

# Market Operation's Report

*Business Issues Committee Meeting  
June 13, 2012*

*Agenda #3*

# Report Items

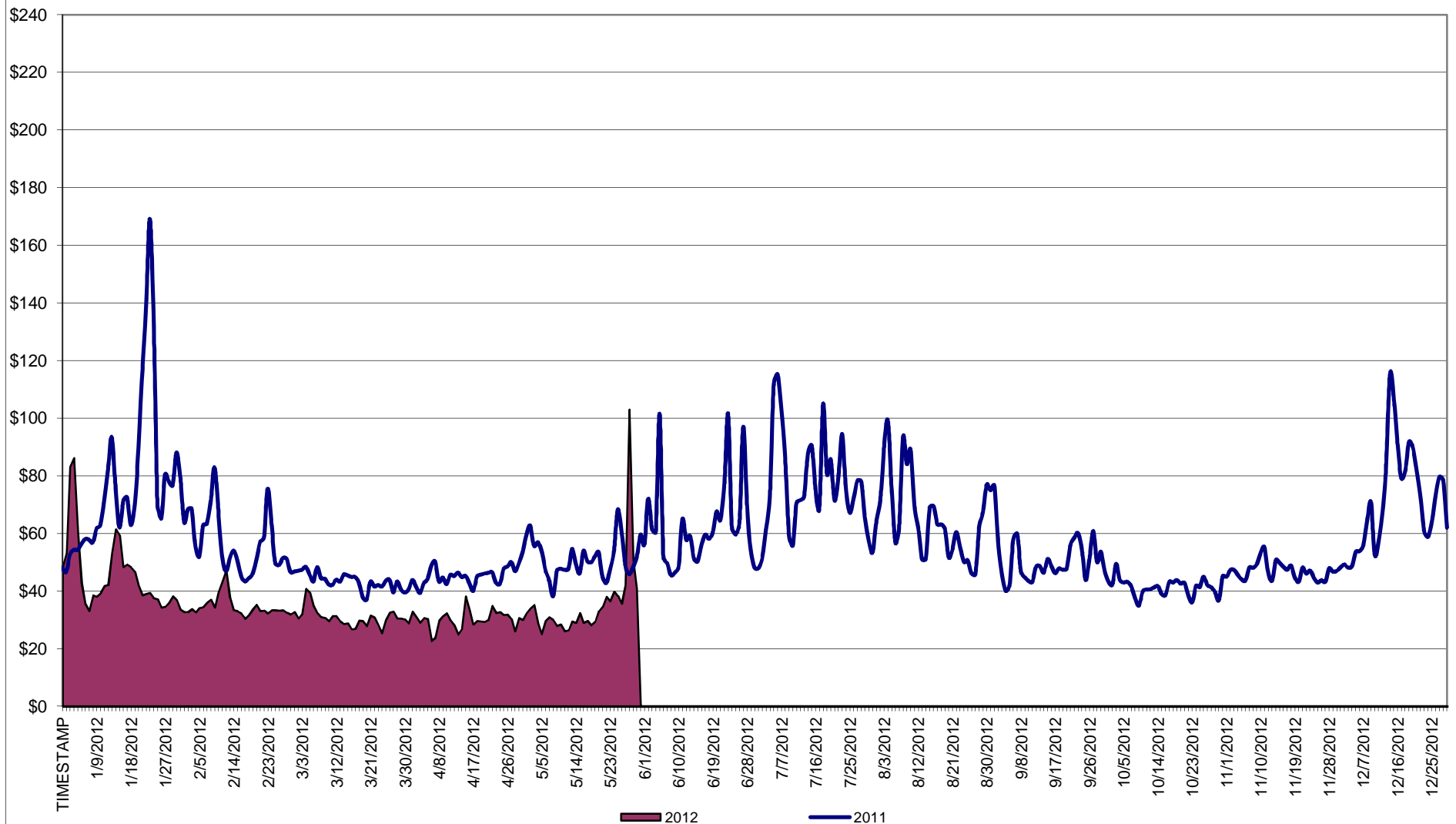
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- Market Performance Highlights

# Market Performance Highlights for May 2012

- **LBMP for May is \$34.66/MWh, higher compared to \$28.30/MWh in April 2012.**
  - Day Ahead and Real Time Load Weighted LBMPs are higher compared to April 2012.
- **Average monthly year-to-date cost of \$36.11/MWh, is comparable to the previous month, \$36.05/MWh.**
- **Average daily sendout is 420 GWh/day in May; higher compared to 396 GWh/day in April 2012 and 411 GWh/day in May 2011.**
- **Natural gas is up but distillate prices are down compared to the previous month.**
  - Natural Gas is \$2.59/MMBtu, up from \$2.13/MMBtu in April.
  - Kerosene is \$22.74/MMBtu, down from \$24.32/MMBtu in April.
  - No. 2 Fuel Oil is \$20.83/MMBtu, down from \$22.45/MMBtu in April.
  - No. 6 Fuel Oil is \$18.24/MMBtu, down from \$20.37/MMBtu in April.
- **Uplift per MWh is lower compared to the previous month.**
  - Uplift (not including NYISO cost of operations) is (\$0.26)/MWh, lower than (\$0.18)/MWh in April.
    - The Local Reliability Share is \$0.24/MWh, significantly higher than \$0.07/MWh in April.
    - The Statewide Share is (\$0.50)/MWh, significantly lower than (\$0.26)/MWh in April.
  - TSA \$ per NYC MWh is \$3.15/MWh.
  - Total uplift (Schedule 1 components including NYISO Cost of Operations) is higher than April due to increased Local Reliability DAM and Residual Balancing uplift costs.

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2011 Annual Average \$56.47/MWh  
 May 2011YTD Average \$57.52/MWh  
 May 2012YTD Average \$36.11/MWh



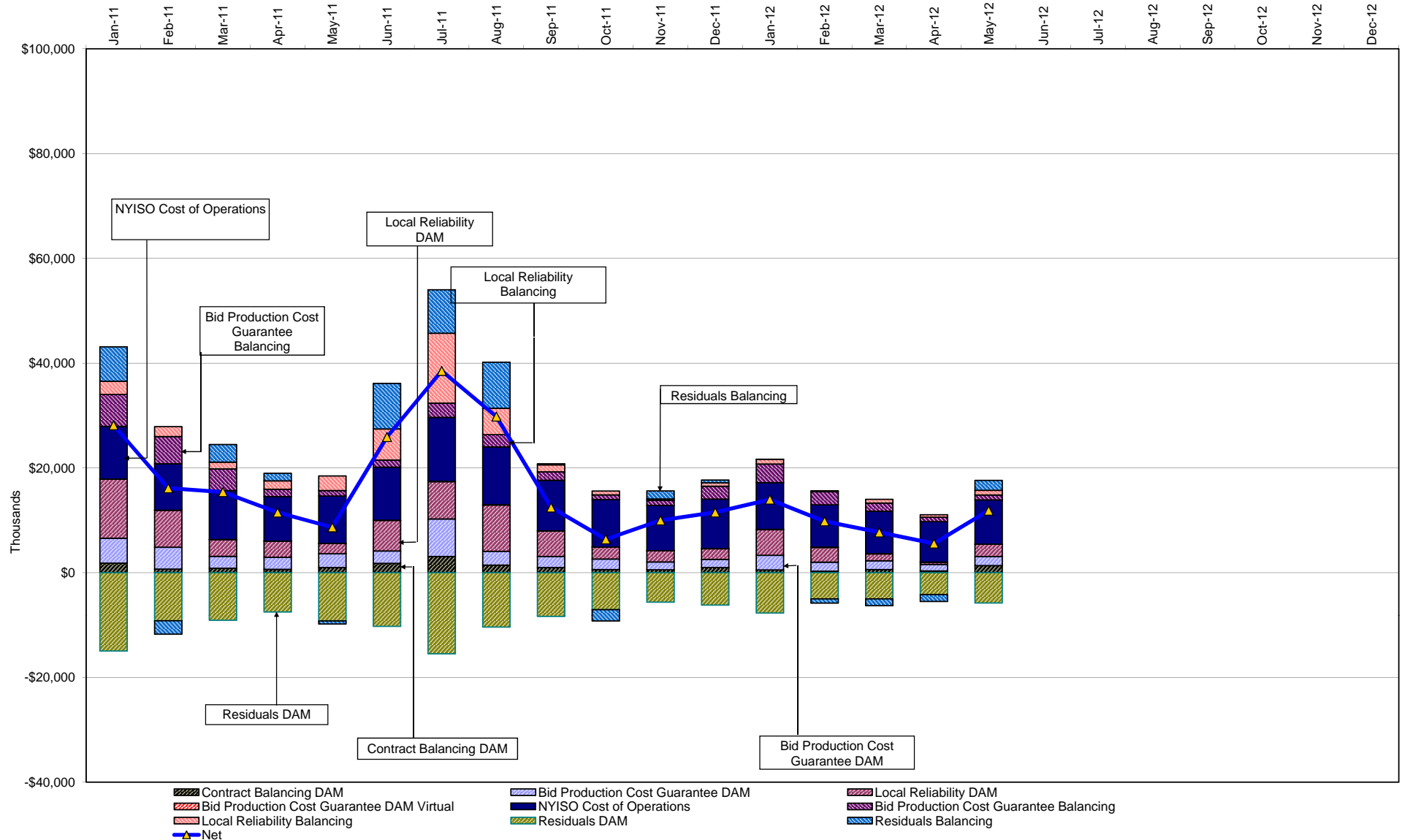
\* Excludes ICAP payments.

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

<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	32.44	28.98	28.30	34.66							
NTAC	0.85	0.80	0.68	0.71	0.72							
Reserve	0.35	0.25	0.38	0.32	0.13							
Regulation	0.10	0.08	0.13	0.12	0.09							
NYISO Cost of Operations	0.64	0.64	0.64	0.64	0.64							
Uplift	0.36	0.13	(0.03)	(0.18)	(0.26)							
Uplift: Local Reliability Share	0.41	0.24	0.16	0.07	0.24							
Uplift: Statewide Share	(0.05)	(0.10)	(0.19)	(0.26)	(0.50)							
Voltage Support and Black Start	0.37	0.37	0.37	0.37	0.37							
<b>Avg Monthly Cost</b>	<b>46.67</b>	<b>34.72</b>	<b>31.15</b>	<b>30.28</b>	<b>36.35</b>							
Avg YTD Cost	46.67	41.05	37.91	36.05	36.11							
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	3.15							
<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	0.25	0.00	2.90	0.70	2.77	0.28	0.01	0.00	0.00

\* Excludes ICAP payments.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through May 31, 2012



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

<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><u>Day Ahead Market MWh</u></b>	14,877,279	13,473,786	13,590,456	12,482,692	13,324,441							
DAM LSE Internal LBMP Energy Sales	58%	57%	58%	59%	61%							
DAM External TC LBMP Energy Sales	1%	1%	0%	1%	1%							
DAM Bilateral - Internal Bilaterals	38%	40%	40%	38%	36%							
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%							
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	2%	2%	2%	1%							
DAM Bilateral - Wheel Through Bilaterals	1%	0%	1%	1%	1%							
<b><u>Balancing Energy Market MWh</u></b>	-878,258	-814,169	-896,046	-374,825	-31,291							
Balancing Energy LSE Internal LBMP Energy Sales	-110%	-111%	-110%	-126%	-563%							
Balancing Energy External TC LBMP Energy Sales	9%	7%	7%	19%	348%							
Balancing Energy Bilateral - Internal Bilaterals	1%	1%	1%	4%	107%							
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%							
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	4%	3%	3%	6%	54%							
Balancing Energy Bilateral - Wheel Through Bilaterals	-3%	0%	-1%	-4%	-47%							
<b><u>Transactions Summary</u></b>												
LBMP	57%	56%	55%	59%	61%							
Internal Bilaterals	41%	42%	43%	39%	36%							
Import Bilaterals	0%	0%	0%	0%	0%							
Export Bilaterals	2%	2%	2%	2%	2%							
Wheels Through	1%	0%	1%	1%	1%							
<b><u>Market Share of Total Load</u></b>												
Day Ahead Market	106.3%	106.4%	107.1%	103.1%	100.2%							
Balancing Energy +	-6.3%	-6.4%	-7.1%	-3.1%	-0.2%							
Total MWh	13,999,021	12,659,617	12,694,410	12,107,867	13,293,151							
Average Daily Energy Sendout/Month GWh	443	431	407	396	420							

<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>
<b><u>Day Ahead Market MWh</u></b>	14,146,283	12,514,435	13,164,026	12,191,562	12,809,240	14,520,490	17,296,367	15,872,137	14,052,940	13,263,167	12,710,654	14,300,553
DAM LSE Internal LBMP Energy Sales	49%	54%	53%	55%	55%	57%	60%	62%	59%	54%	55%	59%
DAM External TC LBMP Energy Sales	1%	1%	2%	2%	1%	1%	2%	1%	1%	4%	2%	1%
DAM Bilateral - Internal Bilaterals	42%	43%	43%	41%	41%	39%	36%	35%	39%	41%	41%	37%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	2%	2%	2%	1%	1%	1%	1%	2%	2%	1%
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	0%	1%	1%	1%	1%	1%	0%	0%	1%
<b><u>Balancing Energy Market MWh</u></b>	311,996	210,141	250,339	35,941	192,443	44,238	221,519	-31,911	-203,622	-205,236	-284,573	-689,219
Balancing Energy LSE Internal LBMP Energy Sales	28%	24%	39%	-226%	40%	-141%	29%	-371%	-147%	-181%	-129%	-115%
Balancing Energy External TC LBMP Energy Sales	48%	50%	50%	197%	39%	271%	77%	327%	53%	59%	21%	13%
Balancing Energy Bilateral - Internal Bilaterals	15%	7%	8%	47%	14%	37%	0%	-1%	5%	11%	0%	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	6%	14%	13%	83%	10%	32%	6%	39%	8%	10%	9%	4%
Balancing Energy Bilateral - Wheel Through Bilaterals	3%	5%	-10%	-1%	-2%	-100%	-12%	-94%	-18%	1%	-2%	-2%
<b><u>Transactions Summary</u></b>												
LBMP	51%	55%	55%	57%	57%	59%	63%	63%	59%	56%	56%	58%
Internal Bilaterals	42%	42%	42%	41%	41%	39%	36%	36%	39%	42%	42%	39%
Import Bilaterals	5%	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%	1%	1%	0%	1%	1%	1%	1%	0%	0%	0%	1%
<b><u>Market Share of Total Load</u></b>												
Day Ahead Market	97.8%	98.3%	98.1%	99.7%	98.5%	99.7%	98.7%	100.2%	101.5%	101.6%	102.3%	105.1%
Balancing Energy +	2.2%	1.7%	1.9%	0.3%	1.5%	0.3%	1.3%	-0.2%	-1.5%	-1.6%	-2.3%	-5.1%
Total MWh	14,458,279	12,724,575	13,414,365	12,227,503	13,001,683	14,564,728	17,517,885	15,840,226	13,849,318	13,057,931	12,426,081	13,611,334
Average Daily Energy Sendout/Month GWh	457	447	422	398	411	479	555	505	456	403	408	430

+ 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 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							
Standard Deviation	\$15.62	\$6.23	\$7.00	\$7.04	\$10.22							
Load Weighted Price **	\$42.20	\$31.73	\$28.25	\$27.72	\$31.33							
<b><u>RTC LBMP</u></b>												
Price *	\$37.93	\$30.31	\$28.15	\$27.19	\$34.27							
Standard Deviation	\$23.43	\$7.26	\$22.87	\$15.67	\$46.03							
Load Weighted Price **	\$39.19	\$30.75	\$28.93	\$27.97	\$37.49							
<b><u>REAL TIME LBMP</u></b>												
Price *	\$37.35	\$30.54	\$28.47	\$27.00	\$35.22							
Standard Deviation	\$23.75	\$9.77	\$20.94	\$15.14	\$56.38							
Load Weighted Price **	\$38.88	\$31.14	\$29.44	\$27.89	\$40.06							
Average Daily Energy Sendout/Month GWh	443	431	407	396	420							

### **NYISO Markets 2011 Energy Statistics**

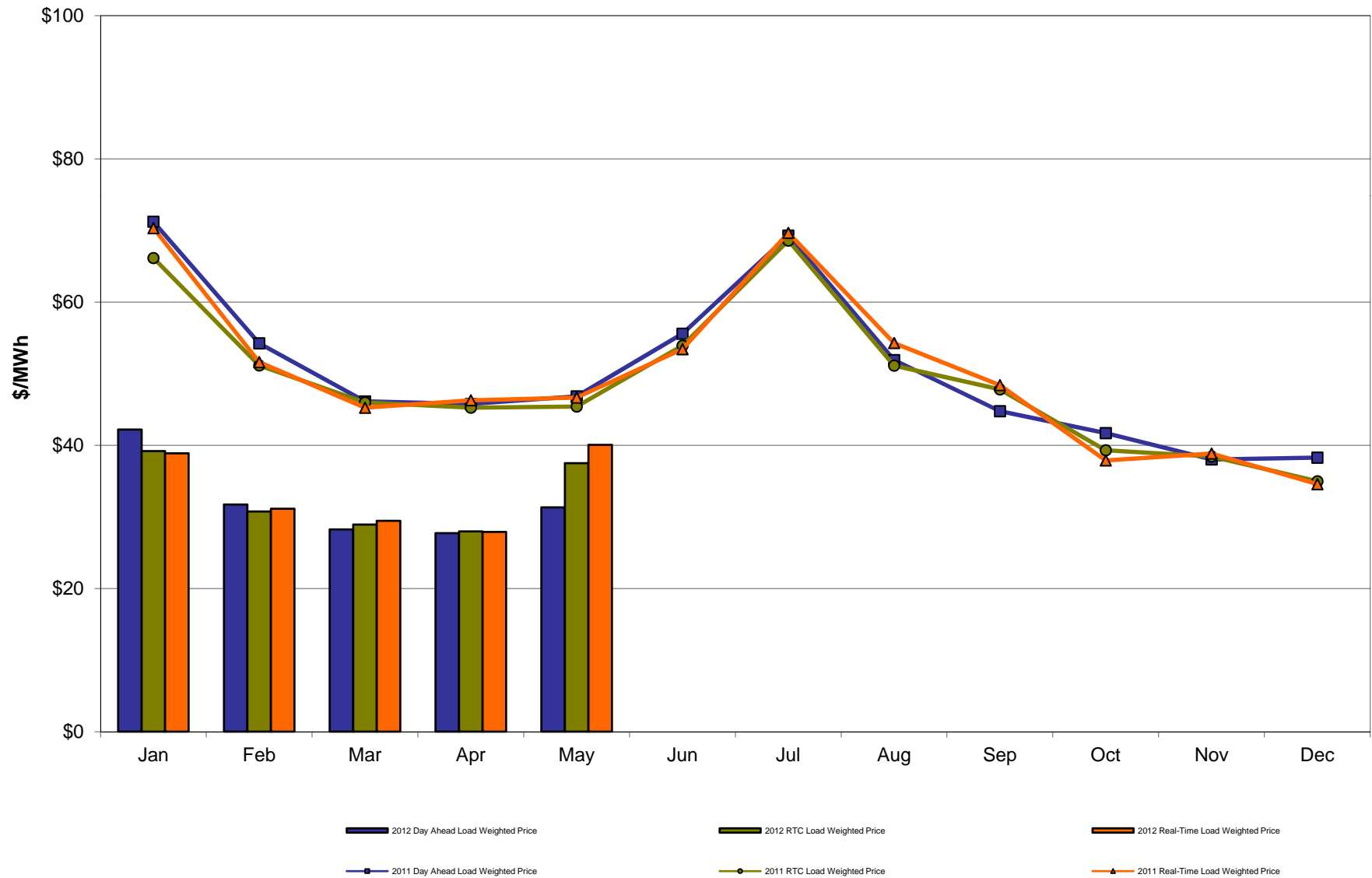
	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>DAY AHEAD LBMP</u></b>												
Price *	\$69.03	\$52.87	\$45.20	\$44.80	\$45.20	\$52.26	\$64.60	\$49.59	\$43.28	\$40.38	\$37.12	\$37.31
Standard Deviation	\$30.78	\$14.77	\$9.06	\$8.22	\$11.77	\$26.24	\$34.99	\$16.62	\$10.26	\$9.30	\$7.64	\$9.13
Load Weighted Price **	\$71.22	\$54.24	\$46.13	\$45.77	\$46.83	\$55.58	\$69.28	\$51.90	\$44.76	\$41.70	\$38.02	\$38.27
<b><u>RTC LBMP</u></b>												
Price *	\$64.48	\$50.15	\$45.13	\$44.32	\$43.69	\$50.47	\$63.42	\$48.47	\$46.02	\$38.44	\$37.43	\$34.00
Standard Deviation	\$39.41	\$18.83	\$18.96	\$15.44	\$25.19	\$46.41	\$82.29	\$59.95	\$25.18	\$15.45	\$17.55	\$15.60
Load Weighted Price **	\$66.15	\$51.15	\$45.98	\$45.25	\$45.41	\$53.91	\$68.58	\$51.12	\$47.80	\$39.30	\$38.43	\$34.97
<b><u>REAL TIME LBMP</u></b>												
Price *	\$67.92	\$50.26	\$44.22	\$45.20	\$44.26	\$48.68	\$62.96	\$49.39	\$45.92	\$36.91	\$37.67	\$33.50
Standard Deviation	\$58.47	\$22.39	\$17.41	\$19.98	\$26.27	\$44.88	\$64.83	\$62.04	\$26.88	\$13.65	\$19.42	\$14.12
Load Weighted Price **	\$70.32	\$51.61	\$45.24	\$46.28	\$46.66	\$53.42	\$69.66	\$54.28	\$48.40	\$37.88	\$38.84	\$34.57
Average Daily Energy Sendout/Month GWh	457	447	422	398	411	479	555	505	456	402	408	430

\* Average zonal load weighted prices.

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



# **NYISO Monthly Average Internal LBMPs 2011- 2012**

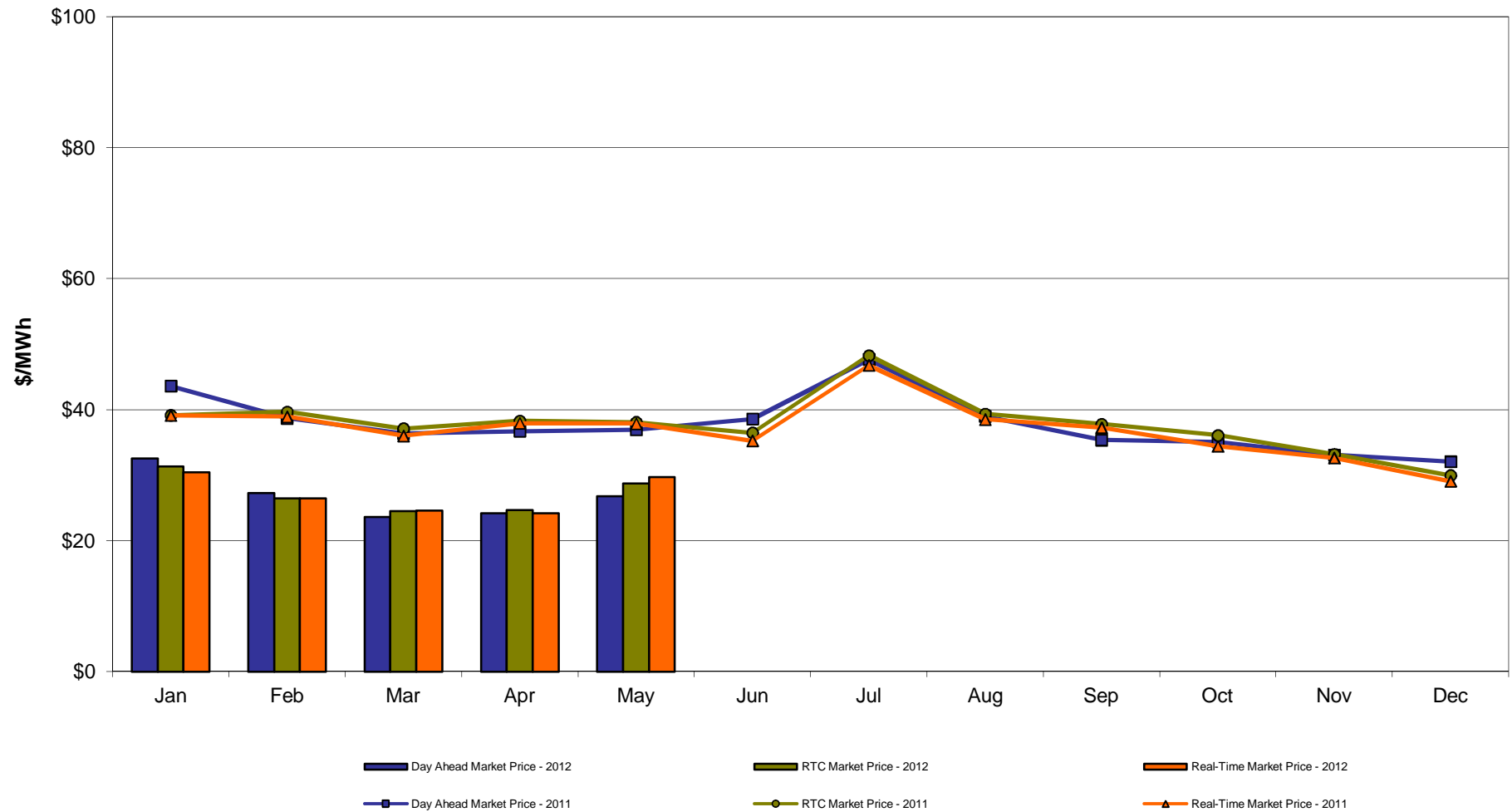


**May 2012 Zonal LBMP Statistics for NYISO (\$/MWh)**

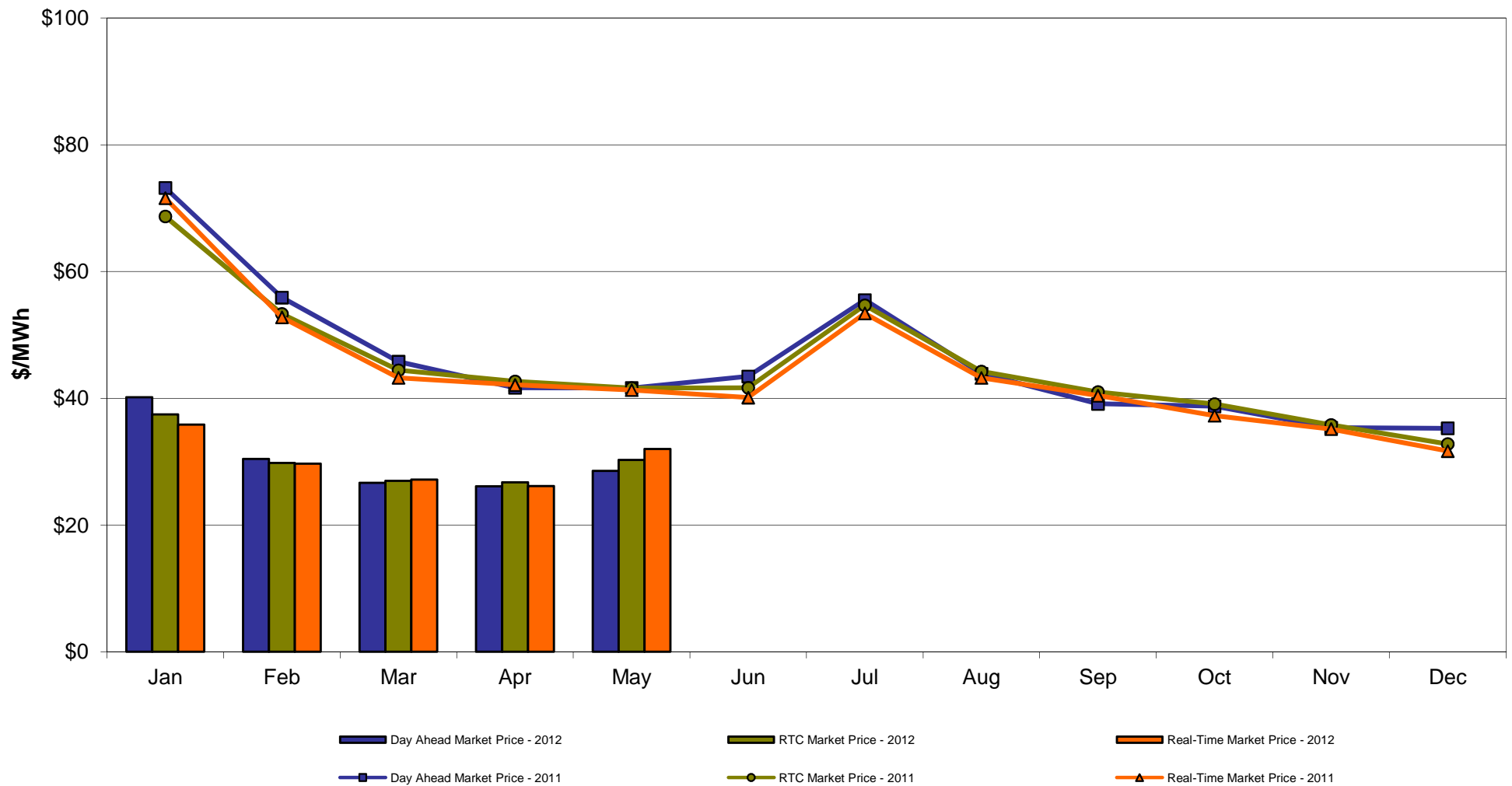
	<b><u>WEST</u></b> <b><u>Zone A</u></b>	<b><u>GENESEE</u></b> <b><u>Zone B</u></b>	<b><u>NORTH</u></b> <b><u>Zone D</u></b>	<b><u>CENTRAL</u></b> <b><u>Zone C</u></b>	<b><u>MOHAWK</u></b> <b><u>VALLEY</u></b> <b><u>Zone E</u></b>	<b><u>CAPITAL</u></b> <b><u>Zone F</u></b>	<b><u>HUDSON</u></b> <b><u>VALLEY</u></b> <b><u>Zone G</u></b>	<b><u>MILLWOOD</u></b> <b><u>Zone H</u></b>	<b><u>DUNWOODIE</u></b> <b><u>Zone I</u></b>	<b><u>NEW YORK</u></b> <b><u>CITY</u></b> <b><u>Zone J</u></b>	<b><u>LONG</u></b> <b><u>ISLAND</u></b> <b><u>Zone K</u></b>
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	26.81	27.15	25.69	27.64	27.91	28.55	30.15	30.13	30.15	30.48	34.72
Standard Deviation	7.61	7.97	7.53	8.15	8.41	8.41	9.89	10.13	10.13	10.15	19.74
<b><u>RTC LBMP</u></b>											
Unweighted Price *	28.75	29.06	27.05	29.46	29.71	30.28	35.16	35.70	35.75	36.06	43.01
Standard Deviation	28.25	29.88	28.09	30.33	30.91	30.85	51.28	56.06	56.58	56.95	92.25
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	29.69	29.68	27.60	30.11	30.35	32.01	35.92	36.46	36.50	36.76	43.52
Standard Deviation	41.54	39.05	36.78	40.04	40.39	45.59	62.15	67.35	67.87	68.22	82.74
	<b><u>ONTARIO</u></b> <b><u>IESO</u></b>  <b><u>Zone O</u></b>	<b><u>HYDRO</u></b> <b><u>QUEBEC</u></b> <b><u>(Wheel)</u></b> <b><u>Zone M</u></b>	<b><u>HYDRO</u></b> <b><u>QUEBEC</u></b> <b><u>(Import/Export)</u></b> <b><u>Zone M</u></b>	<b><u>PJM</u></b>  <b><u>Zone P</u></b>	<b><u>NEW</u></b> <b><u>ENGLAND</u></b>  <b><u>Zone N</u></b>	<b><u>CROSS</u></b> <b><u>SOUND</u></b> <b><u>CABLE</u></b> <b><u>Controllable</u></b> <b><u>Line</u></b>	<b><u>NORTHPORT-</u></b> <b><u>NORWALK</u></b> <b><u>Controllable</u></b> <b><u>Line</u></b>	<b><u>NEPTUNE</u></b> <b><u>Controllable</u></b> <b><u>Line</u></b>	<b><u>LINDEN VFT</u></b> <b><u>Controllable</u></b> <b><u>Line</u></b>	<b><u>Dennison</u></b> <b><u>Controllable</u></b> <b><u>Line</u></b>	
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	26.07	24.44	18.27	27.94	28.90	34.58	33.20	34.59	29.88	25.23	
Standard Deviation	7.21	7.69	2.79	8.46	8.82	20.41	18.33	20.77	8.93	7.34	
<b><u>RTC LBMP</u></b>											
Unweighted Price *	26.22	24.83	23.33	29.28	29.64	39.70	39.00	39.52	31.55	24.17	
Standard Deviation	13.60	13.74	9.71	22.27	21.47	87.25	87.11	87.28	40.21	15.37	
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	26.46	27.03	23.85	32.21	30.79	43.21	39.08	42.81	34.77	26.58	
Standard Deviation	23.98	36.01	15.09	44.68	38.92	81.66	61.73	81.38	59.52	35.20	

\* Straight LBMP averages

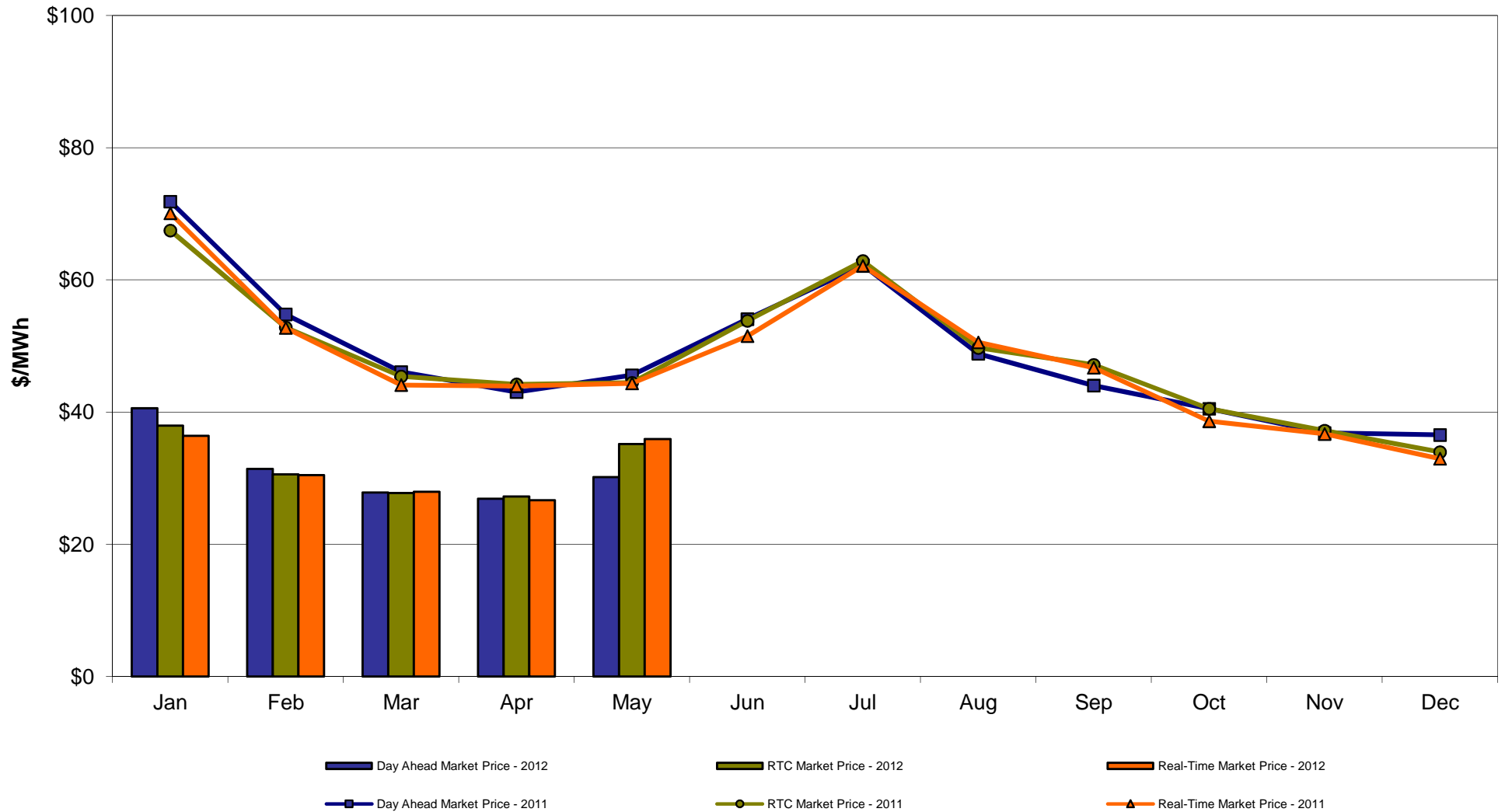
# **West Zone A** **Monthly Average LBMP Prices 2011 - 2012**



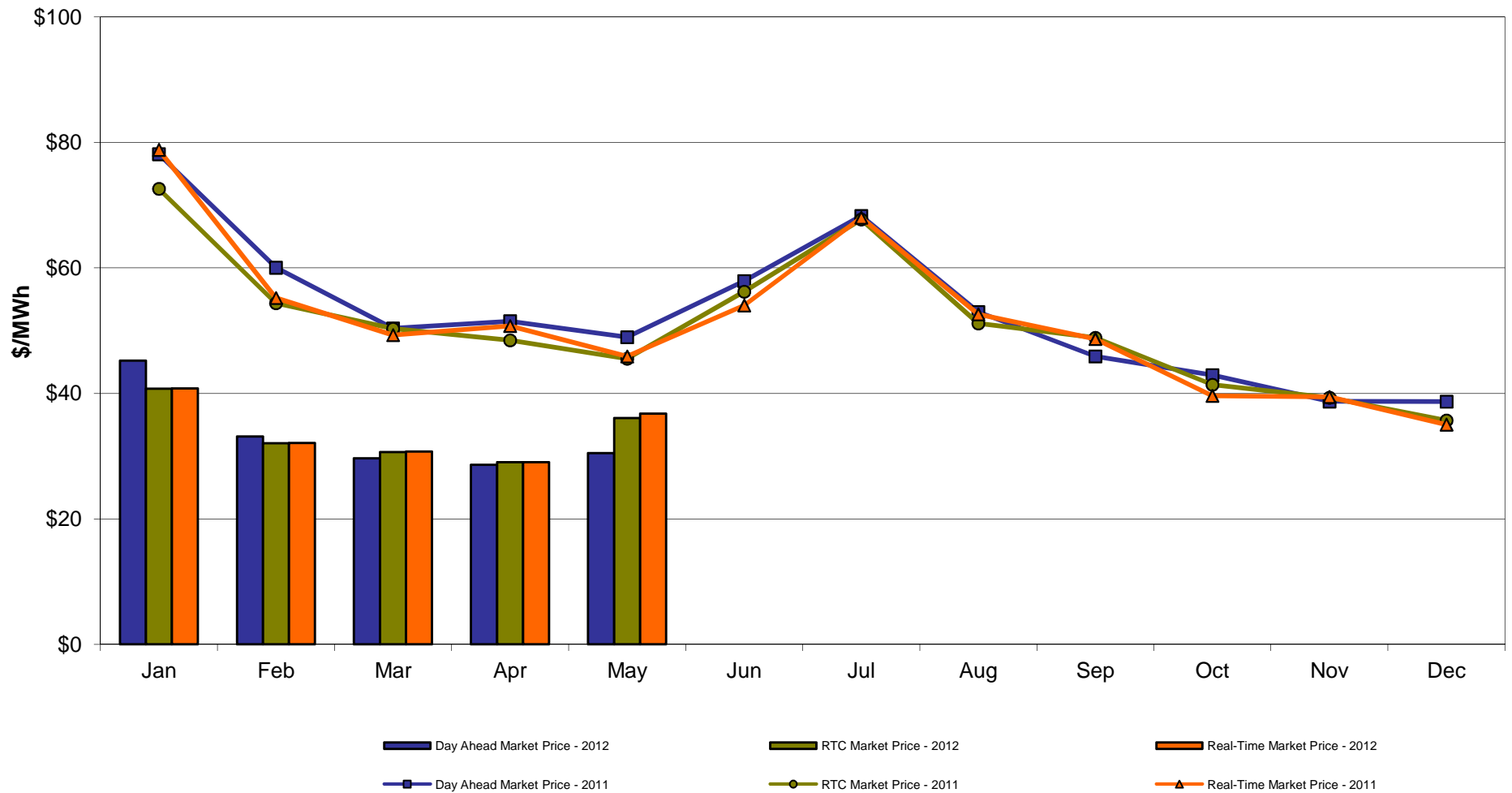
# **Capital Zone F** **Monthly Average LBMP Prices 2011 - 2012**



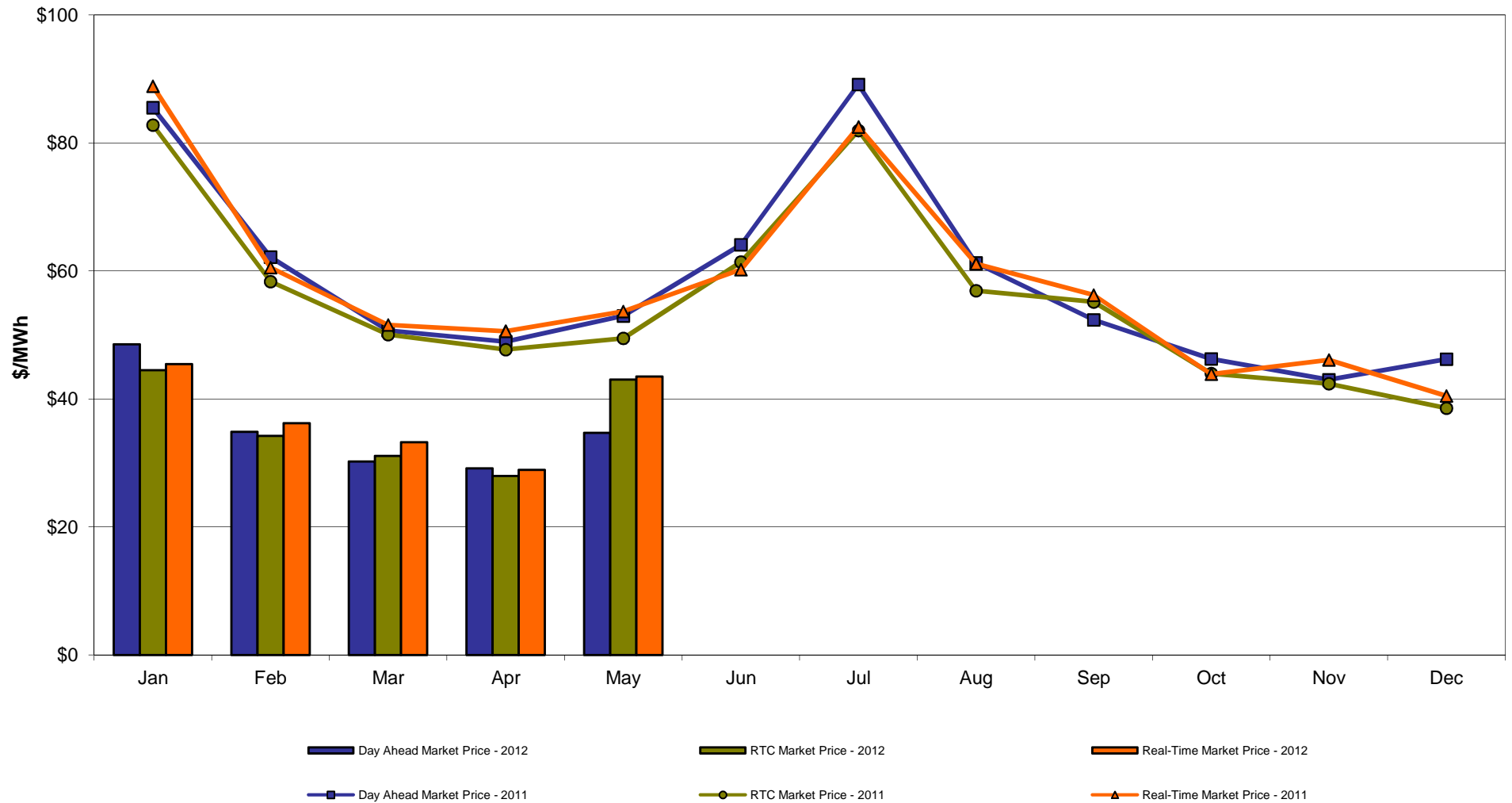
# **Hudson Valley Zone G** **Monthly Average LBMP Prices 2011 - 2012**



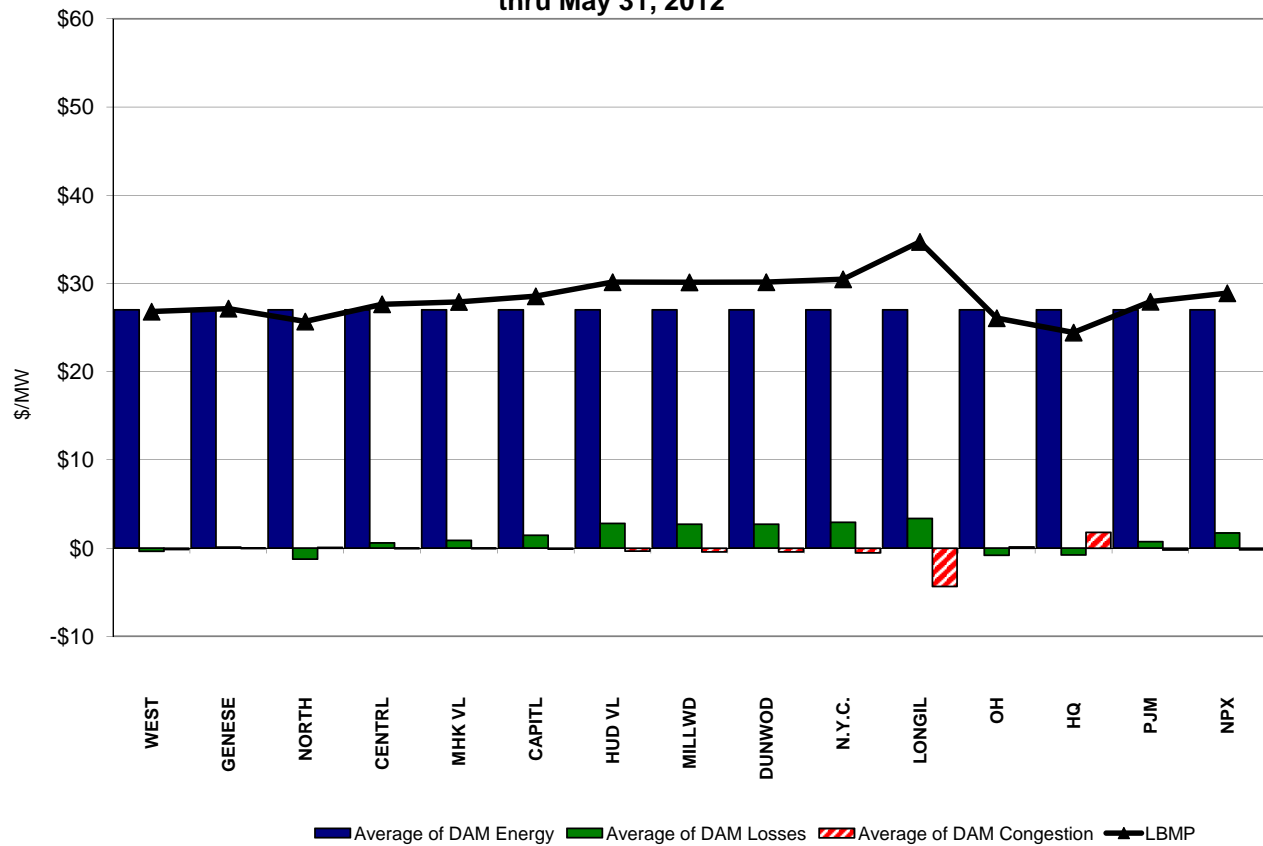
# NYC Zone J Monthly Average LBMP Prices 2011 - 2012



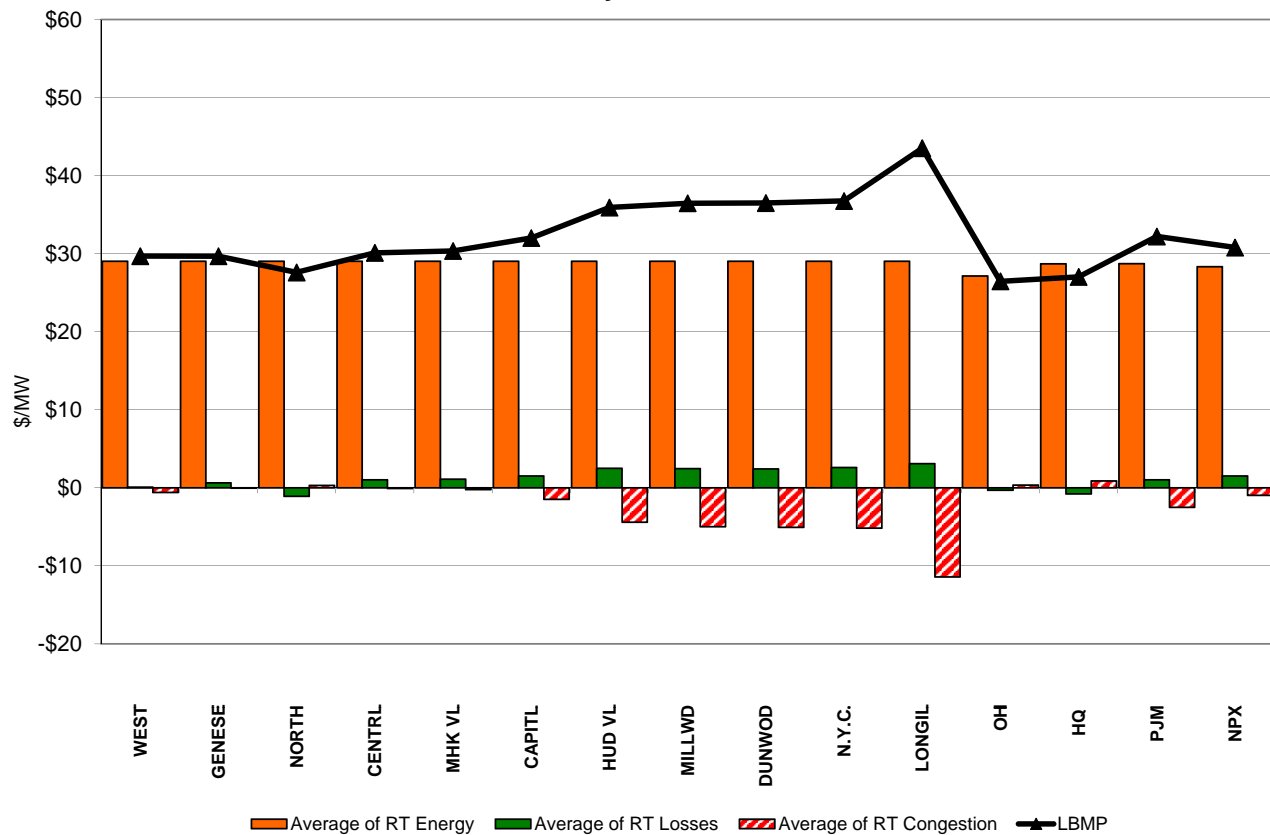
# Long Island Zone K Monthly Average LBMP Prices 2011 - 2012



**DAM Zonal Unweighted Monthly Average LBMP Components  
thru May 31, 2012**



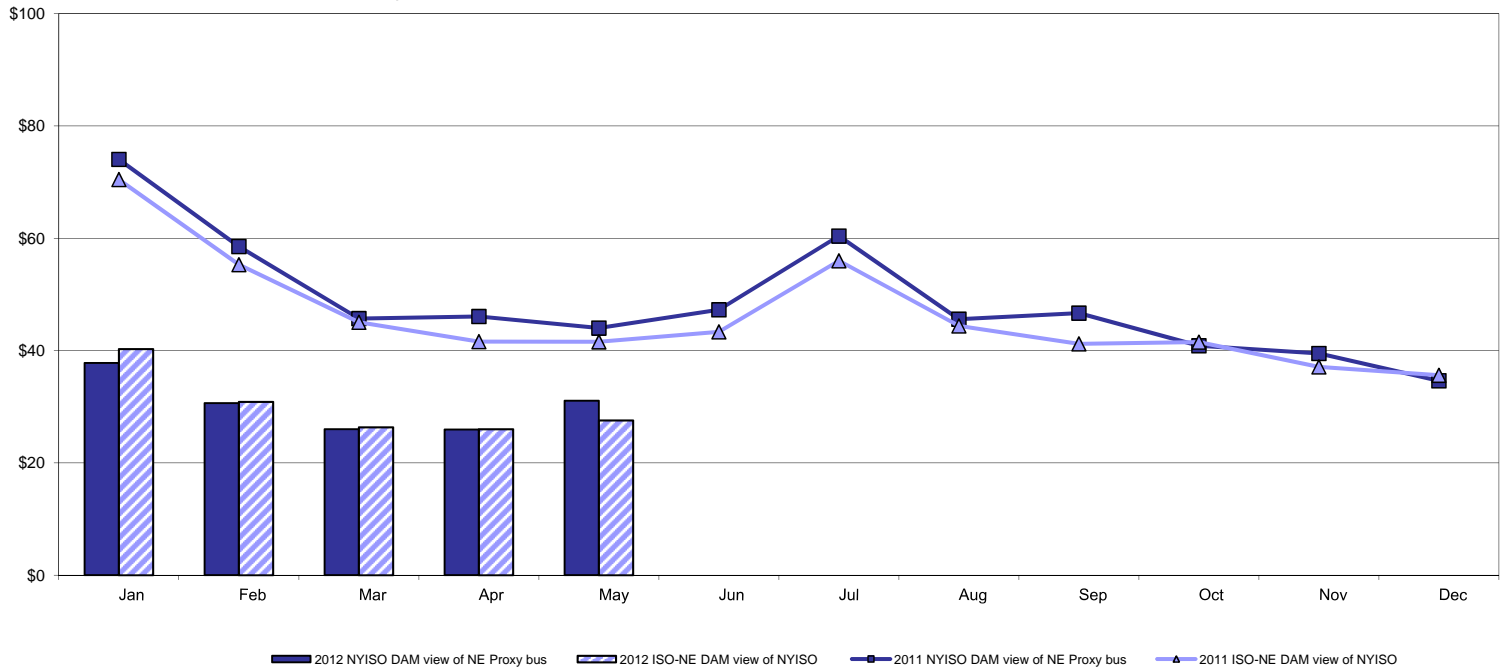
**RT Zonal Unweighted Monthly Average LBMP Components  
thru May 31, 2012**



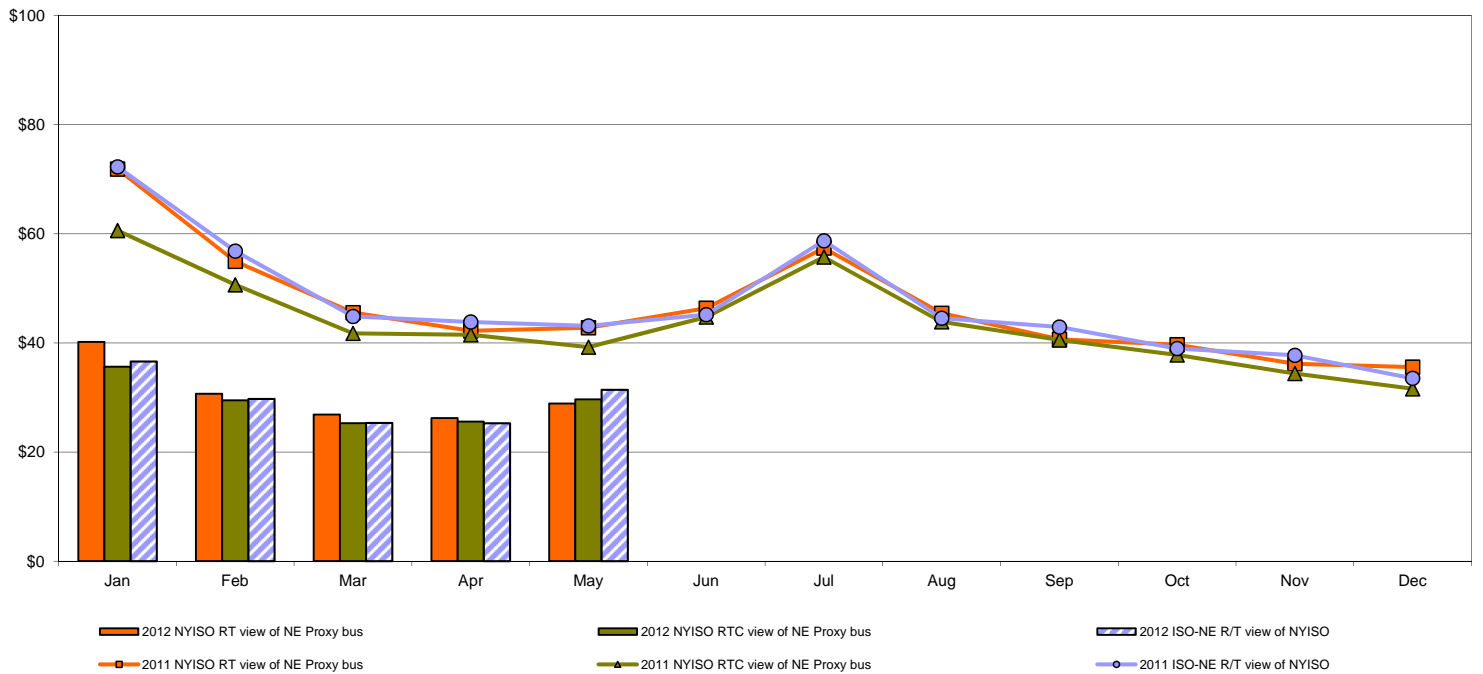


# External Comparison ISO-New England

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

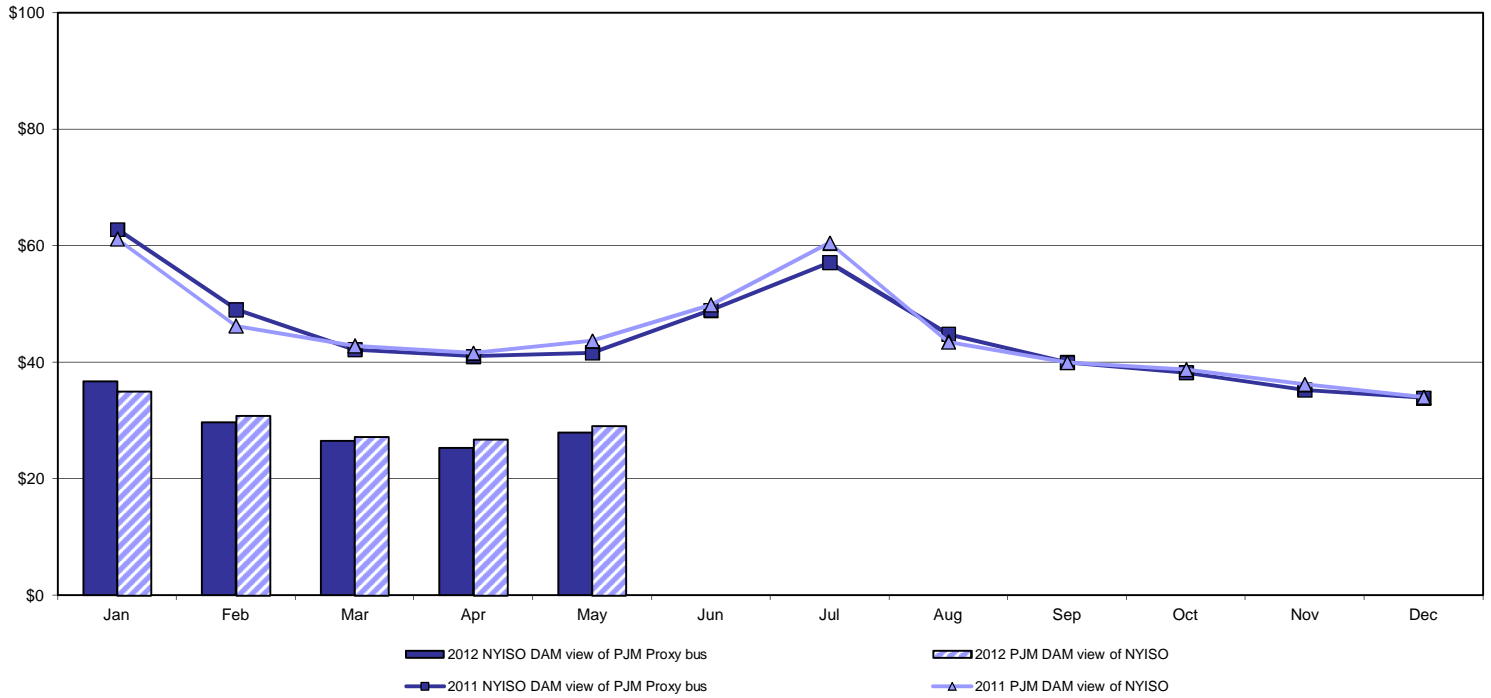


## Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

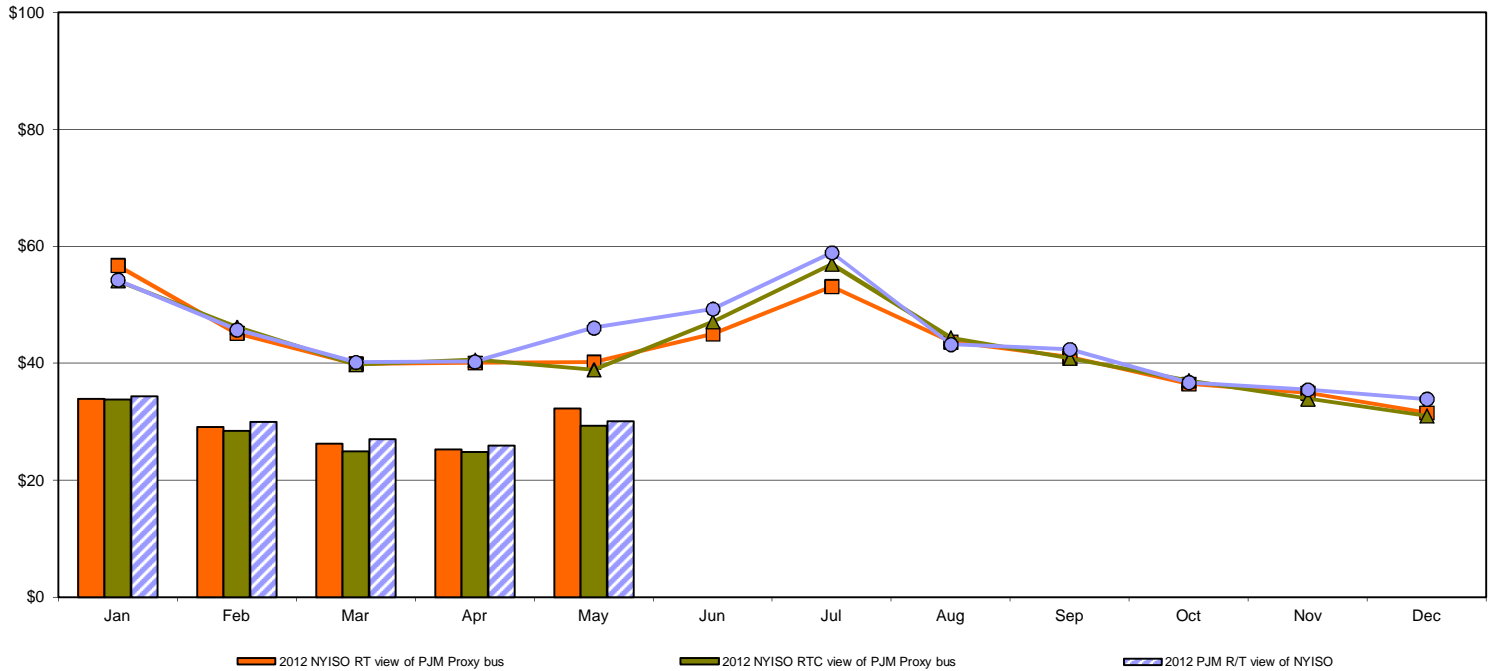


## External Comparison PJM

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

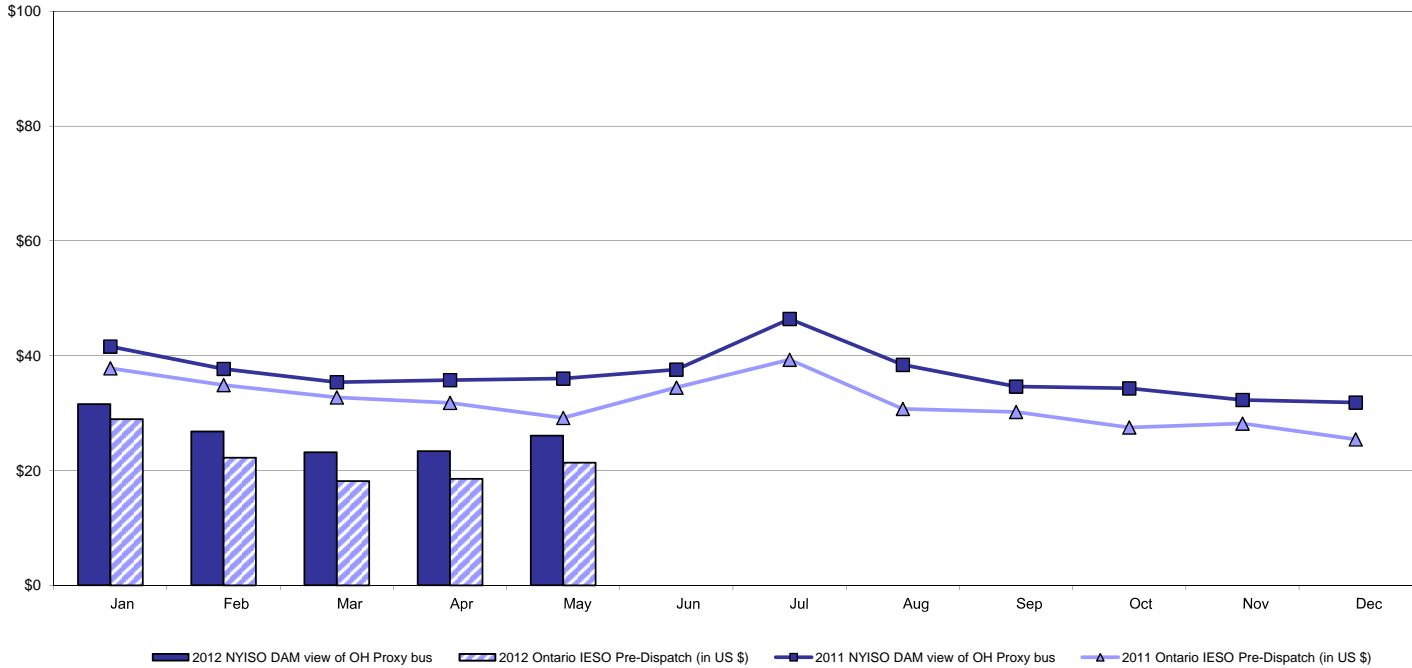


Real Time Market External Zone Comparison - PJM (\$/MWh)

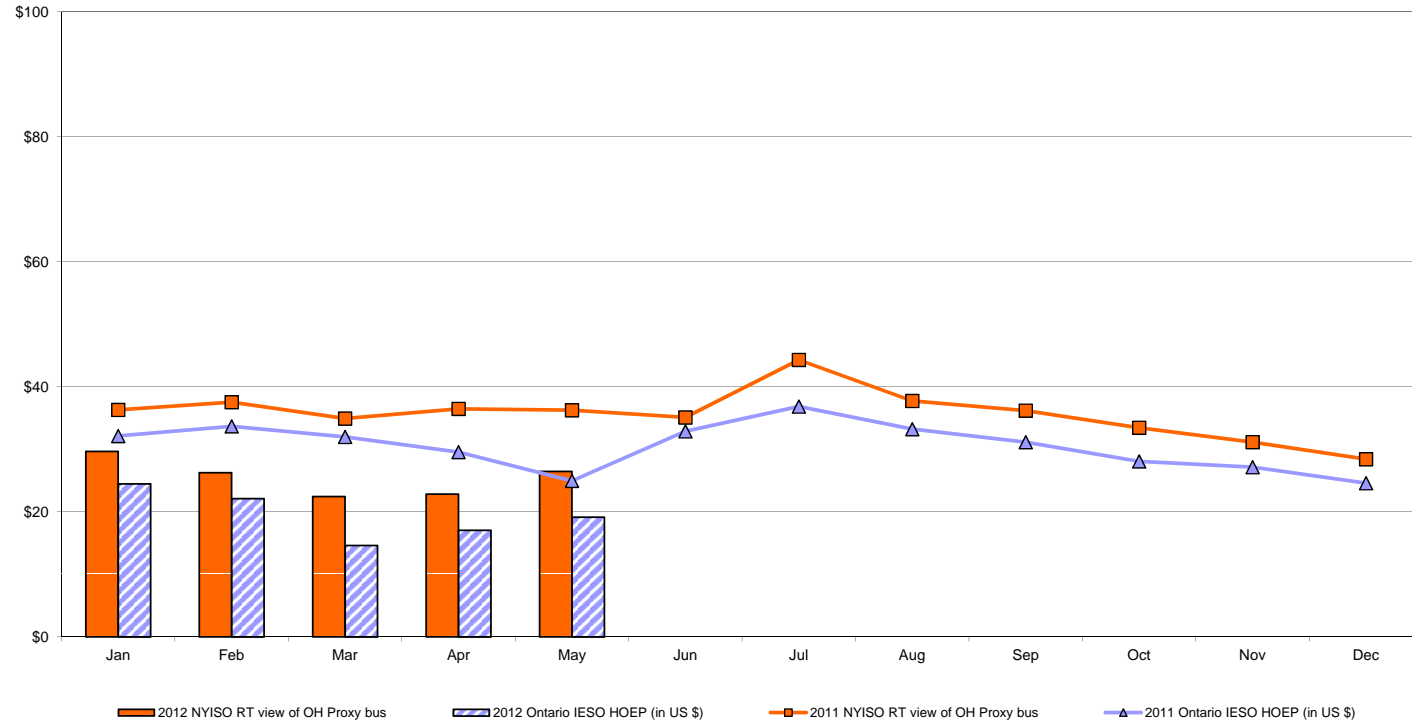


## External Comparison Ontario IESO

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

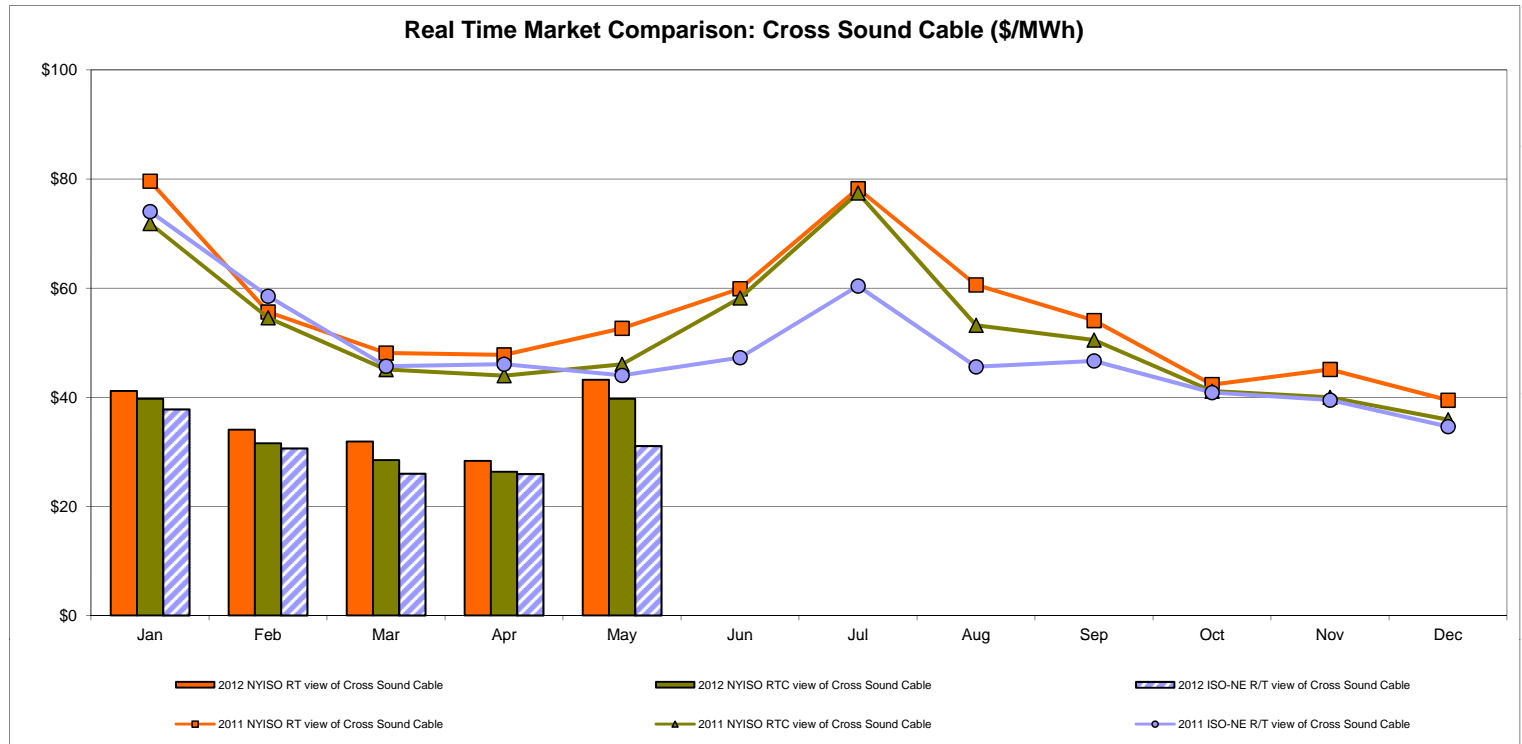
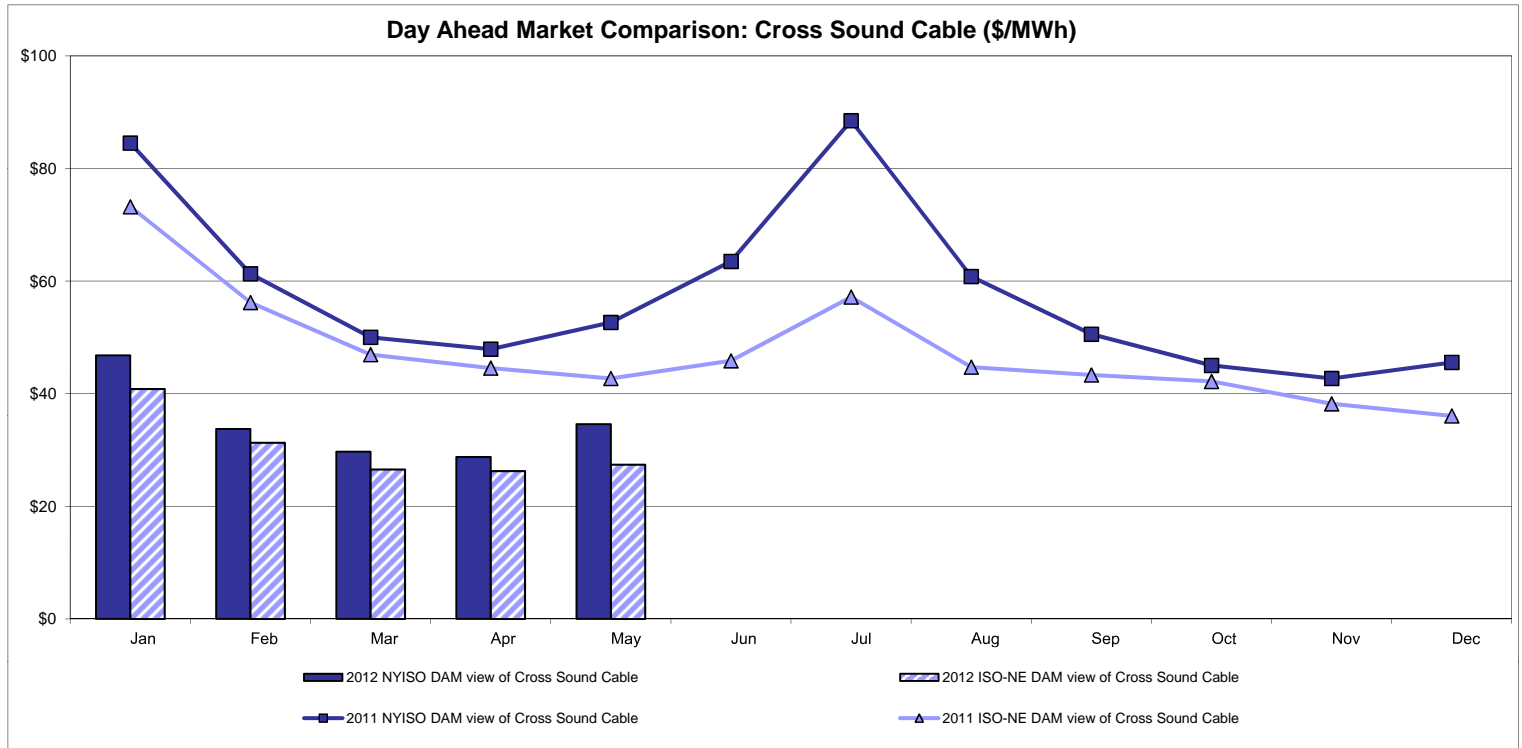


**Real Time Market External Zone Comparison - Ontario IESO (\$/MWh)**



Notes: Exchange factor used for May 2012 was 1.00 to US \$  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

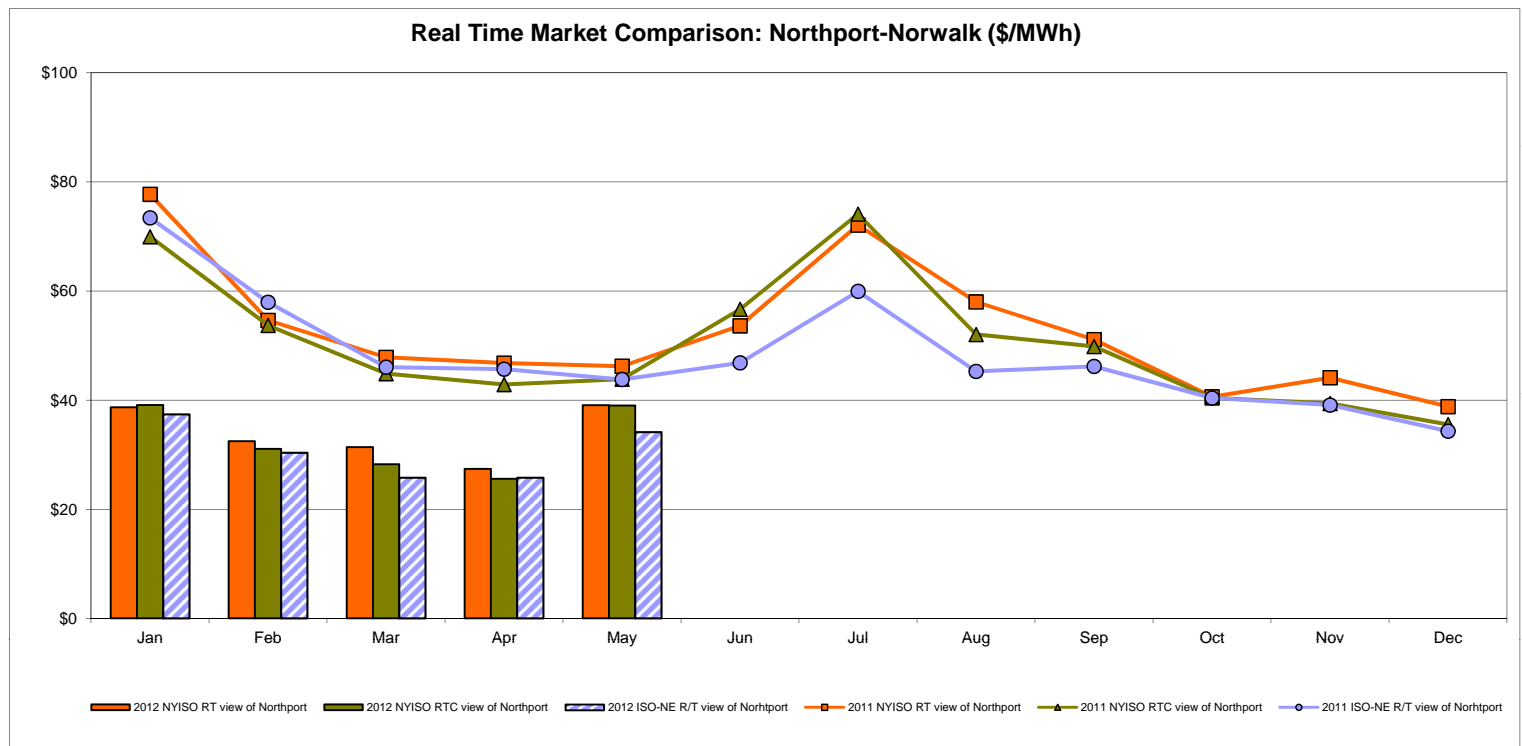
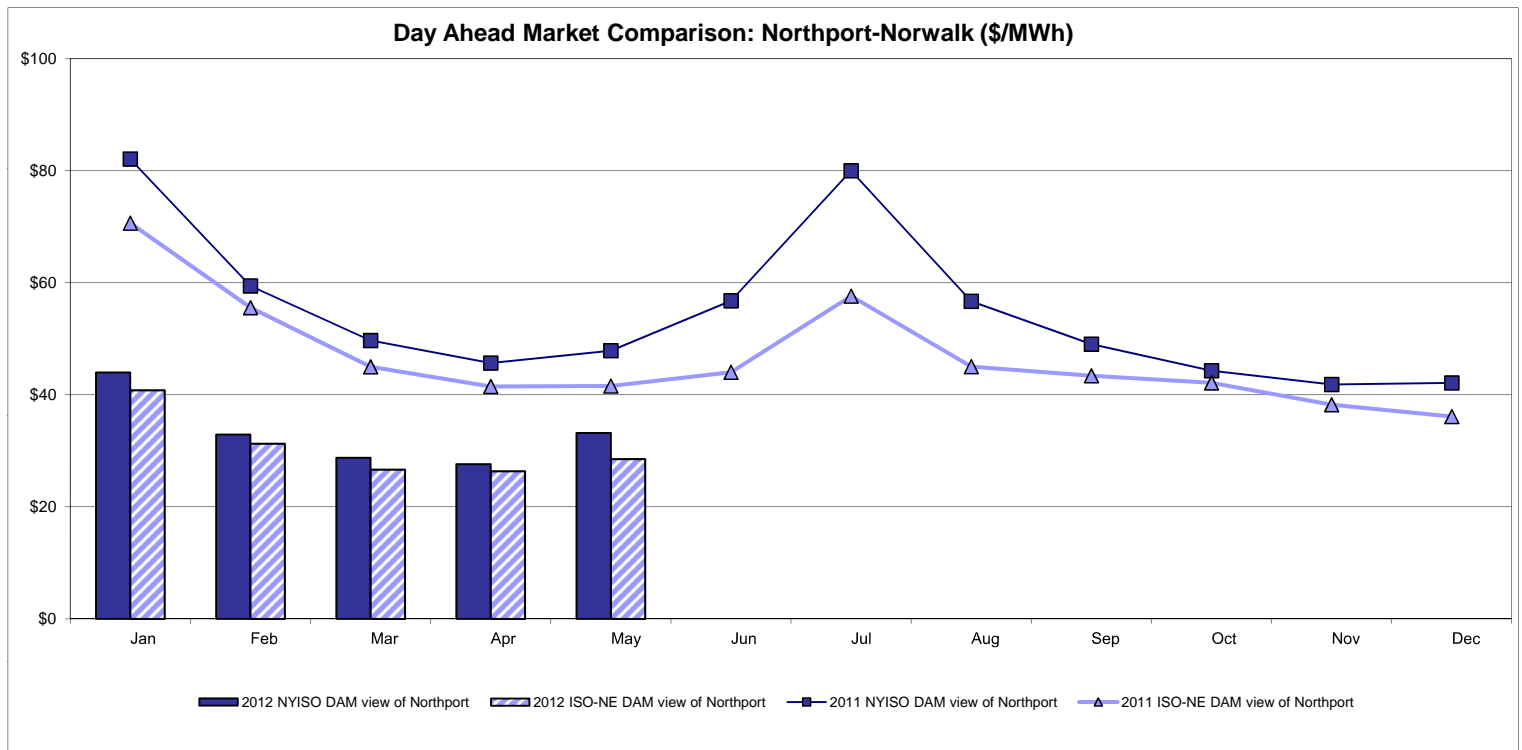
## External Controllable Line: Cross Sound Cable (New England)



**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)

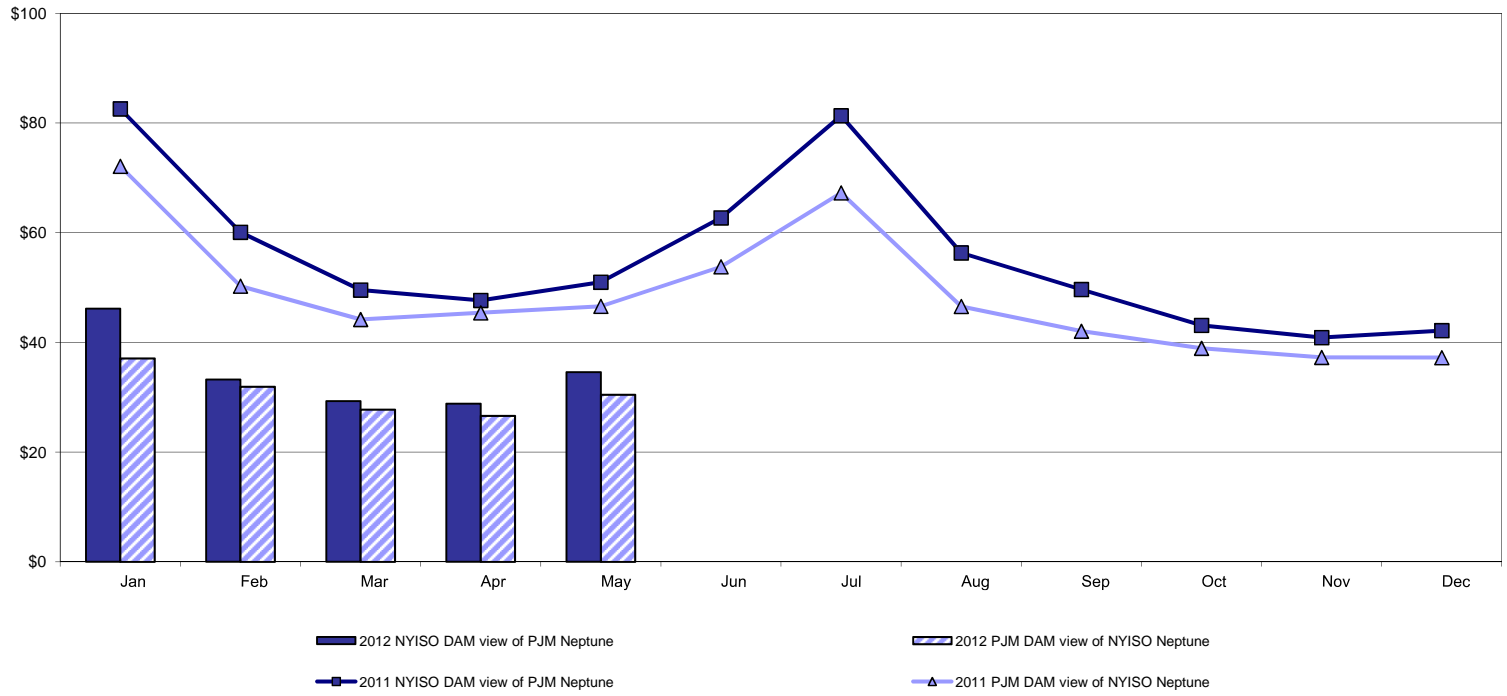


**Note:**

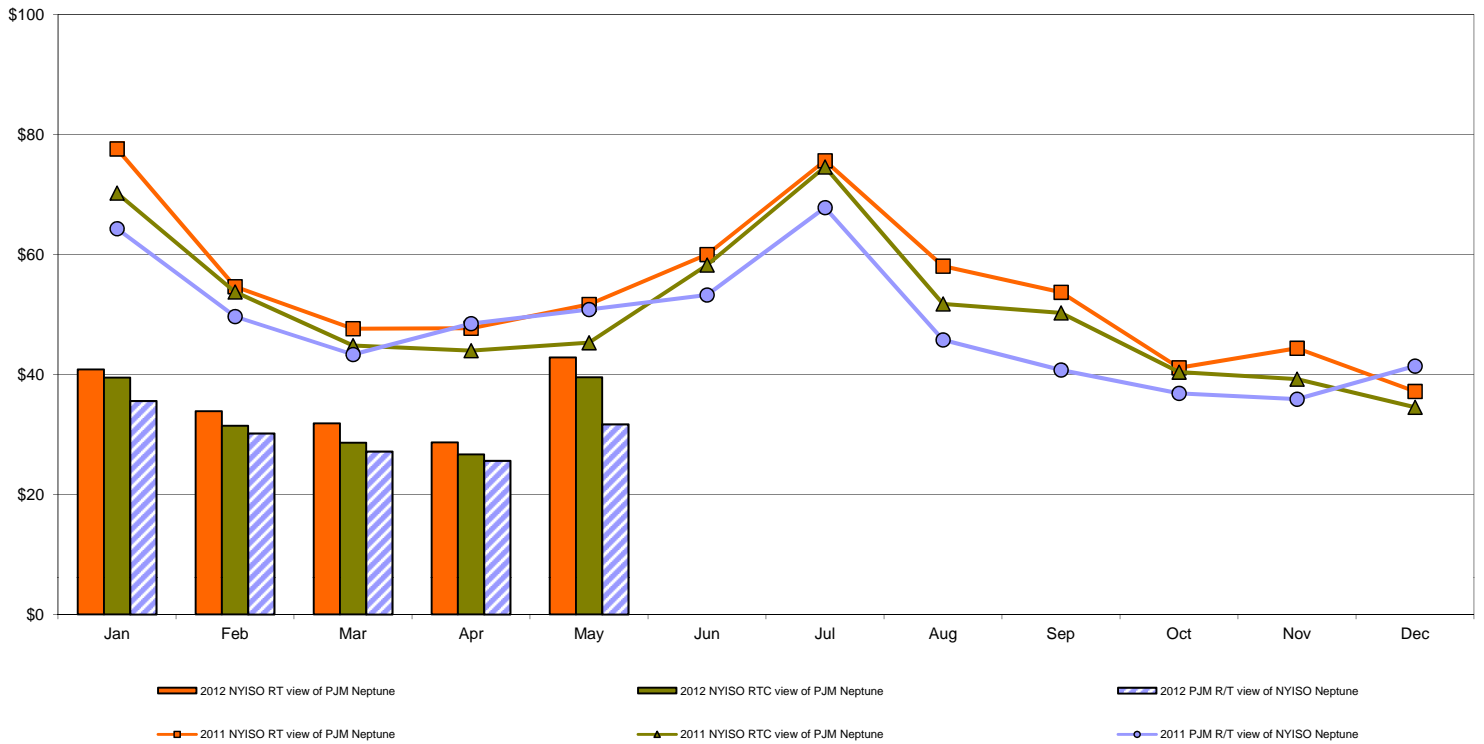
ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

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

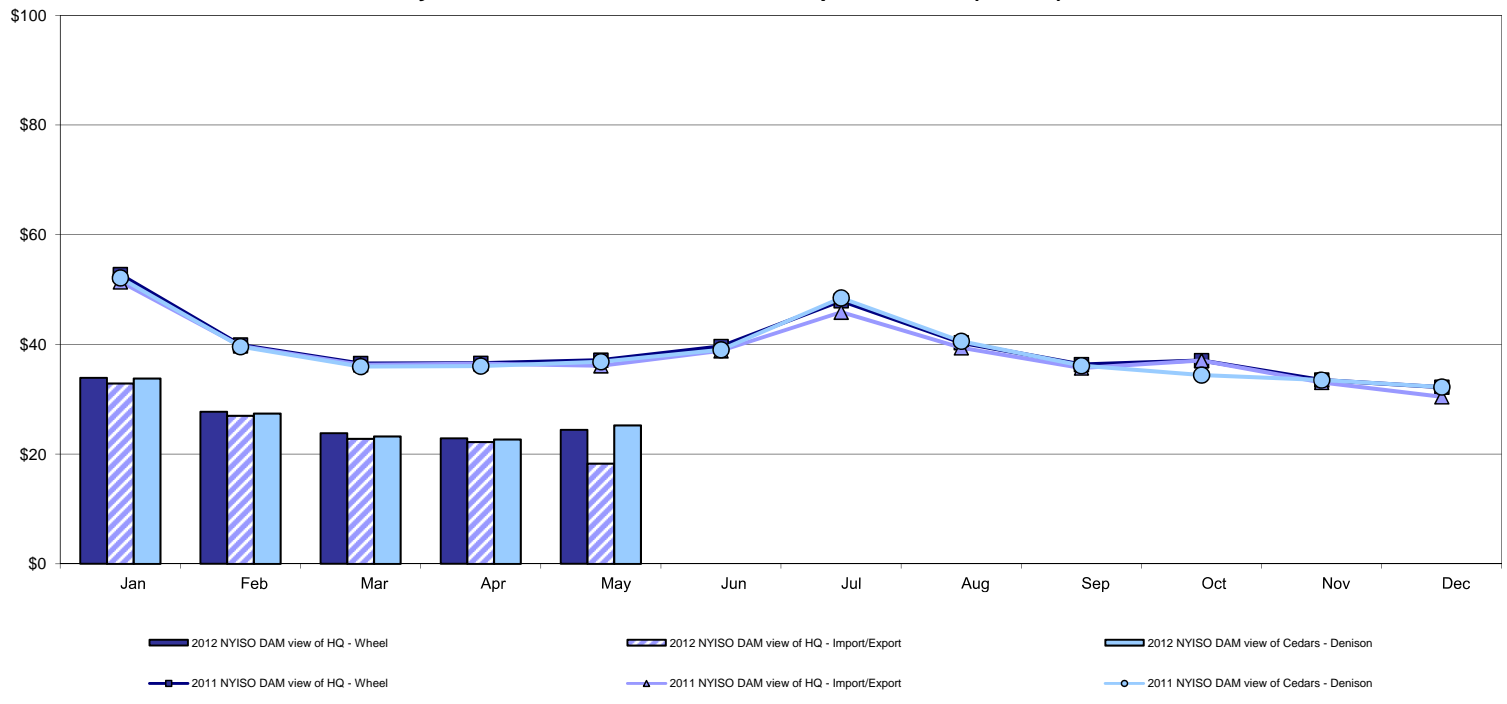


**Real Time Market Comparison: Neptune (\$/MWh)**

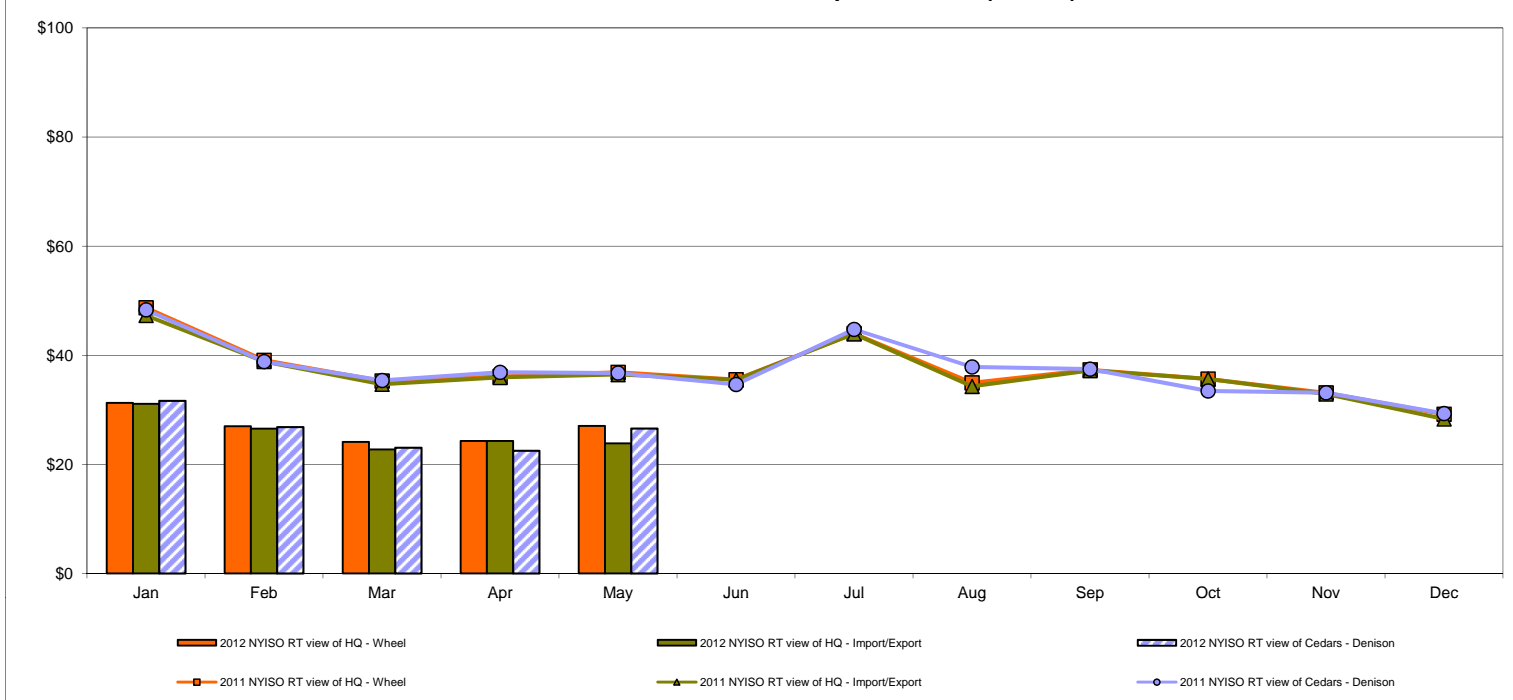


# External Comparison Hydro-Quebec

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

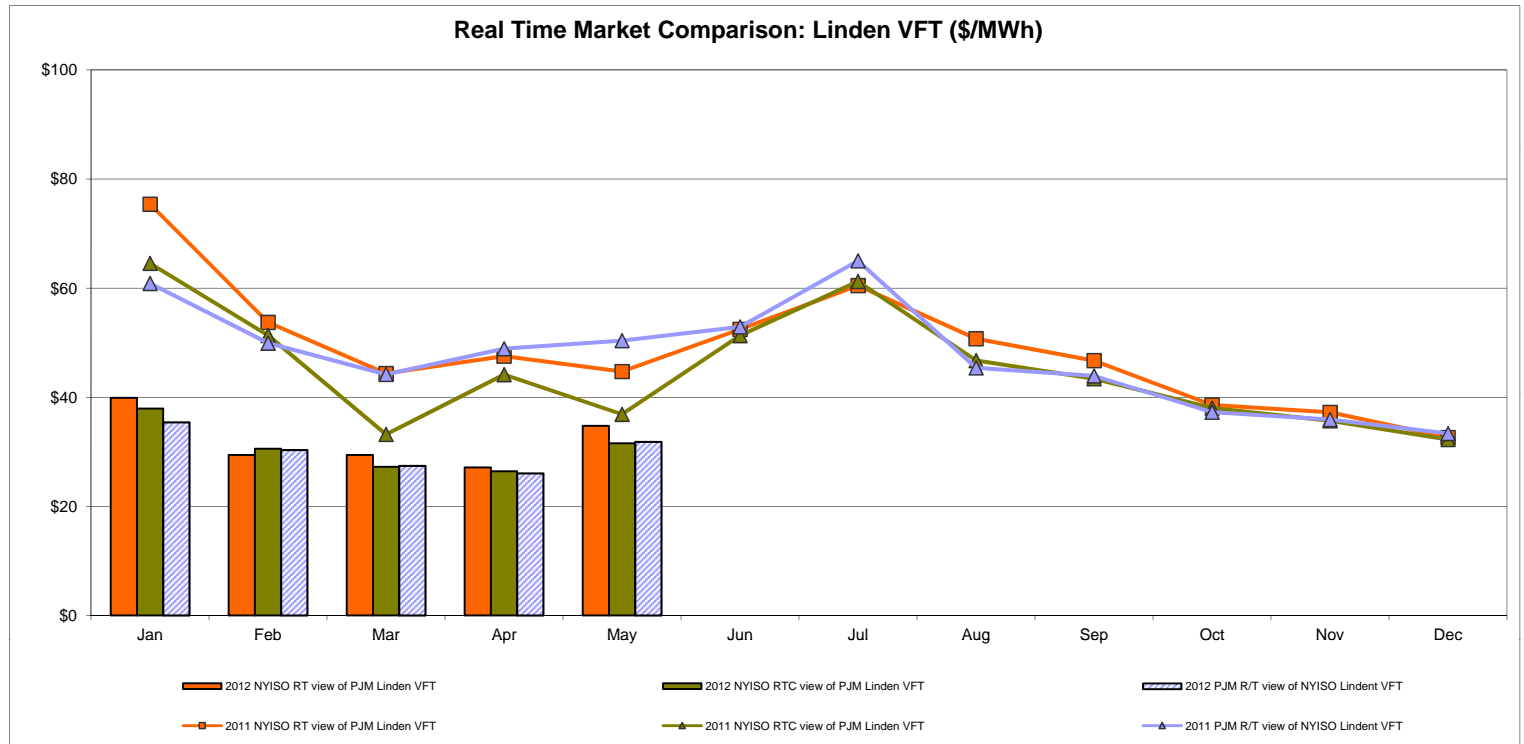
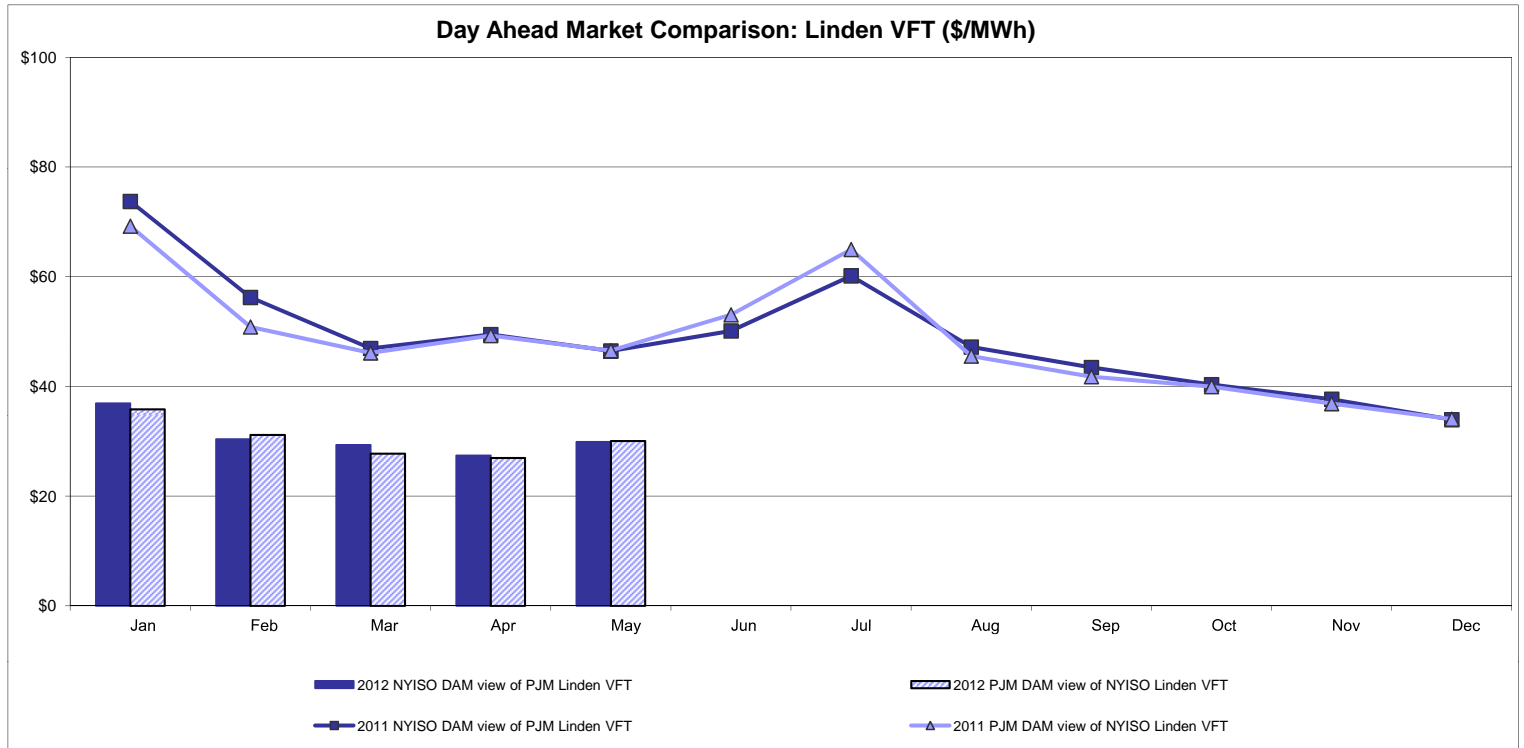


## Real Time Market External Zone Comparison - HQ (\$/MWh)



Note:  
Hydro-Quebec Prices are unavailable.

## External Controllable Line: Linden VFT (PJM)



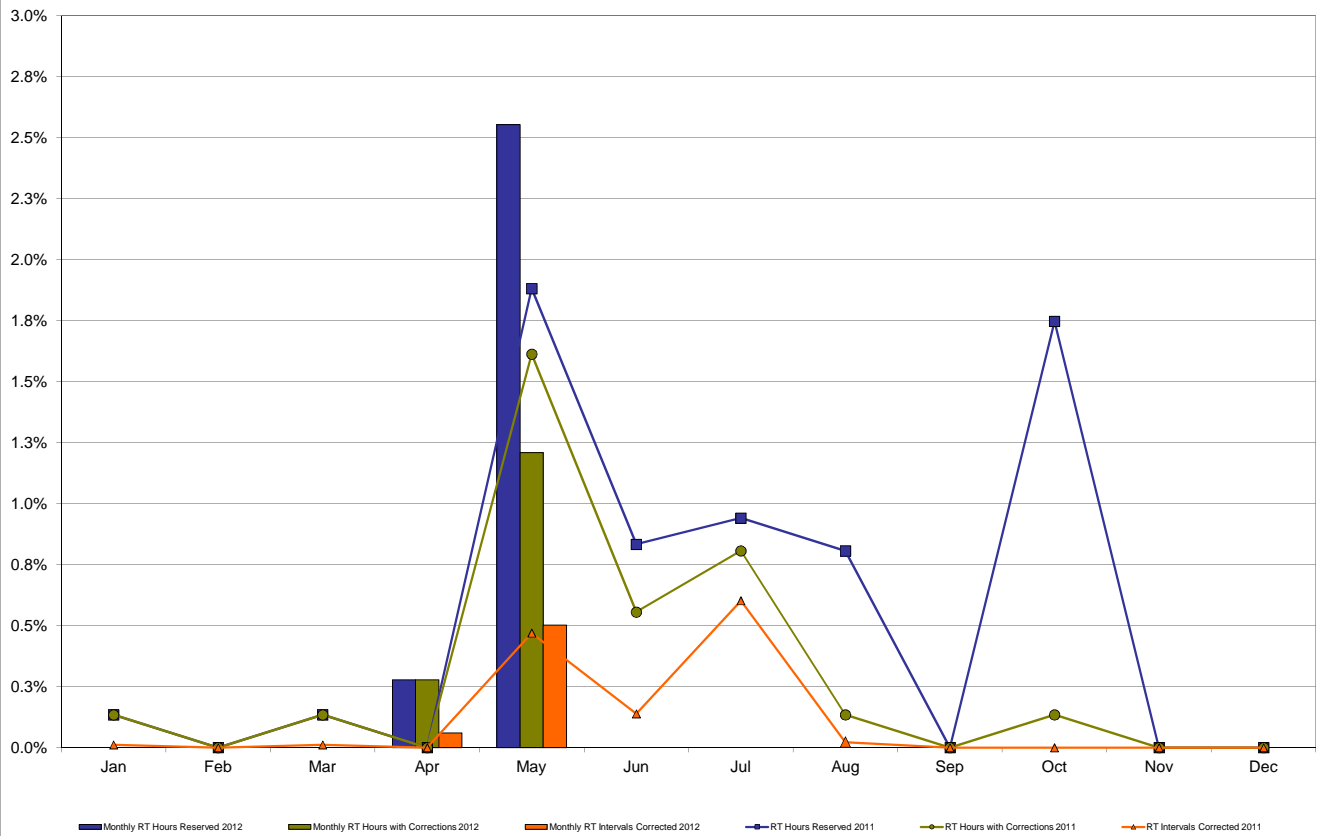


### NYISO Real Time Price Correction Statistics

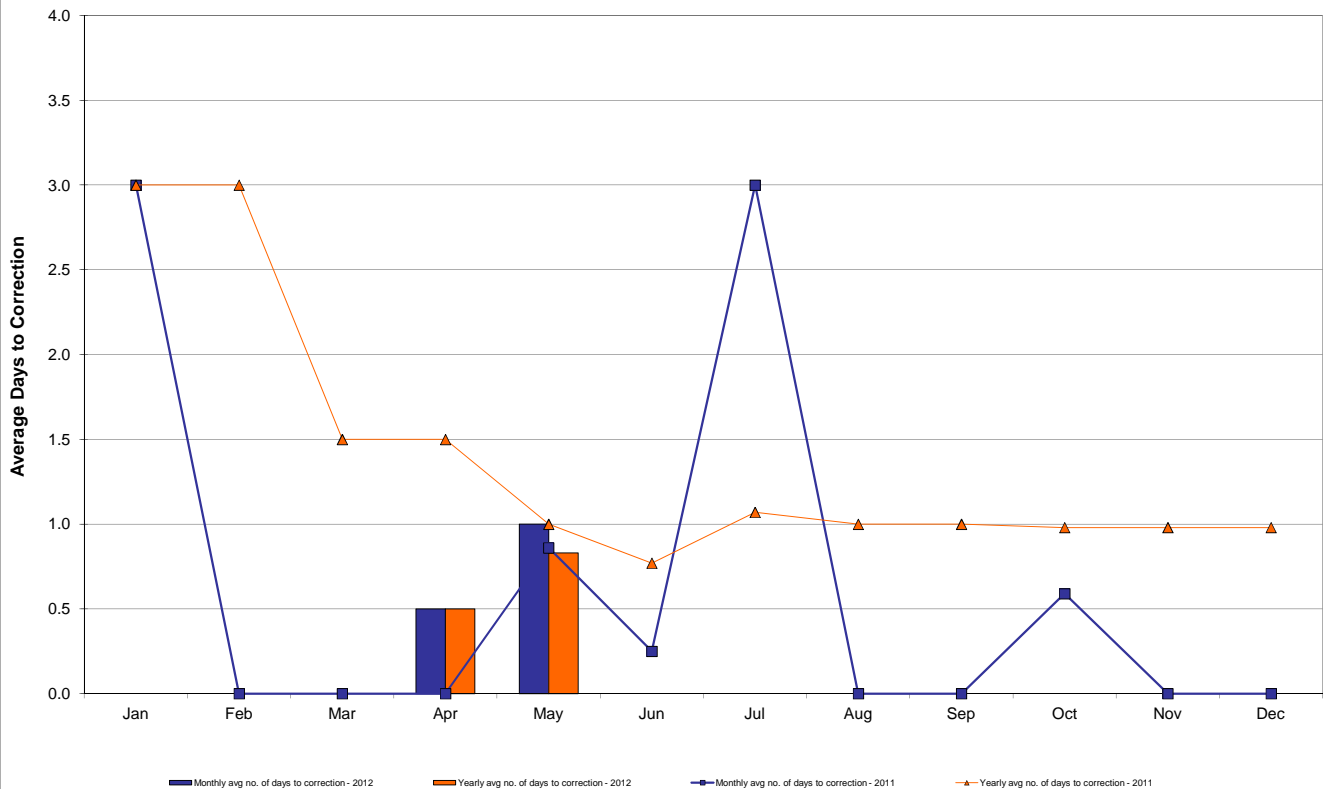
<b>2012</b>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>Hour Corrections</u></b>													
Number of hours with corrections	in the month	0	0	0	2	9							
Number of hours	in the month	744	696	744	720	744							
% of hours with corrections	in the month	0.00%	0.00%	0.00%	0.28%	1.21%							
% of hours with corrections	year-to-date	0.00%	0.00%	0.00%	0.07%	0.30%							
<b><u>Interval Corrections</u></b>													
Number of intervals corrected	in the month	0	0	0	5	45							
Number of intervals	in the month	8,987	8,082	8,950	8,375	8,956							
% of intervals corrected	in the month	0.00%	0.00%	0.00%	0.06%	0.50%							
% of intervals corrected	year-to-date	0.00%	0.00%	0.00%	0.01%	0.12%							
<b><u>Hours Reserved</u></b>													
Number of hours reserved	in the month	0	0	0	2	19							
Number of hours	in the month	744	696	744	720	744							
% of hours reserved	in the month	0.00%	0.00%	0.00%	0.28%	2.55%							
% of hours reserved	year-to-date	0.00%	0.00%	0.00%	0.07%	0.58%							
<b><u>Days to Correction *</u></b>													
Avg. number of days to correction	in the month	0.00	0.00	0.00	0.50	1.00							
Avg. number of days to correction	year-to-date	0.00	0.00	0.00	0.50	0.83							
<b><u>Days Without Corrections</u></b>													
Days without corrections	in the month	31	29	31	27	27							
Days without corrections	year-to-date	31	60	91	118	145							
<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>
<b><u>Hour Corrections</u></b>													
Number of hours with corrections	in the month	1	0	1	0	12	4	6	1	0	1	0	0
Number of hours	in the month	744	672	744	720	744	720	744	744	720	744	720	744
% of hours with corrections	in the month	0.13%	0.00%	0.13%	0.00%	1.61%	0.56%	0.81%	0.13%	0.00%	0.13%	0.00%	0.00%
% of hours with corrections	year-to-date	0.13%	0.07%	0.09%	0.07%	0.39%	0.41%	0.47%	0.43%	0.38%	0.36%	0.32%	0.30%
<b><u>Interval Corrections</u></b>													
Number of intervals corrected	in the month	1	0	1	0	42	12	54	2	0	2	0	0
Number of intervals	in the month	8,938	8,049	8,924	8,671	8,939	8,661	8,967	9,021	8,678	8,940	8,671	8,954
% of intervals corrected	in the month	0.01%	0.00%	0.01%	0.00%	0.47%	0.14%	0.60%	0.02%	0.00%	0.02%	0.00%	0.00%
% of intervals corrected	year-to-date	0.01%	0.01%	0.01%	0.01%	0.10%	0.11%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%
<b><u>Hours Reserved</u></b>													
Number of hours reserved	in the month	1	0	1	0	14	6	7	6	0	13	0	0
Number of hours	in the month	744	672	744	720	744	720	744	744	720	744	720	744
% of hours reserved	in the month	0.13%	0.00%	0.13%	0.00%	1.88%	0.83%	0.94%	0.81%	0.00%	1.75%	0.00%	0.00%
% of hours reserved	year-to-date	0.13%	0.07%	0.09%	0.07%	0.44%	0.51%	0.57%	0.60%	0.53%	0.66%	0.60%	0.55%
<b><u>Days to Correction *</u></b>													
Avg. number of days to correction	in the month	3.00	0.00	0.00	0.00	0.86	0.25	3.00	0.00	0.00	0.59	0.00	0.00
Avg. number of days to correction	year-to-date	3.00	3.00	1.50	1.50	1.00	0.77	1.07	1.00	1.00	0.98	0.98	0.98
<b><u>Days Without Corrections</u></b>													
Days without corrections	in the month	30	28	30	30	24	26	29	30	30	30	30	31
Days without corrections	year-to-date	30	58	88	118	142	168	197	227	257	287	317	348

\* Calendar days from reservation date.

### Percentage of Real-Time Corrections

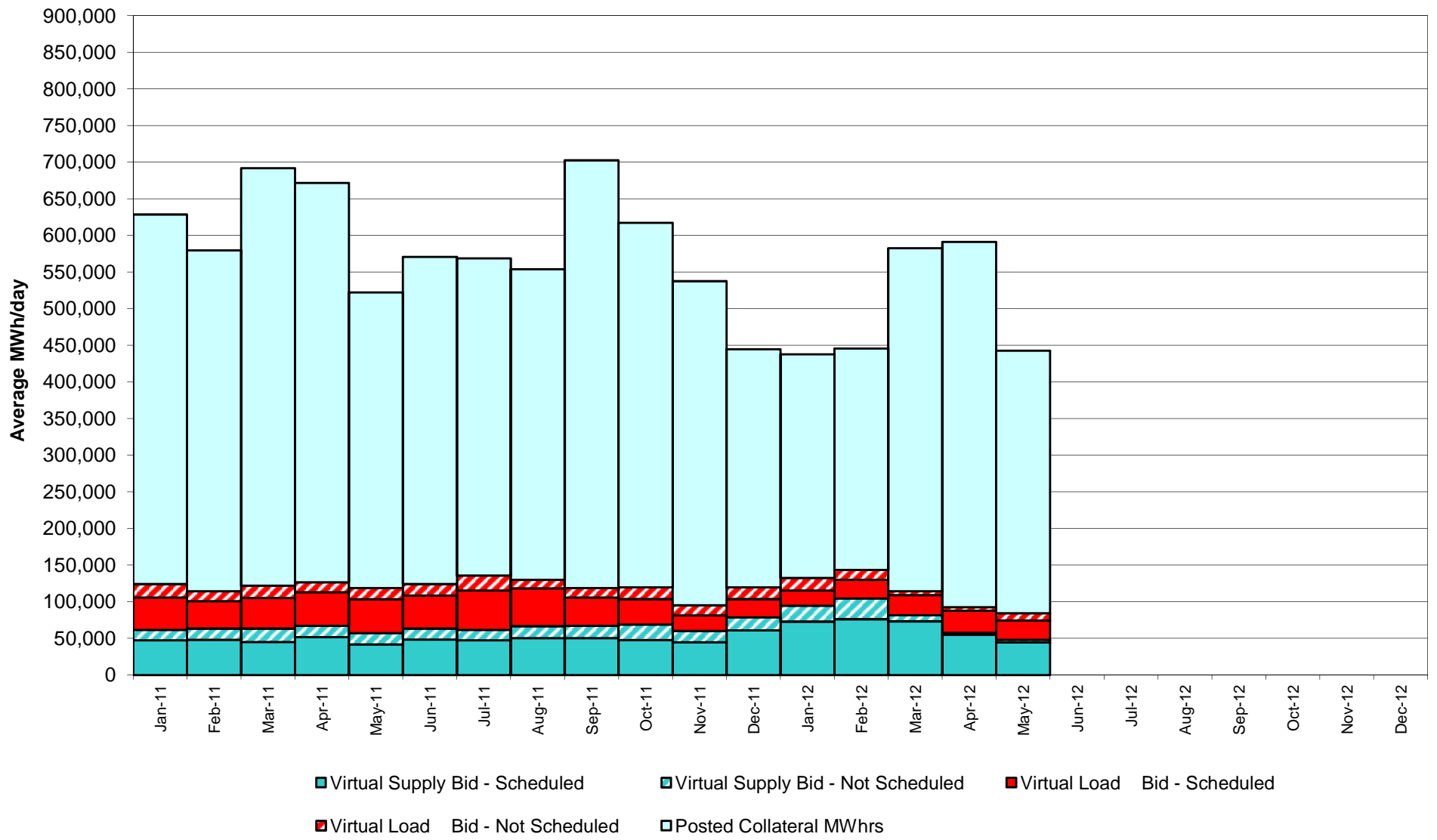


### Annual average time period for making Price Corrections (from reservation date) \*

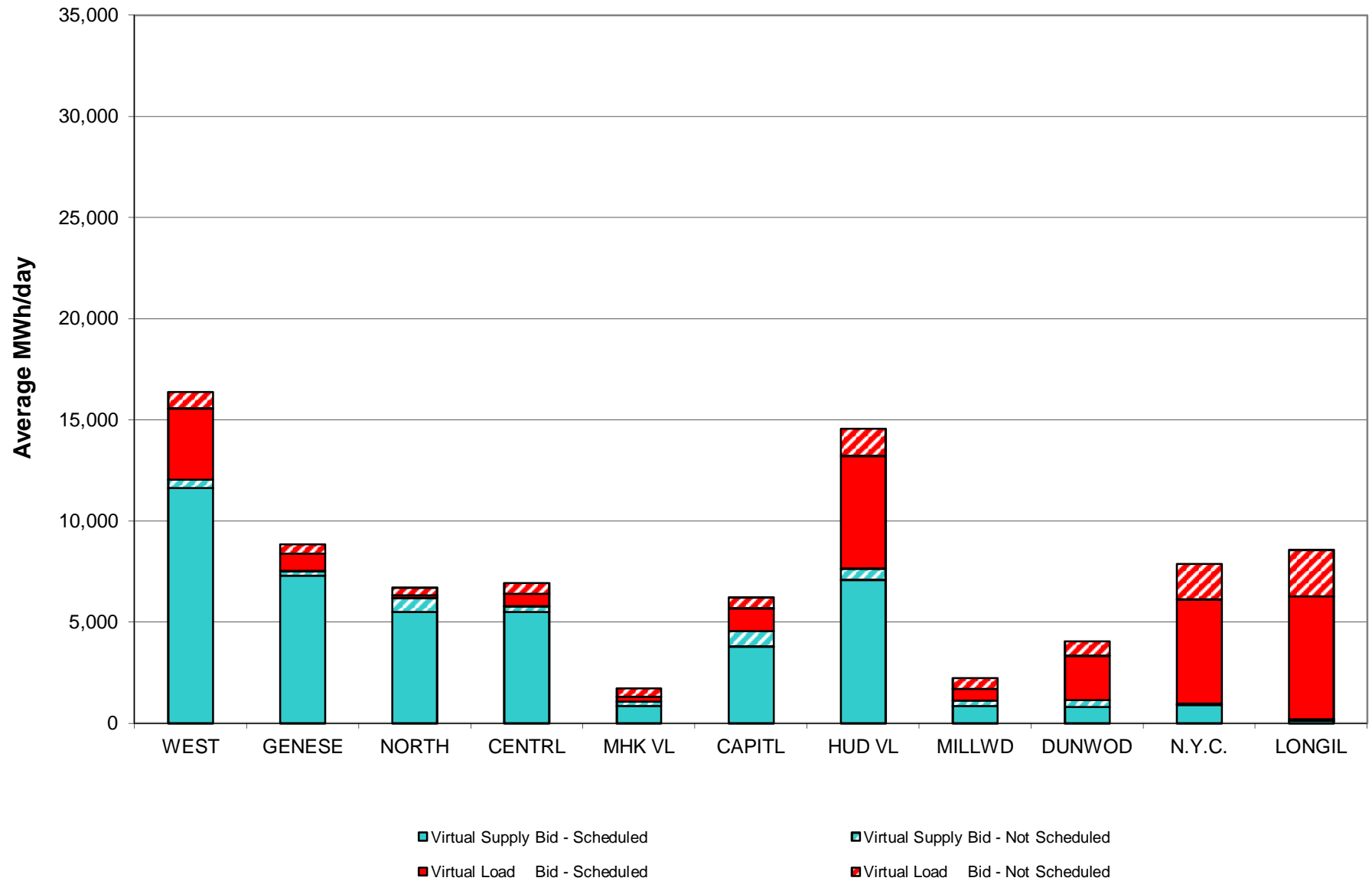


\* Calendar days from reservation date.

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



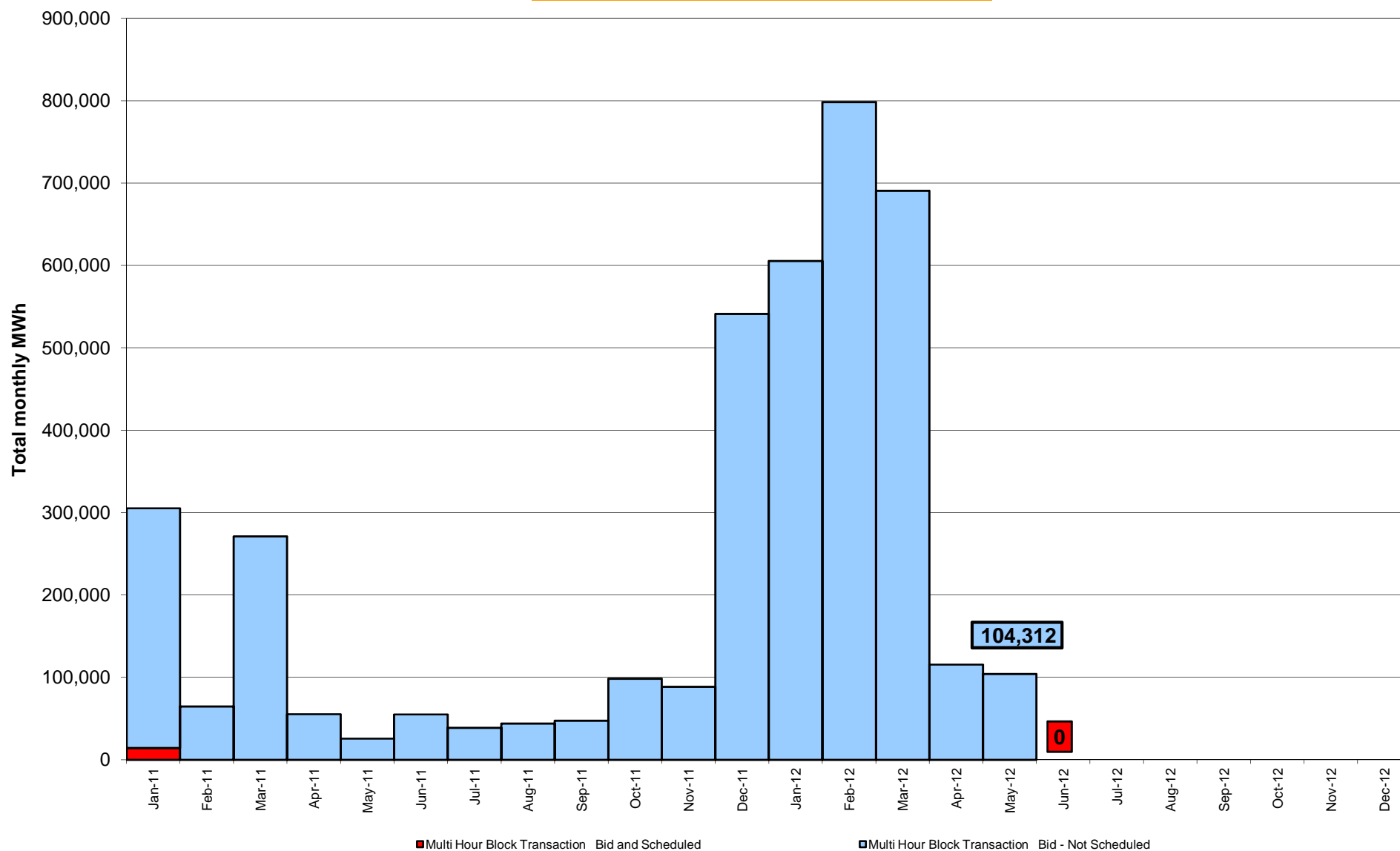
# Virtual Load and Supply Zonal Statistics through May 31, 2012



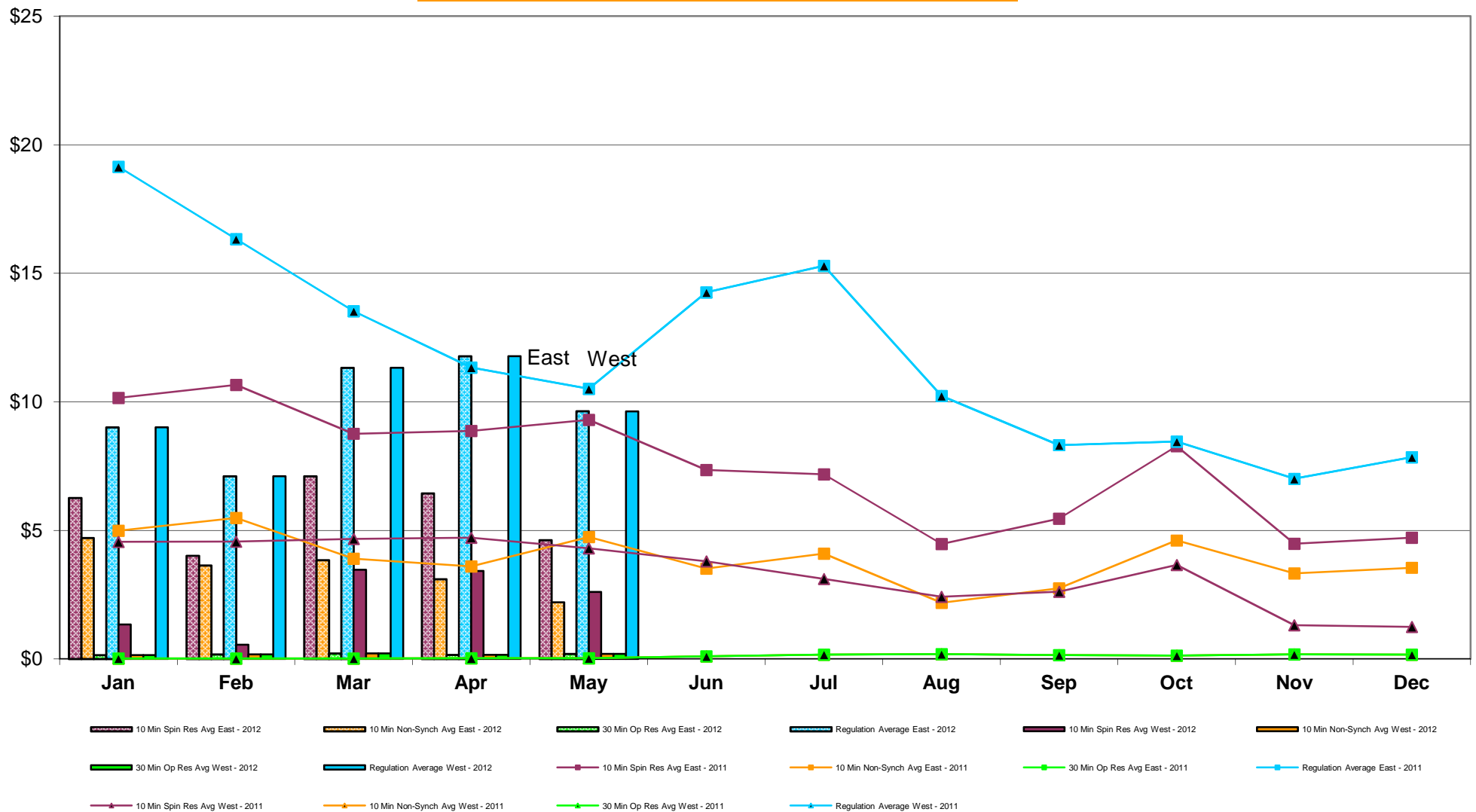
## Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2012

		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-12	2,246	938	13,593	956	MHK VL	Jan-12	419	967	1,488	1,127	DUNWOD	Jan-12	1,401	461	1,432	189
	Feb-12	5,195	315	15,119	1,672		Feb-12	444	935	1,592	1,303		Feb-12	1,805	219	2,922	625
	Mar-12	5,008	874	15,504	1,856		Mar-12	521	101	863	196		Mar-12	816	227	1,039	135
	Apr-12	6,077	492	11,547	427		Apr-12	399	104	872	130		Apr-12	1,476	429	1,084	202
	May-12	3,533	808	11,651	385		May-12	255	407	860	206		May-12	2,192	720	813	333
	Jun-12						Jun-12						Jun-12				
	Jul-12						Jul-12						Jul-12				
	Aug-12						Aug-12						Aug-12				
	Sep-12						Sep-12						Sep-12				
	Oct-12						Oct-12						Oct-12				
	Nov-12						Nov-12						Nov-12				
	Dec-12						Dec-12						Dec-12				
GENESE	Jan-12	257	102	5,254	64	CAPITL	Jan-12	1,903	5,590	3,842	3,364	N.Y.C.	Jan-12	4,572	4,060	2,511	9,344
	Feb-12	553	52	5,238	271		Feb-12	1,408	4,213	3,379	5,116		Feb-12	2,819	3,414	4,839	10,519
	Mar-12	866	61	6,036	283		Mar-12	1,126	369	2,777	904		Mar-12	5,449	1,074	3,035	1,548
	Apr-12	580	151	7,104	147		Apr-12	1,557	645	2,625	244		Apr-12	6,909	688	1,188	66
	May-12	887	449	7,306	213		May-12	1,126	527	3,813	763		May-12	5,170	1,758	907	56
	Jun-12						Jun-12						Jun-12				
	Jul-12						Jul-12						Jul-12				
	Aug-12						Aug-12						Aug-12				
	Sep-12						Sep-12						Sep-12				
	Oct-12						Oct-12						Oct-12				
	Nov-12						Nov-12						Nov-12				
	Dec-12						Dec-12						Dec-12				
NORTH	Jan-12	289	967	7,215	1,189	HUD VL	Jan-12	3,466	693	9,513	2,413	LONGIL	Jan-12	5,372	2,036	684	1,383
	Feb-12	332	935	7,359	1,119		Feb-12	5,087	794	9,250	3,788		Feb-12	6,810	1,496	473	1,708
	Mar-12	478	131	7,753	691		Mar-12	5,032	665	8,136	1,221		Mar-12	6,675	1,276	298	624
	Apr-12	357	85	6,365	645		Apr-12	3,748	1,147	11,772	442		Apr-12	7,354	943	129	17
	May-12	127	379	5,511	686		May-12	5,563	1,356	7,084	563		May-12	6,077	2,303	135	69
	Jun-12						Jun-12						Jun-12				
	Jul-12						Jul-12						Jul-12				
	Aug-12						Aug-12						Aug-12				
	Sep-12						Sep-12						Sep-12				
	Oct-12						Oct-12						Oct-12				
	Nov-12						Nov-12						Nov-12				
	Dec-12						Dec-12						Dec-12				
CENTRL	Jan-12	526	1,178	26,589	1,270	MILLWD	Jan-12	505	206	929	50	NYISO	Jan-12	20,956	17,198	73,050	21,349
	Feb-12	757	1,175	25,087	2,011		Feb-12	379	161	949	88		Feb-12	25,588	13,708	76,209	28,222
	Mar-12	993	171	27,015	1,187		Mar-12	442	99	736	79		Mar-12	27,405	5,047	73,193	8,725
	Apr-12	991	169	11,465	143		Apr-12	556	134	1,019	109		Apr-12	30,003	4,987	55,170	2,572
	May-12	630	543	5,516	265		May-12	602	540	875	237		May-12	26,162	9,789	44,469	3,776
	Jun-12						Jun-12						Jun-12				
	Jul-12						Jul-12						Jul-12				
	Aug-12						Aug-12						Aug-12				
	Sep-12						Sep-12						Sep-12				
	Oct-12						Oct-12						Oct-12				
	Nov-12						Nov-12						Nov-12				
	Dec-12						Dec-12						Dec-12				

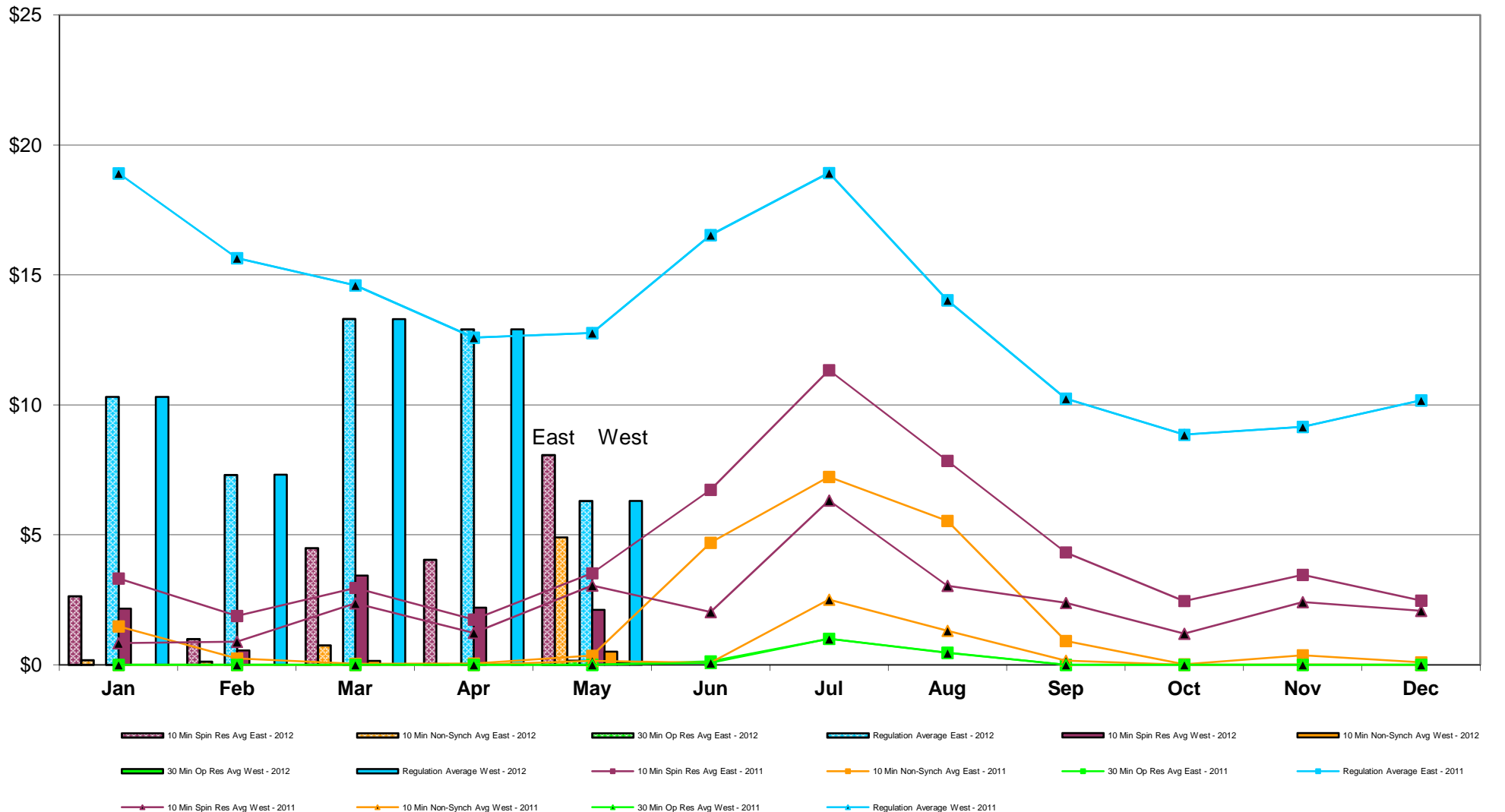
## NYISO Multi Hour Block Transactions Monthly Total MWh



# **NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2011 - 2012**

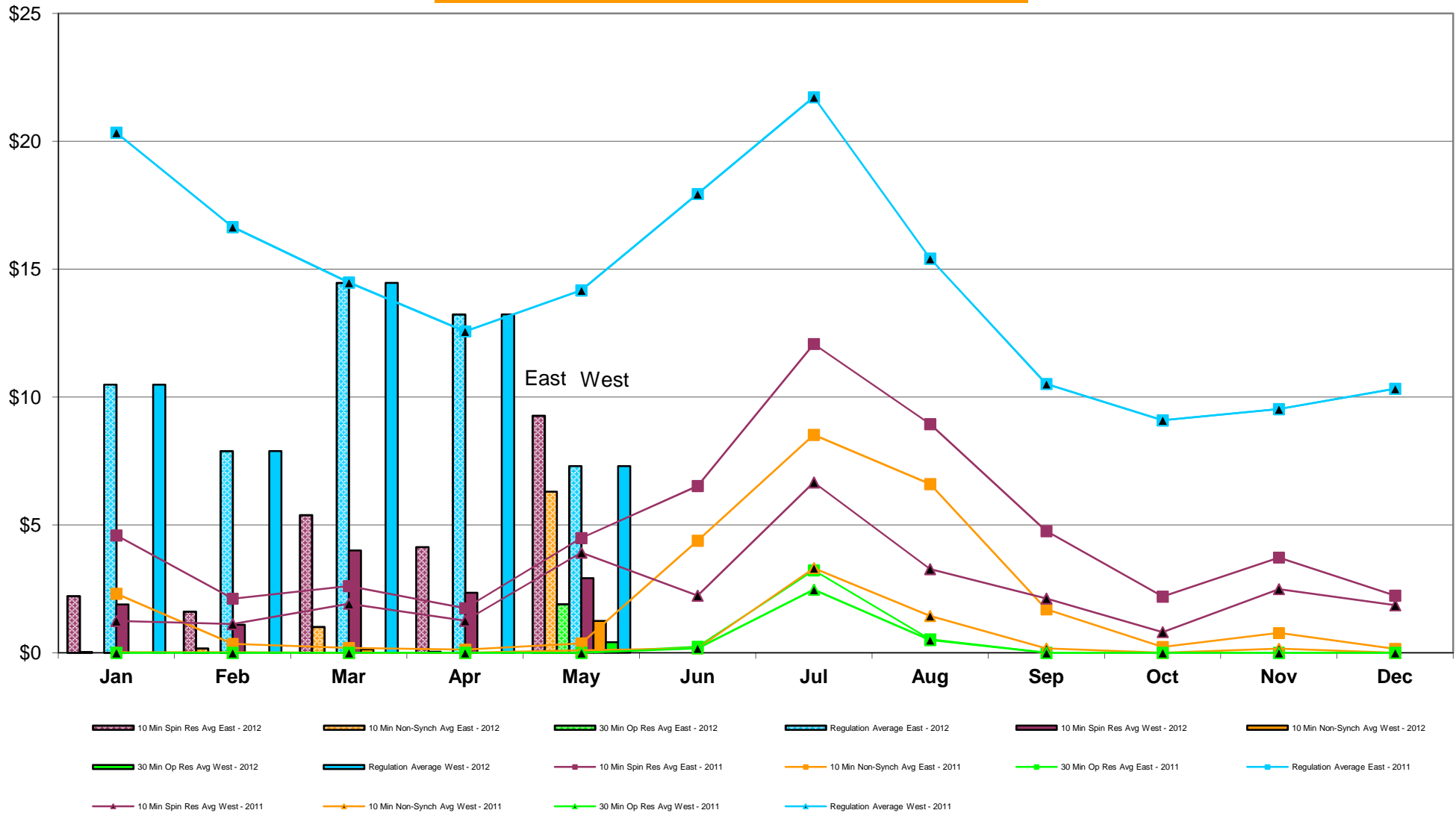


# **NYISO Monthly Average Ancillary Service Prices RTC Market 2011 - 2012**





# **NYISO Monthly Average Ancillary Service Prices Real Time Market 2011 - 2012**

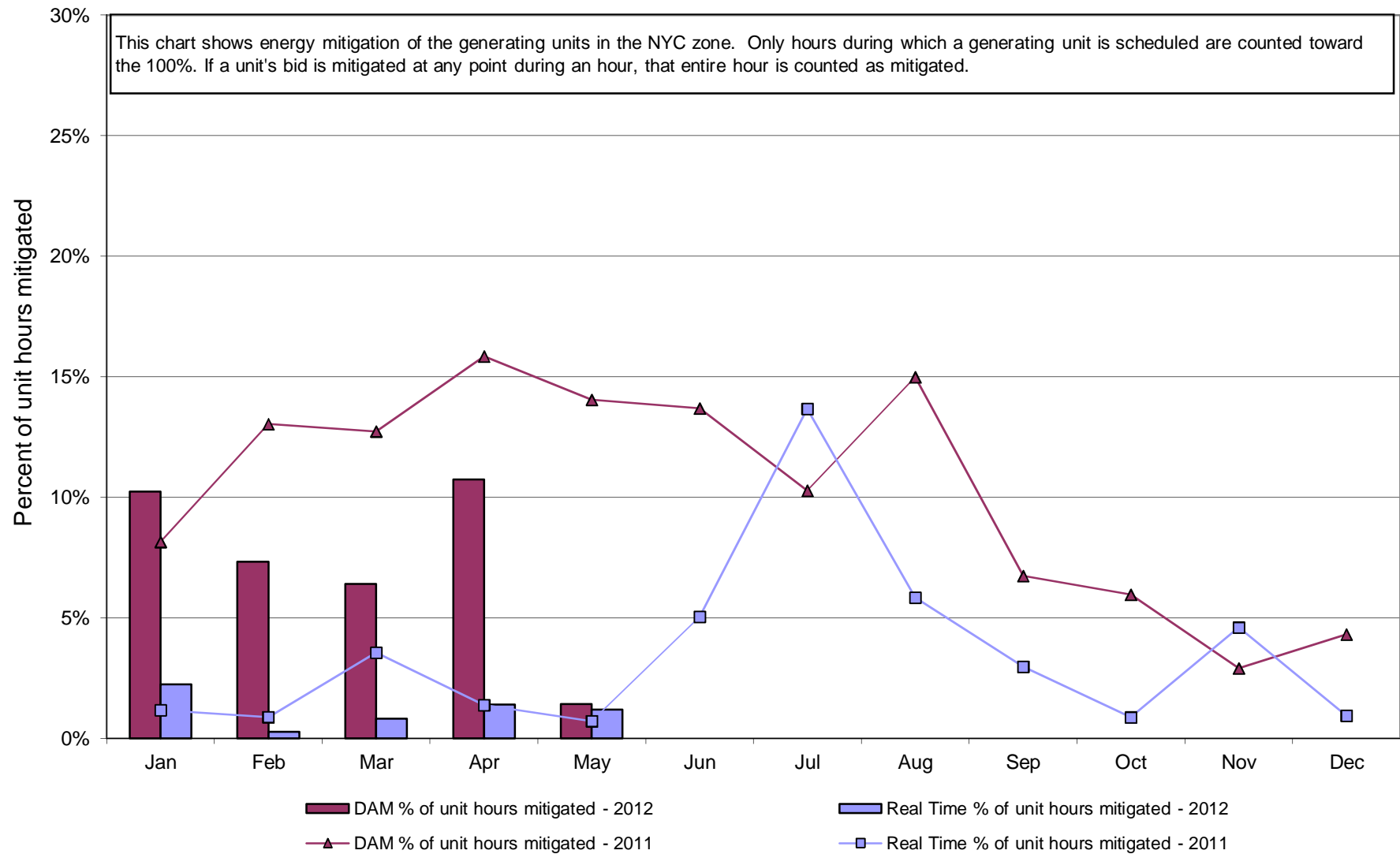


# NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

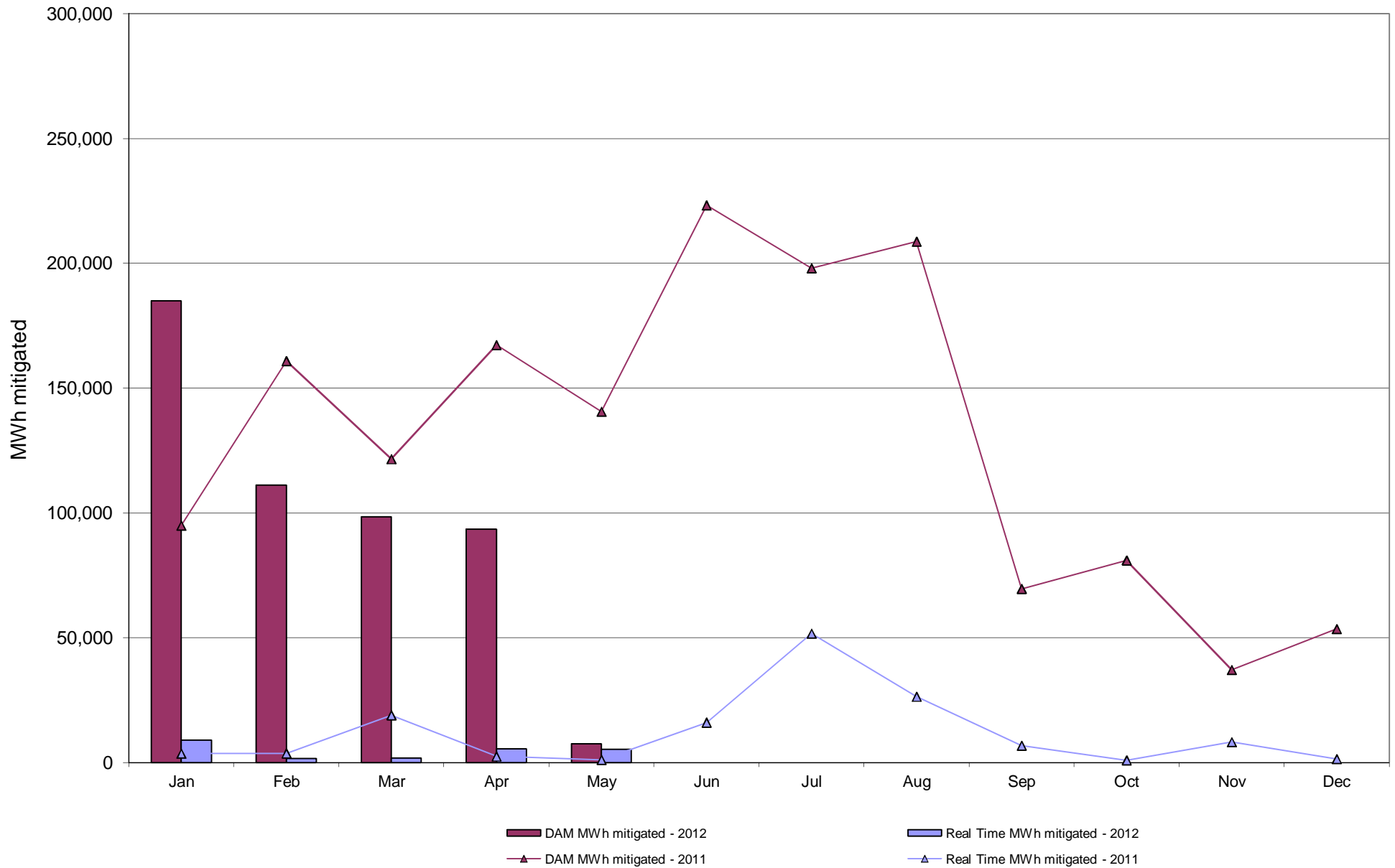
2012	January	February	March	April	May	June	July	August	September	October	November	December
<b>Day Ahead Market</b>												
10 Min Spin East	6.26	4.01	7.11	6.44	4.62							
10 Min Spin West	1.34	0.56	3.46	3.43	2.61							
10 Min Non Synch East	4.71	3.64	3.85	3.11	2.21							
10 Min Non Synch West	0.15	0.18	0.22	0.16	0.20							
30 Min East	0.15	0.18	0.22	0.16	0.20							
30 Min West	0.15	0.18	0.22	0.16	0.20							
Regulation East	9.01	7.11	11.33	11.77	9.63							
Regulation West	9.01	7.11	11.33	11.77	9.63							
<b>RTC Market</b>												
10 Min Spin East	2.64	0.99	4.49	4.05	8.07							
10 Min Spin West	2.16	0.55	3.43	2.20	2.11							
10 Min Non Synch East	0.17	0.13	0.75	0.02	4.90							
10 Min Non Synch West	0.00	0.00	0.15	0.00	0.50							
30 Min East	0.00	0.00	0.00	0.00	0.16							
30 Min West	0.00	0.00	0.00	0.00	0.07							
Regulation East	10.31	7.31	13.30	12.91	6.31							
Regulation West	10.31	7.31	13.30	12.91	6.31							
<b>Real Time Market</b>												
10 Min Spin East	2.21	1.61	5.38	4.14	9.27							
10 Min Spin West	1.89	1.09	4.00	2.34	2.92							
10 Min Non Synch East	0.03	0.17	1.01	0.03	6.31							
10 Min Non Synch West	0.00	0.00	0.13	0.00	1.24							
30 Min East	0.00	0.00	0.00	0.00	1.90							
30 Min West	0.00	0.00	0.00	0.00	0.41							
Regulation East	10.49	7.89	14.46	13.23	7.30							
Regulation West	10.49	7.89	14.46	13.23	7.30							
2011	January	February	March	April	May	June	July	August	September	October	November	December
<b>Day Ahead Market</b>												
10 Min Spin East	10.15	10.66	8.76	8.87	9.30	7.35	7.18	4.47	5.46	7.76	4.48	4.72
10 Min Spin West	4.55	4.56	4.67	4.72	4.30	3.80	3.12	2.42	2.62	3.15	1.32	1.25
10 Min Non Synch East	4.99	5.48	3.90	3.60	4.75	3.51	4.10	2.19	2.75	4.62	3.33	3.55
10 Min Non Synch West	0.02	0.02	0.02	0.03	0.03	0.10	0.17	0.19	0.15	0.14	0.18	0.17
30 Min East	0.02	0.02	0.02	0.03	0.03	0.10	0.17	0.19	0.15	0.14	0.18	0.17
30 Min West	0.02	0.02	0.02	0.03	0.03	0.10	0.17	0.19	0.15	0.14	0.18	0.17
Regulation East	19.14	16.33	13.53	11.34	10.51	14.26	15.29	10.23	8.32	8.02	7.01	7.85
Regulation West	19.14	16.33	13.53	11.34	10.51	14.26	15.29	10.23	8.32	8.02	7.01	7.85
<b>RTC Market</b>												
10 Min Spin East	3.32	1.88	2.96	1.74	3.52	6.74	11.34	7.84	4.33	3.84	3.46	2.47
10 Min Spin West	0.83	0.89	2.37	1.23	3.05	2.03	6.33	3.04	2.38	2.23	2.41	2.08
10 Min Non Synch East	1.48	0.25	0.04	0.05	0.35	4.69	7.23	5.54	0.91	0.10	0.37	0.09
10 Min Non Synch West	0.00	0.00	0.00	0.00	0.15	0.07	2.51	1.31	0.16	0.00	0.01	0.00
30 Min East	0.00	0.00	0.00	0.00	0.00	0.13	1.01	0.47	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.07	1.00	0.45	0.00	0.00	0.00	0.00
Regulation East	18.91	15.65	14.60	12.59	12.77	16.54	18.93	14.03	10.24	9.62	9.16	10.18
Regulation West	18.91	15.65	14.60	12.59	12.77	16.54	18.93	14.03	10.24	9.62	9.16	10.18
<b>Real Time Market</b>												
10 Min Spin East	4.59	2.12	2.61	1.74	4.49	6.52	12.08	8.94	4.75	3.03	3.72	2.24
10 Min Spin West	1.25	1.12	1.92	1.26	3.92	2.23	6.66	3.27	2.12	1.50	2.49	1.86
10 Min Non Synch East	2.31	0.35	0.19	0.13	0.37	4.38	8.52	6.60	1.71	0.21	0.77	0.15
10 Min Non Synch West	0.02	0.02	0.00	0.00	0.10	0.18	3.31	1.44	0.17	0.00	0.16	0.00
30 Min East	0.00	0.00	0.00	0.00	0.00	0.24	3.22	0.52	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.18	2.47	0.50	0.00	0.00	0.00	0.00
Regulation East	20.34	16.65	14.48	12.57	14.17	17.94	21.72	15.41	10.51	9.34	9.53	10.32
Regulation West	20.34	16.65	14.48	12.57	14.17	17.94	21.72	15.41	10.51	9.34	9.53	10.32

## NYISO In City Energy Mitigation - AMP (NYC Zone) 2011 - 2012

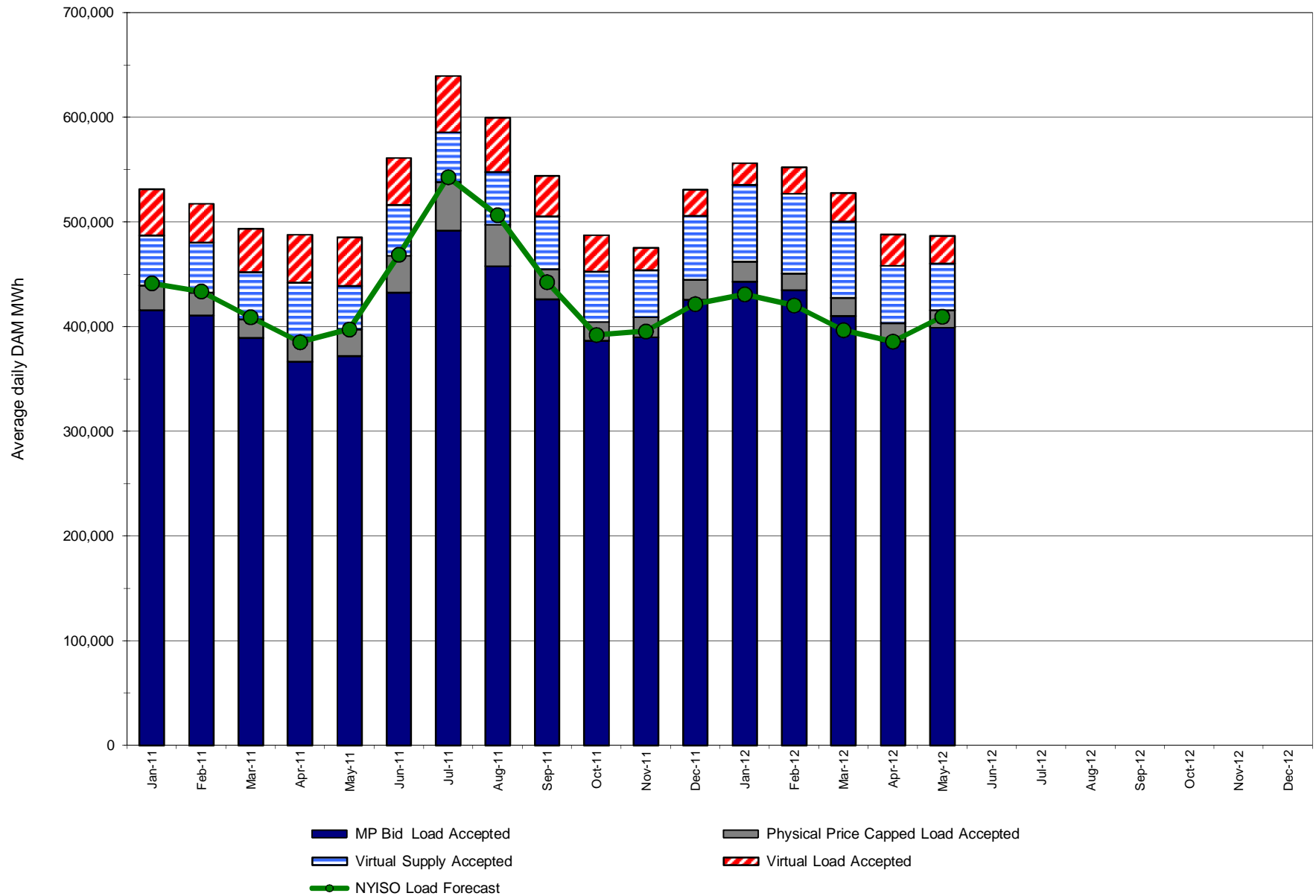
### Percentage of committed unit-hours mitigated



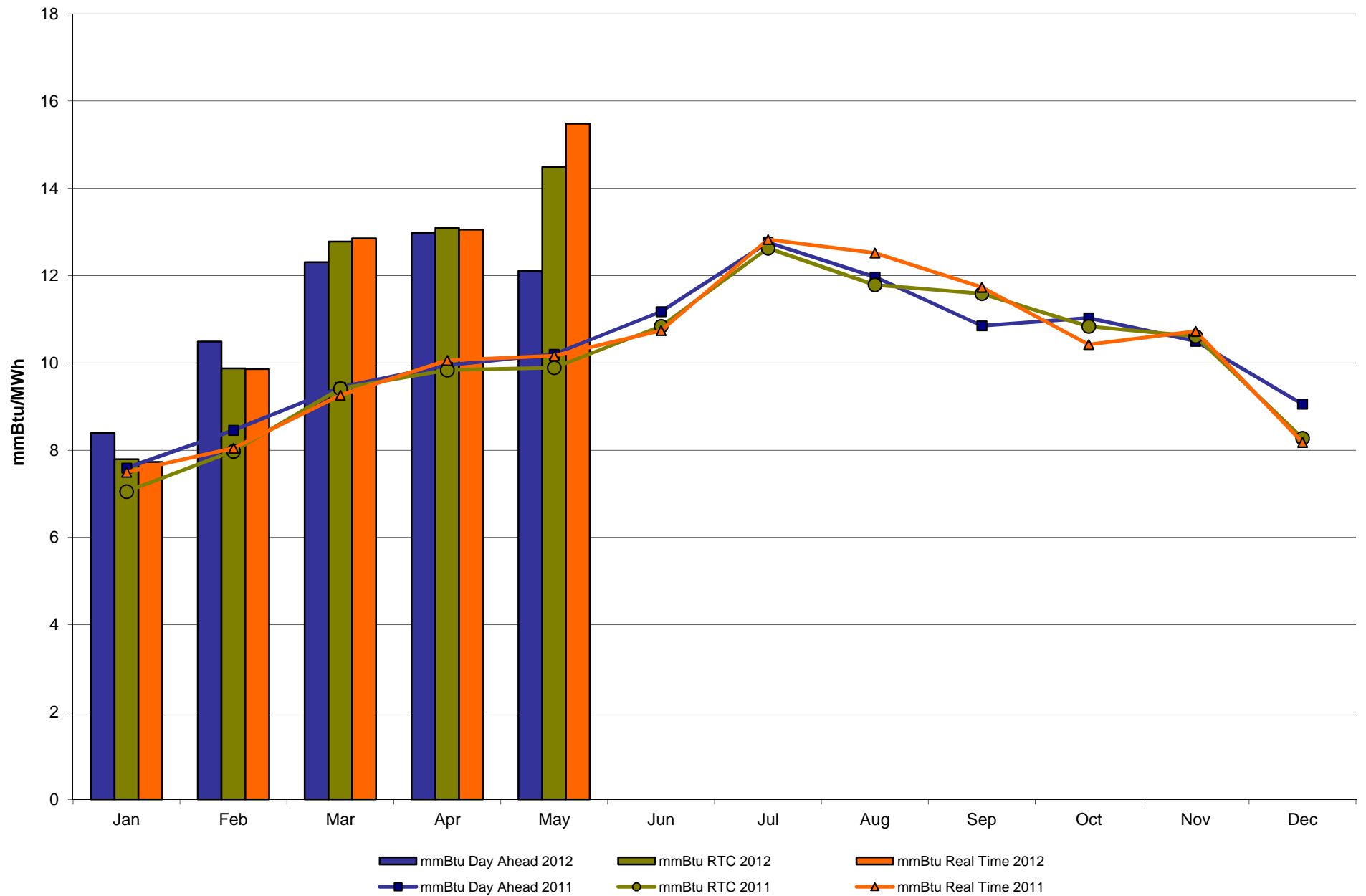
**NYISO In City Energy Mitigation (NYC Zone) 2011 - 2012**  
**Monthly megawatt hours mitigated**



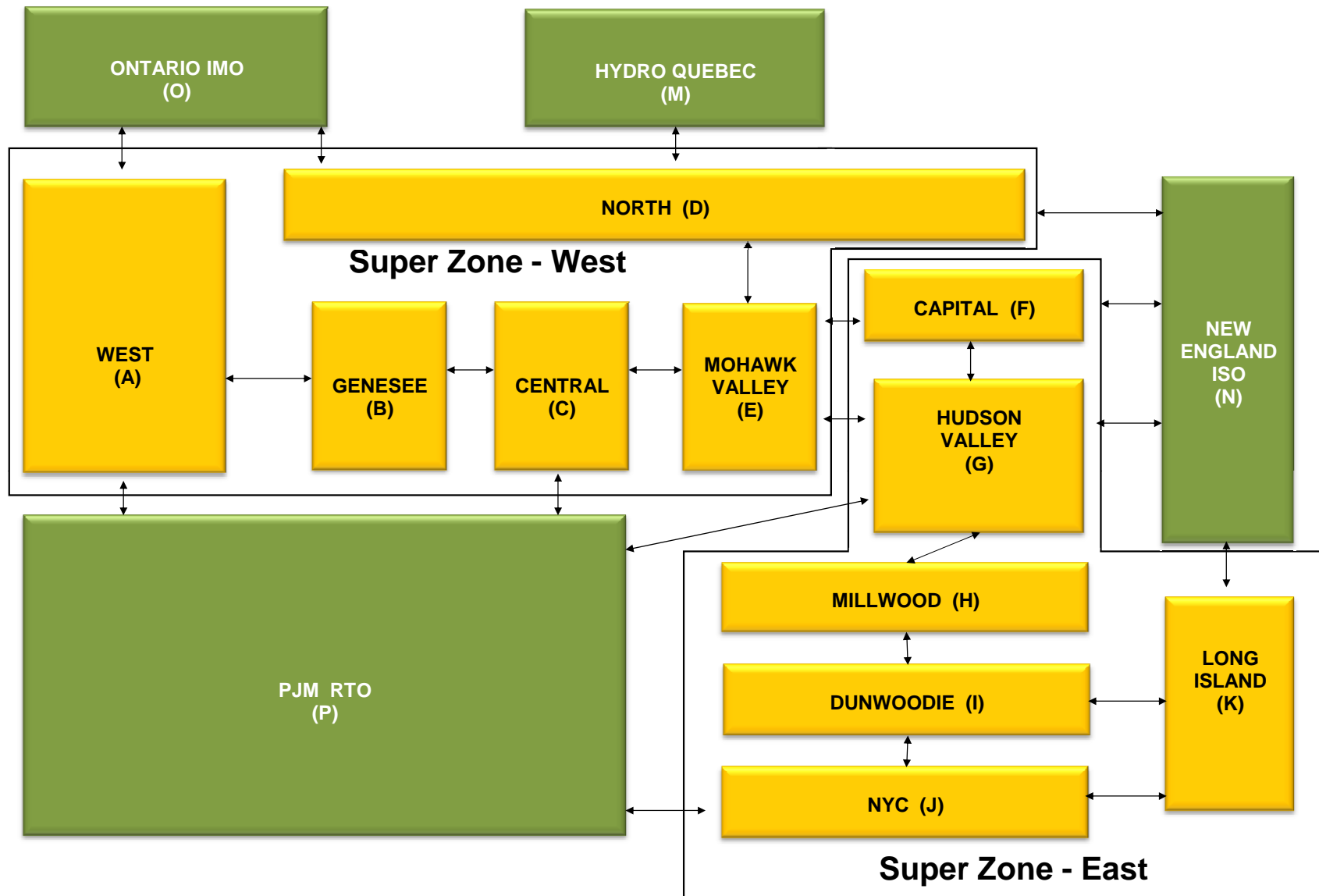
# NYISO Average Daily DAM Load Bid Summary



# Monthly Implied Heat Rate 2011-2012



# NYISO LBMP ZONES



**Billing Codes for Chart 4-C**

<b><u>Chart 4-C Category Name</u></b>	<b><u>Billing Code</u></b>	<b><u>Billing Category Name</u></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