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# **NYISO President's Report**

*Management Committee Meeting  
August 26, 2009*

# Report Items

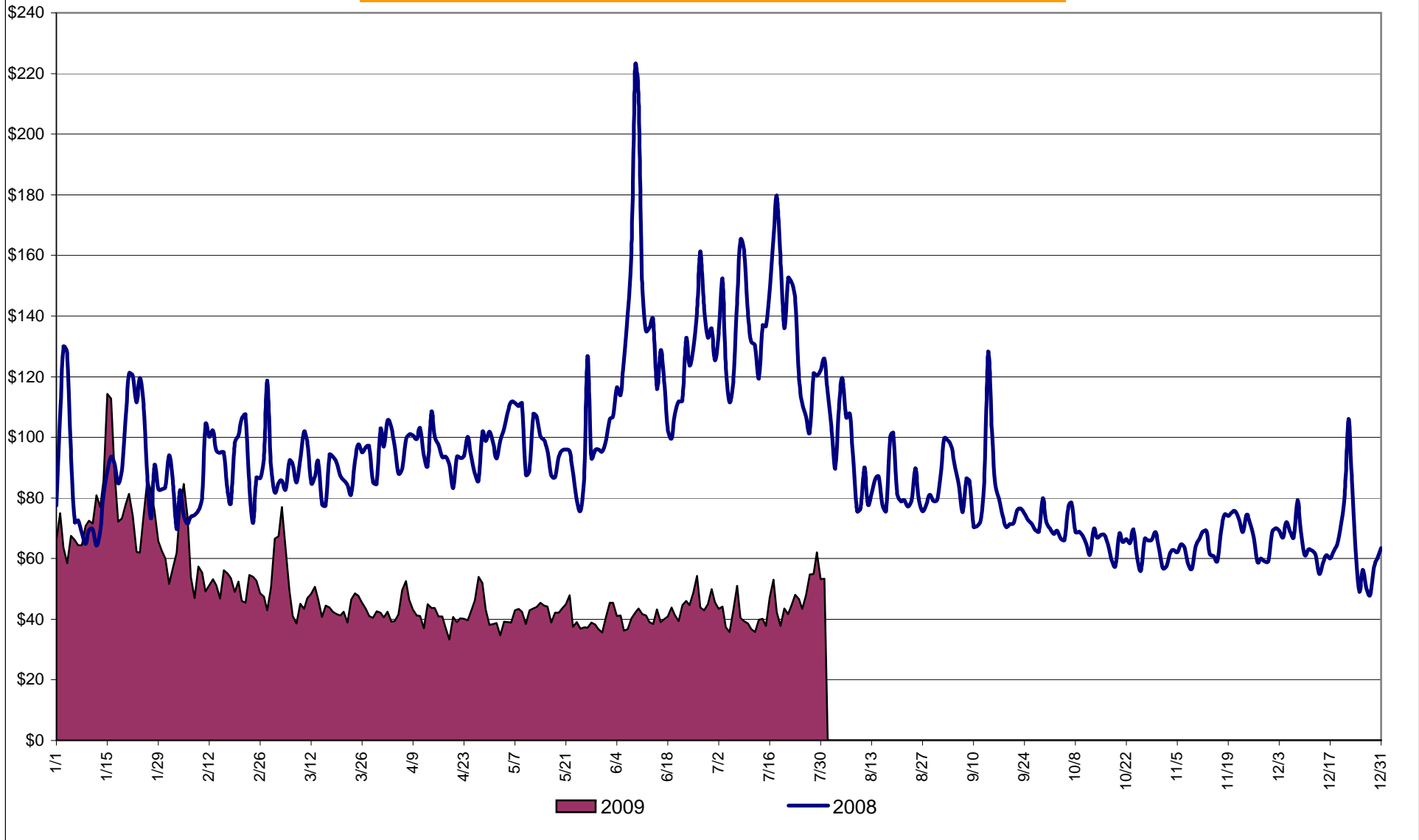
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- Market Performance Highlights – For Information Only
- 2009 Budget Update (projects)
- Broader Regional Markets
- DOE Stimulus Projects Update
  - *PMUs/Capacitors*
  - *Eastern Interconnection Planning Collaborative (EIPC)*
  - *Fiber Backbone*
- Uplift

# Market Performance Highlights for July 2009

- LBMP for July is \$40.68/MWh, up from \$39.00/MWh in June 2009.
  - Average monthly cost is \$45.35/MWh, up from \$43.03/MWh in June 2009.
  - Day Ahead LBMPs have increased while Real Time LBMPs have decreased from June 2009.
- Average daily sendout is 469GWh/day in July, up from 427GWh/day in June 2009 and lower than the July 2008 sendout of 541GWh/day.
- Fuel prices are down slightly this month compared to last month.
  - Kerosene is \$13.18/MMBtu, down from \$13.71/MMBtu in June.
  - No. 2 Fuel Oil is \$11.57/MMBtu, down from \$12.41/MMBtu in June.
  - No. 6 Fuel Oil is \$9.59/MMBtu, down from \$9.80/MMBtu in June
  - Natural Gas is \$3.70/MMBtu, down from \$4.11/MMBtu in June.
- Uplift per MWh is up from the previous month.
  - Uplift (not including NYISO cost of operations) is \$2.52/MWh, up from \$1.66/MWh in June.
  - Total uplift (Schedule 1 components including NYISO Cost of Operations) increased from \$29.7 million in June to \$46.2 million in July 2009. The bulk of the increase is from TSA allocations. This is charged to loads within the New York City Zone.

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2008 Annual Average \$95.31/MWh  
 July 2008 YTD Average \$107.98/MWh  
 July 2009 YTD Average \$50.96/MWh



\* Excludes ICAP payments.

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

<b>2009</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	73.28	52.73	45.63	39.64	37.82	39.00	40.68					
NTAC	0.45	0.53	0.36	0.87	0.58	0.77	0.64					
Reserve	0.26	0.35	0.31	0.24	0.30	0.23	0.24					
Regulation	0.45	0.48	0.55	0.37	0.31	0.37	0.29					
NYISO Cost of Operations	0.65	0.65	0.65	0.65	0.65	0.65	0.65					
Uplift	0.11	0.41	0.21	0.68	0.64	1.66	2.52					
Voltage Support and Black Start	0.34	0.34	0.34	0.34	0.34	0.34	0.34					
<b>Avg Monthly Cost</b>	75.54	55.49	48.06	42.80	40.65	43.03	45.35					
Avg YTD Cost	75.54	66.82	60.96	56.83	53.89	52.07	50.96					

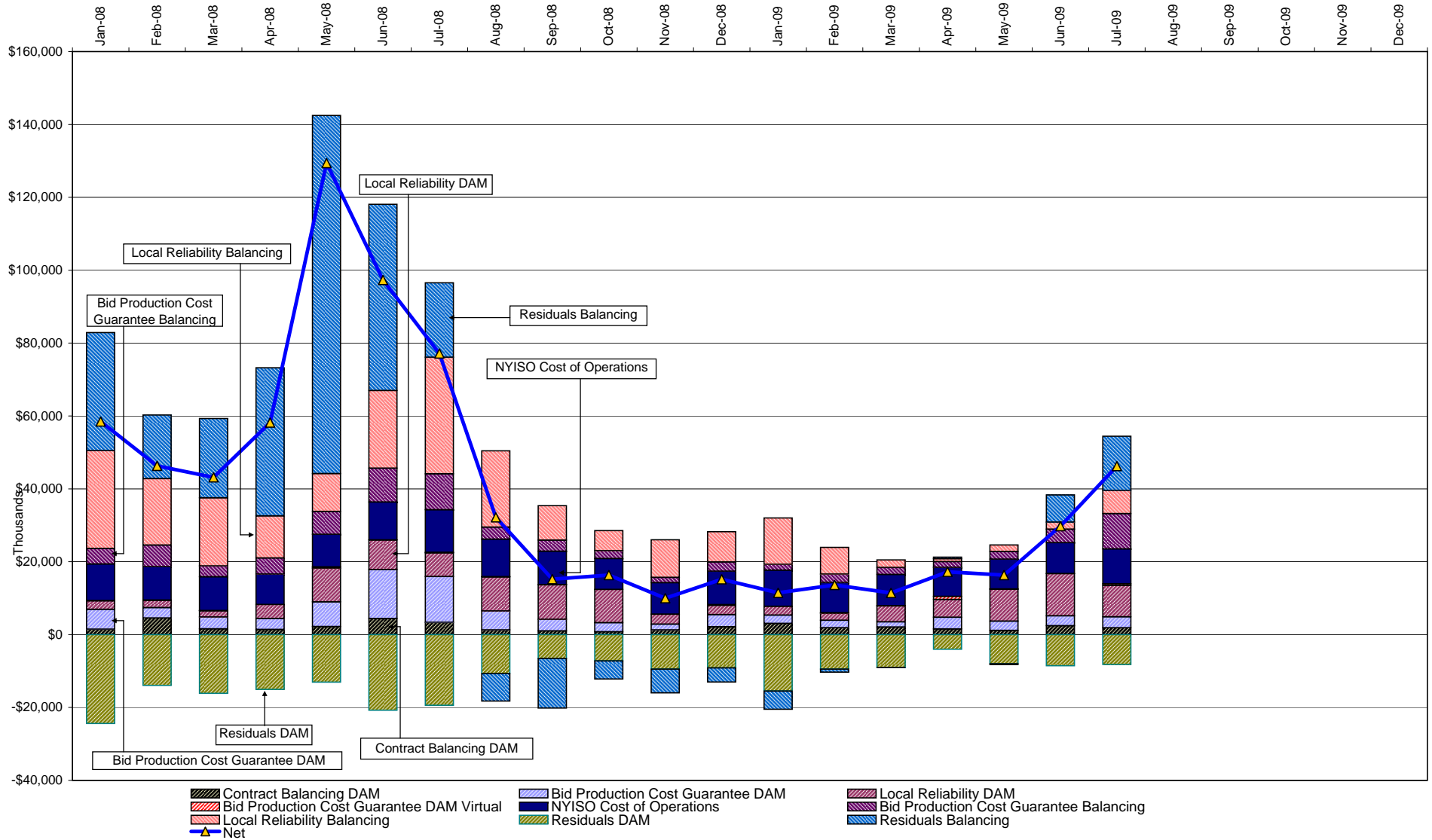
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<b>2008</b>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	87.00	85.62	85.28	91.20	87.20	128.17	131.34	85.61	80.16	63.61	62.54	63.73
NTAC	0.34	0.43	0.41	0.62	0.48	0.78	1.04	0.66	0.69	0.58	1.28	0.63
Reserve	0.38	0.48	0.55	0.46	0.34	0.27	0.28	0.25	0.27	0.35	0.27	0.26
Regulation	0.54	0.57	0.61	0.53	0.50	0.52	0.44	0.49	0.54	0.53	0.49	0.44
NYISO Cost of Operations	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Uplift	3.10	2.48	2.01	2.58	8.53	5.52	3.54	1.39	0.43	0.59	0.11	0.41
Voltage Support and Black Start	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
<b>Avg Monthly Cost</b>	92.37	90.58	89.87	96.40	98.07	136.26	137.65	89.41	83.08	66.67	65.69	66.48
Avg YTD Cost	92.37	91.52	90.98	92.26	93.37	101.31	107.98	105.57	103.30	100.31	97.63	95.31

\* Excludes ICAP payments.

These numbers reflect the true-ups of 2008.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through July 31, 2009



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>2009</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>	14,570,391	12,511,009	13,160,913	12,121,505	12,324,218	13,159,069	14,549,784					
DAM LSE Internal LBMP Energy Sales	45%	44%	46%	47%	43%	48%	51%					
DAM External TC LBMP Energy Sales	4%	2%	1%	1%	2%	2%	1%					
DAM Bilateral - Internal Bilaterals	45%	47%	45%	45%	48%	43%	42%					
DAM Bilateral - Import/Non-LBMP Market Bilaterals	4%	5%	5%	5%	5%	5%	5%					
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%	1%	1%					
DAM Bilateral - Wheel Through Bilaterals	0%	0%	0%	0%	1%	1%	1%					
<b>Balancing Energy Market MWh</b>	699,631	283,724	71,936	151,759	271,842	-115,536	131,233					
Balancing Energy LSE Internal LBMP Energy Sales	56%	39%	-106%	-32%	28%	-247%	-100%					
Balancing Energy External TC LBMP Energy Sales	38%	46%	147%	119%	74%	141%	141%					
Balancing Energy Bilateral - Internal Bilaterals	8%	19%	67%	20%	10%	23%	53%					
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	2%	0%					
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	1%	5%	16%	8%	4%	8%	12%					
Balancing Energy Bilateral - Wheel Through Bilaterals	-2%	-10%	-24%	-15%	-15%	-27%	-6%					
<b>Transactions Summary</b>												
LBMP	51%	47%	48%	48%	46%	49%	51%					
Internal Bilaterals	43%	46%	45%	44%	47%	44%	42%					
Import Bilaterals	4%	5%	5%	5%	5%	5%	5%					
Export Bilaterals	2%	2%	2%	2%	2%	1%	1%					
Wheels Through	0%	0%	0%	0%	0%	0%	1%					
<b>Market Share of Total Load</b>												
Day Ahead Market	95.4%	97.8%	99.5%	98.8%	97.8%	100.9%	99.1%					
Balancing Energy +	4.6%	2.2%	0.5%	1.2%	2.2%	-0.9%	0.9%					
Total MWh	15,270,021	12,794,733	13,232,849	12,273,264	12,596,059	13,043,533	14,681,017					
Average Daily Energy Sendout/Month GWh	470	447	422	400	396	427	469					

<b>2008</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>	14,984,732	13,722,512	13,744,999	12,645,499	13,325,474	15,365,697	17,761,482	15,971,685	13,927,588	13,081,095	13,117,299	13,947,259
DAM LSE Internal LBMP Energy Sales	42%	42%	45%	48%	42%	45%	47%	45%	45%	44%	41%	44%
DAM External TC LBMP Energy Sales	9%	7%	5%	4%	6%	5%	8%	7%	4%	3%	5%	2%
DAM Bilateral - Internal Bilaterals	43%	43%	43%	40%	45%	43%	39%	42%	44%	46%	46%	47%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	5%	5%	4%	4%	4%	4%	5%	4%	5%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%
<b>Balancing Energy Market MWh</b>	912,477	829,794	1,020,858	767,755	908,796	1,107,024	834,886	389,313	635,380	397,842	605,209	613,724
Balancing Energy LSE Internal LBMP Energy Sales	23%	50%	19%	-3%	3%	35%	47%	45%	64%	29%	43%	50%
Balancing Energy External TC LBMP Energy Sales	68%	48%	78%	97%	98%	56%	53%	47%	36%	84%	64%	55%
Balancing Energy Bilateral - Internal Bilaterals	6%	1%	3%	4%	-2%	5%	3%	6%	4%	7%	0%	1%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%	1%
Balancing Energy Bilateral - Wheel Through Bilaterals	2%	1%	1%	2%	2%	5%	-2%	3%	-4%	-20%	-7%	-6%
<b>Transactions Summary</b>												
LBMP	53%	52%	53%	55%	52%	53%	57%	53%	51%	49%	49%	49%
Internal Bilaterals	41%	41%	40%	38%	42%	40%	37%	41%	42%	45%	44%	45%
Import Bilaterals	5%	5%	4%	5%	4%	4%	4%	4%	5%	4%	5%	5%
Export Bilaterals	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Wheels Through	0%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
<b>Market Share of Total Load</b>												
Day Ahead Market	94.3%	94.3%	93.1%	94.3%	93.6%	93.3%	95.5%	97.6%	95.6%	97.0%	95.6%	95.8%
Balancing Energy +	5.7%	5.7%	6.9%	5.7%	6.4%	6.7%	4.5%	2.4%	4.4%	3.0%	4.4%	4.2%
Total MWh	15,897,209	14,552,307	14,765,858	13,413,255	14,234,270	16,472,720	18,596,368	16,360,998	14,562,968	13,478,936	13,722,508	14,560,983
Average Daily Energy Sendout/Month GWh	456	455	432	406	403	499	541	488	461	412	424	452

+ 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 2009 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 *	\$70.53	\$50.89	\$43.34	\$38.19	\$36.13	\$37.01	\$37.93					
Standard Deviation	\$19.46	\$13.06	\$12.24	\$9.26	\$8.91	\$10.07	\$11.53					
Load Weighted Price **	\$72.36	\$52.15	\$44.64	\$39.31	\$37.38	\$38.64	\$39.88					
<b><u>RTC LBMP</u></b>												
Price *	\$69.26	\$51.46	\$43.88	\$37.06	\$36.18	\$35.15	\$35.97					
Standard Deviation	\$23.37	\$21.26	\$20.38	\$15.20	\$12.48	\$20.07	\$17.38					
Load Weighted Price **	\$70.80	\$52.72	\$45.21	\$38.14	\$37.16	\$36.57	\$37.29					
<b><u>REAL TIME LBMP</u></b>												
Price *	\$68.14	\$50.62	\$43.73	\$37.72	\$35.11	\$34.92	\$34.13					
Standard Deviation	\$23.66	\$20.30	\$22.27	\$20.84	\$19.81	\$29.81	\$23.16					
Load Weighted Price **	\$69.80	\$52.14	\$45.36	\$39.13	\$36.48	\$36.73	\$35.82					
Average Daily Energy Sendout/Month GWh	470	447	422	400	396	427	469					

### NYISO Markets 2008 Energy Statistics

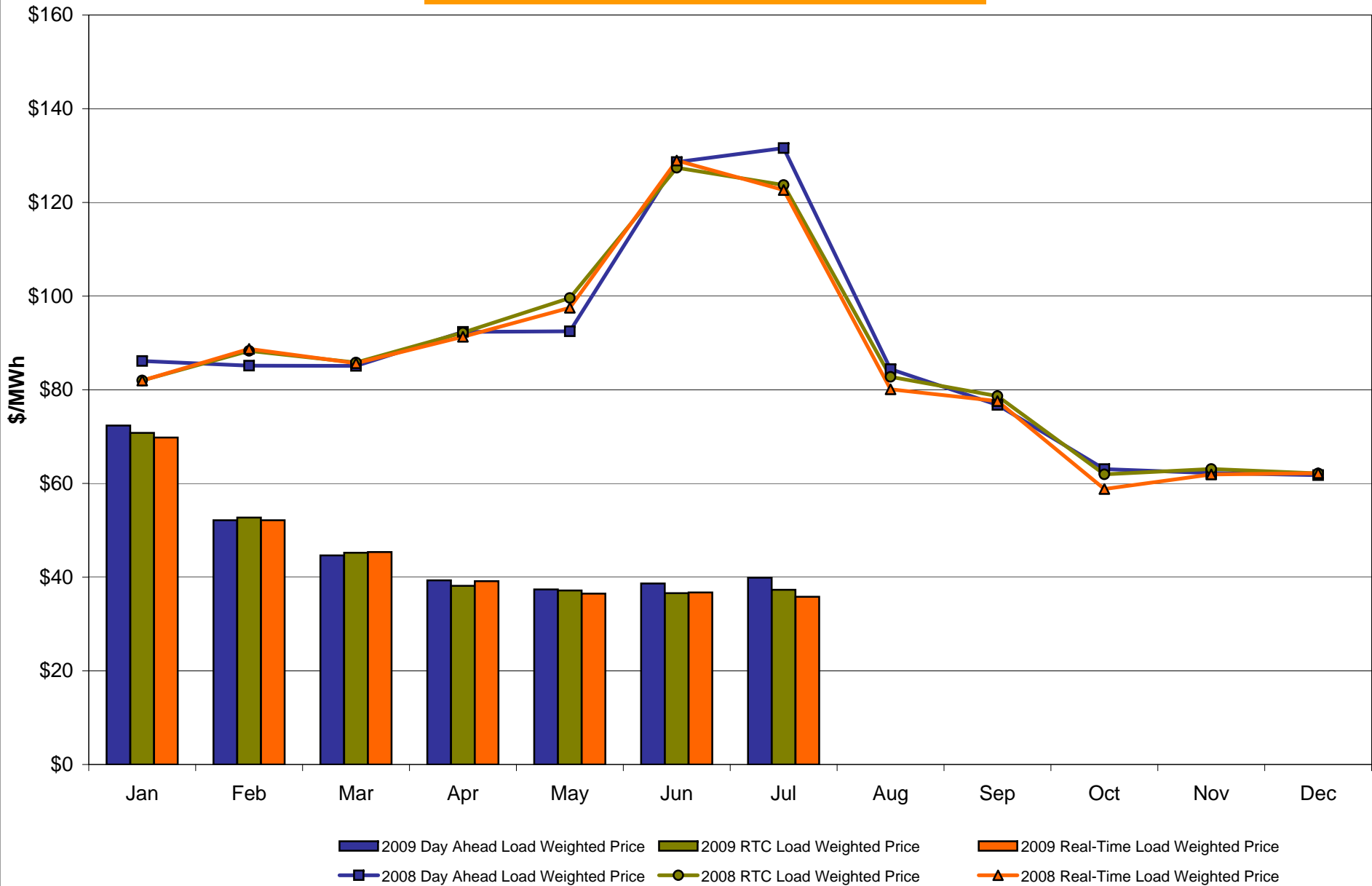
	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b><u>DAY AHEAD LBMP</u></b>												
Price *	\$83.07	\$82.66	\$83.11	\$89.77	\$89.35	\$121.83	\$125.89	\$81.02	\$74.07	\$61.37	\$60.60	\$60.02
Standard Deviation	\$28.43	\$22.45	\$17.97	\$19.87	\$23.21	\$41.13	\$38.25	\$21.91	\$17.78	\$13.20	\$13.04	\$16.61
Load Weighted Price **	\$86.14	\$85.14	\$85.09	\$92.37	\$92.48	\$128.61	\$131.60	\$84.41	\$76.77	\$63.06	\$62.23	\$61.76
<b><u>RTC LBMP</u></b>												
Price *	\$79.46	\$85.91	\$83.81	\$90.48	\$96.21	\$120.88	\$119.78	\$80.23	\$75.23	\$60.39	\$61.67	\$60.24
Standard Deviation	\$35.00	\$60.79	\$34.42	\$31.97	\$61.32	\$64.44	\$53.84	\$39.90	\$49.92	\$26.42	\$16.96	\$31.25
Load Weighted Price **	\$81.98	\$88.30	\$85.82	\$92.22	\$99.59	\$127.40	\$123.71	\$82.76	\$78.66	\$61.95	\$63.08	\$62.14
<b><u>REAL TIME LBMP</u></b>												
Price *	\$79.00	\$85.89	\$83.51	\$89.37	\$93.72	\$120.05	\$118.37	\$77.34	\$72.47	\$57.30	\$60.24	\$59.55
Standard Deviation	\$38.83	\$49.87	\$33.64	\$31.14	\$59.68	\$80.00	\$49.42	\$33.97	\$56.87	\$22.16	\$17.79	\$31.29
Load Weighted Price **	\$81.97	\$88.72	\$85.68	\$91.31	\$97.50	\$128.95	\$122.64	\$80.09	\$77.60	\$58.81	\$61.91	\$62.19
Average Daily Energy Sendout/Month GWh	456	455	432	406	403	499	541	488	461	412	424	452

\* Average zonal load weighted prices.

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



# NYISO Monthly Average Internal LBMPs 2008 - 2009

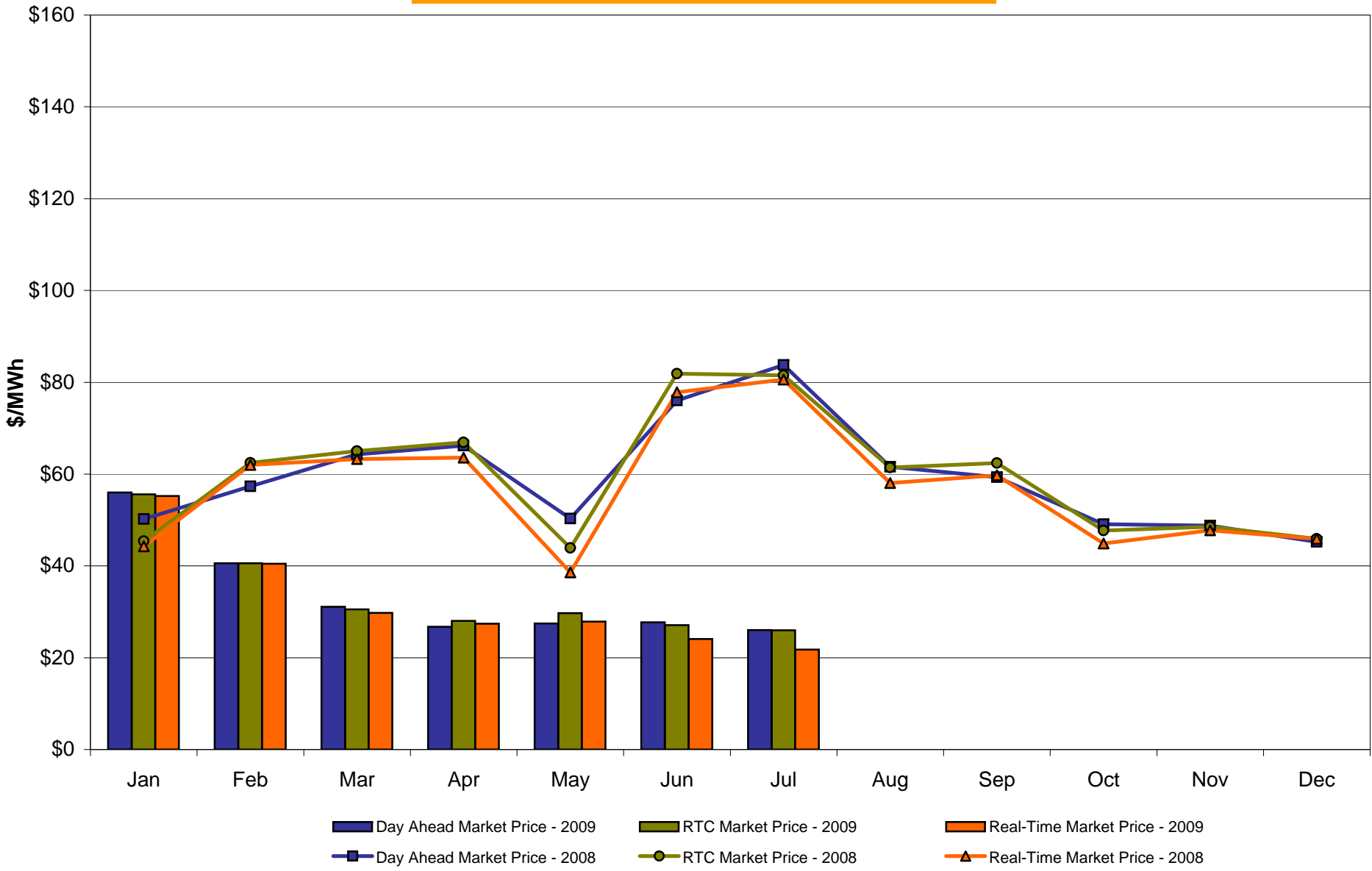


**July 2009 Zonal LBMP Statistics for NYISO (\$/MWh)**

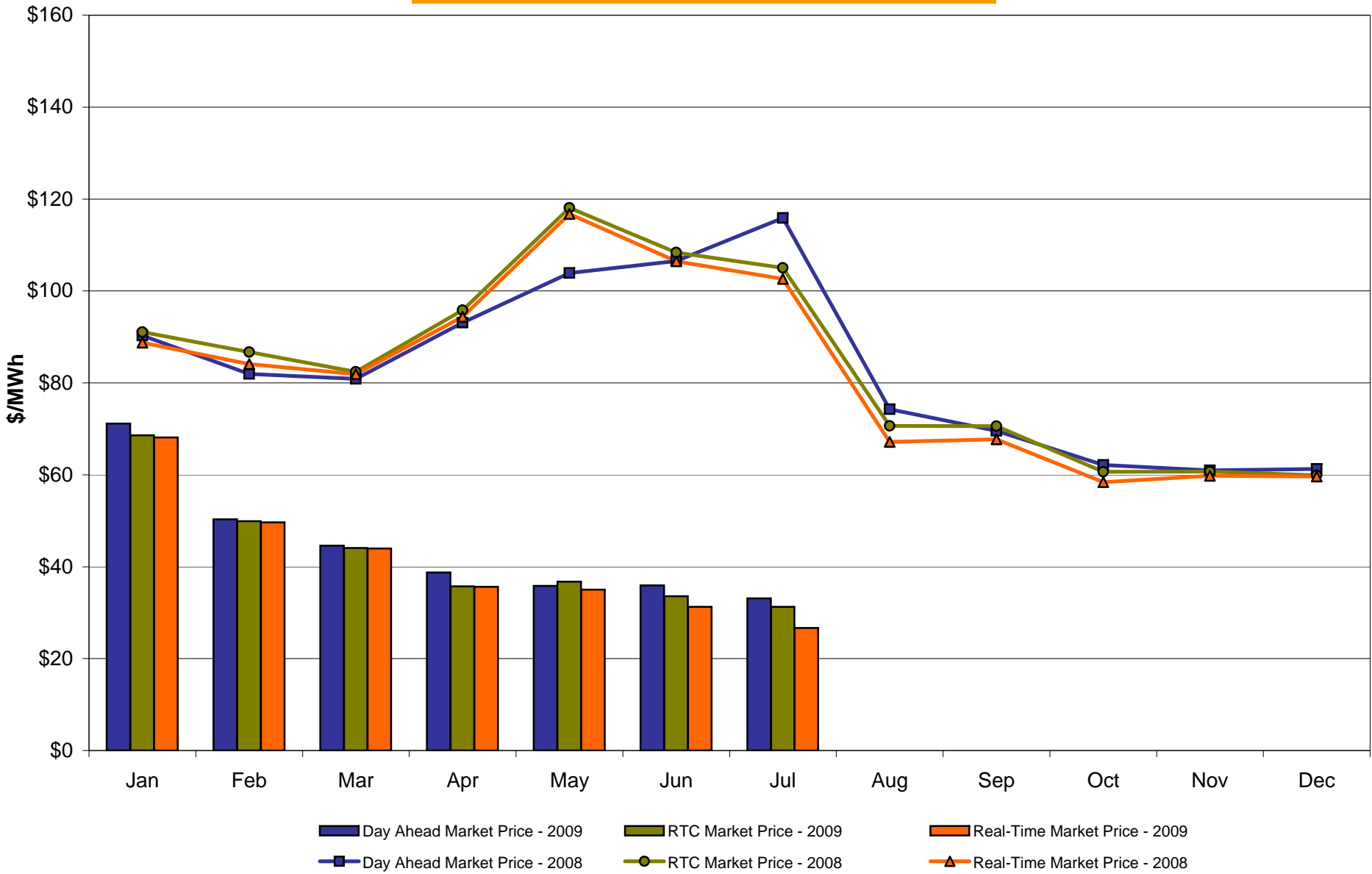
	<b>WEST</b>	<b>GENESEE</b>	<b>NORTH</b>	<b>CENTRAL</b>	<b>MOHAWK</b>	<b>CAPITAL</b>	<b>HUDSON</b>	<b>MILLWOOD</b>	<b>DUNWOODIE</b>	<b>NEW YORK</b>	<b>LONG</b>
	<b><u>Zone A</u></b>	<b><u>Zone B</u></b>	<b><u>Zone D</u></b>	<b><u>Zone C</u></b>	<b><u>Zone E</u></b>	<b><u>Zone F</u></b>	<b><u>Zone G</u></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 *	26.02	26.87	25.10	28.41	29.32	33.11	38.06	39.22	39.47	43.94	45.30
Standard Deviation	4.59	4.91	5.53	5.26	5.51	6.98	12.28	14.26	14.48	16.54	17.94
<b><u>RTC LBMP</u></b>											
Unweighted Price *	25.95	26.80	26.12	27.99	29.23	31.29	37.54	38.51	38.92	40.44	42.42
Standard Deviation	27.28	28.32	27.24	28.90	27.24	28.19	19.61	22.49	23.58	23.96	26.21
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	21.77	22.48	21.65	23.50	24.82	26.67	36.07	37.55	38.08	40.21	42.44
Standard Deviation	43.48	44.96	43.78	46.11	43.21	45.14	24.99	28.85	30.14	31.49	37.21
	<b>ONTARIO</b>	<b>HYDRO</b>	<b>HYDRO</b>		<b>NEW</b>	<b>CROSS</b>	<b>NORTHPORT-</b>				
	<b>IESO</b>	<b>QUEBEC</b>	<b>QUEBEC</b>	<b>PJM</b>	<b>ENGLAND</b>	<b>SOUND</b>	<b>NORWALK</b>	<b>NEPTUNE</b>			
		<b>(Wheel)</b>	<b>(Import/Export)</b>			<b>CABLE</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>Line</u></b>	<b><u>Line</u></b>	<b><u>Line</u></b>			
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	25.00	26.17	21.33	35.03	35.21	45.34	35.14	44.44			
Standard Deviation	4.22	5.07	6.95	9.86	8.52	17.93	8.57	17.85			
<b><u>RTC LBMP</u></b>											
Unweighted Price *	25.93	20.52	-0.02	33.63	33.34	40.44	39.65	39.97			
Standard Deviation	7.79	61.34	131.18	11.03	7.70	16.31	16.22	16.35			
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	22.15	23.20	19.86	31.36	31.32	42.86	42.21	42.44			
Standard Deviation	39.87	38.49	23.31	16.69	26.89	36.05	36.36	36.24			

\* Straight LBMP averages

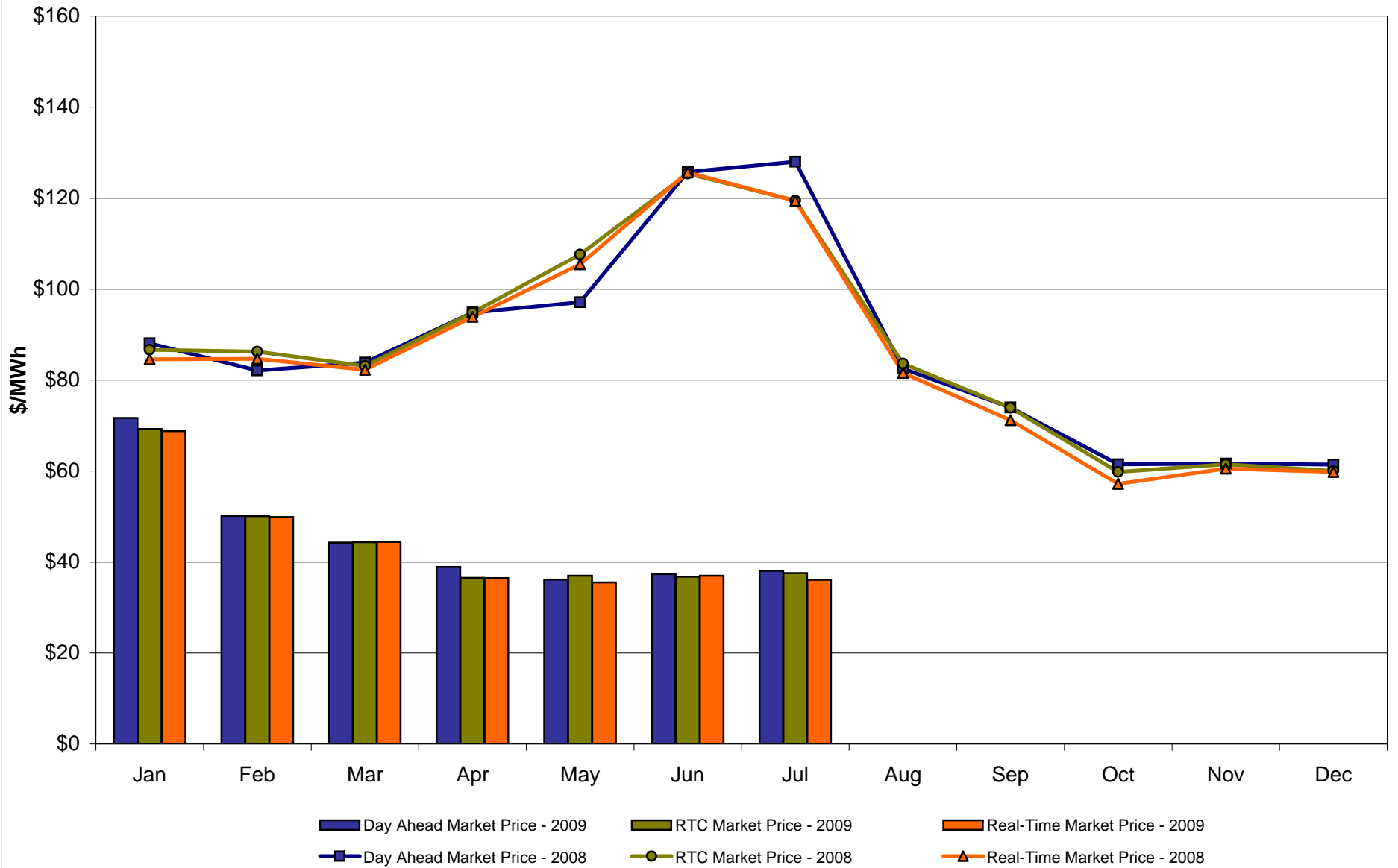
## West Zone A Monthly Average LBMP Prices 2008 - 2009



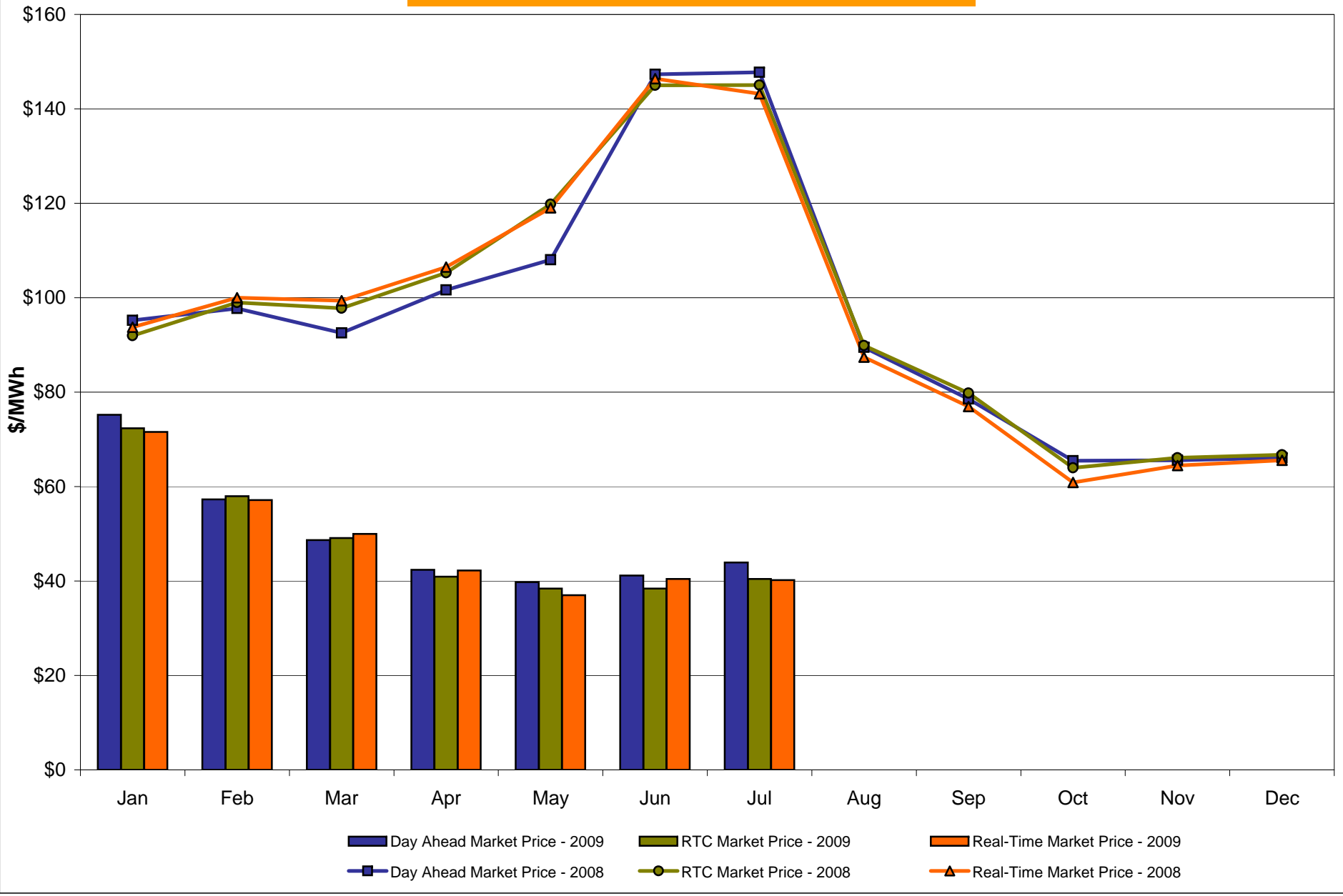
## Capital Zone F Monthly Average LBMP Prices 2008 - 2009



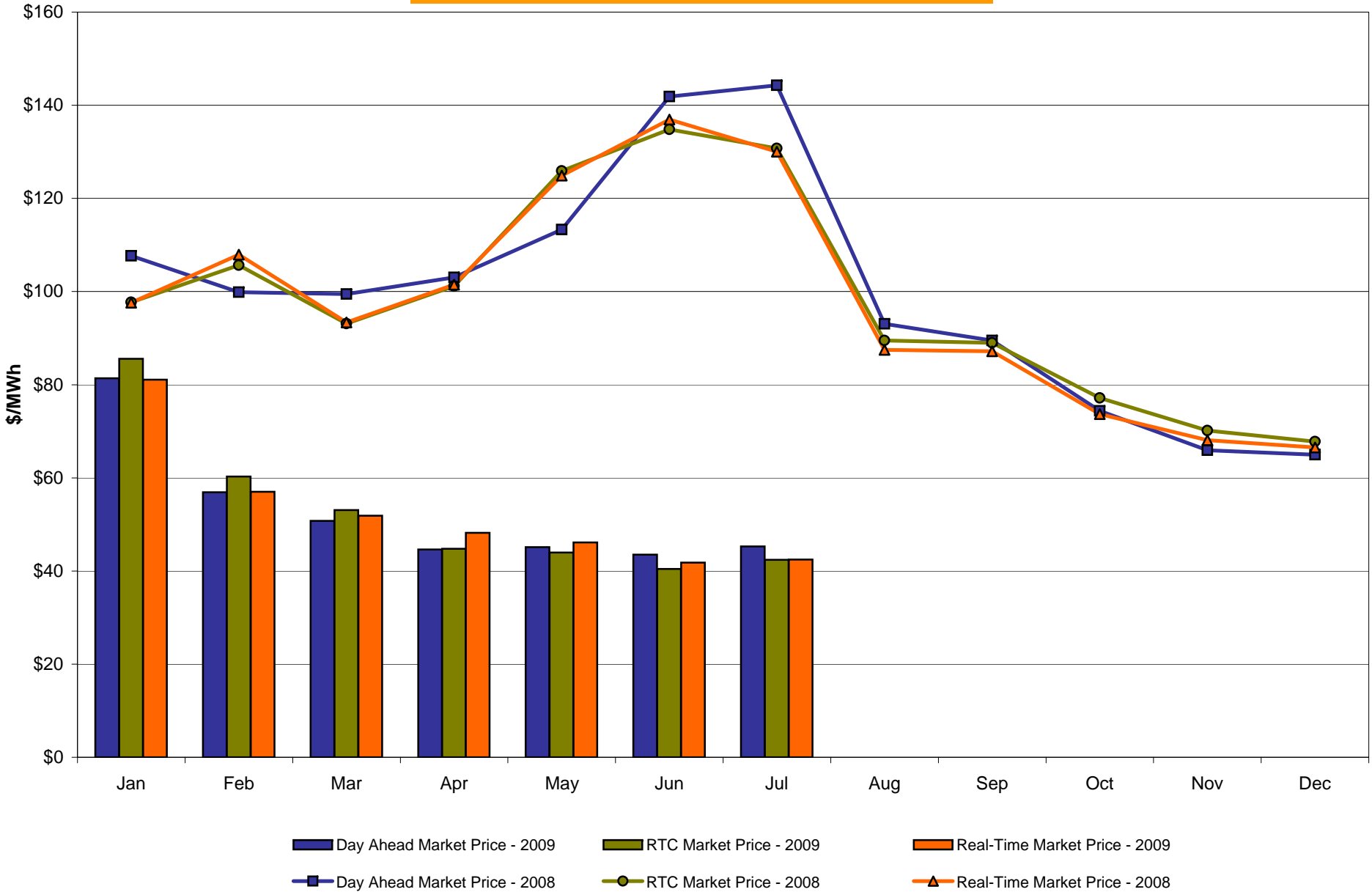
## Hudson Valley Zone G Monthly Average LBMP Prices 2008 - 2009



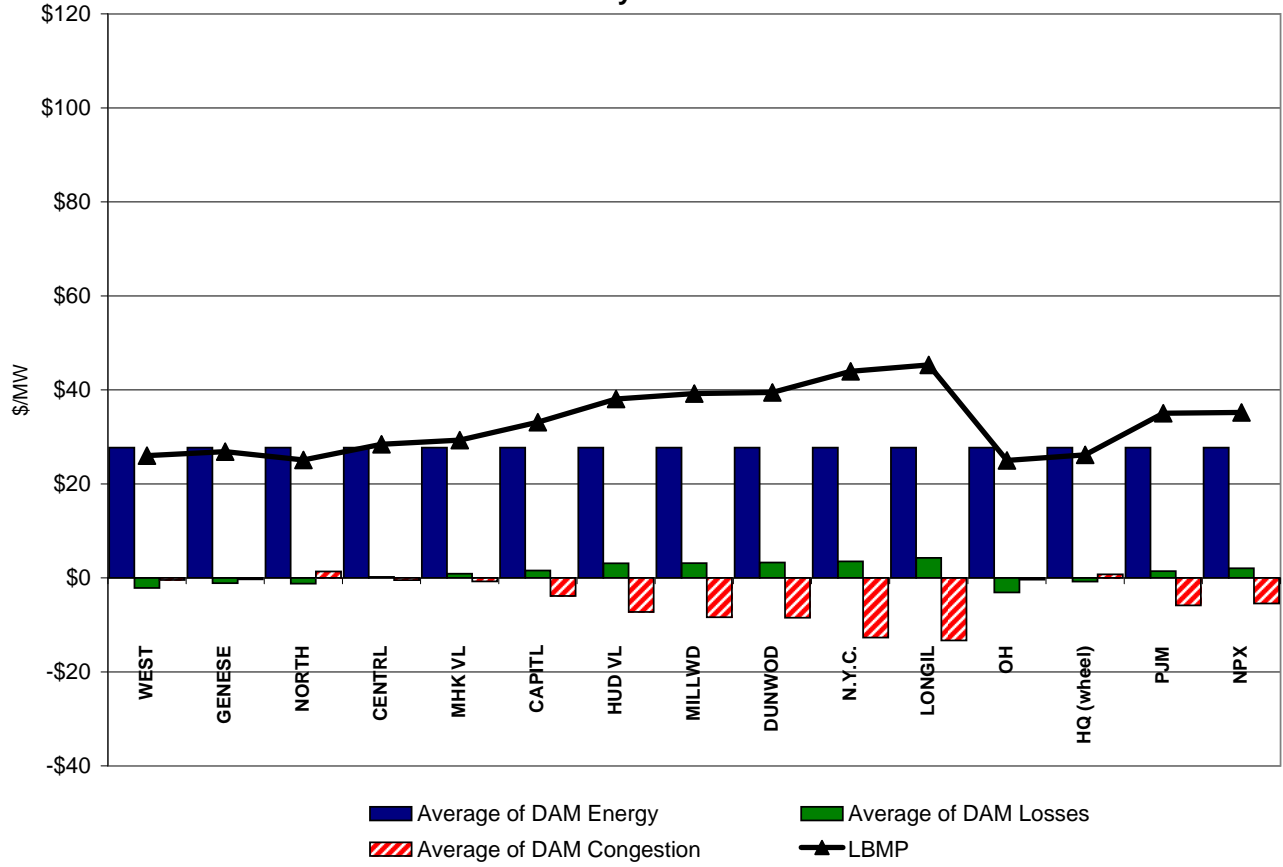
## NYC Zone J Monthly Average LBMP Prices 2008 - 2009



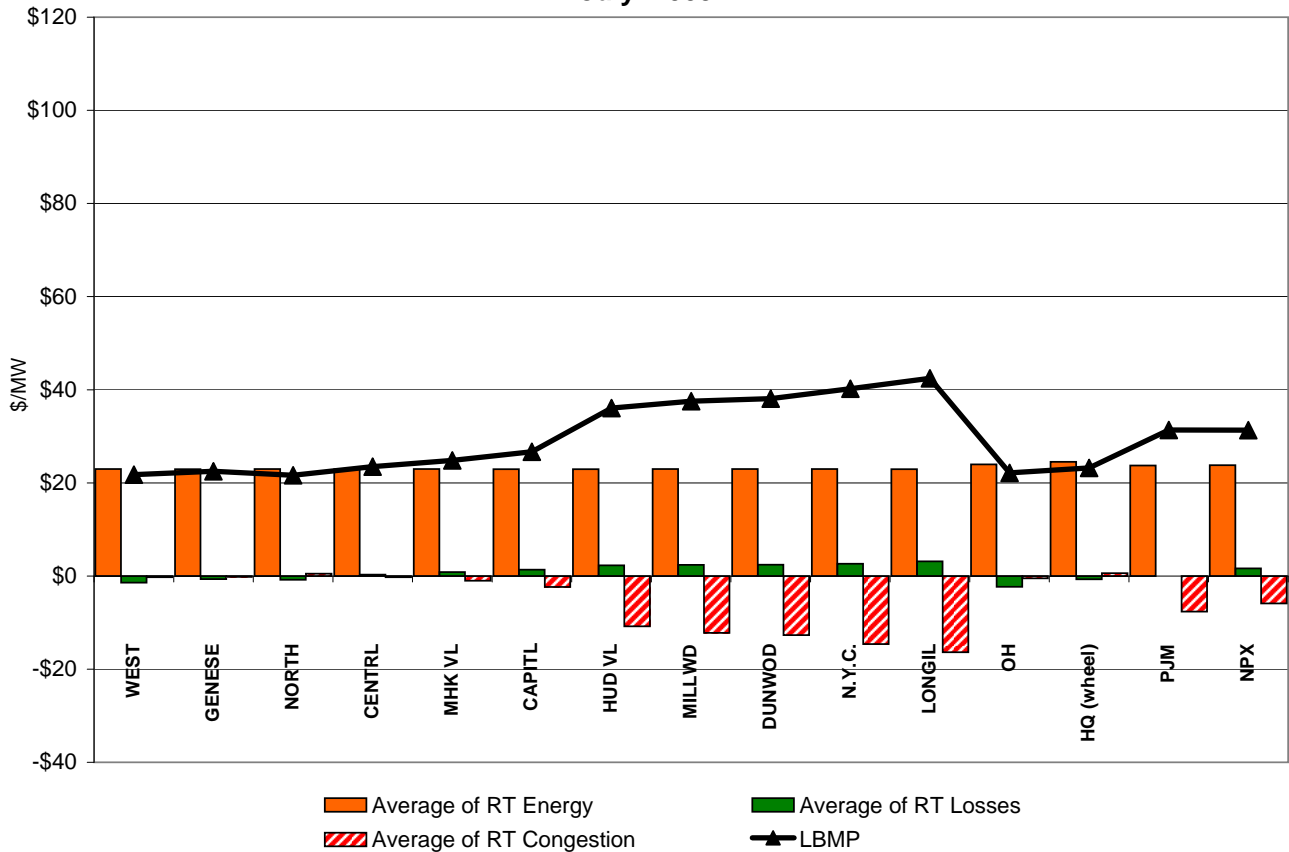
## Long Island Zone K Monthly Average LBMP Prices 2008 - 2009



### DAM Zonal Unweighted Monthly Average LBMP Components July 2009



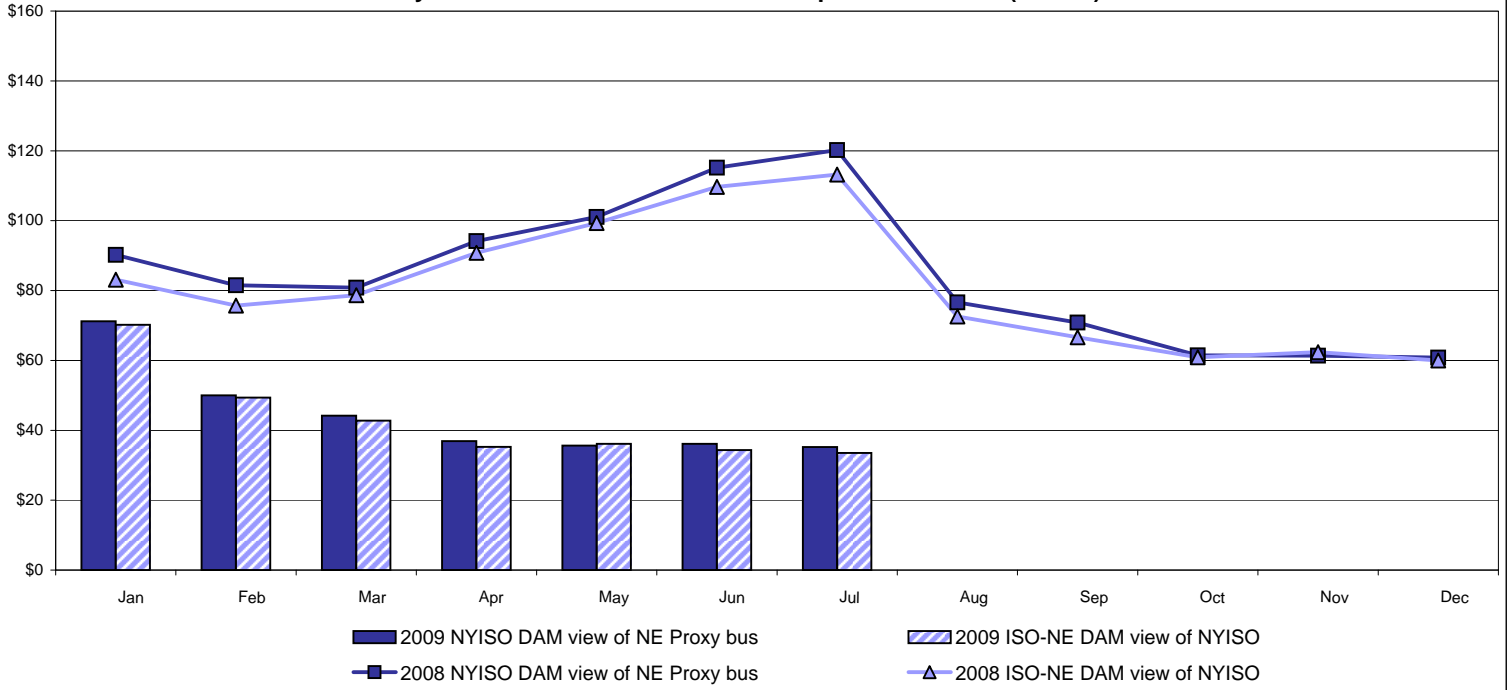
### RT Zonal Unweighted Monthly Average LBMP Components July 2009



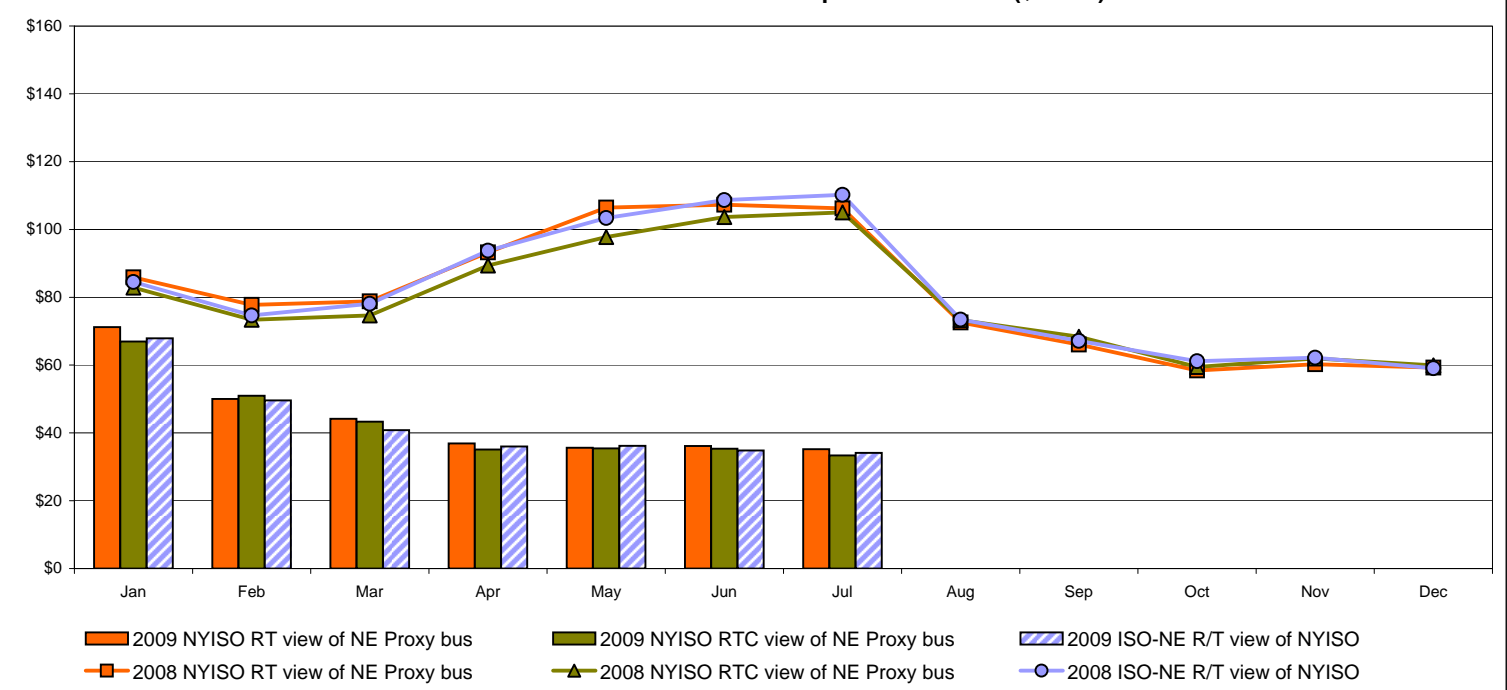


# External Comparison ISO-New England

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

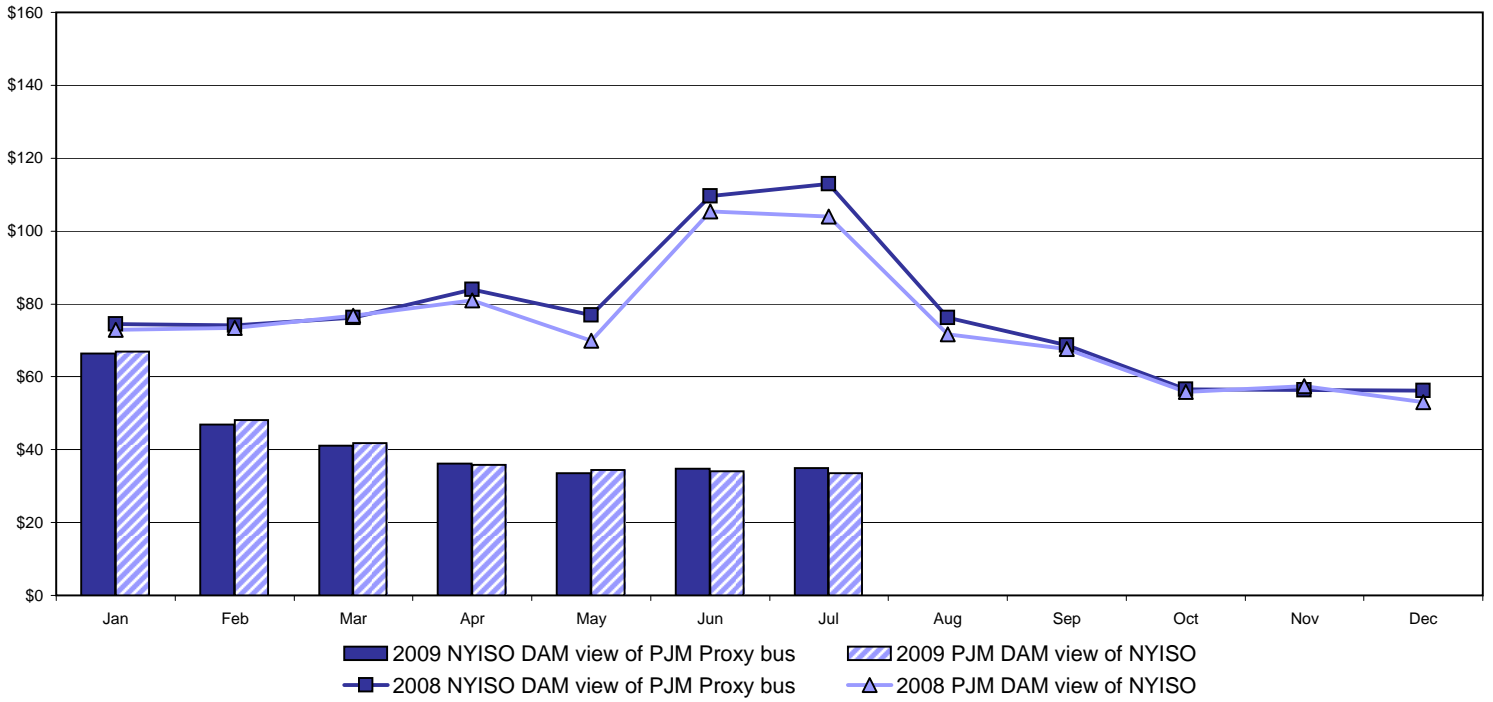


## Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

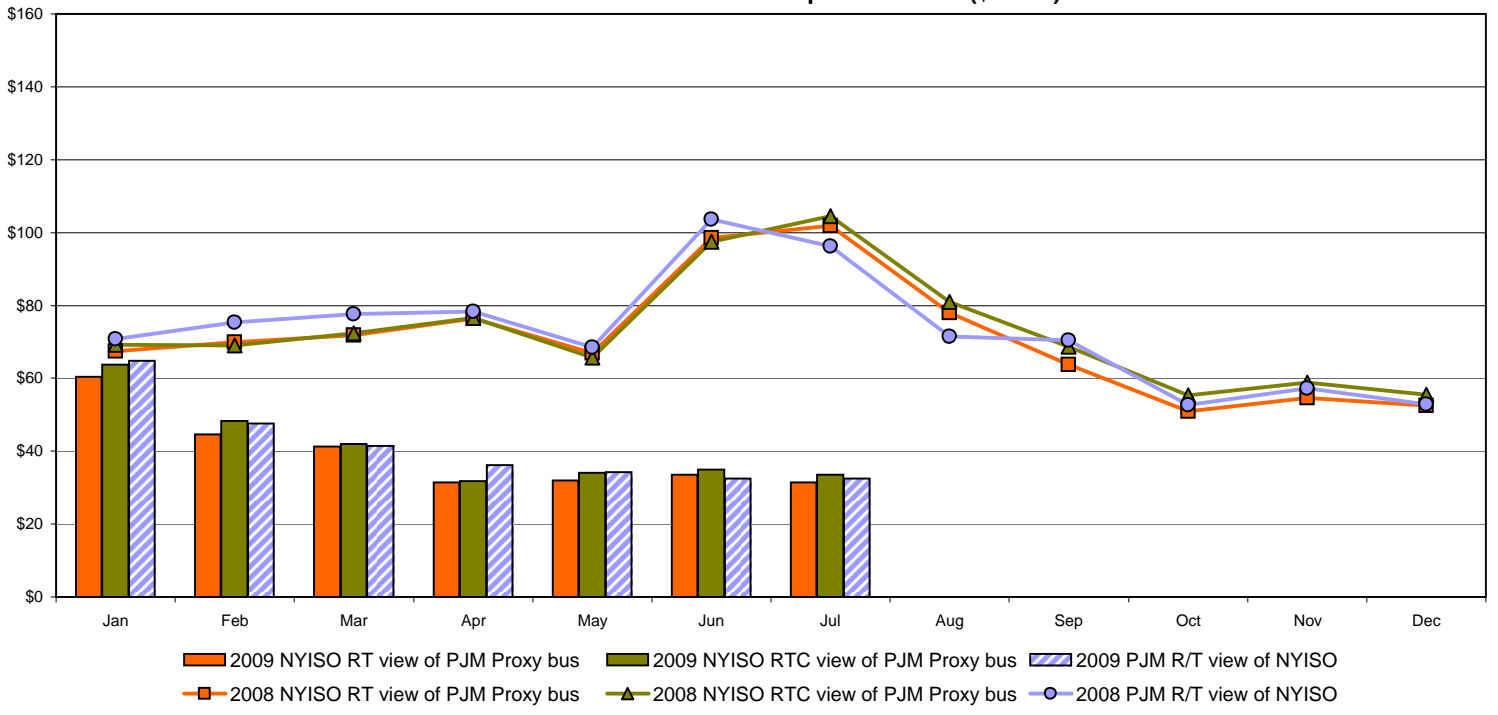


# External Comparison PJM

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

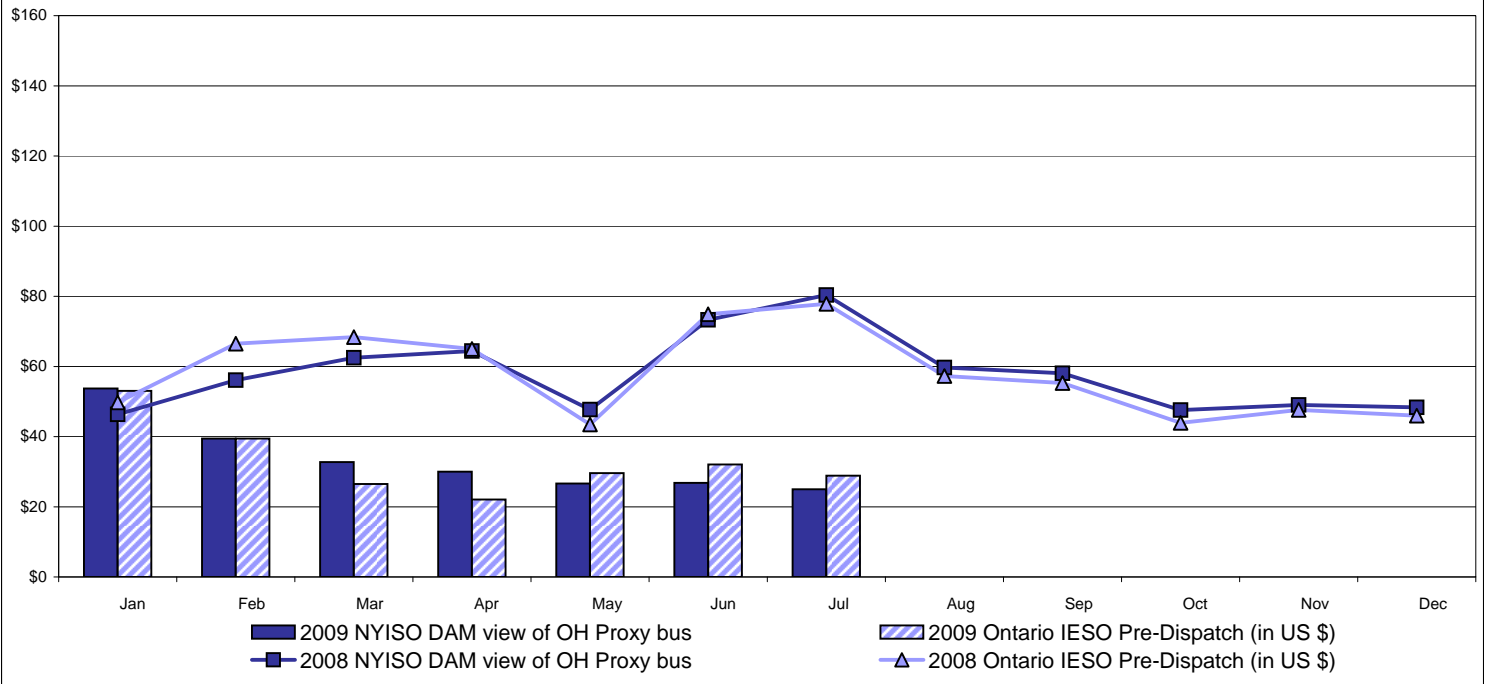


## Real Time Market External Zone Comparison - PJM (\$/MWh)

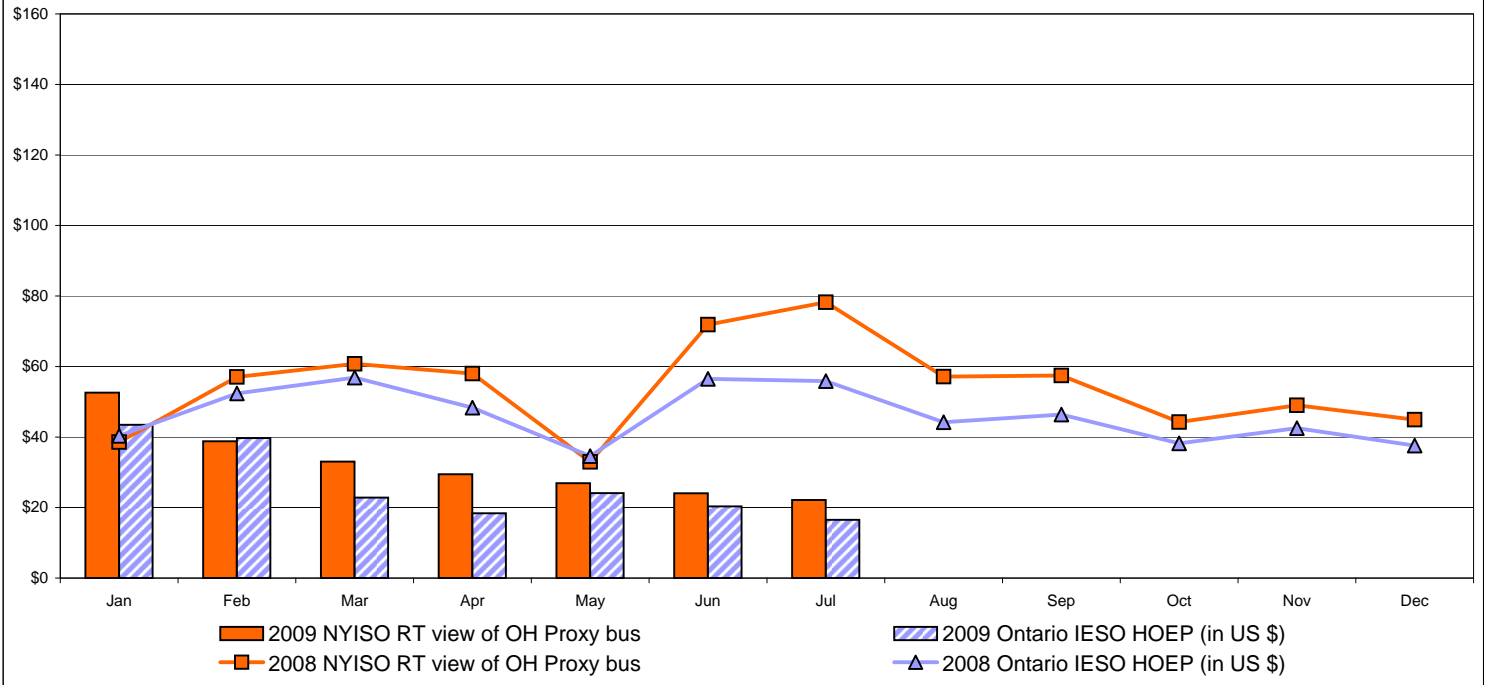


# External Comparison Ontario IESO

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

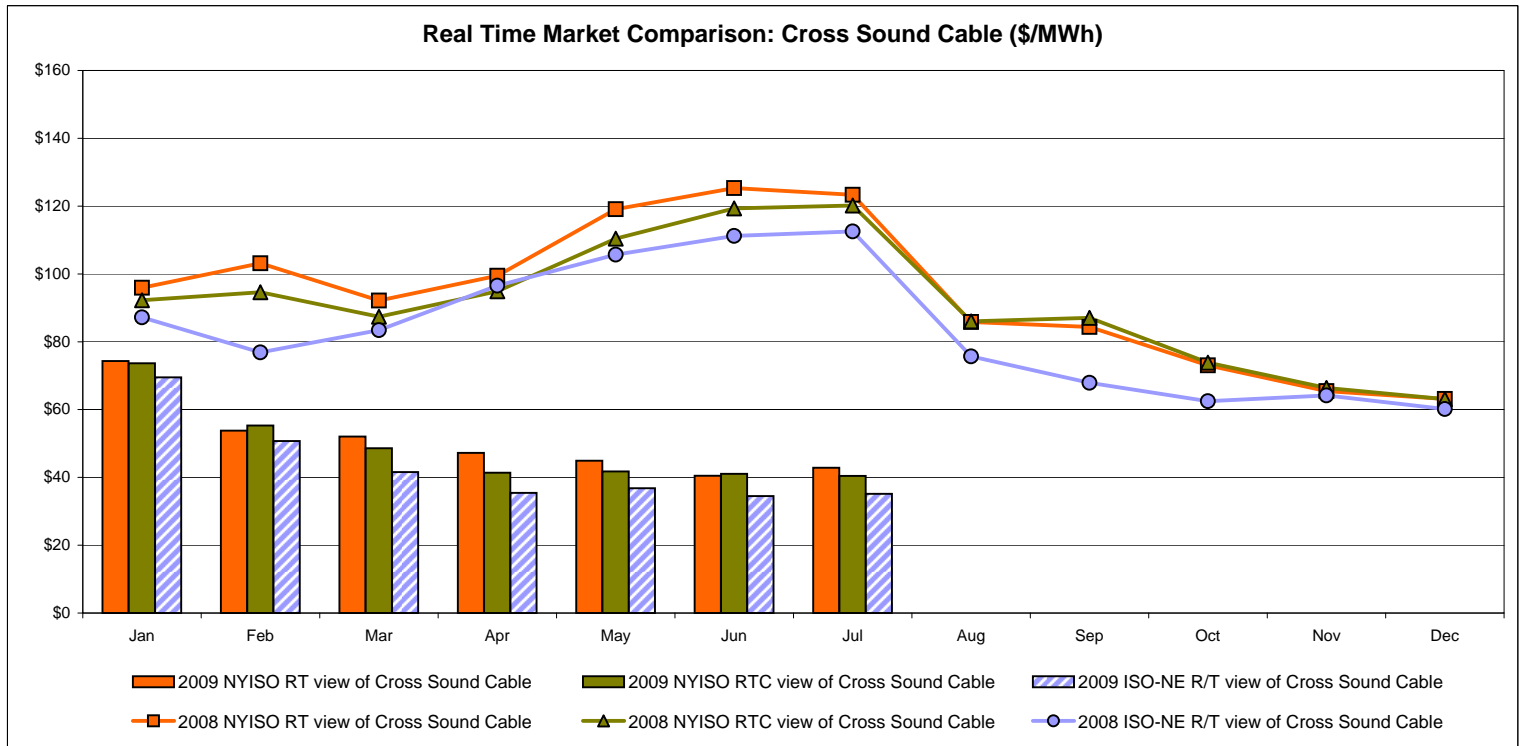
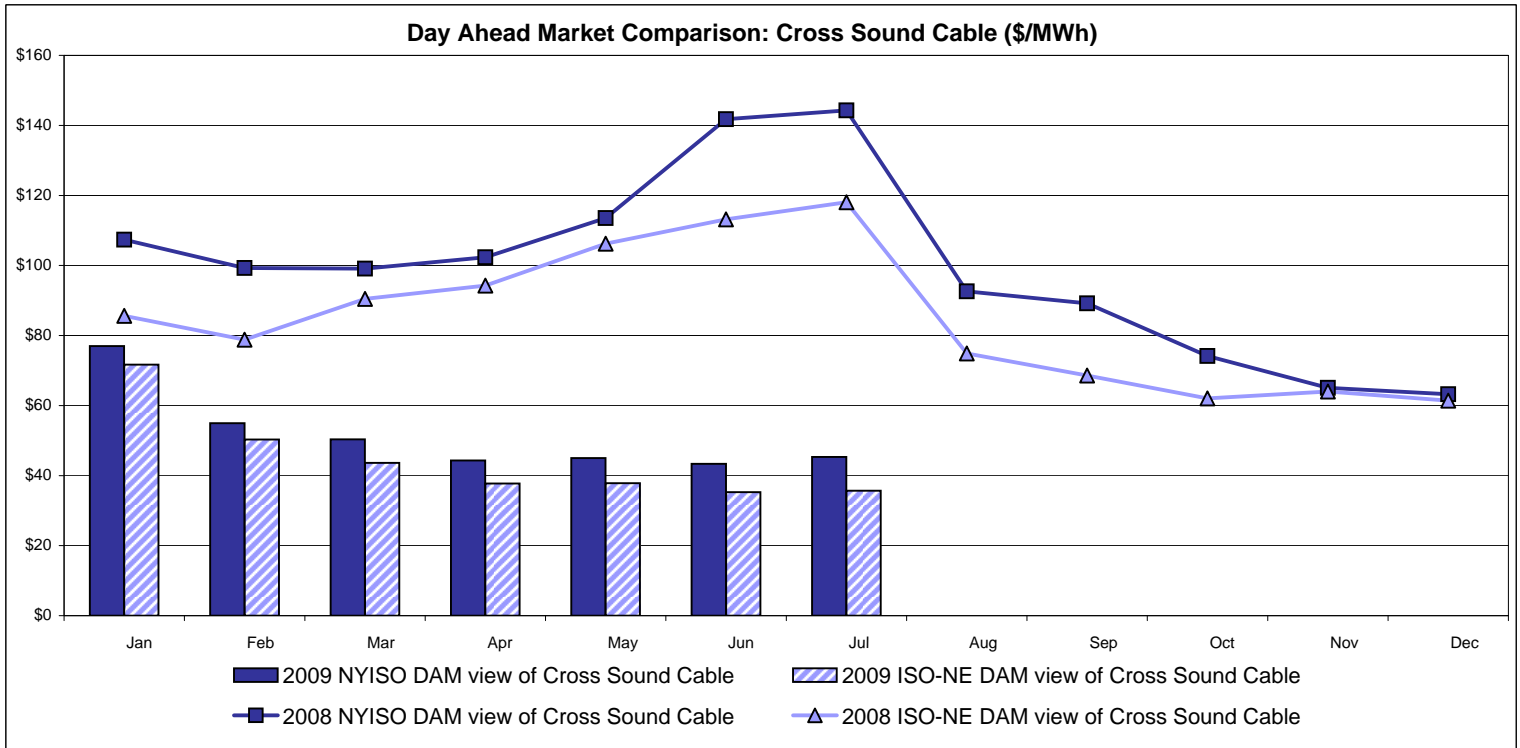


## Real Time Market External Zone Comparison - Ontario IESO (\$/MWh)



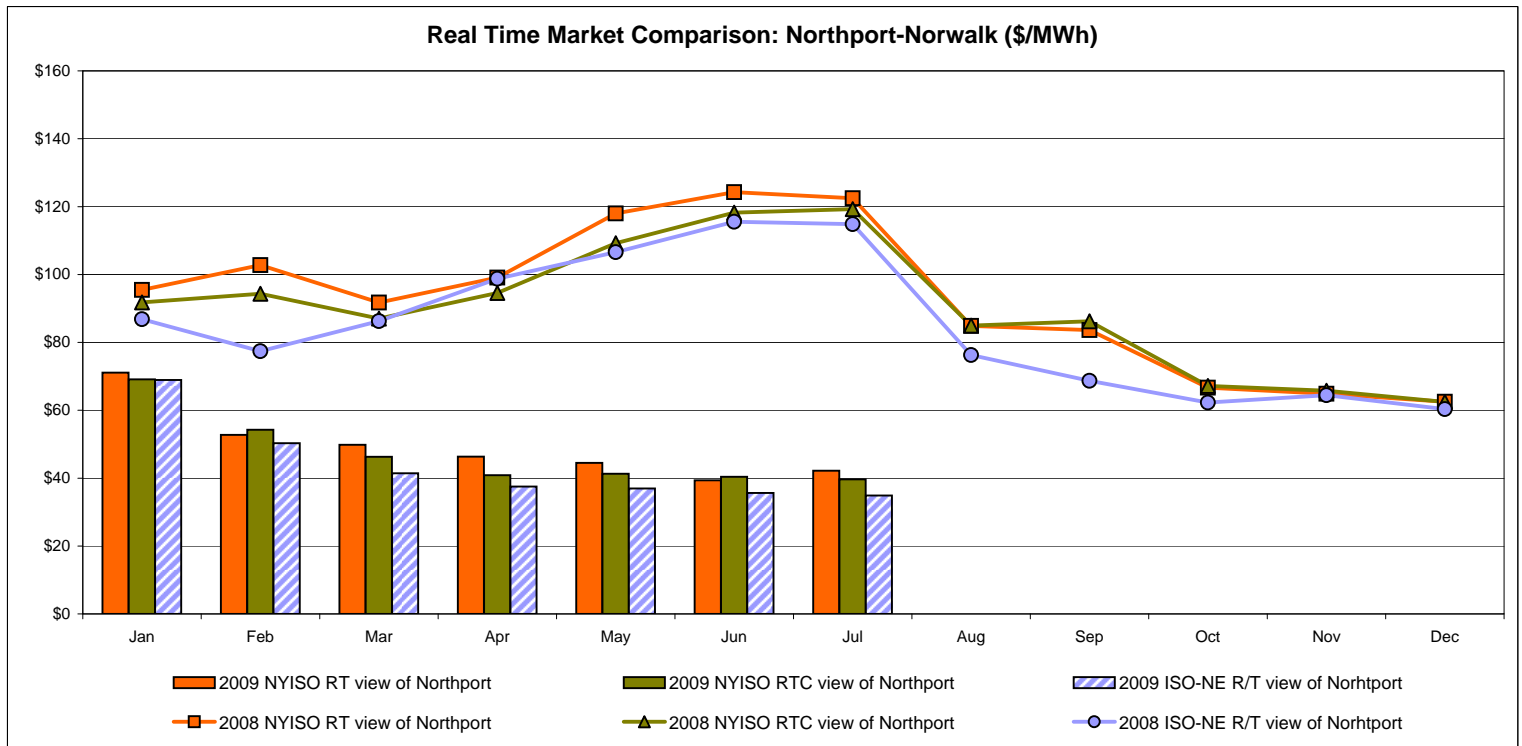
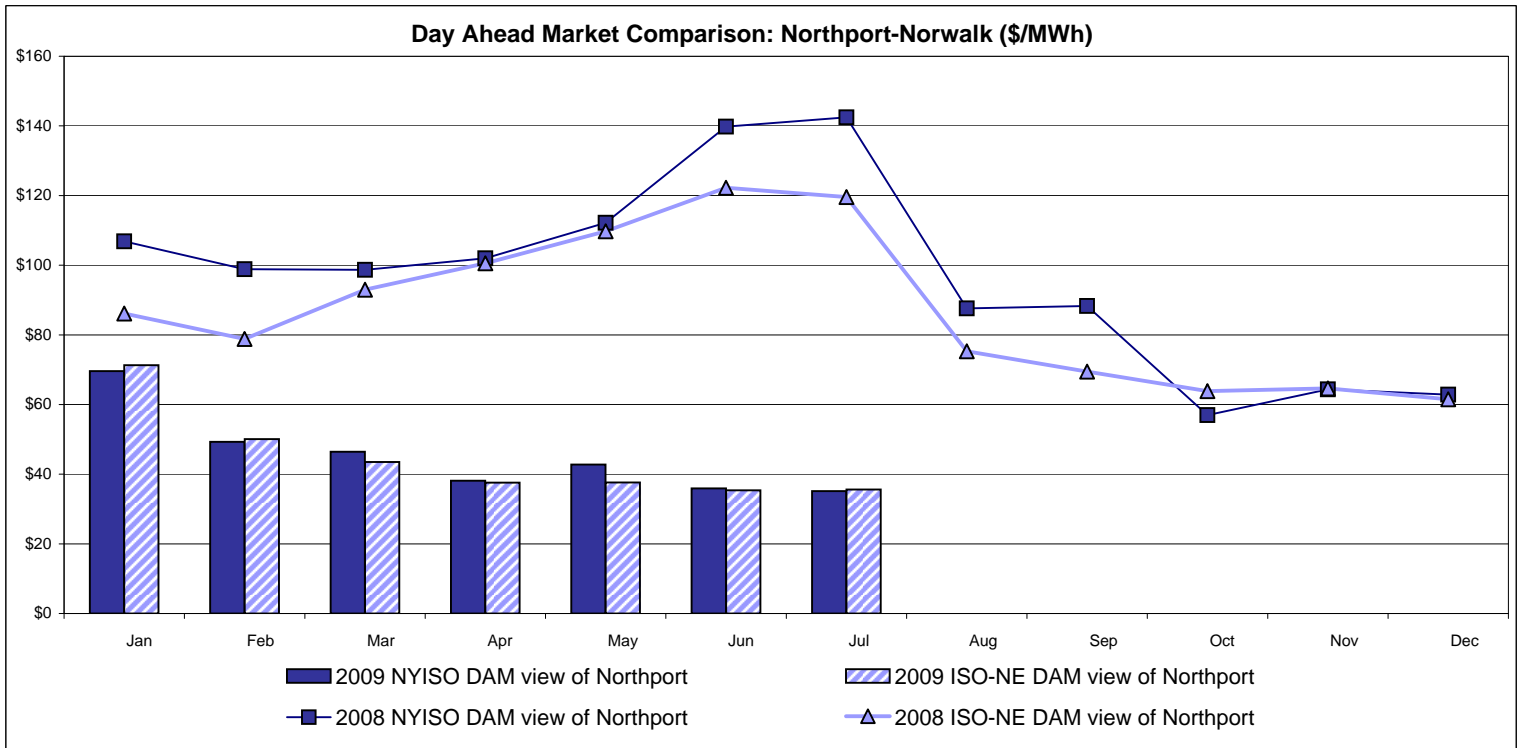
Notes: Exchange factor used for July 2009 was .87 to US \$  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

# 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 Shorham138 99 interface are used for ISO-NE.  
 The DAM and R/T prices at the CSC interface are used for NYISO.

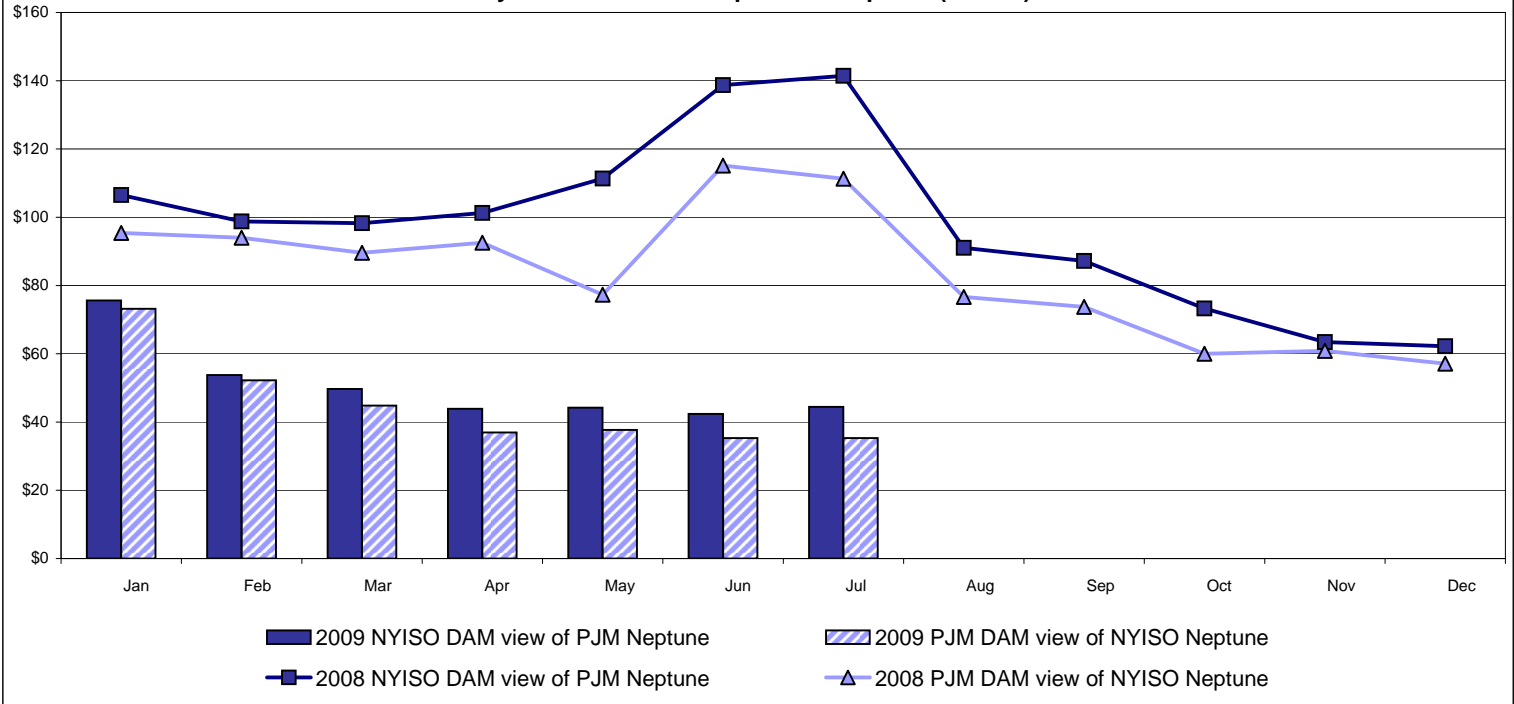
# External Controllable Line: Northport - Norwalk (New England)



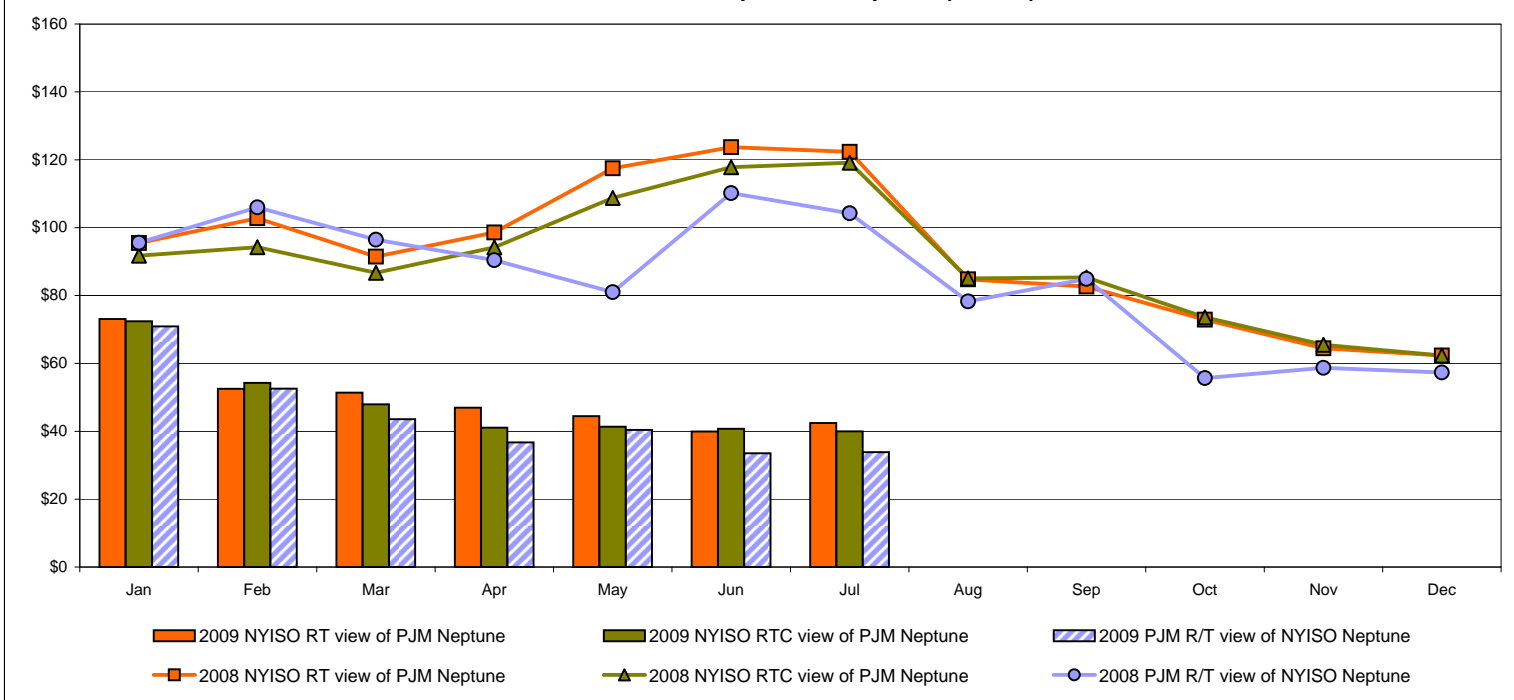
Note:  
 ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

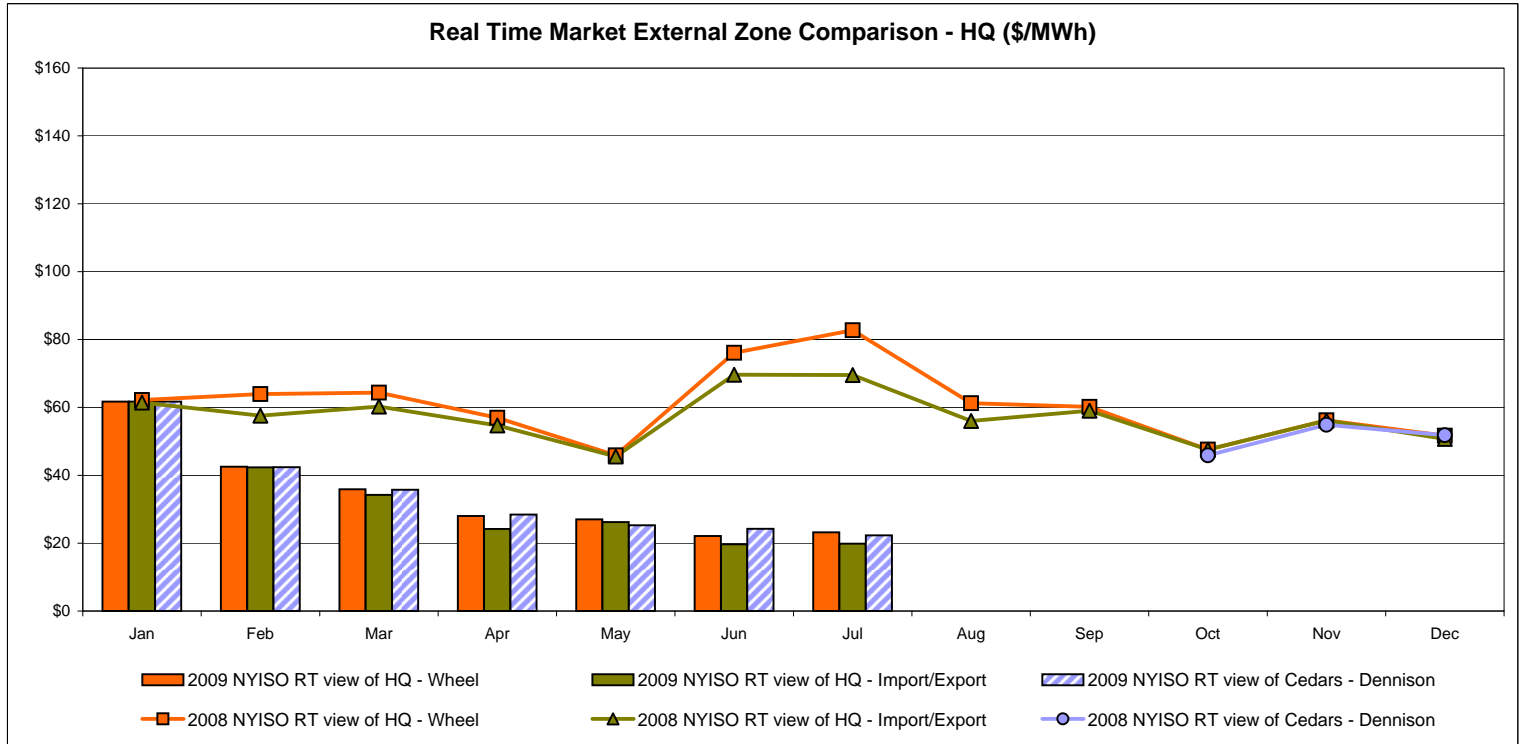
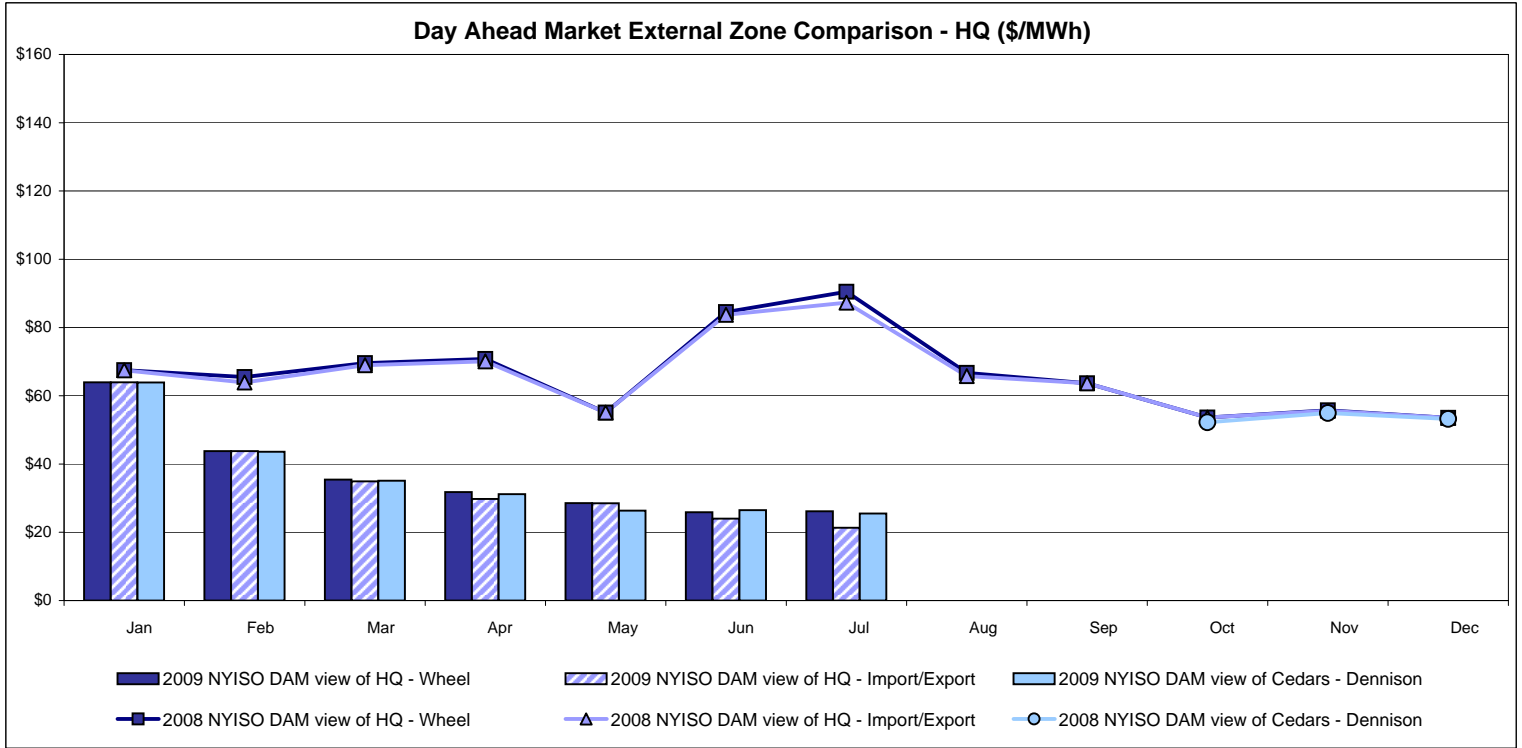
### Day Ahead Market Comparison: Neptune (\$/MWh)



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



# External Comparison Hydro-Quebec



Note:  
 Hydro-Quebec Prices are unavailable.  
 Dennison Scheduled Line Data available beginning 10/1/2008.

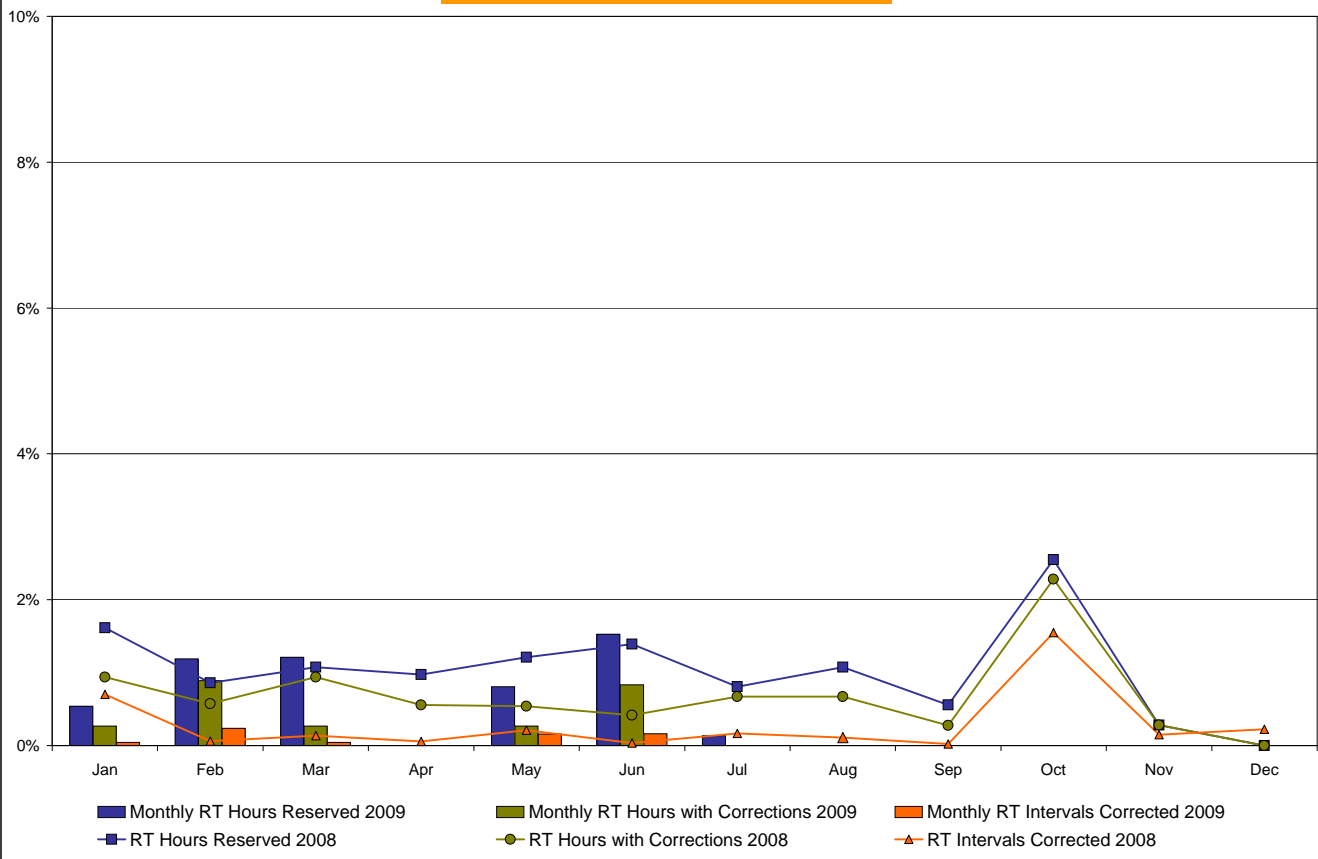
**NYISO Real Time Price Correction Statistics**

<b>2009</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	2	6	2	0	2	6	0					
Number of hours	in the month	744	672	744	720	744	720	744					
% of hours with corrections	in the month	0.27%	0.89%	0.27%	0.00%	0.27%	0.83%	0.00%					
% of hours with corrections	year-to-date	0.27%	0.56%	0.46%	0.35%	0.33%	0.41%	0.35%					
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	4	19	4	0	14	14	0					
Number of intervals	in the month	8,966	8,082	8,933	8,639	8,941	8,655	8,947					
% of intervals corrected	in the month	0.04%	0.24%	0.04%	0.00%	0.16%	0.16%	0.00%					
% of intervals corrected	year-to-date	0.04%	0.13%	0.10%	0.08%	0.09%	0.11%	0.09%					
<b>Hours Reserved</b>													
Number of hours reserved	in the month	4	8	9	0	6	11	1					
Number of hours	in the month	744	672	744	720	744	720	744					
% of hours reserved	in the month	0.54%	1.19%	1.21%	0.00%	0.81%	1.53%	0.13%					
% of hours reserved	year-to-date	0.54%	0.85%	0.97%	0.73%	0.75%	0.87%	0.77%					
<b>Days to Correction *</b>													
Avg. number of days to correction	in the month	1.00	1.20	0.00	0.00	0.00	0.60	0.00					
Avg. number of days to correction	year-to-date	1.00	1.14	0.89	0.89	0.73	0.69	0.69					
<b>Days Without Corrections</b>													
Days without corrections	in the month	29	23	29	30	29	25	31					
Days without corrections	year-to-date	29	52	81	111	140	165	196					
<b>2008</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	7	4	7	4	4	3	5	5	2	17	2	3
Number of hours	in the month	744	696	744	720	744	720	744	744	720	744	720	744
% of hours with corrections	in the month	0.94%	0.57%	0.94%	0.56%	0.54%	0.42%	0.67%	0.67%	0.28%	2.28%	0.28%	0.40%
% of hours with corrections	year-to-date	0.94%	0.76%	0.82%	0.76%	0.71%	0.66%	0.67%	0.67%	0.62%	0.79%	0.75%	0.72%
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	63	5	12	5	19	3	15	10	2	139	13	20
Number of intervals	in the month	8,956	8,387	8,939	8,650	8,989	8,643	8,993	8,995	8,682	8,971	8,689	8,979
% of intervals corrected	in the month	0.70%	0.06%	0.13%	0.06%	0.21%	0.03%	0.17%	0.11%	0.02%	1.55%	0.15%	0.22%
% of intervals corrected	year-to-date	0.70%	0.39%	0.30%	0.24%	0.24%	0.20%	0.20%	0.19%	0.17%	0.31%	0.30%	0.29%
<b>Hours Reserved</b>													
Number of hours reserved	in the month	12	6	8	7	9	10	6	8	4	19	2	3
Number of hours	in the month	744	696	744	720	744	720	744	744	720	744	720	744
% of hours reserved	in the month	1.61%	0.86%	1.08%	0.97%	1.21%	1.39%	0.81%	1.08%	0.56%	2.55%	0.28%	0.40%
% of hours reserved	year-to-date	1.61%	1.25%	1.19%	1.14%	1.15%	1.19%	1.13%	1.13%	1.06%	1.22%	1.13%	1.07%
<b>Days to Correction *</b>													
Avg. number of days to correction	in the month	1.00	1.33	1.20	0.50	0.50	1.00	1.33	1.25	0.50	0.50	0.00	0.50
Avg. number of days to correction	year-to-date	1.00	1.17	1.18	1.00	0.89	0.91	0.96	1.00	0.97	0.97	0.84	0.82
<b>Days Without Corrections</b>													
Days without corrections	in the month	28	26	26	26	27	27	28	27	28	26	28	28
Days without corrections	year-to-date	28	54	80	106	133	160	188	215	243	269	297	325

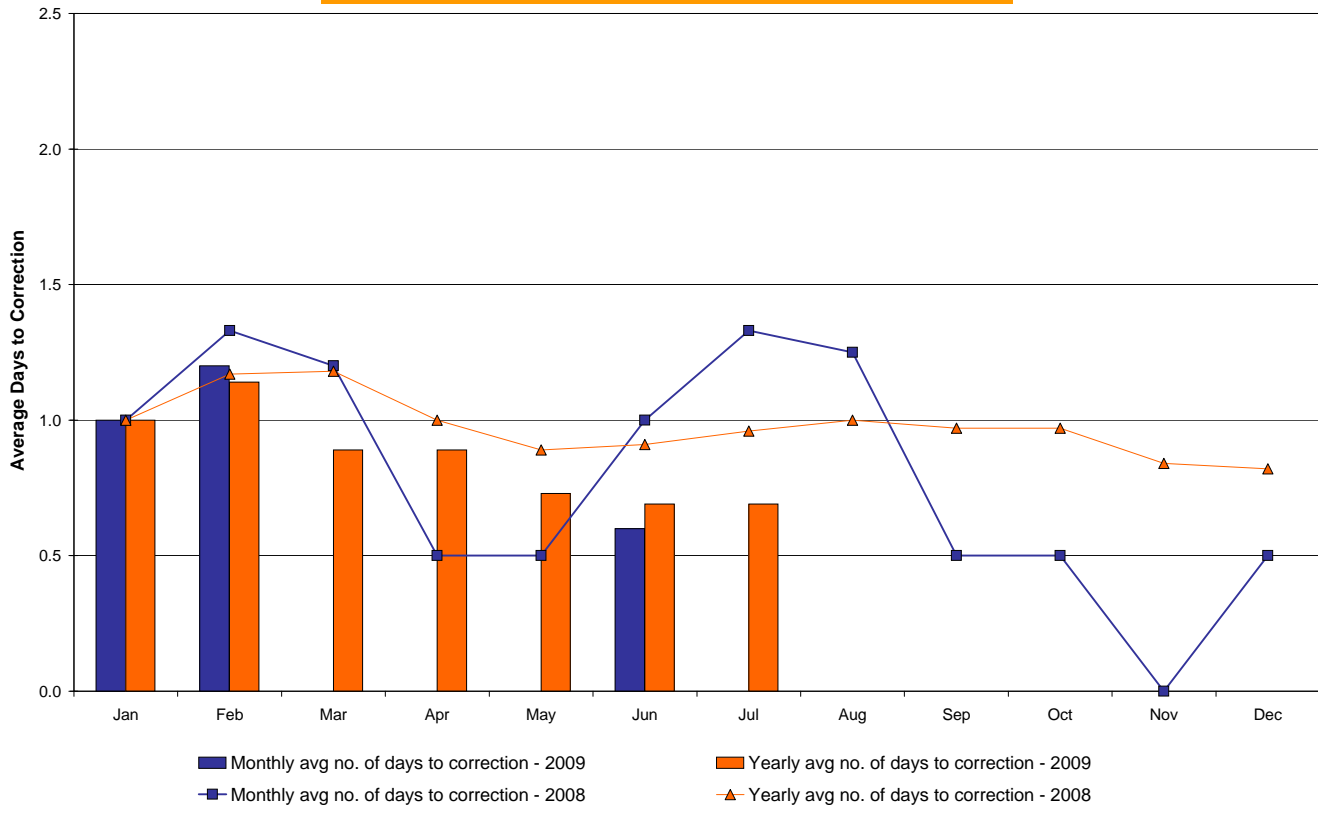
\* Calendar days from reservation date.



### Percentage of Real-Time Corrections

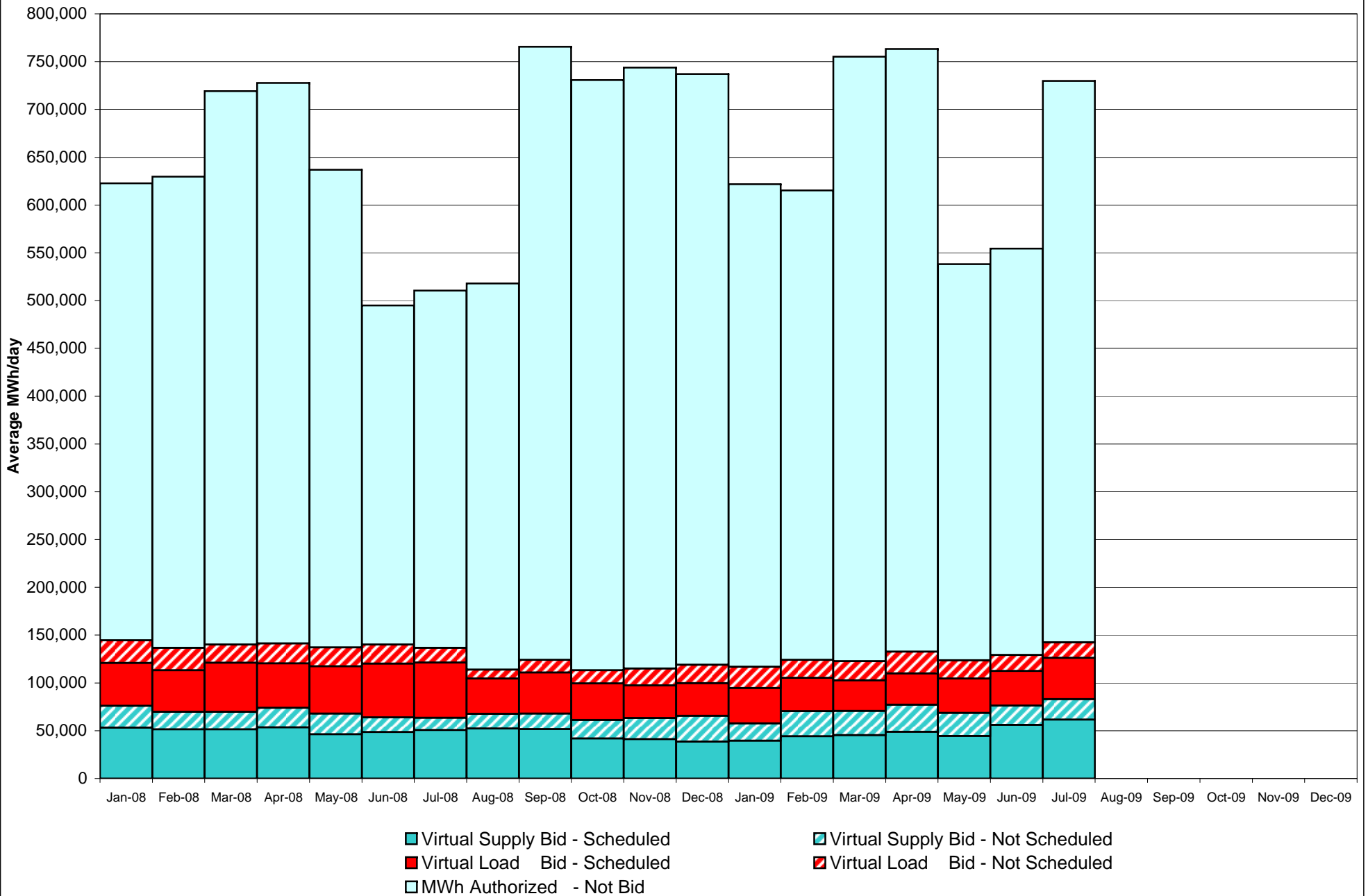


### Annual average time period for making Price Corrections (from reservation date) \*

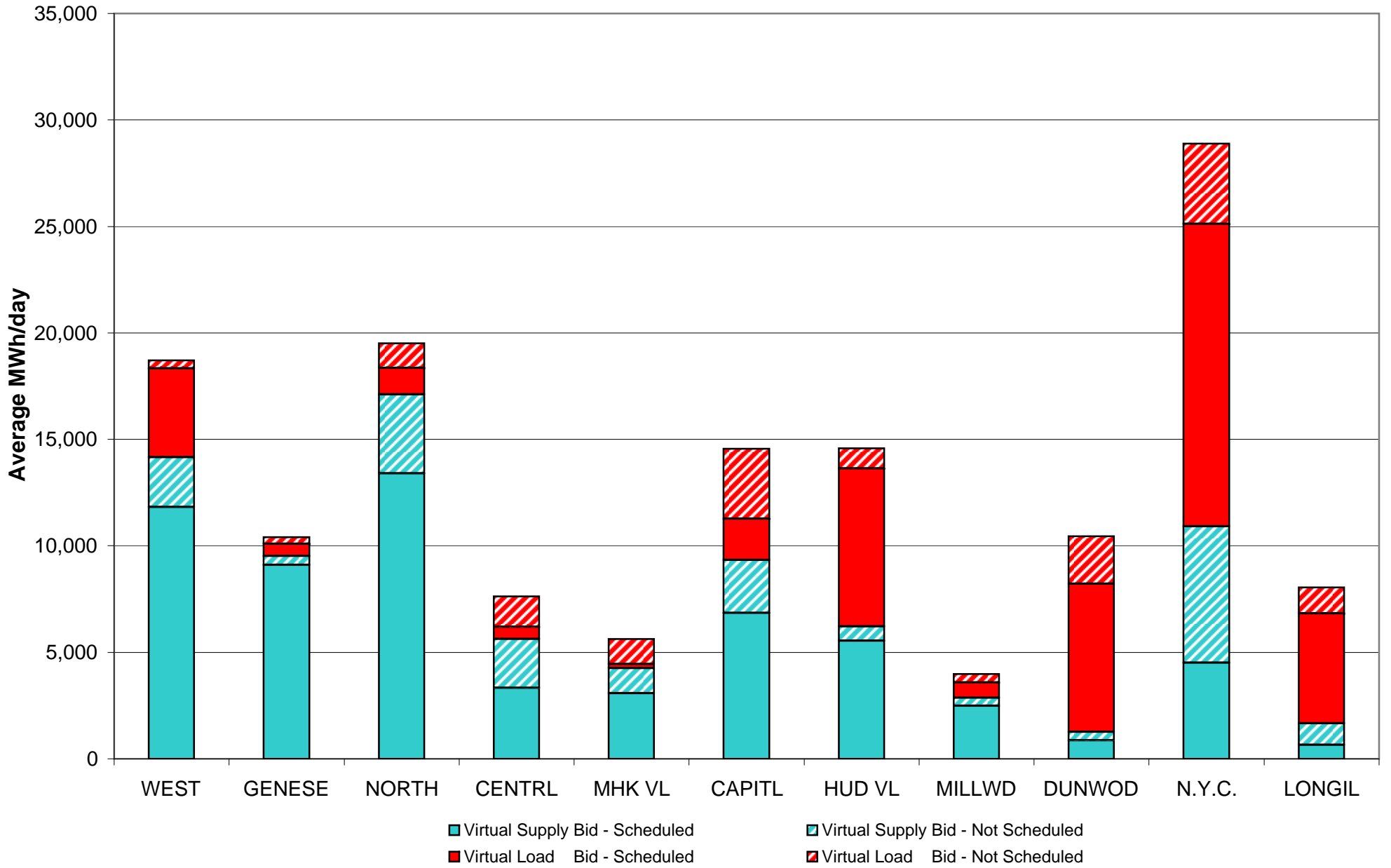


\* Calendar days from reservation date.

## NYISO Virtual Trading Average MWh per day



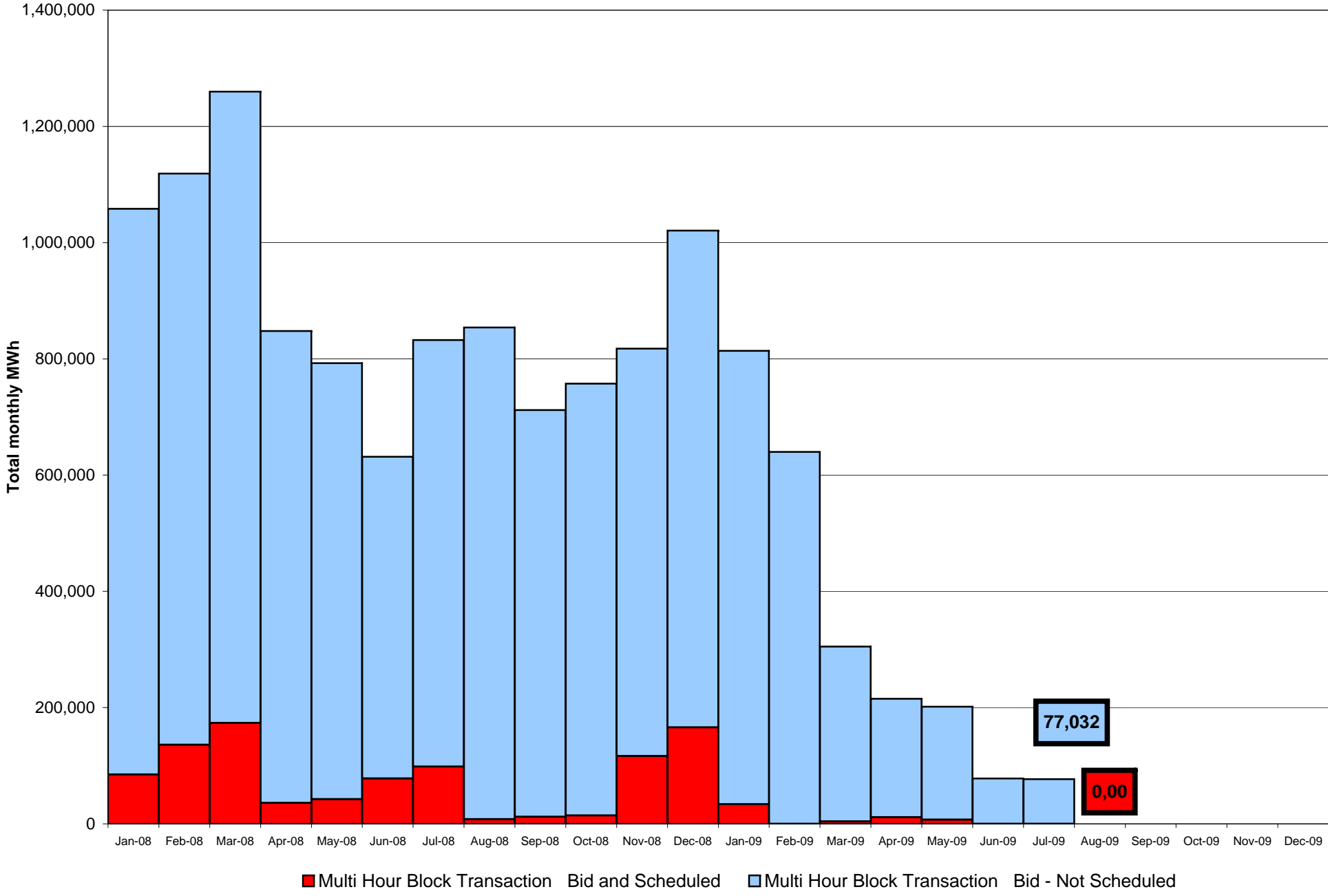
## Virtual Load and Supply Zonal Statistics July 2009



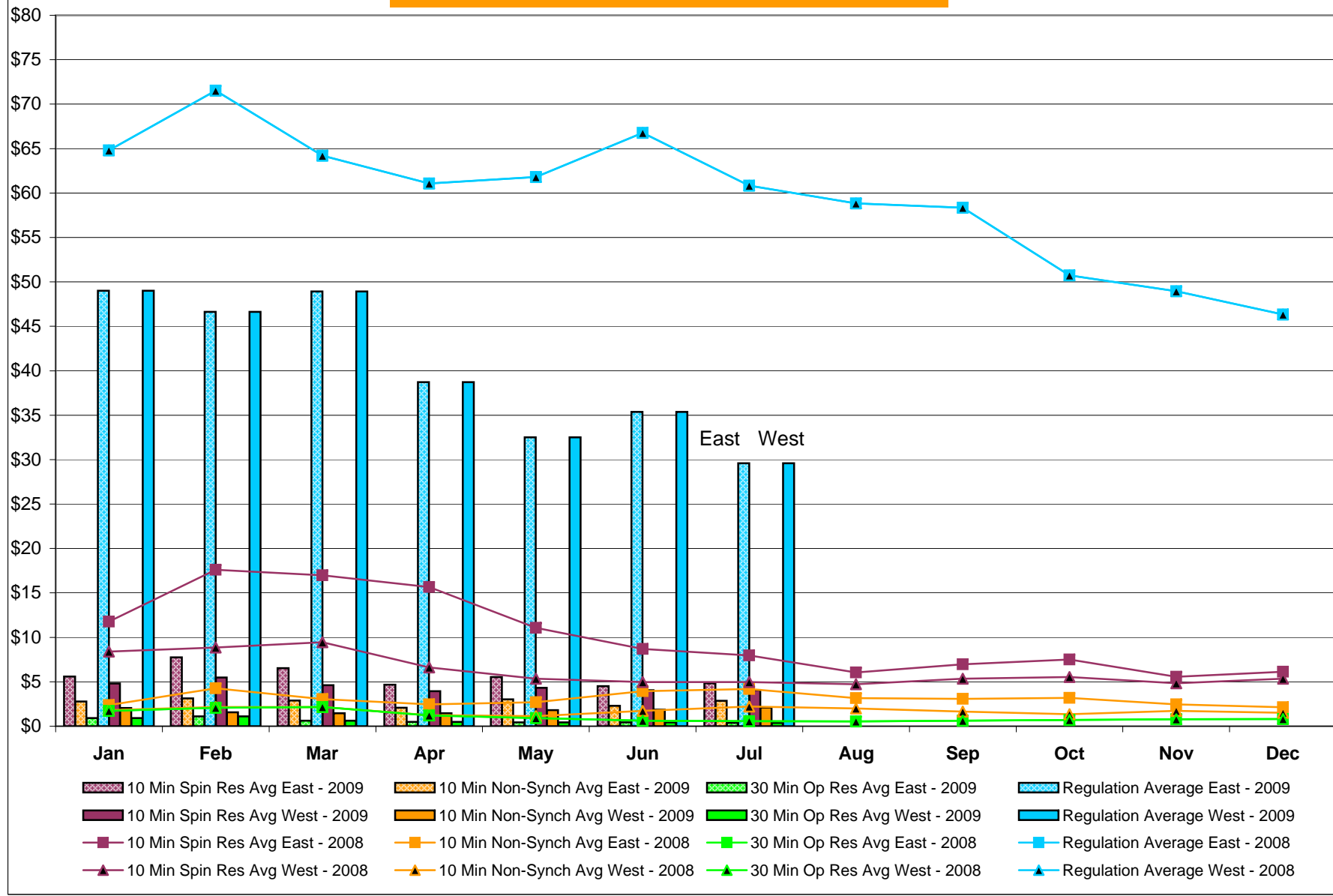
**Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2009**

		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-09	5,980	1,802	5,787	1,732	<b>MHK VL</b>	Jan-09	839	852	2,335	568	<b>DUNWOD</b>	Jan-09	3,134	1,616	1,523	1,424
	Feb-09	6,395	2,412	6,036	3,686		Feb-09	1,336	857	2,786	832		Feb-09	2,013	1,237	1,521	1,200
	Mar-09	3,226	3,562	9,608	4,252		Mar-09	777	1,488	3,013	1,271		Mar-09	1,998	838	2,951	2,733
	Apr-09	3,835	5,259	11,561	5,872		Apr-09	328	1,461	3,065	1,353		Apr-09	3,349	645	2,795	2,170
	May-09	4,211	888	8,191	5,330		May-09	758	1,607	3,090	1,197		May-09	4,549	594	1,734	1,113
	Jun-09	4,918	714	9,883	1,292		Jun-09	316	1,324	1,821	1,265		Jun-09	4,453	730	1,149	869
	Jul-09	4,180	372	11,818	2,339		Jul-09	195	1,175	3,066	1,181		Jul-09	6,956	2,227	867	402
	Aug-09						Aug-09						Aug-09				
	Sep-09						Sep-09						Sep-09				
	Oct-09						Oct-09						Oct-09				
	Nov-09						Nov-09						Nov-09				
	Dec-09						Dec-09						Dec-09				
	<b>GENESE</b>	Jan-09	2,540	1,161	8,332		1,092	<b>CAPITL</b>	Jan-09	4,749	3,352		1,706	2,068	<b>N.Y.C.</b>	Jan-09	9,649
Feb-09		2,601	1,167	9,082	1,094	Feb-09	5,637		2,956	1,627	2,652	Feb-09	6,464	3,737		3,576	8,570
Mar-09		1,673	685	10,131	722	Mar-09	4,408		3,497	1,297	2,837	Mar-09	9,753	2,920		673	7,257
Apr-09		1,079	689	10,441	729	Apr-09	3,136		3,706	1,859	3,008	Apr-09	10,044	4,076		494	7,452
May-09		1,586	529	7,483	510	May-09	2,572		2,804	2,230	1,854	May-09	10,312	6,786		768	6,862
Jun-09		1,147	500	9,053	616	Jun-09	1,691		2,981	4,784	1,775	Jun-09	12,119	4,428		2,616	6,314
Jul-09		566	307	9,108	418	Jul-09	1,950		3,288	6,852	2,476	Jul-09	14,220	3,773		4,515	6,390
Aug-09						Aug-09						Aug-09					
Sep-09						Sep-09						Sep-09					
Oct-09						Oct-09						Oct-09					
Nov-09						Nov-09						Nov-09					
Dec-09						Dec-09						Dec-09					
<b>NORTH</b>		Jan-09	398	1,277	5,428	757	<b>HUD VL</b>		Jan-09	1,572	1,199	5,365	1,875	<b>LONGIL</b>		Jan-09	5,026
	Feb-09	125	983	7,684	1,481	Feb-09		2,721	2,126	7,211	3,506	Feb-09	4,191		1,141	1,357	1,164
	Mar-09	258	1,482	9,019	2,142	Mar-09		2,810	1,179	4,102	978	Mar-09	3,286		1,742	1,225	1,266
	Apr-09	842	1,480	8,515	3,032	Apr-09		3,516	935	3,850	1,293	Apr-09	5,075		2,061	833	1,486
	May-09	319	737	11,818	3,910	May-09		2,901	1,090	4,096	601	May-09	6,332		2,230	489	842
	Jun-09	1,188	922	14,564	3,919	Jun-09		2,828	1,085	6,286	1,088	Jun-09	5,280		1,765	928	486
	Jul-09	1,256	1,159	13,412	3,691	Jul-09		7,432	943	5,538	673	Jul-09	5,173		1,226	649	1,008
	Aug-09					Aug-09						Aug-09					
	Sep-09					Sep-09						Sep-09					
	Oct-09					Oct-09						Oct-09					
	Nov-09					Nov-09						Nov-09					
	Dec-09					Dec-09						Dec-09					
	<b>CENTRL</b>	Jan-09	2,532	1,128	1,935	796		<b>MILLWD</b>	Jan-09	435	900	3,633	1,114		<b>NYISO</b>	Jan-09	36,855
Feb-09		3,242	1,093	1,656	983	Feb-09	301		980	1,686	924	Feb-09	35,028	18,690		44,221	26,093
Mar-09		3,132	1,873	1,641	1,402	Mar-09	556		759	1,541	654	Mar-09	31,876	20,023		45,201	25,514
Apr-09		1,099	1,742	1,685	1,496	Apr-09	406		652	3,583	592	Apr-09	32,708	22,708		48,680	28,482
May-09		1,469	1,375	1,192	1,480	May-09	945		517	3,178	533	May-09	35,955	19,156		44,270	24,232
Jun-09		1,912	1,541	2,015	2,013	Jun-09	606		557	2,902	478	Jun-09	36,458	16,546		56,002	20,115
Jul-09		576	1,422	3,326	2,297	Jul-09	727		399	2,487	370	Jul-09	43,230	16,291		61,637	21,246
Aug-09						Aug-09						Aug-09					
Sep-09						Sep-09						Sep-09					
Oct-09						Oct-09						Oct-09					
Nov-09						Nov-09						Nov-09					
Dec-09						Dec-09						Dec-09					

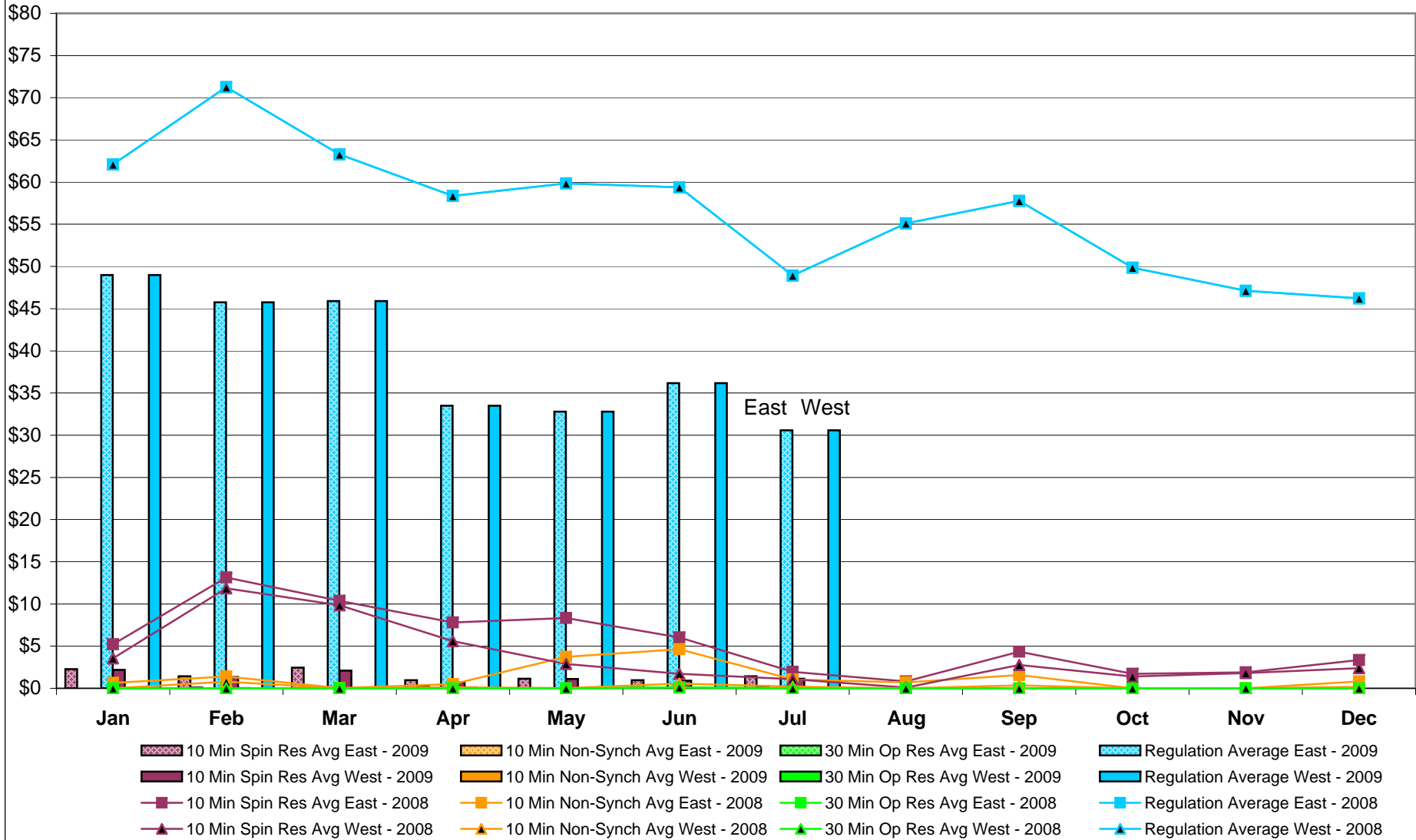
# NYISO Multi Hour Block Transactions Monthly Total MWh



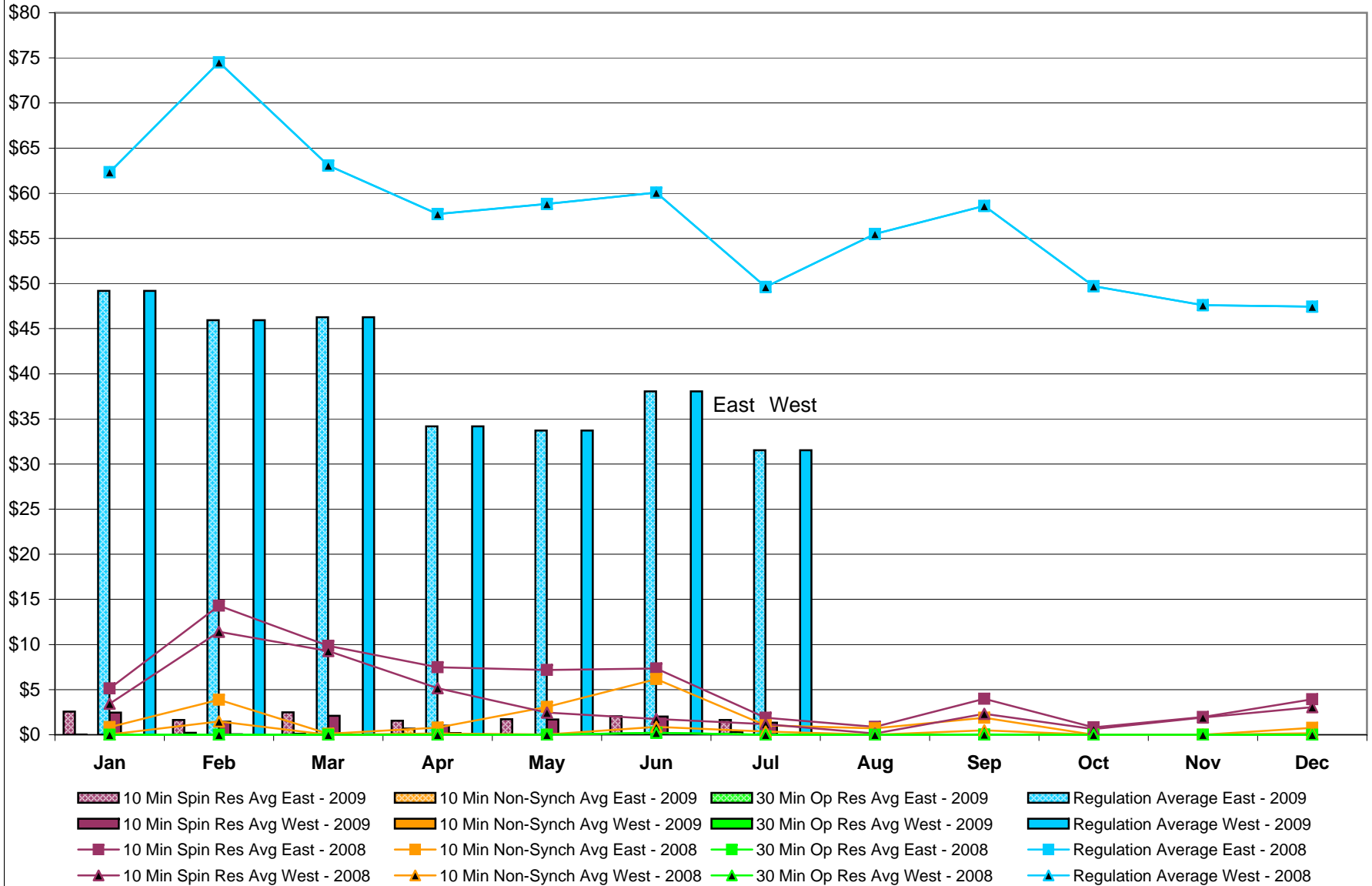
### NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2008 - 2009



## NYISO Monthly Average Ancillary Service Prices RTC Market 2008 - 2009



## NYISO Monthly Average Ancillary Service Prices Real Time Market 2008 - 2009





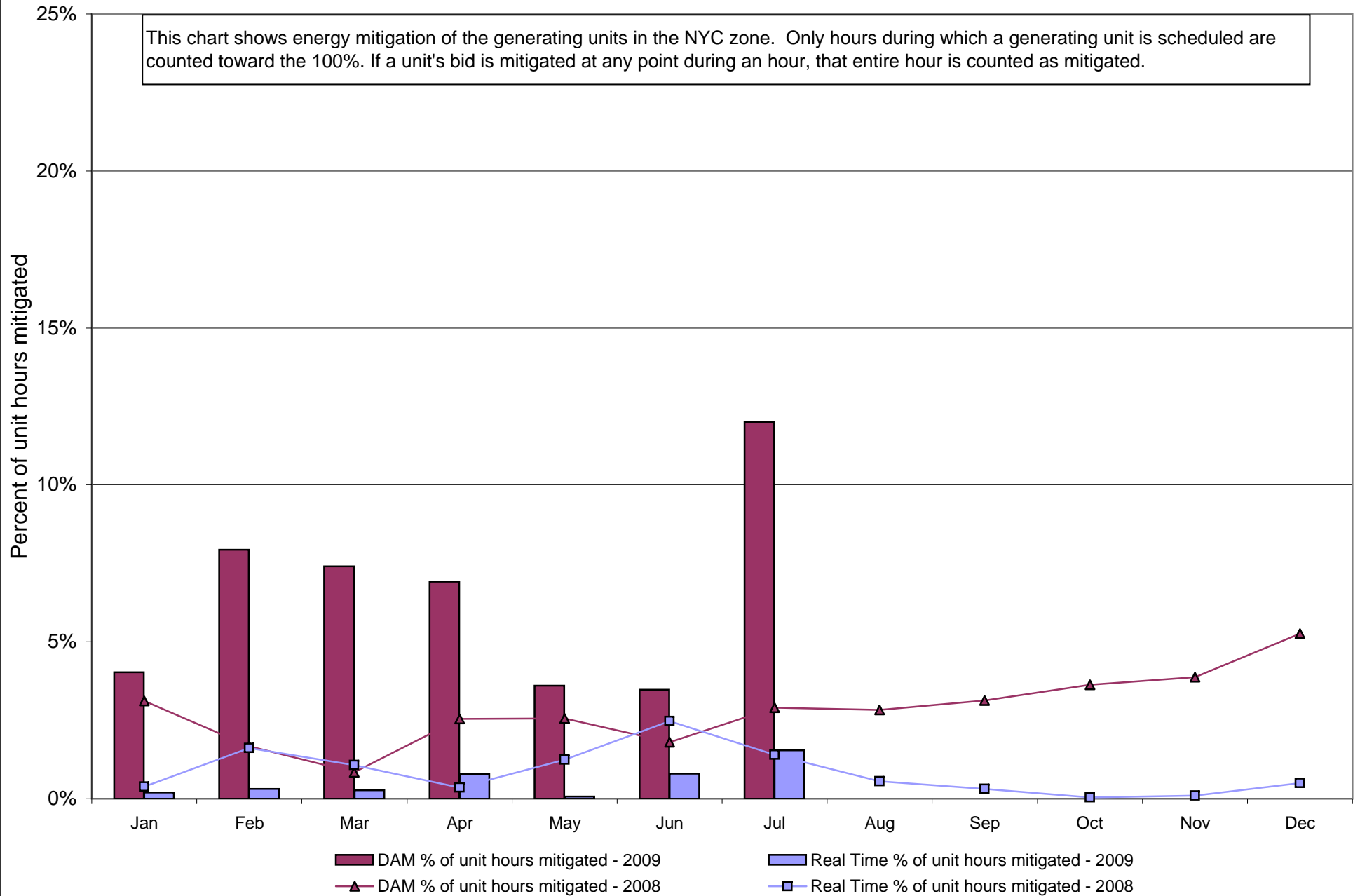
## NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

<b>2009</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	5.60	7.74	6.54	4.66	5.53	4.50	4.84					
10 Min Spin West	4.81	5.48	4.62	3.94	4.32	4.05	4.08					
10 Min Non Synch East	2.77	3.13	2.88	2.09	3.03	2.31	2.86					
10 Min Non Synch West	2.05	1.58	1.45	1.46	1.82	1.87	2.11					
30 Min East	0.92	1.12	0.63	0.50	0.43	0.43	0.37					
30 Min West	0.92	1.12	0.63	0.50	0.43	0.43	0.37					
Regulation East	49.01	46.62	48.92	38.71	32.52	35.37	29.59					
Regulation West	49.01	46.62	48.92	38.71	32.52	35.37	29.59					
<b><u>RTC Market</u></b>												
10 Min Spin East	2.27	1.44	2.43	0.97	1.12	0.96	1.41					
10 Min Spin West	2.20	1.35	2.09	0.70	1.10	0.91	1.13					
10 Min Non Synch East	0.00	0.08	0.05	0.30	0.00	0.00	0.27					
10 Min Non Synch West	0.00	0.04	0.05	0.10	0.00	0.00	0.00					
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
30 Min West	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Regulation East	48.98	45.76	45.90	33.49	32.80	36.17	30.59					
Regulation West	48.98	45.76	45.90	33.49	32.80	36.17	30.59					
<b><u>Real Time Market</u></b>												
10 Min Spin East	2.57	1.65	2.49	1.55	1.73	2.06	1.65					
10 Min Spin West	2.46	1.43	2.09	1.01	1.70	2.02	1.33					
10 Min Non Synch East	0.03	0.22	0.10	0.69	0.00	0.00	0.31					
10 Min Non Synch West	0.03	0.05	0.05	0.19	0.00	0.00	0.00					
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
30 Min West	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Regulation East	49.19	45.95	46.27	34.17	33.71	38.05	31.54					
Regulation West	49.19	45.95	46.27	34.17	33.71	38.05	31.54					
<b>2008</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	11.76	17.59	16.98	15.66	11.07	8.68	7.96	6.06	6.97	7.50	5.57	6.14
10 Min Spin West	8.41	8.86	9.45	6.61	5.35	4.97	4.96	4.72	5.33	5.54	4.83	5.35
10 Min Non Synch East	2.36	4.26	3.04	2.46	2.69	3.93	4.18	3.16	3.09	3.18	2.46	2.14
10 Min Non Synch West	1.81	2.16	2.16	1.24	1.14	1.73	2.20	1.99	1.65	1.34	1.74	1.51
30 Min East	1.73	2.07	2.16	1.21	0.93	0.61	0.57	0.54	0.62	0.70	0.79	0.82
30 Min West	1.73	2.07	2.16	1.21	0.93	0.61	0.57	0.54	0.62	0.70	0.79	0.82
Regulation East	64.81	71.51	64.19	61.08	61.80	66.77	60.83	58.82	58.34	50.73	48.94	46.34
Regulation West	64.81	71.51	64.19	61.08	61.80	66.77	60.83	58.82	58.34	50.73	48.94	46.34
<b><u>RTC Market</u></b>												
10 Min Spin East	5.22	13.13	10.37	7.80	8.34	6.04	1.95	0.80	4.33	1.72	1.89	3.34
10 Min Spin West	3.55	11.86	9.83	5.61	2.89	1.71	1.09	0.09	2.76	1.39	1.80	2.39
10 Min Non Synch East	0.65	1.40	0.02	0.49	3.74	4.62	1.05	0.70	1.56	0.00	0.00	0.80
10 Min Non Synch West	0.00	0.79	0.00	0.12	0.04	0.56	0.21	0.00	0.35	0.00	0.00	0.17
30 Min East	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Regulation East	62.09	71.26	63.30	58.35	59.84	59.38	48.94	55.11	57.78	49.85	47.11	46.22
Regulation West	62.09	71.26	63.30	58.35	59.84	59.38	48.94	55.11	57.78	49.85	47.11	46.22
<b><u>Real Time Market</u></b>												
10 Min Spin East	5.12	14.30	9.86	7.48	7.19	7.35	1.88	0.87	3.99	0.83	1.96	3.93
10 Min Spin West	3.45	11.40	9.27	5.16	2.45	1.73	1.19	0.15	2.33	0.62	1.90	3.05
10 Min Non Synch East	0.83	3.86	0.10	0.79	3.07	6.17	1.05	0.70	1.89	0.00	0.00	0.77
10 Min Non Synch West	0.02	1.49	0.00	0.13	0.01	0.88	0.37	0.00	0.49	0.00	0.00	0.17
30 Min East	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.02	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.02	0.00	0.00	0.00
Regulation East	62.33	74.53	63.09	57.71	58.83	60.07	49.61	55.50	58.60	49.69	47.61	47.42
Regulation West	62.33	74.53	63.09	57.71	58.83	60.07	49.61	55.50	58.60	49.69	47.61	47.42

## NYISO In City Energy Mitigation (NYC Zone) 2008 - 2009

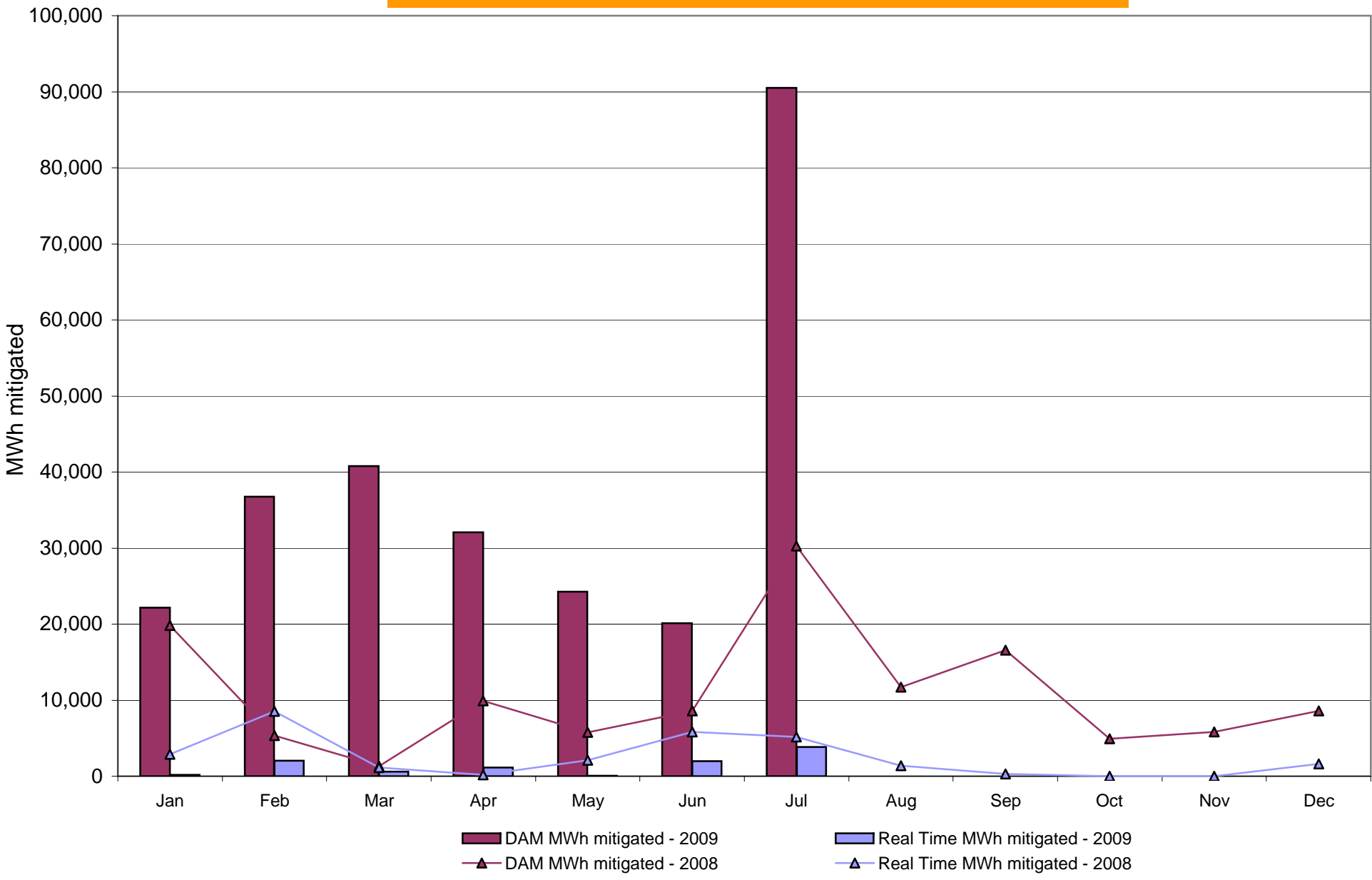
### Percentage of committed unit-hours mitigated

This chart shows energy mitigation of the generating units in the NYC zone. Only hours during which a generating unit is scheduled are counted toward the 100%. If a unit's bid is mitigated at any point during an hour, that entire hour is counted as mitigated.

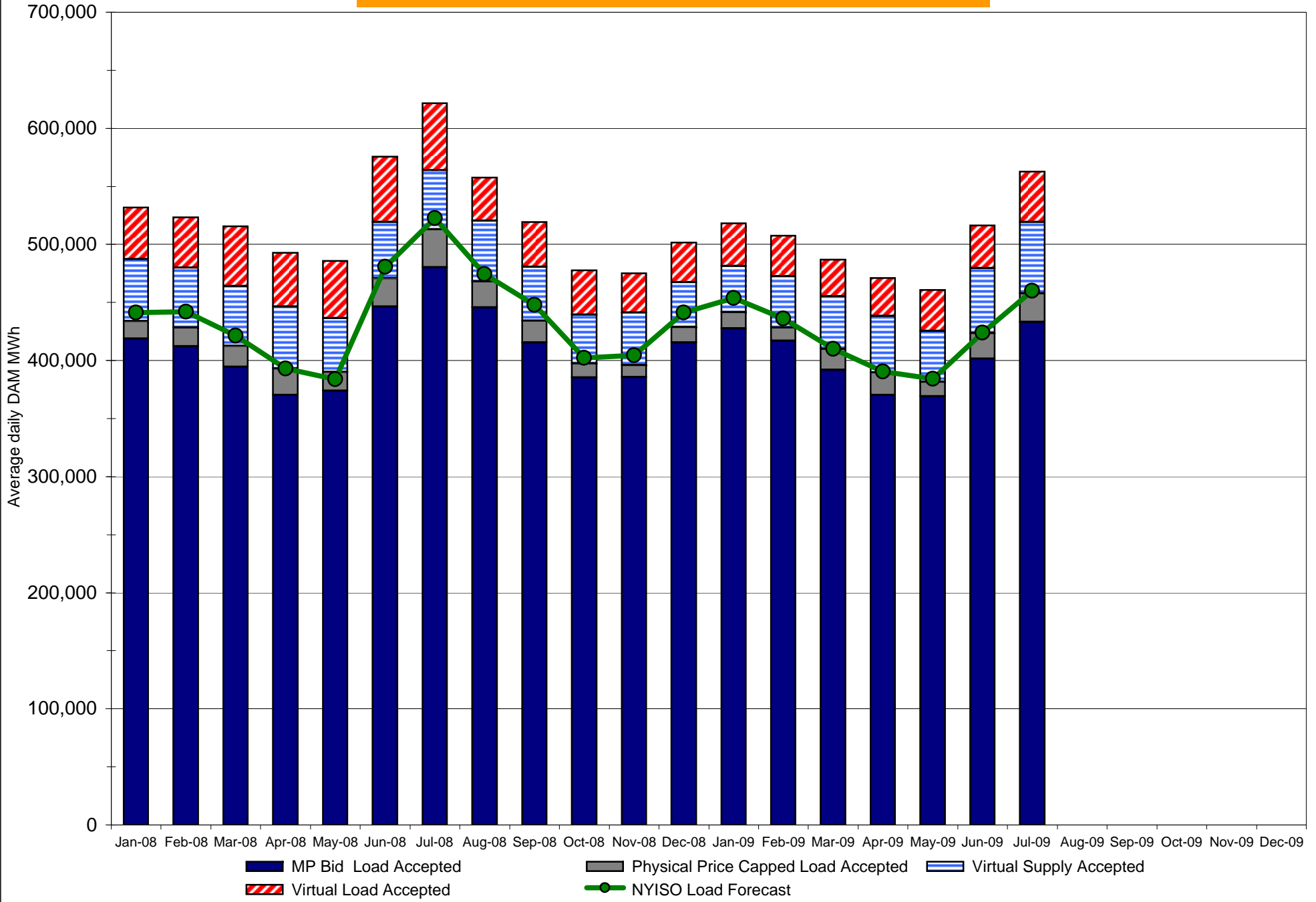


## NYISO In City Energy Mitigation (NYC Zone) 2008 - 2009

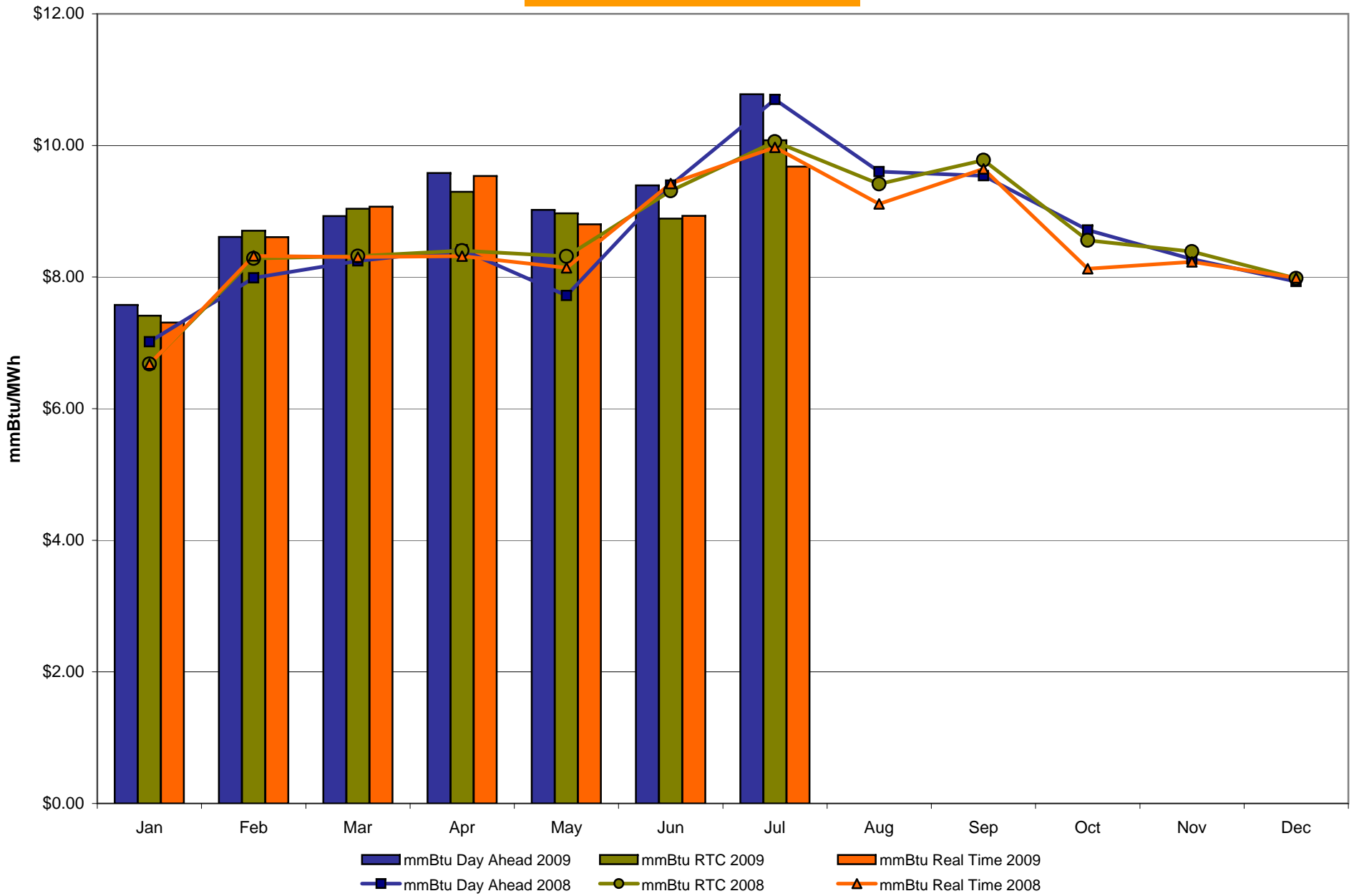
### Monthly megawatt hours mitigated



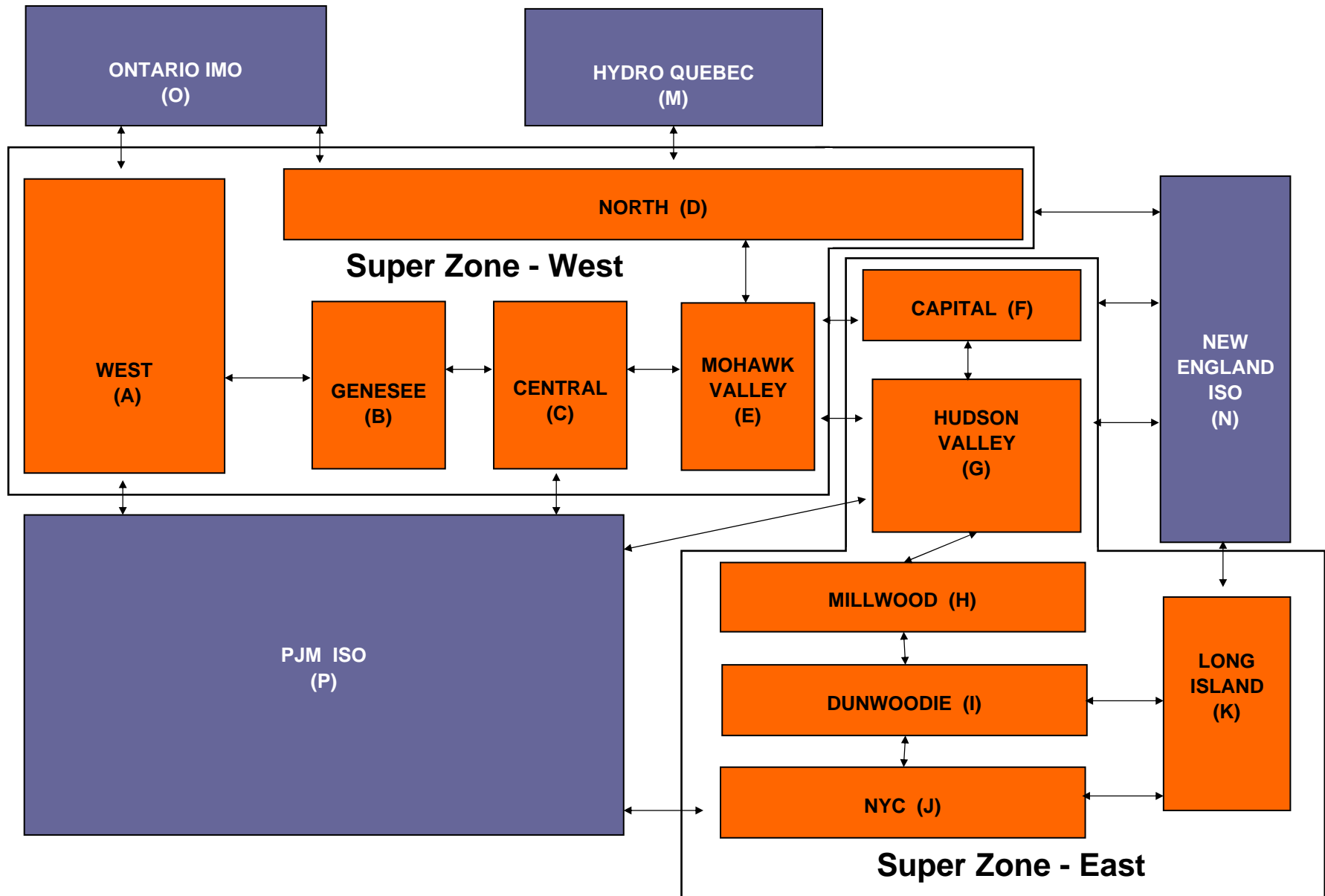
# NYISO Average Daily DAM Load Bid Summary



## Monthly Implied Heat Rate 2008-2009



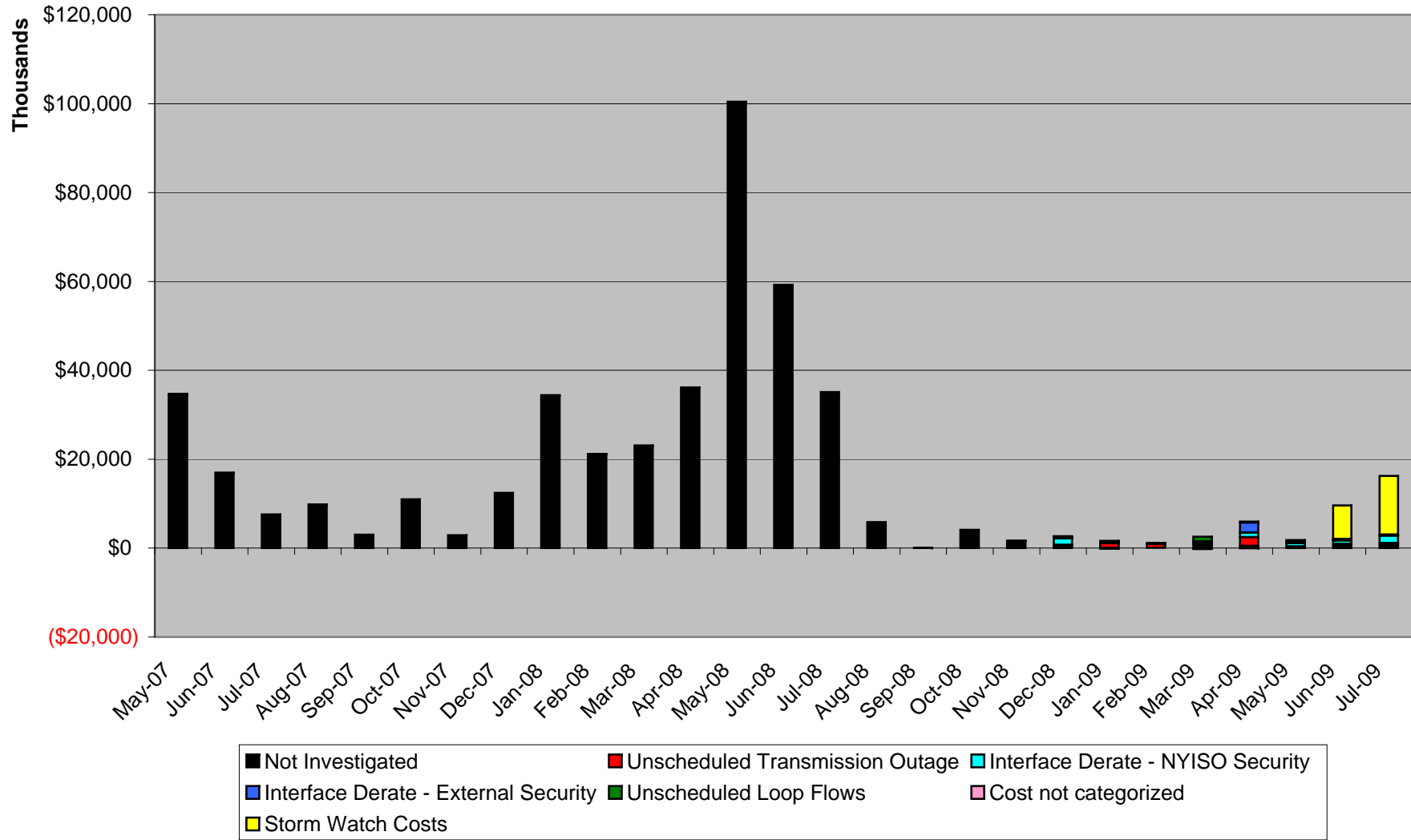
# NYISO LBMP ZONES



**Billing Codes for Chart 4-C**

<b>Chart 4-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	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

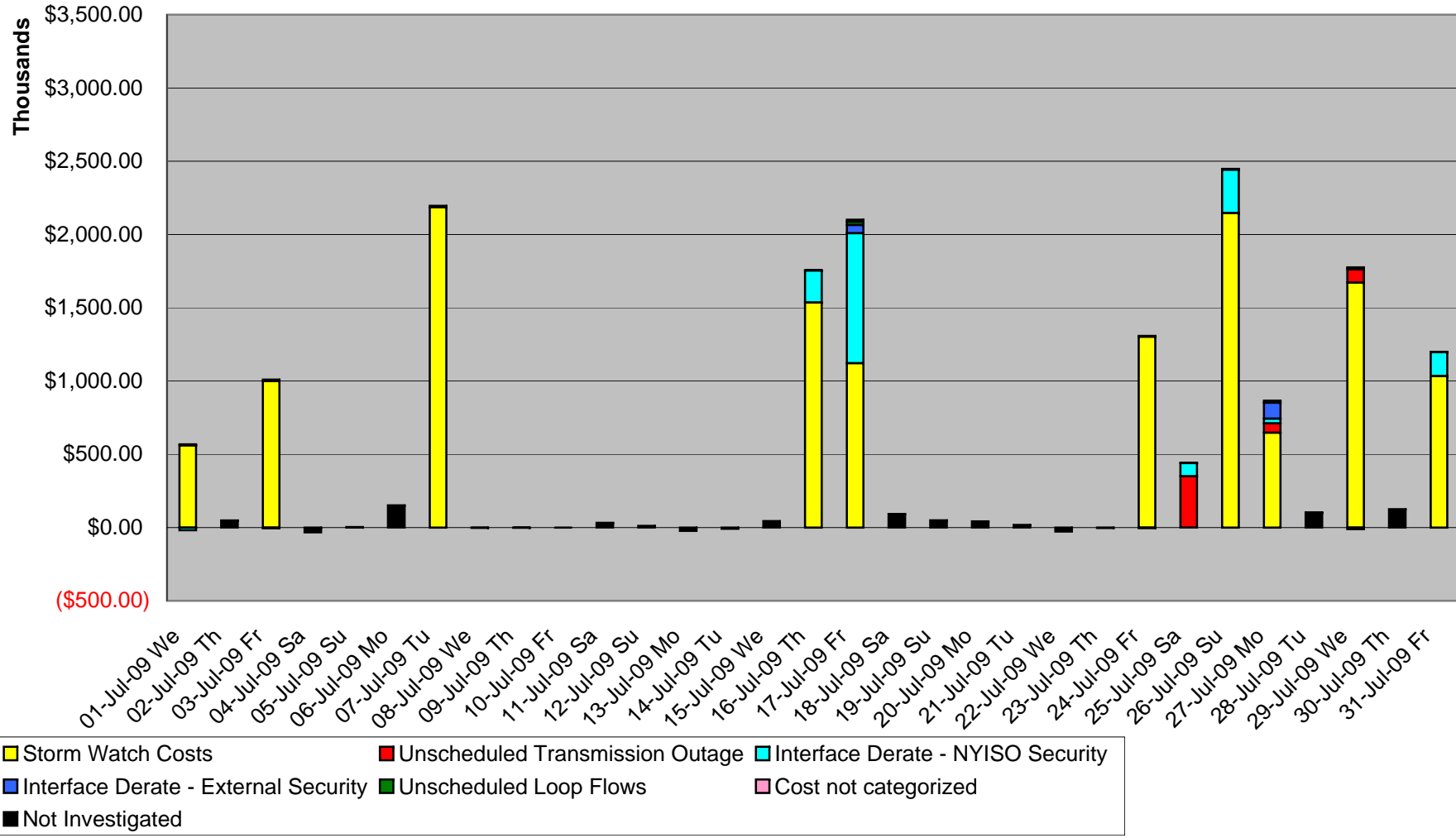
## Investigation of Balancing Market Congestion Residual Monthly Uplift Cost Categorized



Prepared by NYISO Operations Analysis and Services, based on settlements data as of August 10.



## July 2009 Investigation of Balancing Market Congestion Residual Uplift Cost Categorized








Prepared by NYISO Operations Analysis and Services, based on settlements data as of August 10.

Day's investigated in July: 1, 3, 7, 16, 17, 24, 25, 26, 27, 29, 31

Event	Date (yyymm)	Hours	Description
	20090701	14-22	Thunderstorm Alert
	20090701	9	Uprate Mott Haven-Rainey 345kV (#Q11) for I/o Mott Haven-Rainey 345kV (#Q12)
	20090703	16-20	Thunderstorm Alert
	20090703	8	Derate Central East
	20090707	12-18, 22	Thunderstorm Alert
	20090716	17-21	Thunderstorm Alert
	20090716	19-21	Derate Greenwood/Staten Island, Greenwood-Vernon 138kV (#31231) for I/o Greenwood-Kent Ave 138kV (#31232)
	20090717	14-23	Thunderstorm Alert
	20090717	1, 22	Derate Central East
	20090717	19-20	Derate Goethals-Gowanus 345kV (#26)
	20090717	13-17, 20-23	Derate Greenwood/Staten Island, Willowbrook-Freshkills 138kV (#29211) and Gowanus-Greenwood 138kV (#42231 & #42232)
	20090717	17, 23	HQ DNI Ramp Limit
	20090717	22	Lake Erie clockwise circulation, DAM-RTM exceeds 500MW: Central East
	20090724	19-23	Thunderstorm Alert
	20090724	23	Forced outage Sprainbrook-East Garden City 345kV (#Y49)
	20090725	0-2, 6-19	Forced outage Sprainbrook-East Garden City 345kV (#Y49)
	20090725	8-9	NYCA DNI Ramp Limit
	20090725	16-18	Derate Leeds-New Scotland 345kV (#93) for I/o New Scotland-Leeds 345kV (#94-LN)
	20090725	16-18	Derate Pleasant Valley/Leeds 345kV (#92) for I/o Athens-Pleasant Valley 345kV (#91)
	20090726	16-23	Thunderstorm Alert
	20090726	17	Derate Vernon/Greenwood, Gowanus S PAR (#R14) for I/o Goethals twr (#21 & #22)
	20090727	0, 14-19	Thunderstorm Alert
	20090727	14	Forced outage Northport-Elwood 138kV (#678)
	20090727	12-13	Derate Leeds-New Scotland 345kV (#93) for I/o New Scotland-Leeds 345kV (#94-LN)
	20090727	15	HQ-NY Scheduling Limit
	20090729	13-18, 20-23	Thunderstorm Alert
	20090729	16	Forced outage Branchburg-Ramapo 500kV (#5018)
	20090729	6-8	Uprate Astoria East/Corona/Jamaica, East 179th St-Harlem River 138kV (#15053)
	20090729	11, 13, 17	Derate Astoria West/Queens Bridge/Vernon, Rainey-Vernon 138kV (#36312)
	20090729	7-8	Uprate Mott Haven-Rainey 345kV (#Q11) for I/o Mott Haven-Rainey 345kV (#Q12)
	20090729	6, 17	NYCA DNI Ramp Limit
	20090729	7	ISONE DNI Ramp Limit
	20090731	14-16	Thunderstorm Alert
	20090731	12-13, 15-17	Derate Greenwood/Staten Island

## Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories

<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
 Storm Watch	Zone J	Thunderstorm Alert (TSA)	TSA Activations
 Unscheduled Transmission Outage	Market-wide	Reduction in DAM to RTM transfers related to unscheduled transmission outage	Forced Line Outage, Unit/AVR Outages
 Interface Derate - NYISO Security	Market-wide	Reduction in DAM to RTM transfers not related to transmission outage	Interface Derates due to RTM voltages
 Interface Derate - External Security	Market-wide	Reduction in DAM to RTM transfers related to External Control Area Security Events	TLR Events, External Transaction Curtailments
 Unscheduled Loop Flows	Market-wide	Changes in DAM to RTM unscheduled loop flows impacting NYISO Interface transmission constraints	DAM to RTM Clockwise Lake Erie Loop Flows greater than 500MW

### Monthly Balancing Market Congestion Report Assumptions/Notes

- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) At a minimum those days with \$ 100 K/HR or \$ 200 K/Day or more are investigated
- 3) Uplift costs associated with multiple event types are apportioned equally by hour
- 4) Investigations began with Dec 2008. Prior months are reported as Not Investigated.