

# Market Operations Report

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New York Independent System Operator*

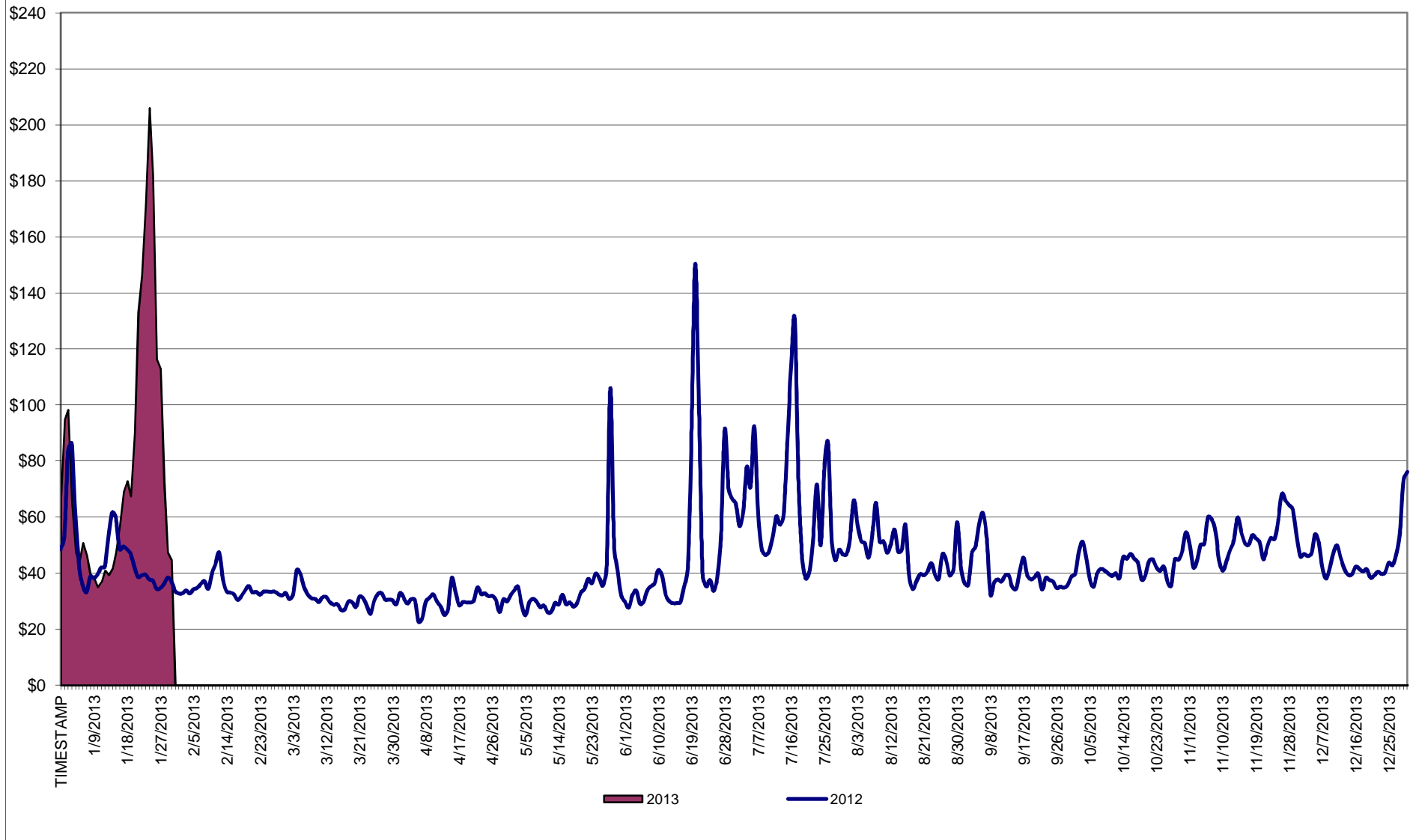
**Business Issues Committee Meeting**

*February 13, 2013*

# Market Performance Highlights for January 2013

- **LBMP for January is \$79.73/MWh, significantly higher than \$44.68/MWh in December 2012 and \$44.00/MWh in January 2012.**
  - Day Ahead and Real Time Load Weighted LBMPs are higher compared to December 2012.
- **January 2013 average monthly cost of \$82.18/MWh is a marked increase from \$46.75/MWh in January 2012.**
- **Average daily sendout is 453GWh/day in January; higher than 434GWh/day in December 2012 and 443 GWh/day in January 2012.**
- **Natural gas prices were dramatically higher compared to the previous month, and distillate prices were also higher.**
  - Natural Gas (Transco Z6 NY) was \$9.98/MMBtu, 109% higher than \$4.77/MMBtu in December. The increases were driven by price spikes of up to \$37/MMBtu.
  - Jet Kerosene Gulf Coast was \$22.82/MMBtu, up from \$21.82/MMBtu in December.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$22.14/MMBtu, up from \$21.95/MMBtu in December.
- **Uplift per MWh is higher compared to the previous month.**
  - Uplift (not including NYISO cost of operations) is \$0.08/MWh, higher than (\$0.13)/MWh in December.
    - The Local Reliability Share is \$0.41/MWh, higher than \$0.29 in December.
    - The Statewide Share is (\$0.33)/MWh, higher than (\$0.43)/MWh in December.
  - TSA \$ per NYC MWh is \$0.00/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than December.

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2012 Annual Average \$45.23/MWh  
 January 2012YTD Average \$46.75/MWh  
 January 2013YTD Average \$82.18/MWh



\* Excludes ICAP payments.

Data reflects true-ups thru December 2012.

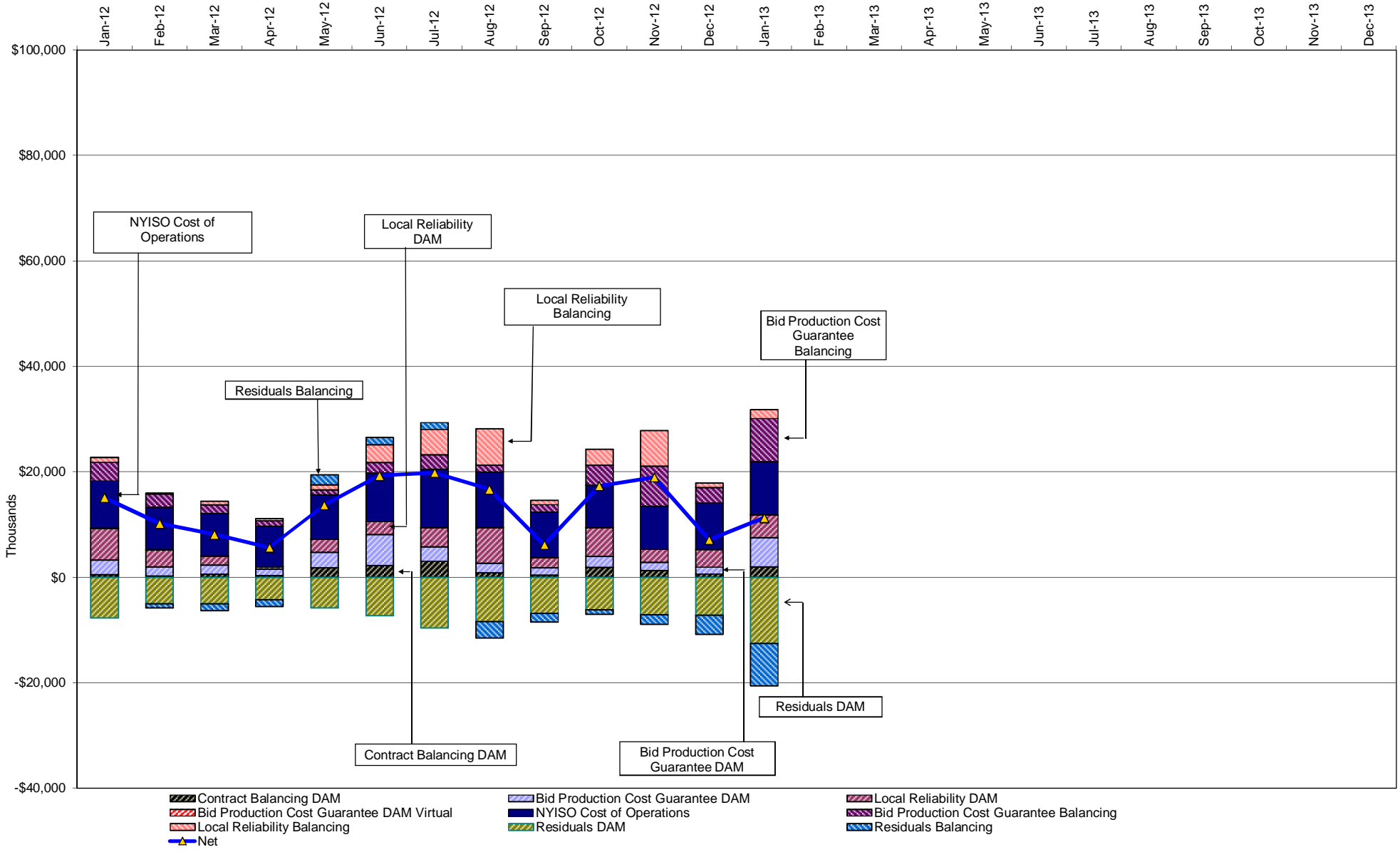
**NYISO Average Cost/MWh (Energy and Ancillary Services) \***  
**from the LBMP Customer point of view**

<b>2013</b>	<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	79.73											
NTAC	0.79											
Reserve	0.38											
Regulation	0.13											
NYISO Cost of Operations	0.69											
Uplift	0.08											
Uplift: Local Reliability Share	0.41											
Uplift: Statewide Share	(0.33)											
Voltage Support and Black Start	0.36											
<b>Avg Monthly Cost</b>	<b>82.18</b>											
Avg YTD Cost	82.18											
TSA \$ per NYC MWh	0.00											
<b>2012</b>	<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	44.00	32.45	28.98	28.31	34.68	47.37	63.80	46.24	39.59	39.28	50.15	44.68
NTAC	0.85	0.80	0.68	0.71	0.72	0.77	0.58	0.65	0.47	0.70	0.75	0.83
Reserve	0.35	0.25	0.38	0.32	0.13	0.36	0.36	0.22	0.23	0.29	0.40	0.25
Regulation	0.10	0.08	0.13	0.12	0.09	0.15	0.15	0.12	0.09	0.10	0.11	0.09
NYISO Cost of Operations	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Uplift	0.44	0.17	0.00	(0.18)	(0.11)	0.61	0.23	0.22	(0.40)	0.71	0.79	(0.13)
Uplift: Local Reliability Share	0.49	0.27	0.19	0.07	0.25	0.42	0.49	0.83	0.20	0.66	0.69	0.29
Uplift: Statewide Share	(0.05)	(0.10)	(0.19)	(0.25)	(0.36)	0.19	(0.26)	(0.61)	(0.59)	0.05	0.10	(0.43)
Voltage Support and Black Start	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
<b>Avg Monthly Cost</b>	<b>46.75</b>	<b>34.75</b>	<b>31.19</b>	<b>30.29</b>	<b>36.52</b>	<b>50.27</b>	<b>66.14</b>	<b>48.46</b>	<b>41.00</b>	<b>42.10</b>	<b>53.21</b>	<b>46.74</b>
Avg YTD Cost	46.75	41.12	37.96	36.09	36.18	38.89	44.26	44.91	44.50	44.29	45.10	45.23
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	1.52	0.45	0.85	0.46	0.59	0.00	0.00	0.00
<b>2011</b>	<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	74.91	55.60	46.98	46.44	48.49	60.33	75.76	56.04	46.86	42.49	38.97	39.73
NTAC	0.62	0.75	0.86	0.81	1.13	1.22	0.66	0.60	0.43	0.56	0.62	0.69
Reserve	0.44	0.50	0.41	0.43	0.48	0.28	0.28	0.13	0.25	0.41	0.26	0.28
Regulation	0.20	0.18	0.15	0.12	0.10	0.15	0.12	0.09	0.08	0.09	0.08	0.09
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	0.70
Uplift	1.26	0.58	0.45	0.21	(0.02)	0.61	1.42	0.65	0.15	(0.21)	0.11	0.15
Uplift: Local Reliability Share	0.95	0.71	0.33	0.38	0.36	0.82	1.19	0.87	0.45	0.23	0.19	0.19
Uplift: Statewide Share	0.31	(0.12)	0.12	(0.18)	(0.38)	(0.21)	0.24	(0.21)	(0.30)	(0.44)	(0.08)	(0.05)
Voltage Support and Black Start	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
<b>Avg Monthly Cost</b>	<b>78.50</b>	<b>58.69</b>	<b>49.92</b>	<b>49.07</b>	<b>51.24</b>	<b>63.67</b>	<b>79.30</b>	<b>58.58</b>	<b>48.83</b>	<b>44.40</b>	<b>41.11</b>	<b>42.00</b>
Avg YTD Cost	78.50	68.82	62.36	59.14	57.52	58.70	62.77	62.13	60.66	59.18	57.76	56.47
TSA \$ per NYC MWh	0.00	0.00	0.00	0.13	0.00	1.45	0.38	1.59	0.15	0.00	0.00	0.00

\* Excludes ICAP payments.  
Market Mitigation and Analysis  
Prepared: 2/6/2013 10:23 AM

Data reflects true-ups thru December 2012.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through January 31, 2013



## NYISO Markets Transactions

<b>2013</b>	<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>
<b>Day Ahead Market MWh</b>	15,140,096											
DAM LSE Internal LBMP Energy Sales	56%											
DAM External TC LBMP Energy Sales	4%											
DAM Bilateral - Internal Bilaterals	38%											
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%											
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%											
DAM Bilateral - Wheel Through Bilaterals	1%											
<b>Balancing Energy Market MWh</b>	-462,089											
Balancing Energy LSE Internal LBMP Energy Sales	-131%											
Balancing Energy External TC LBMP Energy Sales	33%											
Balancing Energy Bilateral - Internal Bilaterals	4%											
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%											
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	5%											
Balancing Energy Bilateral - Wheel Through Bilaterals	-12%											
<b>Transactions Summary</b>												
LBMP	59%											
Internal Bilaterals	39%											
Import Bilaterals	0%											
Export Bilaterals	1%											
Wheels Through	1%											
<b>Market Share of Total Load</b>												
Day Ahead Market	103.1%											
Balancing Energy +	-3.1%											
Total MWh	14,678,007											
Average Daily Energy Sendout/Month GWh	453											

<b>2012</b>	<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>
<b>Day Ahead Market MWh</b>	14,877,279	13,473,786	13,590,456	12,482,692	13,324,441	14,898,725	17,946,019	17,185,445	14,262,425	13,354,729	12,839,137	14,719,983
DAM LSE Internal LBMP Energy Sales	58%	57%	58%	59%	61%	63%	65%	63%	61%	60%	62%	57%
DAM External TC LBMP Energy Sales	1%	1%	0%	1%	1%	1%	1%	1%	0%	1%	3%	3%
DAM Bilateral - Internal Bilaterals	38%	40%	40%	38%	36%	35%	32%	34%	37%	38%	33%	37%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
DAM Bilateral - Wheel Through Bilaterals	1%	0%	1%	1%	1%	1%	1%	1%	0%	0%	1%	1%
<b>Balancing Energy Market MWh</b>	-878,126	-816,828	-896,684	-371,022	-31,455	-534,794	-575,091	-528,572	-692,656	-759,328	15,462	-738,593
Balancing Energy LSE Internal LBMP Energy Sales	-110%	-111%	-110%	-126%	-561%	-129%	-126%	-138%	-121%	-125%	-1207%	-108%
Balancing Energy External TC LBMP Energy Sales	9%	7%	7%	20%	347%	22%	19%	30%	13%	19%	1212%	7%
Balancing Energy Bilateral - Internal Bilaterals	1%	1%	1%	4%	107%	8%	6%	4%	4%	3%	6%	0%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	4%	3%	3%	7%	54%	3%	2%	2%	3%	3%	116%	3%
Balancing Energy Bilateral - Wheel Through Bilaterals	-3%	0%	-1%	-4%	-46%	-5%	0%	2%	1%	0%	-28%	-2%
<b>Transactions Summary</b>												
LBMP	57%	56%	55%	59%	61%	62%	65%	63%	59%	58%	65%	58%
Internal Bilaterals	41%	42%	43%	39%	36%	36%	33%	35%	39%	40%	33%	39%
Import Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Export Bilaterals	2%	2%	2%	2%	2%	1%	1%	1%	1%	2%	2%	2%
Wheels Through	1%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	1%
<b>Market Share of Total Load</b>												
Day Ahead Market	106.3%	106.5%	107.1%	103.1%	100.2%	103.7%	103.3%	103.2%	105.1%	106.0%	99.9%	105.3%
Balancing Energy +	-6.3%	-6.5%	-7.1%	-3.1%	-0.2%	-3.7%	-3.3%	-3.2%	-5.1%	-6.0%	0.1%	-5.3%
Total MWh	13,999,153	12,656,958	12,693,772	12,111,670	13,292,986	14,363,931	17,370,928	16,656,873	13,569,769	12,595,401	12,854,599	13,981,390
Average Daily Energy Sendout/Month GWh	443	431	407	396	420	471	551	529	447	398	410	434

+ 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 2013 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>
<b><u>DAY AHEAD LBMP</u></b>												
Price *	\$69.17											
Standard Deviation	\$47.21											
Load Weighted Price **	\$72.17											
<b><u>RTC LBMP</u></b>												
Price *	\$73.69											
Standard Deviation	\$88.27											
Load Weighted Price **	\$77.52											
<b><u>REAL TIME LBMP</u></b>												
Price *	\$76.47											
Standard Deviation	\$83.80											
Load Weighted Price **	\$81.71											
Average Daily Energy Sendout/Month GWh	453											

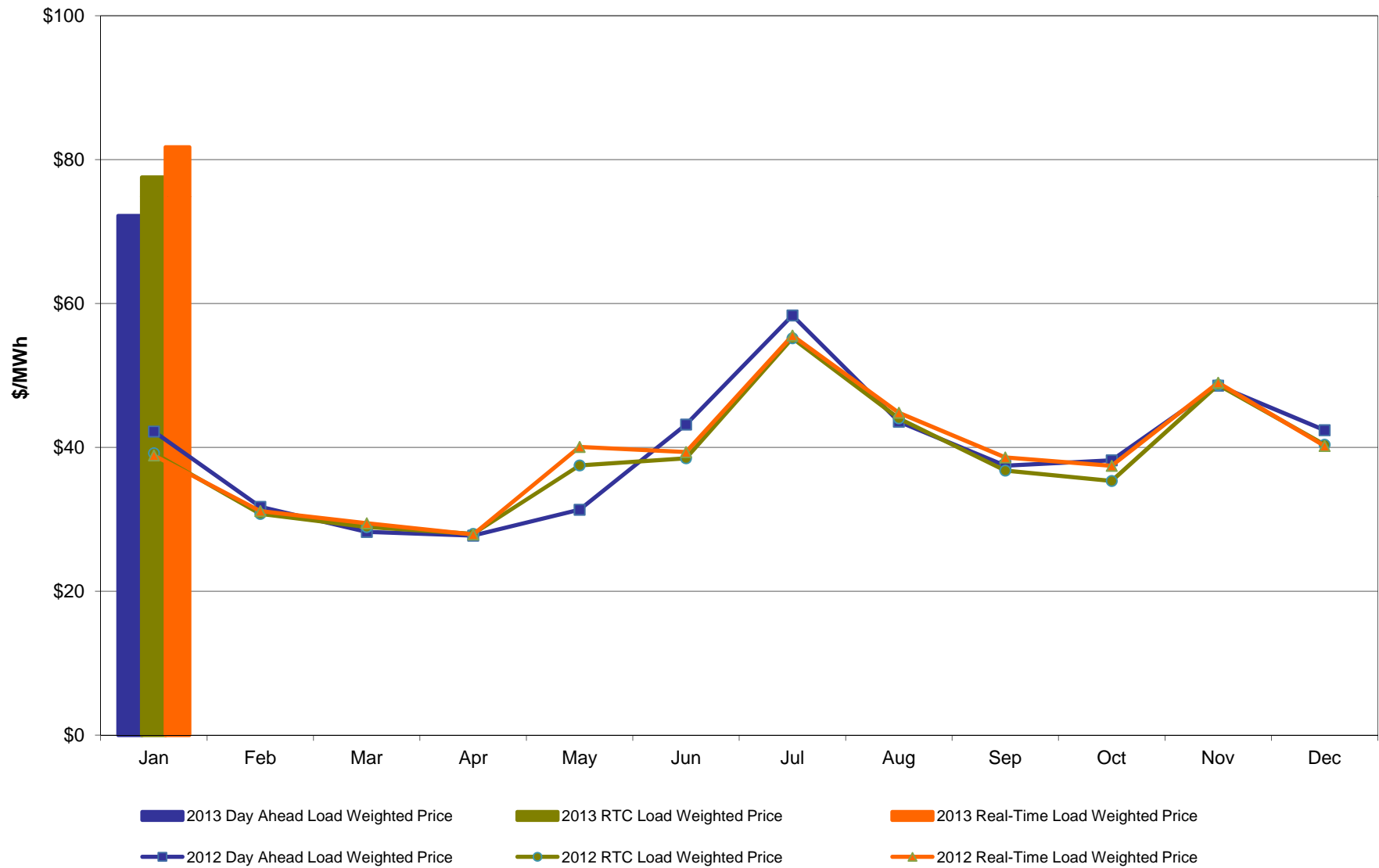
### NYISO Markets 2012 Energy Statistics

	<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>
<b><u>DAY AHEAD LBMP</u></b>												
Price *	\$40.91	\$31.15	\$27.44	\$26.88	\$29.79	\$38.71	\$53.95	\$41.17	\$35.74	\$37.10	\$47.31	\$41.47
Standard Deviation	\$15.62	\$6.23	\$7.00	\$7.04	\$10.22	\$31.58	\$32.19	\$15.94	\$11.26	\$8.21	\$11.52	\$10.18
Load Weighted Price **	\$42.20	\$31.73	\$28.25	\$27.72	\$31.33	\$43.17	\$58.33	\$43.57	\$37.44	\$38.19	\$48.58	\$42.38
<b><u>RTC LBMP</u></b>												
Price *	\$37.93	\$30.31	\$28.15	\$27.19	\$34.27	\$34.58	\$51.05	\$41.79	\$34.76	\$34.11	\$46.72	\$39.13
Standard Deviation	\$23.43	\$7.26	\$22.87	\$15.67	\$46.03	\$57.26	\$60.86	\$22.90	\$23.14	\$19.02	\$33.25	\$22.23
Load Weighted Price **	\$39.19	\$30.75	\$28.93	\$27.97	\$37.49	\$38.48	\$55.17	\$44.03	\$36.77	\$35.33	\$48.69	\$40.37
<b><u>REAL TIME LBMP</u></b>												
Price *	\$37.35	\$30.54	\$28.47	\$27.00	\$35.22	\$34.29	\$50.68	\$41.95	\$36.05	\$36.24	\$47.35	\$39.17
Standard Deviation	\$23.75	\$9.77	\$20.94	\$15.14	\$56.38	\$55.53	\$51.60	\$23.86	\$26.89	\$14.43	\$27.30	\$14.67
Load Weighted Price **	\$38.88	\$31.14	\$29.44	\$27.89	\$40.06	\$39.34	\$55.54	\$44.81	\$38.59	\$37.43	\$48.98	\$40.19
Average Daily Energy Sendout/Month GWh	443	431	407	396	420	471	551	529	447	398	410	434

\* Average zonal load weighted prices.

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

### NYISO Monthly Average Internal LBMPs 2012- 2013



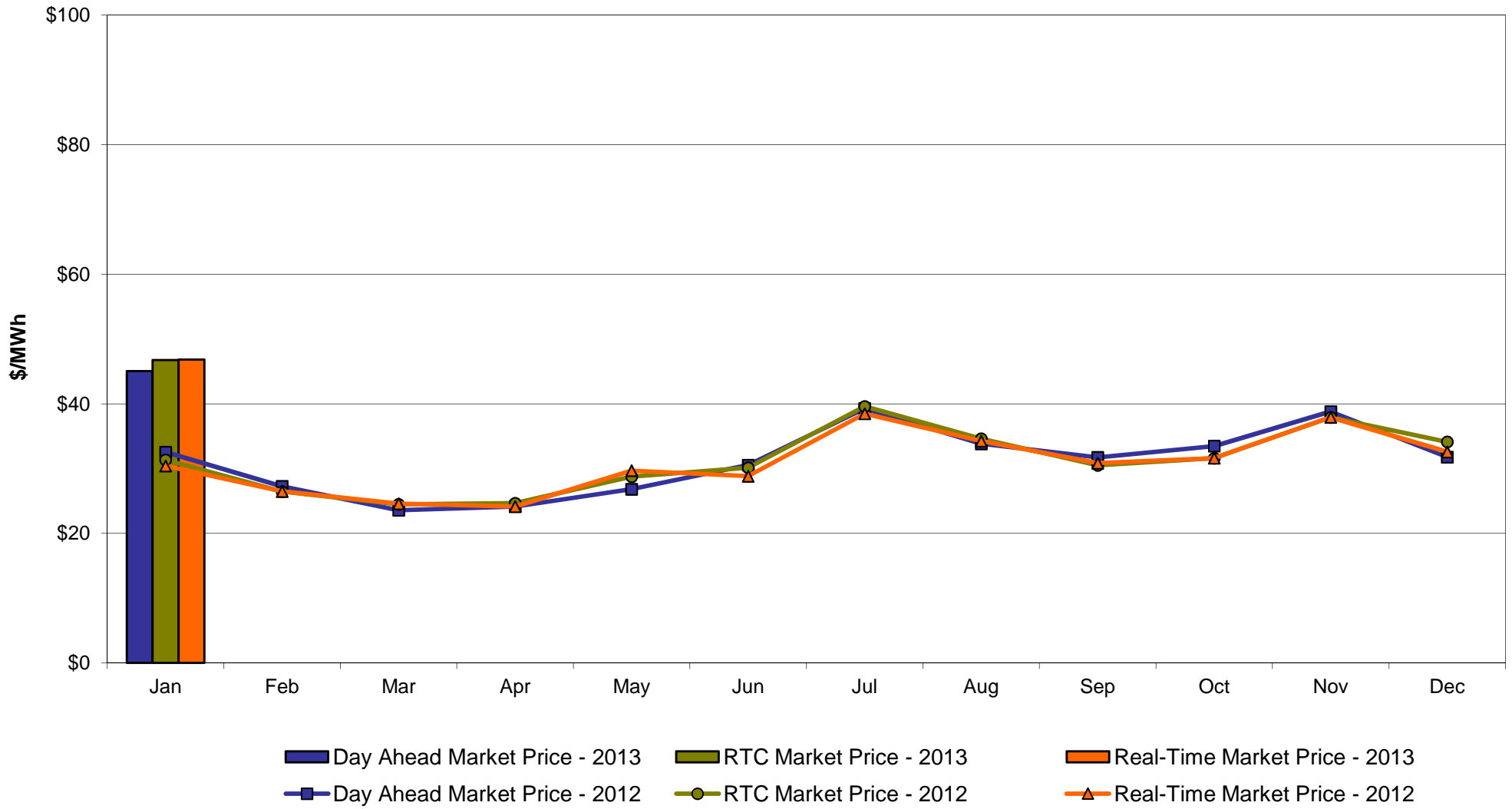


**January 2013 Zonal LBMP Statistics for NYISO (\$/MWh)**

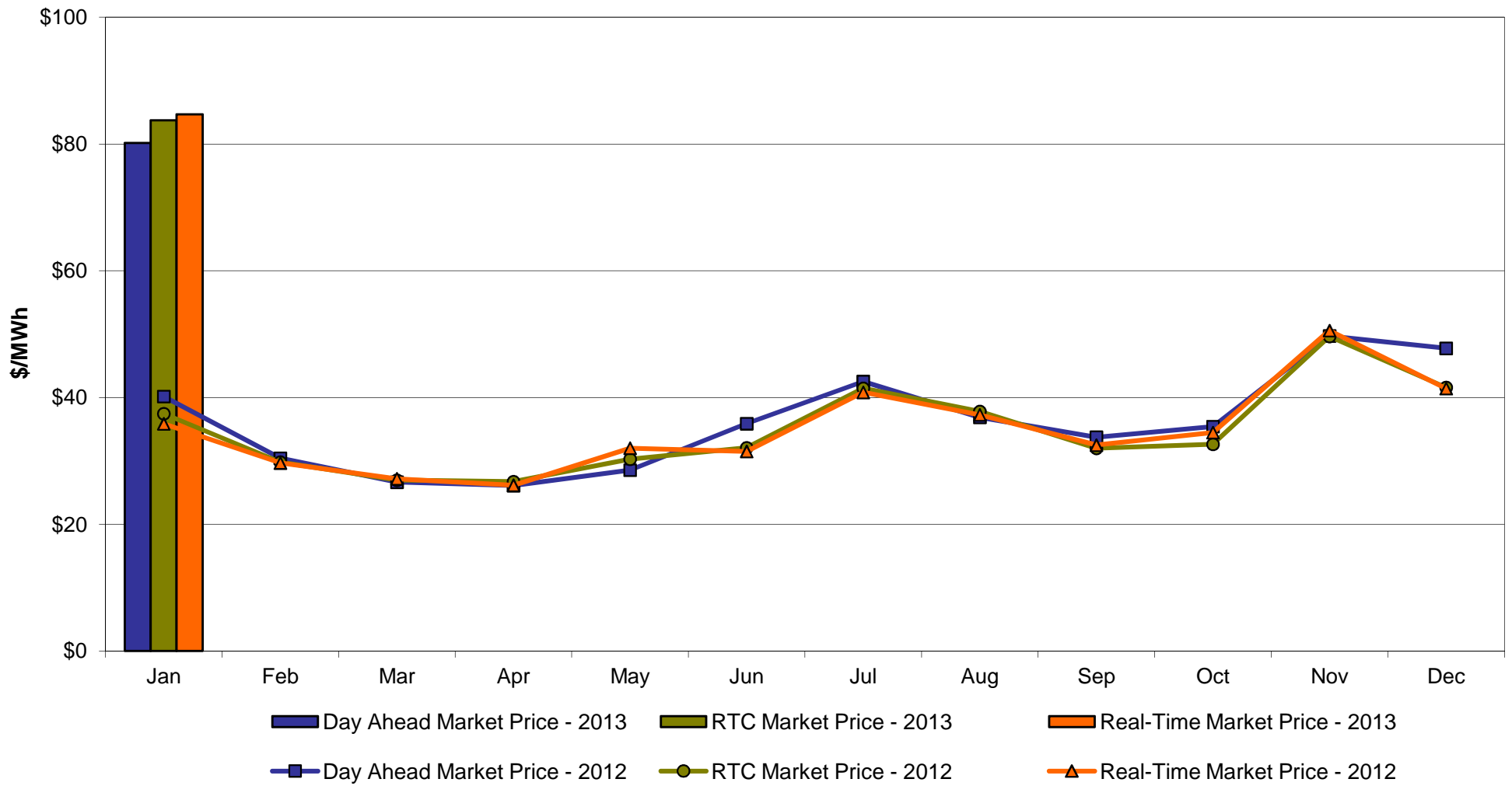
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>	
<b><u>DAY AHEAD LBMP</u></b>												
Unweighted Price *	45.06	47.48	46.36	49.86	52.25	80.19	74.14	74.70	74.53	81.20	87.47	
Standard Deviation	30.72	37.79	41.88	38.92	41.89	51.29	48.17	48.60	48.50	57.16	60.36	
<b><u>RTC LBMP</u></b>												
Unweighted Price *	46.76	49.42	46.60	51.86	54.60	83.74	76.53	77.05	76.80	87.00	101.72	
Standard Deviation	59.71	69.10	73.94	71.12	75.85	108.31	94.74	95.52	94.96	111.83	118.55	
<b><u>REAL TIME LBMP</u></b>												
Unweighted Price *	46.81	49.34	46.19	51.77	54.41	84.69	77.10	77.65	77.44	91.21	111.75	
Standard Deviation	54.12	65.25	69.97	66.71	71.15	93.65	83.01	83.62	83.21	111.94	134.44	
	<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>Dennison</u> <u>Controllable</u> <u>Line</u>		
<b><u>DAY AHEAD LBMP</u></b>												
Unweighted Price *	44.41	46.18	45.83	54.73	77.49	86.29	82.69	85.88	74.04	45.87		
Standard Deviation	30.51	41.43	41.54	37.96	49.49	59.40	54.66	59.14	50.89	41.80		
<b><u>RTC LBMP</u></b>												
Unweighted Price *	42.57	44.02	43.77	51.91	73.49	92.26	91.70	90.88	73.69	45.09		
Standard Deviation	45.53	55.90	55.91	52.68	69.96	90.28	89.98	89.64	84.49	60.45		
<b><u>REAL TIME LBMP</u></b>												
Unweighted Price *	46.65	46.92	46.79	56.61	80.65	100.82	87.71	98.83	82.10	47.94		
Standard Deviation	55.56	69.13	69.19	64.70	80.94	106.30	87.85	104.35	107.82	70.28		

\* Straight LBMP averages

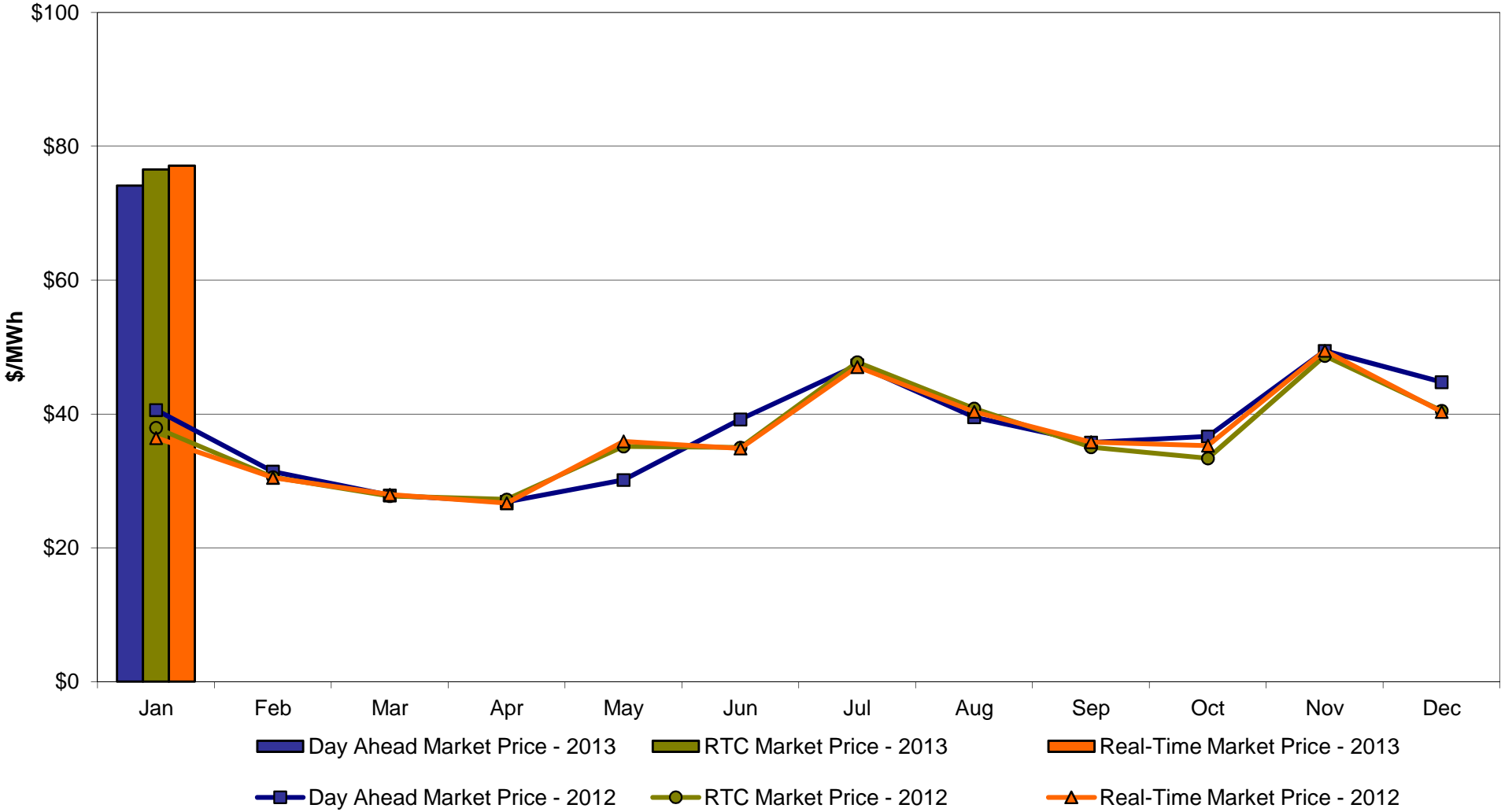
**West Zone A  
Monthly Average LBMP Prices 2012 - 2013**



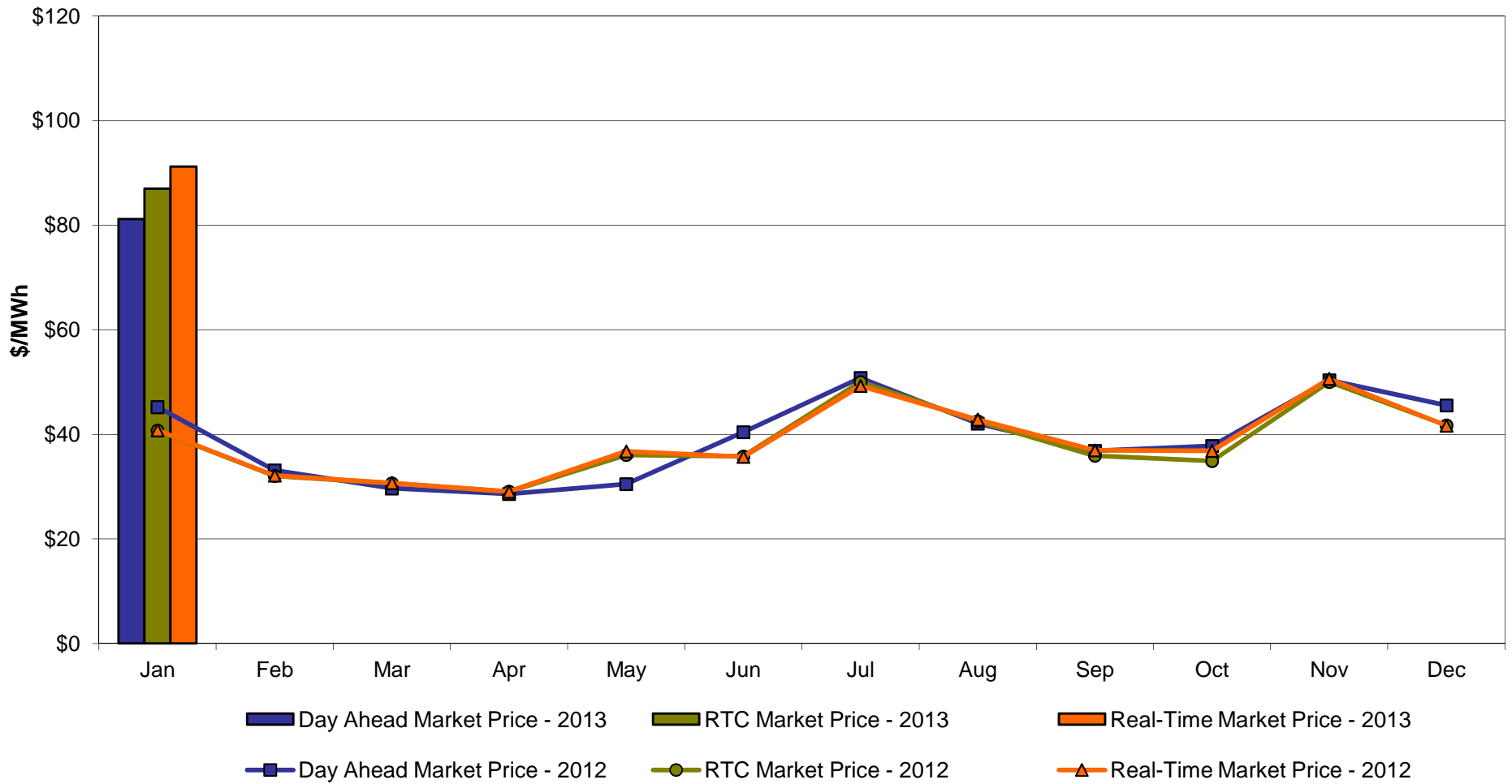
**Capital Zone F  
Monthly Average LBMP Prices 2012 - 2013**



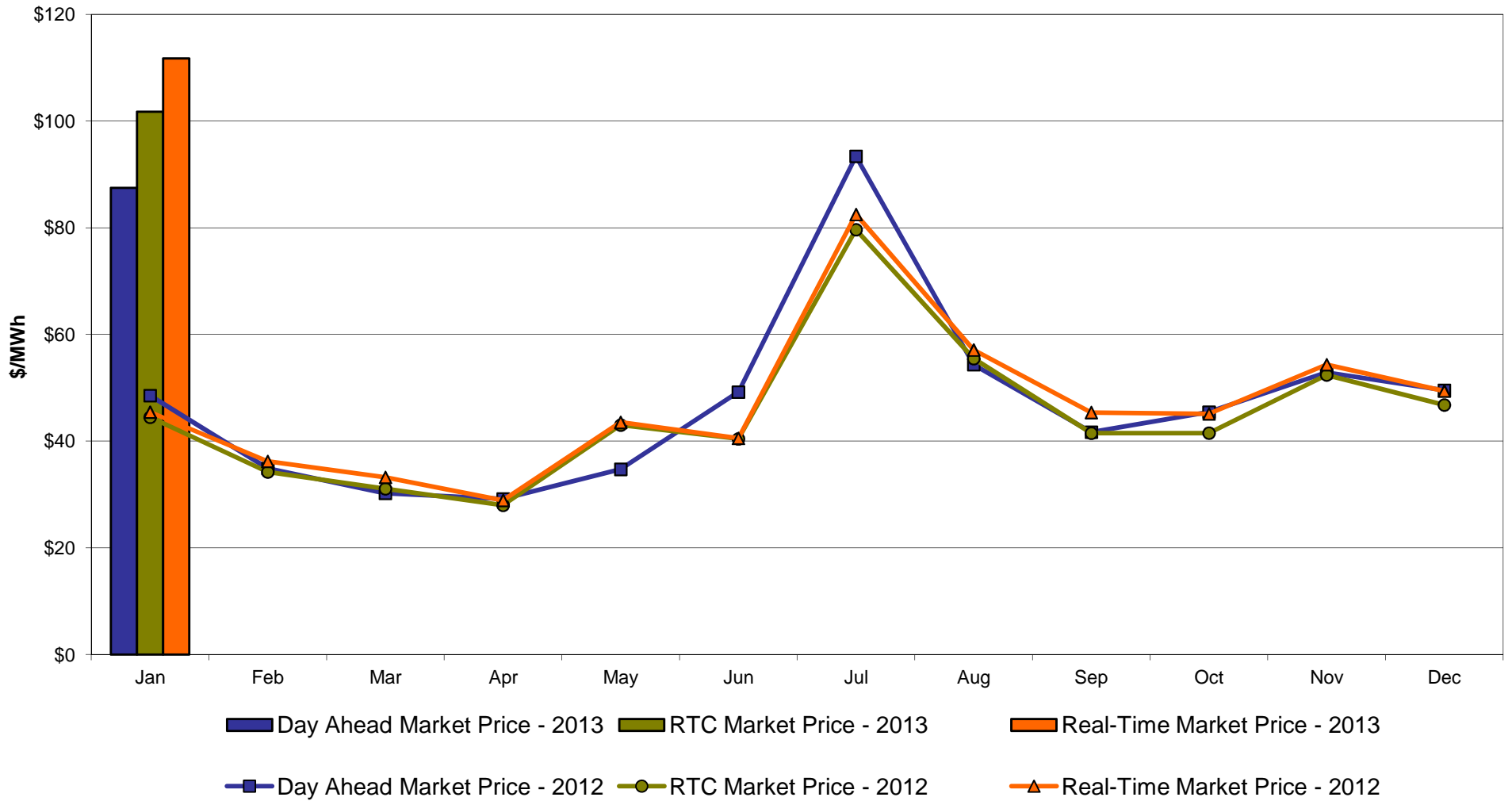
### Hudson Valley Zone G Monthly Average LBMP Prices 2012 - 2013



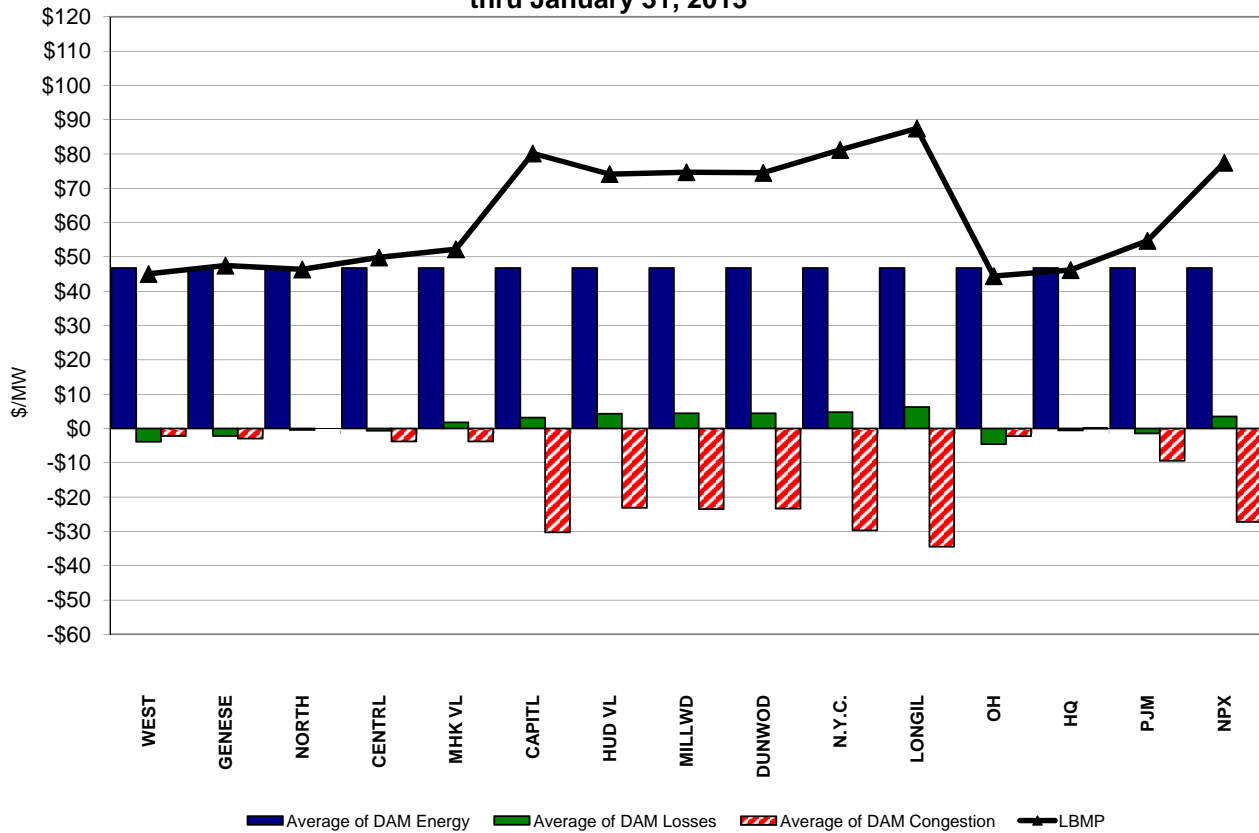
**NYC Zone J  
Monthly Average LBMP Prices 2012 - 2013**



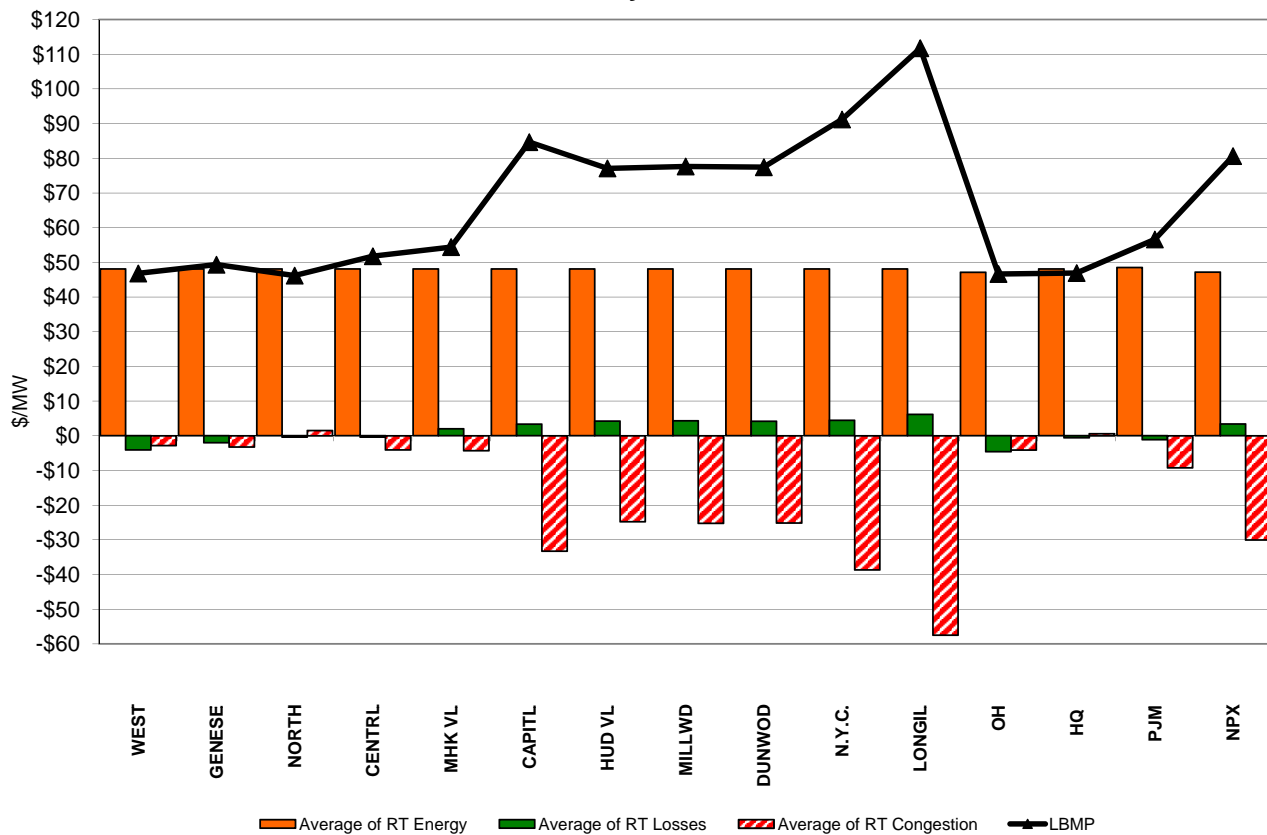
## Long Island Zone K Monthly Average LBMP Prices 2012 - 2013



**DAM Zonal Unweighted Monthly Average LBMP Components  
thru January 31, 2013**

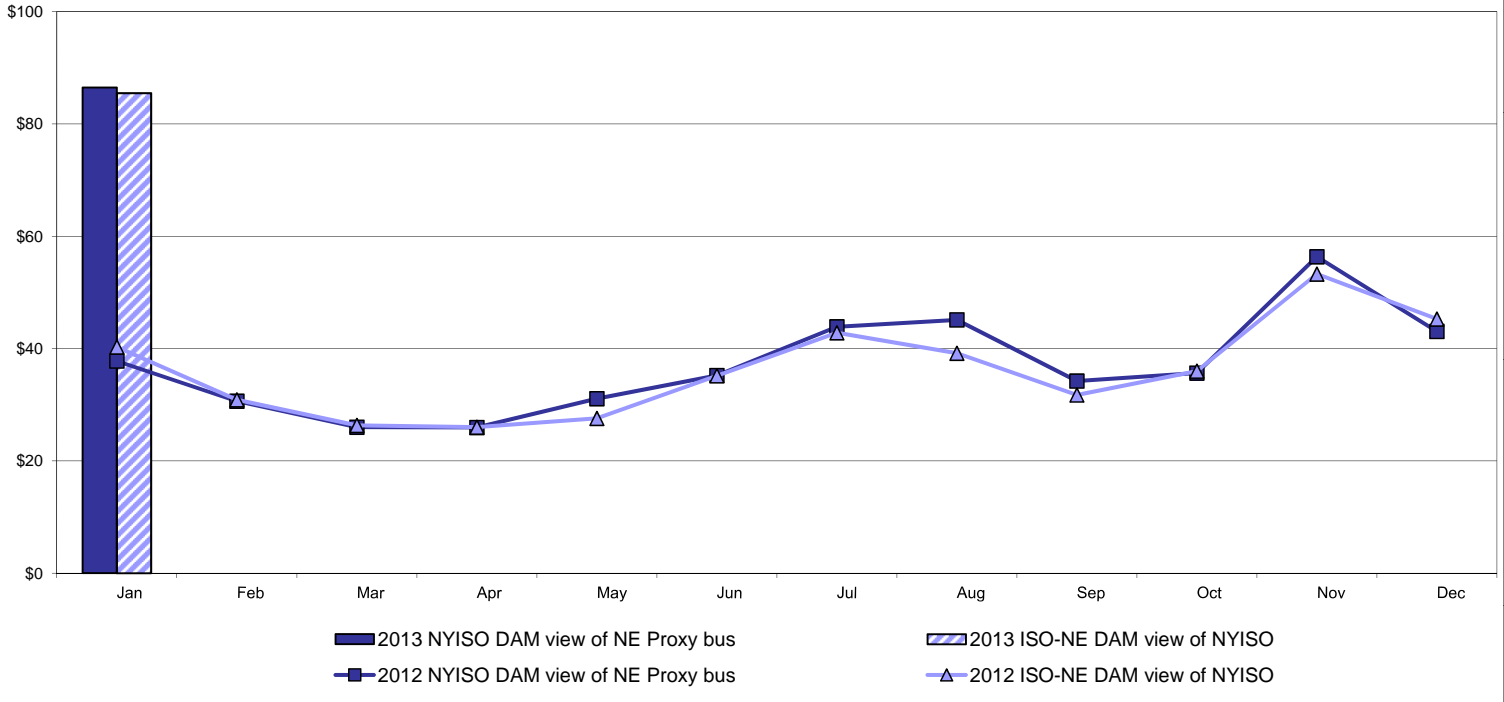


**RT Zonal Unweighted Monthly Average LBMP Components  
thru January 31, 2013**

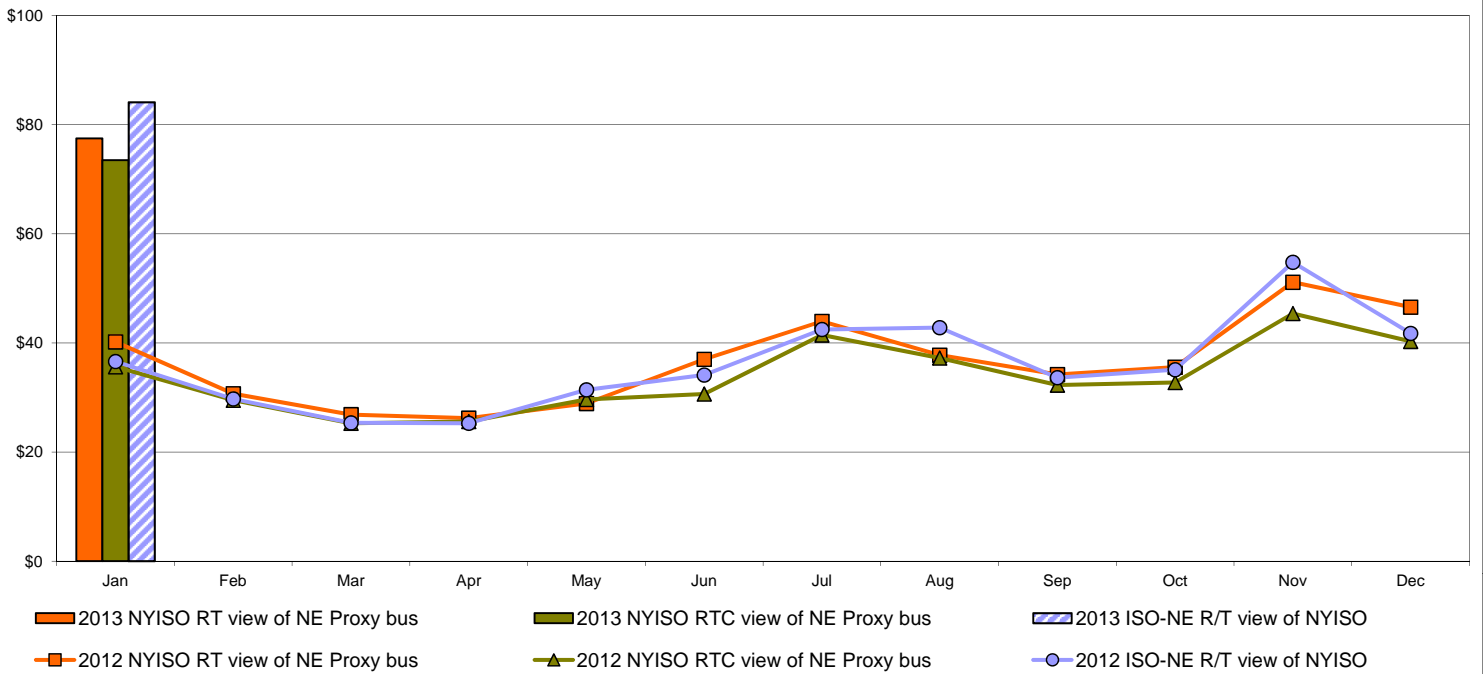


# External Comparison ISO-New England

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



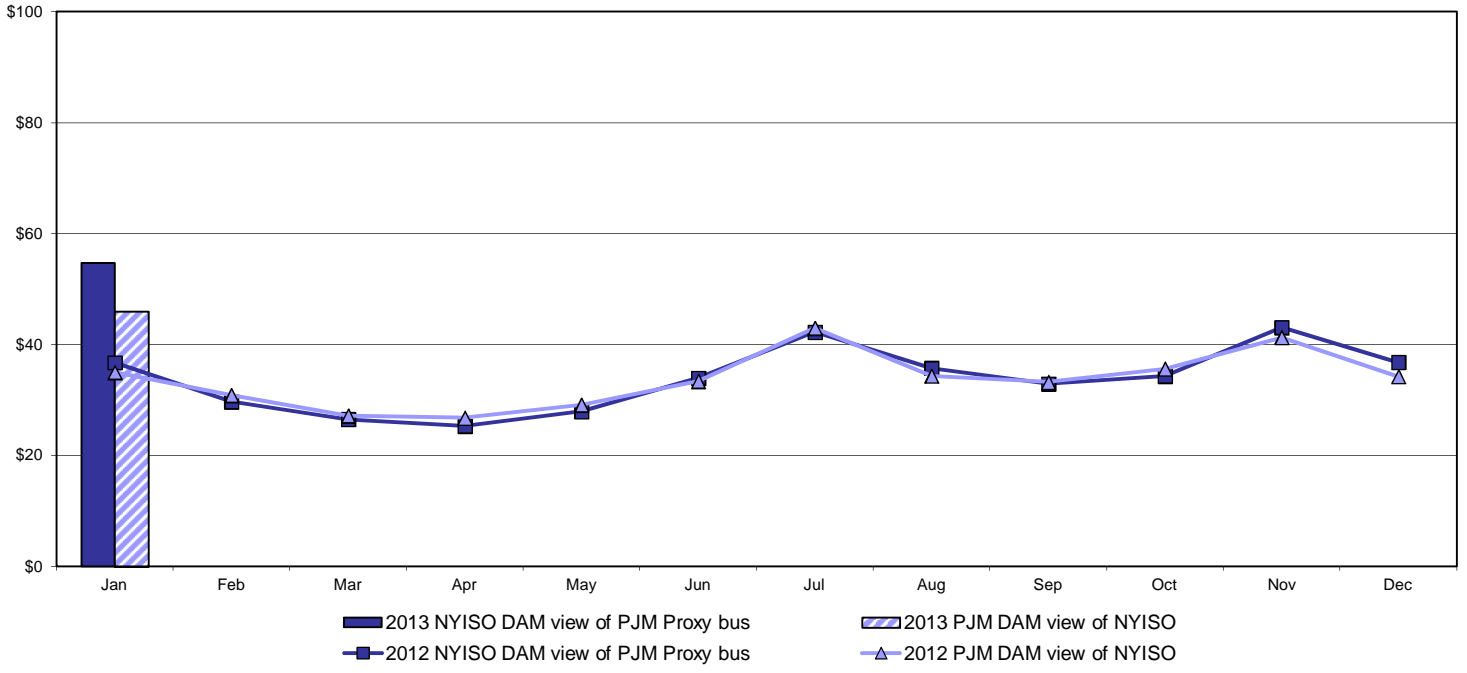
### Real Time Market External Zone Comparison: ISO-NE (\$/MWh)



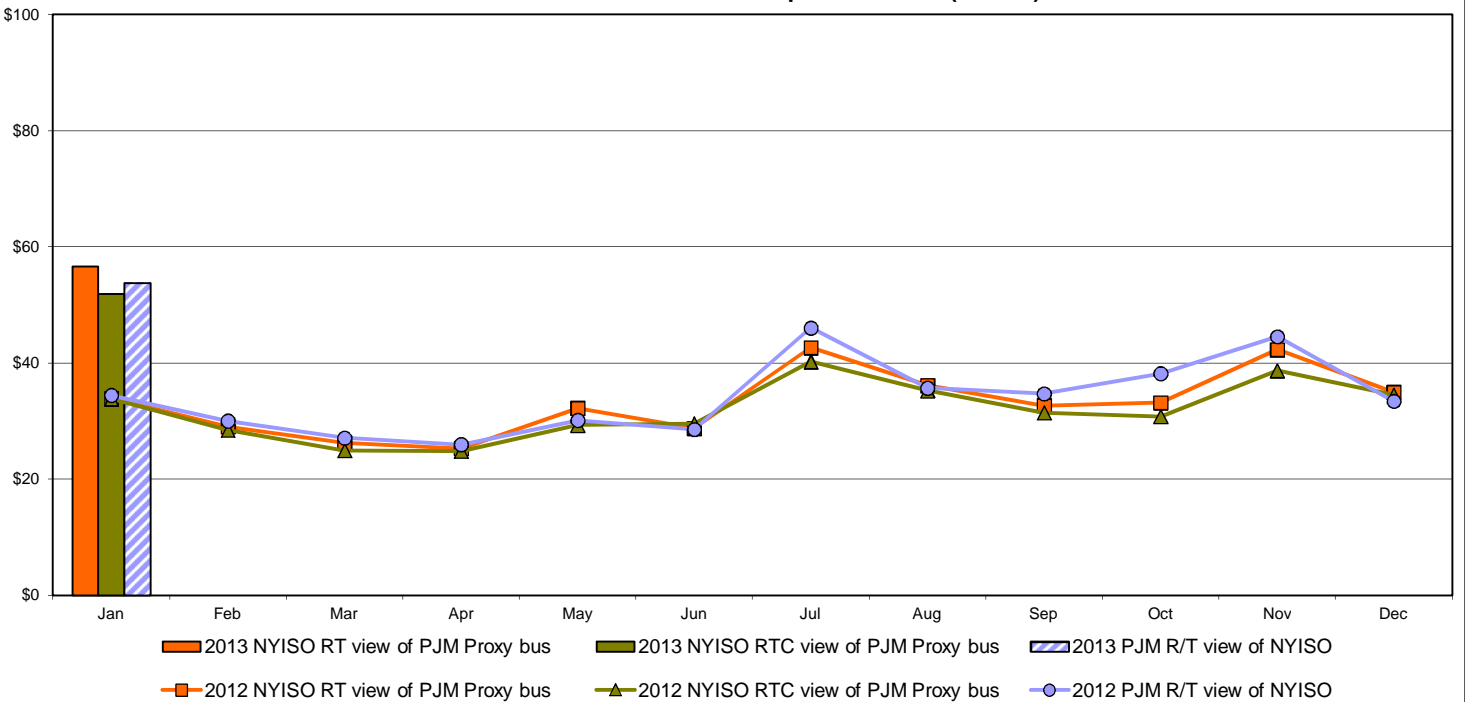


# External Comparison PJM

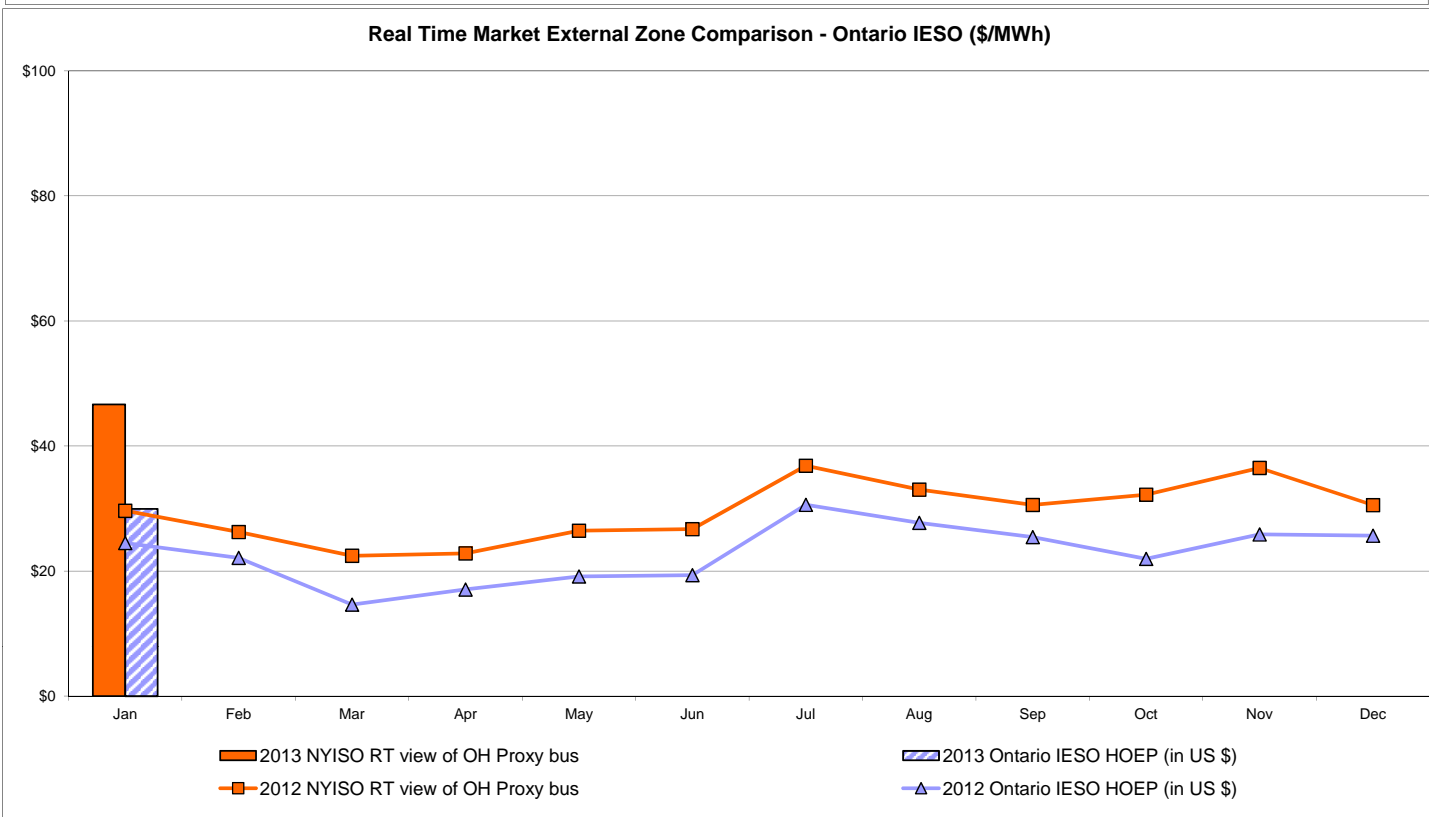
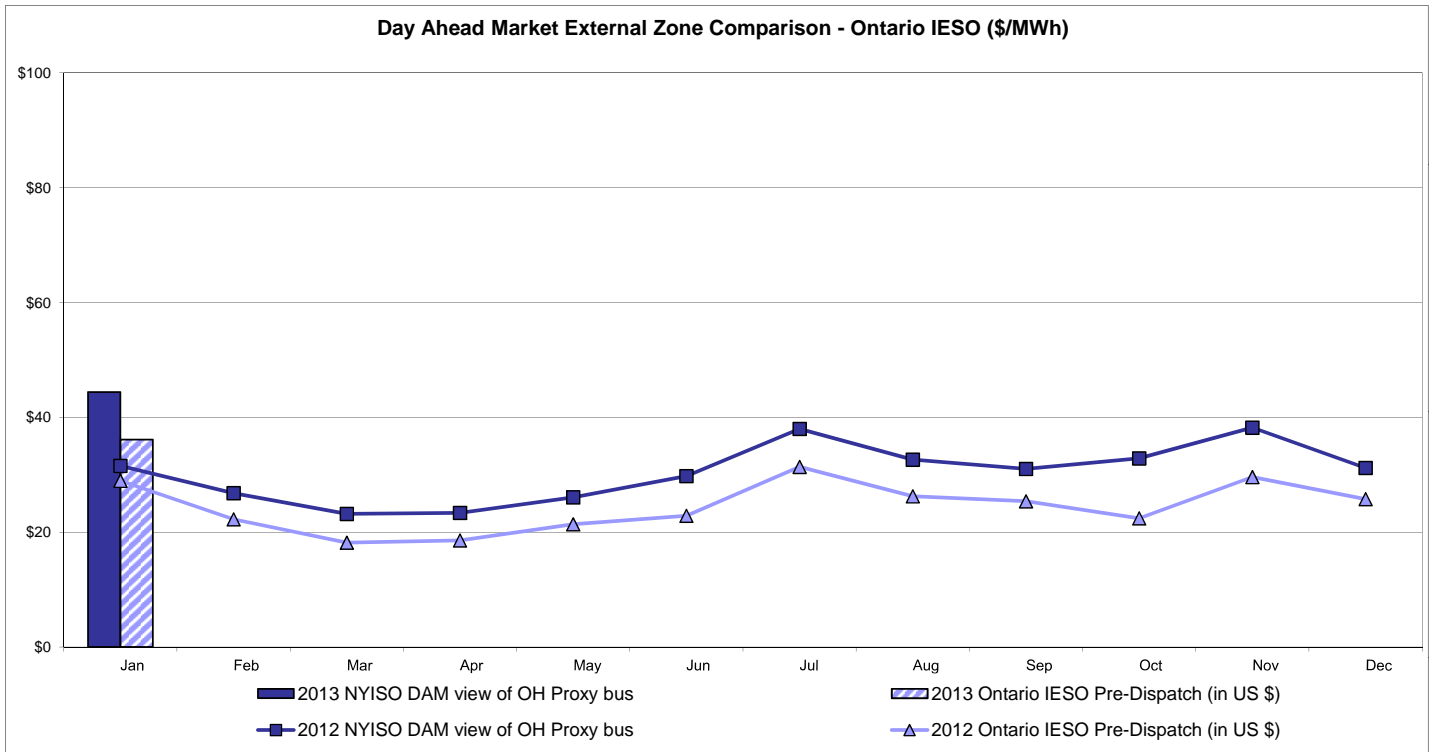
## Day Ahead Market External Zone Comparison - PJM (\$/MWh)



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

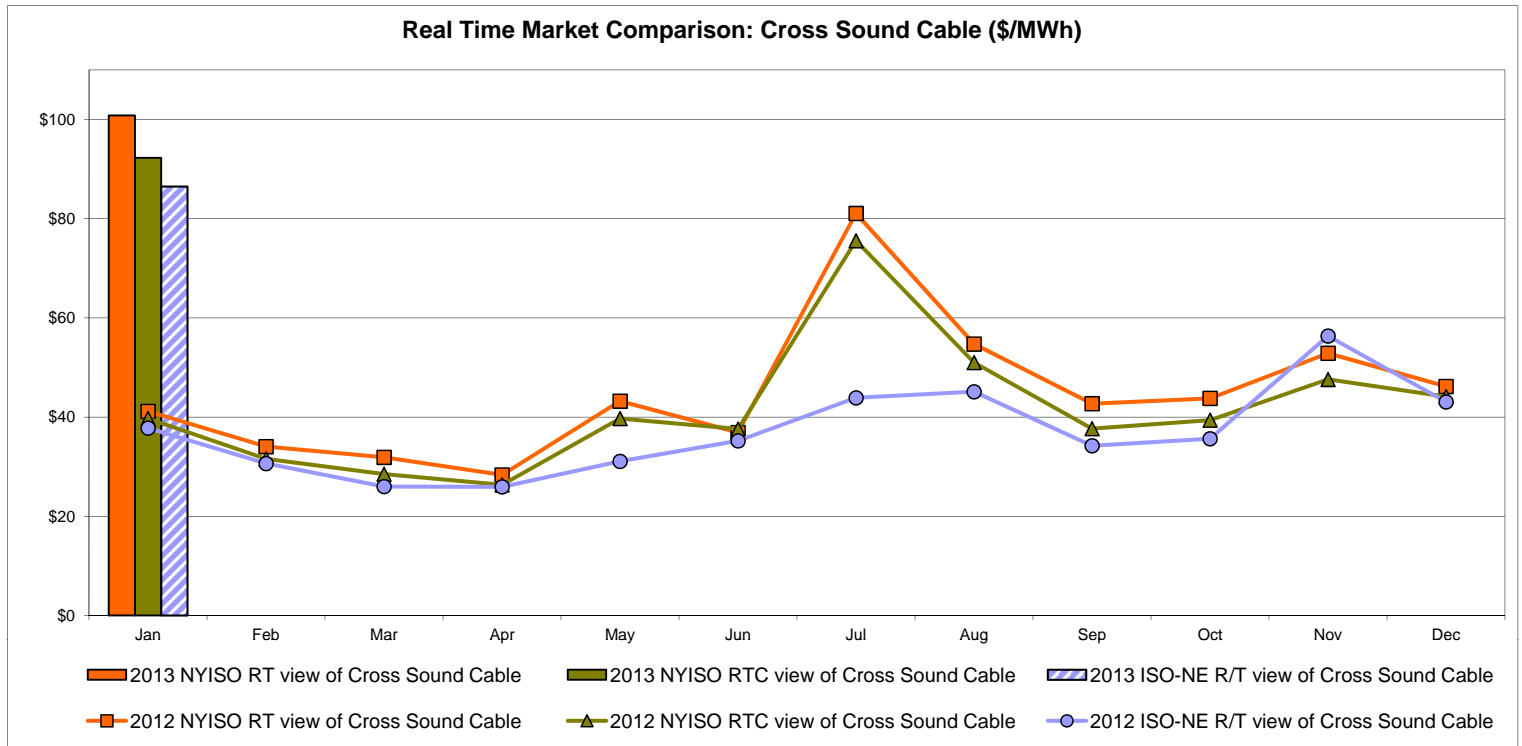
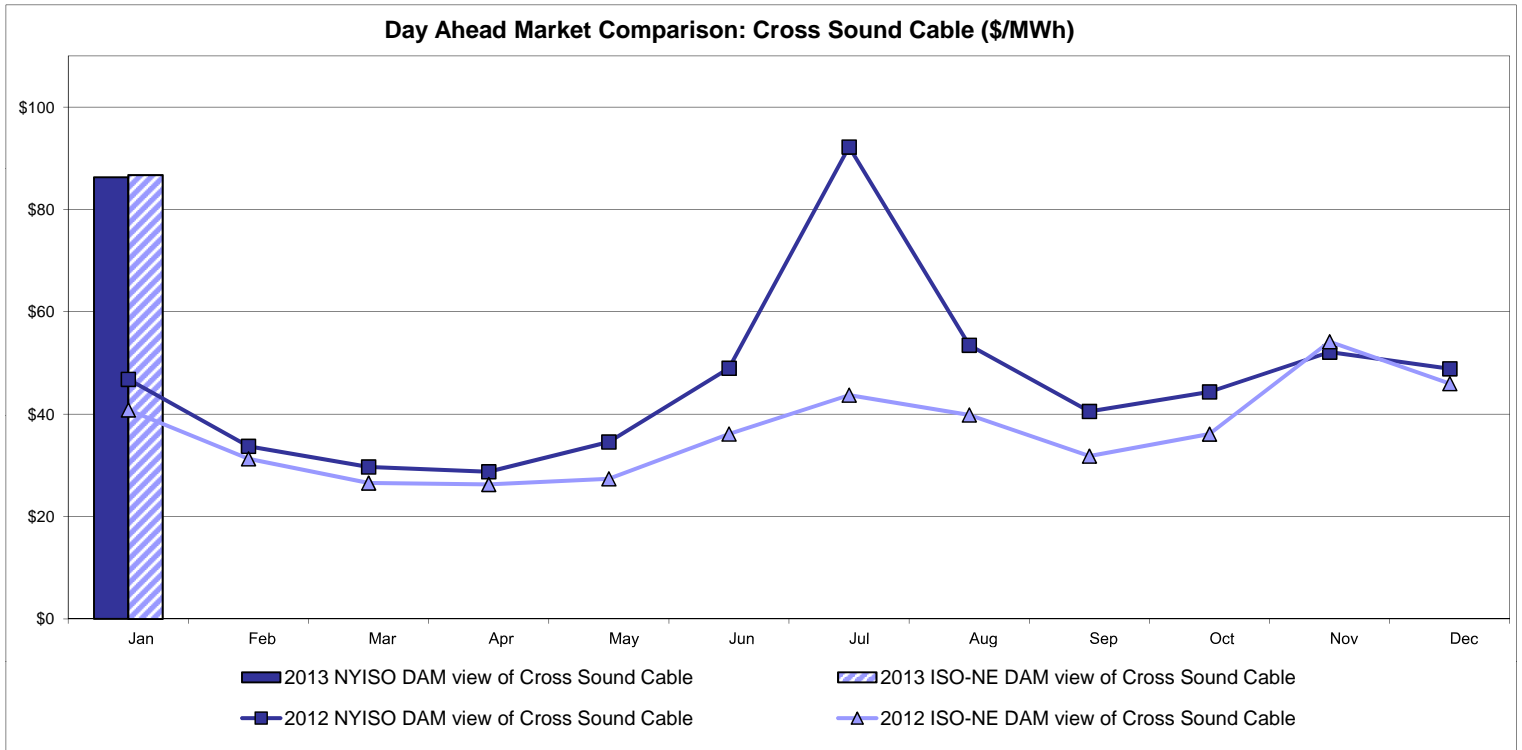


## External Comparison Ontario IESO



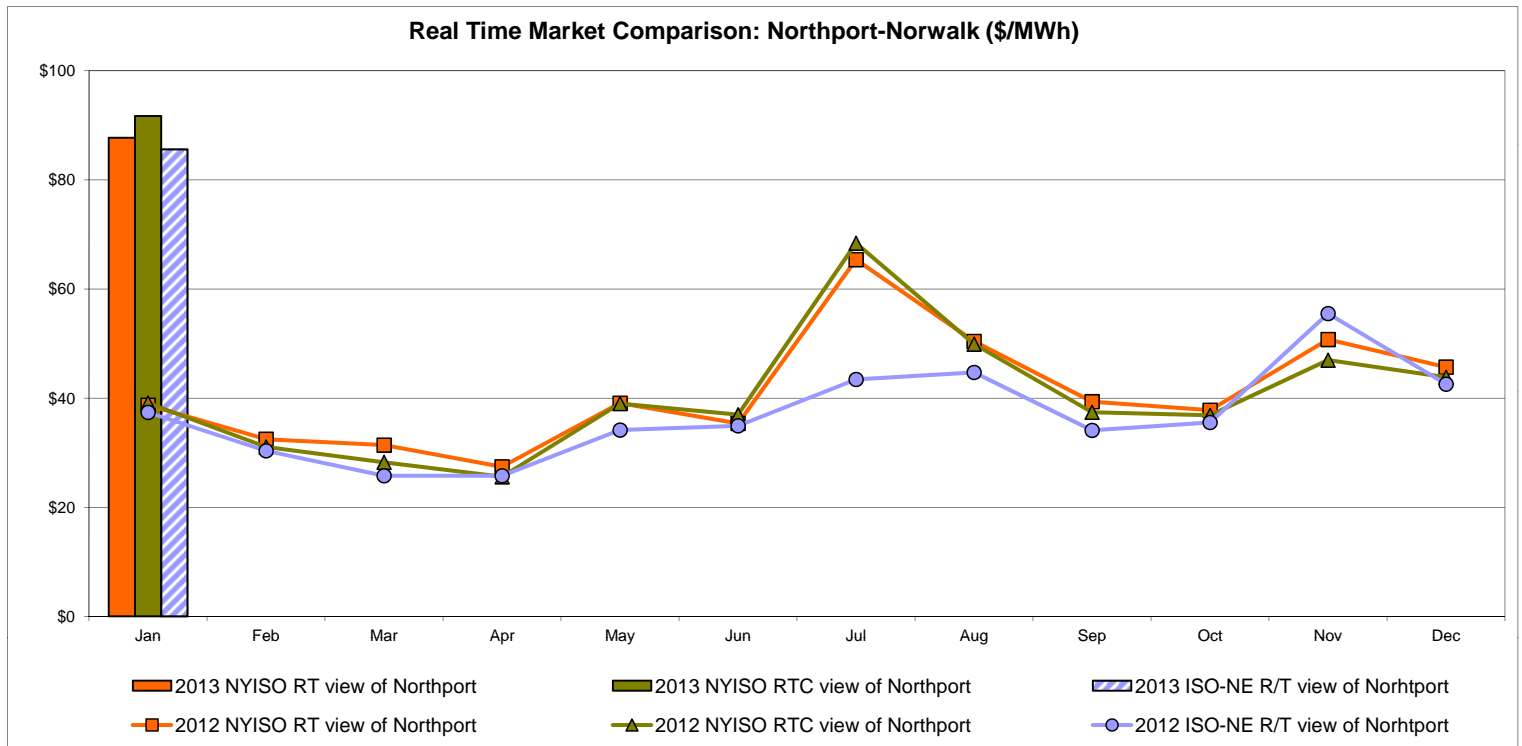
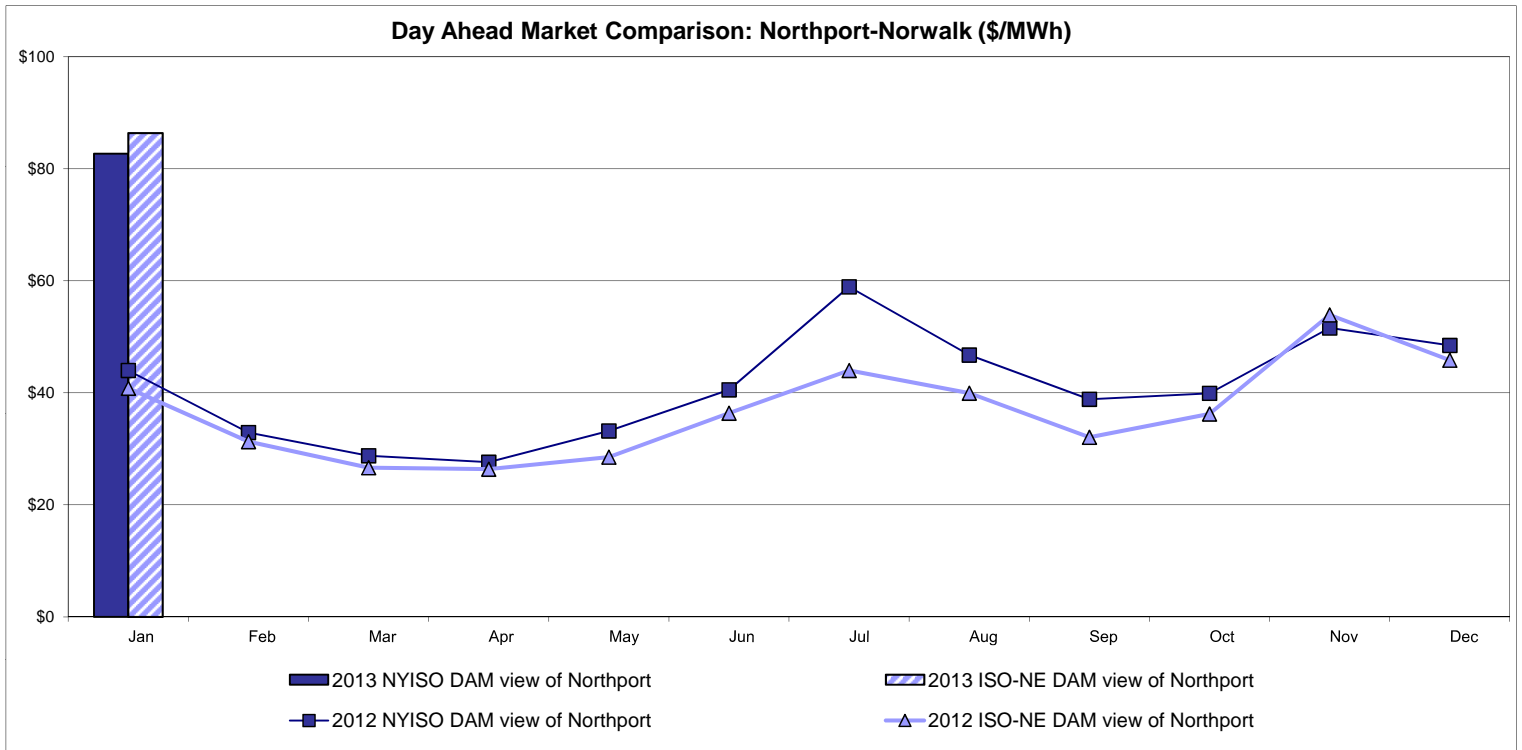
Notes: Exchange factor used for January 2013 was 1.008 to US \$  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

# 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.

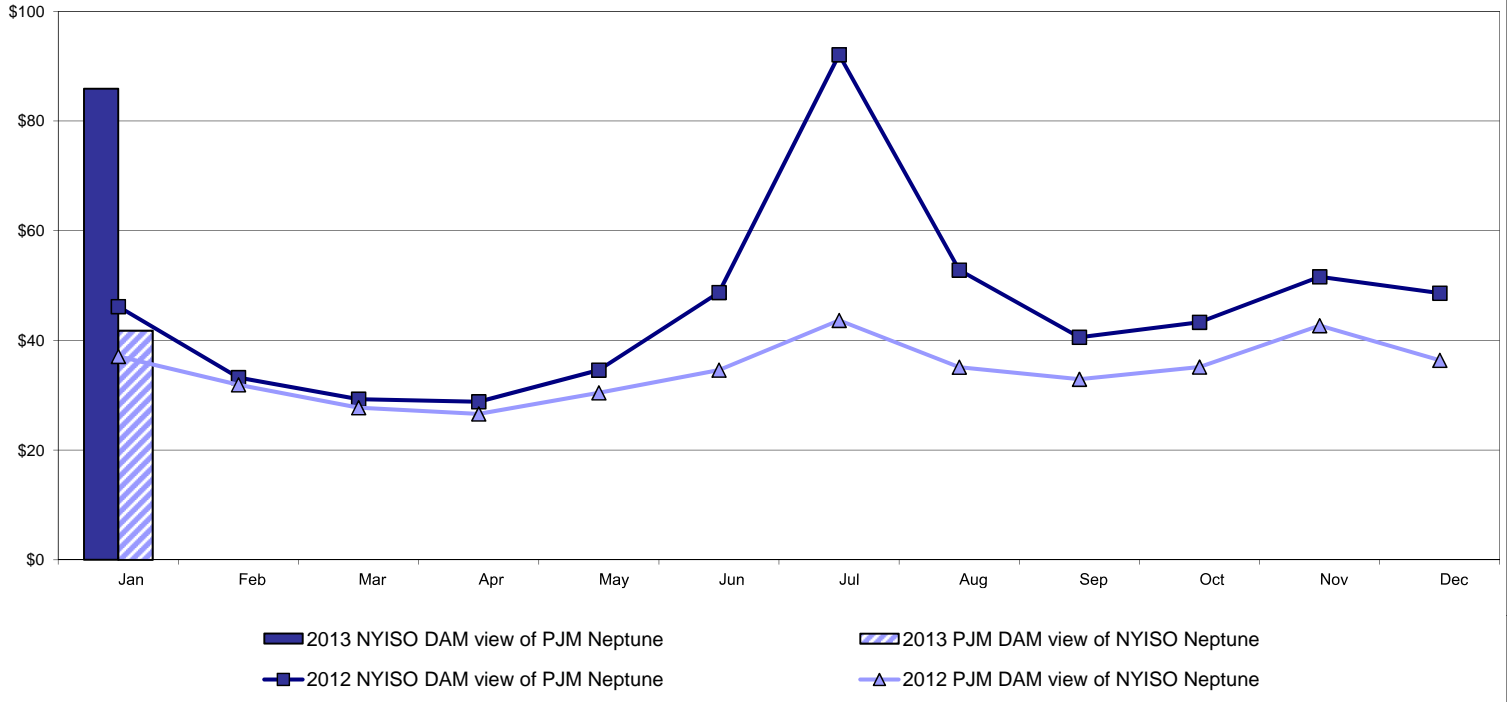
# External Controllable Line: Northport - Norwalk (New England)



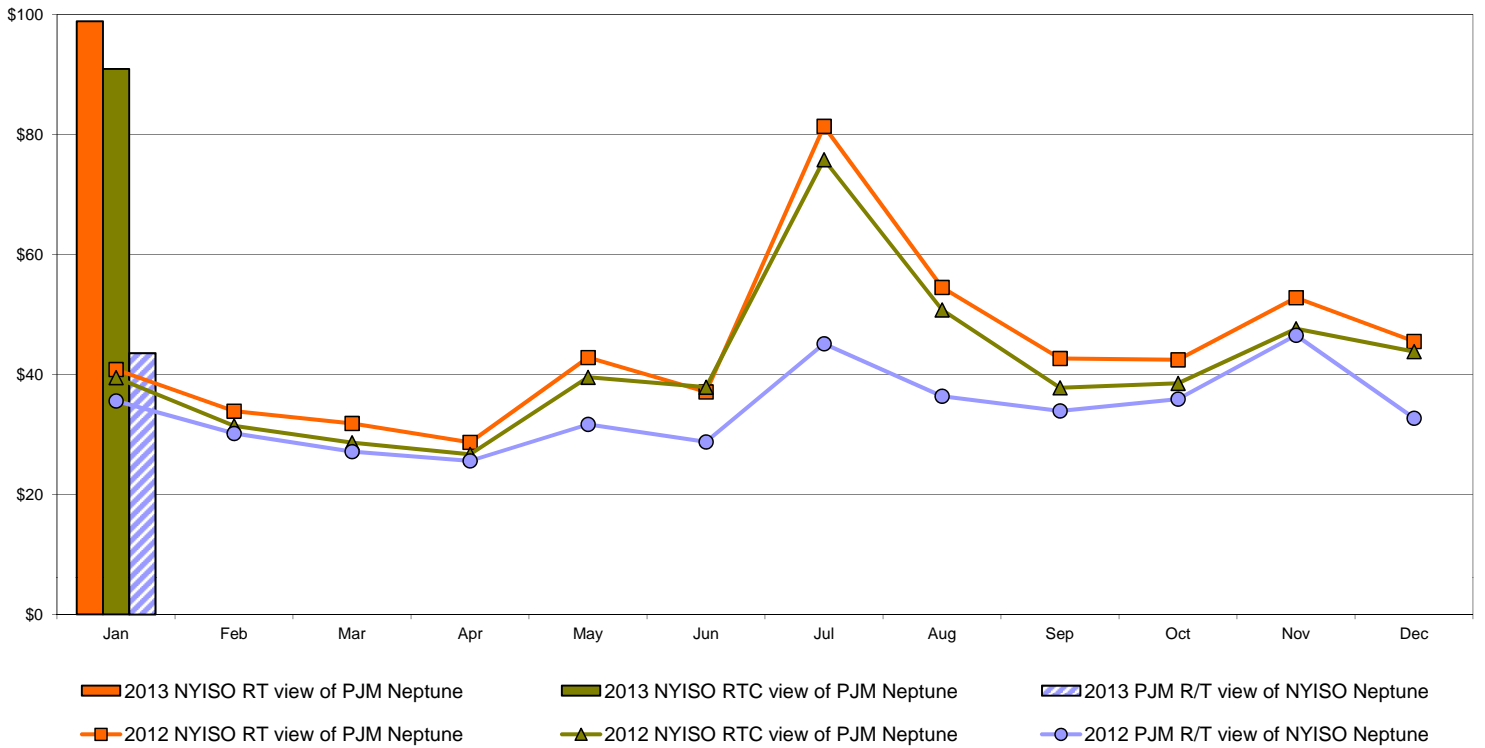
Note:  
 ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

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

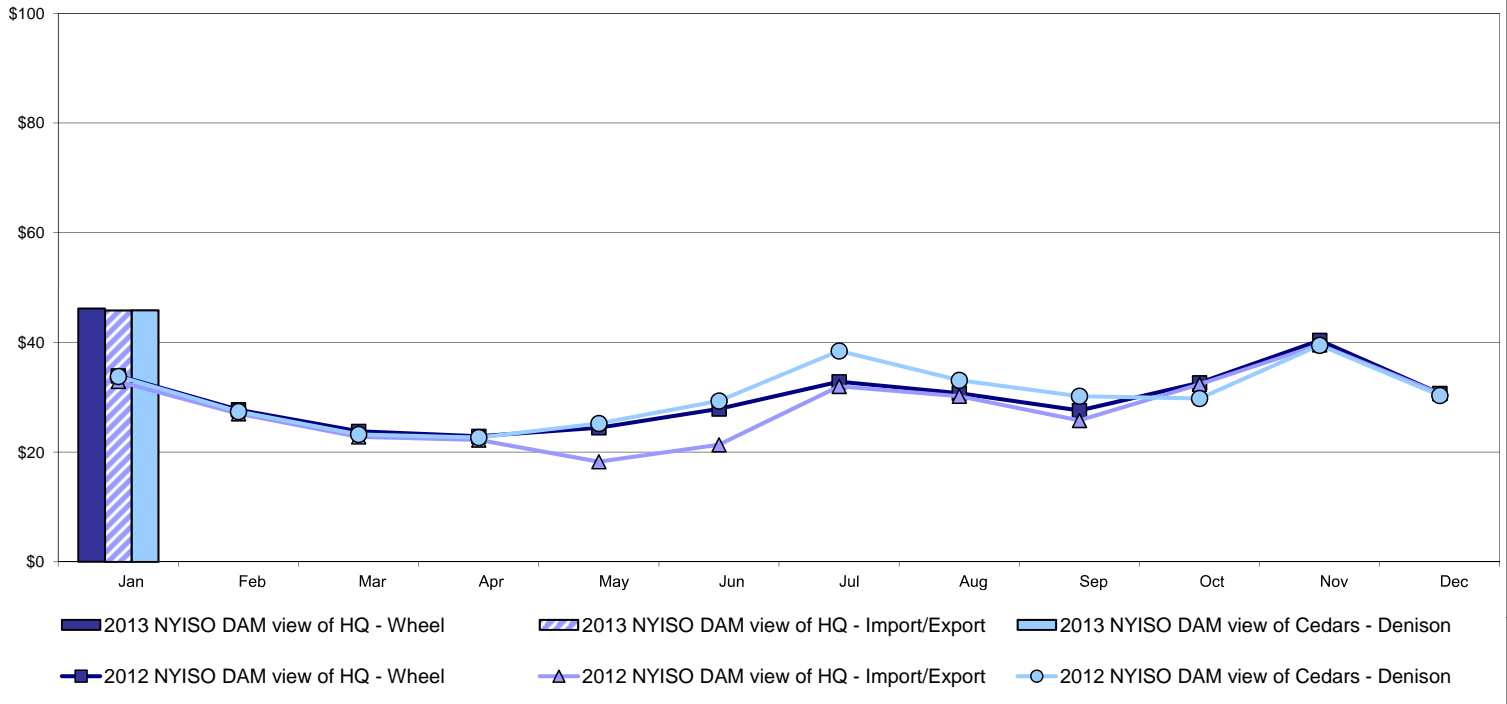


**Real Time Market Comparison: Neptune (\$/MWh)**

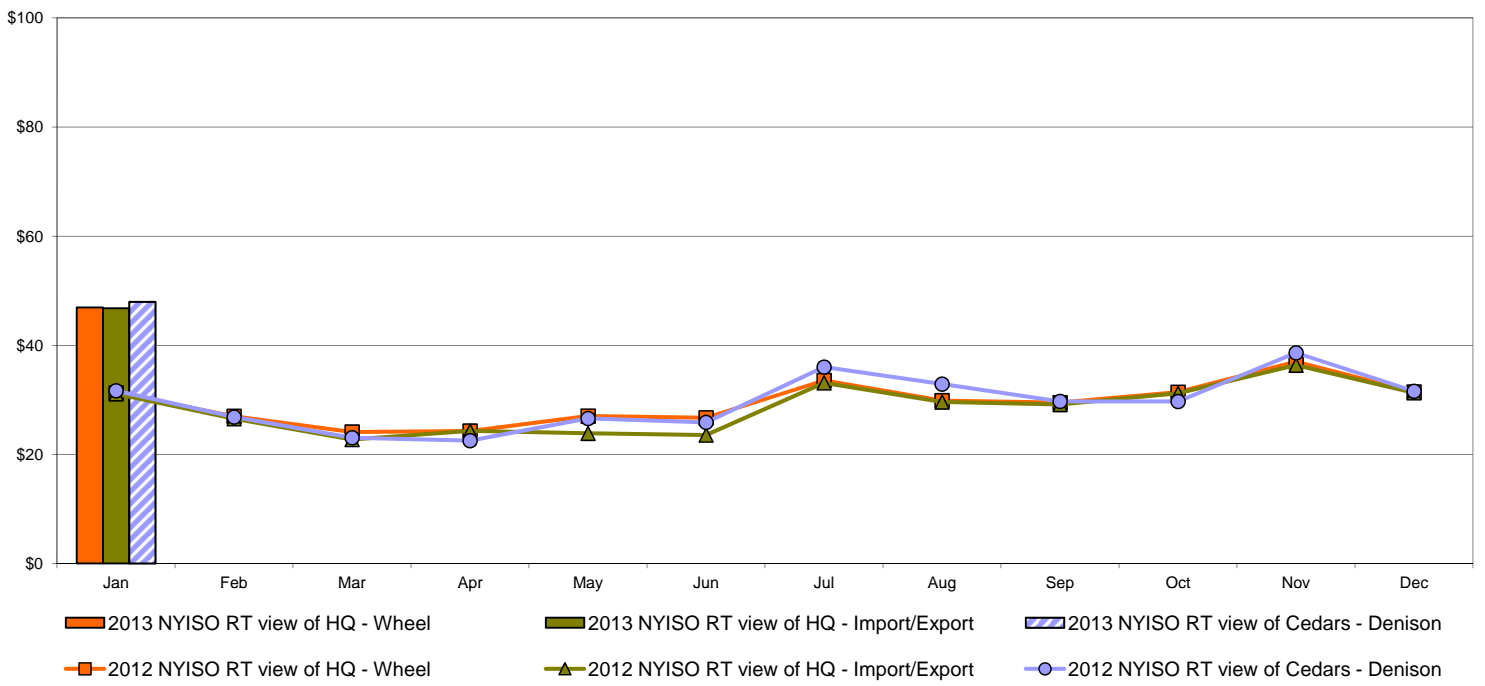


# External Comparison Hydro-Quebec

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

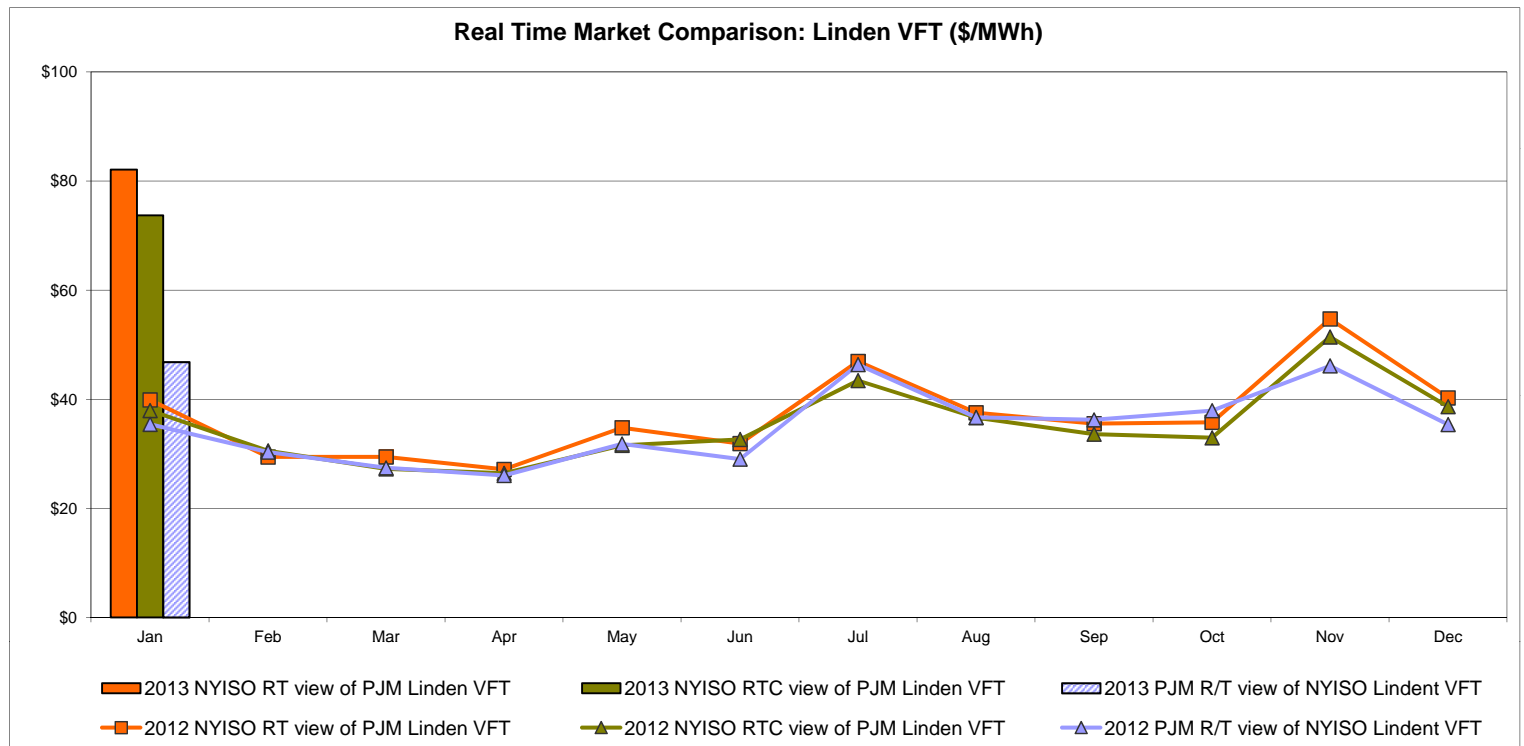
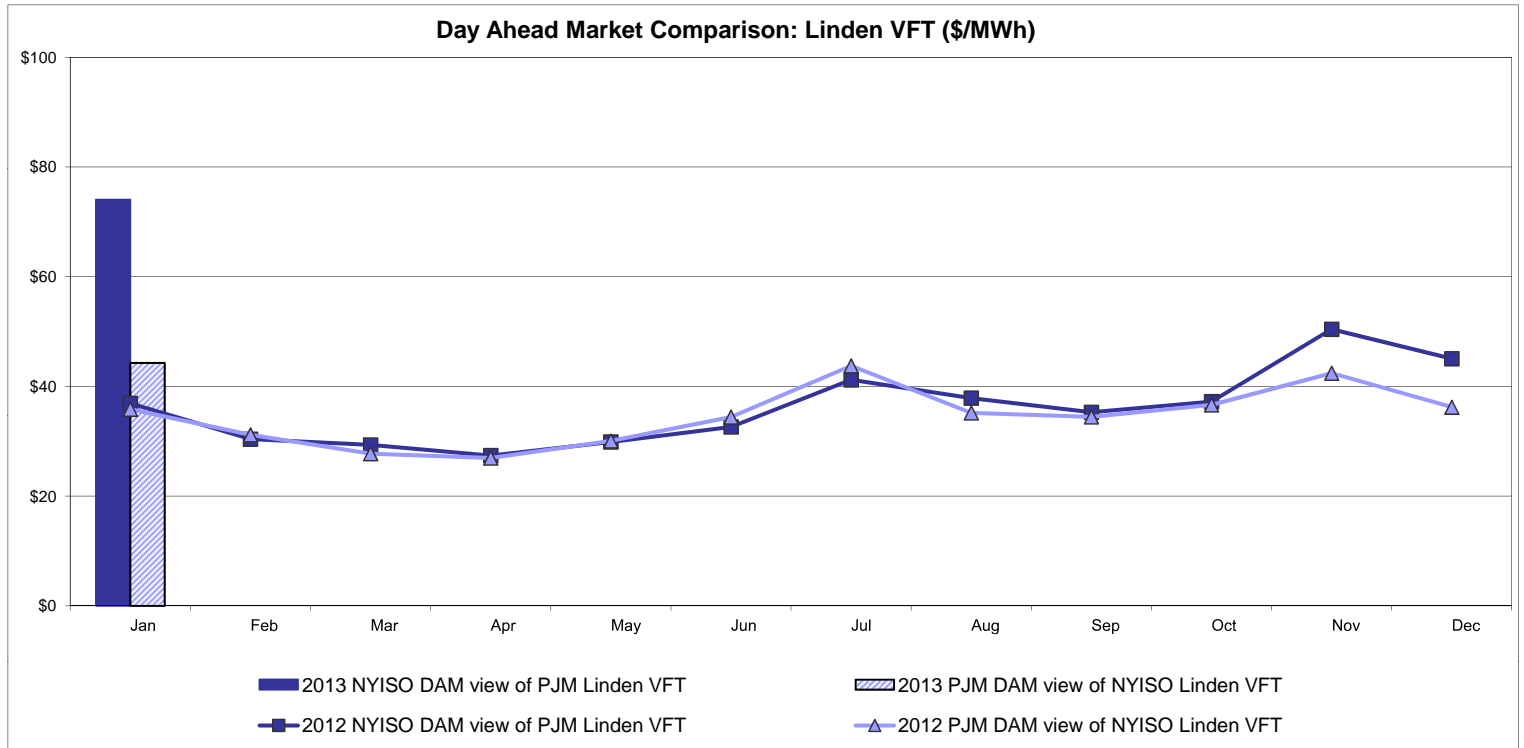


## Real Time Market External Zone Comparison - HQ (\$/MWh)



Note:  
Hydro-Quebec Prices are unavailable.

# External Controllable Line: Linden VFT (PJM)



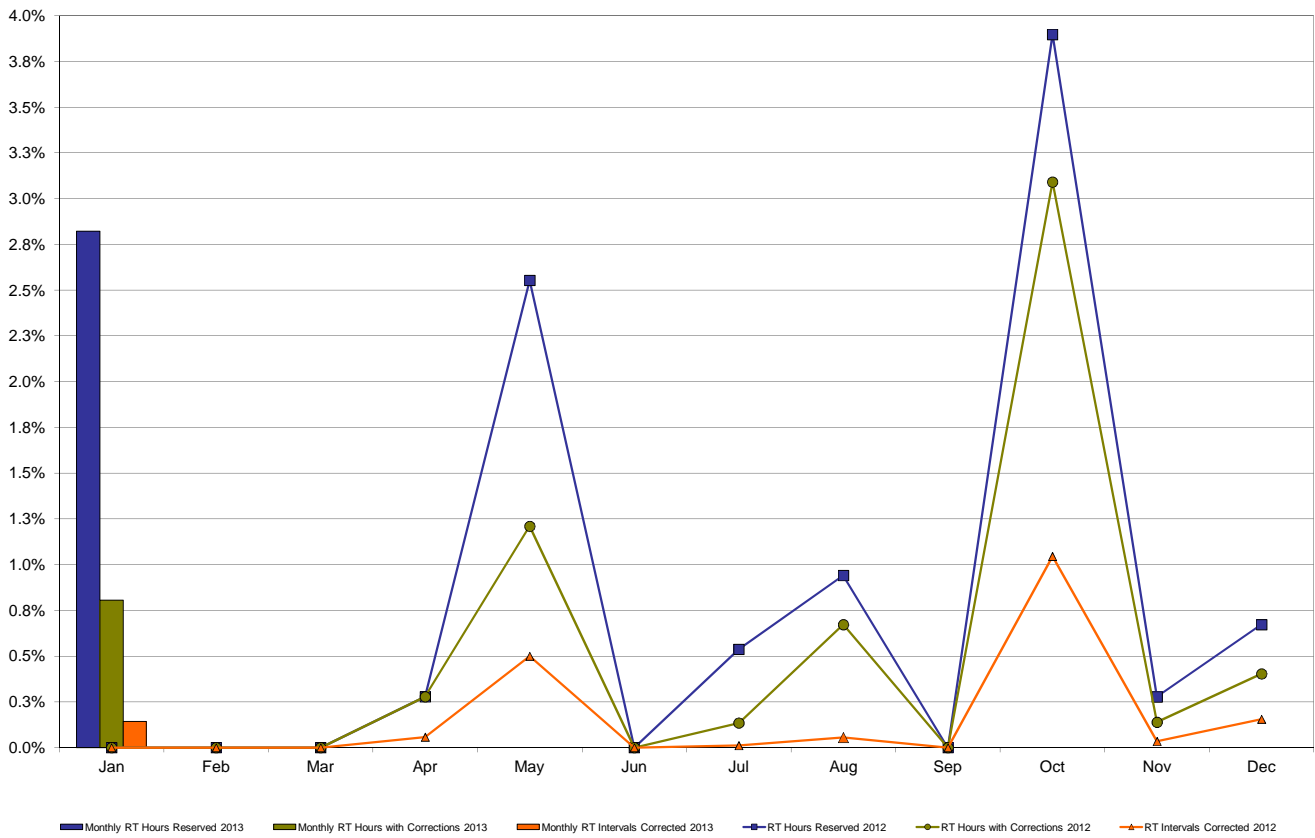
**NYISO Real Time Price Correction Statistics**

<b>2013</b>		<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>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	6											
Number of hours	in the month	744											
% of hours with corrections	in the month	0.81%											
% of hours with corrections	year-to-date	0.81%											
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	13											
Number of intervals	in the month	9,104											
% of intervals corrected	in the month	0.14%											
% of intervals corrected	year-to-date	0.14%											
<b>Hours Reserved</b>													
Number of hours reserved	in the month	21											
Number of hours	in the month	744											
% of hours reserved	in the month	2.82%											
% of hours reserved	year-to-date	2.82%											
<b>Days to Correction *</b>													
Avg. number of days to correction	in the month	0.80											
Avg. number of days to correction	year-to-date	0.80											
<b>Days Without Corrections</b>													
Days without corrections	in the month	26											
Days without corrections	year-to-date	26											
<b>2012</b>		<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>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	0	0	0	2	9	0	1	5	0	23	1	3
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours with corrections	in the month	0.00%	0.00%	0.00%	0.28%	1.21%	0.00%	0.13%	0.67%	0.00%	3.09%	0.14%	0.40%
% of hours with corrections	year-to-date	0.00%	0.00%	0.00%	0.07%	0.30%	0.25%	0.23%	0.29%	0.26%	0.55%	0.51%	0.50%
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	0	0	0	5	45	0	1	5	0	94	3	14
Number of intervals	in the month	9,025	8,399	8,977	8,716	9,013	8,786	9,100	9,044	8,724	8,987	8,856	9,036
% of intervals corrected	in the month	0.00%	0.00%	0.00%	0.06%	0.50%	0.00%	0.01%	0.06%	0.00%	1.05%	0.03%	0.15%
% of intervals corrected	year-to-date	0.00%	0.00%	0.00%	0.01%	0.11%	0.09%	0.08%	0.08%	0.07%	0.17%	0.16%	0.16%
<b>Hours Reserved</b>													
Number of hours reserved	in the month	0	0	0	2	19	0	4	7	0	29	2	5
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	0.00%	0.00%	0.00%	0.28%	2.55%	0.00%	0.54%	0.94%	0.00%	3.90%	0.28%	0.67%
% of hours reserved	year-to-date	0.00%	0.00%	0.00%	0.07%	0.58%	0.48%	0.49%	0.55%	0.49%	0.83%	0.78%	0.77%
<b>Days to Correction *</b>													
Avg. number of days to correction	in the month	0.00	0.00	0.00	0.50	1.00	0.00	0.00	0.40	0.00	0.40	2.00	2.00
Avg. number of days to correction	year-to-date	0.00	0.00	0.00	0.50	0.83	0.83	0.71	0.58	0.58	0.53	0.61	0.68
<b>Days Without Corrections</b>													
Days without corrections	in the month	31	29	31	28	27	30	30	26	30	27	29	30
Days without corrections	year-to-date	31	60	91	119	146	176	206	232	262	289	318	348

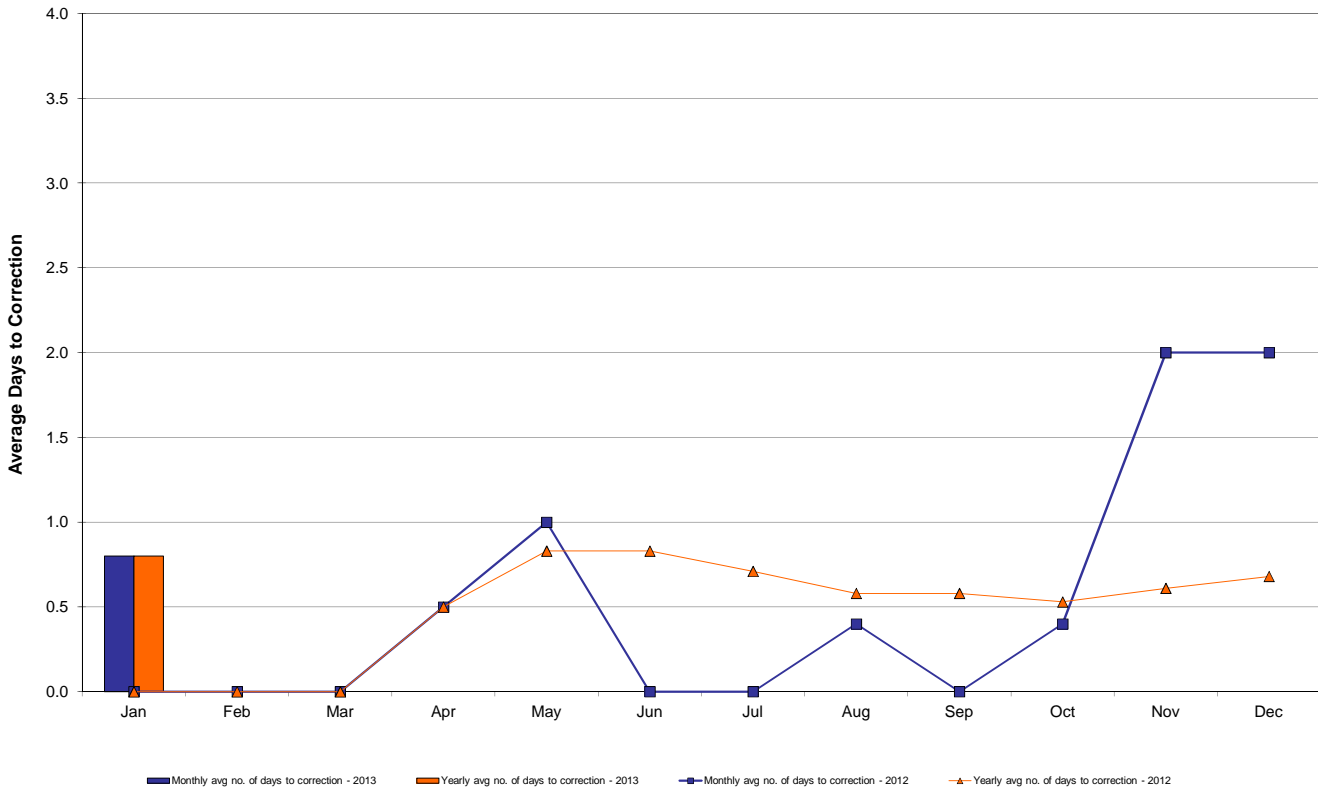
\* Calendar days from reservation date.



### Percentage of Real-Time Corrections

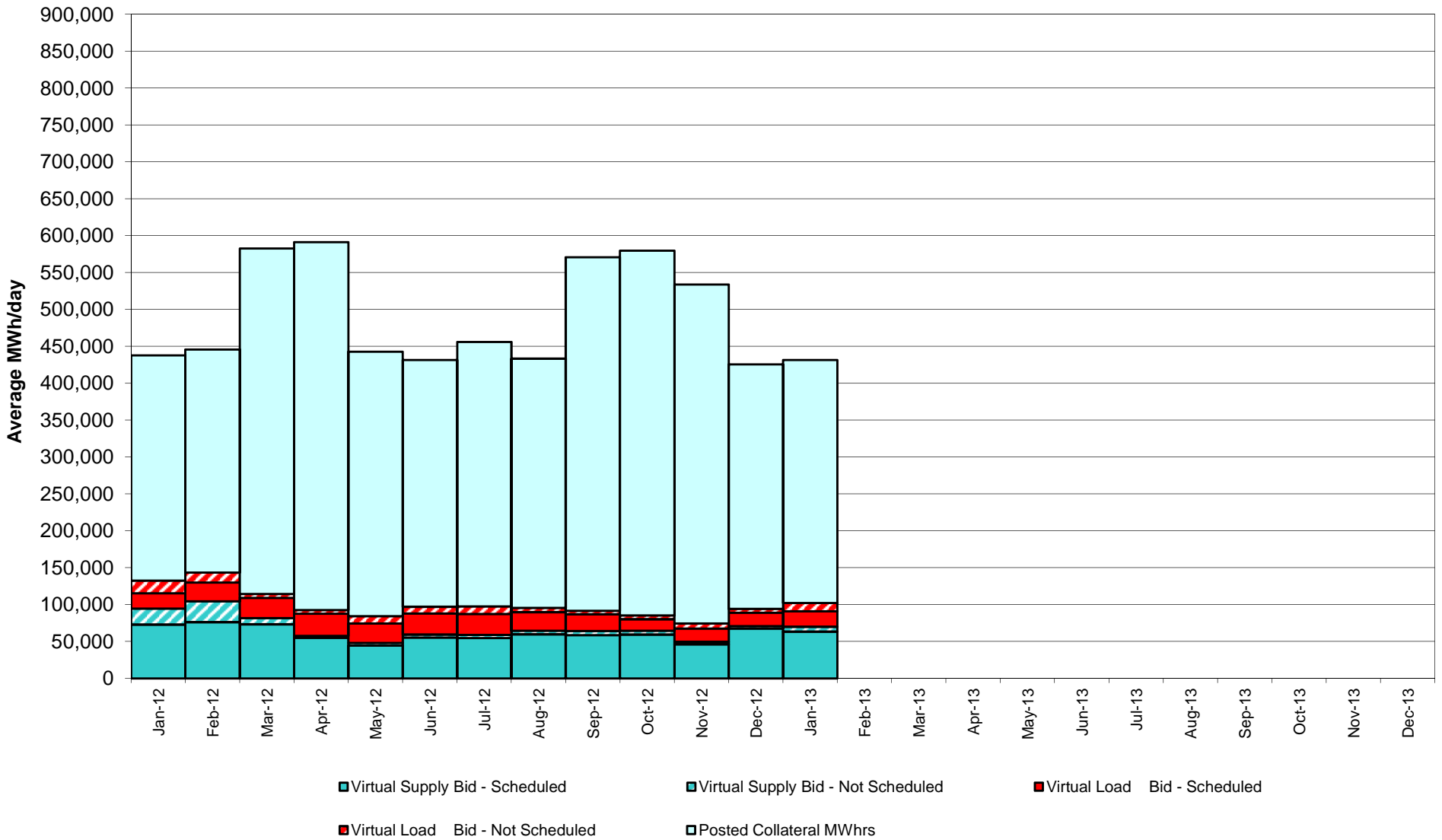


### Annual average time period for making Price Corrections (from reservation date) \*

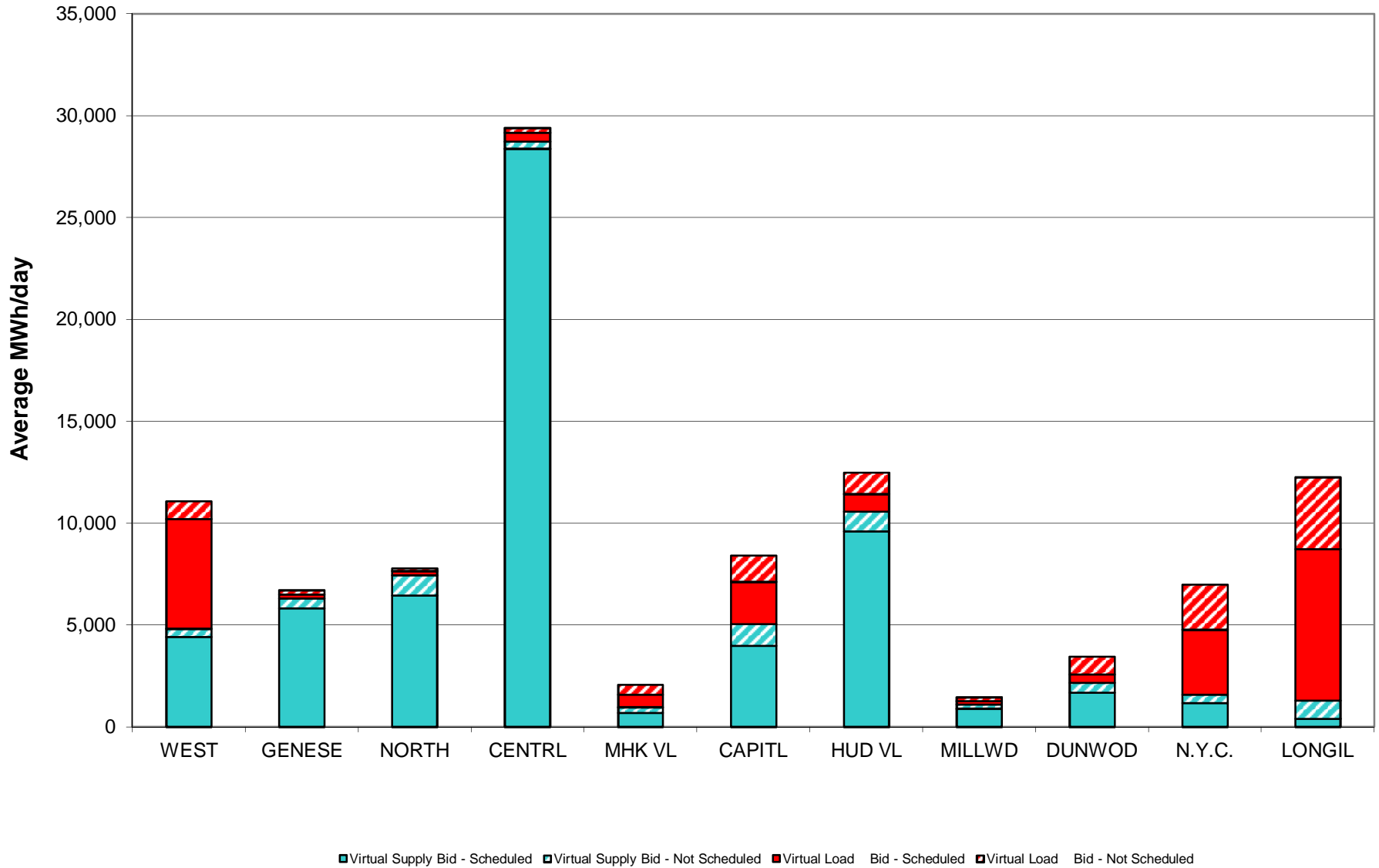


\* Calendar days from reservation date.

## NYISO Virtual Trading Average MWh per day



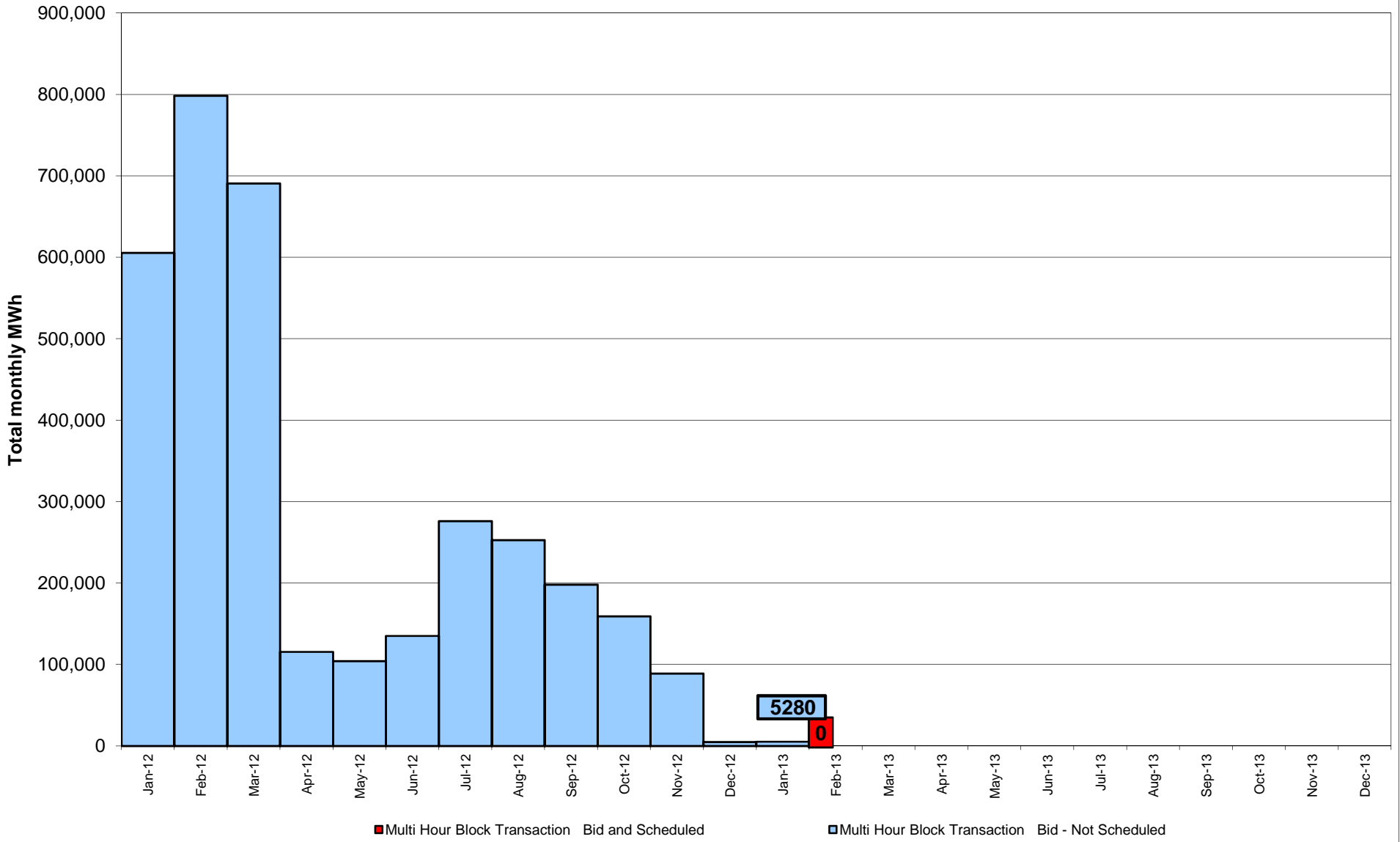
### Virtual Load and Supply Zonal Statistics through January 31, 2013



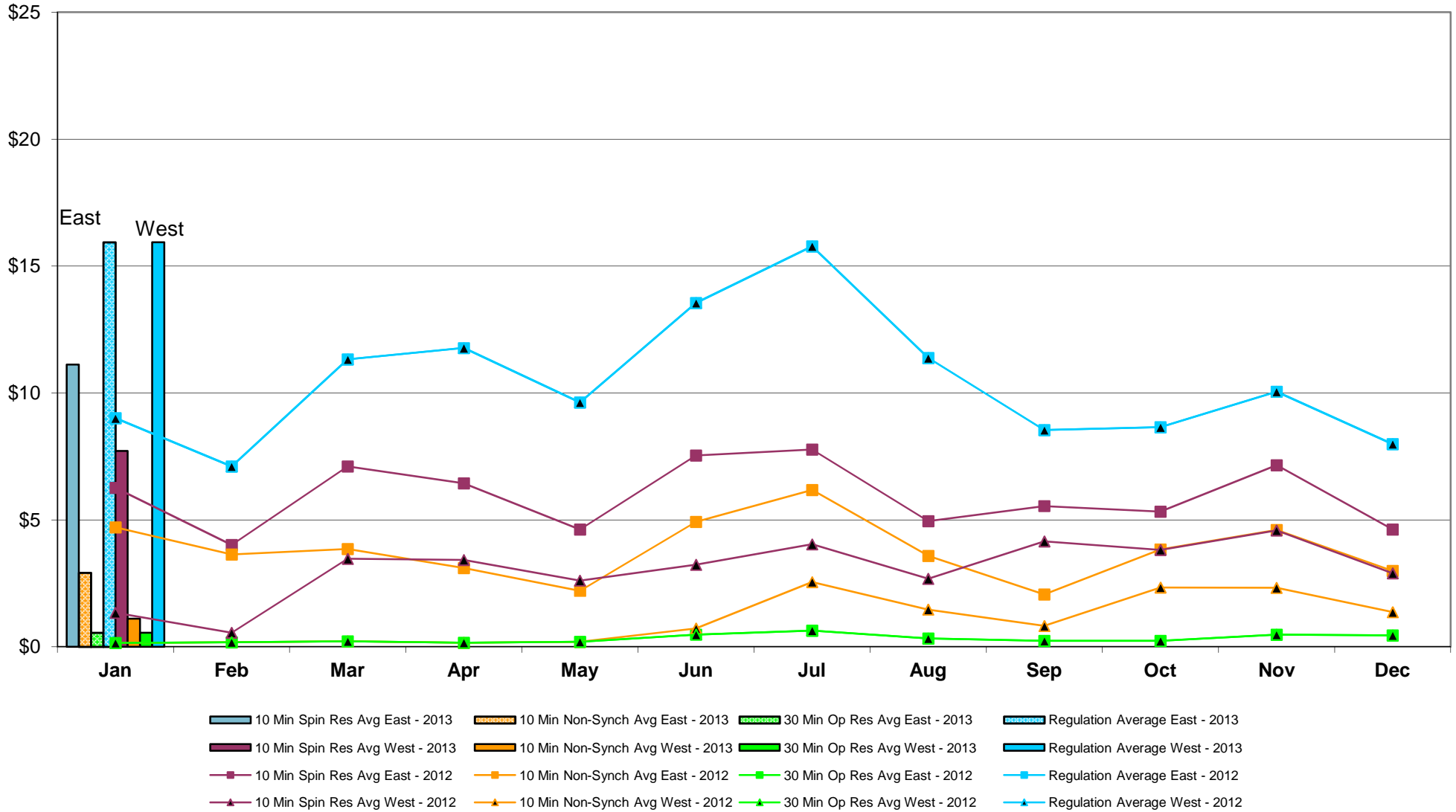
**Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2013**

		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
<b>WEST</b>	Jan-13	5,393	880	4,402	409	<b>MHK VL</b>	Jan-13	617	477	695	273	<b>DUNWOD</b>	Jan-13	410	859	1682	491
	Feb-13						Feb-13						Feb-13				
	Mar-13						Mar-13						Mar-13				
	Apr-13						Apr-13						Apr-13				
	May-13						May-13						May-13				
	Jun-13						Jun-13						Jun-13				
	Jul-13						Jul-13						Jul-13				
	Aug-13						Aug-13						Aug-13				
	Sep-13						Sep-13						Sep-13				
	Oct-13						Oct-13						Oct-13				
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
<b>GENESE</b>	Jan-13	184	207	5,822	492	<b>CAPITL</b>	Jan-13	2,053	1,313	3,977	1,088	<b>N.Y.C.</b>	Jan-13	3192	2206	1171	414
	Feb-13						Feb-13						Feb-13				
	Mar-13						Mar-13						Mar-13				
	Apr-13						Apr-13						Apr-13				
	May-13						May-13						May-13				
	Jun-13						Jun-13						Jun-13				
	Jul-13						Jul-13						Jul-13				
	Aug-13						Aug-13						Aug-13				
	Sep-13						Sep-13						Sep-13				
	Oct-13						Oct-13						Oct-13				
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
<b>NORTH</b>	Jan-13	206	115	6,458	997	<b>HUD VL</b>	Jan-13	849	1,042	9,608	971	<b>LONGIL</b>	Jan-13	7420	3530	419	882
	Feb-13						Feb-13						Feb-13				
	Mar-13						Mar-13						Mar-13				
	Apr-13						Apr-13						Apr-13				
	May-13						May-13						May-13				
	Jun-13						Jun-13						Jun-13				
	Jul-13						Jul-13						Jul-13				
	Aug-13						Aug-13						Aug-13				
	Sep-13						Sep-13						Sep-13				
	Oct-13						Oct-13						Oct-13				
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
<b>CENTRL</b>	Jan-13	436	244	28,385	349	<b>MILLWD</b>	Jan-13	173	162	894	214	<b>NYISO</b>	Jan-13	20932	11035	63512	6579
	Feb-13						Feb-13						Feb-13				
	Mar-13						Mar-13						Mar-13				
	Apr-13						Apr-13						Apr-13				
	May-13						May-13						May-13				
	Jun-13						Jun-13						Jun-13				
	Jul-13						Jul-13						Jul-13				
	Aug-13						Aug-13						Aug-13				
	Sep-13						Sep-13						Sep-13				
	Oct-13						Oct-13						Oct-13				
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				

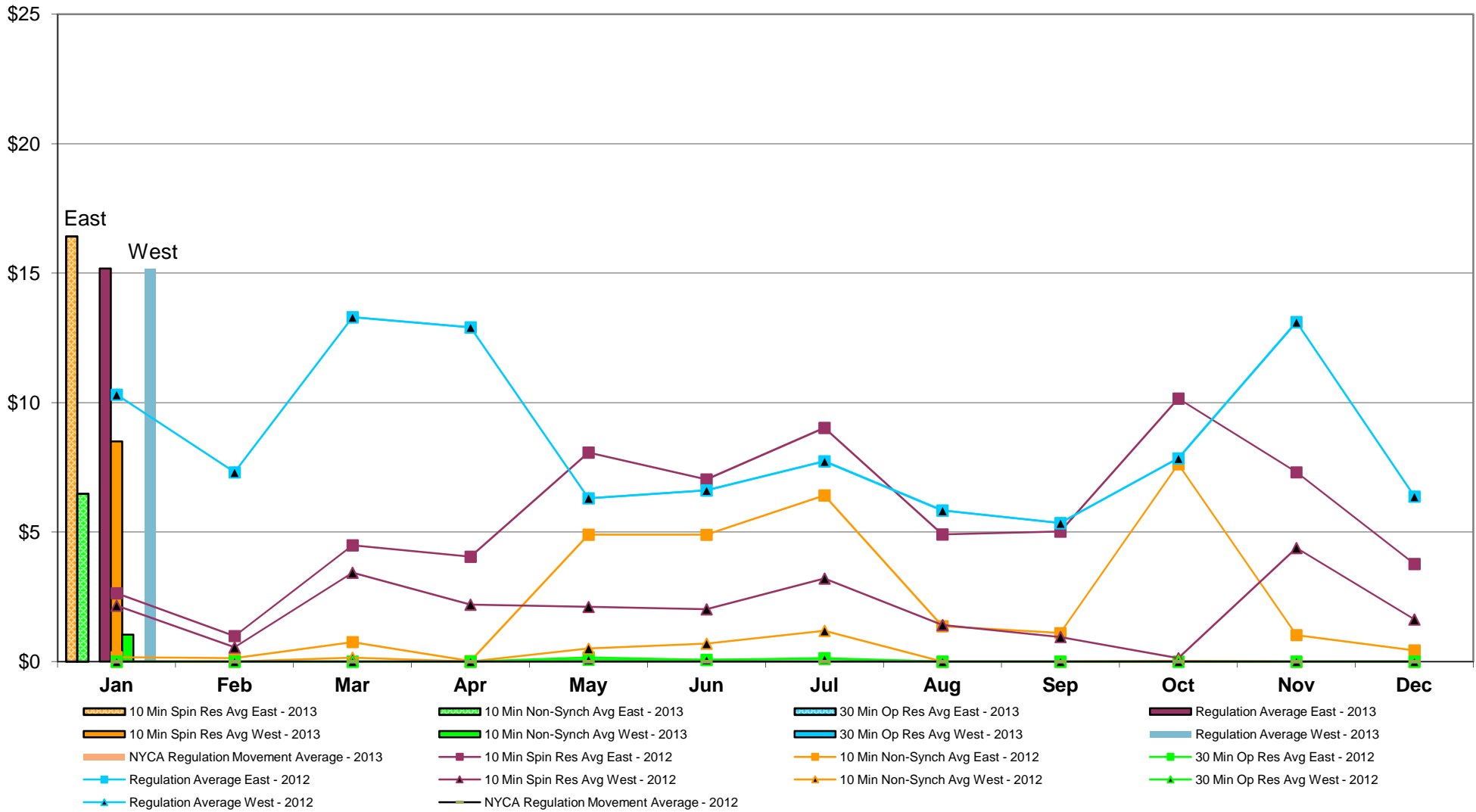
## NYISO Multi Hour Block Transactions Monthly Total MWh



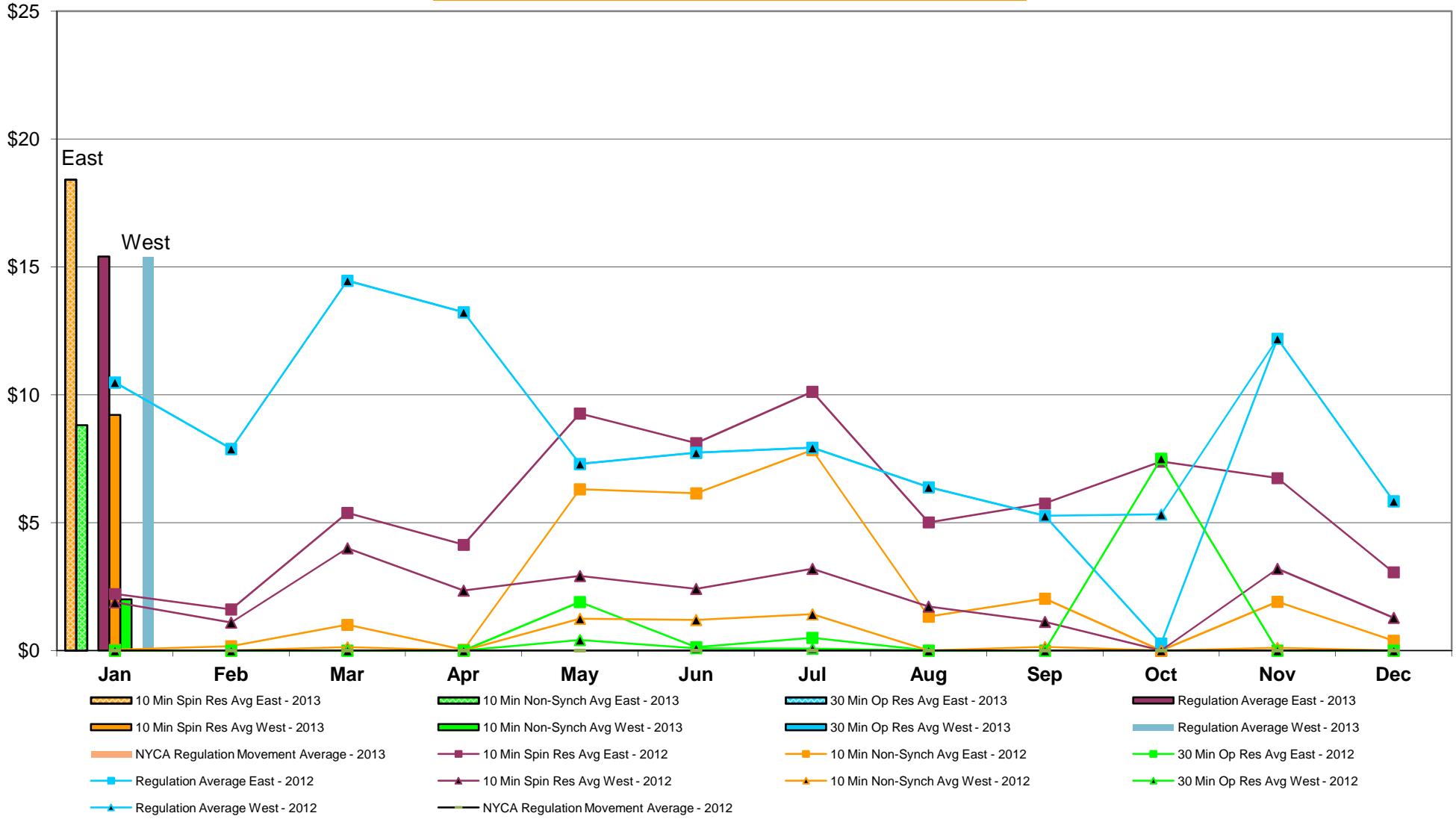
## NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2012 - 2013



## NYISO Monthly Average Ancillary Service Prices RTC Market 2012 - 2013



## NYISO Monthly Average Ancillary Service Prices Real Time Market 2012 - 2013

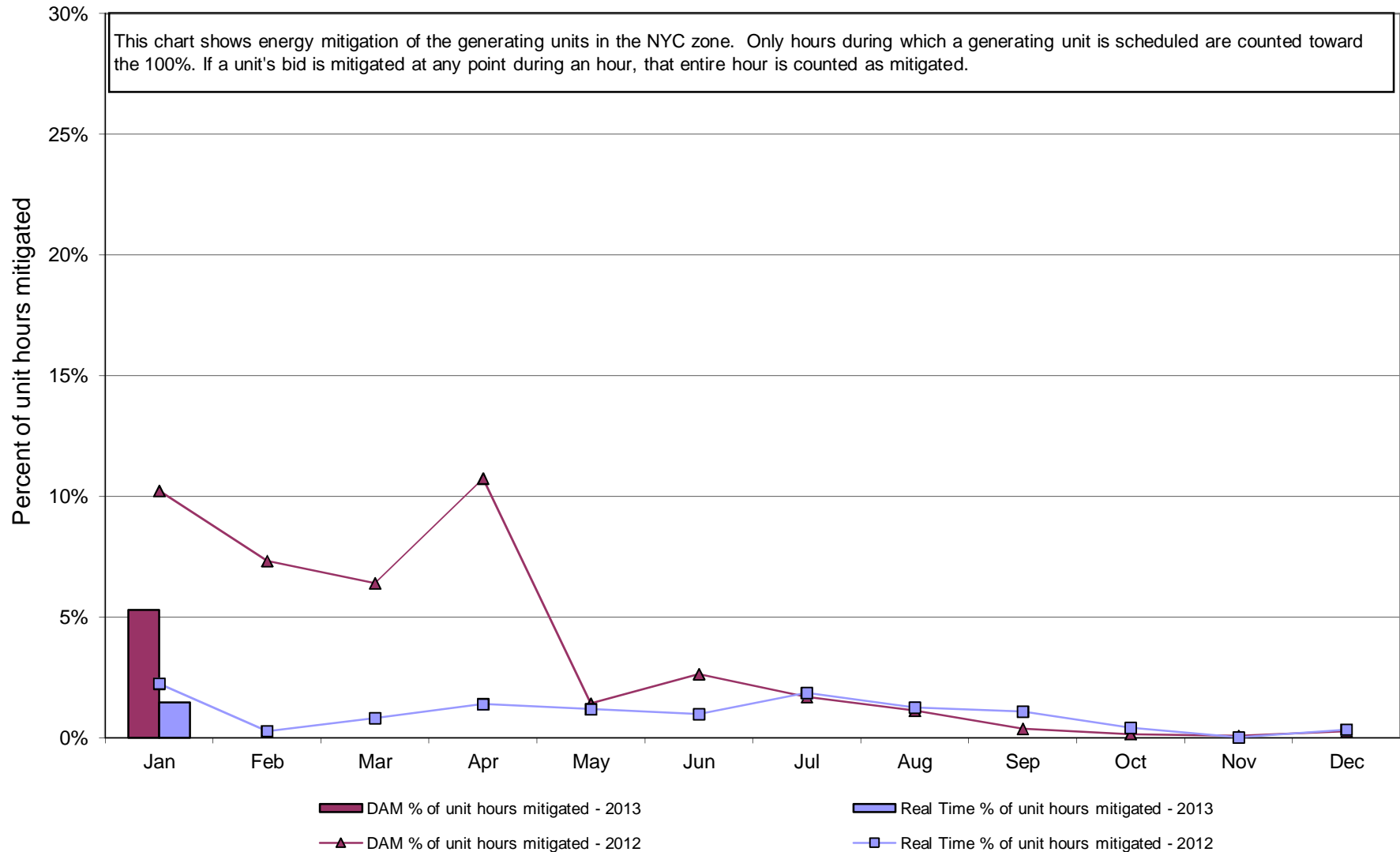




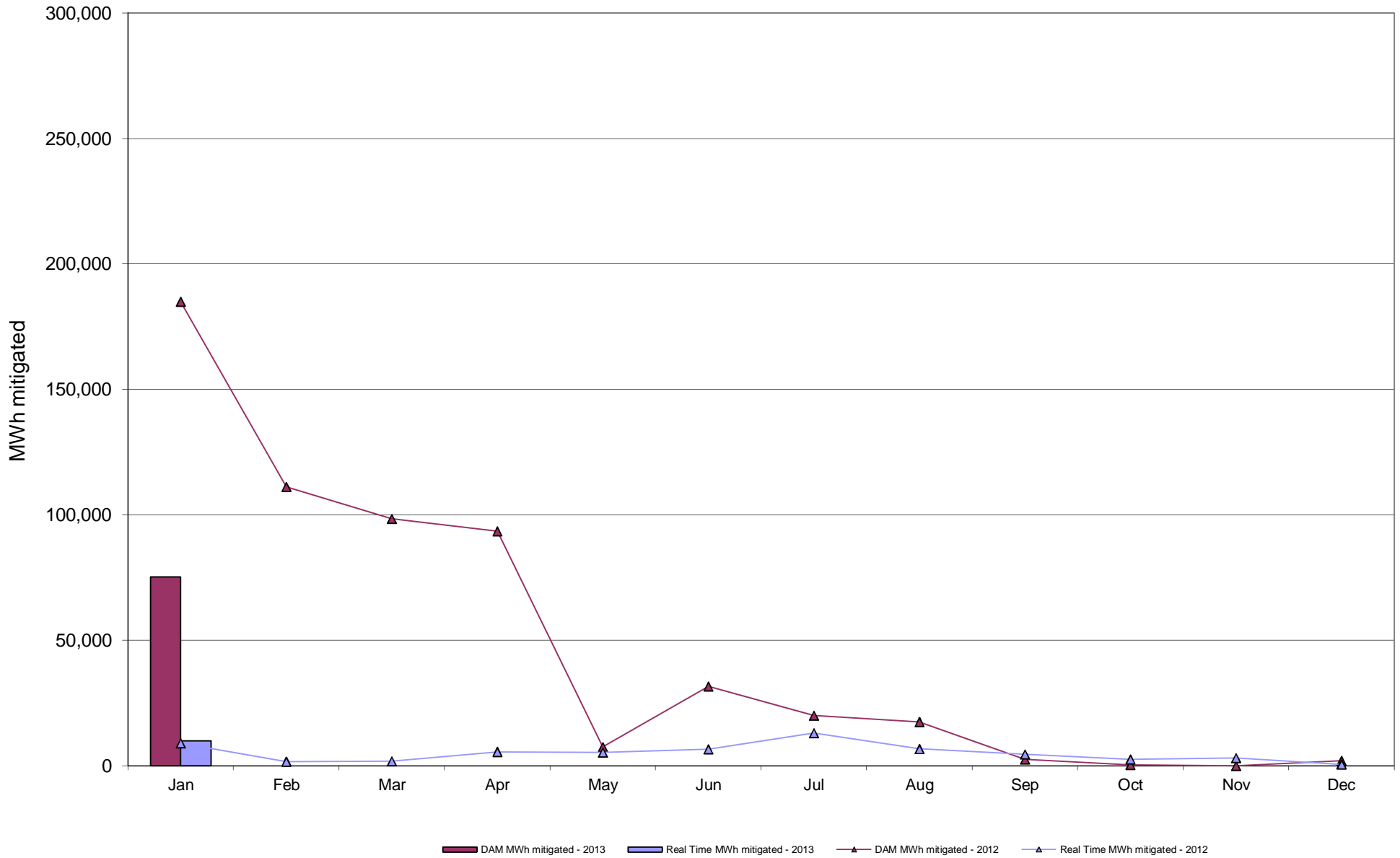
**NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)**

<b>2013</b>	<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>
<b>Day Ahead Market</b>												
10 Min Spin East	11.12											
10 Min Spin West	7.72											
10 Min Non Synch East	2.91											
10 Min Non Synch West	1.11											
30 Min East	0.56											
30 Min West	0.56											
Regulation East	15.94											
Regulation West	15.94											
<b>RTC Market</b>												
10 Min Spin East	16.42											
10 Min Spin West	8.50											
10 Min Non Synch East	6.48											
10 Min Non Synch West	1.04											
30 Min East	0.00											
30 Min West	0.00											
Regulation East	15.18											
Regulation West	15.18											
NYCA Regulation Movement	0.00											
<b>Real Time Market</b>												
10 Min Spin East	18.42											
10 Min Spin West	9.22											
10 Min Non Synch East	8.81											
10 Min Non Synch West	2.00											
30 Min East	0.00											
30 Min West	0.00											
Regulation East	15.40											
Regulation West	15.40											
NYCA Regulation Movement	0.00											
<b>2012</b>	<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>
<b>Day Ahead Market</b>												
10 Min Spin East	6.26	4.01	7.11	6.44	4.62	7.54	7.77	4.95	5.55	5.32	7.15	4.62
10 Min Spin West	1.34	0.56	3.46	3.43	2.61	3.23	4.04	2.68	4.16	3.82	4.58	2.90
10 Min Non Synch East	4.71	3.64	3.85	3.11	2.21	4.92	6.18	3.58	2.07	3.84	4.60	2.99
10 Min Non Synch West	0.15	0.18	0.22	0.16	0.20	0.72	2.55	1.47	0.82	2.34	2.32	1.37
30 Min East	0.15	0.18	0.22	0.16	0.20	0.48	0.64	0.33	0.23	0.23	0.48	0.45
30 Min West	0.15	0.18	0.22	0.16	0.20	0.48	0.64	0.33	0.23	0.23	0.48	0.45
Regulation East	9.01	7.11	11.33	11.77	9.63	13.55	15.78	11.38	8.54	8.65	10.05	7.99
Regulation West	9.01	7.11	11.33	11.77	9.63	13.55	15.78	11.38	8.54	8.65	10.05	7.99
<b>RTC Market</b>												
10 Min Spin East	2.64	0.99	4.49	4.05	8.07	7.03	9.02	4.91	5.02	10.16	7.31	3.77
10 Min Spin West	2.16	0.55	3.43	2.20	2.11	2.02	3.21	1.41	0.95	0.13	4.39	1.63
10 Min Non Synch East	0.17	0.13	0.75	0.02	4.90	4.90	6.42	1.36	1.10	7.62	1.02	0.43
10 Min Non Synch West	0.00	0.00	0.15	0.00	0.50	0.69	1.19	0.00	0.00	0.03	0.00	0.00
30 Min East	0.00	0.00	0.00	0.00	0.16	0.07	0.13	0.00	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.07	0.07	0.10	0.00	0.00	0.00	0.00	0.00
Regulation East	10.31	7.31	13.30	12.91	6.31	6.61	7.74	5.83	5.35	7.85	13.11	6.38
Regulation West	10.31	7.31	13.30	12.91	6.31	6.61	7.74	5.83	5.35	7.85	13.11	6.38
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Real Time Market</b>												
10 Min Spin East	2.21	1.61	5.38	4.14	9.27	8.11	10.12	5.01	5.75	9.93	6.74	3.06
10 Min Spin West	1.89	1.09	4.00	2.34	2.92	2.41	3.20	1.72	1.13	0.28	3.19	1.28
10 Min Non Synch East	0.03	0.17	1.01	0.03	6.31	6.15	7.84	1.33	2.03	7.39	1.91	0.39
10 Min Non Synch West	0.00	0.00	0.13	0.00	1.24	1.20	1.42	0.00	0.14	0.00	0.10	0.00
30 Min East	0.00	0.00	0.00	0.00	1.90	0.13	0.49	0.00	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.41	0.09	0.08	0.00	0.00	0.00	0.00	0.00
Regulation East	10.49	7.89	14.46	13.23	7.30	7.74	7.93	6.39	5.27	7.50	12.20	5.84

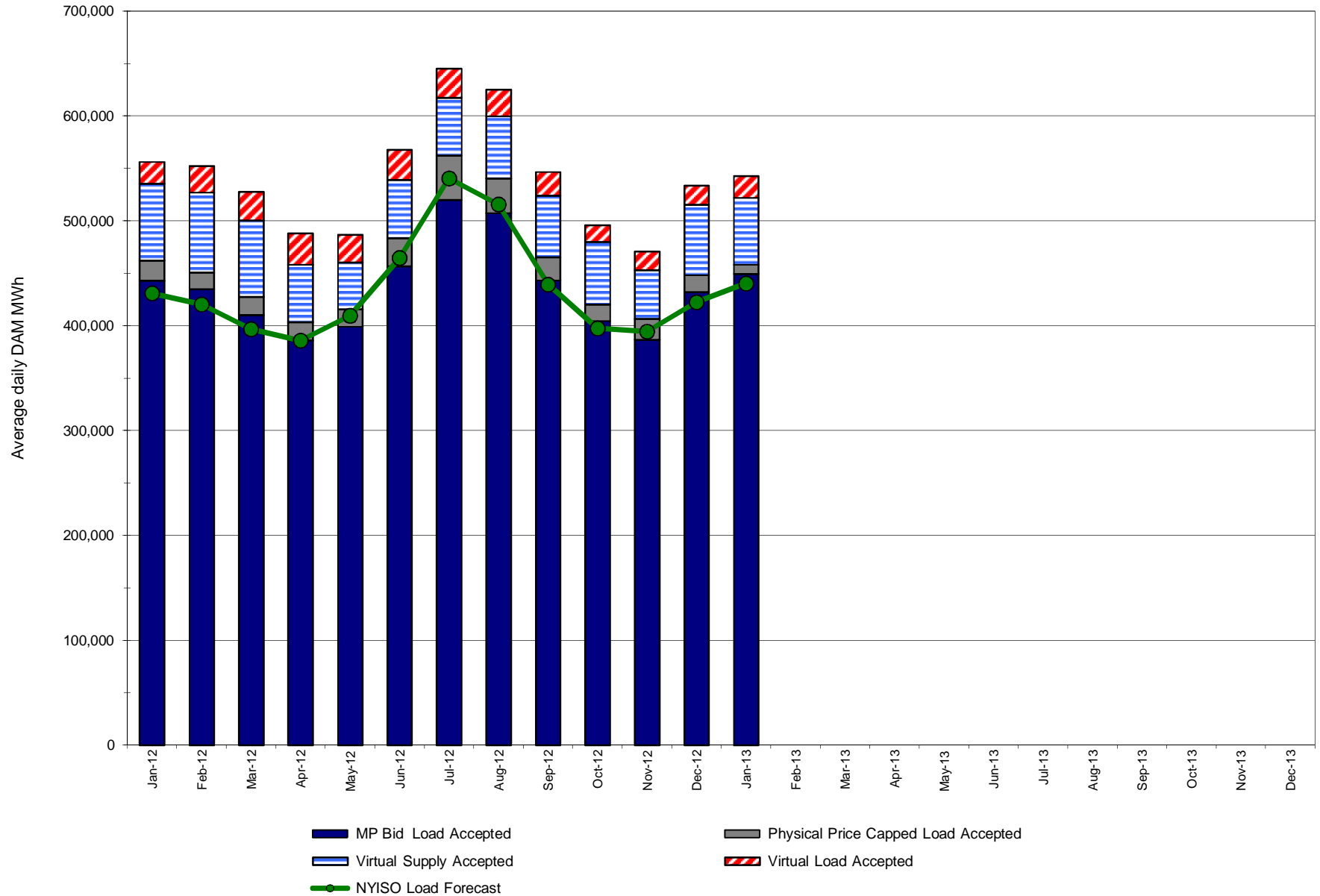
## NYISO In City Energy Mitigation - AMP (NYC Zone) 2012 - 2013 Percentage of committed unit-hours mitigated



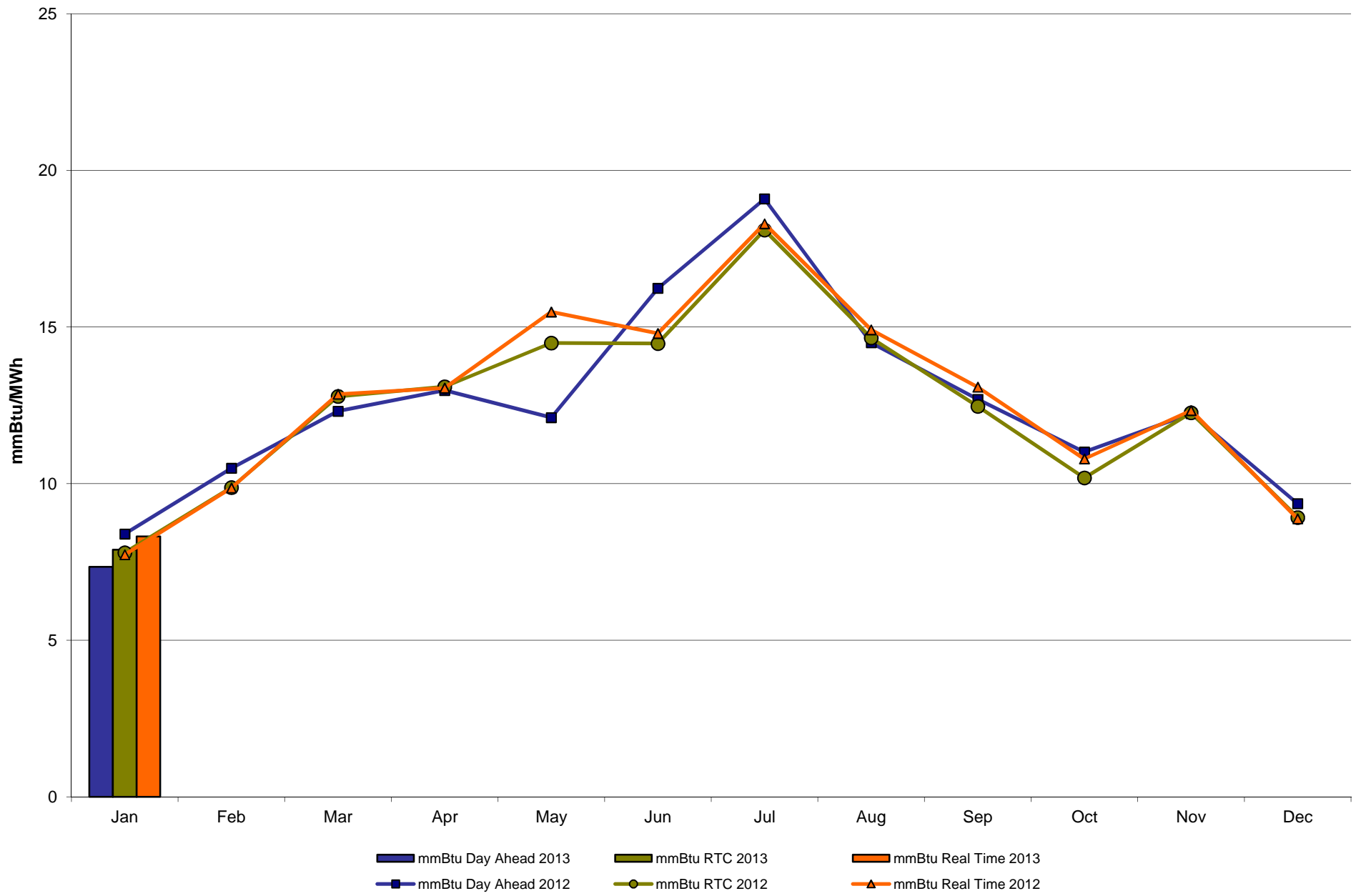
**NYISO In City Energy Mitigation (NYC Zone) 2012 - 2013  
Monthly megawatt hours mitigated**



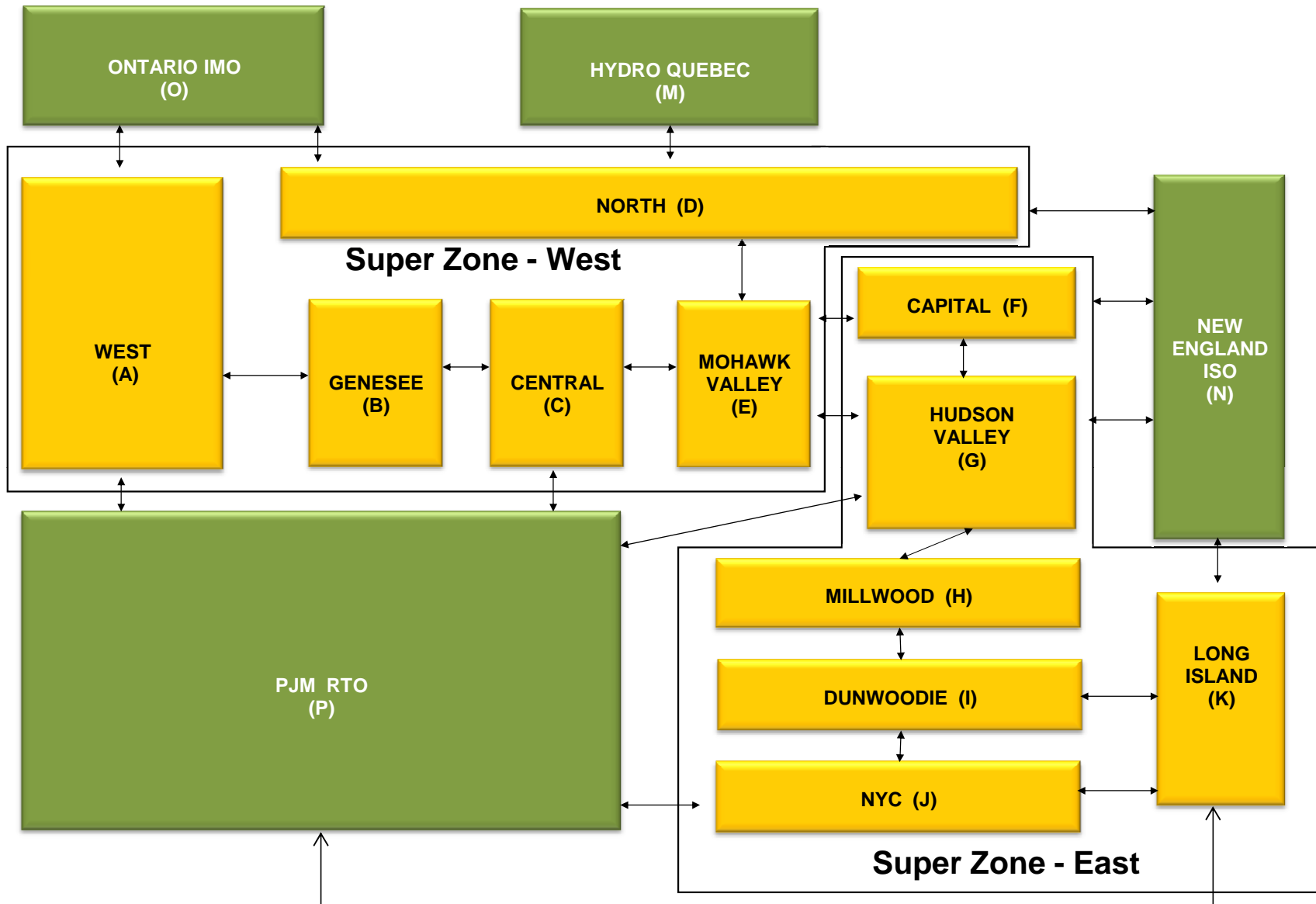
### NYISO Average Daily DAM Load Bid Summary



## Monthly Implied Heat Rate 2012-2013



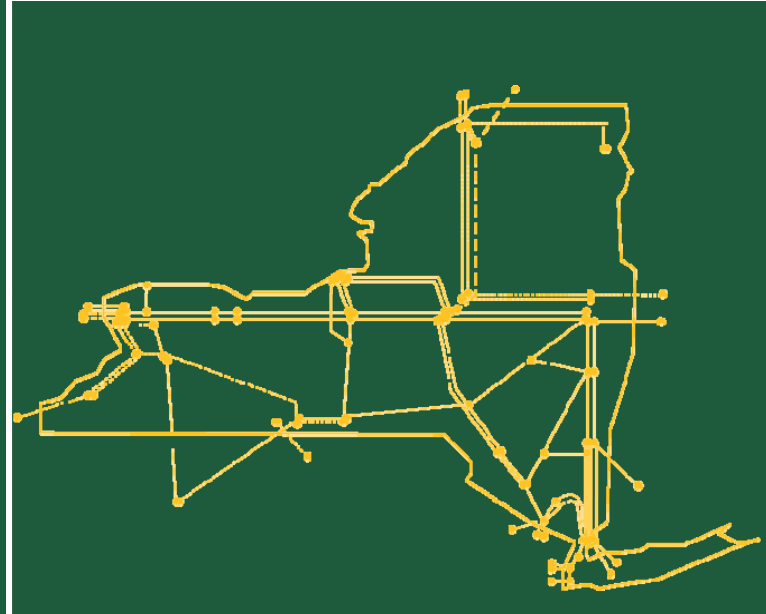
# NYISO LBMP ZONES



**Billing Codes for Chart 4-C**

<b>Chart - C Category Name</b>	<b>Billing Code</b>	<b>Billing Category Name</b>
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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