>												
Price *	\$26.12	\$24.10										
Standard Deviation	\$16.06	\$17.89										
Load Weighted Price **	\$27.16	\$25.29										
<u>REAL TIME LBMP</u>												
Price *	\$30.15	\$24.28										
Standard Deviation	\$60.09	\$18.19										
Load Weighted Price **	\$31.80	\$25.61										
Average Daily Energy Sendout/Month GWh	439	436										

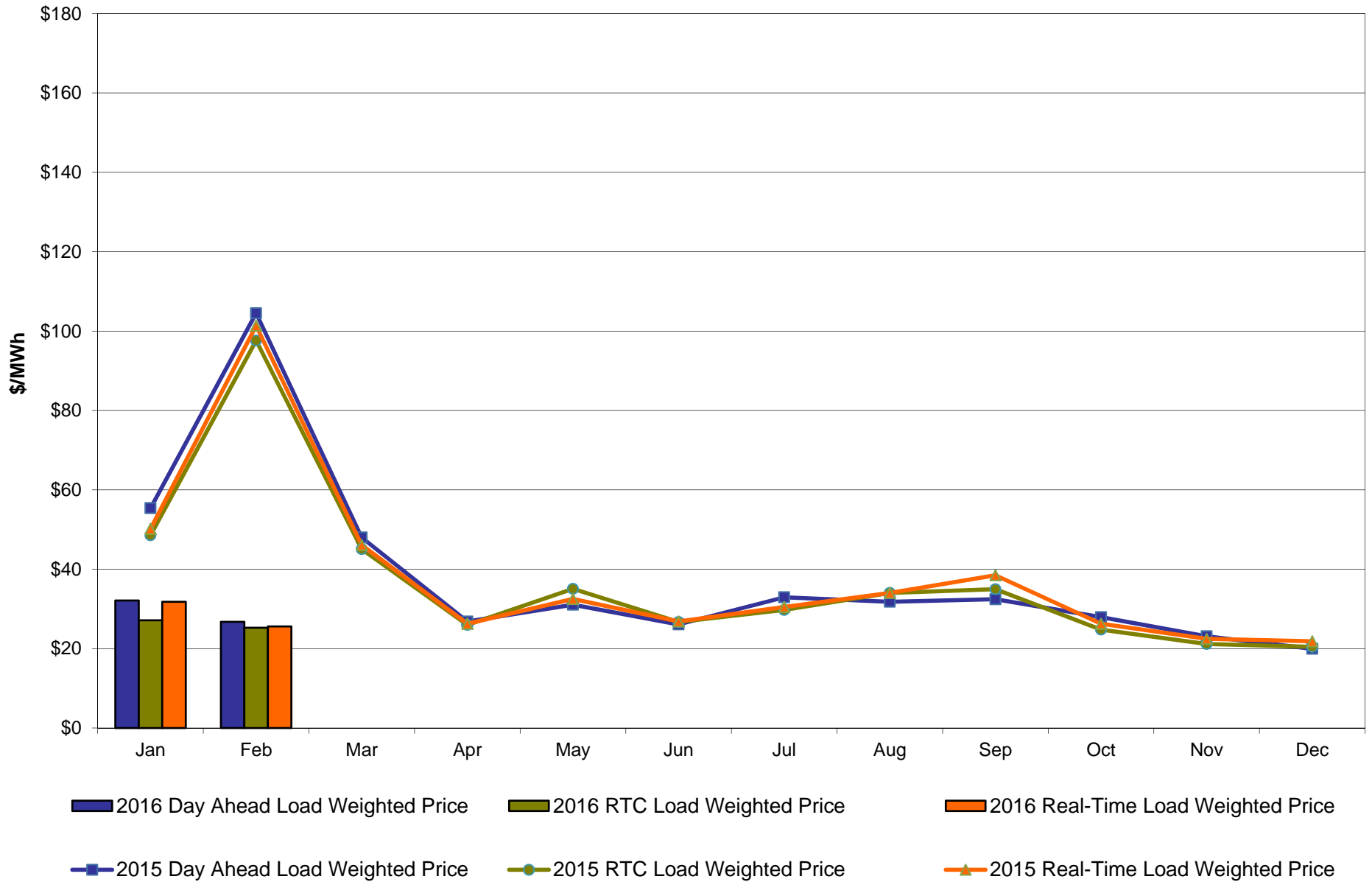
NYISO Markets 2015 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>DAY AHEAD LBMP</u>												
Price *	\$53.35	\$101.48	\$46.59	\$26.07	\$29.21	\$24.30	\$30.27	\$30.01	\$30.18	\$27.11	\$22.18	\$18.94
Standard Deviation	\$24.61	\$48.85	\$21.51	\$6.73	\$13.44	\$11.96	\$17.67	\$12.05	\$13.37	\$7.64	\$7.94	\$8.41
Load Weighted Price **	\$55.40	\$104.52	\$48.01	\$26.84	\$31.08	\$26.12	\$32.94	\$31.81	\$32.46	\$27.95	\$23.12	\$19.97
<u>RTC LBMP</u>												
Price *	\$46.98	\$95.06	\$43.43	\$25.11	\$32.85	\$24.73	\$27.51	\$31.83	\$32.39	\$23.97	\$20.07	\$19.34
Standard Deviation	\$22.84	\$47.55	\$29.42	\$12.31	\$35.40	\$24.71	\$21.84	\$23.25	\$22.99	\$10.56	\$15.66	\$14.23
Load Weighted Price **	\$48.59	\$97.62	\$45.10	\$26.00	\$35.08	\$26.73	\$29.76	\$34.04	\$34.99	\$24.79	\$21.17	\$20.46
<u>REAL TIME LBMP</u>												
Price *	\$48.51	\$98.83	\$44.38	\$25.46	\$30.39	\$23.96	\$27.71	\$31.54	\$34.82	\$25.50	\$21.33	\$20.75
Standard Deviation	\$25.99	\$52.53	\$29.07	\$12.66	\$31.69	\$31.14	\$23.42	\$26.51	\$34.85	\$12.56	\$18.76	\$19.00
Load Weighted Price **	\$50.18	\$101.34	\$46.10	\$26.28	\$32.52	\$26.86	\$30.50	\$34.05	\$38.48	\$26.29	\$22.47	\$21.86
Average Daily Energy Sendout/Month GWh	462	481	436	387	409	450	512	511	473	389	396	408

* Average zonal load weighted prices.

** Average zonal load weighted prices, load weighted in each hour.

NYISO Monthly Average Internal LBMPs 2015- 2016

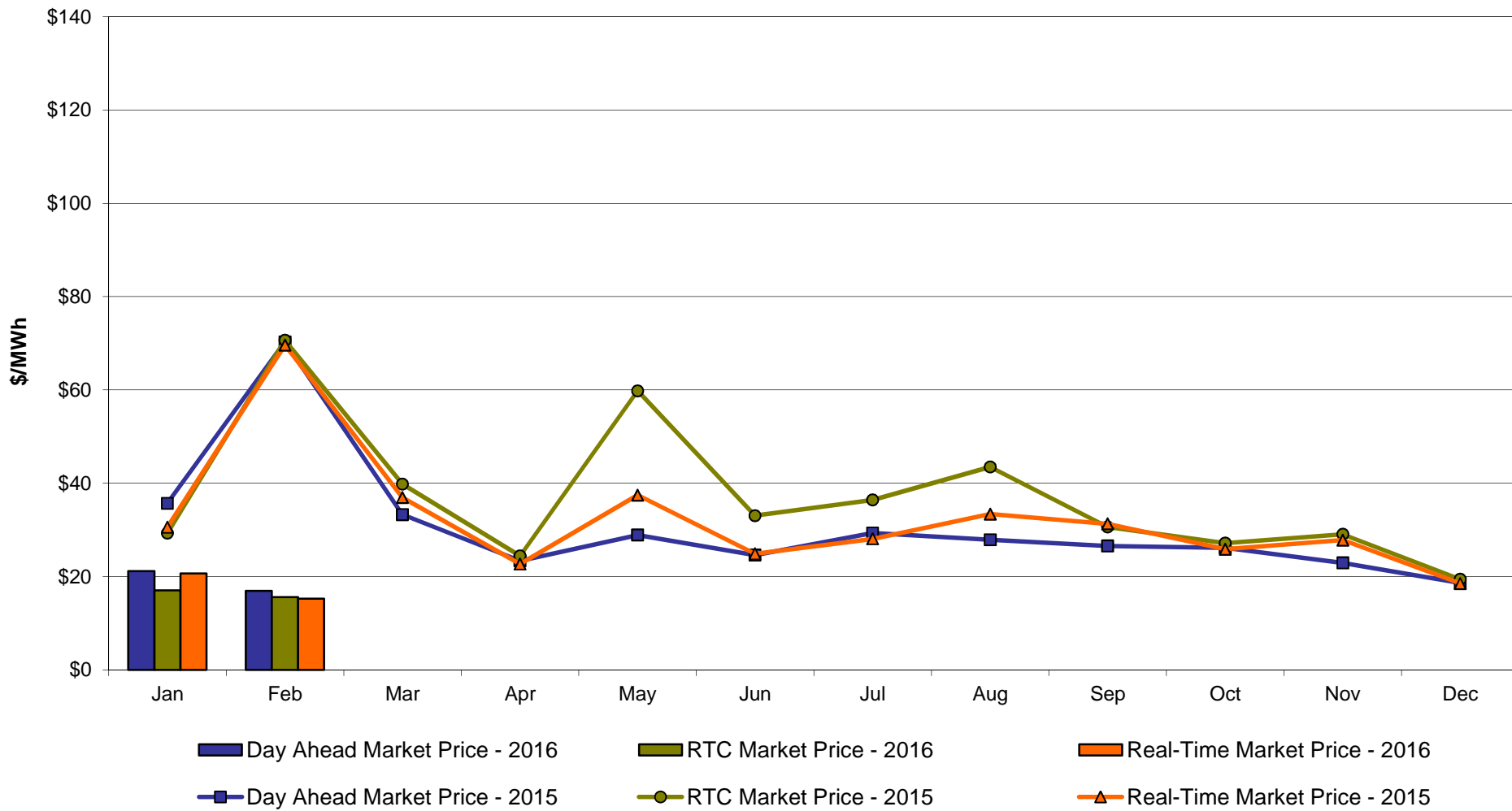


February 2016 Zonal LBMP Statistics for NYISO (\$/MWh)

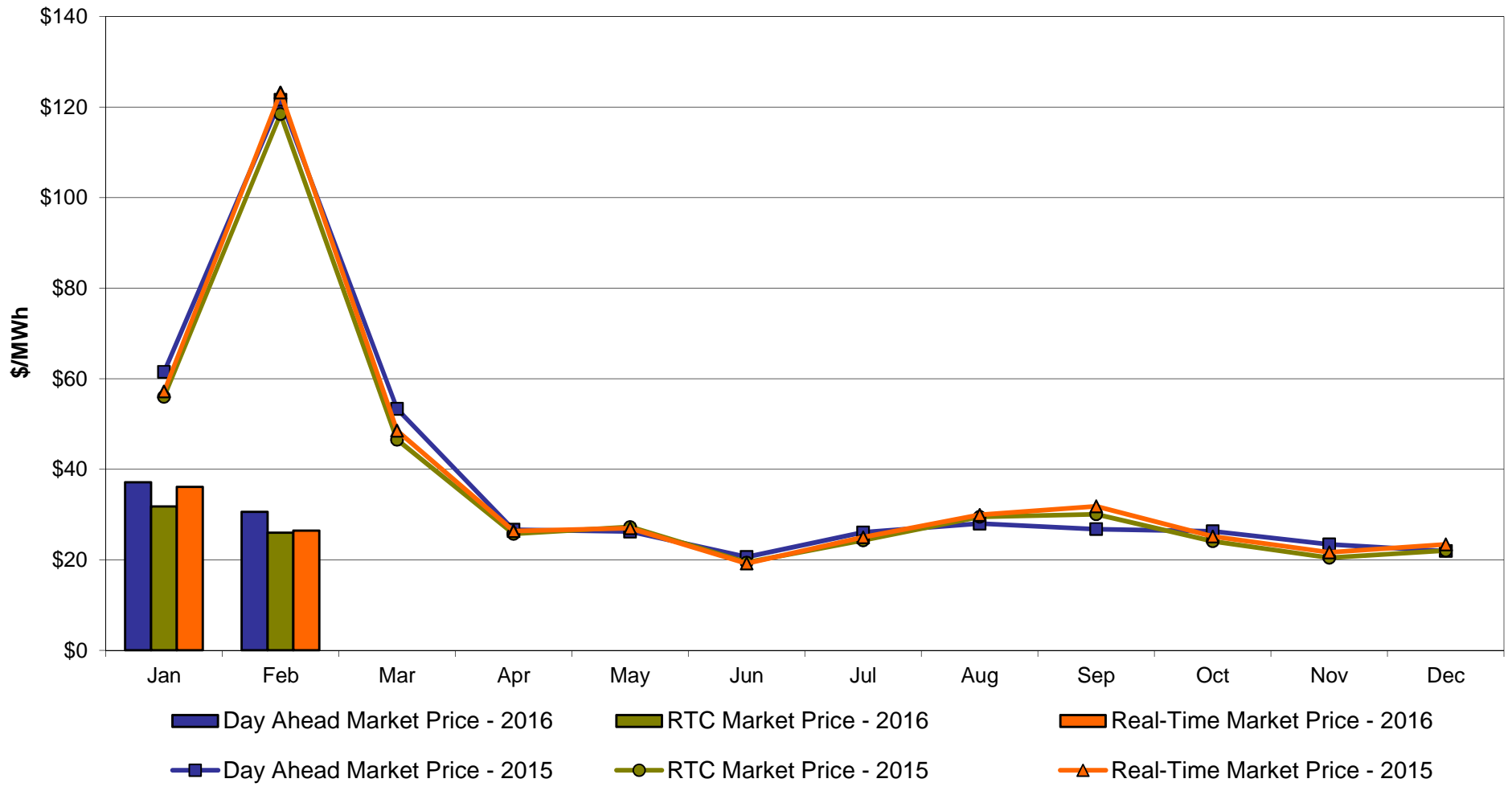
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>
DAY AHEAD LBMP											
Unweighted Price *	16.96	16.96	15.96	17.63	19.23	30.57	28.68	28.90	28.84	29.61	33.08
Standard Deviation	7.42	7.43	7.88	7.75	8.64	15.80	13.96	14.08	14.02	15.65	17.39
RTC LBMP											
Unweighted Price *	15.60	15.32	14.78	16.13	17.33	25.96	24.39	24.53	24.45	28.09	34.80
Standard Deviation	21.71	11.13	12.23	11.57	12.25	16.64	15.11	15.22	15.15	30.93	35.60
REAL TIME LBMP											
Unweighted Price *	15.25	15.56	15.42	16.44	17.61	26.42	24.97	25.10	25.03	28.62	34.52
Standard Deviation	13.07	13.21	14.48	13.07	13.98	18.61	16.73	16.85	16.77	28.59	40.45
	<u>ONTARIO</u> <u>IESO</u> <u>Zone O</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Wheel)</u> <u>Zone M</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Import/Export)</u> <u>Zone M</u>	<u>PJM</u> <u>Zone P</u>	<u>NEW</u> <u>ENGLAND</u> <u>Zone N</u>	<u>CROSS</u> <u>SOUND</u> <u>CABLE</u> <u>Controllable</u> <u>Line</u>	<u>NORTHPORT-</u> <u>NORWALK</u> <u>Controllable</u> <u>Line</u>	<u>NEPTUNE</u> <u>Controllable</u> <u>Line</u>	<u>LINDEN VFT</u> <u>Controllable</u> <u>Line</u>	<u>HUDSON</u> <u>Controllable</u> <u>Line</u>	<u>Dennison</u> <u>Controllable</u> <u>Line</u>
DAY AHEAD LBMP											
Unweighted Price *	16.25	15.15	15.15	23.13	29.79	31.74	30.94	29.80	29.59	29.36	15.73
Standard Deviation	7.04	8.06	8.06	11.47	14.95	15.29	14.62	13.99	15.80	15.09	7.80
RTC LBMP											
Unweighted Price *	14.60	13.09	13.09	22.92	25.99	26.70	26.14	23.15	27.66	28.24	14.50
Standard Deviation	10.74	12.04	12.04	48.80	17.70	19.47	19.04	16.71	31.87	40.87	11.94
REAL TIME LBMP											
Unweighted Price *	14.95	14.20	14.20	23.18	26.13	27.53	26.85	23.74	28.43	28.09	14.58
Standard Deviation	12.91	13.81	13.81	47.48	18.09	23.17	22.80	18.04	28.46	29.67	13.62

* Straight LBMP averages

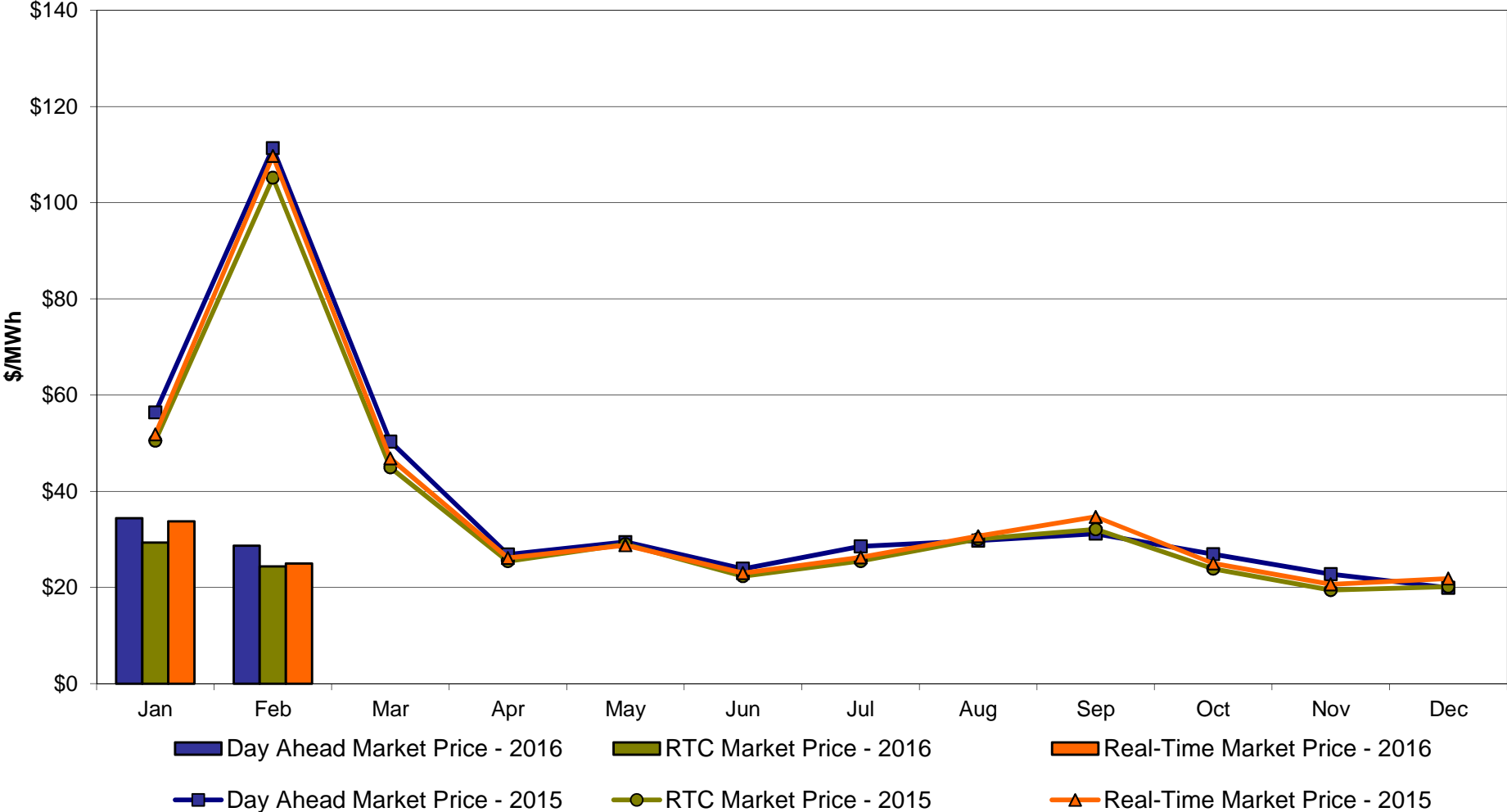
**West Zone A
Monthly Average LBMP Prices 2015 - 2016**



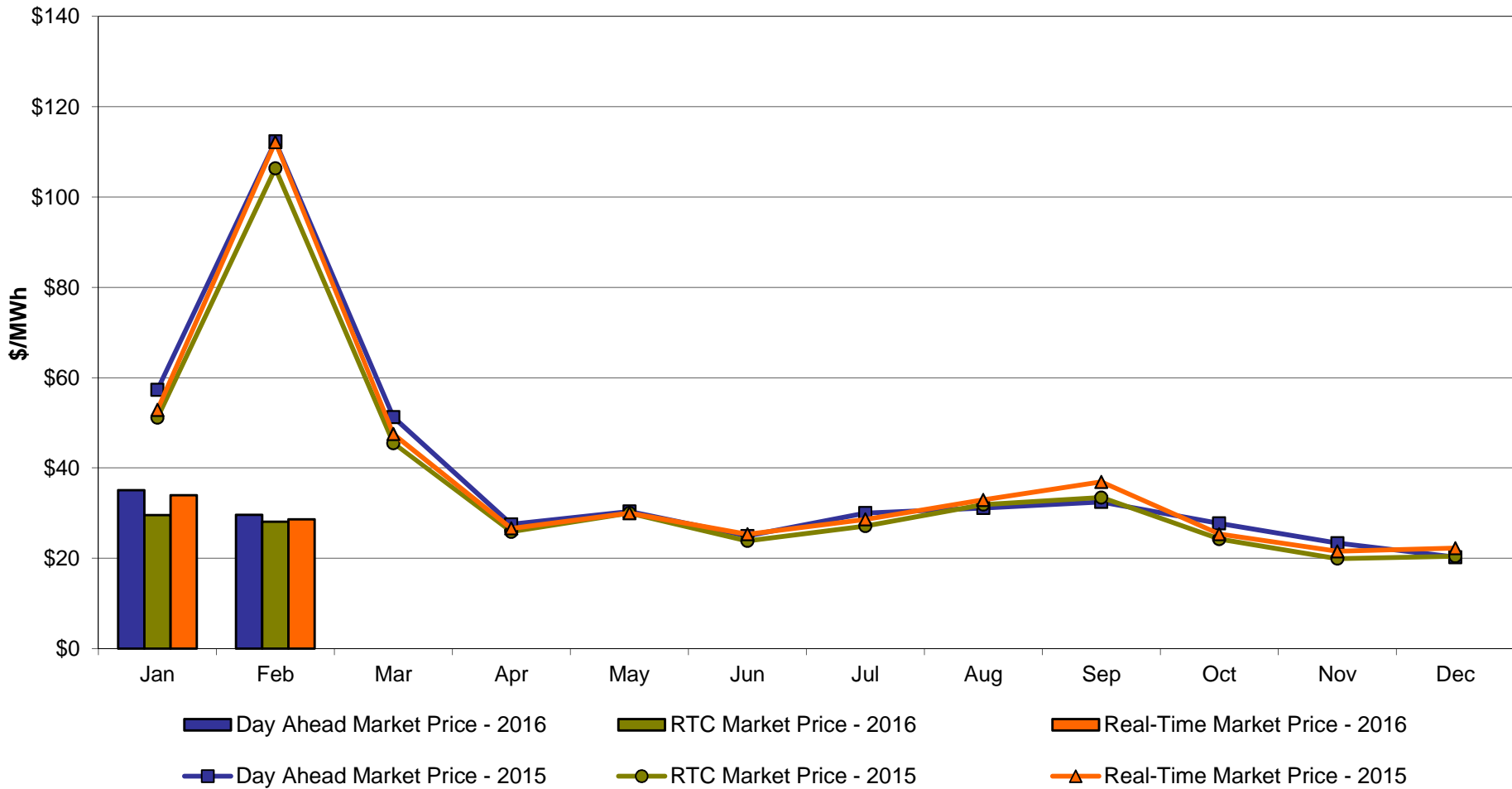
Capital Zone F Monthly Average LBMP Prices 2015 - 2016



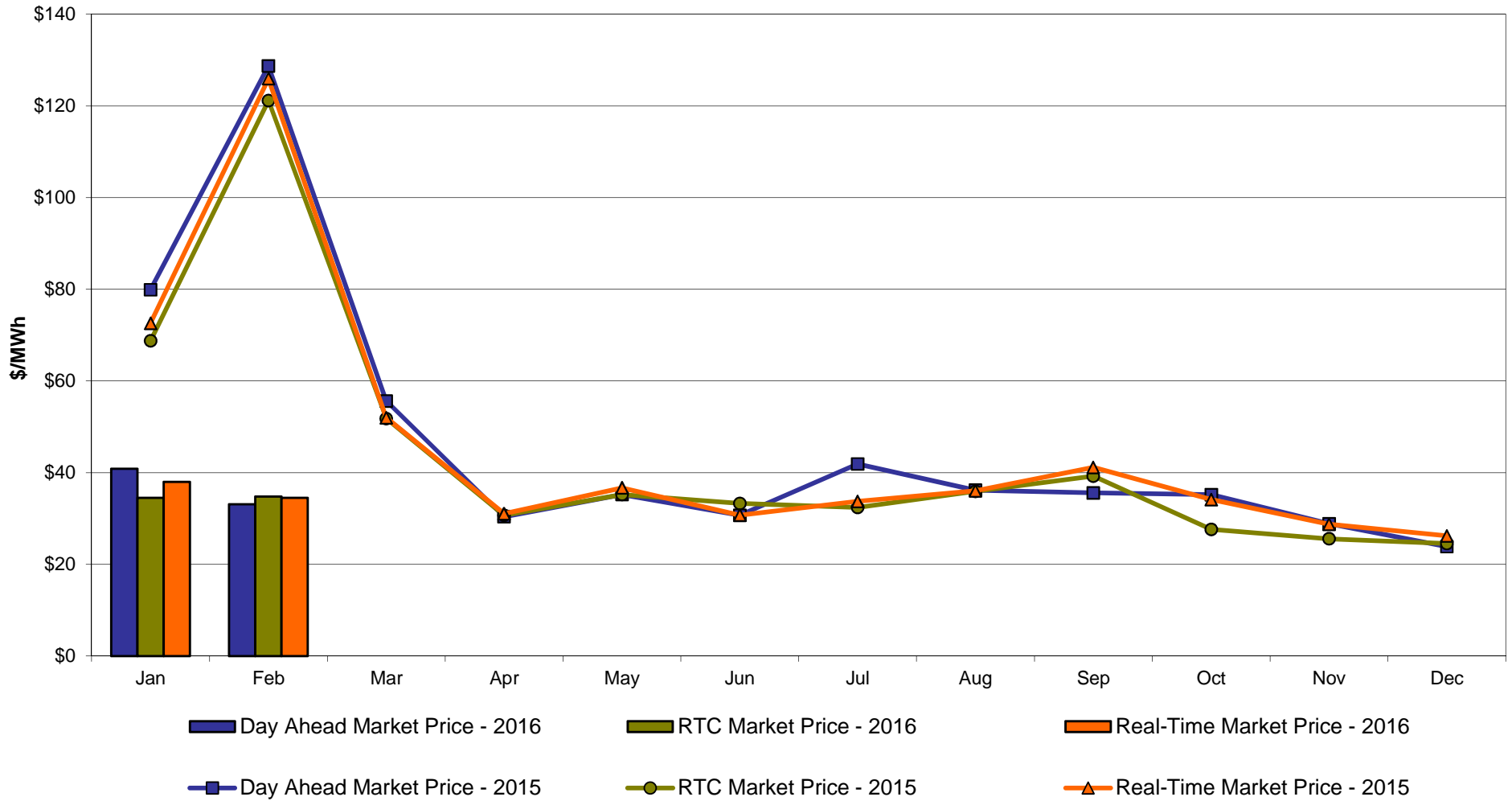
Hudson Valley Zone G Monthly Average LBMP Prices 2015 - 2016



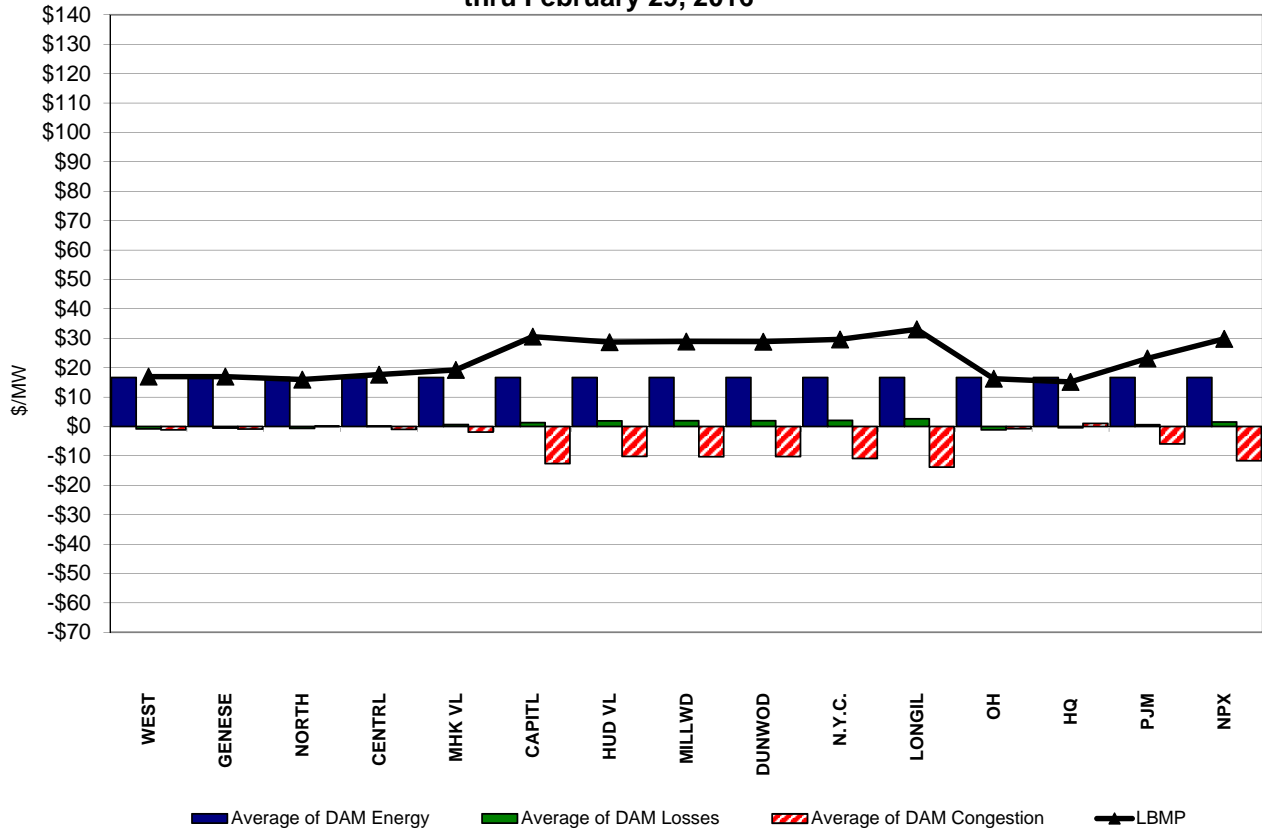
NYC Zone J Monthly Average LBMP Prices 2015 - 2016



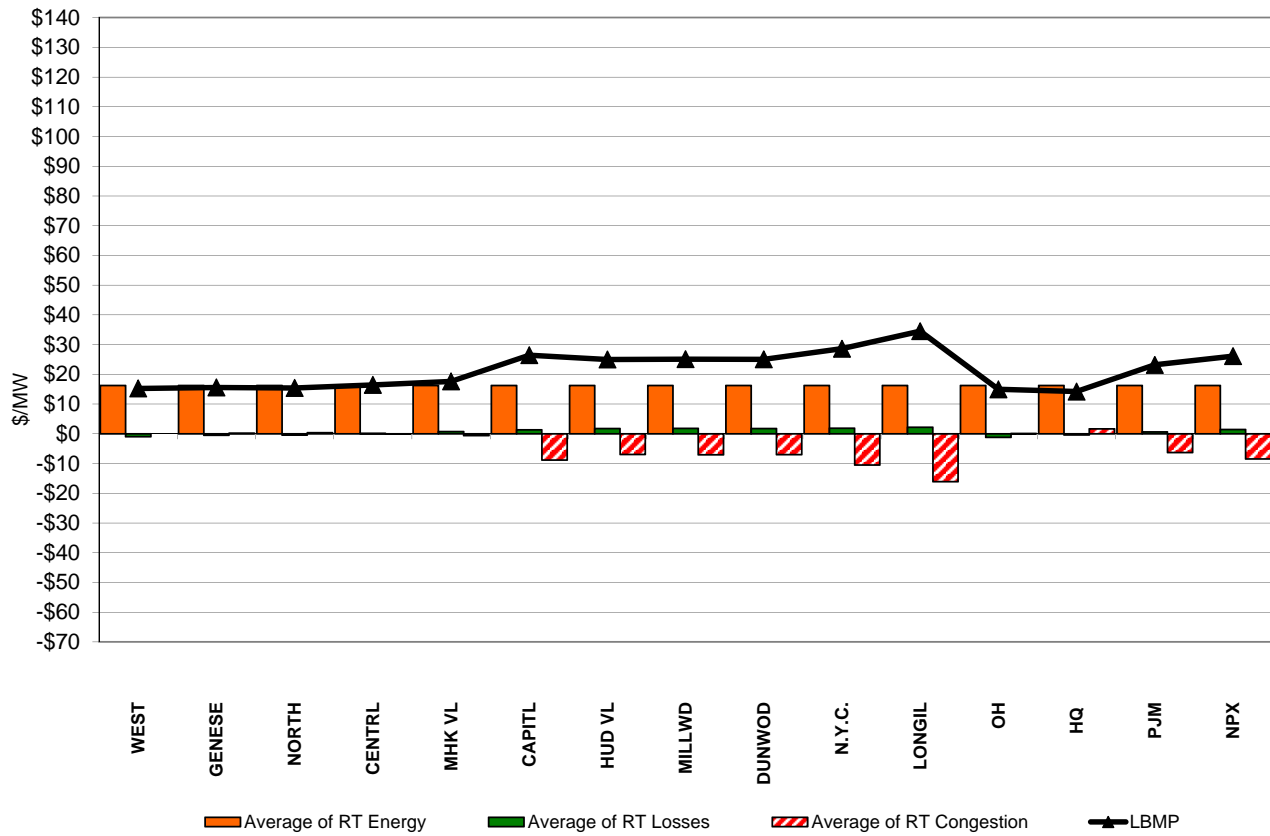
Long Island Zone K Monthly Average LBMP Prices 2015 - 2016



DAM Zonal Unweighted Monthly Average LBMP Components thru February 29, 2016

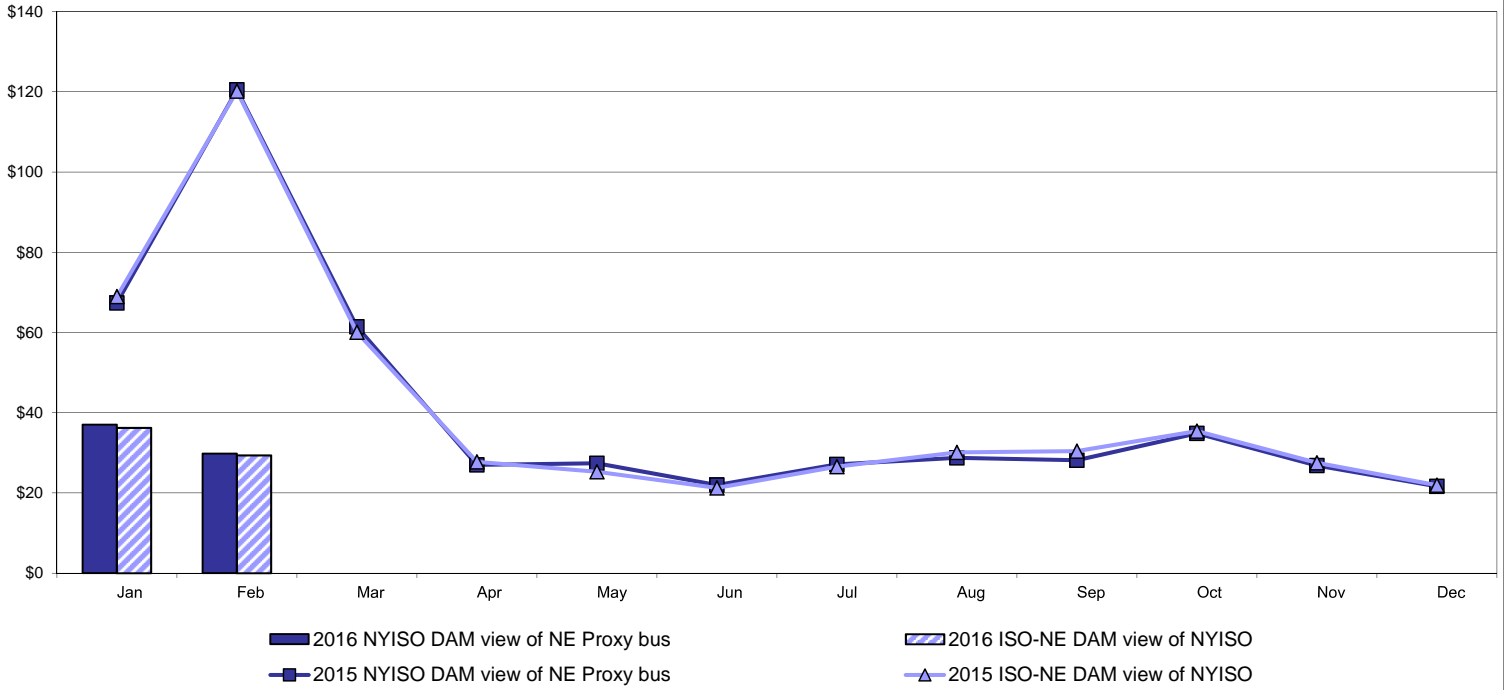


RT Zonal Unweighted Monthly Average LBMP Components thru February 29, 2016

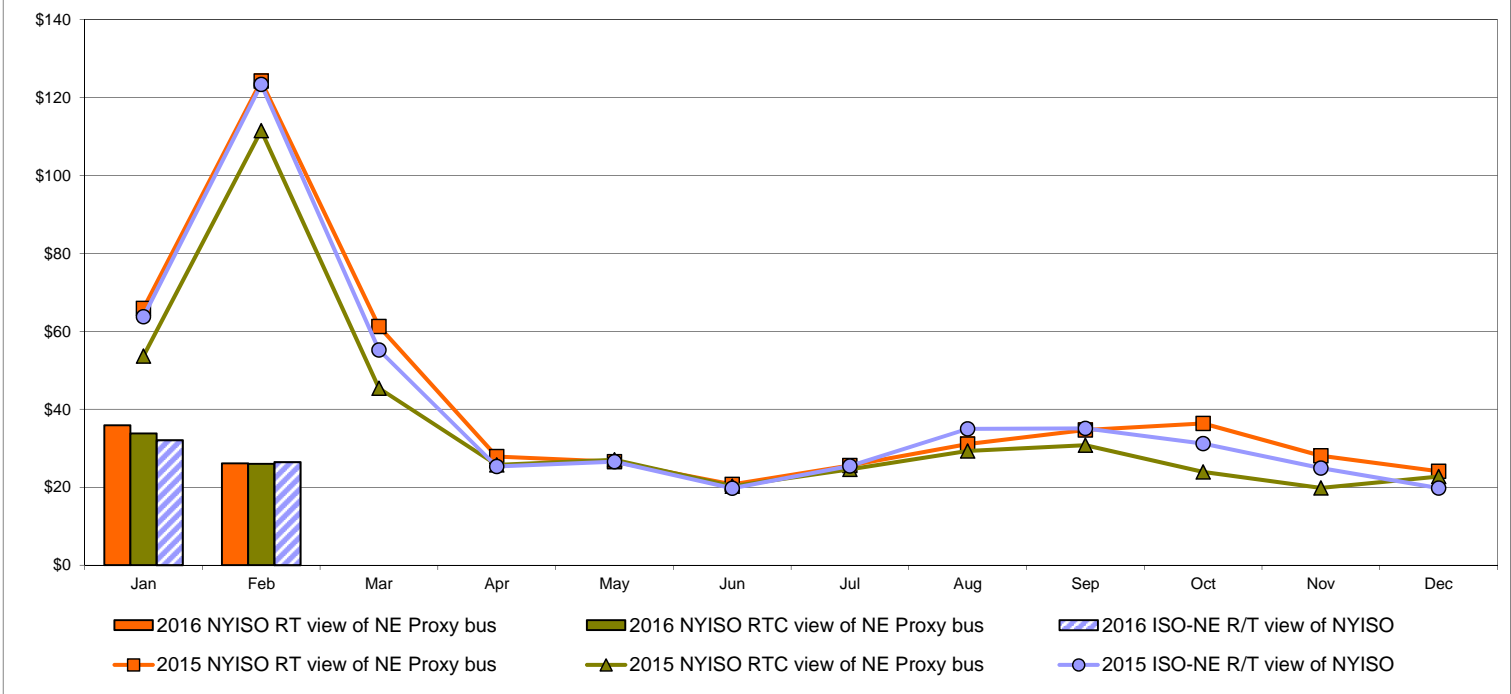


External Comparison ISO-New England

Day Ahead Market External Zone Comparison: ISO-NE (\$/MWh)

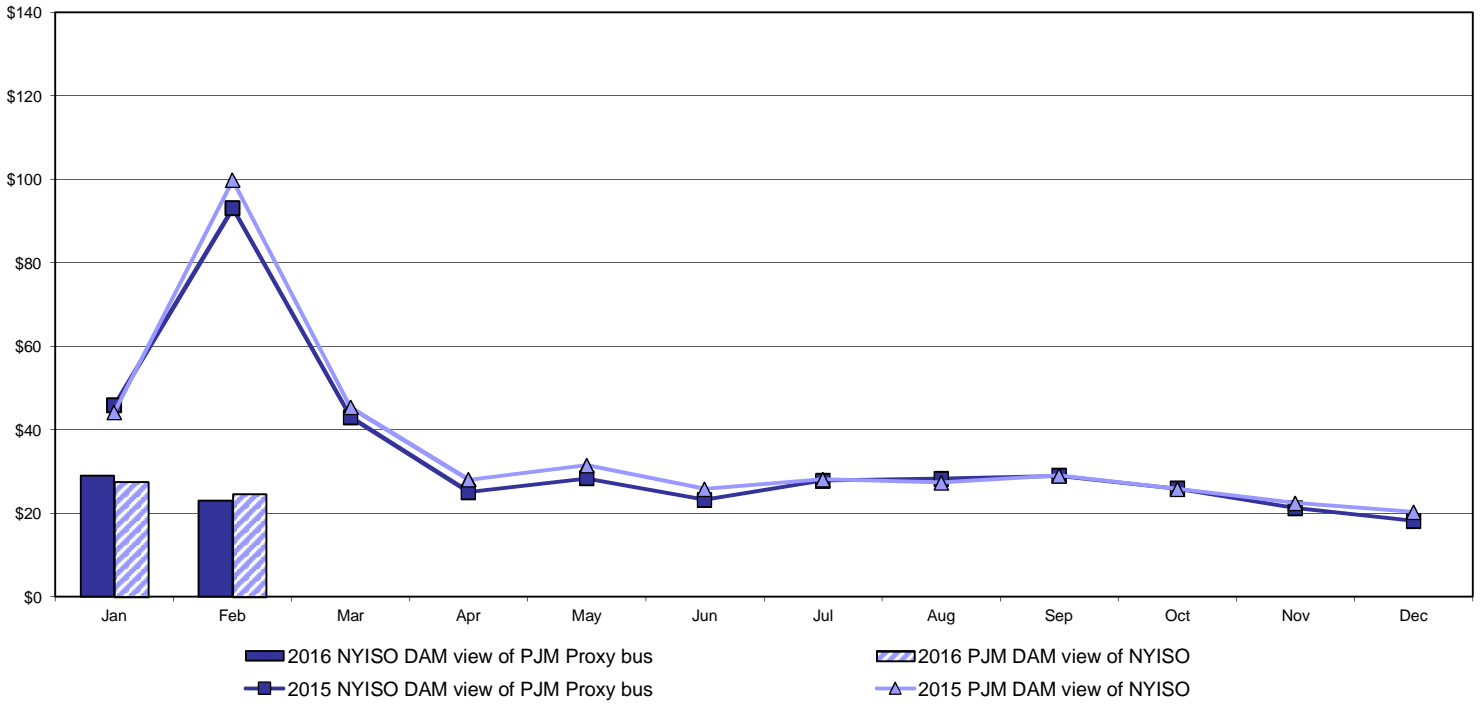


Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

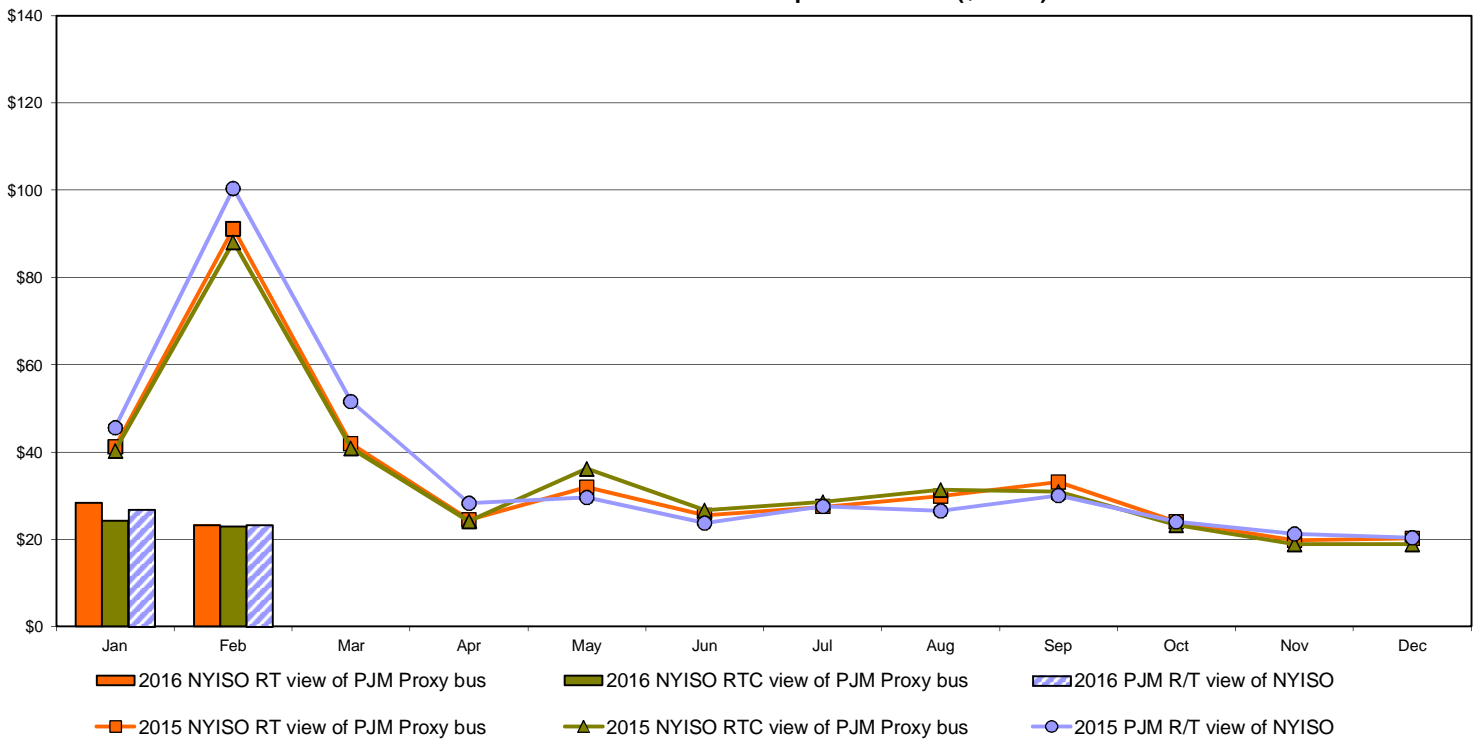


External Comparison PJM

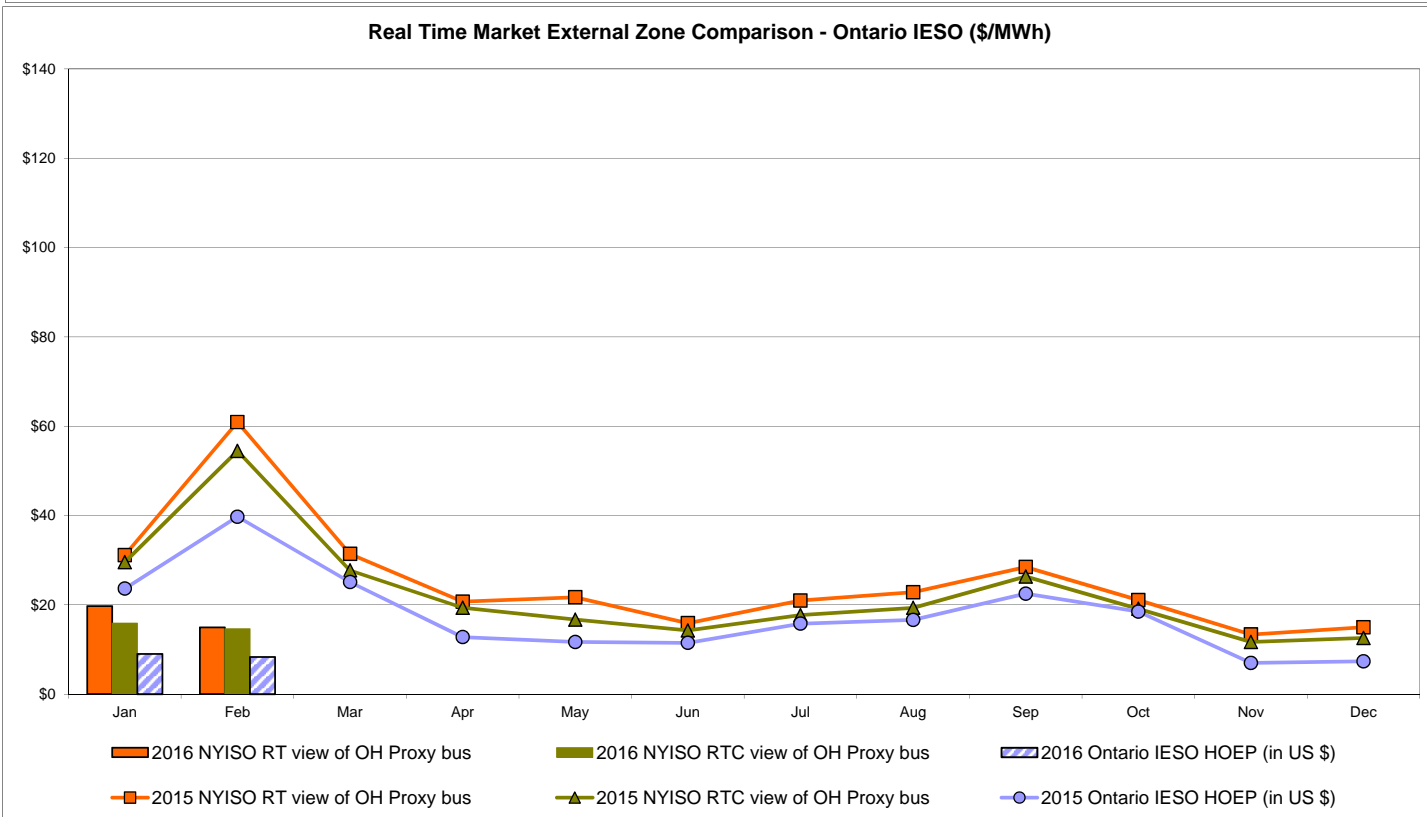
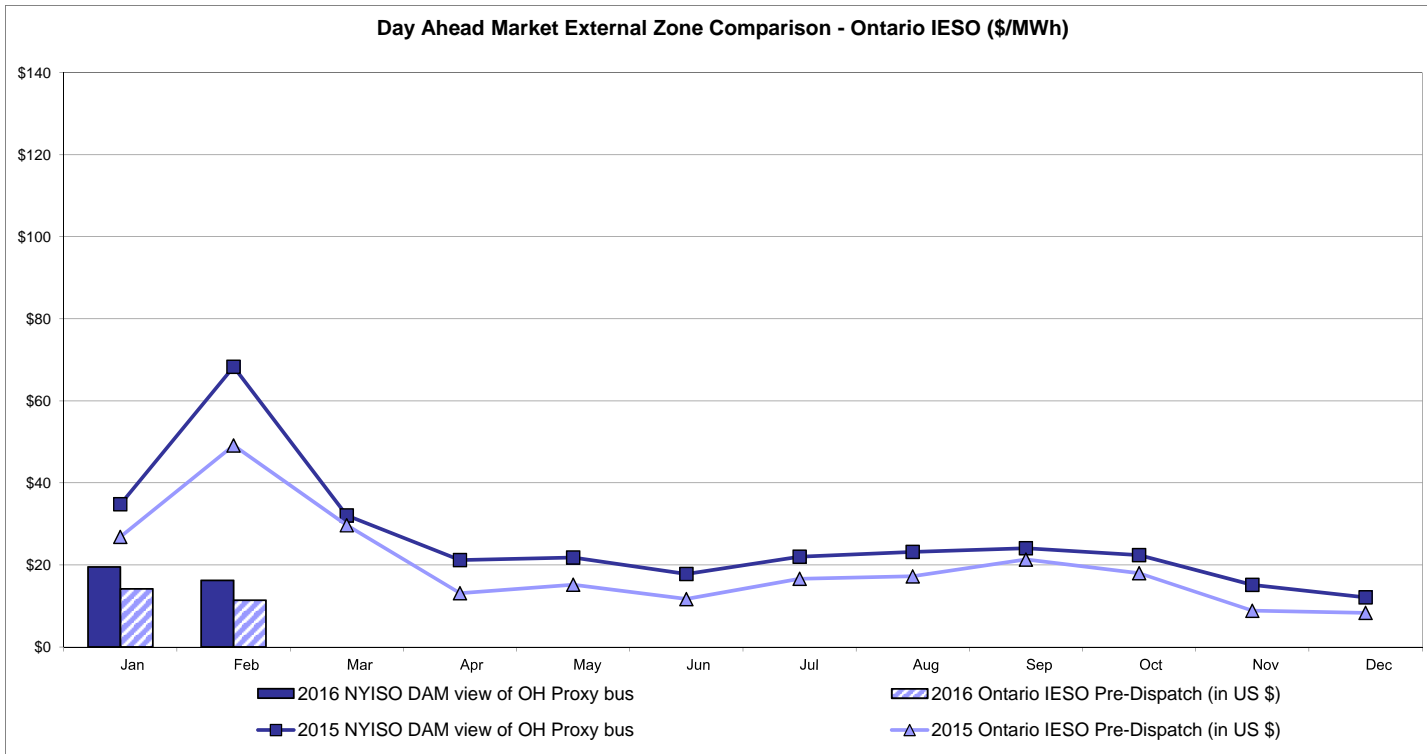
Day Ahead Market External Zone Comparison - PJM (\$/MWh)



Real Time Market External Zone Comparison - PJM (\$/MWh)

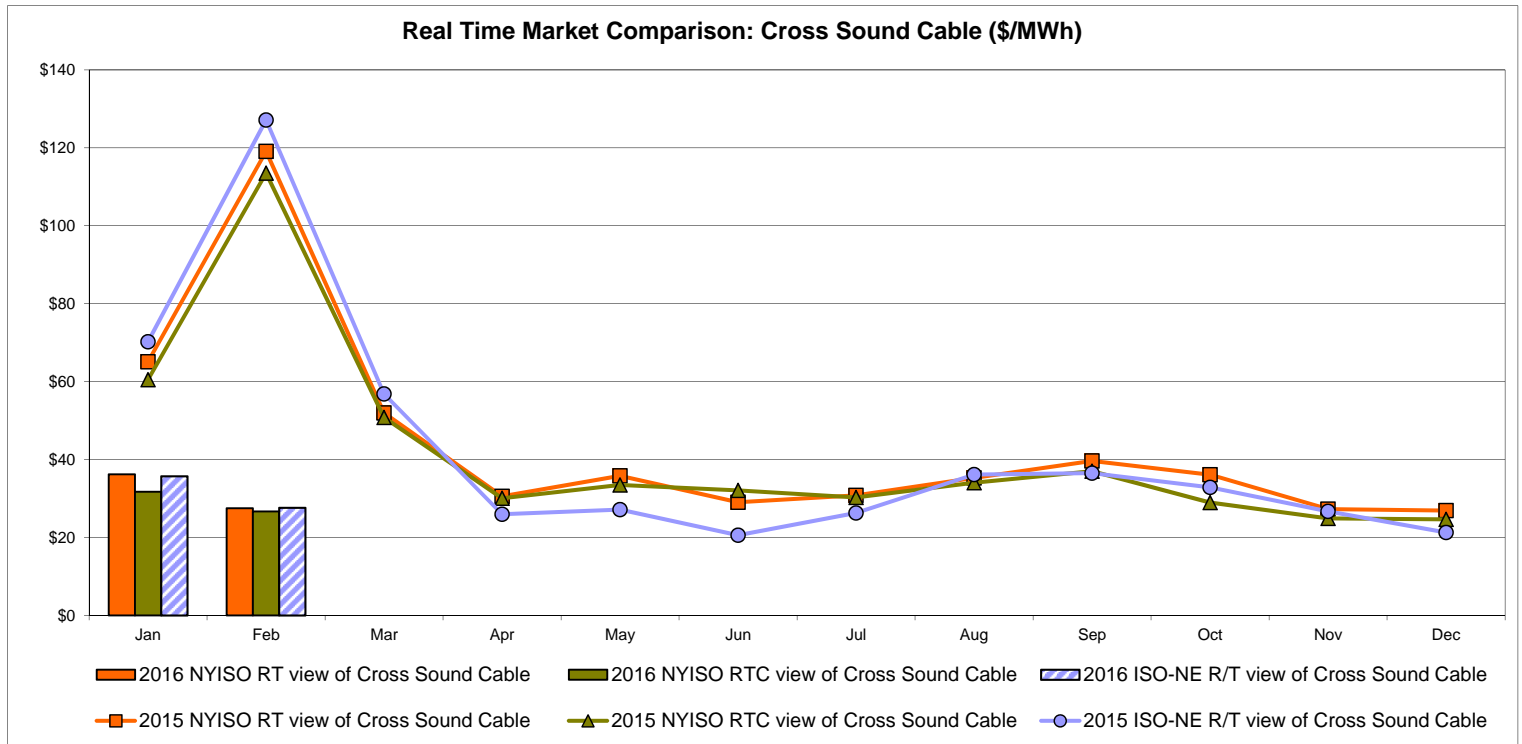
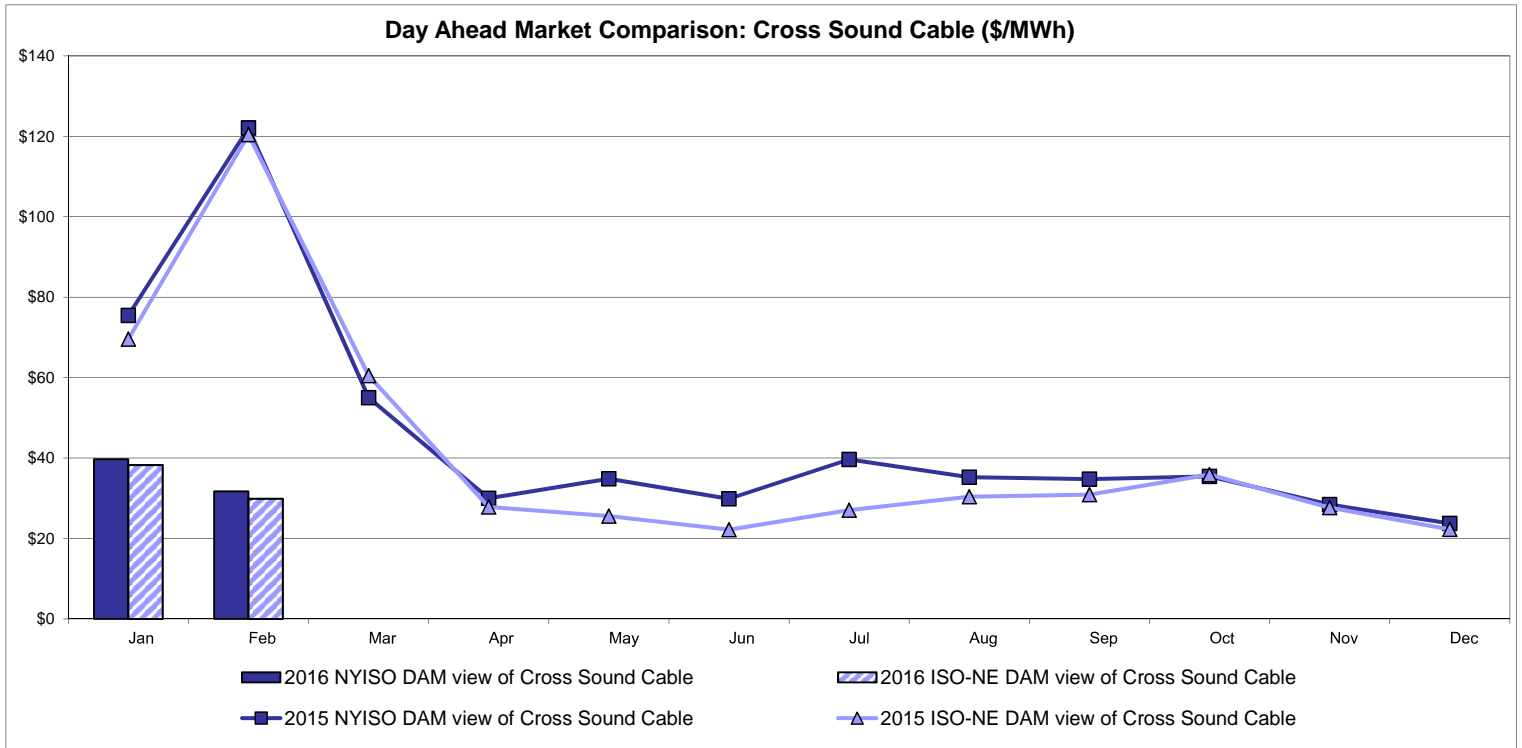


External Comparison Ontario IESO



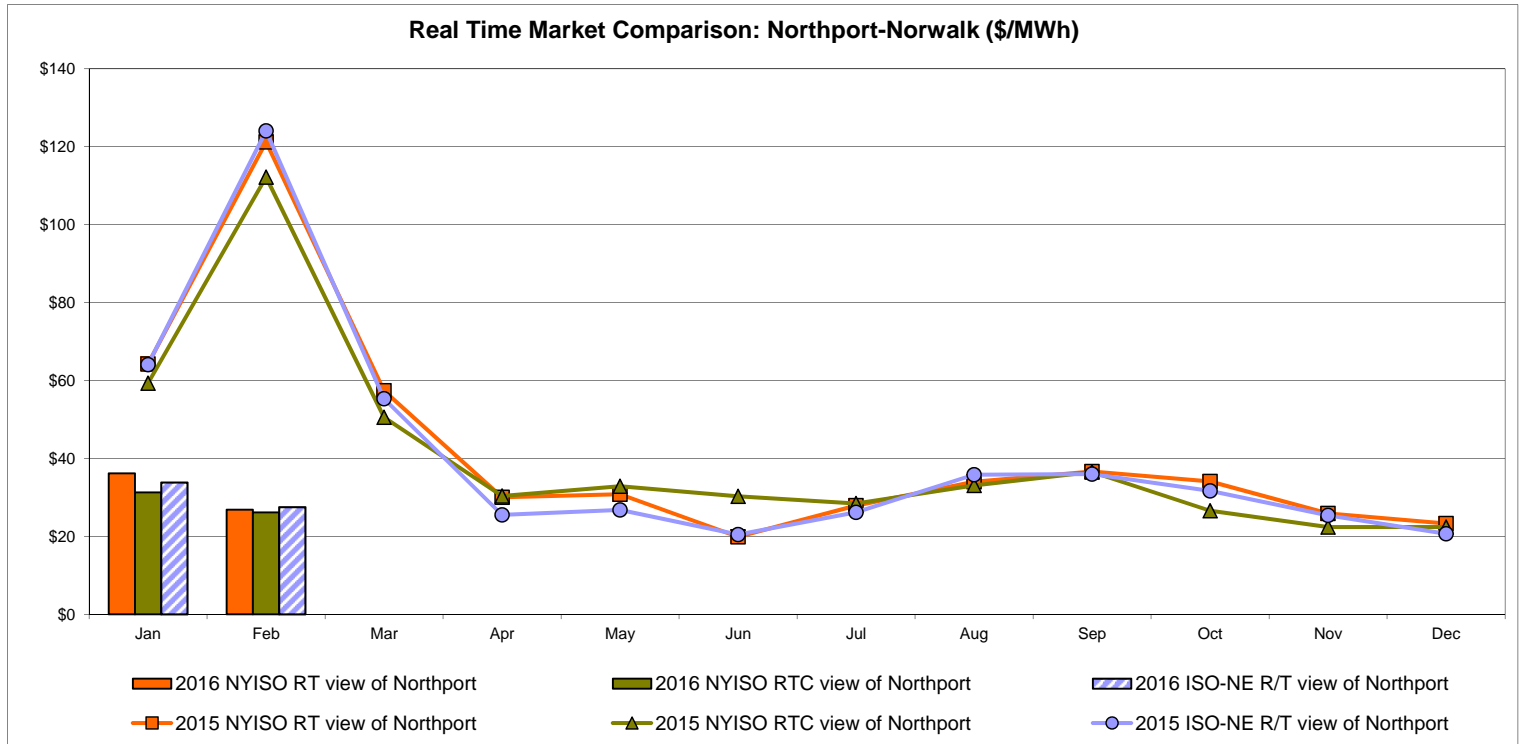
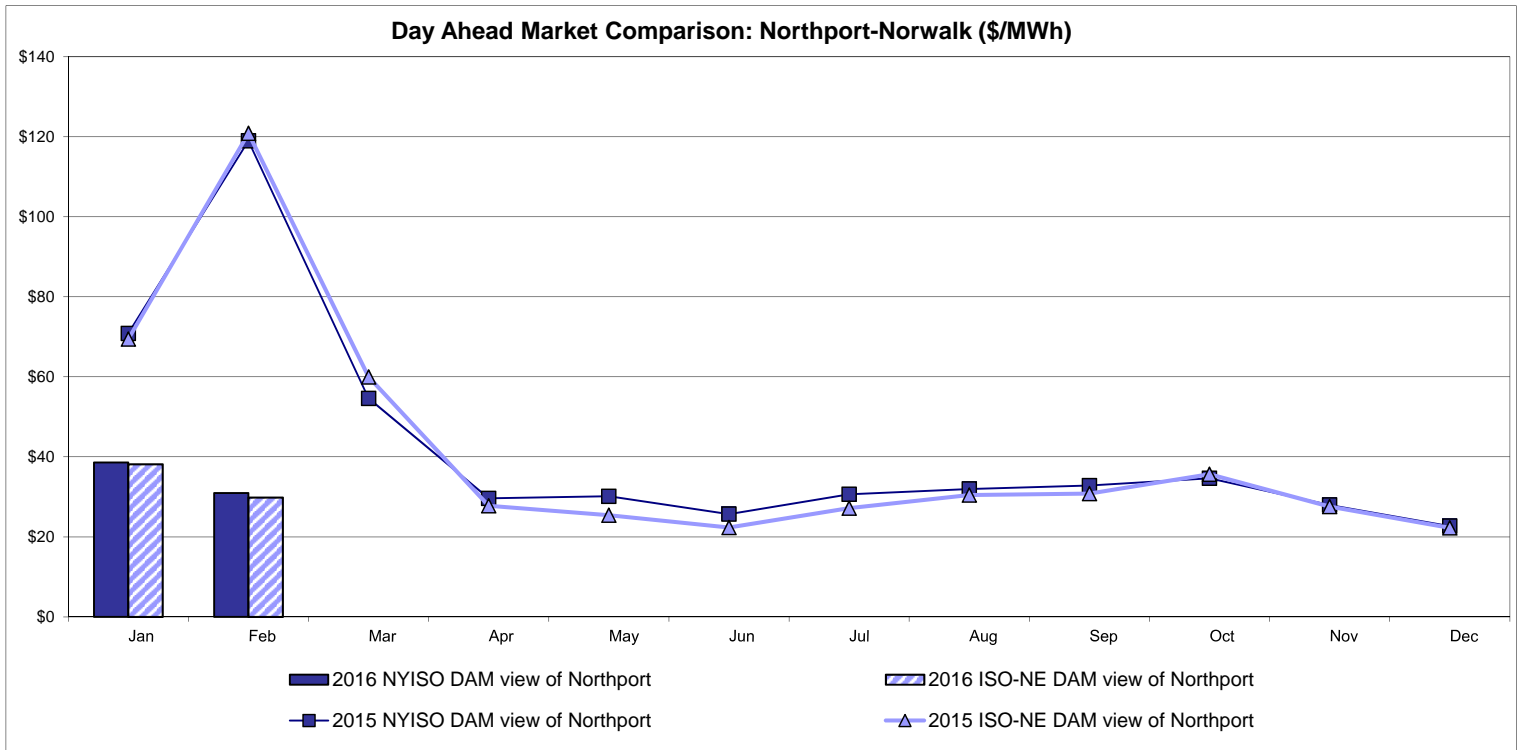
Notes: Exchange factor used for February 2016 was 0.7241 to US
 HOEP: Hourly Ontario Energy Price
 Pre-Dispatch: Projected Energy Price

External Controllable Line: Cross Sound Cable (New England)



Note:
 ISO-NE Forecast is an advisory posting @ 18:00 day before.
 The DAM and R/T prices at the Shorham 13899 interface are used for ISO-NE.
 The DAM and R/T prices at the CSC interface are used for NYISO.

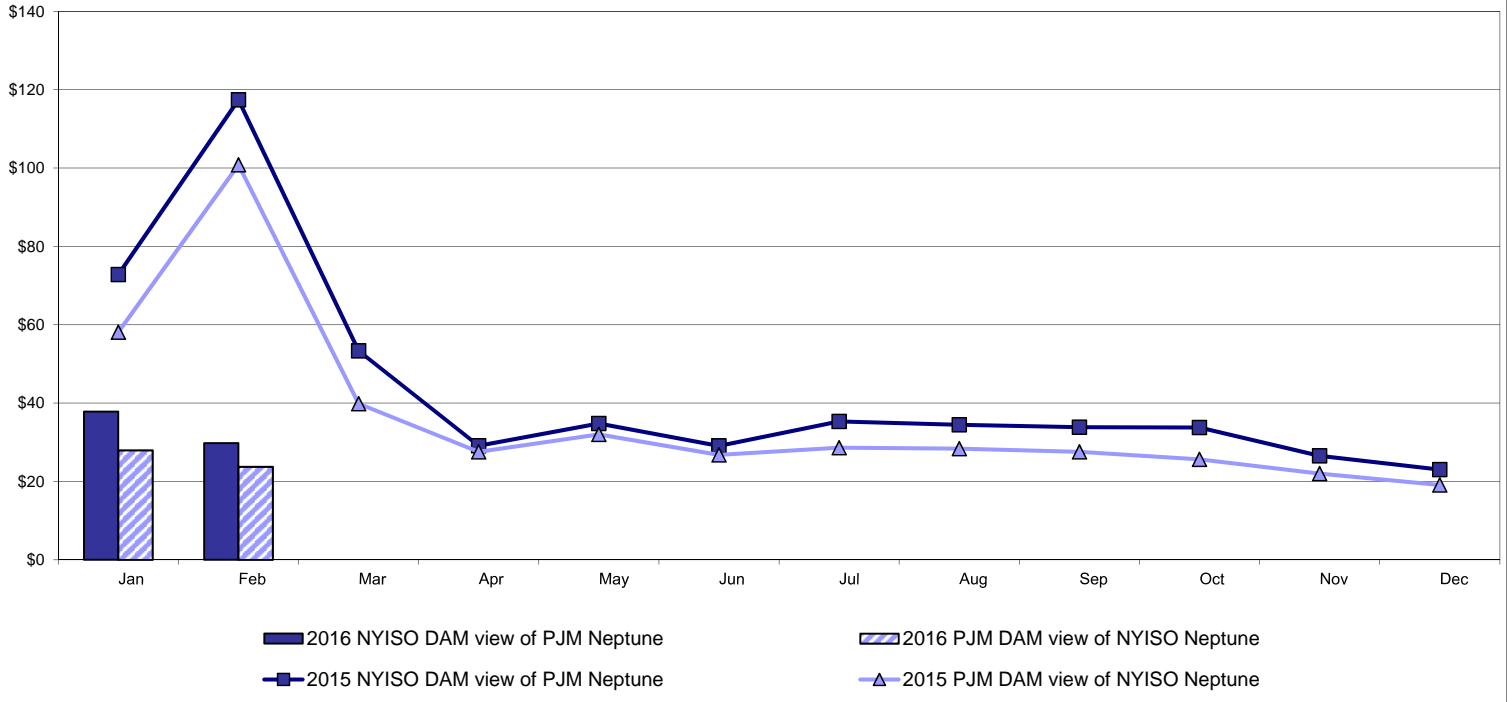
External Controllable Line: Northport - Norwalk (New England)



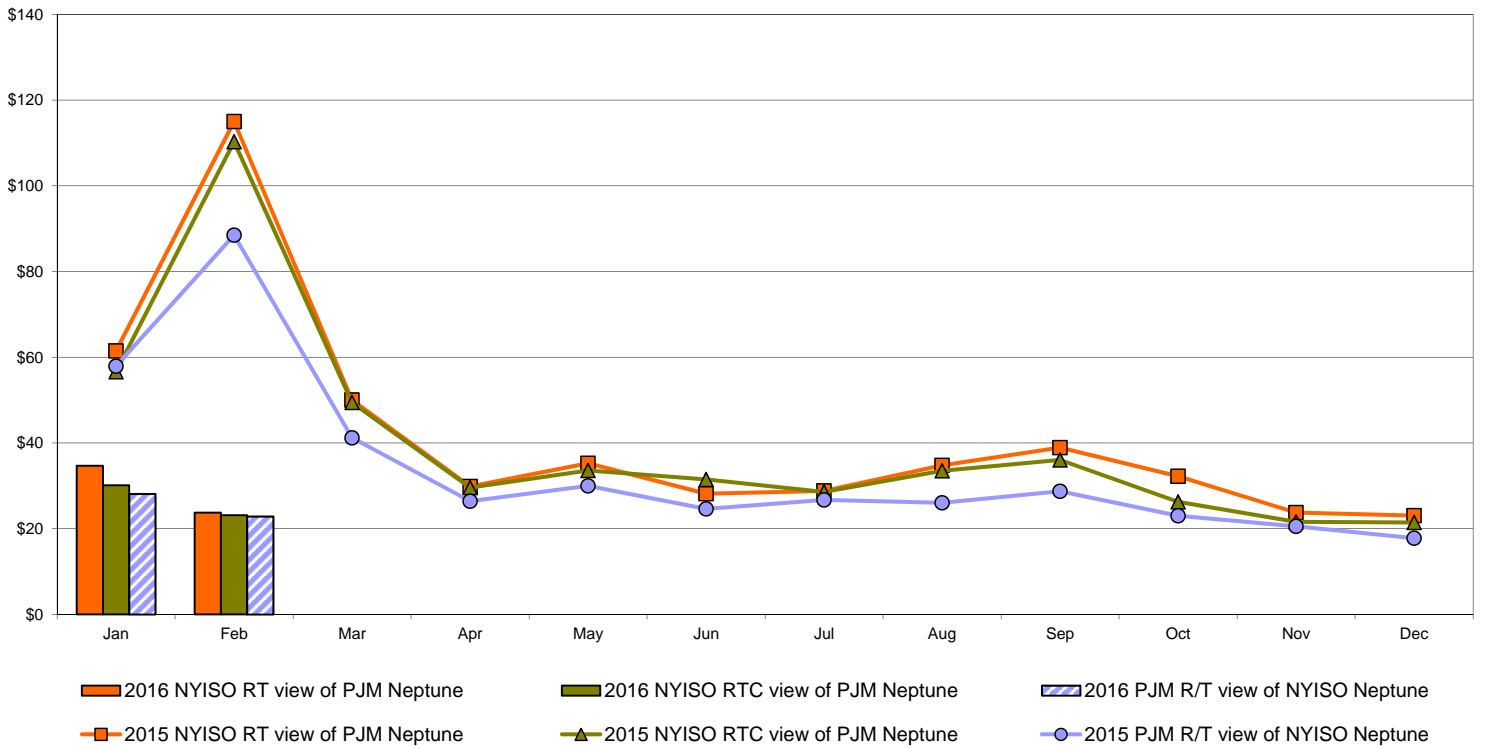
Note:
 ISO-NE Forecast is an advisory posting @ 18:00 day before.
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.
 The DAM and R/T prices at the 1385 interface are used for NYISO.

External Controllable Line: Neptune (PJM)

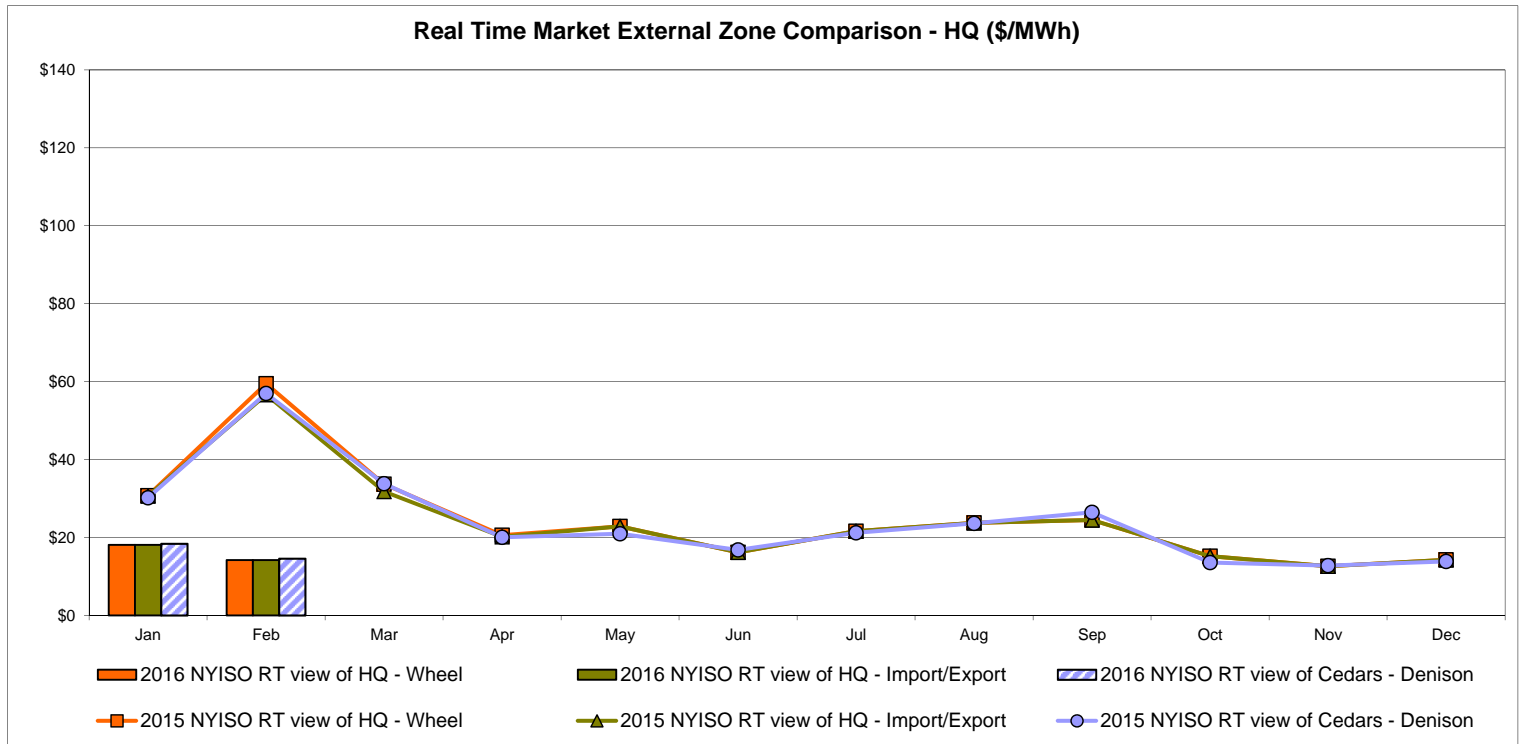
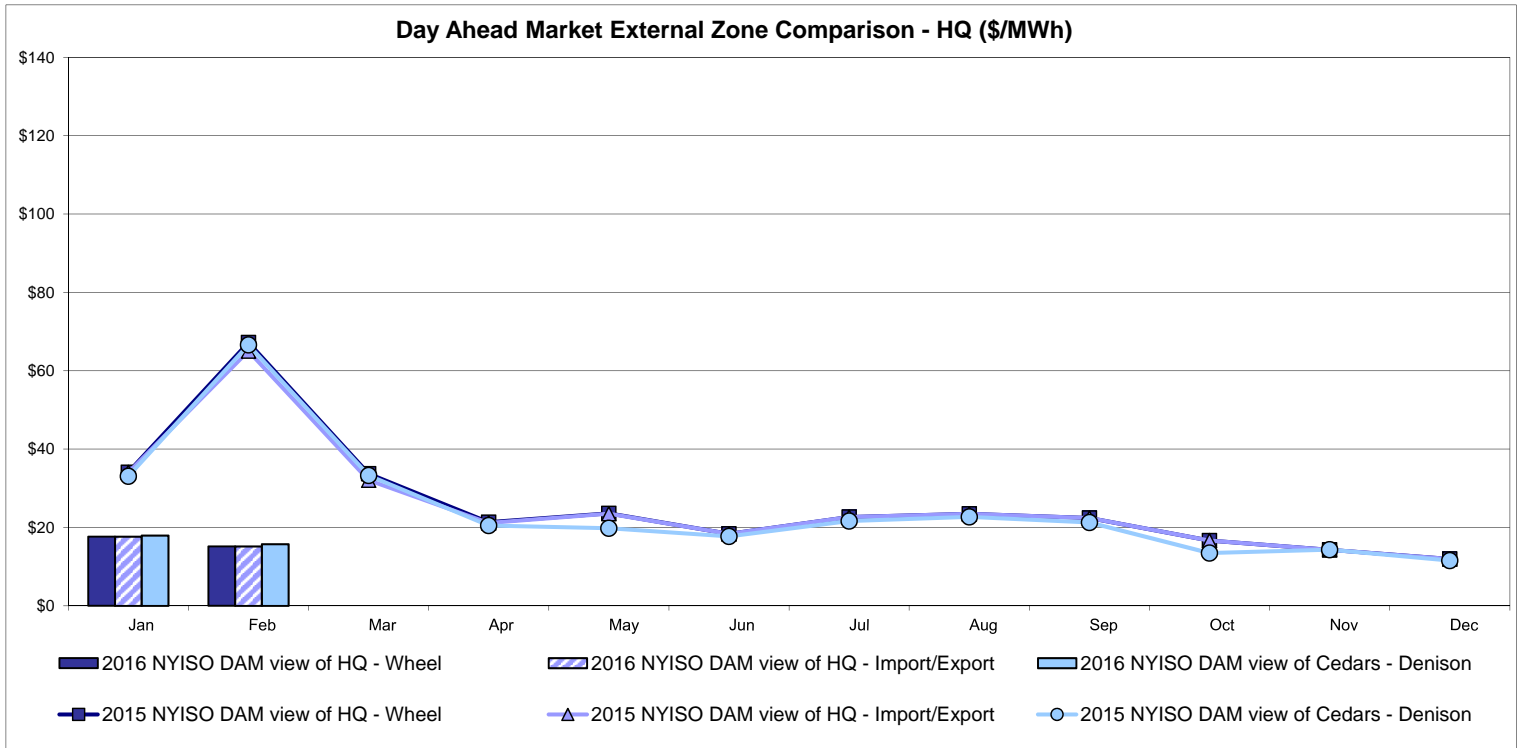
Day Ahead Market Comparison: Neptune (\$/MWh)



Real Time Market Comparison: Neptune (\$/MWh)

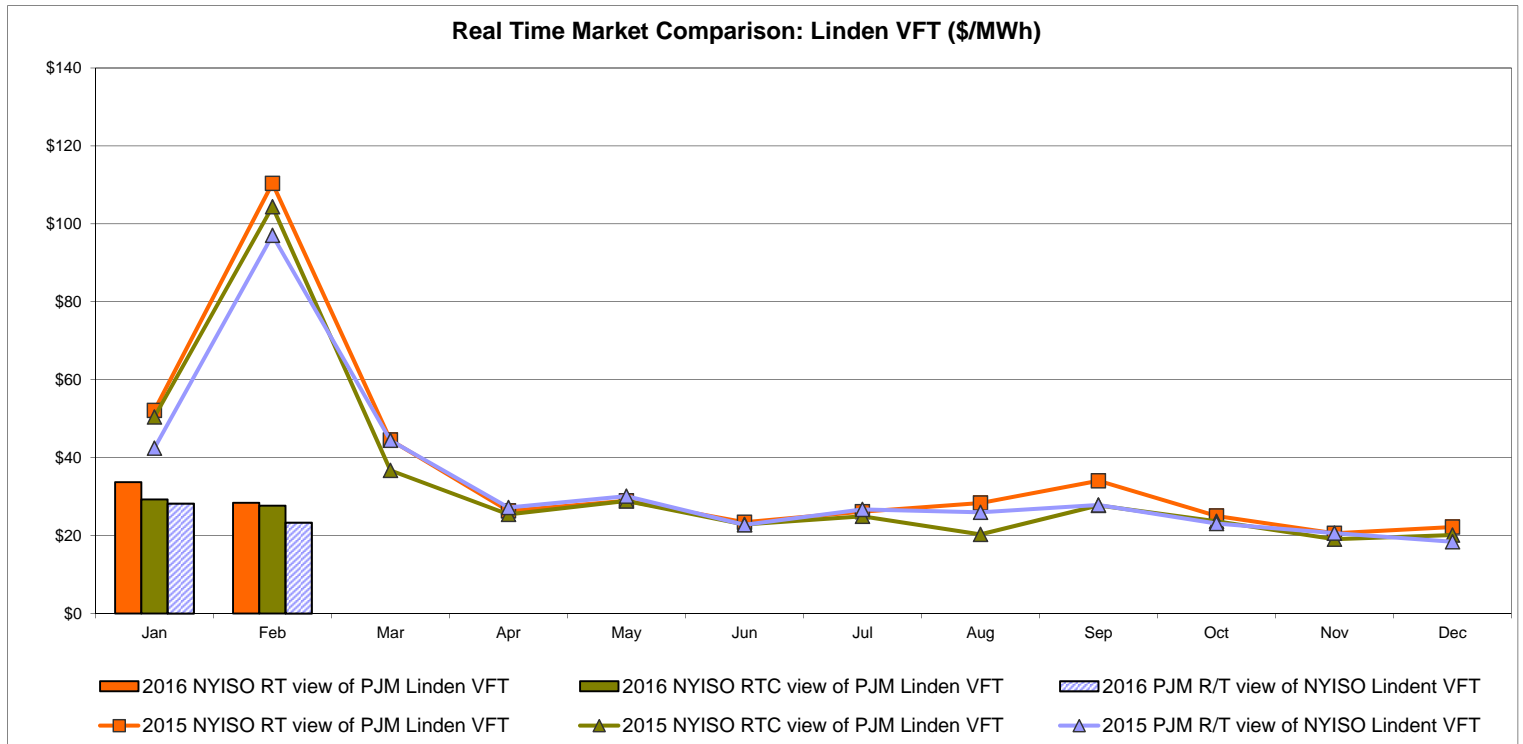
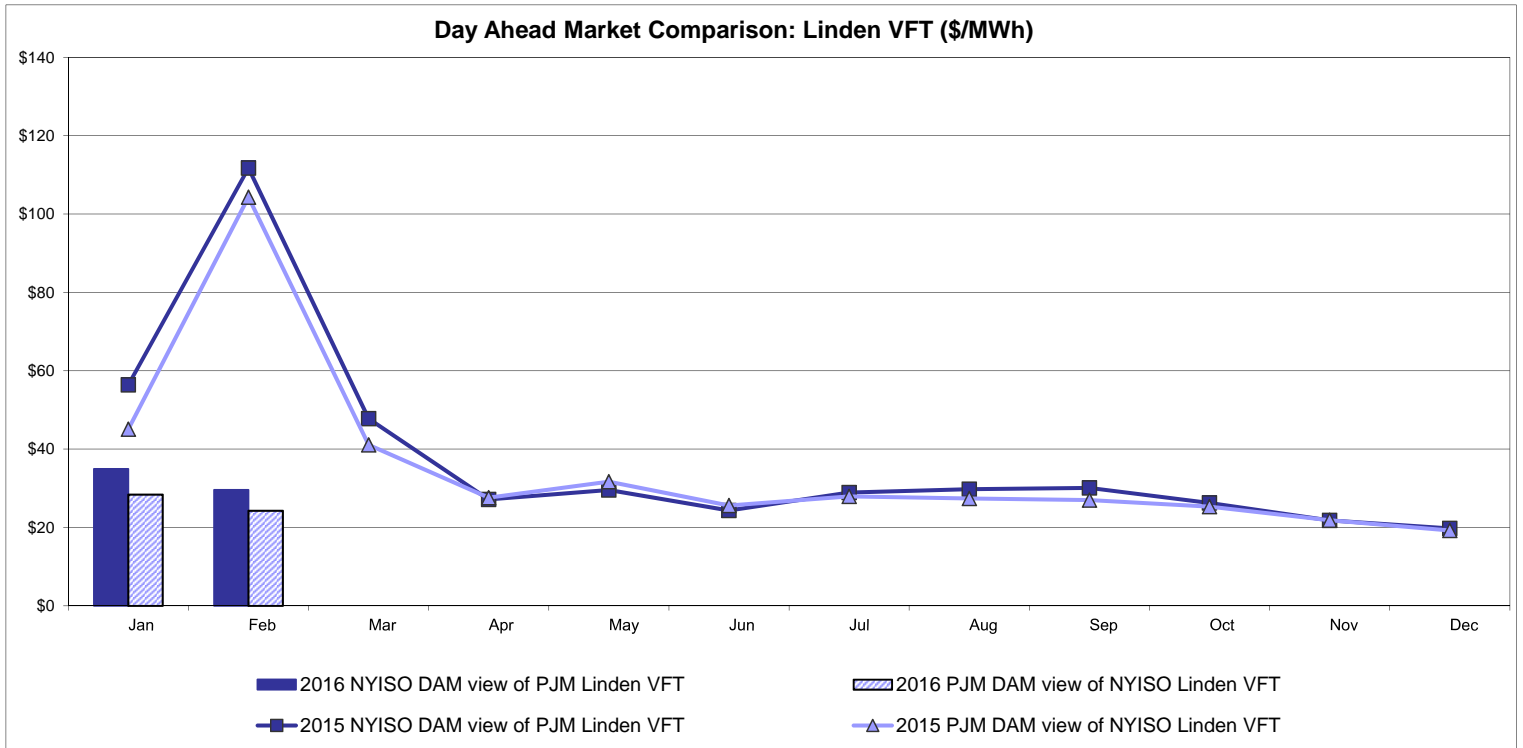


External Comparison Hydro-Quebec

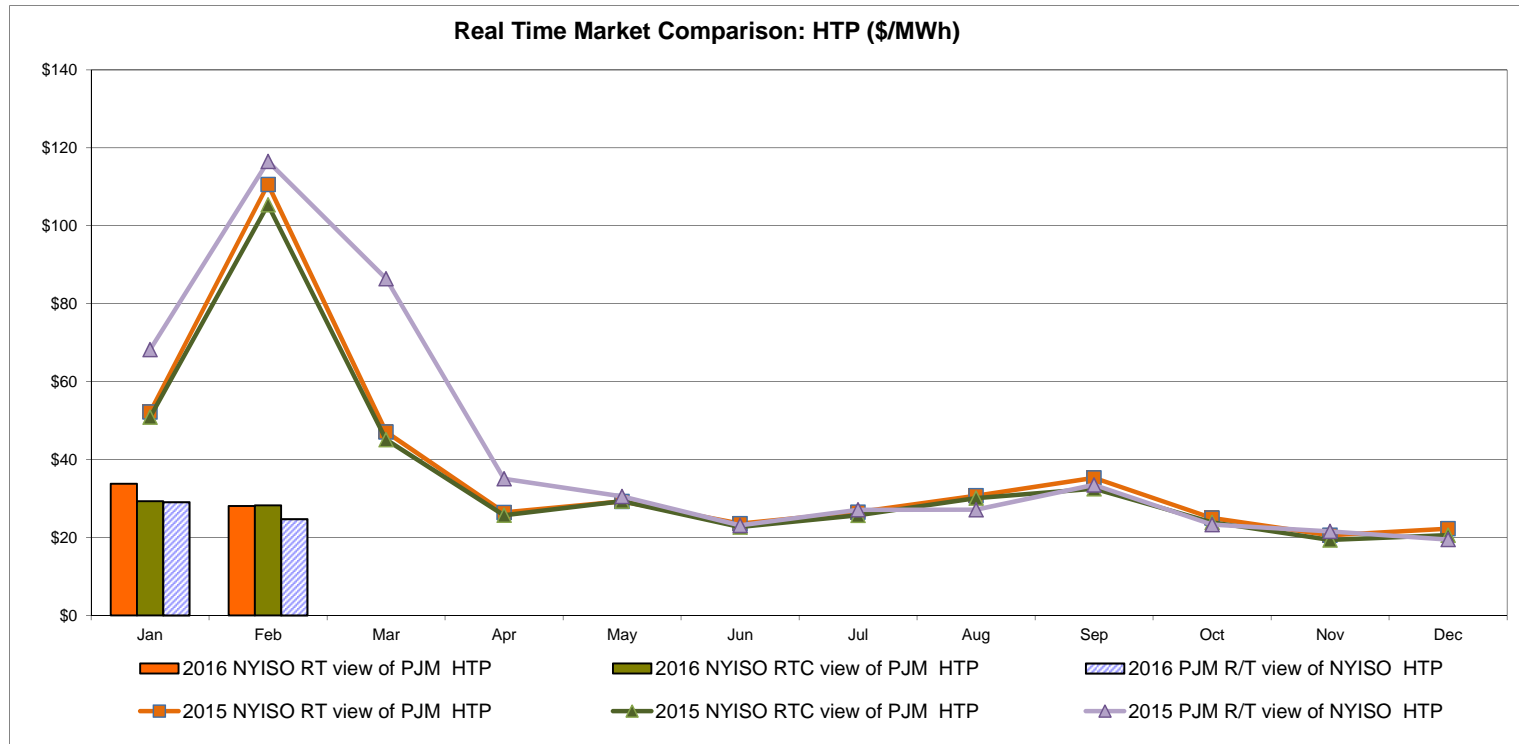
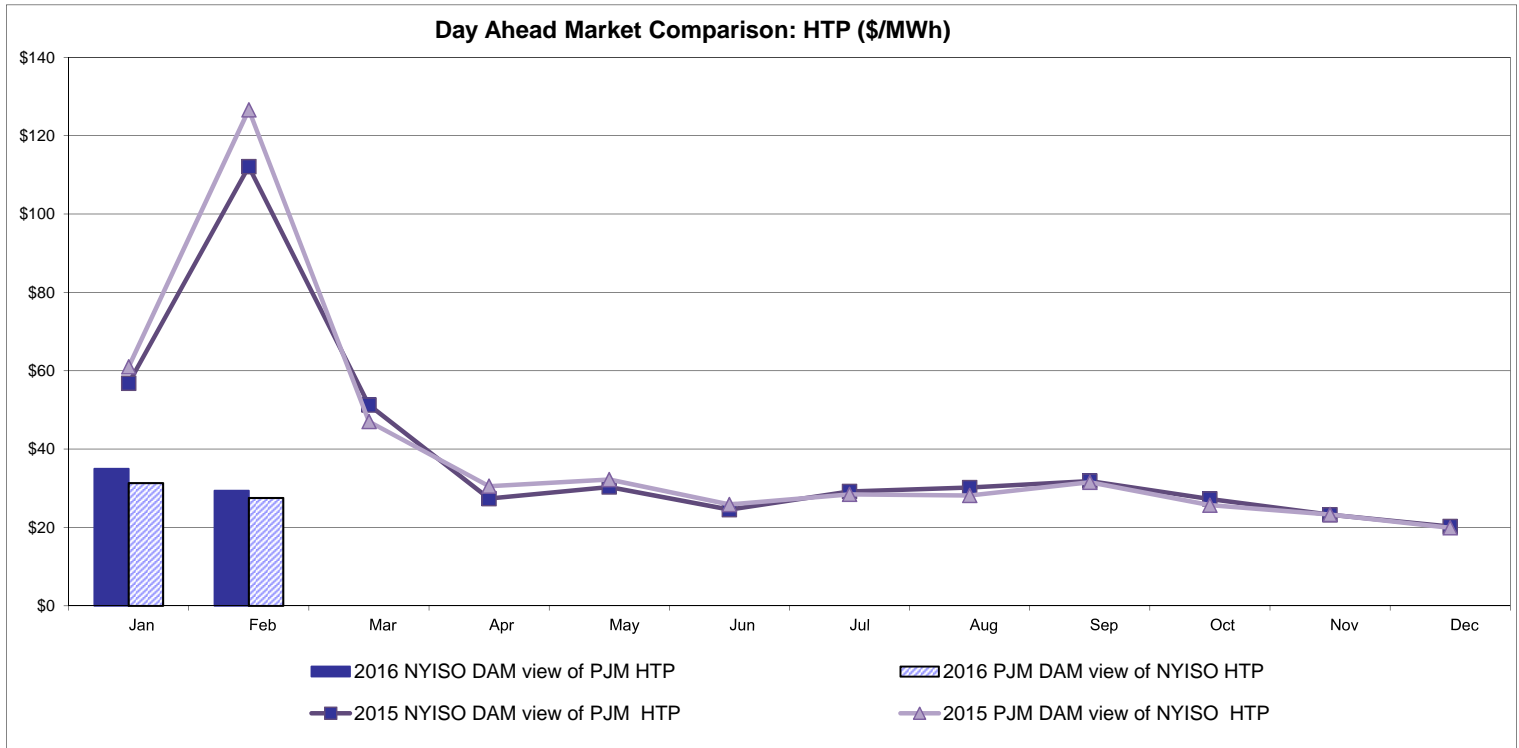


Note:
Hydro-Quebec Prices are unavailable.

External Controllable Line: Linden VFT (PJM)



External Controllable Line: Hudson (PJM)

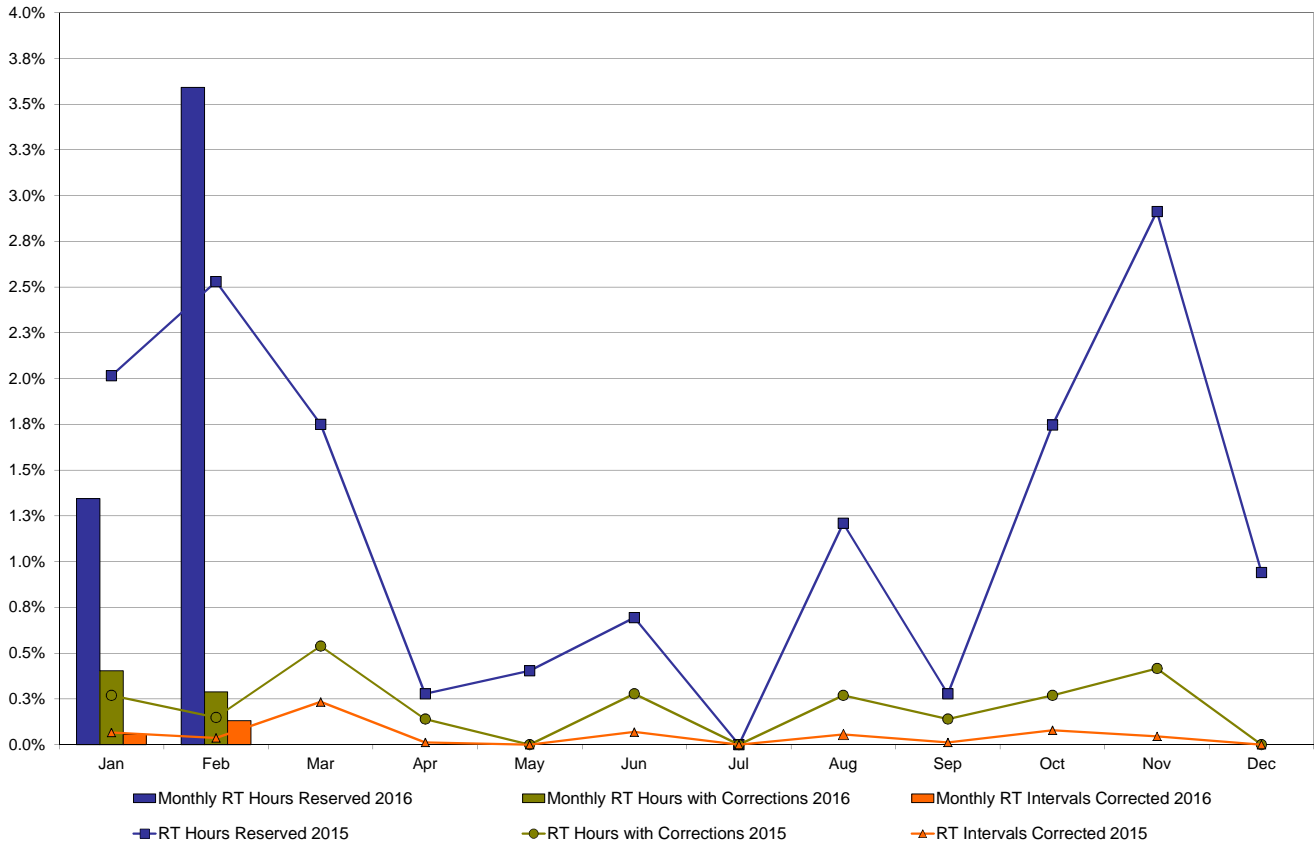


NYISO Real Time Price Correction Statistics

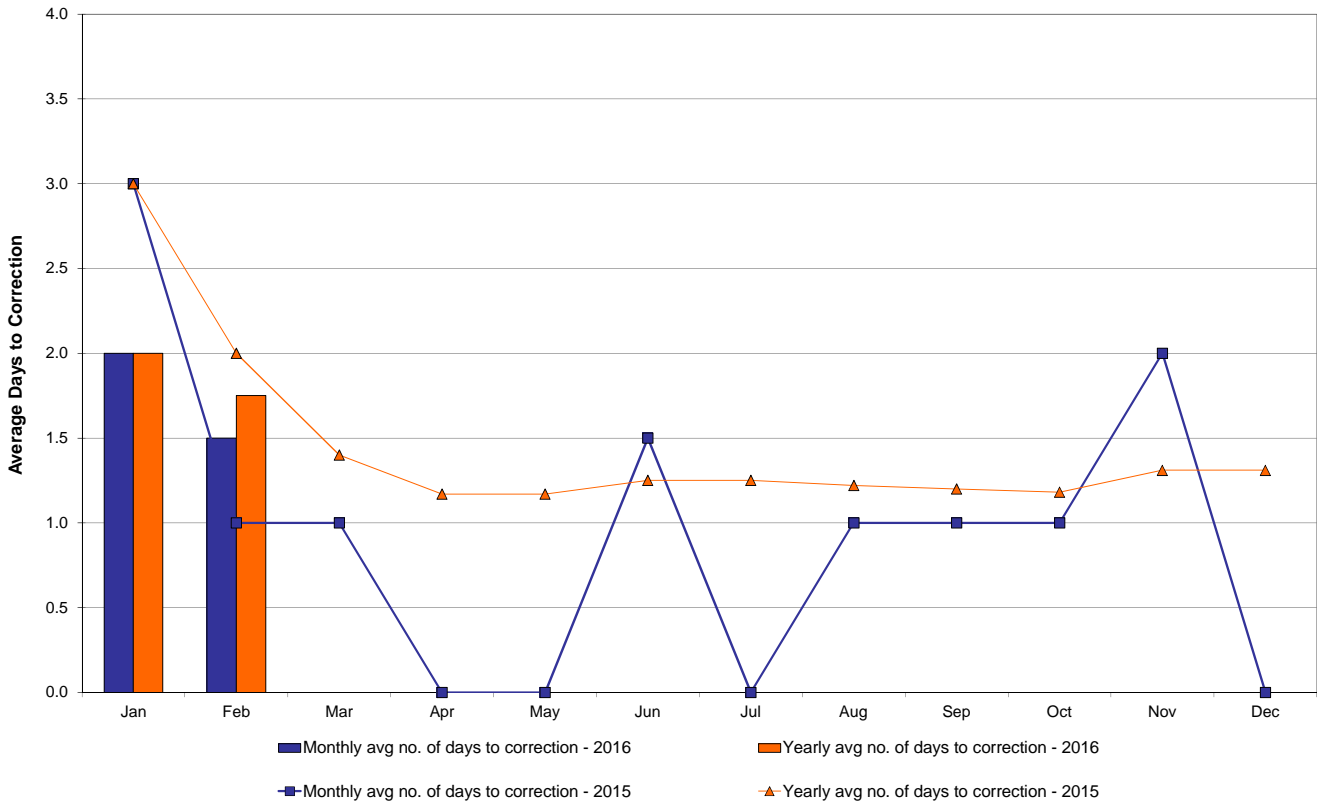
2016		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Hour Corrections													
Number of hours with corrections	in the month	3	2										
Number of hours	in the month	744	696										
% of hours with corrections	in the month	0.40%	0.29%										
% of hours with corrections	year-to-date	0.40%	0.35%										
Interval Corrections													
Number of intervals corrected	in the month	5	11										
Number of intervals	in the month	9,000	8,440										
% of intervals corrected	in the month	0.06%	0.13%										
% of intervals corrected	year-to-date	0.06%	0.09%										
Hours Reserved													
Number of hours reserved	in the month	10	25										
Number of hours	in the month	744	696										
% of hours reserved	in the month	1.34%	3.59%										
% of hours reserved	year-to-date	1.34%	2.43%										
Days to Correction *													
Avg. number of days to correction	in the month	2.00	1.50										
Avg. number of days to correction	year-to-date	2.00	1.75										
Days Without Corrections													
Days without corrections	in the month	29	27										
Days without corrections	year-to-date	29	56										
2015		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Hour Corrections													
Number of hours with corrections	in the month	2	1	4	1	0	2	0	2	1	2	3	0
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours with corrections	in the month	0.27%	0.15%	0.54%	0.14%	0.00%	0.28%	0.00%	0.27%	0.14%	0.27%	0.42%	0.00%
% of hours with corrections	year-to-date	0.27%	0.21%	0.32%	0.28%	0.22%	0.23%	0.20%	0.21%	0.20%	0.21%	0.22%	0.21%
Interval Corrections													
Number of intervals corrected	in the month	6	3	21	1	0	6	0	5	1	7	4	0
Number of intervals	in the month	9,066	8,231	9,005	8,696	9,032	8,731	9,025	8,987	8,728	9,008	8,743	8,975
% of intervals corrected	in the month	0.07%	0.04%	0.23%	0.01%	0.00%	0.07%	0.00%	0.06%	0.01%	0.08%	0.05%	0.00%
% of intervals corrected	year-to-date	0.07%	0.05%	0.11%	0.09%	0.07%	0.07%	0.06%	0.06%	0.05%	0.06%	0.06%	0.05%
Hours Reserved													
Number of hours reserved	in the month	15	17	13	2	3	5	0	9	2	13	21	7
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	2.02%	2.53%	1.75%	0.28%	0.40%	0.69%	0.00%	1.21%	0.28%	1.75%	2.91%	0.94%
% of hours reserved	year-to-date	2.02%	2.26%	2.08%	1.63%	1.38%	1.27%	1.08%	1.10%	1.01%	1.08%	1.25%	1.22%
Days to Correction *													
Avg. number of days to correction	in the month	3.00	1.00	1.00	0.00	0.00	1.50	0.00	1.00	1.00	1.00	2.00	0.00
Avg. number of days to correction	year-to-date	3.00	2.00	1.40	1.17	1.17	1.25	1.25	1.22	1.20	1.18	1.31	1.31
Days Without Corrections													
Days without corrections	in the month	30	27	28	29	31	28	31	30	29	30	28	31
Days without corrections	year-to-date	30	57	85	114	145	173	204	234	263	293	321	352

* Calendar days from reservation date.

Percentage of Real-Time Corrections

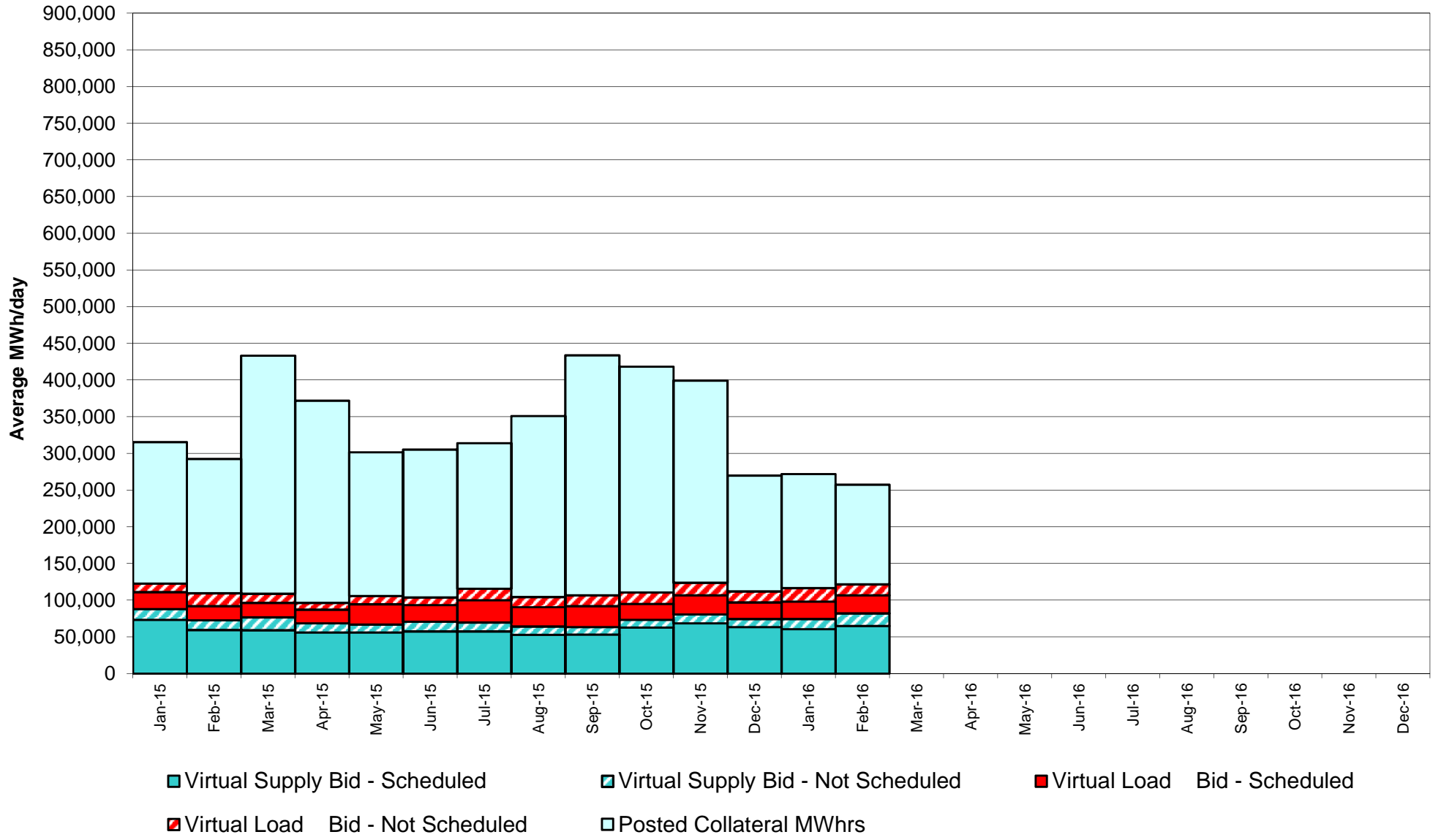


Annual average time period for making Price Corrections (from reservation date) *

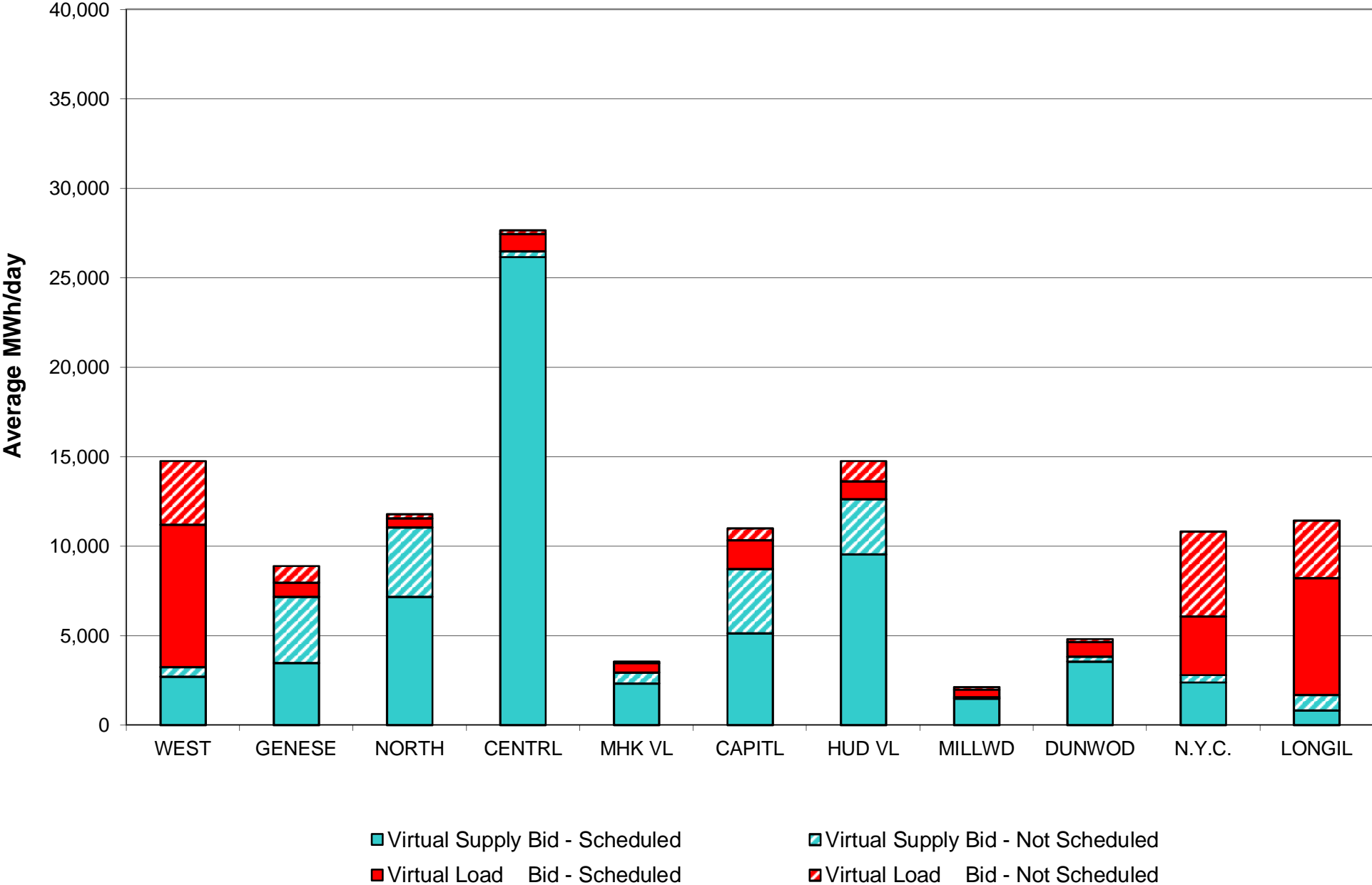


* Calendar days from reservation date.

NYISO Virtual Trading Average MWh per day



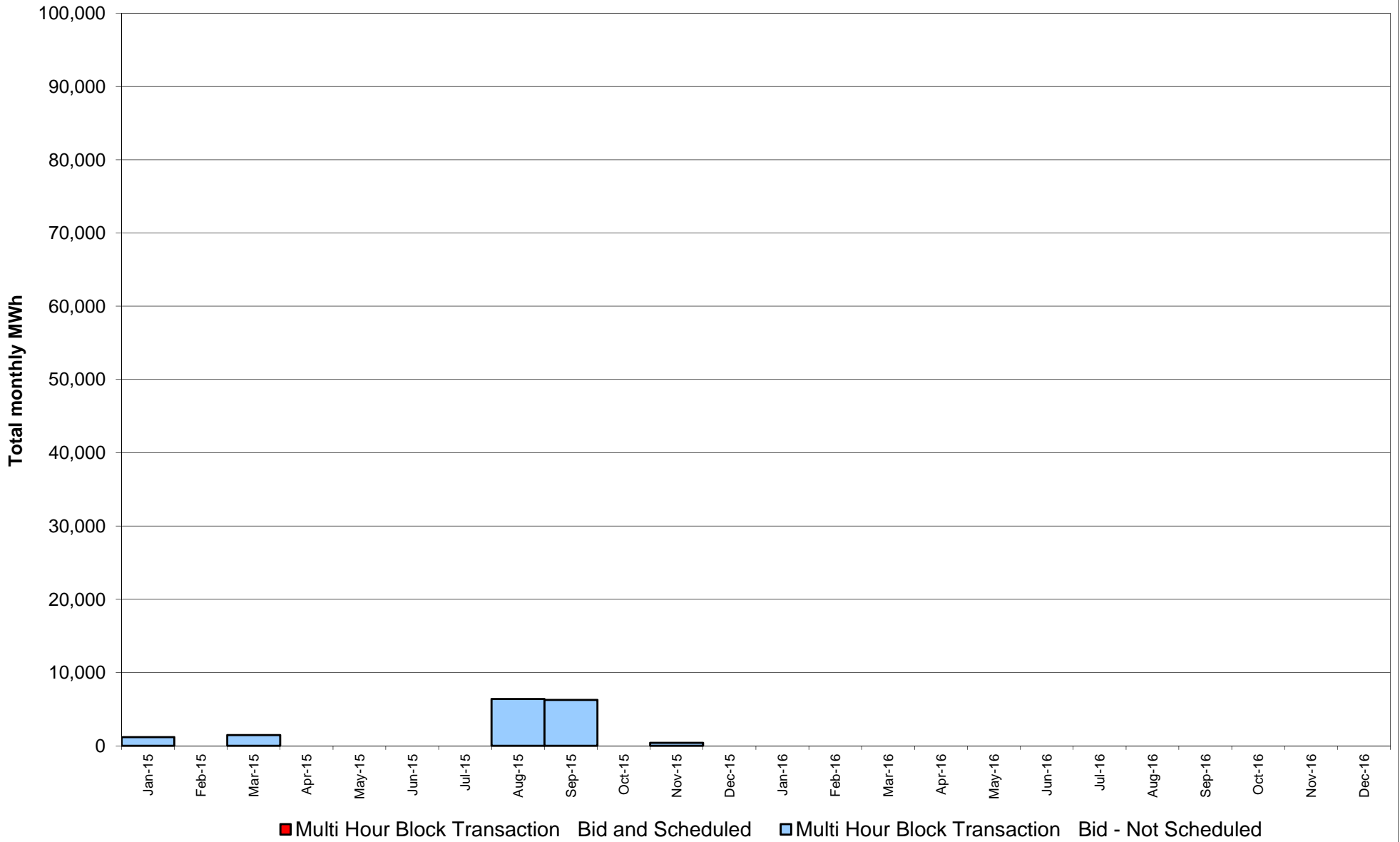
Virtual Load and Supply Zonal Statistics through February 29, 2016



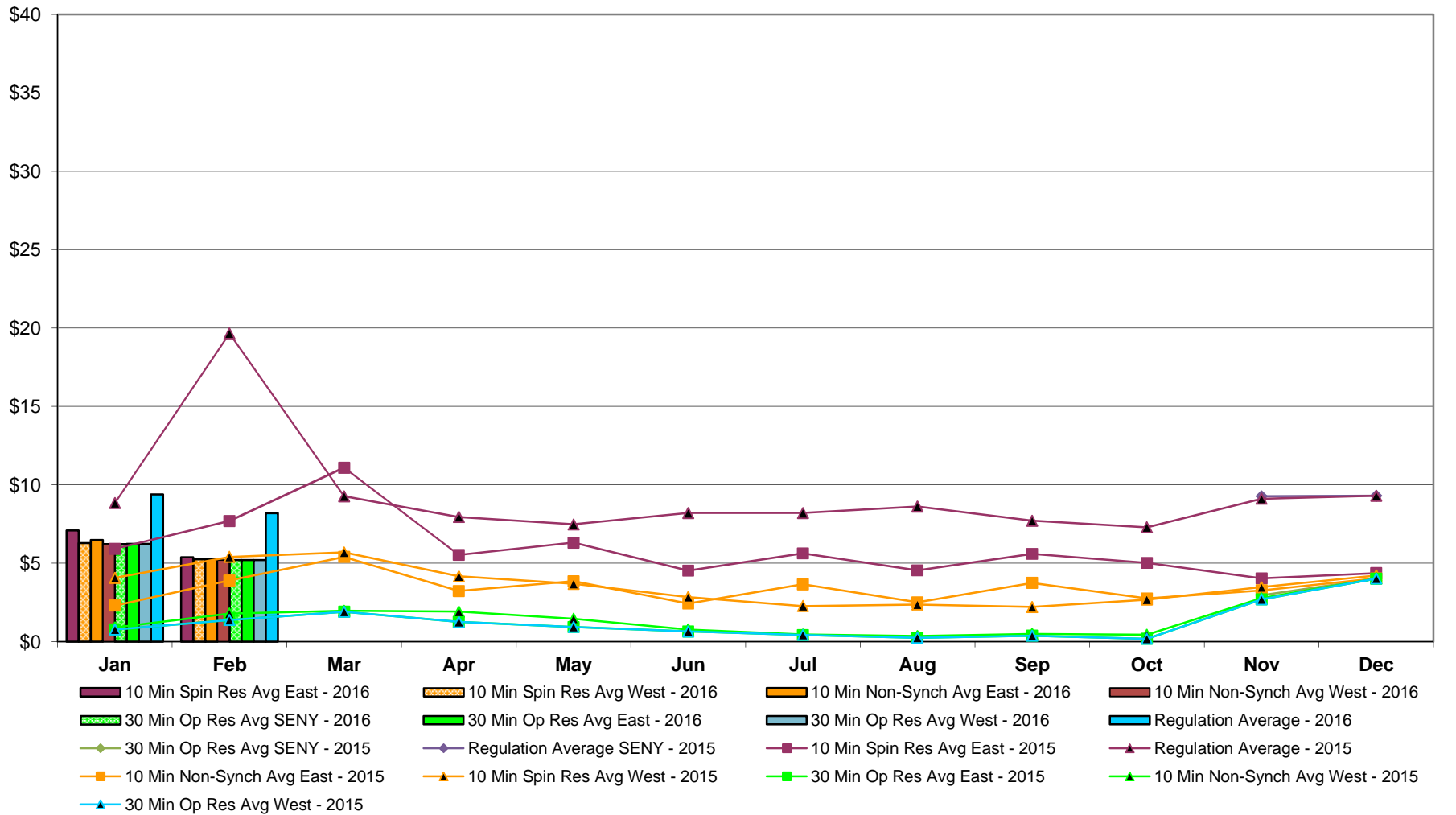
Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2016

		Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid			
Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled		
WEST	Jan-16	8,416	4,440	2,862	419	MHK VL	Jan-16	463	92	2,024	146	DUNWOD	Jan-16	402	216	3,262	61		
	Feb-16	7,967	3,554	2,706	521		Feb-16	544	80	2,329	611		Feb-16	803	185	3,555	269		
	Mar-16						Mar-16						Mar-16						
	Apr-16						Apr-16						Apr-16						
	May-16						May-16						May-16						
	Jun-16						Jun-16						Jun-16						
	Jul-16						Jul-16						Jul-16						
	Aug-16						Aug-16						Aug-16						
	Sep-16						Sep-16						Sep-16						
	Oct-16						Oct-16						Oct-16						
	Nov-16						Nov-16						Nov-16						
	Dec-16						Dec-16						Dec-16						
GENESE	Jan-16	1,030	638	3,868	2,421	CAPITL	Jan-16	2,195	1,472	4,568	3,470	N.Y.C.	Jan-16	2,862	4,976	2,531	648		
	Feb-16	795	923	3,461	3,707		Feb-16	1,593	684	5,140	3,581		Feb-16	3,281	4,752	2,390	403		
	Mar-16						Mar-16						Mar-16						
	Apr-16						Apr-16						Apr-16						
	May-16						May-16						May-16						
	Jun-16						Jun-16						Jun-16						
	Jul-16						Jul-16						Jul-16						
	Aug-16						Aug-16						Aug-16						
	Sep-16						Sep-16						Sep-16						
	Oct-16						Oct-16						Oct-16						
	Nov-16						Nov-16						Nov-16						
	Dec-16						Dec-16						Dec-16						
NORTH	Jan-16	274	312	7,038	3,010	HUD VL	Jan-16	1,036	1,609	6,763	2,202	LONGIL	Jan-16	6,153	3,761	700	985		
	Feb-16	499	215	7,169	3,894		Feb-16	1,008	1,135	9,550	3,078		Feb-16	6,539	3,211	814	869		
	Mar-16						Mar-16						Mar-16						
	Apr-16						Apr-16						Apr-16						
	May-16						May-16						May-16						
	Jun-16						Jun-16						Jun-16						
	Jul-16						Jul-16						Jul-16						
	Aug-16						Aug-16						Aug-16						
	Sep-16						Sep-16						Sep-16						
	Oct-16						Oct-16						Oct-16						
	Nov-16						Nov-16						Nov-16						
	Dec-16						Dec-16						Dec-16						
CENTRL	Jan-16	954	502	25,792	259	MILLWD	Jan-16	304	114	1,211	60	NYISO	Jan-16	24,086	18,132	60,619	13,680		
	Feb-16	975	212	26,176	301		Feb-16	403	145	1,477	100		Feb-16	24,407	15,096	64,766	17,335		
	Mar-16						Mar-16						Mar-16						
	Apr-16						Apr-16						Apr-16						
	May-16						May-16						May-16						
	Jun-16						Jun-16						Jun-16						
	Jul-16						Jul-16						Jul-16						
	Aug-16						Aug-16						Aug-16						
	Sep-16						Sep-16						Sep-16						
	Oct-16						Oct-16						Oct-16						
	Nov-16						Nov-16						Nov-16						
	Dec-16						Dec-16						Dec-16						

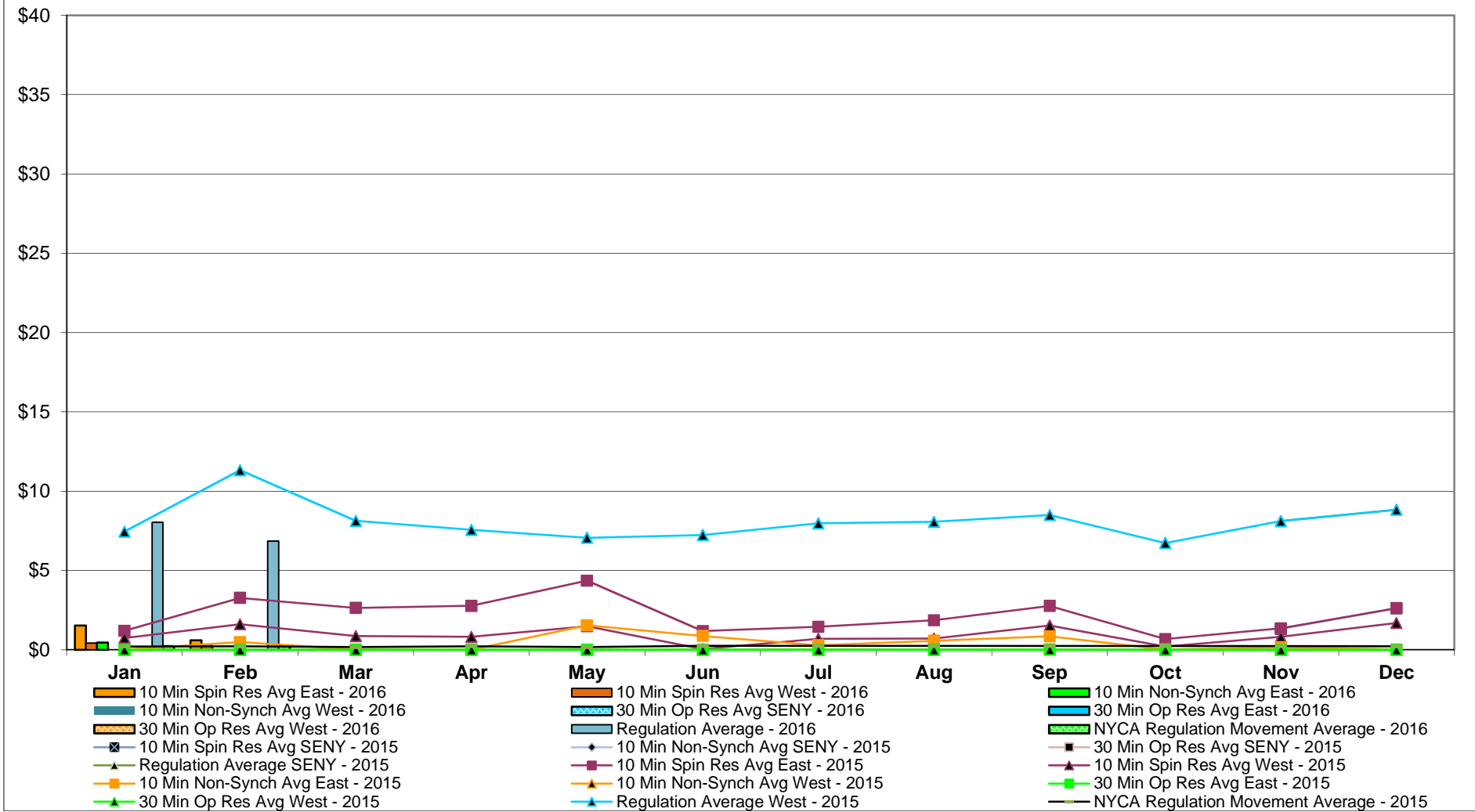
NYISO Multi Hour Block Transactions Monthly Total MWh



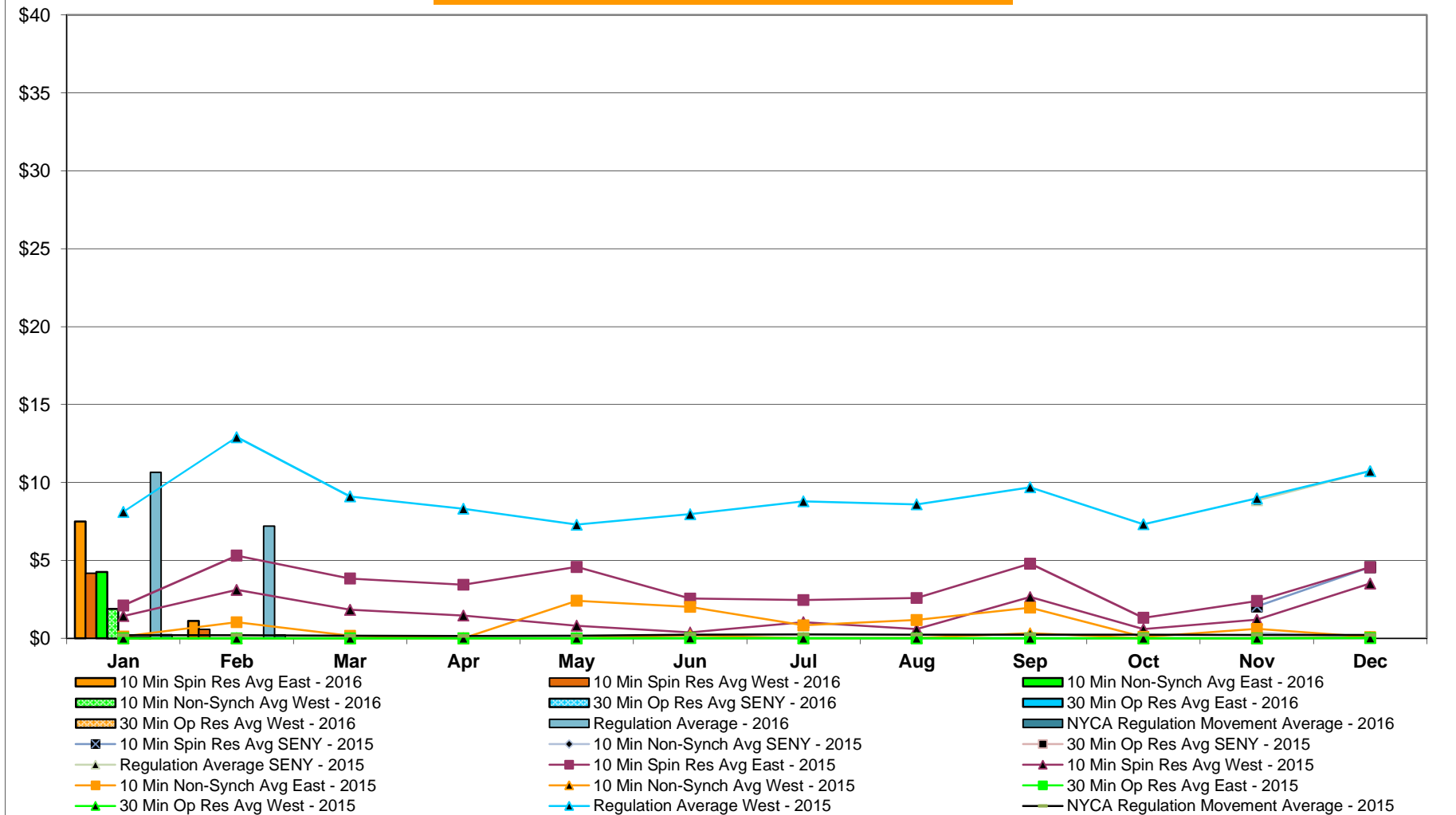
NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2015 - 2016



NYISO Monthly Average Ancillary Service Prices RTC Market 2015 - 2016



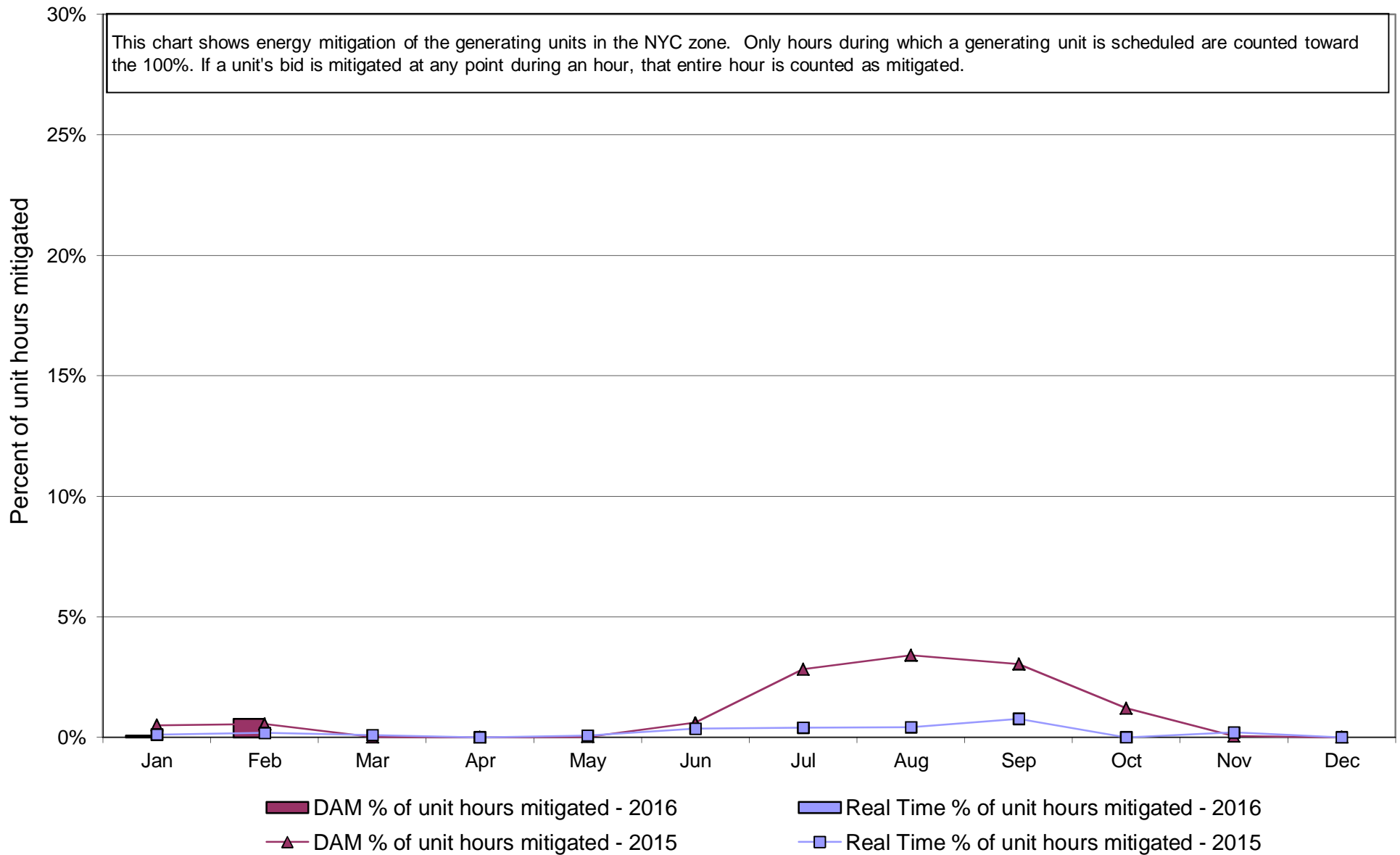
NYISO Monthly Average Ancillary Service Prices Real Time Market 2015 - 2016



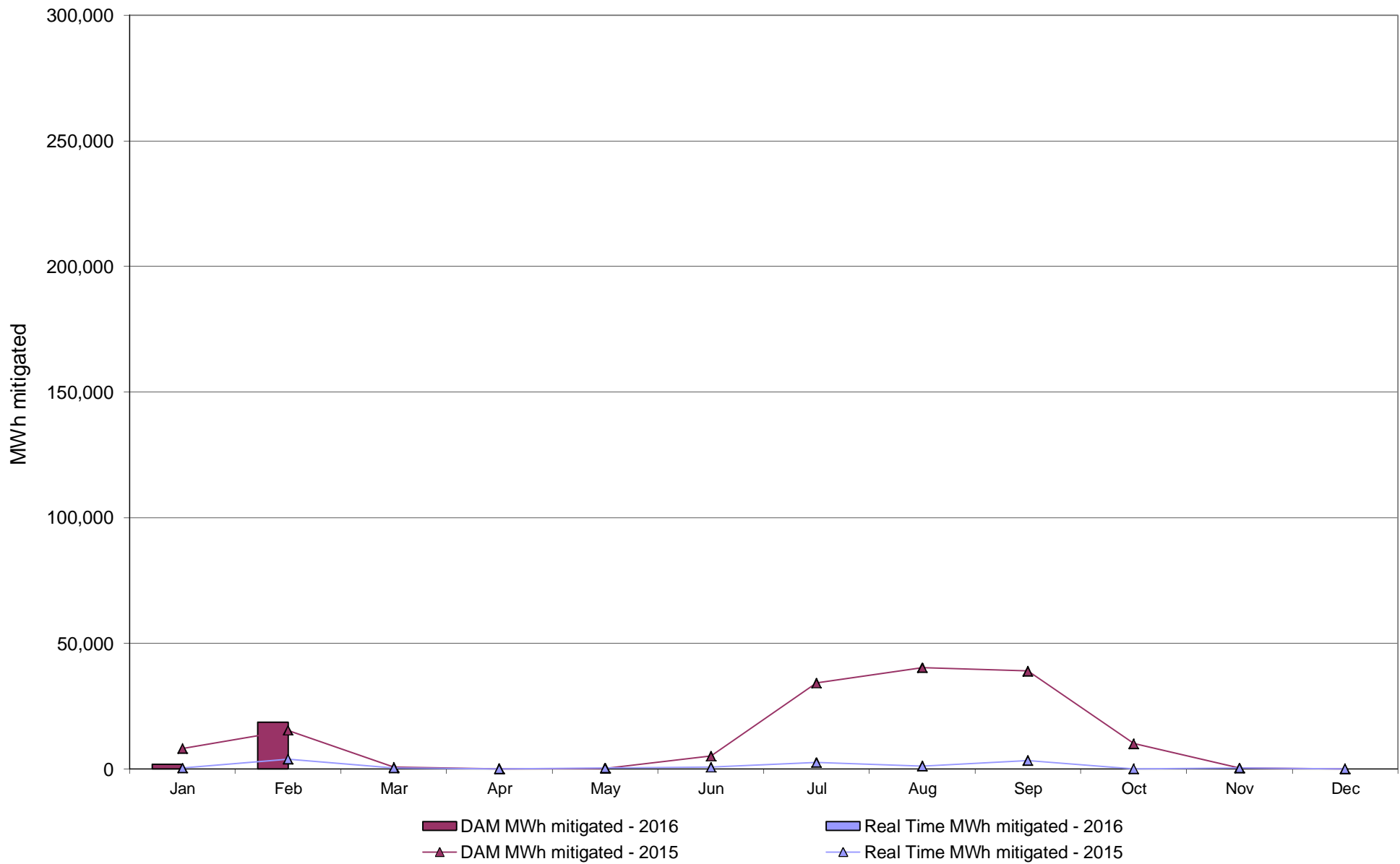
NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

2016	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Day Ahead Market												
10 Min Spin East	7.09	5.38										
10 Min Spin West	6.28	5.25										
10 Min Non Synch East	6.47	5.25										
10 Min Non Synch West	6.23	5.20										
30 Min SENY	6.23	5.20										
30 Min East	6.23	5.20										
30 Min West	6.23	5.20										
Regulation	9.39	8.19										
RTC Market												
10 Min Spin East	1.53	0.59										
10 Min Spin West	0.42	0.26										
10 Min Non Synch East	0.45	0.00										
10 Min Non Synch West	0.04	0.00										
30 Min SENY	0.01	0.00										
30 Min East	0.01	0.00										
30 Min West	0.01	0.00										
Regulation	8.04	6.86										
NYCA Regulation Movement	0.23	0.21										
Real Time Market												
10 Min Spin East	7.51	1.12										
10 Min Spin West	4.17	0.58										
10 Min Non Synch East	4.26	0.00										
10 Min Non Synch West	1.89	0.00										
30 Min SENY	0.06	0.00										
30 Min East	0.06	0.00										
30 Min West	0.06	0.00										
Regulation	10.66	7.21										
NYCA Regulation Movement	0.23	0.22										
2015	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Day Ahead Market												
10 Min Spin East	5.92	7.69	11.09	5.53	6.31	4.53	5.62	4.54	5.60	5.02	4.03	4.36
10 Min Spin West	4.07	5.40	5.68	4.16	3.69	2.84	2.26	2.36	2.20	2.68	3.47	4.22
10 Min Non Synch East	2.30	3.89	5.40	3.22	3.84	2.42	3.66	2.51	3.74	2.75	3.27	4.03
10 Min Non Synch West	0.90	1.79	1.97	1.91	1.45	0.77	0.45	0.36	0.49	0.45	2.77	4.02
30 Min SENY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.95	4.02
30 Min East	0.77	1.38	1.91	1.26	0.93	0.64	0.43	0.24	0.37	0.18	2.69	4.02
30 Min West	0.77	1.38	1.91	1.26	0.93	0.64	0.43	0.24	0.37	0.18	2.69	4.02
Regulation	8.84	19.65	9.27	7.94	7.48	8.20	8.20	8.61	7.71	7.29	9.10	9.30
RTC Market												
10 Min Spin East	1.20	3.27	2.64	2.77	4.36	1.18	1.44	1.86	2.76	0.67	1.35	2.62
10 Min Spin West	0.74	1.61	0.86	0.81	1.48	0.04	0.69	0.70	1.53	0.20	0.81	1.68
10 Min Non Synch East	0.01	0.48	0.01	0.00	1.54	0.87	0.28	0.57	0.84	0.01	0.16	0.01
10 Min Non Synch West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
30 Min SENY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.00
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Regulation	7.45	11.32	8.13	7.56	7.06	7.24	7.97	8.07	8.49	6.73	8.12	8.83
NYCA Regulation Movement	0.21	0.21	0.16	0.22	0.16	0.24	0.25	0.23	0.24	0.23	0.22	0.22
Real Time Market												
10 Min Spin East	2.12	5.31	3.84	3.44	4.59	2.56	2.47	2.59	4.79	1.32	2.40	4.57
10 Min Spin West	1.44	3.11	1.83	1.46	0.81	0.38	1.04	0.59	2.65	0.59	1.20	3.53
10 Min Non Synch East	0.12	1.03	0.17	0.01	2.41	2.01	0.83	1.19	1.97	0.09	0.61	0.09
10 Min Non Synch West	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.02	0.33	0.00	0.00	0.05
30 Min SENY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.03
30 Min East	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03

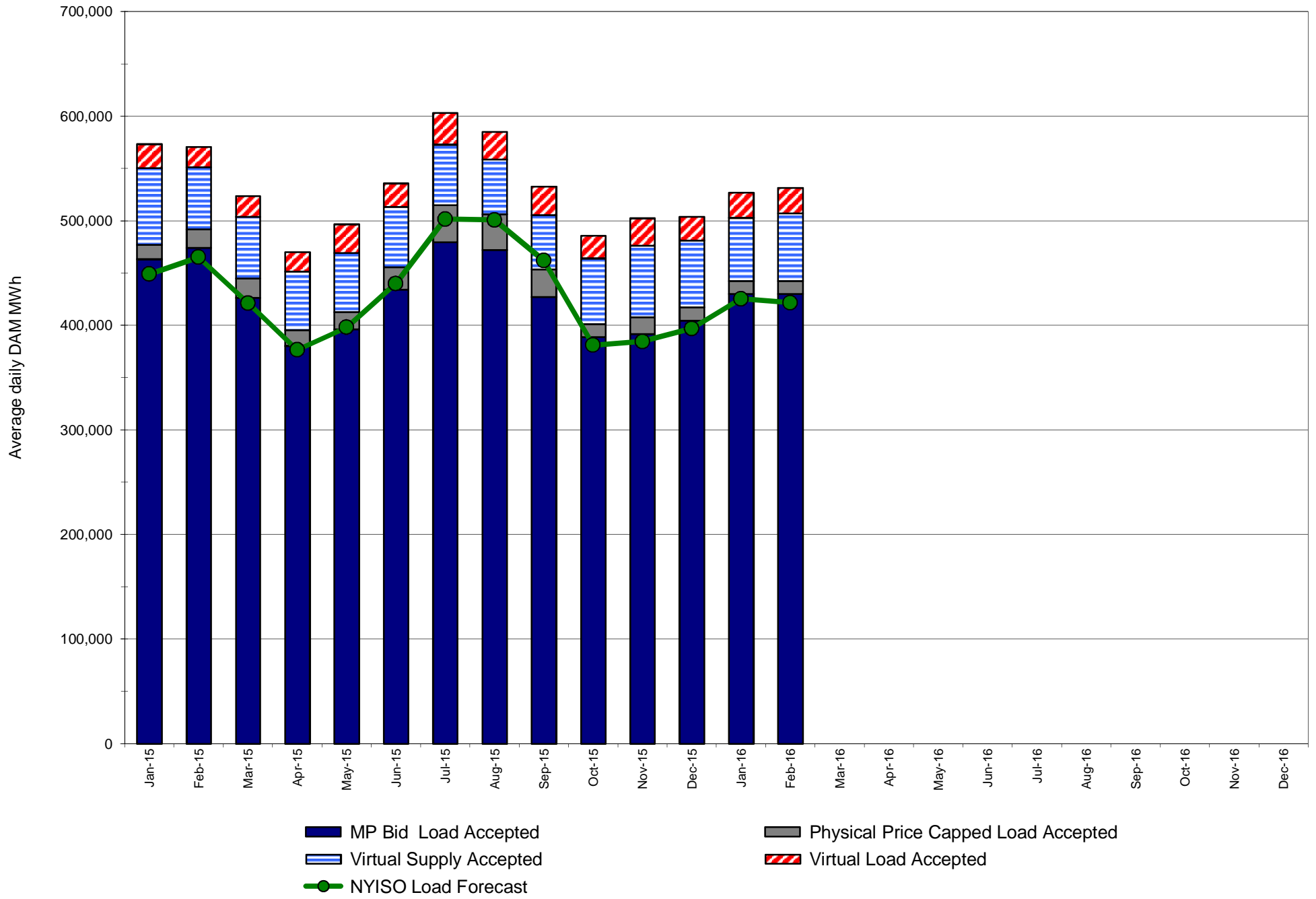
NYISO In City Energy Mitigation - AMP (NYC Zone) 2015 - 2016 Percentage of committed unit-hours mitigated



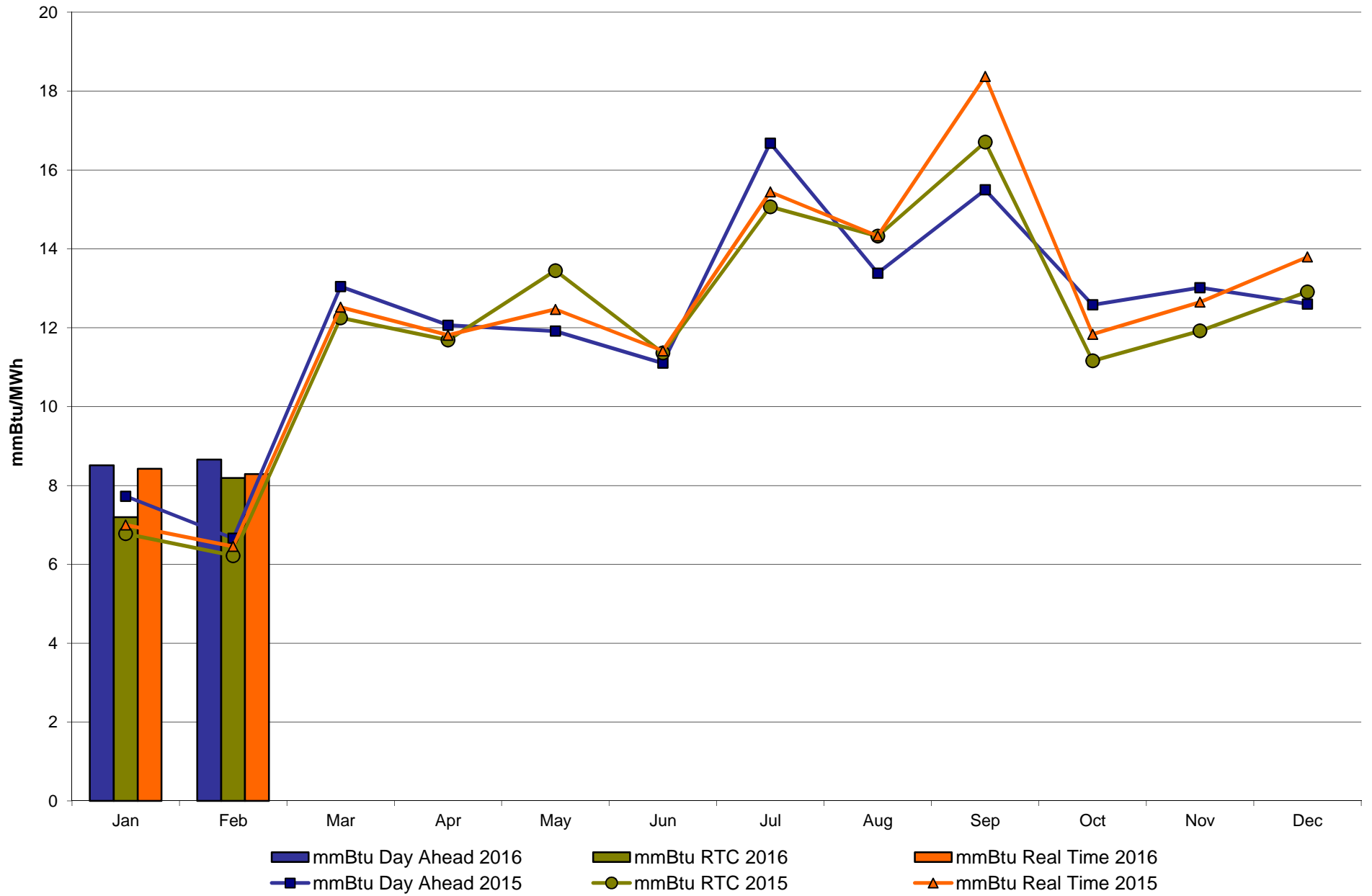
NYISO In City Energy Mitigation (NYC Zone) 2015 - 2016
Monthly megawatt hours mitigated



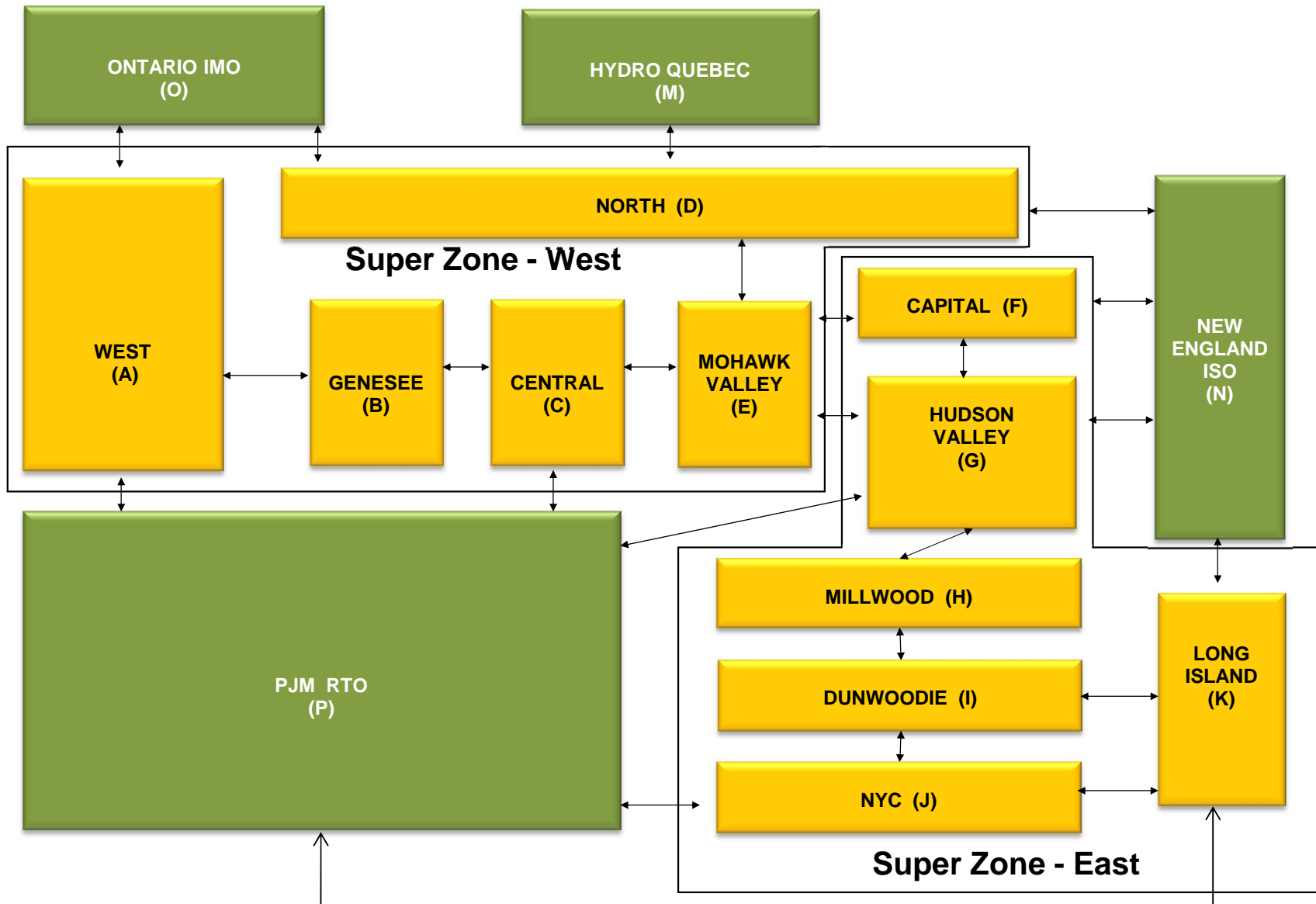
NYISO Average Daily DAM Load Bid Summary



Monthly Implied Heat Rate 2015-2016



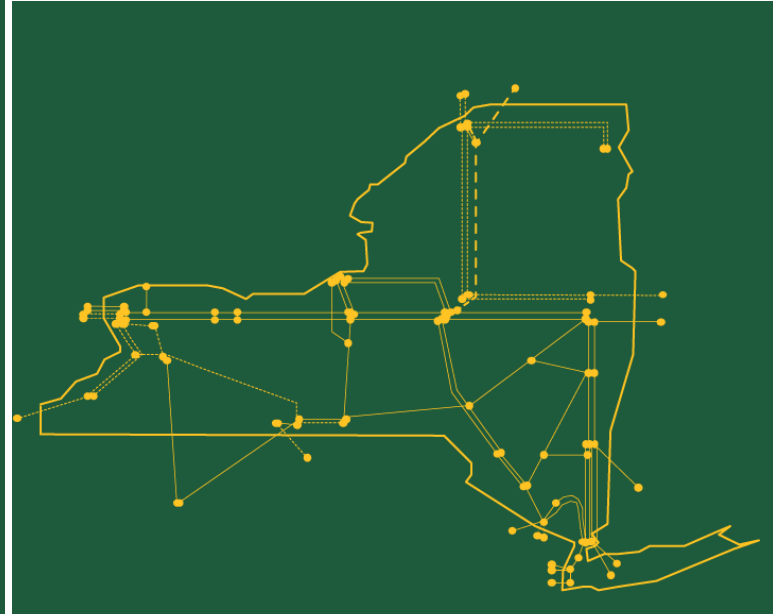
NYISO LBMP ZONES



Billing Codes for Chart C

Chart - C Category Name	Billing Code	Billing Category Name
Bid Production Cost Guarantee Balancing	81203	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81204	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81205	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee Balancing	81208	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81209	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81213	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee DAM	81201	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	84001	EDRP/SCR Demand Response - Local
Bid Production Cost Guarantee DAM	84101	EDRP/SCR Demand Response - NYISO Wide
Bid Production Cost Guarantee DAM	81401	DAM Price Responsive Load Program
Bid Production Cost Guarantee DAM	81202	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM	81206	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	81207	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM Virtual	81501	DAM Virtual Bid Production Cost Guarantee
DAM Contract Balancing	81315	DAM Contract Balancing
DAM Contract Balancing	81317	DAM Contract Balancing
Local Reliability Balancing	81002	Balancing Local Reliability Bid Production Cost Guarantee
Local Reliability Balancing	83901	Margin Restoration (MOB) Revenue
Local Reliability DAM	81001	DAM Local Reliability Bid Production Cost Guarantee
NYISO Cost of Operations	80901	NYISO Cost Of Operations
NYISO Cost of Operations	80902	NYISO Cost Of Operations
NYISO Cost of Operations	83501	NYISO Cost Of Operations
NYISO Cost of Operations	83502	NYISO Cost Of Operations
Residuals Balancing	81302	Balancing Market Energy Residual
Residuals Balancing	81304	Balancing Market Loss Residual
Residuals Balancing	81305	Balancing Market Congestion Balancing
Residuals Balancing	81306	Emergency Energy Purchases
Residuals Balancing	81307	Emergency Energy Sales
Residuals Balancing	81309	Balancing Market Energy Residual
Residuals Balancing	81311	Balancing Market Loss Residual
Residuals Balancing	81312	Balancing Market Congestion Balancing
Residuals Balancing	81313	Emergency Energy Purchases
Residuals Balancing	81314	Emergency Energy Sales
Residuals DAM	81301	Day Ahead Market Energy Residual
Residuals DAM	81303	Day Ahead Market Loss Residual
Residuals DAM	81308	Day Ahead Market Energy Residual
Residuals DAM	81310	Day Ahead Market Loss Residual

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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