

# NYISO CEO/COO Report

**Stephen Whitley**

*President & Chief Executive Officer*

**Rick Gonzales**

*Senior Vice President & Chief Operating Officer  
New York Independent System Operator*

**Management Committee Meeting**

*April 30, 2014*

*Rensselaer, NY*

# **NYISO CEO/COO Report**

## **CEO Report**

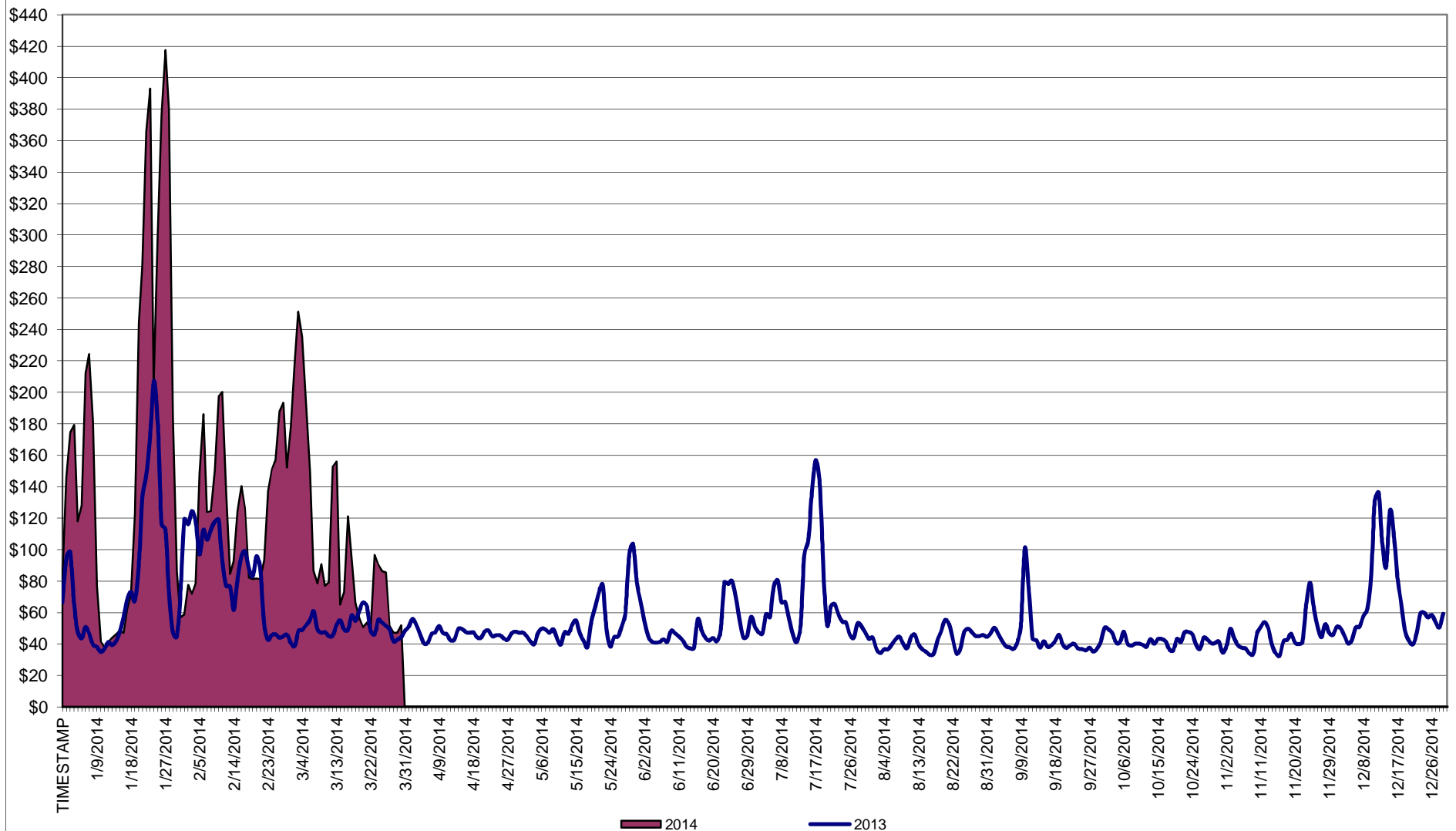
## **COO Report**

- ♦ **Market Performance Highlights – For Information Only**
- ♦ **Operations Performance Metrics Monthly Report**

# Market Performance Highlights for March 2014

- **LBMP for March is \$109.57/MWh; 11% lower than \$123.16/MWh in February 2014 and 124% higher than \$48.94/MWh in March 2013.**
  - Day Ahead and Real Time Load Weighted LBMPs are lower compared to February.
- **March 2014 average year-to-date monthly cost of \$142.40/MWh is a 92% increase from \$74.02/MWh in March 2013.**
- **Average daily sendout is 440 GWh/day in March; lower than 460 GWh/day in February 2014 and higher than 429 GWh/day in March 2013.**
- **Natural gas and distillate prices were lower compared to the previous month.**
  - Natural Gas (Transco Z6 NY) was \$7.84/MMBtu, down 33% from \$11.64/MMBtu in February.
  - Jet Kerosene Gulf Coast was \$21.45/MMBtu, down from \$21.96/MMBtu in February.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$21.44/MMBtu, down from \$23.10/MMBtu in February.
- **Uplift per MWh is higher compared to the previous month.**
  - Uplift (not including NYISO cost of operations) is \$0.26/MWh; higher than \$0.25/MWh in February.
    - The Local Reliability Share is \$0.64/MWh, lower than \$0.73 in February.
    - The Statewide Share is (\$0.38)/MWh, higher than (\$0.49)/MWh in February.
  - TSA \$ per NYC MWh is \$0.00/MWh.
- **Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than February.**

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2013 Annual Average \$59.13/MWh  
 March 2013 YTD Average \$74.02/MWh  
 March 2014 YTD Average \$142.40/MWh



\* Excludes ICAP payments.

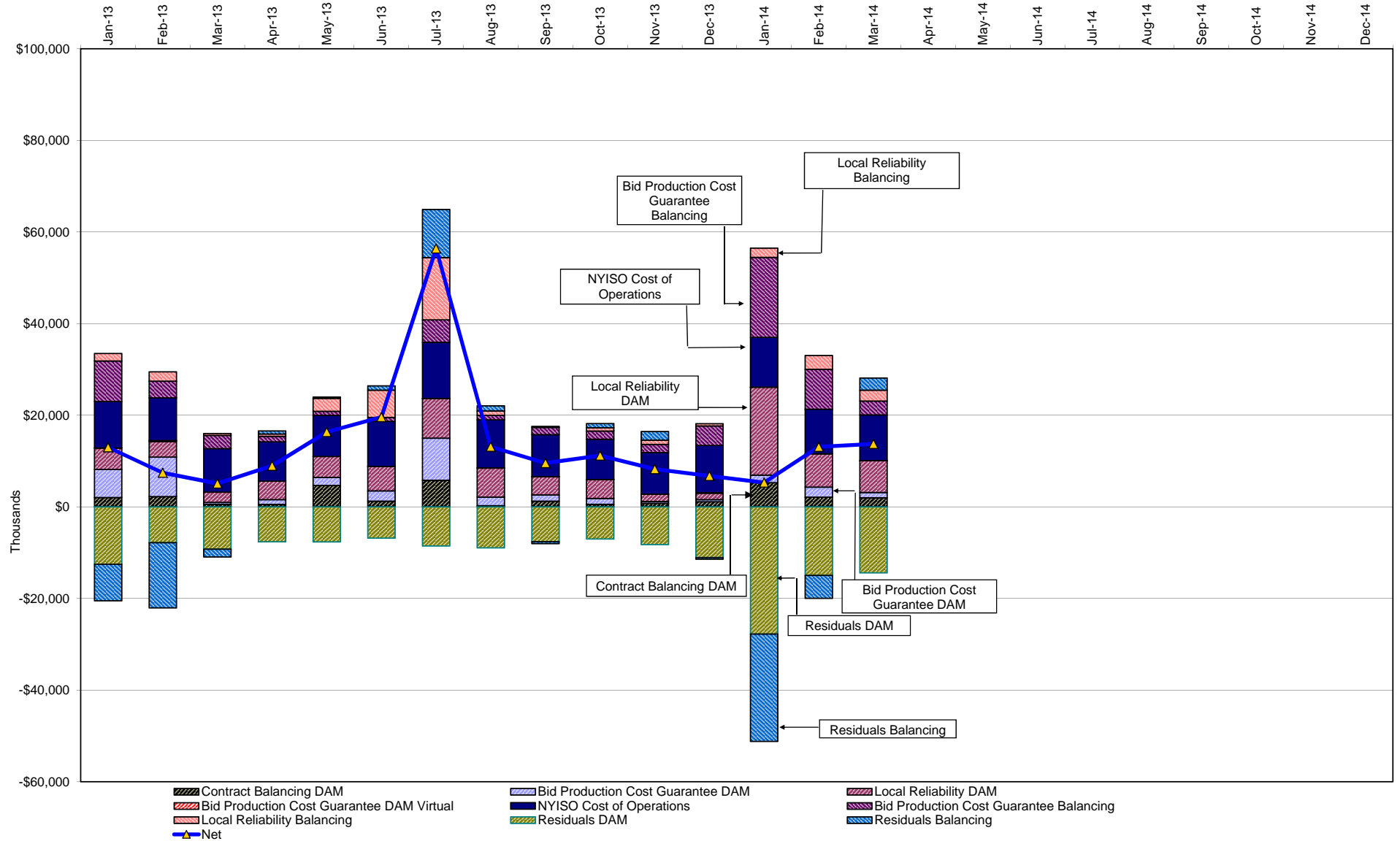
**NYISO Average Cost/MWh (Energy and Ancillary Services) \***  
**from the LBMP Customer point of view**

<b>2014</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	183.25	123.16	109.57									
NTAC	0.56	0.64	0.39									
Reserve	0.78	0.49	0.56									
Regulation	0.27	0.21	0.22									
NYISO Cost of Operations	0.69	0.69	0.69									
Uplift	(0.36)	0.25	0.26									
Uplift: Local Reliability Share	1.38	0.73	0.64									
Uplift: Statewide Share	(1.73)	(0.49)	(0.38)									
Voltage Support and Black Start	0.36	0.36	0.36									
<b>Avg Monthly Cost</b>	<b>185.55</b>	<b>125.81</b>	<b>112.06</b>									
 Avg YTD Cost	 185.55	 157.40	 142.40									
 TSA \$ per NYC MWh	 0.00	 0.00	 0.00									
 <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	79.77	85.76	48.94	44.47	52.21	50.17	68.49	40.81	44.24	39.85	43.30	66.39
NTAC	0.79	0.83	0.76	0.90	0.85	0.86	0.66	0.28	0.57	0.87	1.08	0.59
Reserve	0.38	0.44	0.43	0.36	0.49	0.34	0.50	0.32	0.38	0.42	0.38	0.44
Regulation	0.13	0.13	0.10	0.11	0.09	0.13	0.11	0.13	0.13	0.16	0.13	0.12
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	0.21	(0.15)	(0.33)	0.02	0.41	0.49	2.06	0.03	(0.04)	0.19	(0.07)	(0.25)
Uplift: Local Reliability Share	0.44	0.40	0.19	0.37	0.58	0.81	1.27	0.49	0.31	0.38	0.19	0.12
Uplift: Statewide Share	(0.23)	(0.55)	(0.52)	(0.35)	(0.17)	(0.31)	0.79	(0.46)	(0.36)	(0.19)	(0.25)	(0.37)
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
<b>Avg Monthly Cost</b>	<b>82.34</b>	<b>88.06</b>	<b>50.96</b>	<b>46.91</b>	<b>55.10</b>	<b>53.05</b>	<b>72.87</b>	<b>42.62</b>	<b>46.32</b>	<b>42.54</b>	<b>45.88</b>	<b>68.34</b>
 Avg YTD Cost	 82.34	 85.08	 74.02	 67.80	 65.46	 63.36	 65.10	 62.27	 60.74	 59.30	 58.24	 59.13
 TSA \$ per NYC MWh	 0.00	 0.00	 0.00	 0.04	 0.58	 0.61	 1.52	 0.43	 0.22	 0.01	 0.00	 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	39.30	50.16	44.67
NTAC	0.85	0.80	0.68	0.71	0.72	0.77	0.58	0.65	0.57	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	0.26
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	(0.33)	1.04	0.82	(0.11)
Uplift: Local Reliability Share	0.49	0.27	0.19	0.07	0.25	0.42	0.49	0.83	0.26	0.67	0.72	0.30
Uplift: Statewide Share	(0.05)	(0.10)	(0.19)	(0.25)	(0.36)	0.19	(0.26)	(0.61)	(0.59)	0.38	0.11	(0.41)
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>41.17</b>	<b>42.44</b>	<b>53.26</b>	<b>46.74</b>
 Avg YTD Cost	 46.75	 41.12	 37.96	 36.09	 36.18	 38.89	 44.26	 44.91	 44.51	 44.33	 45.14	 45.28
 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

\* Excludes ICAP payments.  
Market Mitigation and Analysis  
Prepared: 4/4/2014 9:53 AM

Data reflects true-ups thru Nov 2013.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through March 31, 2014



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

2014	January	February	March	April	May	June	July	August	September	October	November	December
<b>Day Ahead Market MWh</b>	16,034,264	14,409,515	14,633,570									
DAM LSE Internal LBMP Energy Sales	52%	50%	53%									
DAM External TC LBMP Energy Sales	5%	7%	6%									
DAM Bilateral - Internal Bilaterals	36%	36%	35%									
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	5%									
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	1%	1%									
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%									
<b>Balancing Energy Market MWh</b>	-240,397	-285,718	-113,985									
Balancing Energy LSE Internal LBMP Energy Sales	-237%	-208%	-298%									
Balancing Energy External TC LBMP Energy Sales	109%	80%	99%									
Balancing Energy Bilateral - Internal Bilaterals	21%	28%	70%									
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	13%									
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	11%	6%	26%									
Balancing Energy Bilateral - Wheel Through Bilaterals	-5%	-6%	-11%									
<b>Transactions Summary</b>												
LBMP	56%	56%	57%									
Internal Bilaterals	37%	37%	36%									
Import Bilaterals	5%	5%	5%									
Export Bilaterals	2%	1%	2%									
Wheels Through	1%	1%	1%									
<b>Market Share of Total Load</b>												
Day Ahead Market	101.5%	102.0%	100.8%									
Balancing Energy +	-1.5%	-2.0%	-0.8%									
Total MWh	15,793,868	14,123,796	14,519,586									
Average Daily Energy Sendout/Month GWh	475	460	440									

2013	January	February	March	April	May	June	July	August	September	October	November	December
<b>Day Ahead Market MWh</b>	15,140,096	14,116,189	14,250,091	12,963,905	13,451,310	14,872,971	17,974,314	16,090,437	14,021,472	13,411,499	13,692,854	15,406,816
DAM LSE Internal LBMP Energy Sales	56%	55%	56%	57%	56%	57%	59%	57%	55%	51%	52%	52%
DAM External TC LBMP Energy Sales	4%	6%	3%	3%	1%	1%	1%	0%	0%	0%	3%	6%
DAM Bilateral - Internal Bilaterals	38%	37%	38%	37%	37%	36%	33%	36%	38%	41%	40%	36%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	3%	4%	5%	5%	4%	5%	4%	4%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	1%
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
<b>Balancing Energy Market MWh</b>	-471,167	-648,574	-501,253	-525,278	-501,948	-669,315	-294,946	-915,232	-759,051	-694,291	-579,298	-528,397
Balancing Energy LSE Internal LBMP Energy Sales	-131%	-117%	-127%	-123%	-133%	-115%	-189%	-113%	-120%	-122%	-134%	-131%
Balancing Energy External TC LBMP Energy Sales	33%	20%	23%	21%	35%	16%	78%	9%	11%	13%	23%	16%
Balancing Energy Bilateral - Internal Bilaterals	4%	10%	11%	3%	5%	4%	11%	3%	6%	5%	4%	13%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	1%	4%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	5%	3%	4%	5%	4%	2%	3%	1%	2%	3%	7%	5%
Balancing Energy Bilateral - Wheel Through Bilaterals	-11%	-16%	-11%	-6%	-11%	-9%	-7%	0%	1%	0%	1%	-4%
<b>Transactions Summary</b>												
LBMP	59%	59%	58%	59%	55%	56%	59%	54%	53%	49%	52%	56%
Internal Bilaterals	39%	39%	40%	39%	39%	38%	34%	39%	41%	43%	41%	38%
Import Bilaterals	0%	0%	0%	0%	4%	4%	5%	5%	4%	6%	4%	4%
Export Bilaterals	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%	2%
Wheels Through	1%	0%	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%
<b>Market Share of Total Load</b>												
Day Ahead Market	103.2%	104.8%	103.6%	104.2%	103.9%	104.7%	101.7%	106.0%	105.7%	105.5%	104.4%	103.6%
Balancing Energy +	-3.2%	-4.8%	-3.6%	-4.2%	-3.9%	-4.7%	-1.7%	-6.0%	-5.7%	-5.5%	-4.4%	-3.6%
Total MWh	14,668,929	13,467,615	13,748,838	12,438,627	12,949,362	14,203,656	17,679,368	15,175,205	13,262,421	12,717,208	13,113,556	14,878,419
Average Daily Energy Sendout/Month GWh	453	453	429	398	407	469	561	485	438	407	421	450

+ 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 2014 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 *	\$155.11	\$110.69	\$97.07									
Standard Deviation	\$121.52	\$50.86	\$59.89									
Load Weighted Price **	\$164.06	\$114.77	\$100.81									
<b><u>RTC LBMP</u></b>												
Price *	\$138.41	\$110.71	\$94.71									
Standard Deviation	\$125.42	\$72.22	\$97.72									
Load Weighted Price **	\$147.06	\$115.31	\$98.80									
<b><u>REAL TIME LBMP</u></b>												
Price *	\$137.90	\$111.51	\$93.37									
Standard Deviation	\$122.32	\$70.35	\$89.05									
Load Weighted Price **	\$147.77	\$115.80	\$97.58									
Average Daily Energy Sendout/Month GWh	475	460	440									

### **NYISO Markets 2013 Energy Statistics**

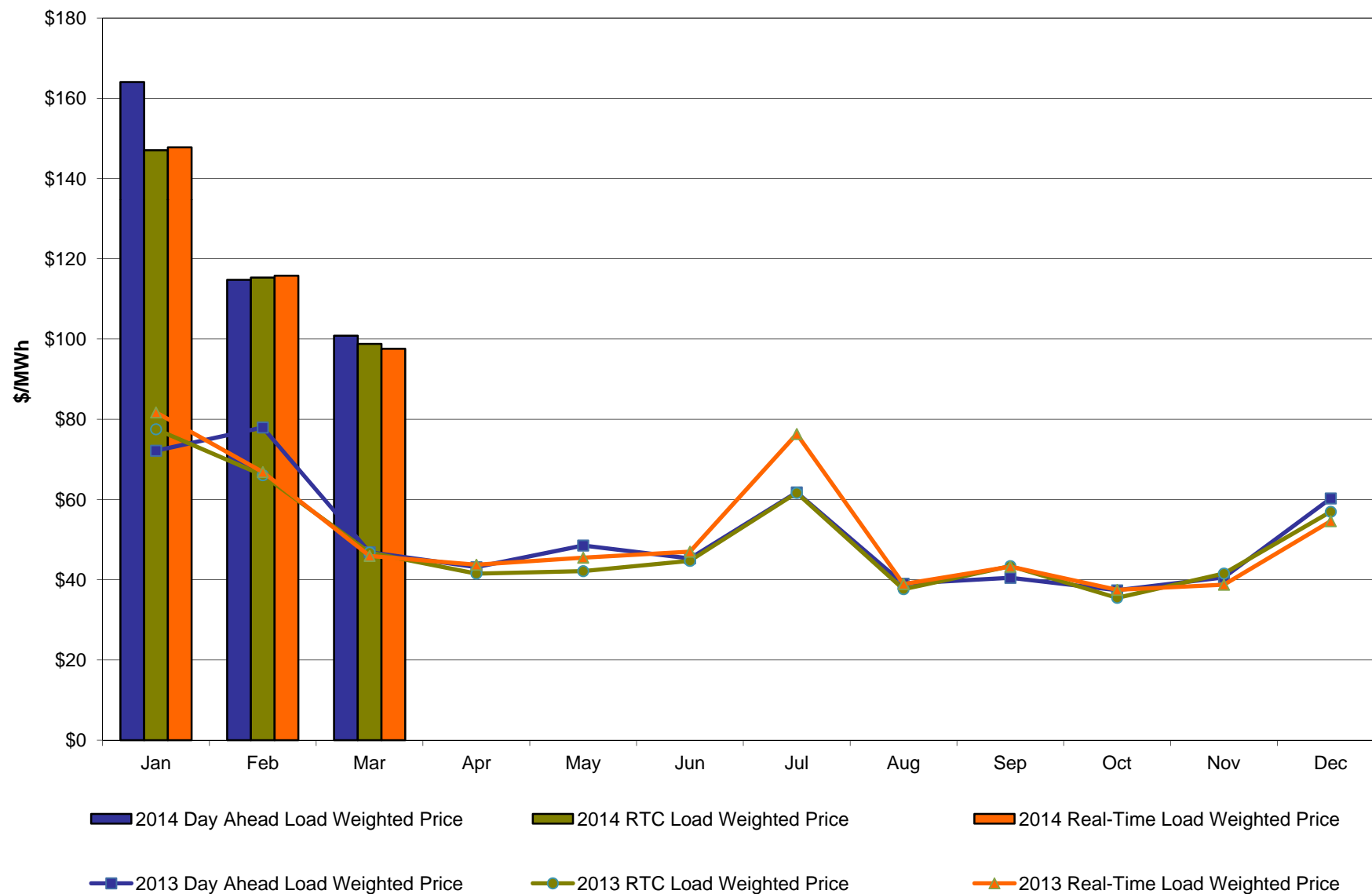
	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>DAY AHEAD LBMP</u></b>												
Price *	\$69.17	\$75.82	\$45.97	\$42.21	\$45.87	\$42.66	\$56.90	\$37.19	\$38.32	\$36.15	\$39.18	\$57.72
Standard Deviation	\$47.21	\$29.98	\$9.40	\$7.84	\$18.77	\$17.98	\$37.12	\$11.85	\$15.21	\$9.15	\$13.56	\$28.61
Load Weighted Price **	\$72.17	\$77.95	\$46.85	\$43.13	\$48.52	\$45.32	\$61.77	\$39.00	\$40.47	\$37.37	\$40.58	\$60.27
<b><u>RTC LBMP</u></b>												
Price *	\$73.69	\$64.15	\$45.75	\$40.50	\$39.51	\$42.00	\$55.41	\$35.90	\$39.06	\$34.08	\$39.57	\$54.53
Standard Deviation	\$88.27	\$36.96	\$22.62	\$14.79	\$24.44	\$30.96	\$58.54	\$18.35	\$60.70	\$17.38	\$30.77	\$41.66
Load Weighted Price **	\$77.52	\$66.07	\$46.79	\$41.52	\$42.14	\$44.70	\$61.64	\$37.65	\$43.41	\$35.49	\$41.56	\$56.95
<b><u>REAL TIME LBMP</u></b>												
Price *	\$76.47	\$64.87	\$45.01	\$42.74	\$42.32	\$43.93	\$65.57	\$37.03	\$39.02	\$36.02	\$37.28	\$52.49
Standard Deviation	\$83.80	\$38.96	\$16.27	\$15.96	\$26.99	\$34.72	\$89.92	\$20.11	\$36.85	\$19.07	\$25.69	\$34.01
Load Weighted Price **	\$81.71	\$66.83	\$45.94	\$43.73	\$45.50	\$47.00	\$76.32	\$38.92	\$43.28	\$37.47	\$38.75	\$54.60
Average Daily Energy Sendout/Month GWh	453	453	429	398	407	469	561	485	438	407	421	450

\* Average zonal load weighted prices.

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



# **NYISO Monthly Average Internal LBMPs 2013- 2014**

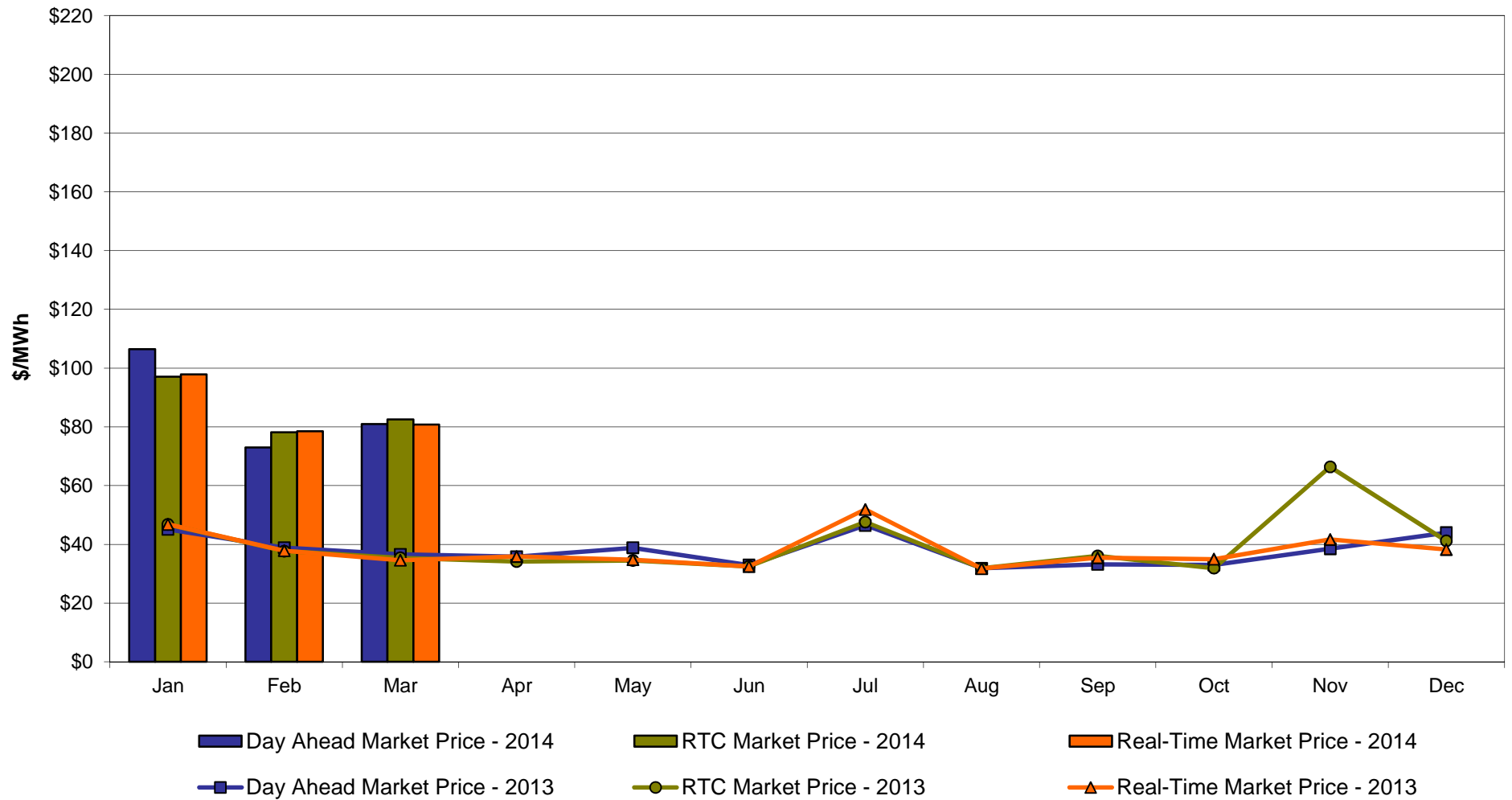


**March 2014 Zonal LBMP Statistics for NYISO (\$/MWh)**

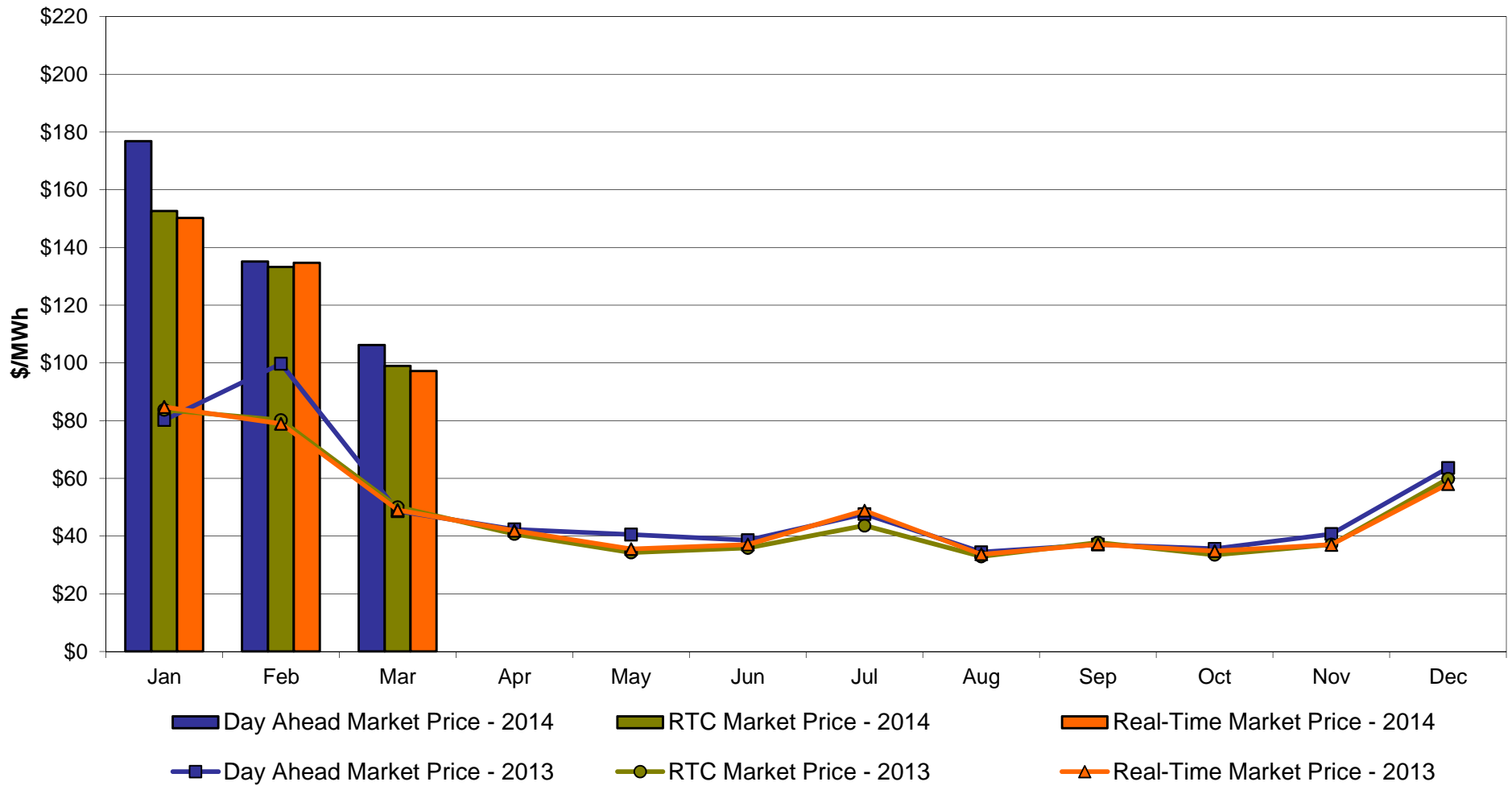
	<b><u>WEST</u></b>	<b><u>GENESEE</u></b>	<b><u>NORTH</u></b>	<b><u>CENTRAL</u></b>	<b><u>MOHAWK</u></b>	<b><u>CAPITAL</u></b>	<b><u>HUDSON</u></b>	<b><u>MILLWOOD</u></b>	<b><u>DUNWOODIE</u></b>	<b><u>NEW YORK</u></b>	<b><u>LONG</u></b>
	<b><u>Zone A</u></b>	<b><u>Zone B</u></b>	<b><u>Zone D</u></b>	<b><u>Zone C</u></b>	<b><u>Zone E</u></b>	<b><u>Zone F</u></b>	<b><u>Zone G</u></b>	<b><u>Zone H</u></b>	<b><u>Zone I</u></b>	<b><u>Zone J</u></b>	<b><u>Zone K</u></b>
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	80.97	82.58	82.86	85.79	89.37	106.16	102.07	102.67	102.30	102.52	108.43
Standard Deviation	56.28	57.97	62.36	59.64	62.67	64.37	61.94	62.09	61.69	60.88	63.08
<b><u>RTC LBMP</u></b>											
Unweighted Price *	82.50	84.62	86.00	87.03	90.75	98.98	97.02	97.34	96.95	99.16	103.08
Standard Deviation	93.98	96.32	100.44	97.95	103.00	103.32	100.89	100.77	99.96	98.28	97.91
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	80.74	83.43	85.08	85.86	89.53	97.18	95.46	95.77	95.40	98.07	102.79
Standard Deviation	83.97	87.36	91.33	88.72	93.24	93.38	91.54	91.44	90.75	91.42	90.59
	<b><u>ONTARIO</u></b>	<b><u>HYDRO</u></b>	<b><u>HYDRO</u></b>		<b><u>NEW</u></b>	<b><u>CROSS</u></b>	<b><u>NORTHPORT-</u></b>	<b><u>NEPTUNE</u></b>	<b><u>LINDEN VFT</u></b>	<b><u>HUDSON</u></b>	<b><u>Dennison</u></b>
	<b><u>IESO</u></b>	<b><u>QUEBEC</u></b>	<b><u>QUEBEC</u></b>	<b><u>PJM</u></b>	<b><u>ENGLAND</u></b>	<b><u>SOUND</u></b>	<b><u>NORWALK</u></b>				
		<b><u>(Wheel)</u></b>	<b><u>(Import/Export)</u></b>			<b><u>CABLE</u></b>					
	<b><u>Zone O</u></b>	<b><u>Zone M</u></b>	<b><u>Zone M</u></b>	<b><u>Zone P</u></b>	<b><u>Zone N</u></b>	<b><u>Controllable</u></b>	<b><u>Controllable</u></b>	<b><u>Controllable</u></b>	<b><u>Controllable</u></b>	<b><u>Controllable</u></b>	<b><u>Controllable</u></b>
						<b><u>Line</u></b>	<b><u>Line</u></b>	<b><u>Line</u></b>	<b><u>Line</u></b>	<b><u>Line</u></b>	<b><u>Line</u></b>
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	79.55	83.00	82.98	91.38	113.67	108.20	108.46	106.30	80.56	103.13	82.51
Standard Deviation	55.39	62.72	62.70	57.11	63.51	62.86	61.38	61.95	45.26	62.25	64.41
<b><u>RTC LBMP</u></b>											
Unweighted Price *	74.23	77.36	77.07	81.15	90.69	92.93	92.19	91.16	84.23	62.28	78.71
Standard Deviation	66.68	81.23	81.25	67.18	76.38	69.36	68.84	69.48	62.83	188.46	76.52
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	79.17	83.20	82.75	86.25	121.61	98.59	101.56	96.46	84.92	95.42	82.47
Standard Deviation	81.41	84.27	83.90	83.17	95.62	85.78	86.50	82.53	101.32	90.79	93.11

\* Straight LBMP averages

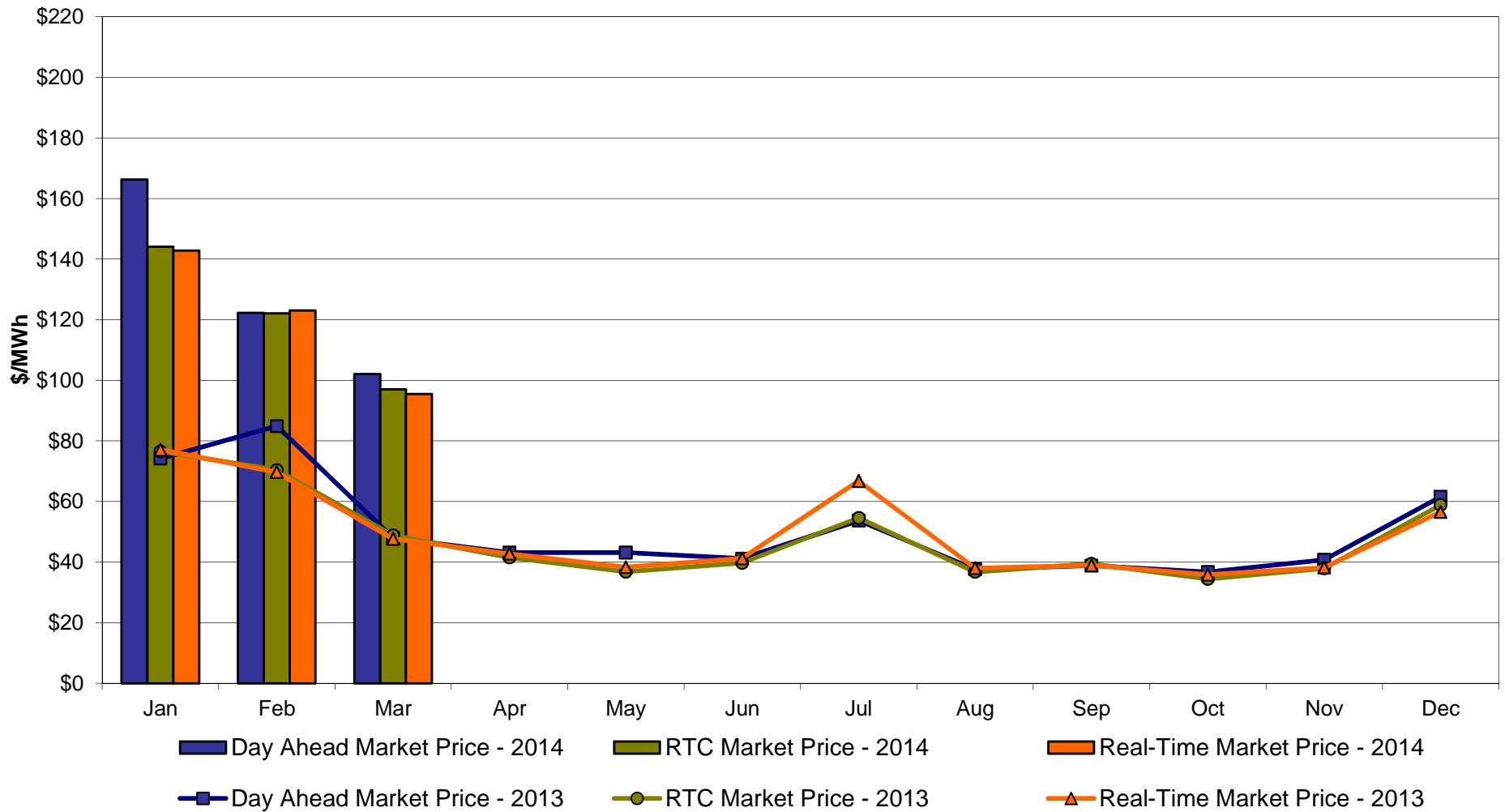
# **West Zone A** **Monthly Average LBMP Prices 2013 - 2014**



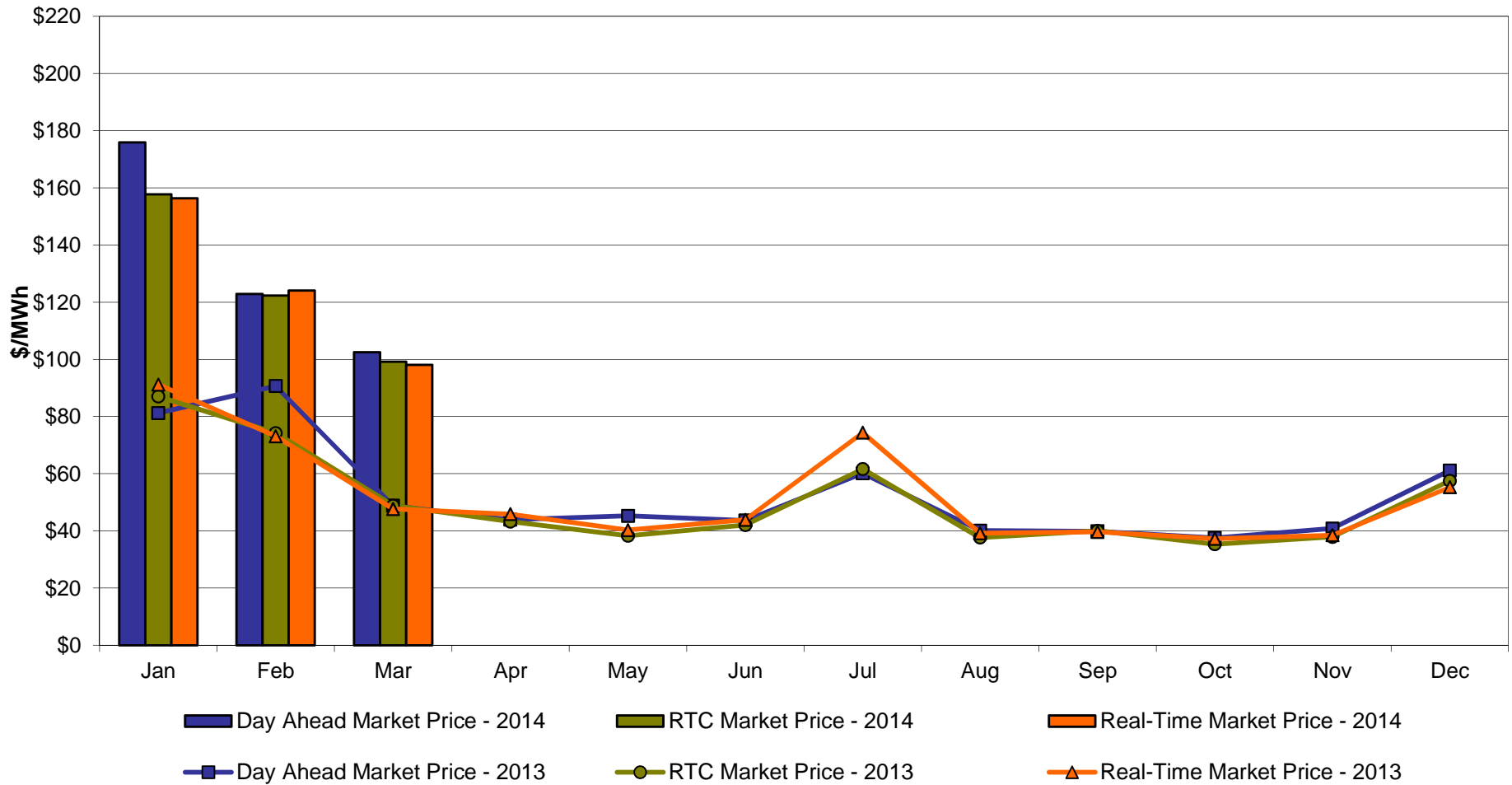
# **Capital Zone F** **Monthly Average LBMP Prices 2013 - 2014**



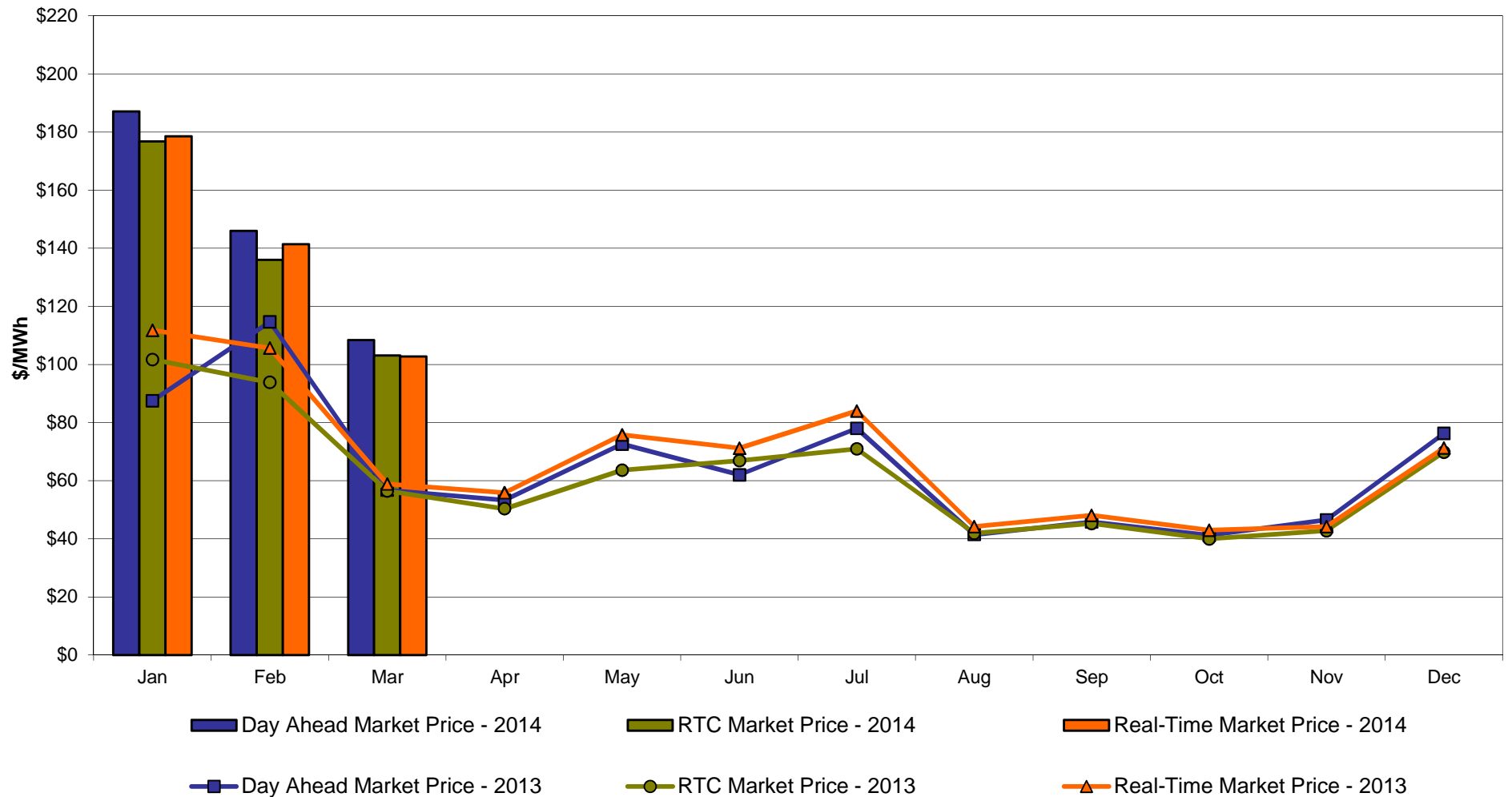
## Hudson Valley Zone G Monthly Average LBMP Prices 2013 - 2014



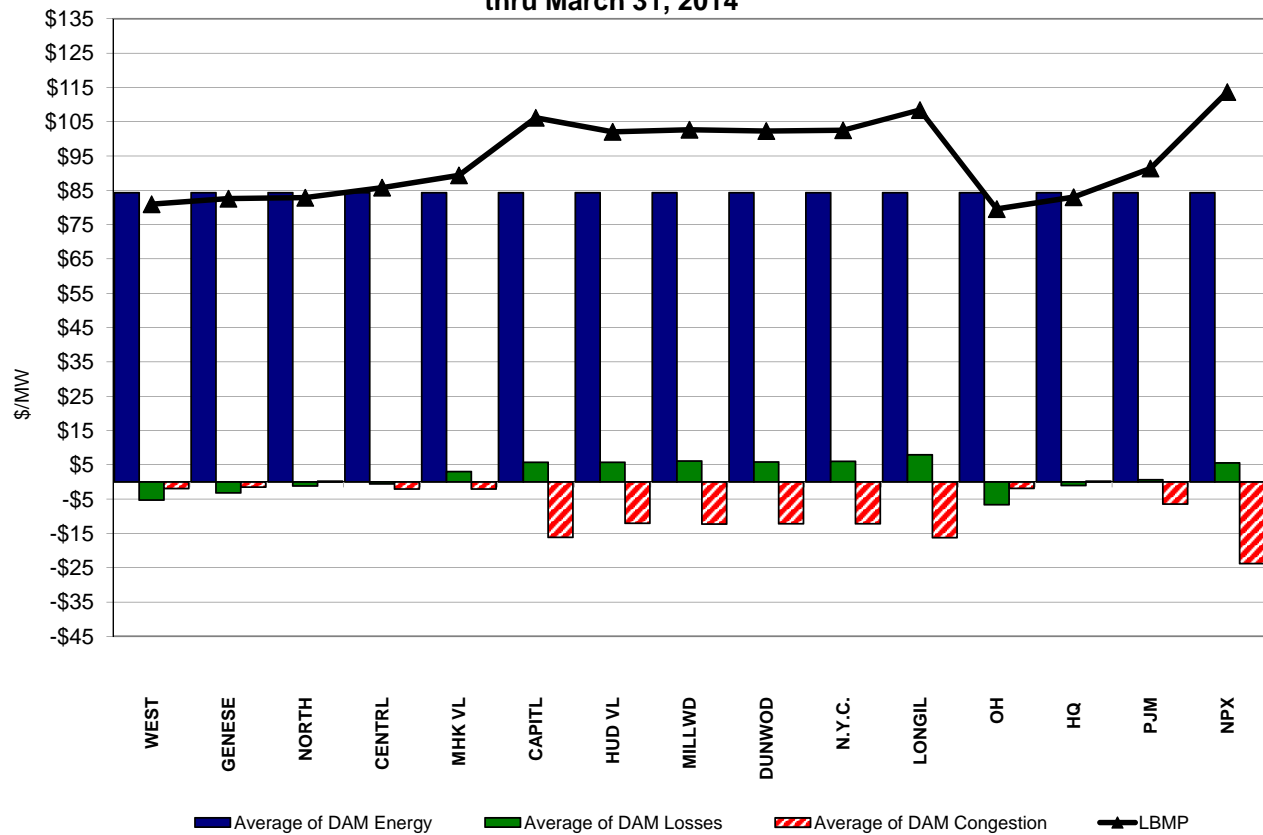
# NYC Zone J Monthly Average LBMP Prices 2013 - 2014



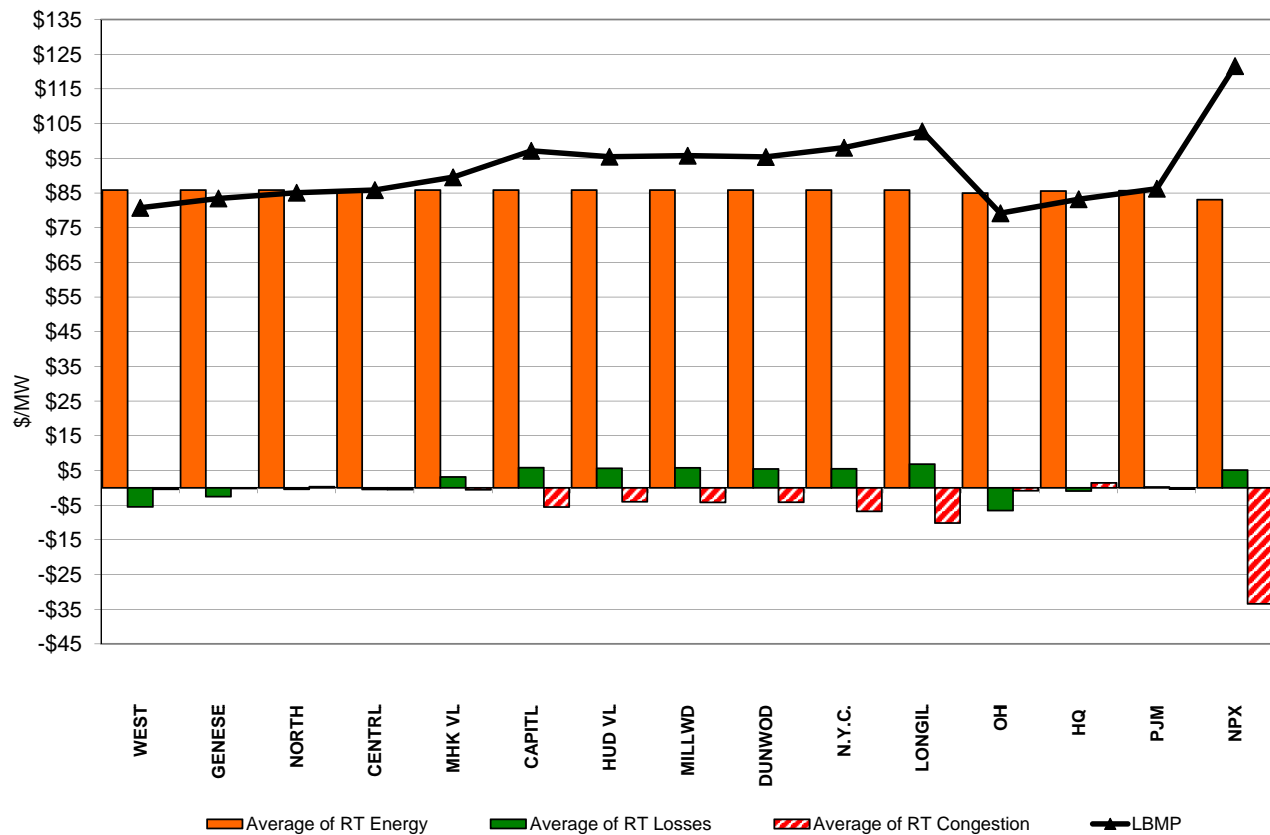
# Long Island Zone K Monthly Average LBMP Prices 2013 - 2014



**DAM Zonal Unweighted Monthly Average LBMP Components  
thru March 31, 2014**



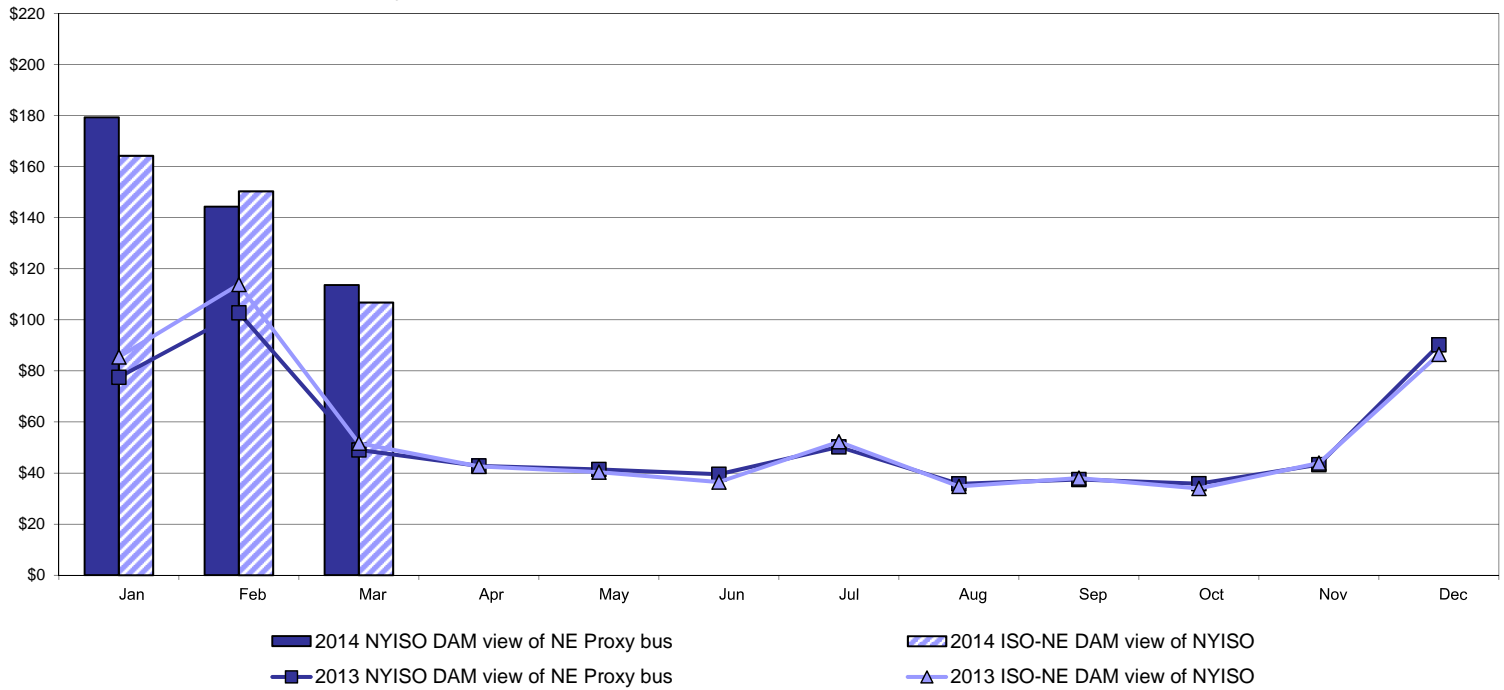
**RT Zonal Unweighted Monthly Average LBMP Components  
thru March 31, 2014**



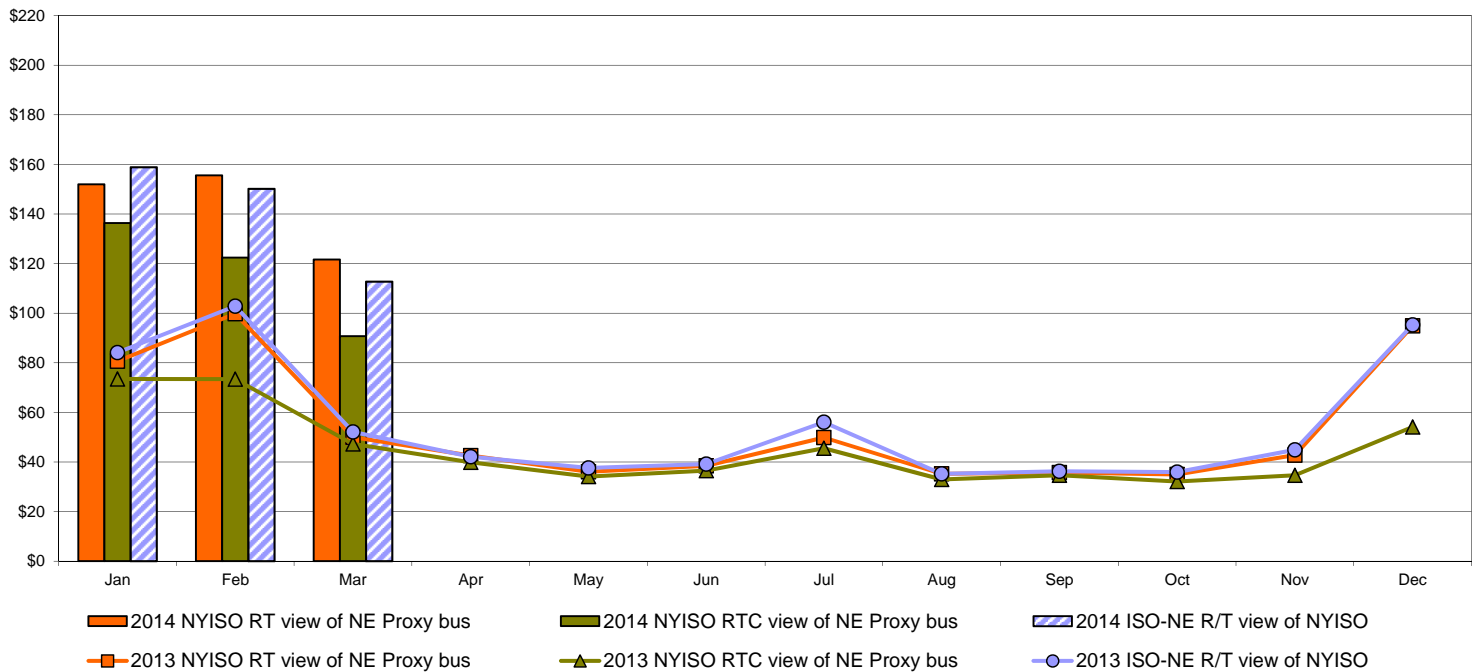


## External Comparison ISO-New England

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

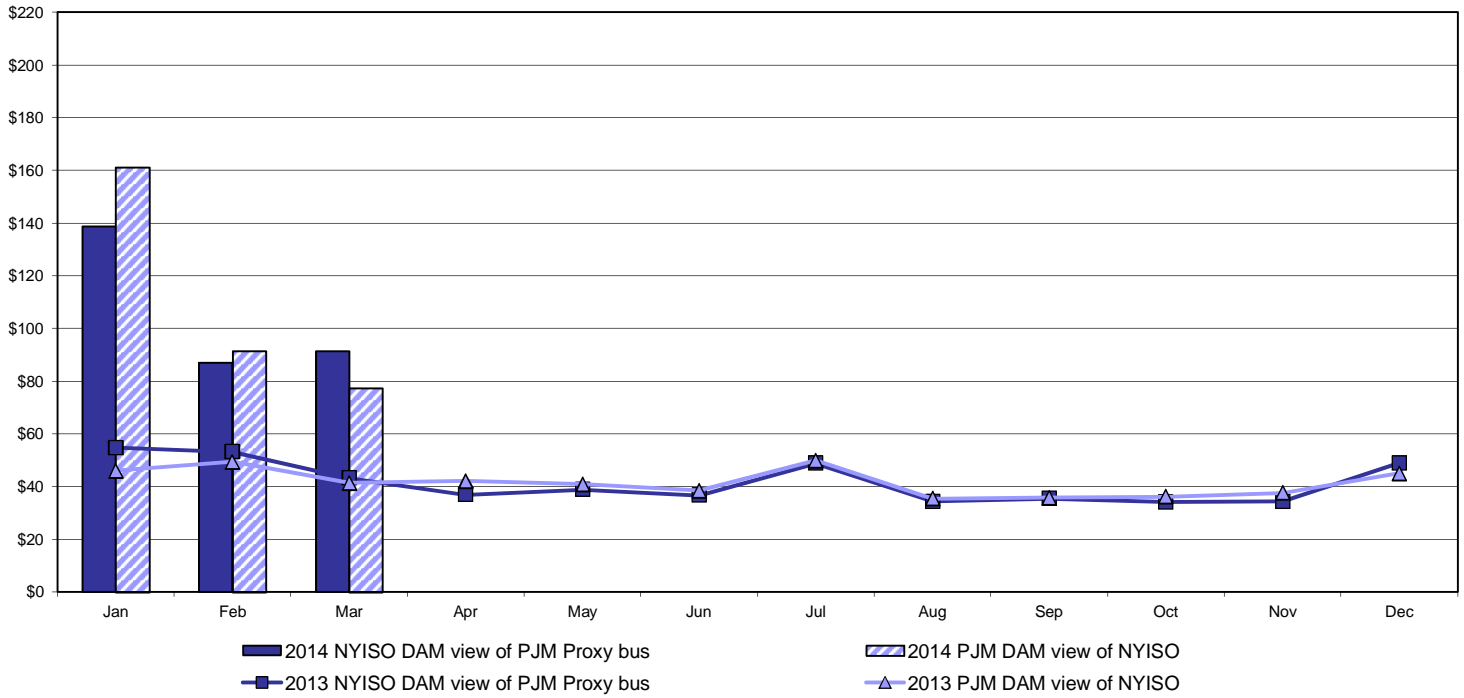


**Real Time Market External Zone Comparison: ISO-NE (\$/MWh)**

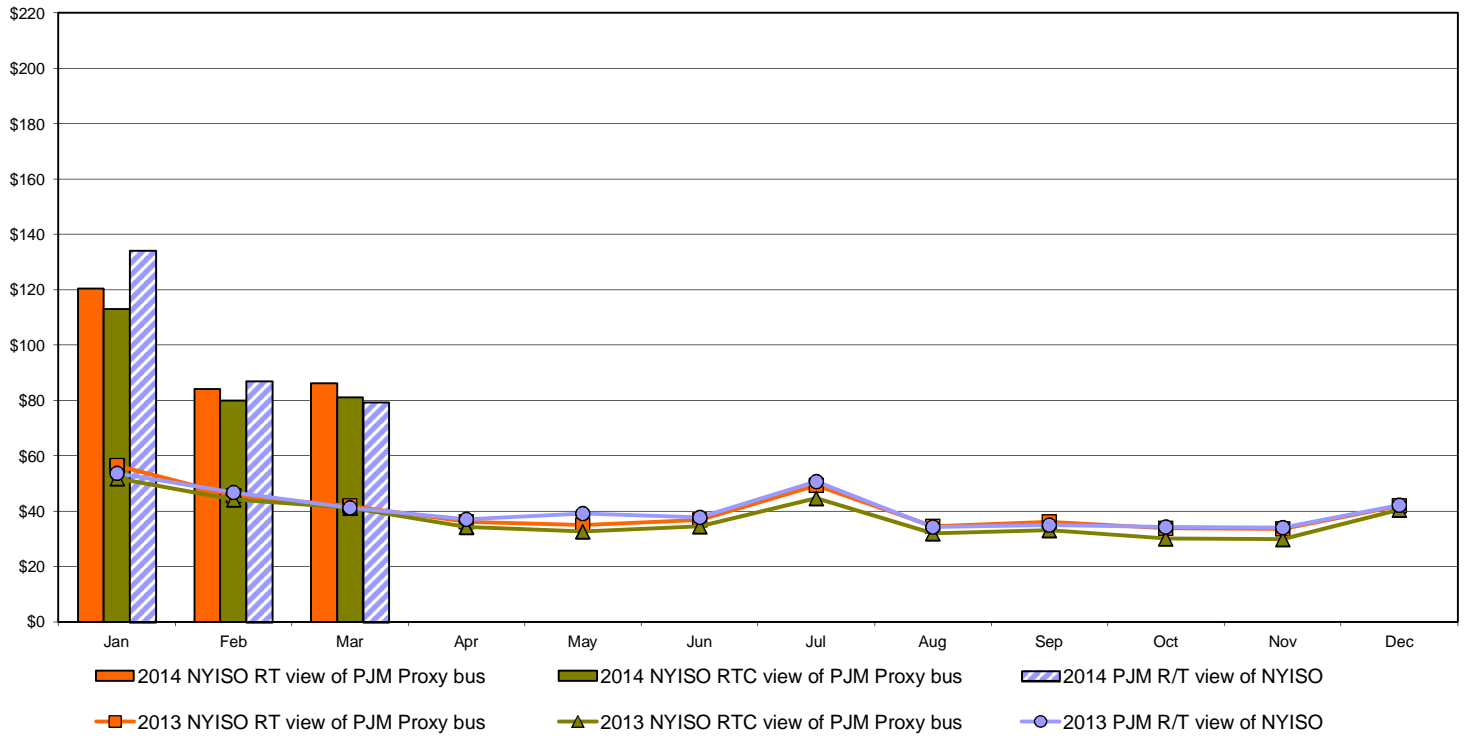


## External Comparison PJM

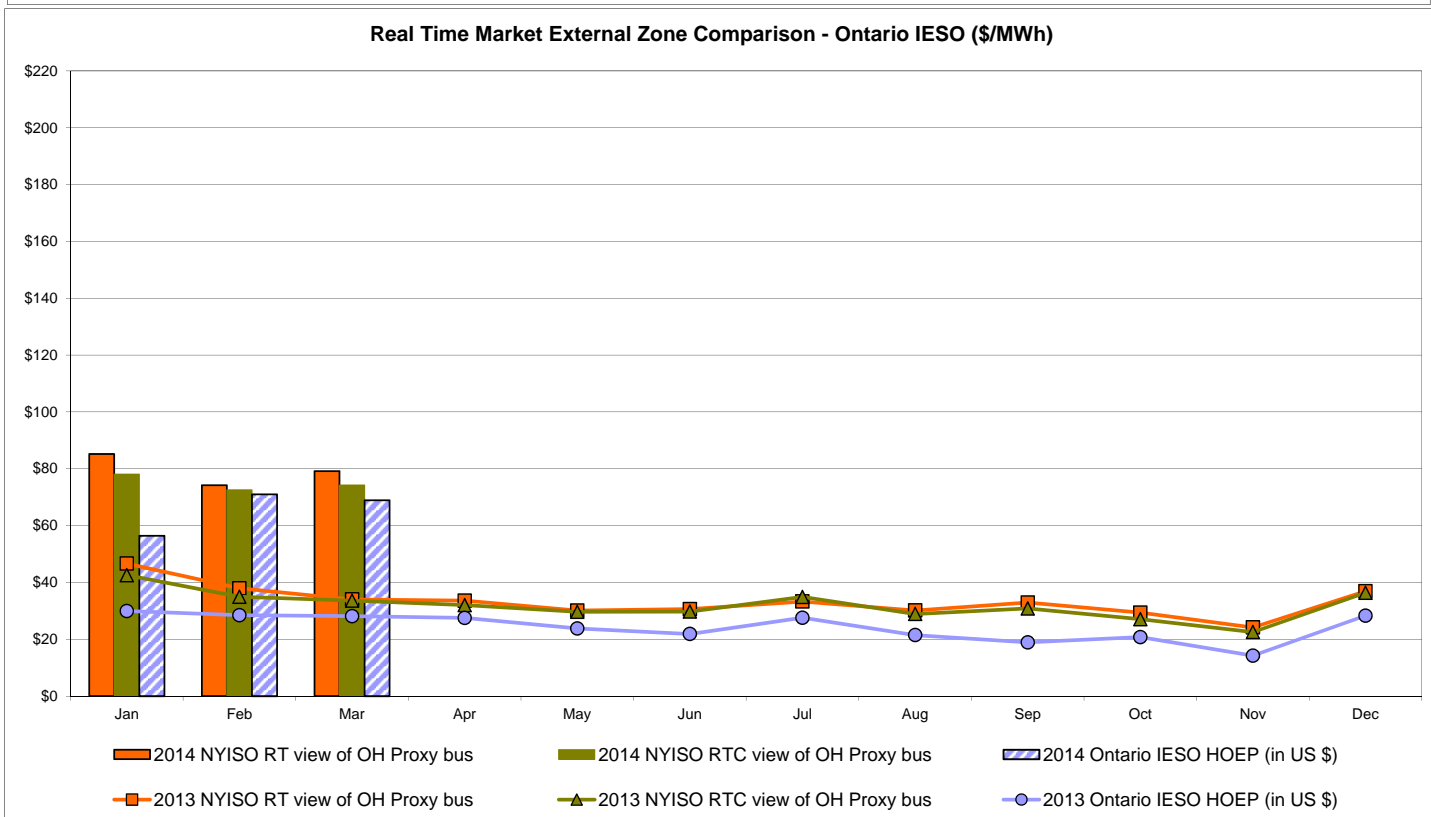
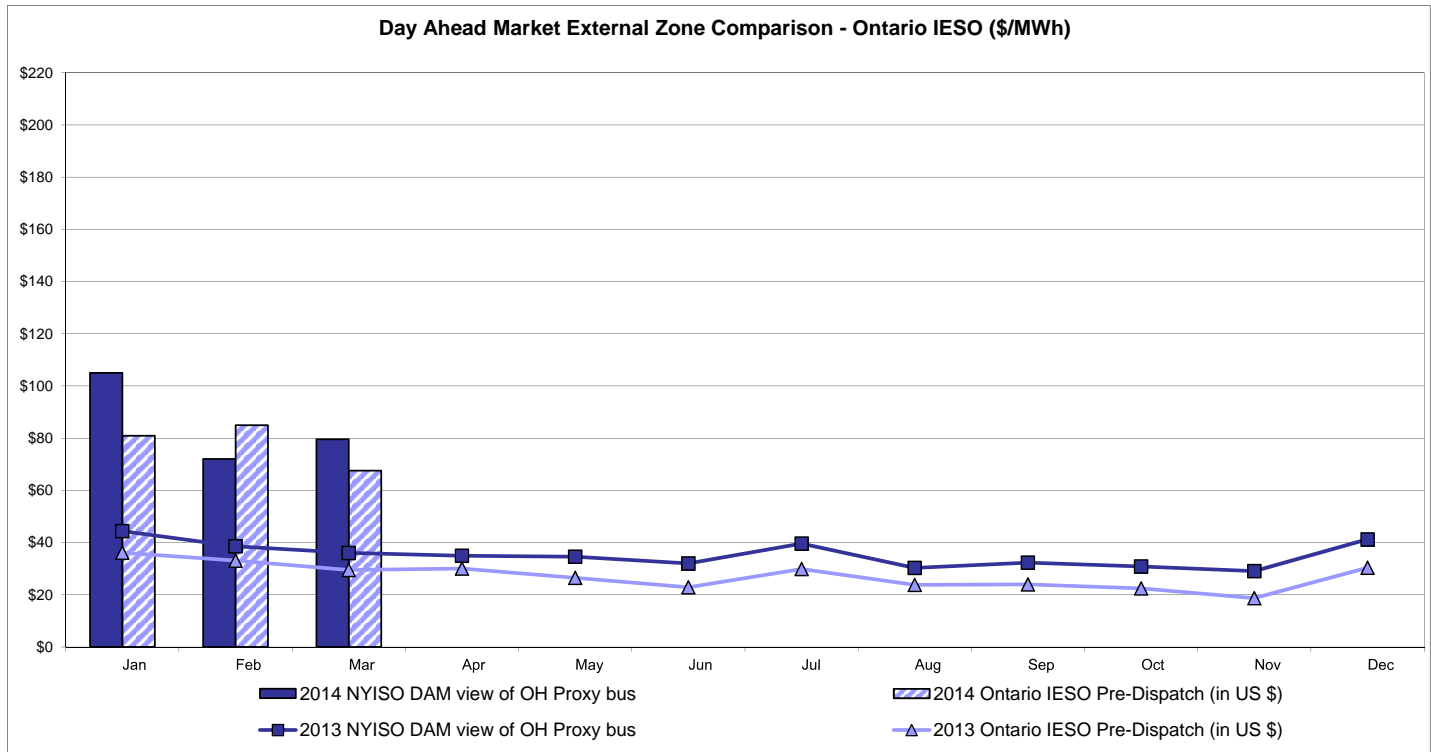
**Day Ahead Market External Zone Comparison - PJM (\$/MWh)**



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

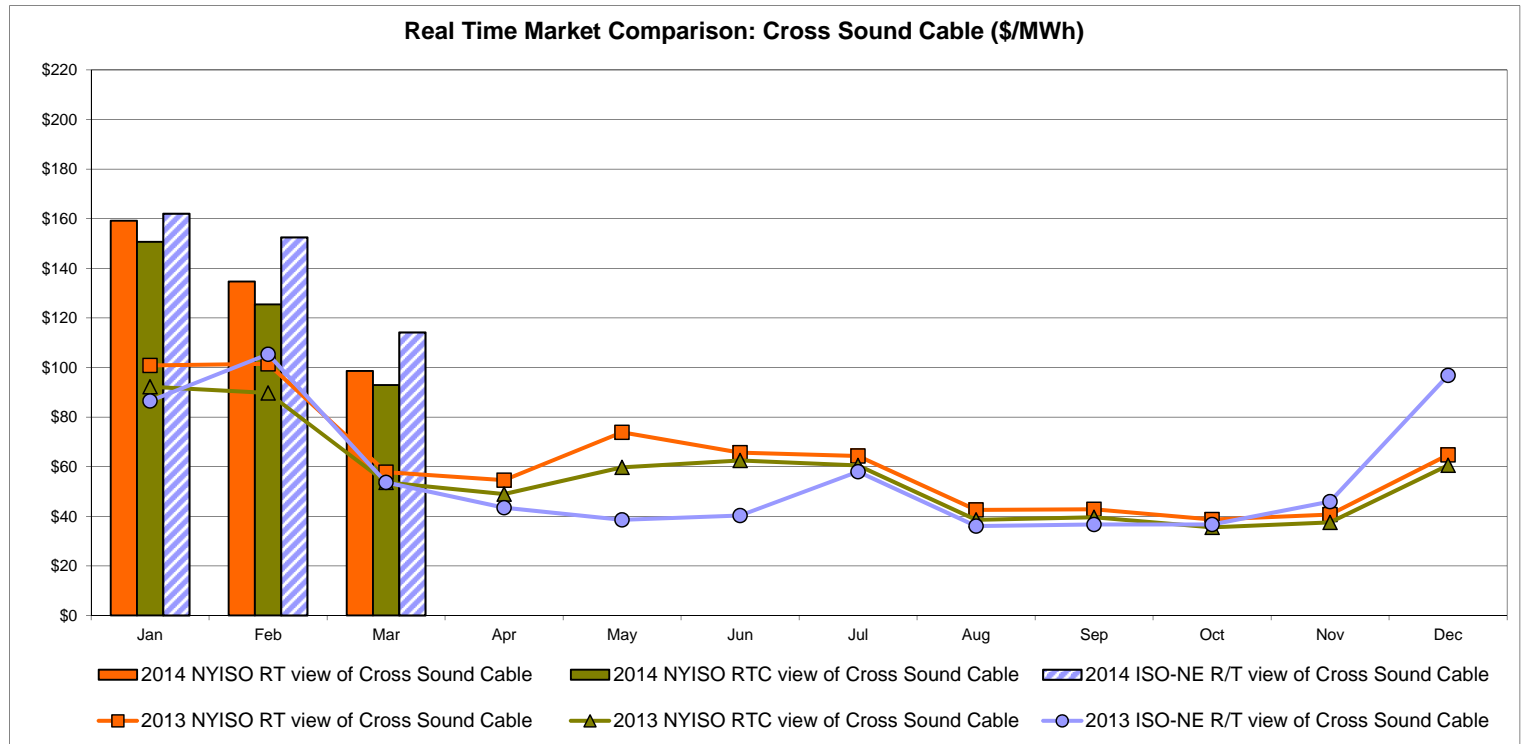
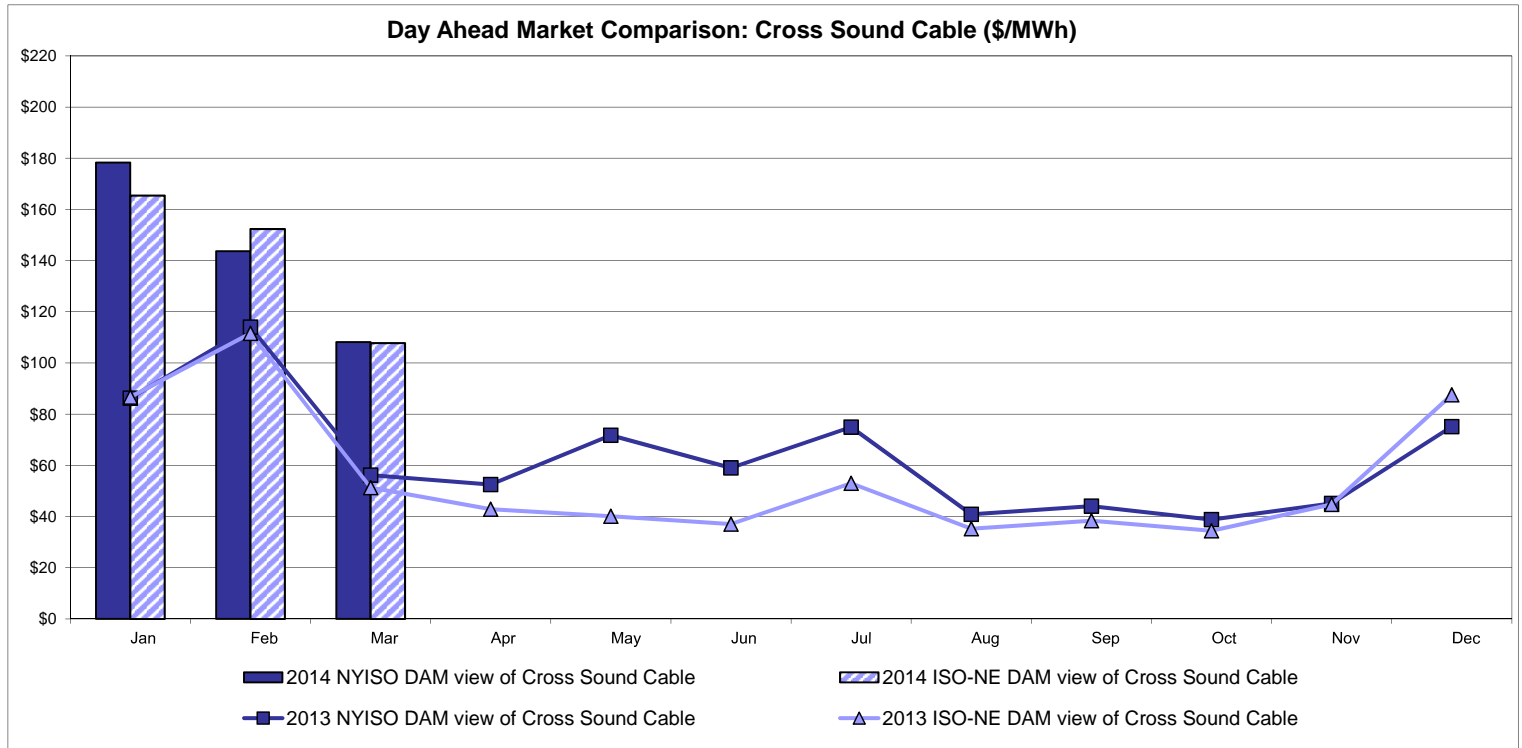


## External Comparison Ontario IESO



Notes: Exchange factor used for March 2014 was 0.90038 to US \$  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

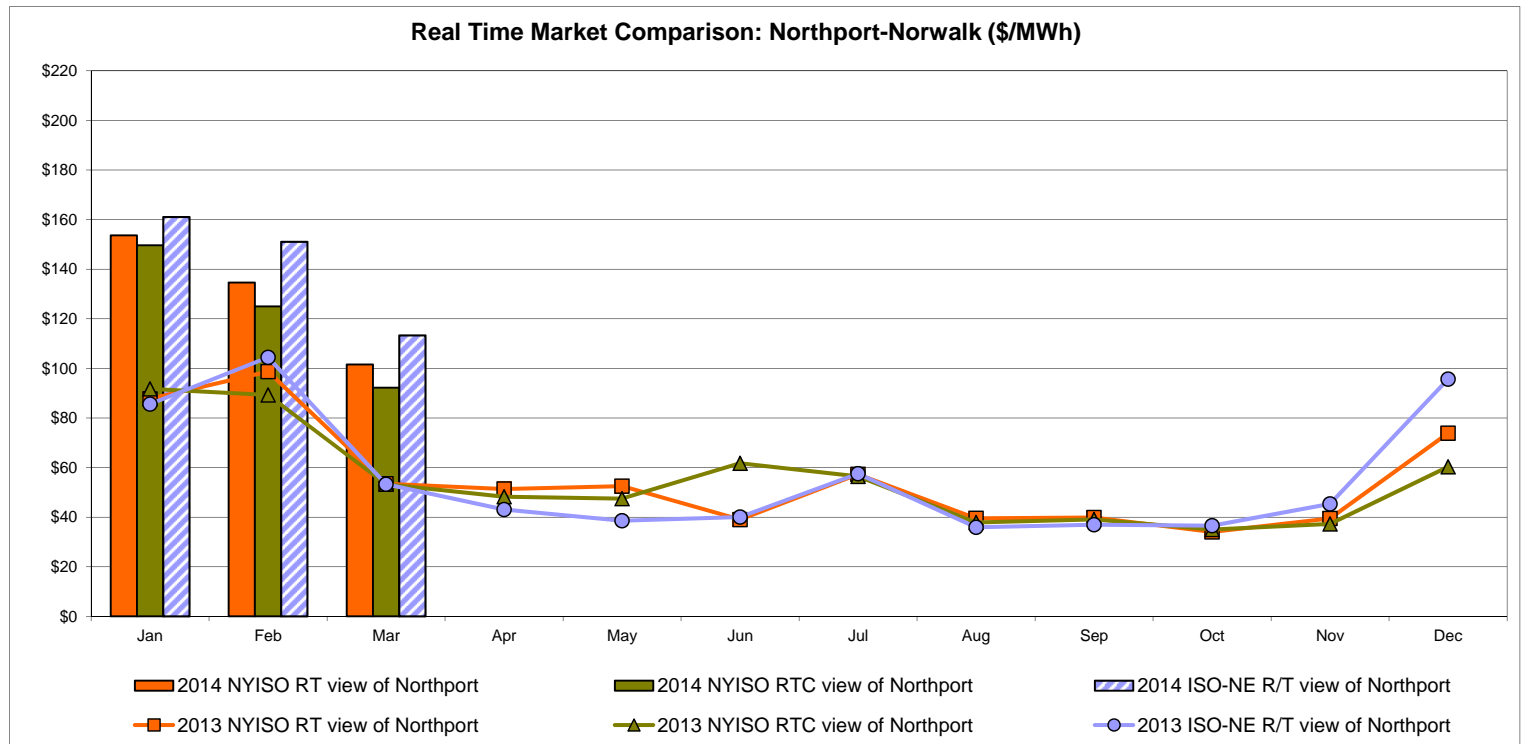
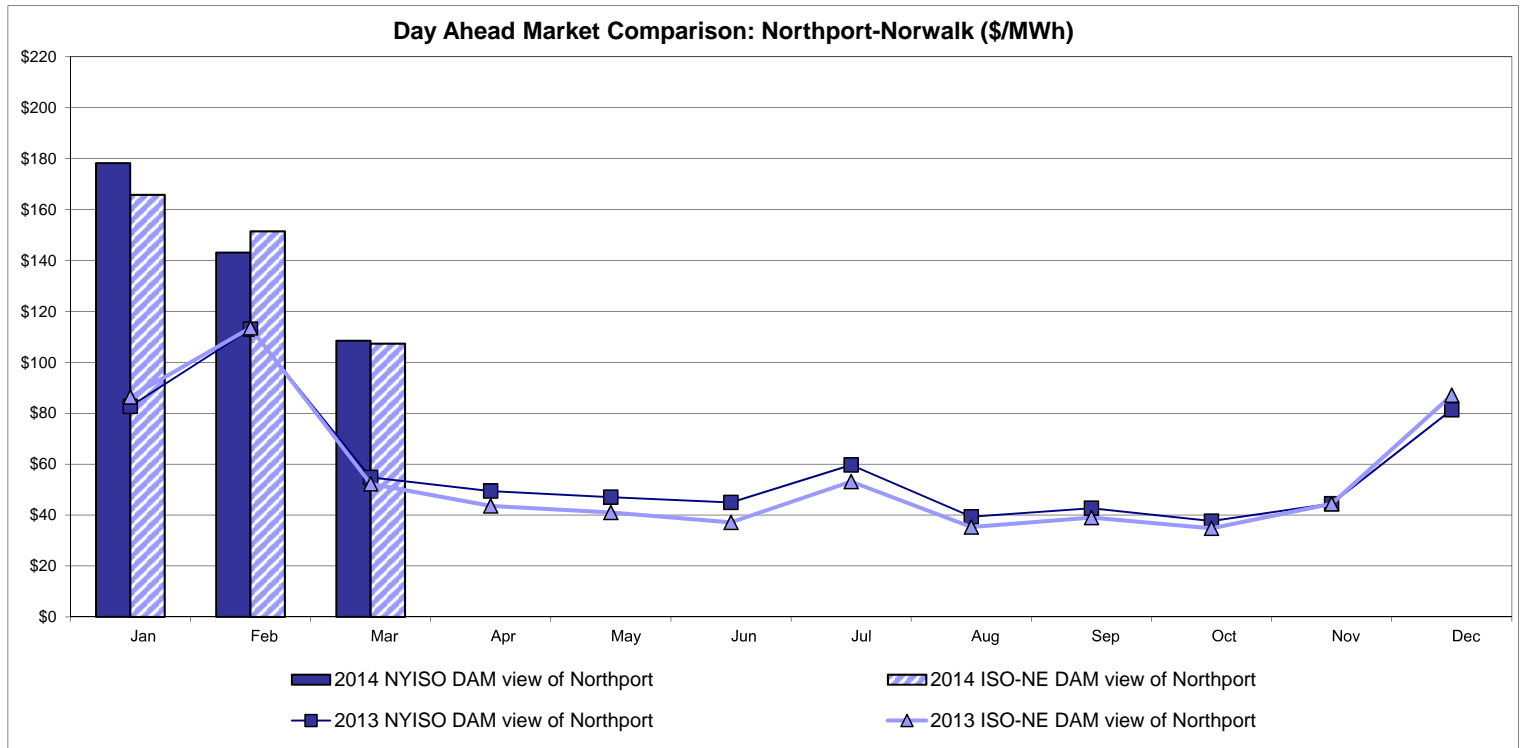
## External Controllable Line: Cross Sound Cable (New England)



**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)

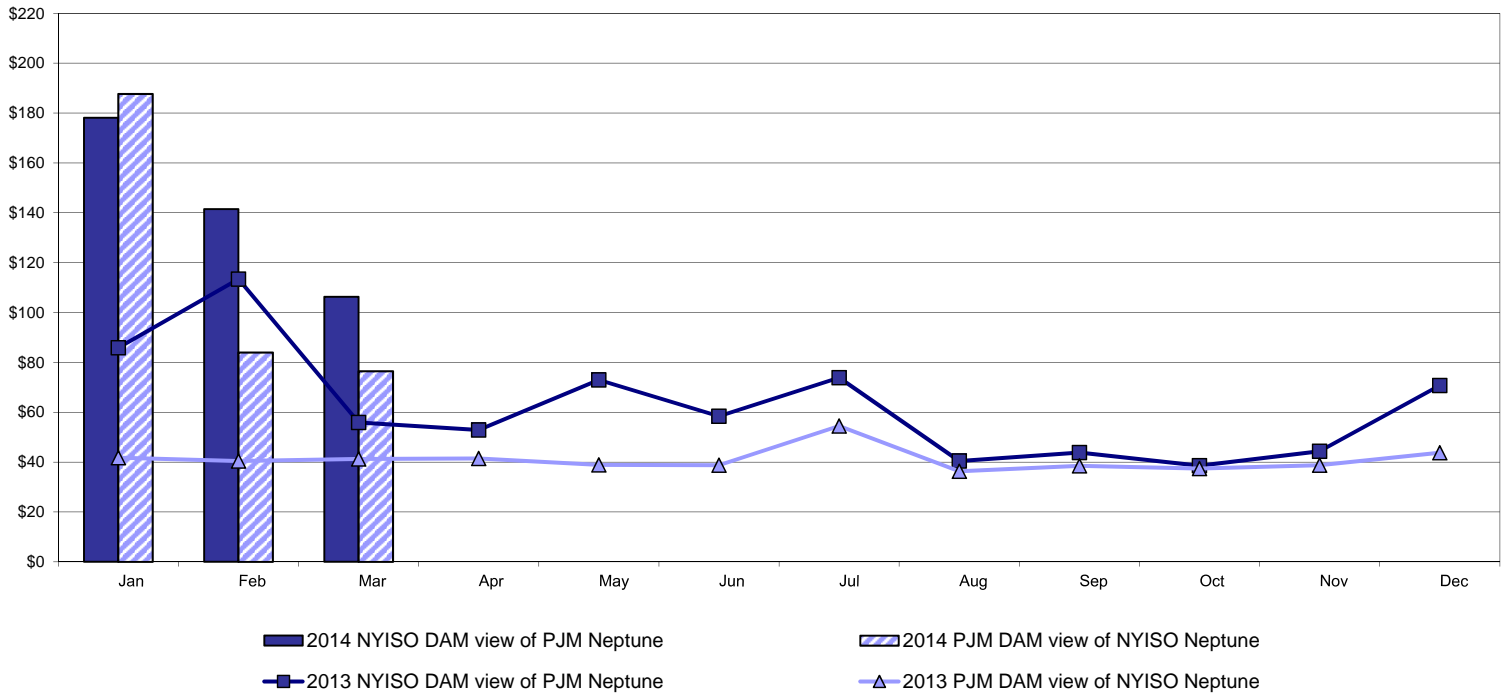


**Note:**

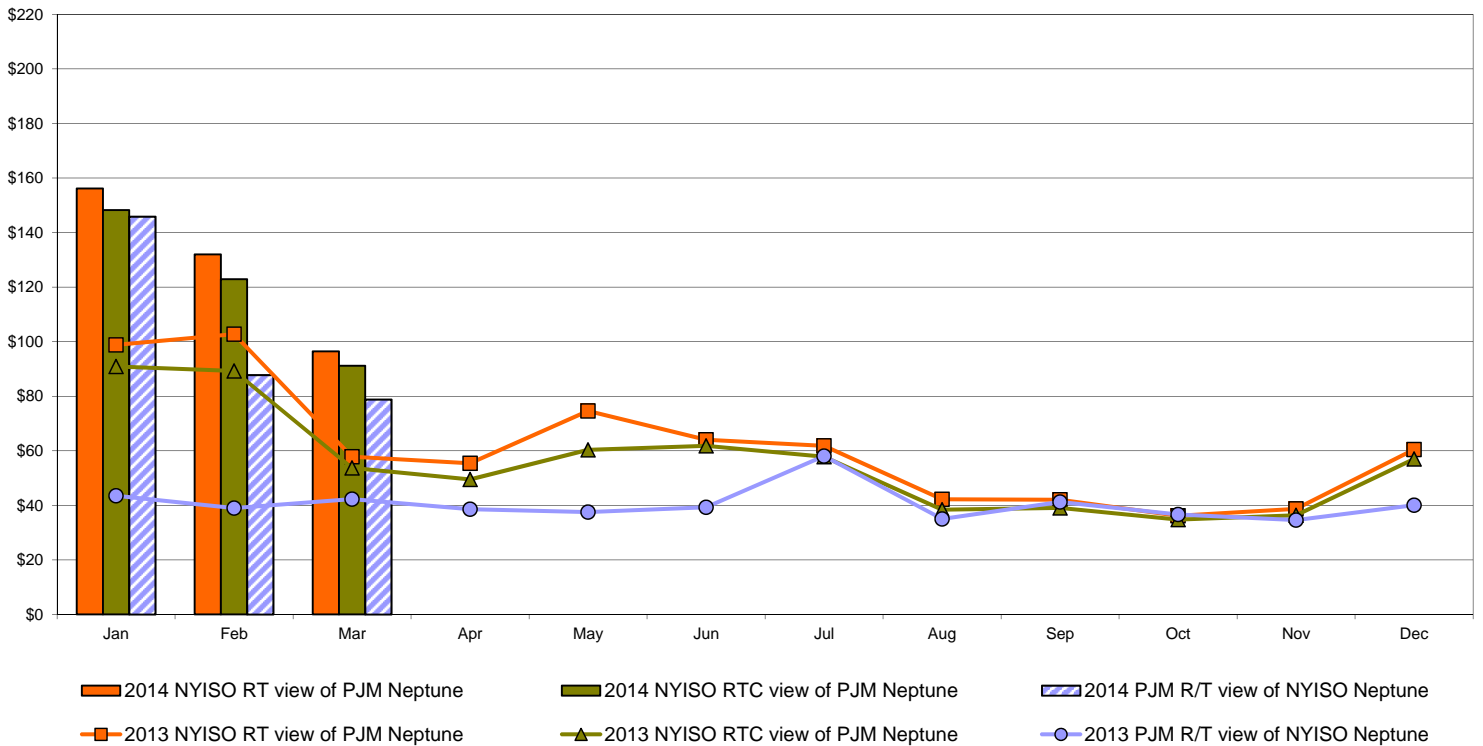
ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

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

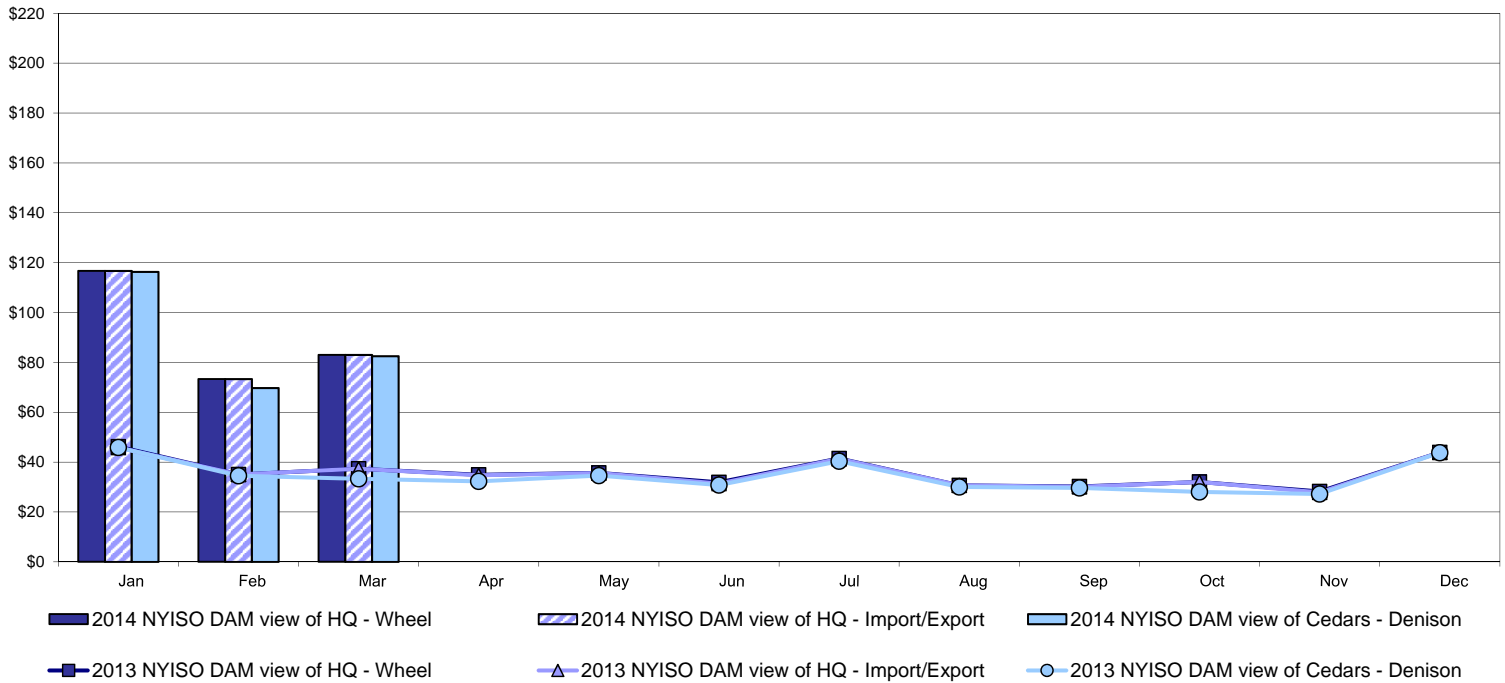


**Real Time Market Comparison: Neptune (\$/MWh)**

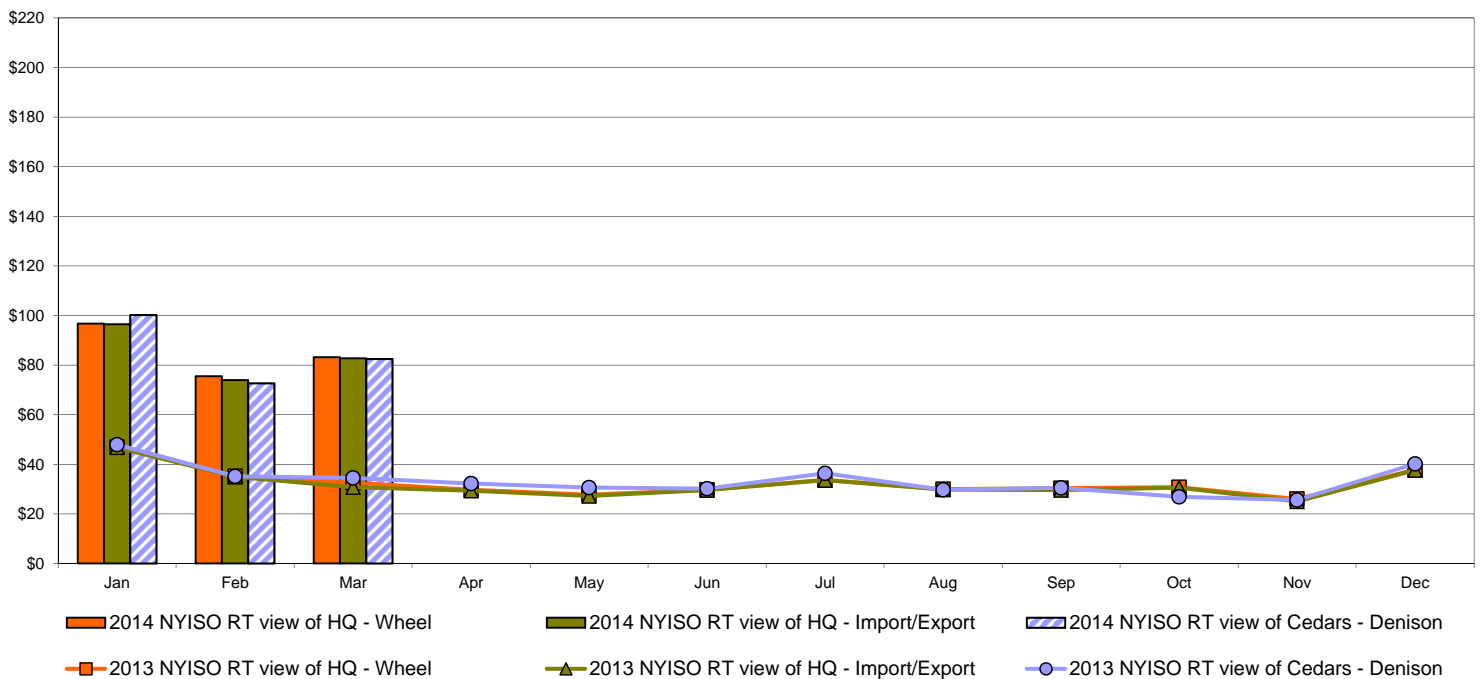


## External Comparison Hydro-Quebec

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

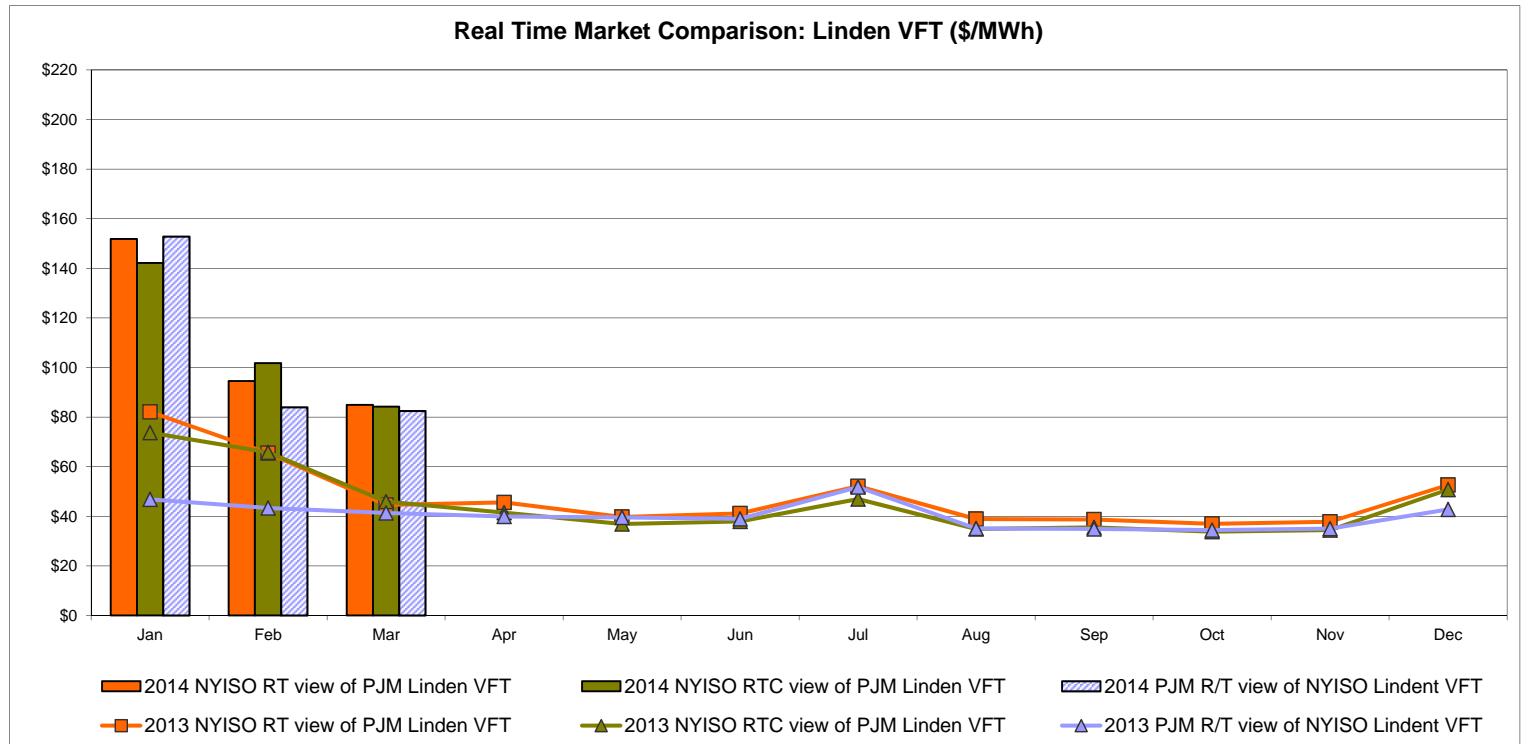
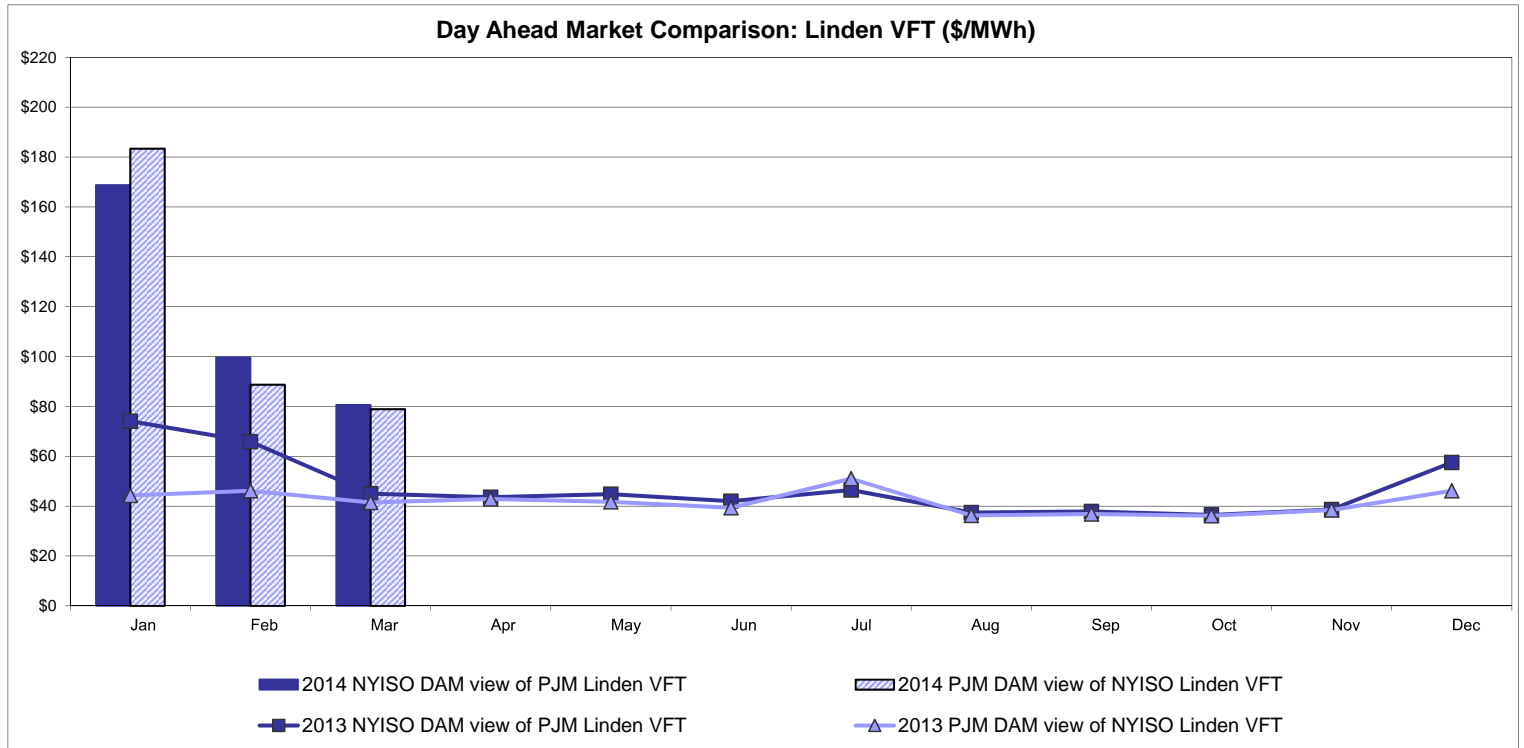


**Real Time Market External Zone Comparison - HQ (\$/MWh)**



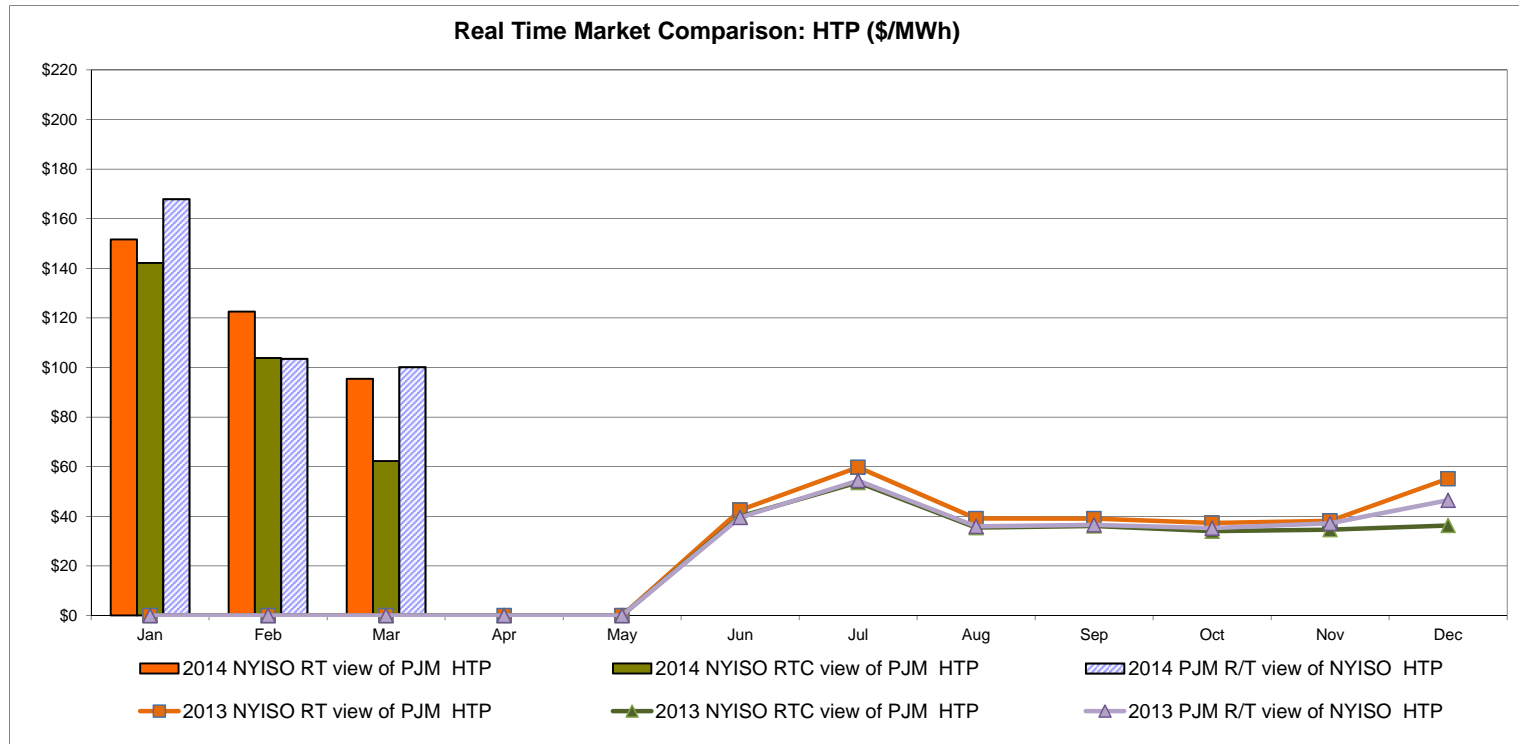
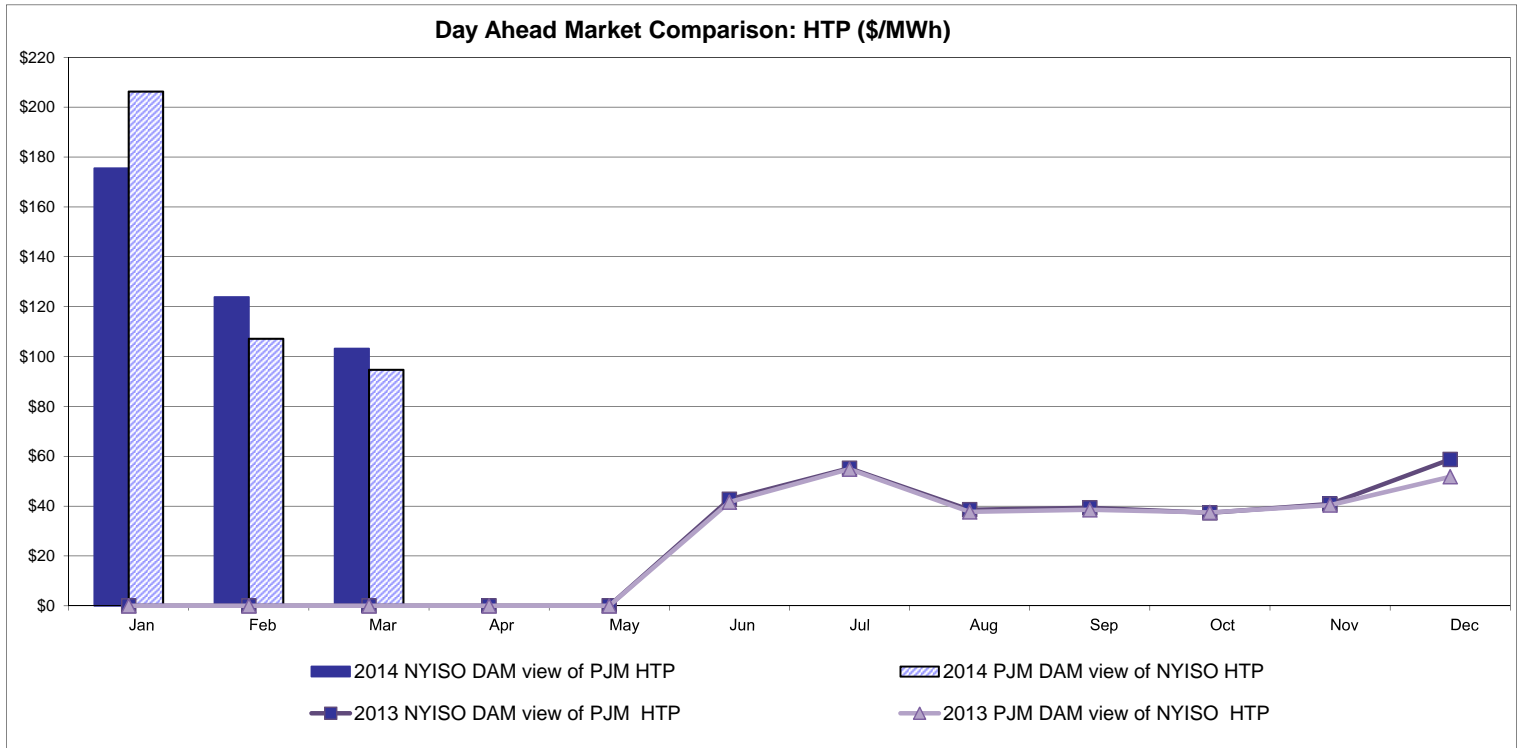
Note:  
Hydro-Quebec Prices are unavailable.

## External Controllable Line: Linden VFT (PJM)





## External Controllable Line: Hudson (PJM)

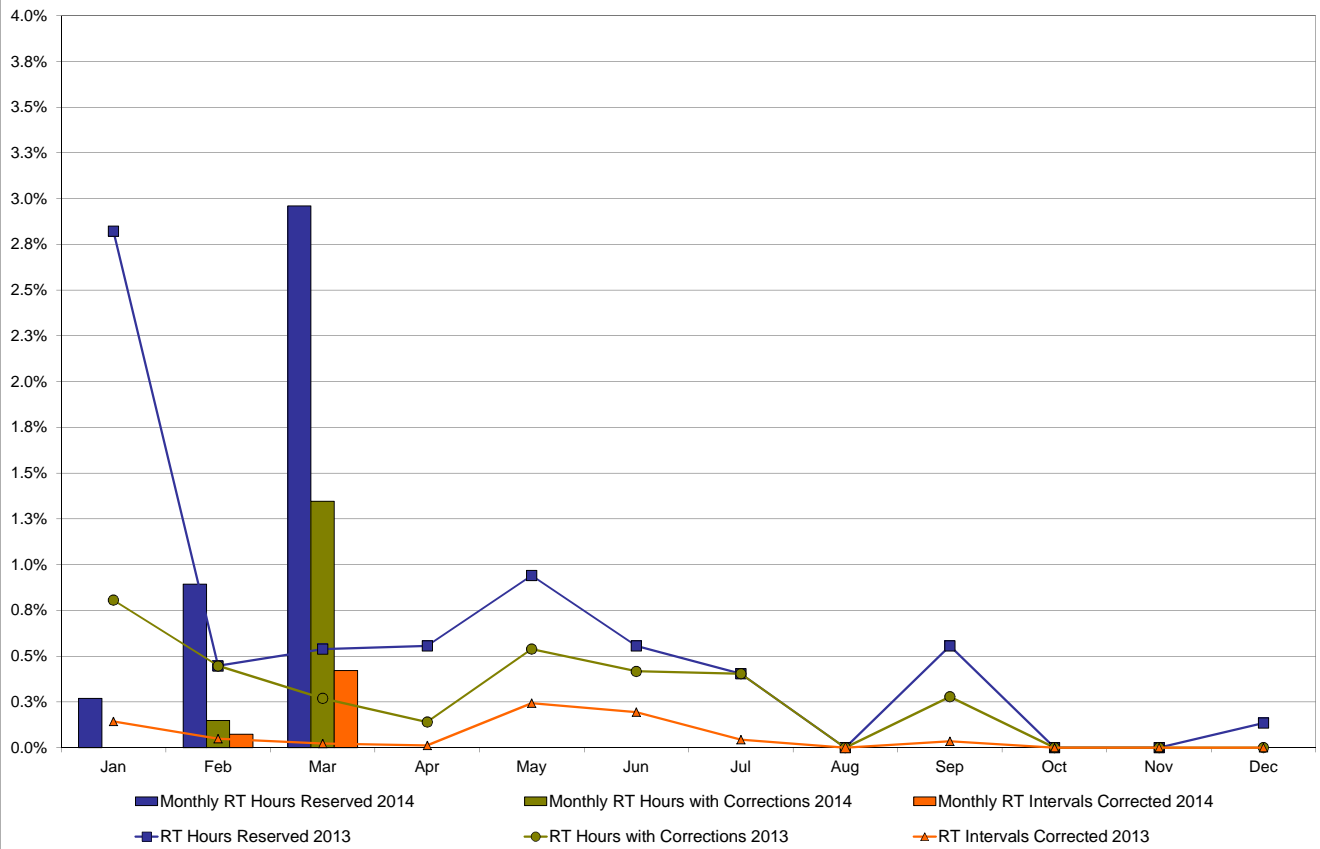


### NYISO Real Time Price Correction Statistics

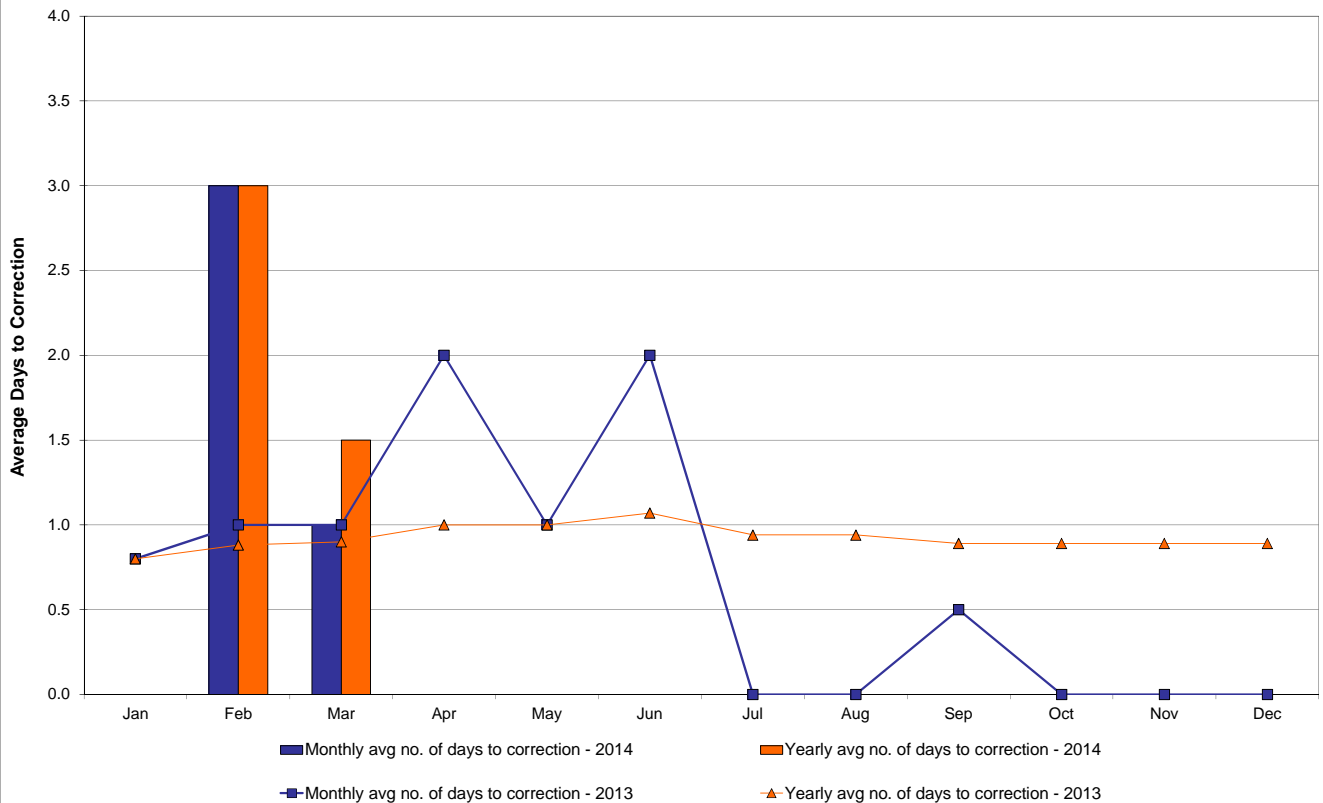
<b>2014</b>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>Hour Corrections</u></b>													
Number of hours with corrections	in the month	0	1	10									
Number of hours	in the month	744	672	743									
% of hours with corrections	in the month	0.00%	0.15%	1.35%									
% of hours with corrections	year-to-date	0.00%	0.07%	0.51%									
<b><u>Interval Corrections</u></b>													
Number of intervals corrected	in the month	0	6	38									
Number of intervals	in the month	9,232	8,205	9,023									
% of intervals corrected	in the month	0.00%	0.07%	0.42%									
% of intervals corrected	year-to-date	0.00%	0.03%	0.17%									
<b><u>Hours Reserved</u></b>													
Number of hours reserved	in the month	2	6	22									
Number of hours	in the month	744	672	743									
% of hours reserved	in the month	0.27%	0.89%	2.96%									
% of hours reserved	year-to-date	0.27%	0.56%	1.39%									
<b><u>Days to Correction *</u></b>													
Avg. number of days to correction	in the month	0.00	3.00	1.00									
Avg. number of days to correction	year-to-date	0.00	3.00	1.50									
<b><u>Days Without Corrections</u></b>													
Days without corrections	in the month	31	27	28									
Days without corrections	year-to-date	31	58	86									
<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><u>Hour Corrections</u></b>													
Number of hours with corrections	in the month	6	3	2	1	4	3	3	0	2	0	0	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	0.81%	0.45%	0.27%	0.14%	0.54%	0.42%	0.40%	0.00%	0.28%	0.00%	0.00%	0.00%
% of hours with corrections	year-to-date	0.81%	0.64%	0.51%	0.42%	0.44%	0.44%	0.43%	0.38%	0.37%	0.33%	0.30%	0.27%
<b><u>Interval Corrections</u></b>													
Number of intervals corrected	in the month	13	4	2	1	22	17	4	0	3	0	0	0
Number of intervals	in the month	9,104	8,230	9,026	8,727	9,083	8,740	9,079	9,002	8,760	9,041	8,854	9,073
% of intervals corrected	in the month	0.14%	0.05%	0.02%	0.01%	0.24%	0.19%	0.04%	0.00%	0.03%	0.00%	0.00%	0.00%
% of intervals corrected	year-to-date	0.14%	0.10%	0.07%	0.06%	0.10%	0.11%	0.10%	0.09%	0.08%	0.07%	0.07%	0.06%
<b><u>Hours Reserved</u></b>													
Number of hours reserved	in the month	21	3	4	4	7	4	3	0	4	0	0	1
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	2.82%	0.45%	0.54%	0.56%	0.94%	0.56%	0.40%	0.00%	0.56%	0.00%	0.00%	0.13%
% of hours reserved	year-to-date	2.82%	1.69%	1.30%	1.11%	1.08%	0.99%	0.90%	0.79%	0.76%	0.69%	0.62%	0.58%
<b><u>Days to Correction *</u></b>													
Avg. number of days to correction	in the month	0.80	1.00	1.00	2.00	1.00	2.00	0.00	0.00	0.50	0.00	0.00	0.00
Avg. number of days to correction	year-to-date	0.80	0.88	0.90	1.00	1.00	1.07	0.94	0.94	0.89	0.89	0.89	0.89
<b><u>Days Without Corrections</u></b>													
Days without corrections	in the month	26	25	29	29	28	29	29	31	28	31	30	31
Days without corrections	year-to-date	26	51	80	109	137	166	195	226	254	285	315	346

\* Calendar days from reservation date.

**Percentage of Real-Time Corrections**

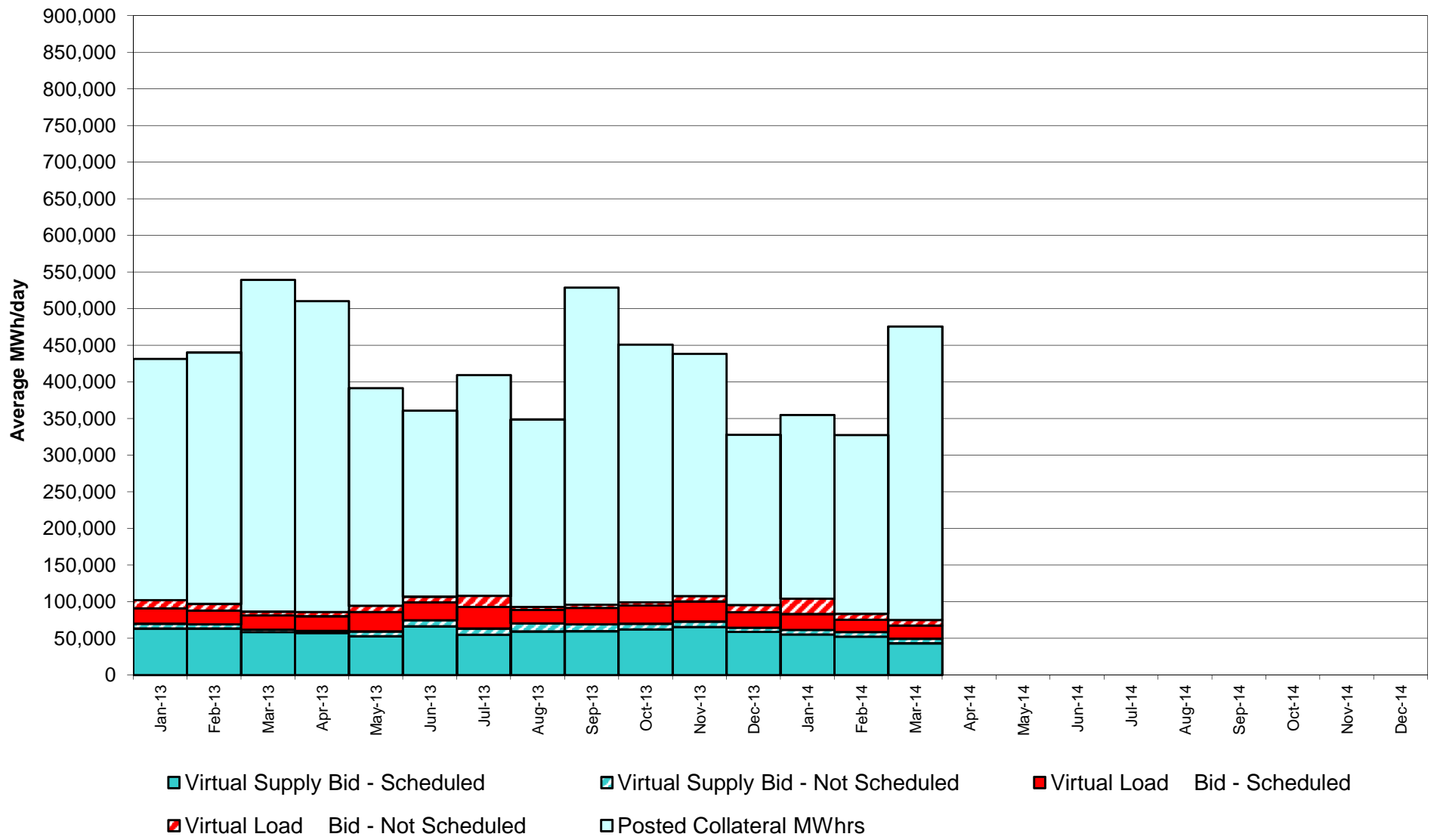


**Annual average time period for making Price Corrections  
(from reservation date) \***

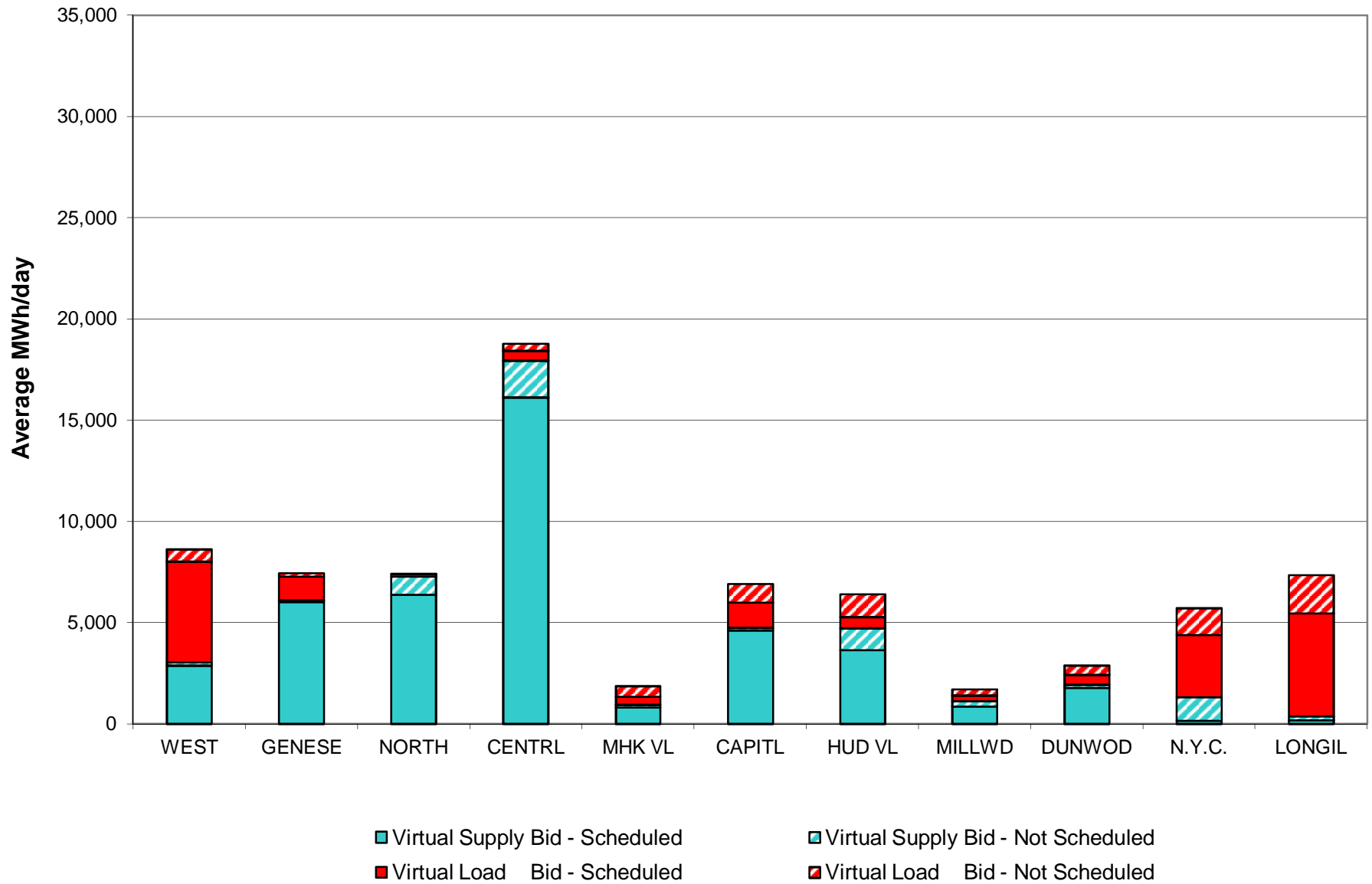


\* Calendar days from reservation date.

# **NYISO Virtual Trading Average MWh per day**



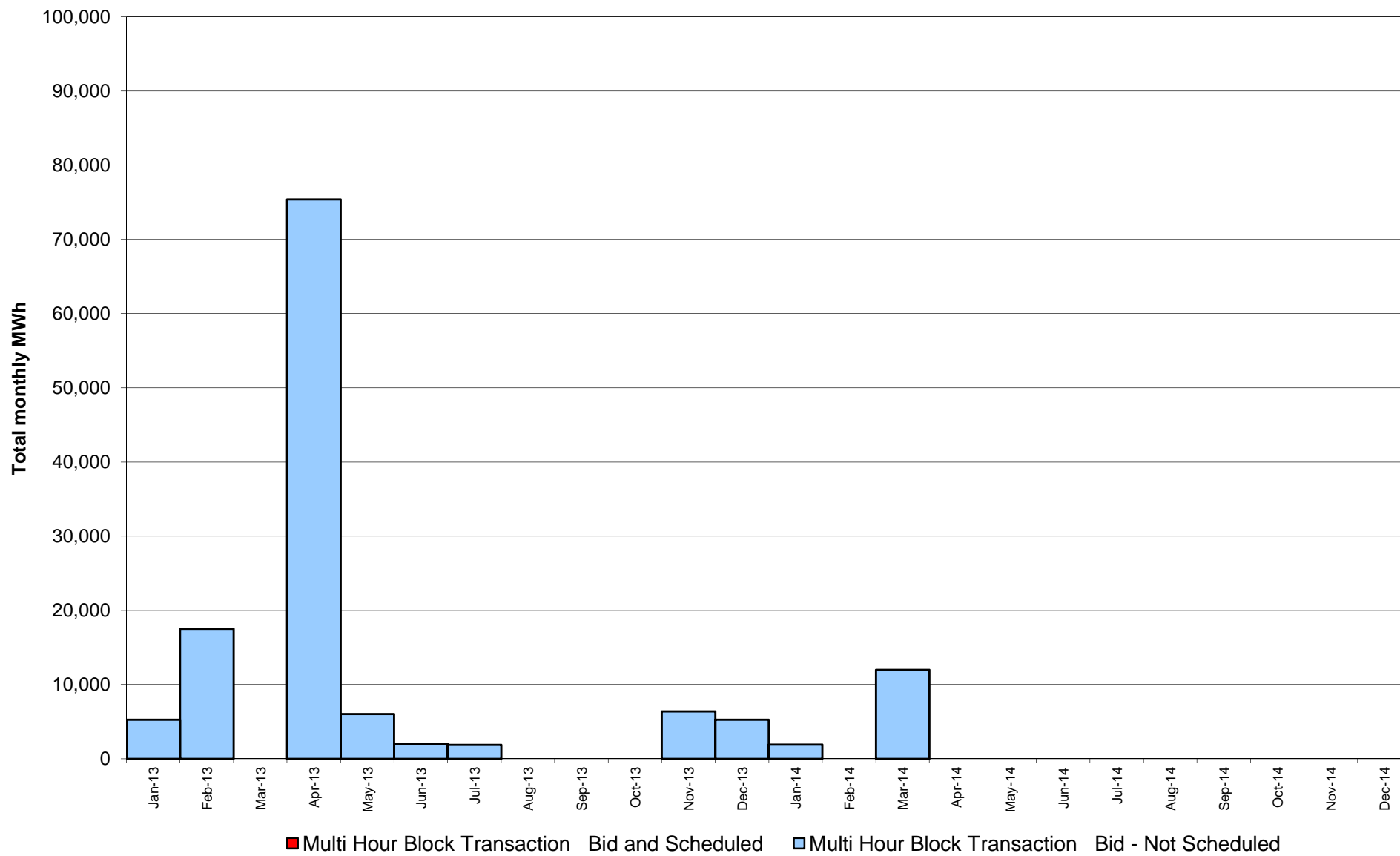
# Virtual Load and Supply Zonal Statistics through March 31, 2014



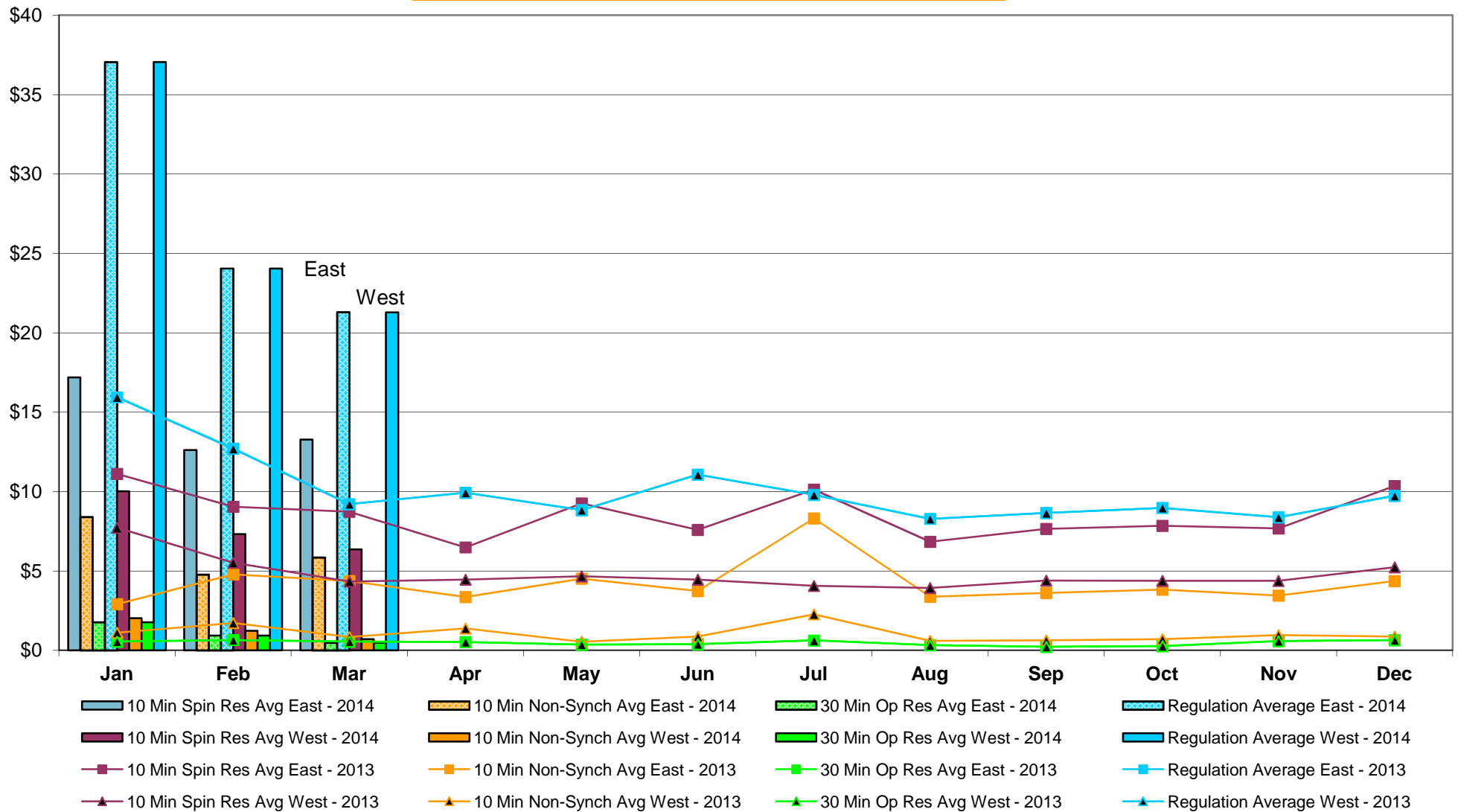
## Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2014

		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-14	6,213	5,063	2,777	155	MHK VL	Jan-14	429	587	1316	260	DUNWOD	Jan-14	354	631	2182	268
	Feb-14	5,077	805	2,814	422		Feb-14	340	204	824	90		Feb-14	577	348	846	176
	Mar-14	4,982	601	2,874	159		Mar-14	415	527	826	106		Mar-14	481	473	1794	146
	Apr-14						Apr-14						Apr-14				
	May-14						May-14						May-14				
	Jun-14						Jun-14						Jun-14				
	Jul-14						Jul-14						Jul-14				
	Aug-14						Aug-14						Aug-14				
	Sep-14						Sep-14						Sep-14				
	Oct-14						Oct-14						Oct-14				
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
GENESE	Jan-14	434	279	5,230	425	CAPITL	Jan-14	1439	1278	3985	379	N.Y.C.	Jan-14	2627	3843	666	1083
	Feb-14	473	107	5,250	487		Feb-14	1116	871	4100	127		Feb-14	2470	1392	521	625
	Mar-14	1,164	176	6,014	88		Mar-14	1237	939	4623	129		Mar-14	3075	1308	152	1172
	Apr-14						Apr-14						Apr-14				
	May-14						May-14						May-14				
	Jun-14						Jun-14						Jun-14				
	Jul-14						Jul-14						Jul-14				
	Aug-14						Aug-14						Aug-14				
	Sep-14						Sep-14						Sep-14				
	Oct-14						Oct-14						Oct-14				
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
NORTH	Jan-14	47	168	6,579	1,592	HUD VL	Jan-14	1612	1554	4091	466	LONGIL	Jan-14	7605	6704	59	375
	Feb-14	110	4	5,732	1,308		Feb-14	634	1325	3963	792		Feb-14	5365	2494	145	230
	Mar-14	121	10	6,390	895		Mar-14	552	1130	3644	1081		Mar-14	5083	1885	166	223
	Apr-14						Apr-14						Apr-14				
	May-14						May-14						May-14				
	Jun-14						Jun-14						Jun-14				
	Jul-14						Jul-14						Jul-14				
	Aug-14						Aug-14						Aug-14				
	Sep-14						Sep-14						Sep-14				
	Oct-14						Oct-14						Oct-14				
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
CENTRL	Jan-14	675	392	27,758	624	MILLWD	Jan-14	235	401	848	470	NYISO	Jan-14	21670	20900	55491	6098
	Feb-14	419	155	27,395	1,484		Feb-14	324	183	1015	357		Feb-14	16907	7888	52604	6097
	Mar-14	466	359	16,130	1,822		Mar-14	278	293	872	262		Mar-14	17855	7700	43485	6082
	Apr-14						Apr-14						Apr-14				
	May-14						May-14						May-14				
	Jun-14						Jun-14						Jun-14				
	Jul-14						Jul-14						Jul-14				
	Aug-14						Aug-14						Aug-14				
	Sep-14						Sep-14						Sep-14				
	Oct-14						Oct-14						Oct-14				
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				

# **NYISO Multi Hour Block Transactions Monthly Total MWh**

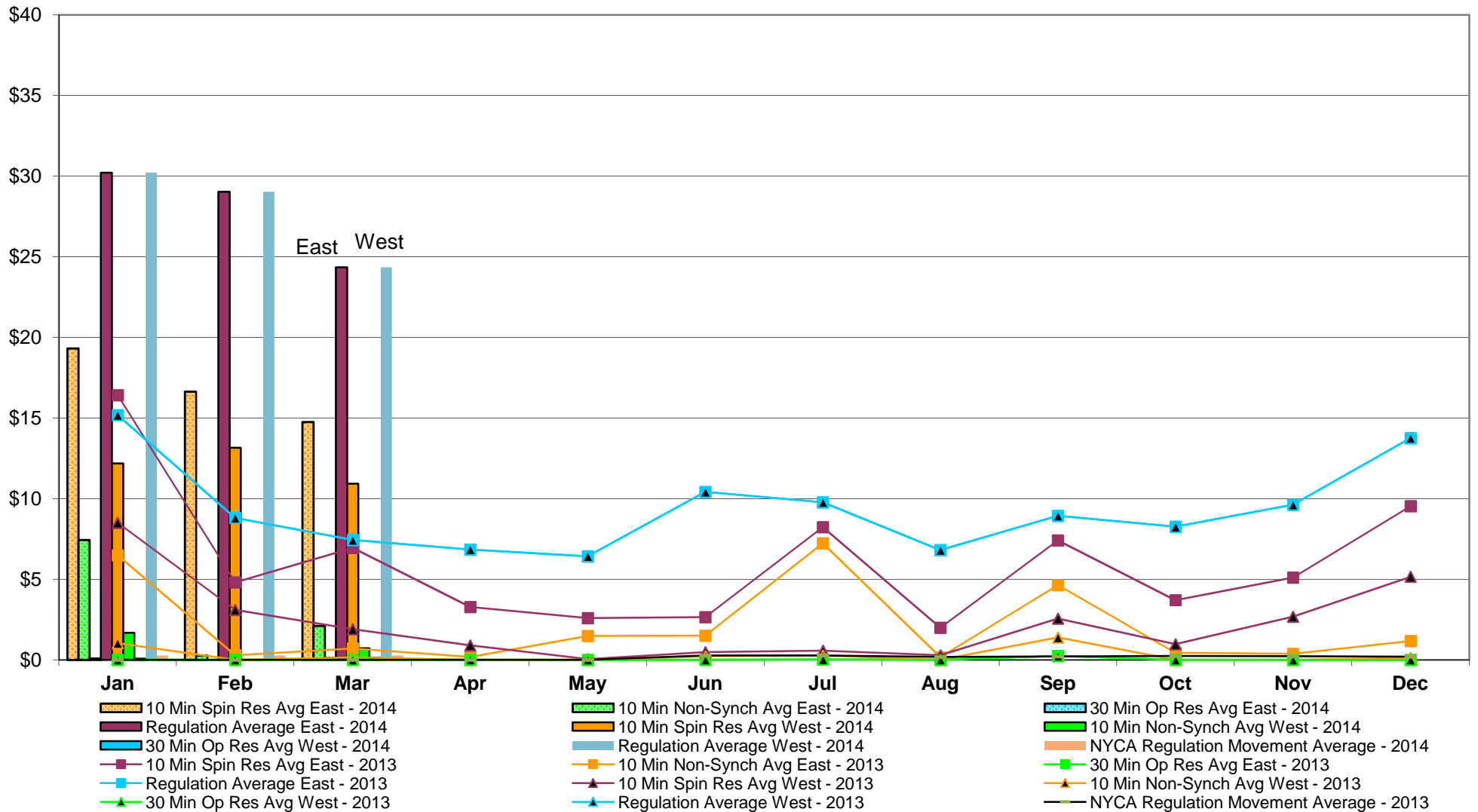


# **NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2013 - 2014**

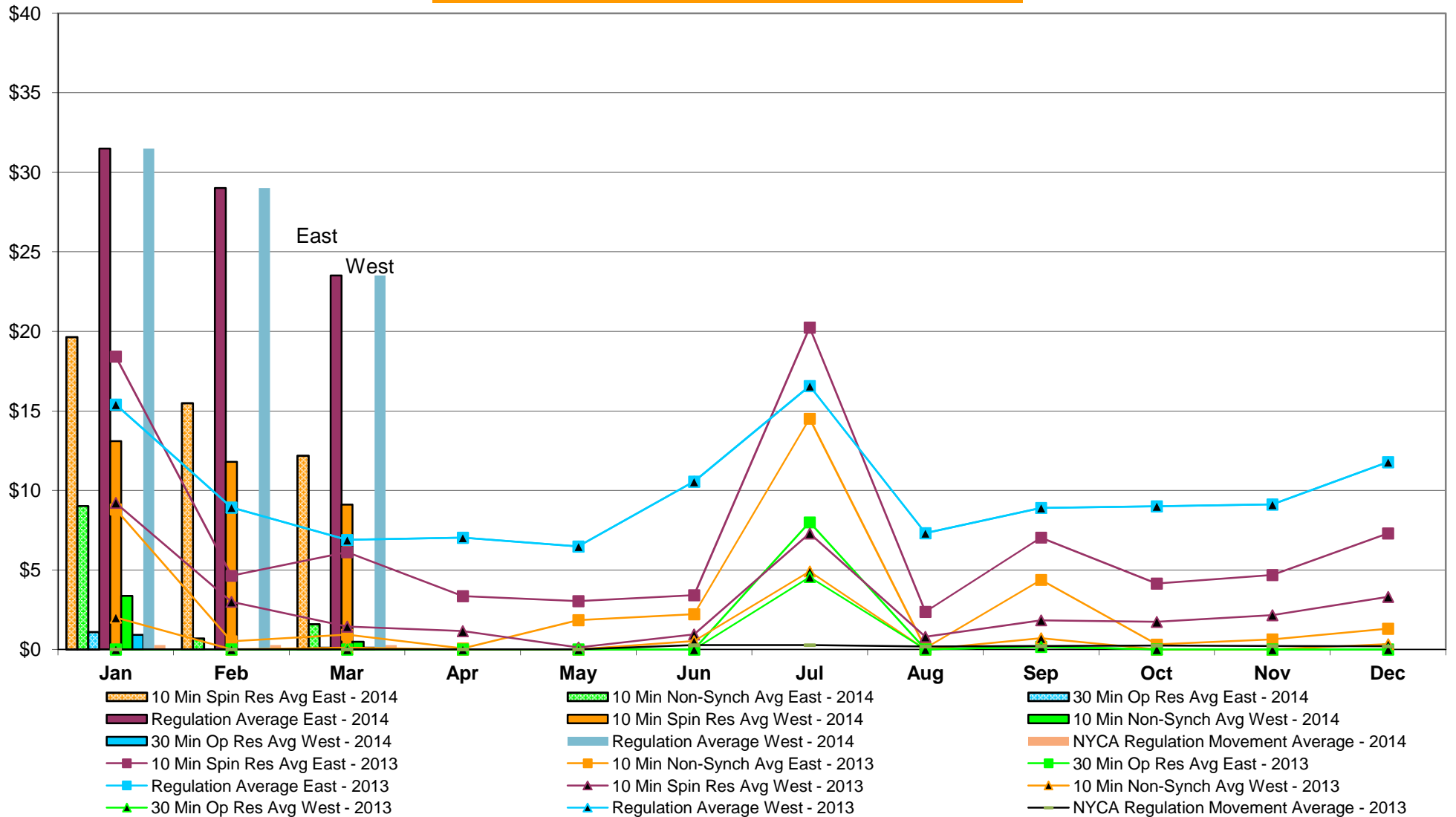




# **NYISO Monthly Average Ancillary Service Prices RTC Market 2013 - 2014**



## NYISO Monthly Average Ancillary Service Prices Real Time Market 2013 - 2014

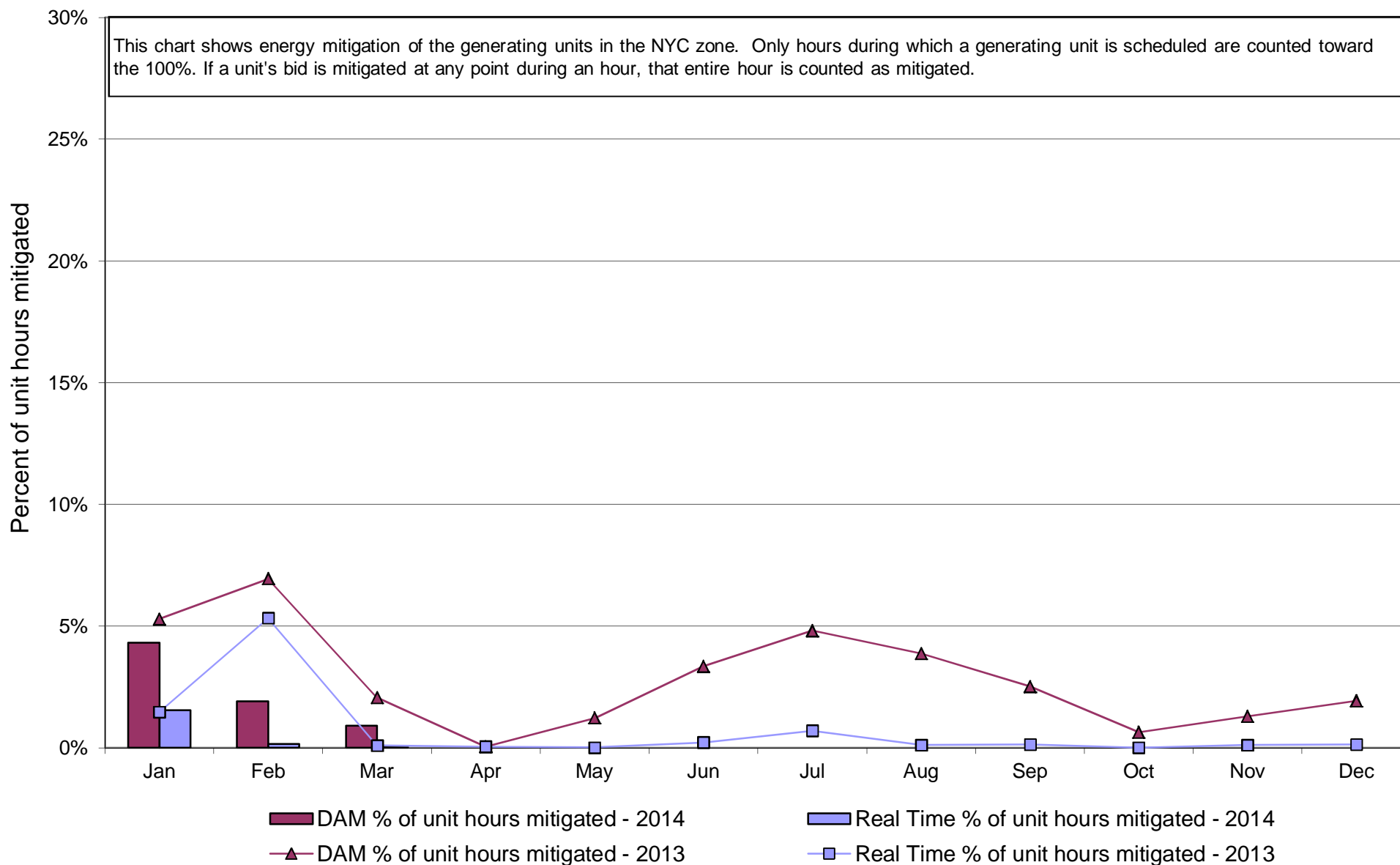


# **NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)**

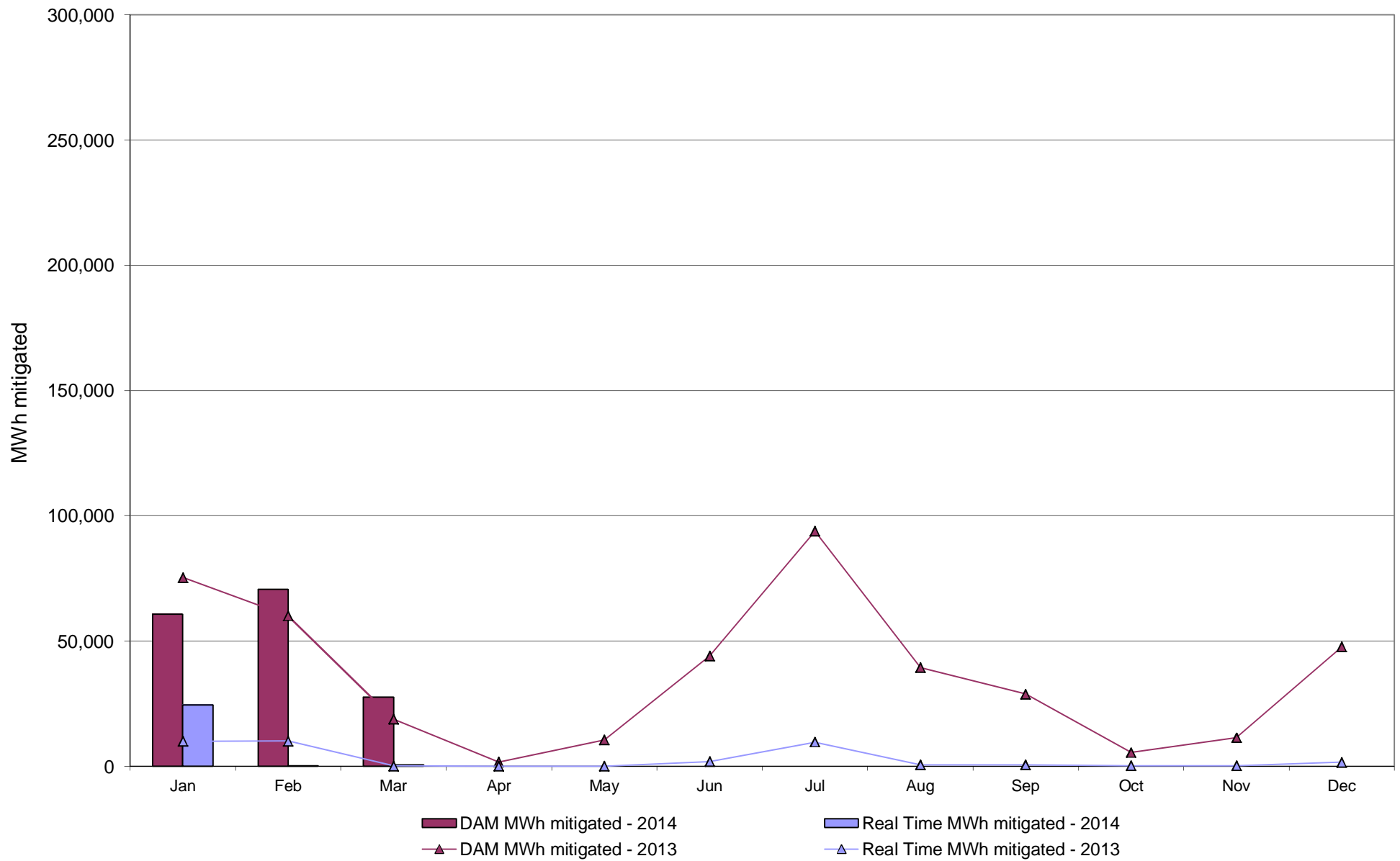
<b>2014</b>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>Day Ahead Market</u></b>												
10 Min Spin East	17.19	12.62	13.27									
10 Min Spin West	10.02	7.32	6.36									
10 Min Non Synch East	8.40	4.78	5.86									
10 Min Non Synch West	2.02	1.23	0.70									
30 Min East	1.77	0.93	0.47									
30 Min West	1.77	0.93	0.47									
Regulation East	37.05	24.05	21.29									
Regulation West	37.05	24.05	21.29									
<b><u>RTC Market</u></b>												
10 Min Spin East	19.32	16.64	14.76									
10 Min Spin West	12.18	13.16	10.93									
10 Min Non Synch East	7.43	0.26	2.10									
10 Min Non Synch West	1.68	0.00	0.72									
30 Min East	0.08	0.00	0.12									
30 Min West	0.08	0.00	0.12									
Regulation East	30.21	29.03	24.35									
Regulation West	30.21	29.03	24.35									
NYCA Regulation Movement	0.28	0.27	0.26									
<b><u>Real Time Market</u></b>												
10 Min Spin East	19.64	15.48	12.19									
10 Min Spin West	13.10	11.80	9.11									
10 Min Non Synch East	9.03	0.70	1.59									
10 Min Non Synch West	3.37	0.00	0.48									
30 Min East	1.10	0.00	0.11									
30 Min West	0.92	0.00	0.11									
Regulation East	31.50	29.02	23.52									
Regulation West	31.50	29.02	23.52									
NYCA Regulation Movement	0.27	0.27	0.27									
<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><u>Day Ahead Market</u></b>												
10 Min Spin East	11.12	9.05	8.73	6.49	9.25	7.59	10.13	6.84	7.65	7.85	7.68	10.35
10 Min Spin West	7.72	5.53	4.34	4.46	4.67	4.46	4.06	3.94	4.40	4.38	4.37	5.23
10 Min Non Synch East	2.91	4.79	4.36	3.36	4.52	3.73	8.31	3.37	3.62	3.82	3.45	4.37
10 Min Non Synch West	1.11	1.73	0.84	1.38	0.55	0.88	2.27	0.60	0.63	0.70	0.96	0.87
30 Min East	0.56	0.65	0.56	0.53	0.36	0.40	0.62	0.33	0.23	0.28	0.59	0.65
30 Min West	0.56	0.65	0.56	0.53	0.36	0.40	0.62	0.33	0.23	0.28	0.59	0.65
Regulation East	15.94	12.70	9.21	9.93	8.84	11.07	9.80	8.29	8.65	8.98	8.38	9.74
Regulation West	15.94	12.70	9.21	9.93	8.84	11.07	9.80	8.29	8.65	8.98	8.38	9.74
<b><u>RTC Market</u></b>												
10 Min Spin East	16.42	4.81	6.94	3.28	2.59	2.65	8.23	1.99	7.40	3.70	5.11	9.53
10 Min Spin West	8.50	3.10	1.90	0.90	0.05	0.48	0.57	0.29	2.56	0.97	2.68	5.16
10 Min Non Synch East	6.48	0.28	0.70	0.18	1.48	1.50	7.23	0.16	4.63	0.44	0.38	1.17
10 Min Non Synch West	1.04	0.00	0.15	0.00	0.00	0.22	0.26	0.00	1.39	0.00	0.00	0.13
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.24	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.24	0.00	0.00	0.00
Regulation East	15.18	8.81	7.43	6.84	6.42	10.42	9.77	6.81	8.93	8.26	9.63	13.75
Regulation West	15.18	8.81	7.43	6.84	6.42	10.42	9.77	6.81	8.93	8.26	9.63	13.75
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.27	0.28	0.18	0.21	0.24	0.22	0.20
<b><u>Real Time Market</u></b>												
10 Min Spin East	18.42	4.63	6.12	3.35	3.03	3.41	20.24	2.37	7.03	4.14	4.68	7.29
10 Min Spin West	9.22	3.00	1.44	1.15	0.13	0.94	7.29	0.80	1.83	1.73	2.16	3.31
10 Min Non Synch East	8.81	0.52	0.93	0.06	1.84	2.22	14.51	0.07	4.37	0.31	0.63	1.31
10 Min Non Synch West	2.00	0.00	0.10	0.00	0.00	0.53	4.91	0.00	0.70	0.00	0.00	0.34
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	7.99	0.00	0.17	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.00	4.55	0.00	0.17	0.00	0.00	0.00
Regulation East	15.40	8.92	6.89	7.03	6.48	10.55	16.57	7.32	8.90	9.00	9.12	11.78
Regulation West	15.40	8.92	6.89	7.03	6.48	10.55	16.57	7.32	8.90	9.00	9.12	11.78
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.19	0.21	0.24	0.22	0.20

## NYISO In City Energy Mitigation - AMP (NYC Zone) 2013 - 2014

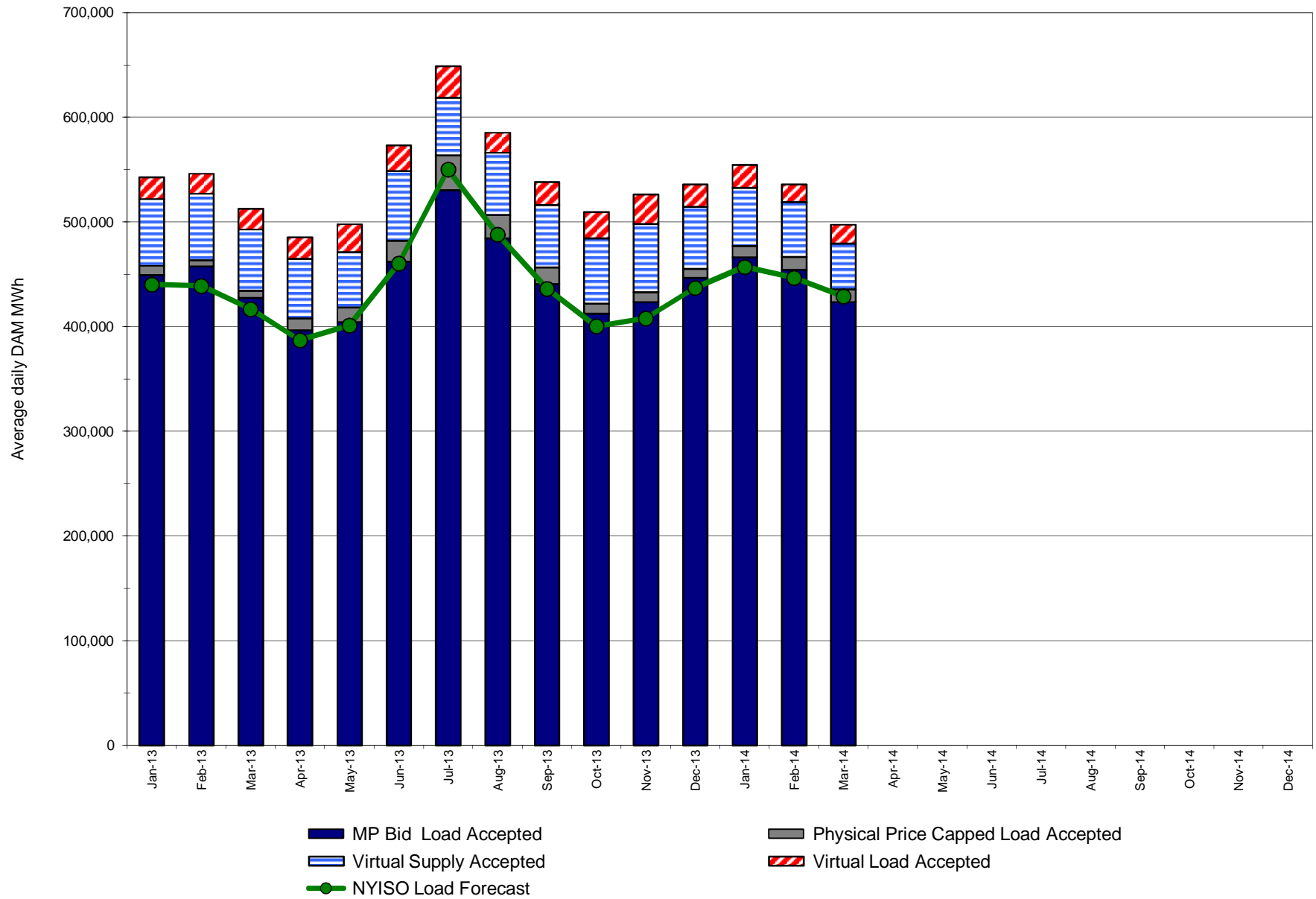
### Percentage of committed unit-hours mitigated



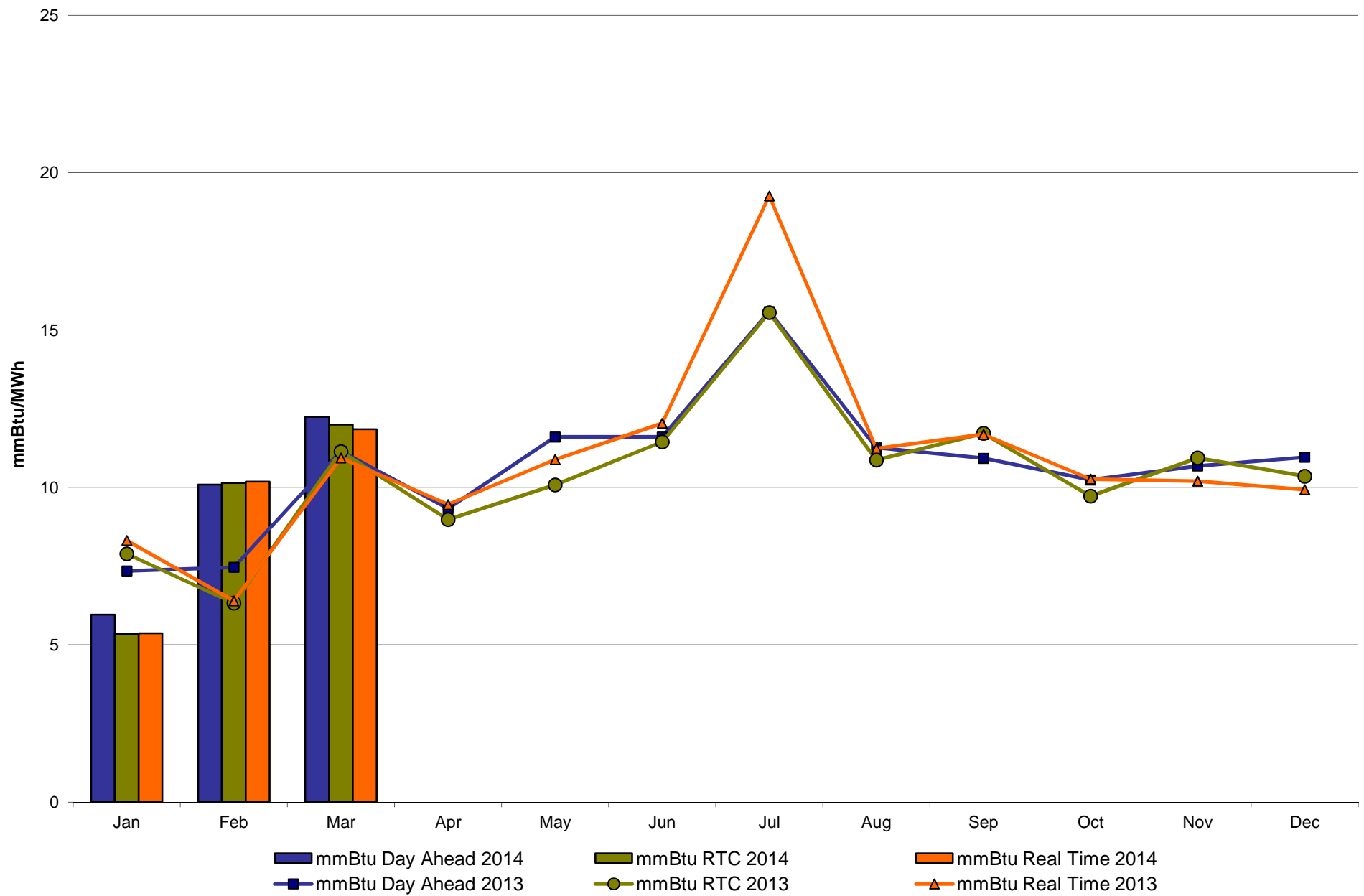
# **NYISO In City Energy Mitigation (NYC Zone) 2013 - 2014** **Monthly megawatt hours mitigated**



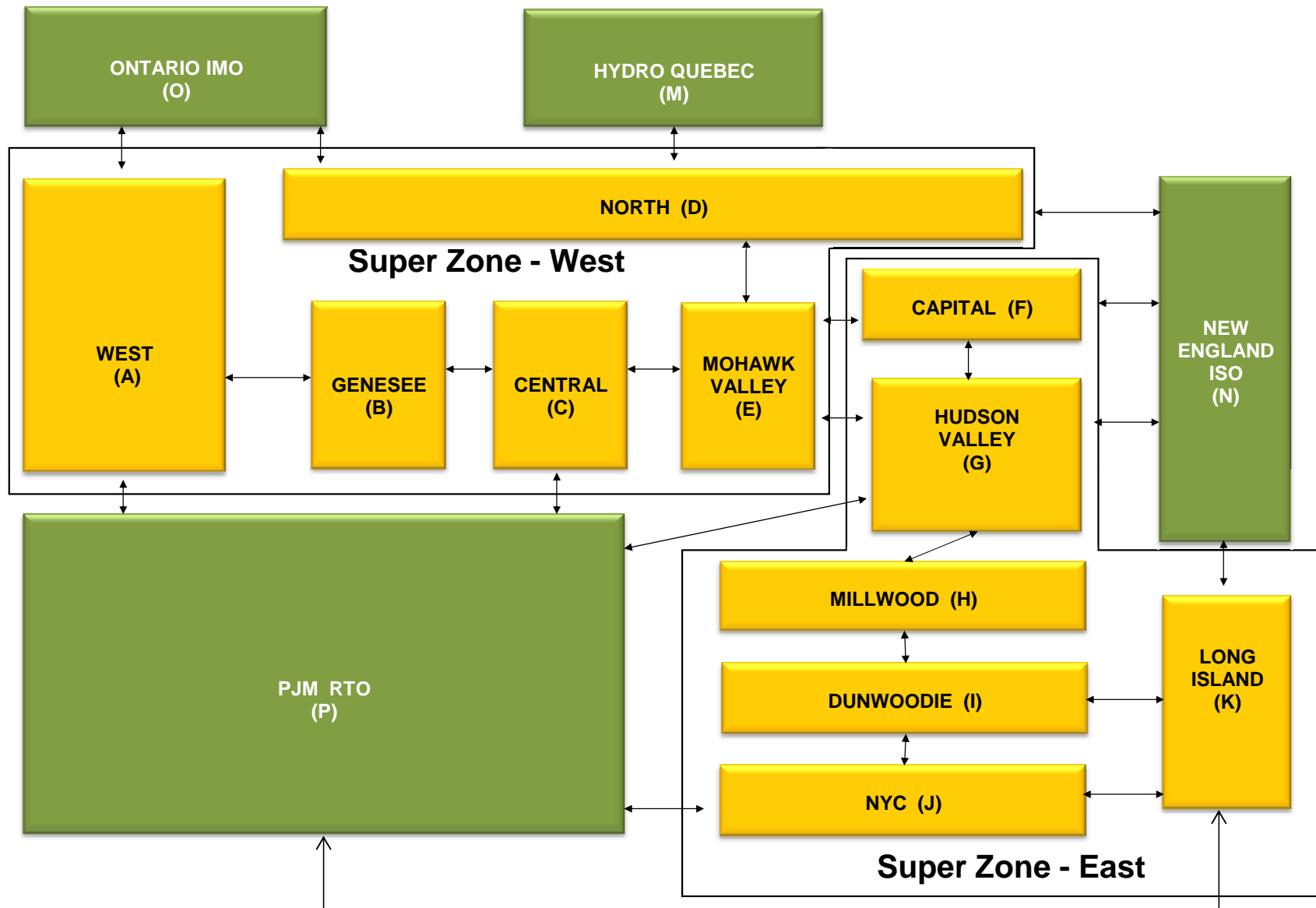
# NYISO Average Daily DAM Load Bid Summary



## Monthly Implied Heat Rate 2013-2014



# NYISO LBMP ZONES

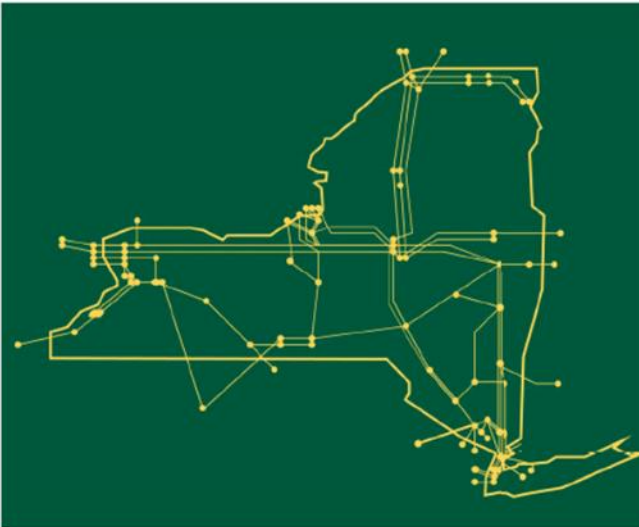




**Billing Codes for Chart 4-C**

<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.



*[www.nyiso.com](http://www.nyiso.com)*

## Summary Description of Upcoming Regulatory Compliance Filings, Recently Submitted Filings and Issued Orders on NYISO Matters

### Upcoming Compliance Filings

<b>Filing Due Date</b>	<b>Upcoming Compliance Filings (Description)</b>	<b>Docket Number</b>
05/21/2014	NYISO compliance filing re: participation of behind-the-meter generation in the DADRP	EL13-74-000

### Recently Issued Orders

<b>Filing Date</b>	<b>Filing Summary (Order issued)</b>	<b>Docket Number</b>	<b>Order Date</b>	<b>Order Summary</b>
03/13/2014	NYISO filing re: MST compliance revisions concerning proxy generator bus pricing rules	ER14-864-001	04/10/2014	FERC letter order accepted revisions effective 04/08/2014, as requested
03/14/2014	NYISO filing re: clarifications to the description of the OATT and Services Tariff price correction processes	ER14-1506-000	04/18/2014	FERC letter order accepted revisions effective 05/13/2014, as requested

### Recently Submitted Filings

<b>Filing Date</b>	<b>Filing Summary</b>	<b>Docket Number</b>
03/31/2014	NYISO filing re: answer to the HTP protest concerning the HTP v. NYISO complaint on the scaling factor that NYISO applied when making the buyer side mitigation rule determination for the HTP project	EL12-98-002
03/31/2014	NYISO annual compliance report re: unreserved use and late study penalties	OA14-2-000
04/01/2014	NYISO filing re: FERC Form 715 annual transmission planning and evaluation report	No Docket No.
04/08/2014	NYISO compliance filing re: revised protective order in the HTP v. NYISO proceeding concerning competitive duty personnel and a separate certificate	EL12-98-000
04/08/2014	NYISO filing re: 3rd Quarter 2013 Electric Quarterly Report	No Docket No.
04/09/2014	NYISO filing of a request for party status re: the case to establish policies and procedures concerning transmission planning for public policy purposes	PSC Case No. 14-E-0068
04/10/2014	NYISO filing re: revised FERC Form 715 annual transmission planning and evaluation report	No Docket No.
04/11/2014	NYISO filing re: request for limited tariff waiver, shortened comment period and expedited action in order to make a Congestion Payment for the month of January 2014 to the Primary Holder of TCC 31835	ER14-1714-000
04/11/2014	CAISO, ERCOT, IESO, ISO-NE, MISO, SPP and NYISO joint filing re: motion to intervene and comment concerning	AD14-7-000

	the proposed NERC reliability standard on operations personnel training (i.e., PER-005-2)	
04/11/2014	NYISO confidential filing re: three-month report of information related to generators committed to ensure compliance with reliability requirements	PSC Matter No. 10-02007
04/14/2014	NYISO filing re: response to the amended IPPNY complaint concerning the capacity market	EL13-62-000
04/14/2014	NYISO filing re: motion to intervene and comment concerning the Allegany Generating request for tariff waiver of NYISO procedures	ER14-1680-000
04/15/2014	NYISO annual filing FERC Reporting Requirement 582 re: report of total megawatt-hours of transmission service in interstate commerce for the year 2013	No Docket No.
04/15/2014	NYISO annual filing re: FERC Form 1 – financial and operational information	No Docket No.
04/16/2014	NYISO filing re: motion to intervene and comment concerning the Green Power Energy request for tariff waiver related to reinstatement of their interconnection date	ER14-1655-000
04/16/2014	NYISO filing re: post technical conference reply comments concerning the modeling of Load Zone K as an export-constrained zone for future ICAP demand curve reset proceedings	AD14-6-000
04/17/2014	NYISO filing re: motion to intervene and comment concerning the Con Ed application for interconnection order	TX14-1-000
04/17/2014	NYISO 205 filing re: tariff revisions to enable submittal of fuel information with Day-Ahead Market Bids	ER14-1735-000