



# Monthly Report

October 2014

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# ***Operations Performance Metrics Monthly Report***



## ***October 2014 Report***

### **Operations & Reliability Department New York Independent System Operator**

Prepared by NYISO Operations Analysis and Services, based on settlements initial invoice data collected on or before November 10, 2014.

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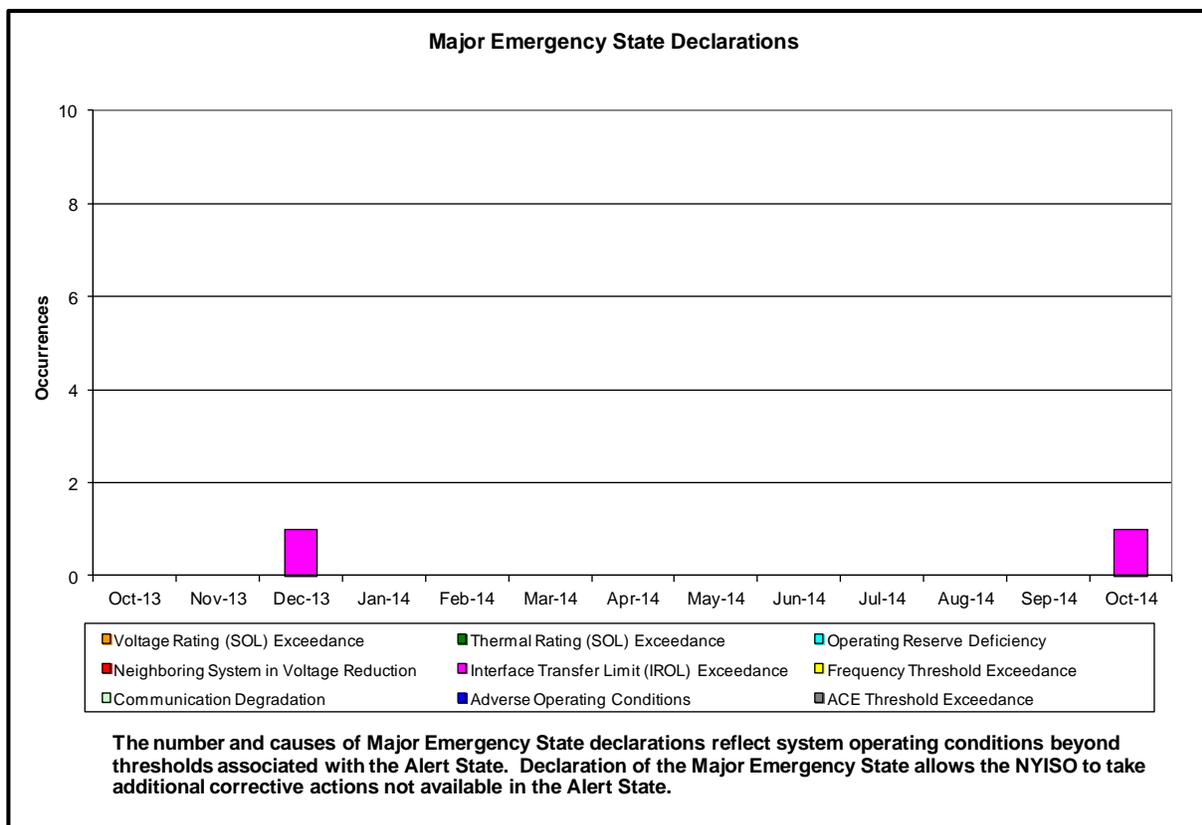
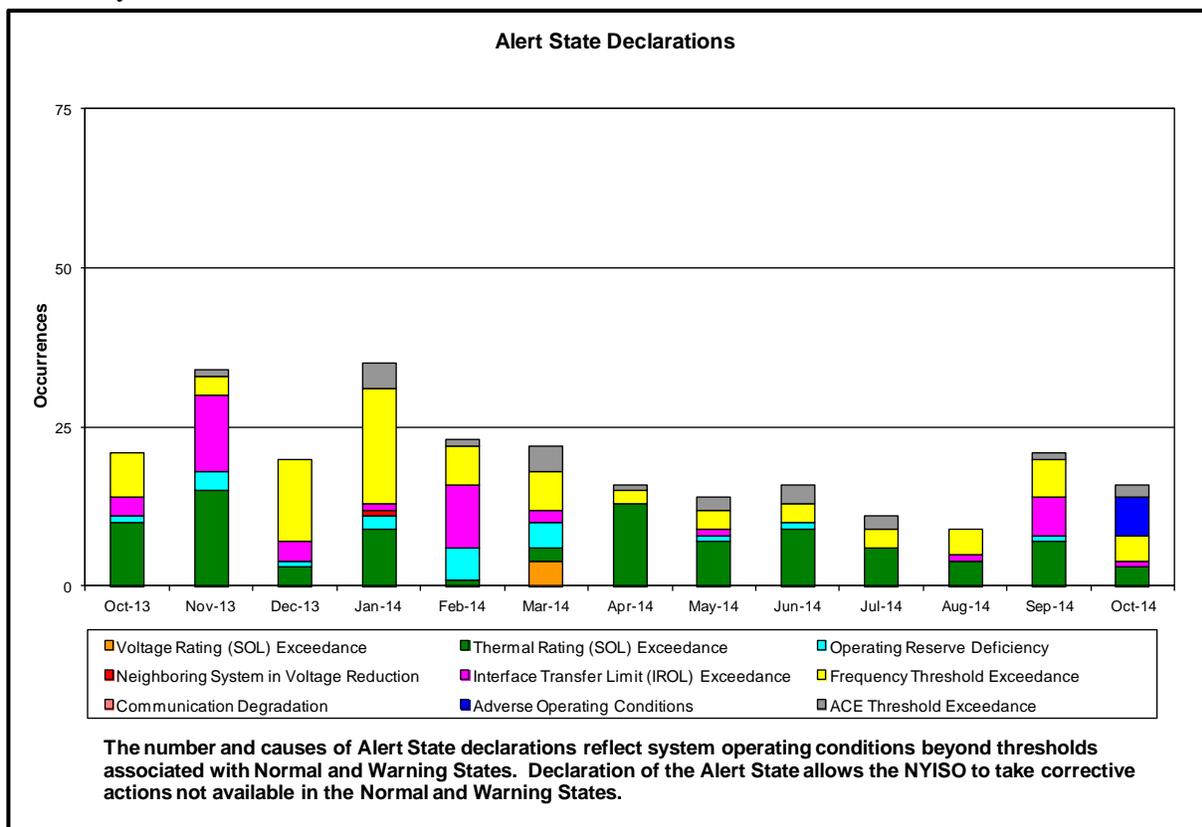
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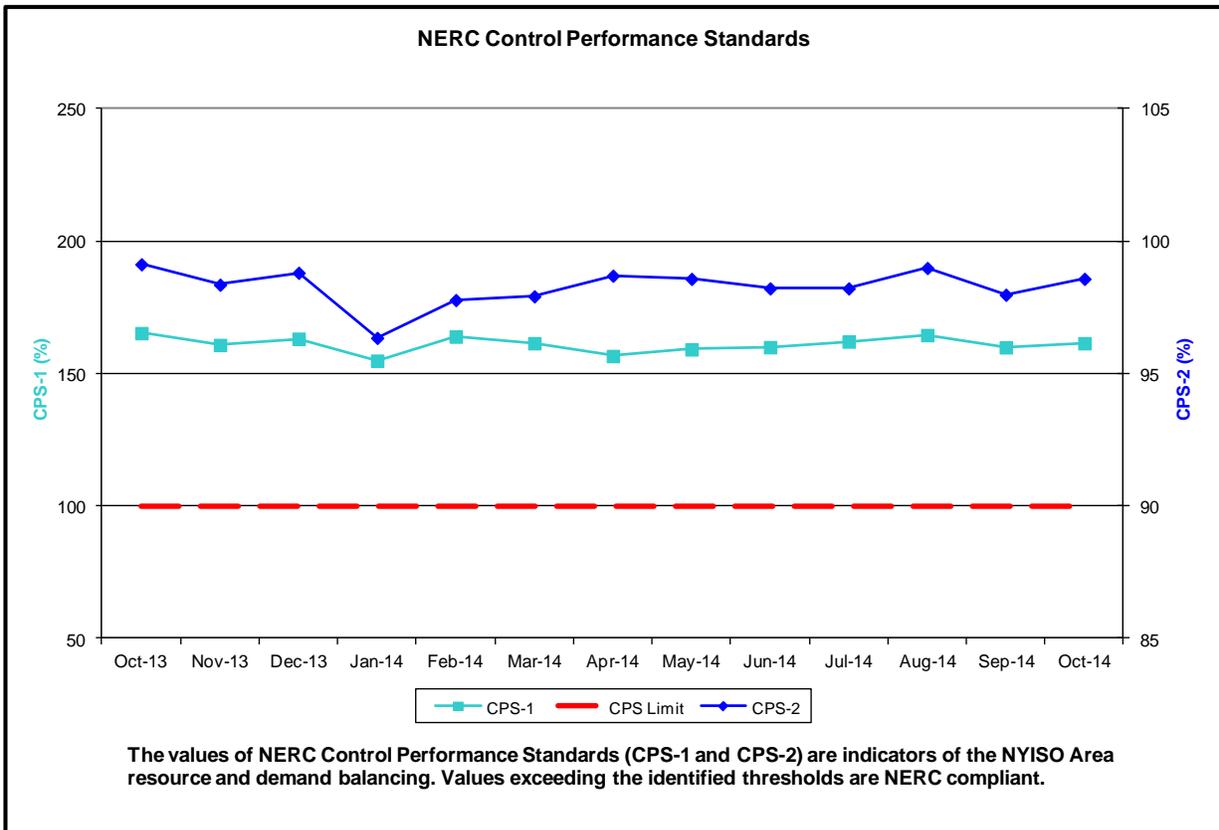
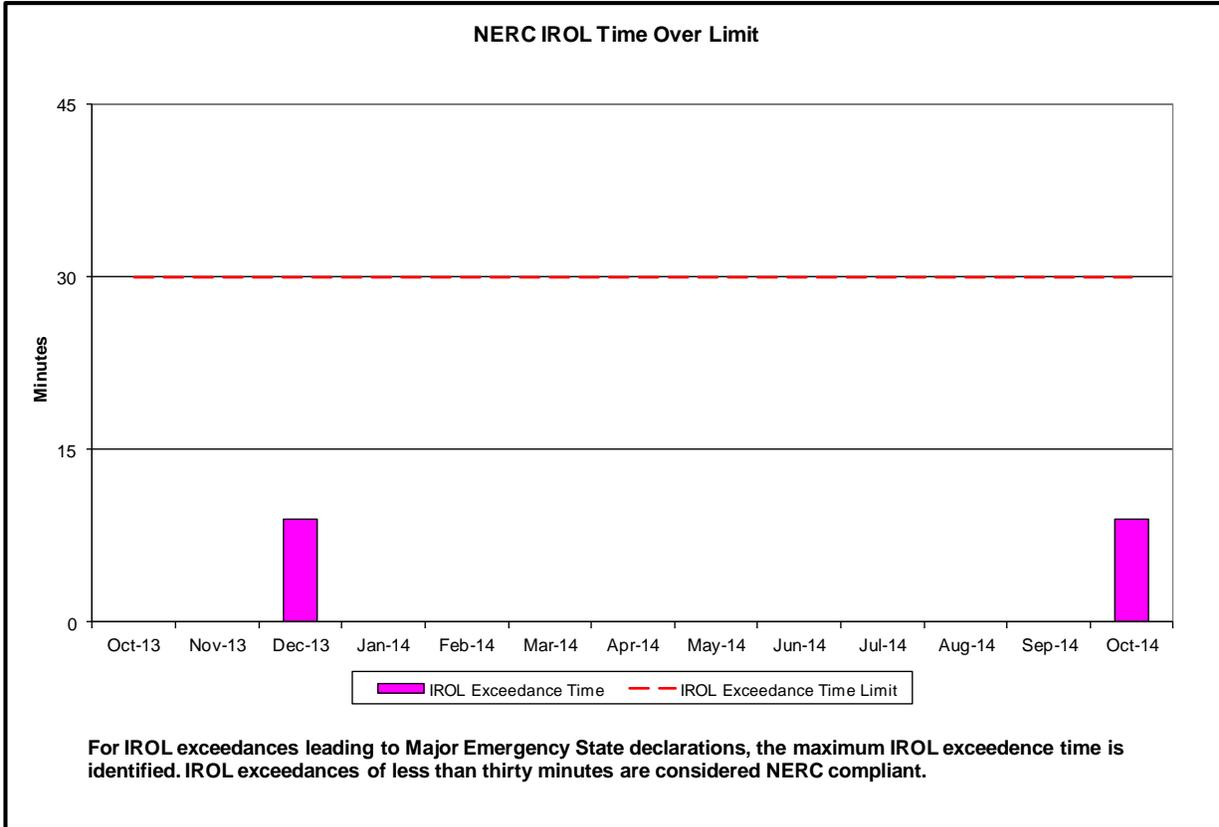
## October 2014 Operations Performance Highlights

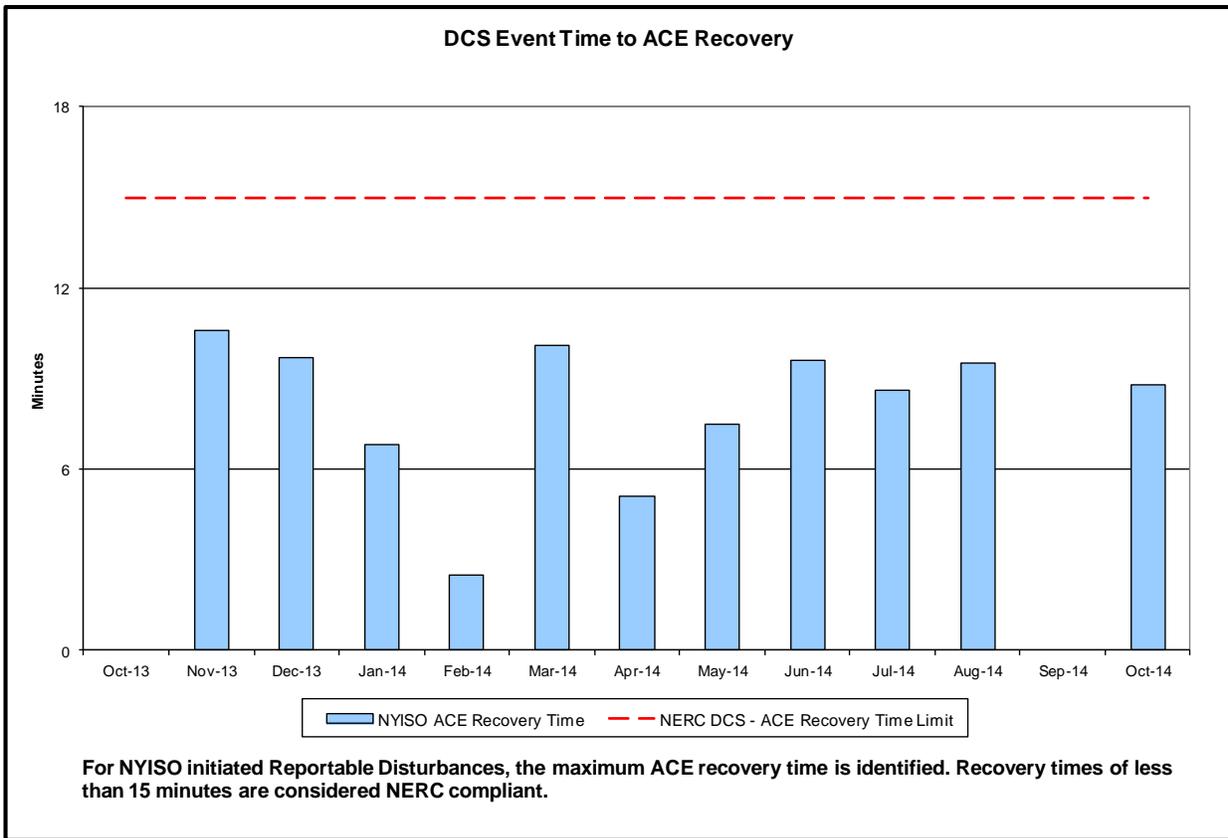
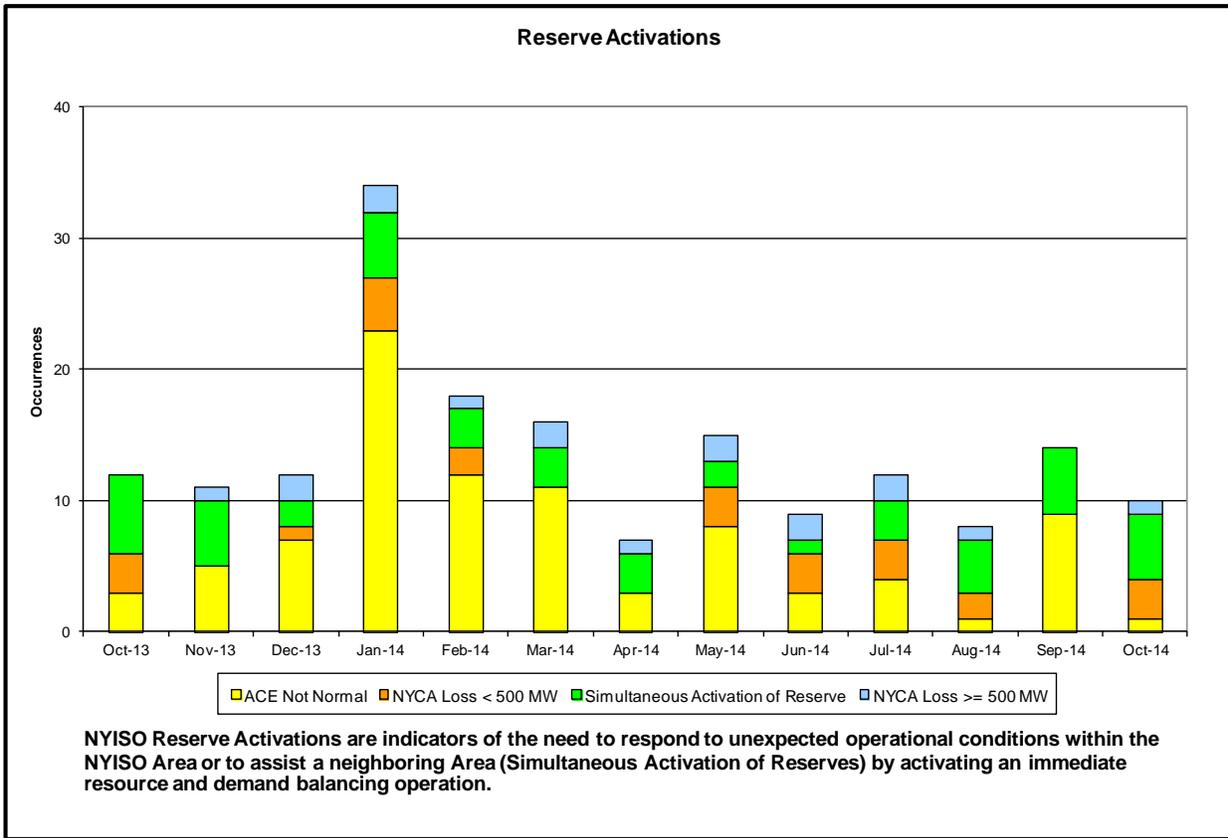
- Peak load of 21,125 MW occurred on 10/15/2014 HB 18
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 0 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- Broader Regional Market Coordination monthly value was \$0.33M
- Broader Regional Market Coordination year-to-date value was \$7.57M
- Statewide uplift cost monthly average was \$(0.50)/MWh
- TCC Metrics include Centralized TCC Auction 6-month average
- With the October deployment, in preparation for CTS, NYISO began scheduling external interchange 15 minutes nearer to real-time (scheduled ½ hour out) and added external transaction RT bidding flexibility with multiple bid curves allowed per hour
- Increased Operational transparency with the following posting improvements: ACE data, Transfer Limits report archive, notice of 15 minute scheduling outage, additional information contained in Zonal Load Commitment report (price cap load, bilateral, and virtual)
- The following table identifies the Monthly ICAP spot market prices by locality. Given the transition to the Winter Capability period the price changes from the prior month are excluded.

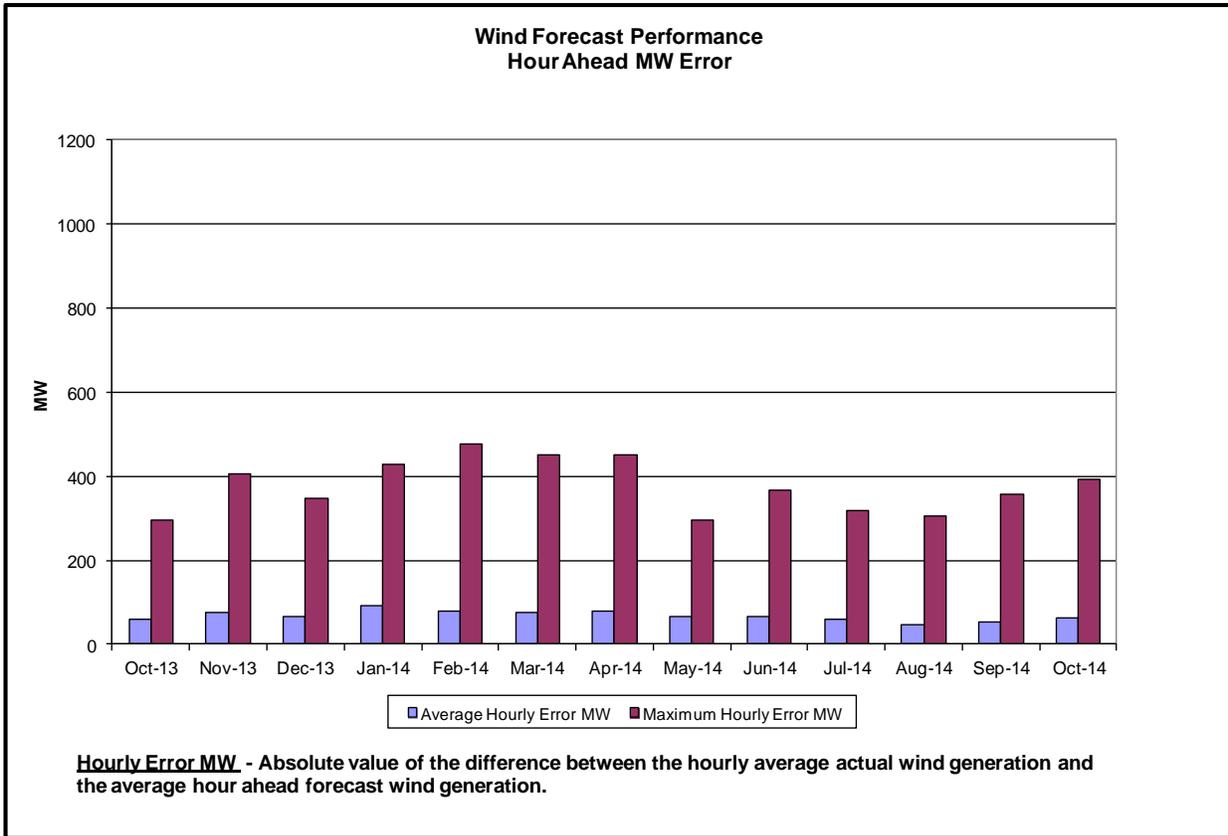
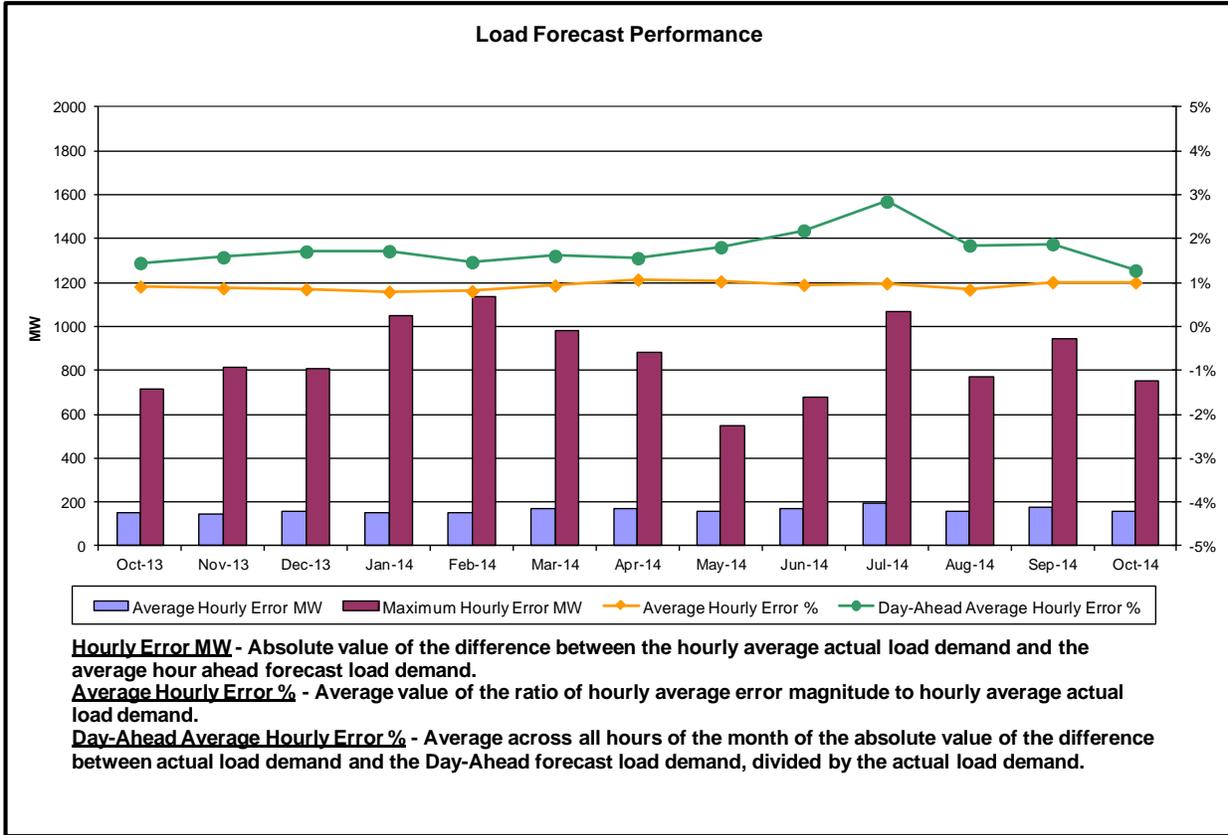
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
November 2014 Spot Price	\$1.43	\$5.76	\$8.96	\$2.99
Change from Prior Month	N/A	N/A	N/A	N/A

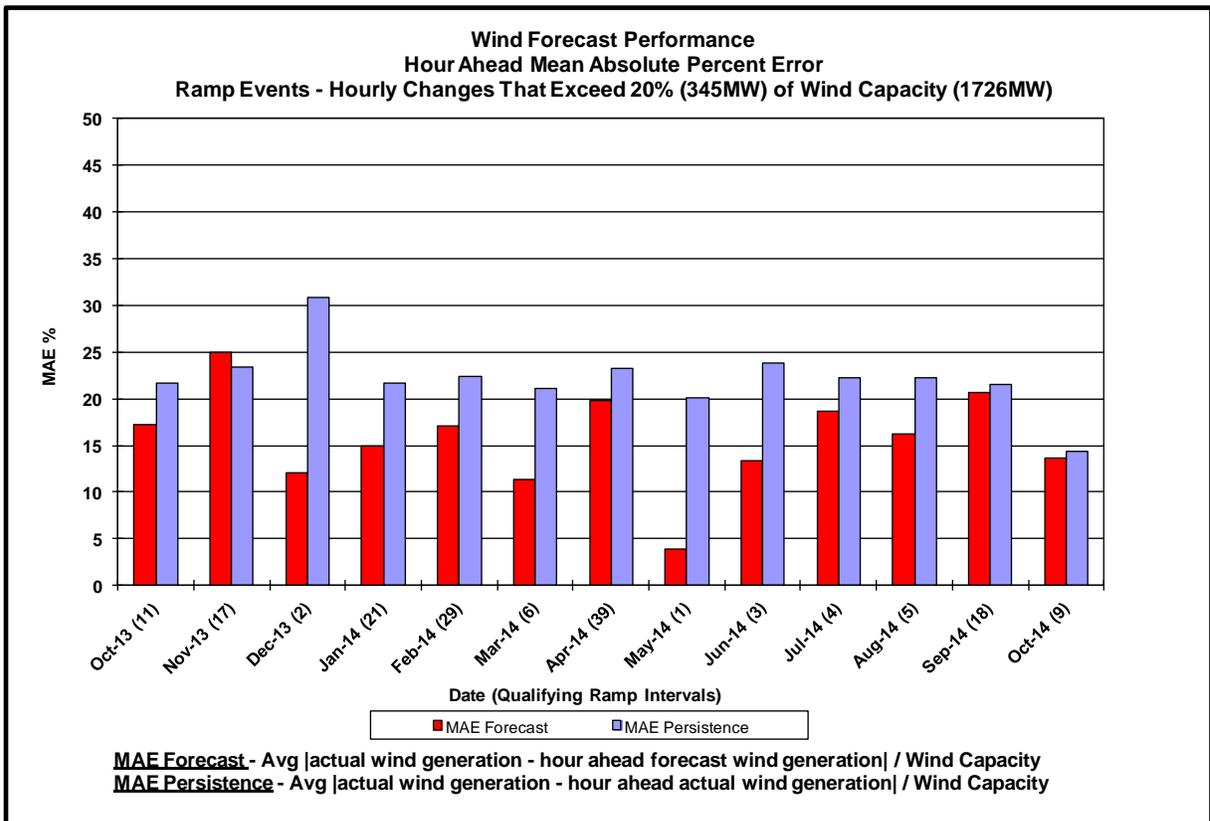
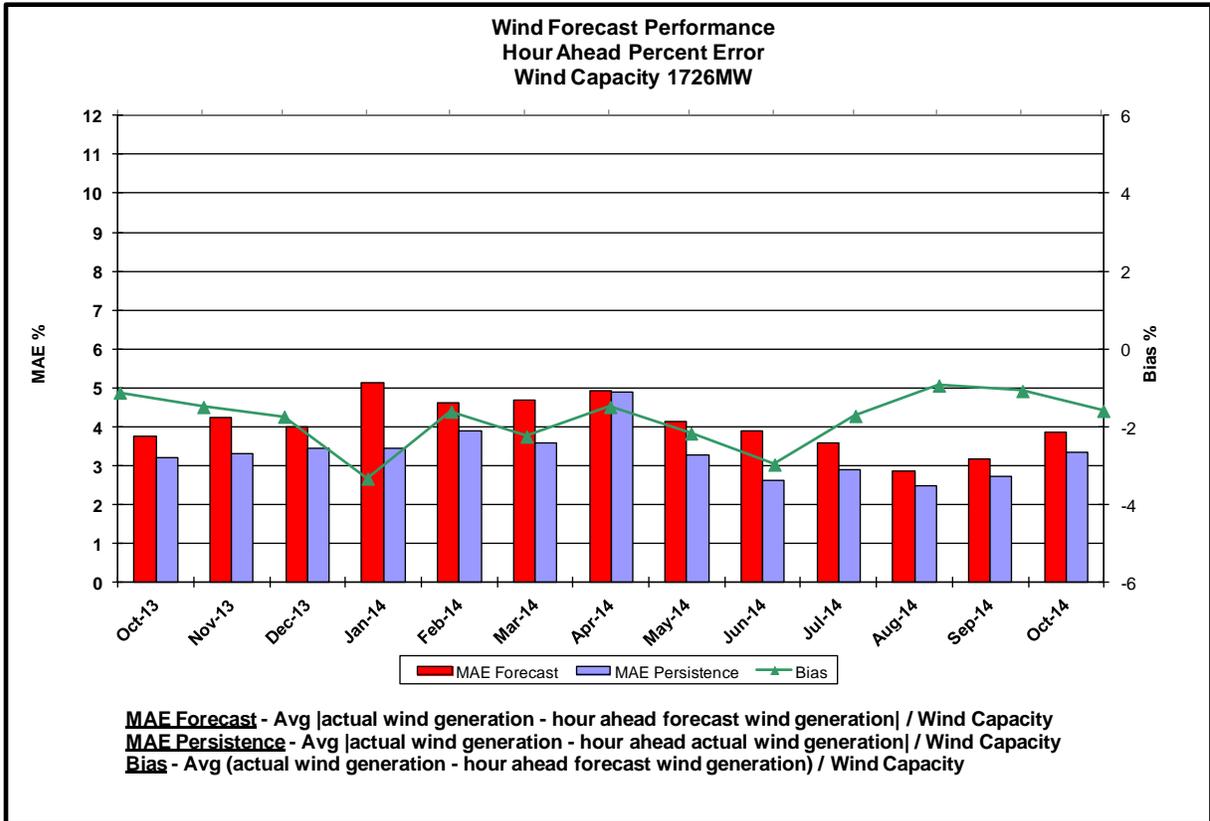
## Reliability Performance Metrics

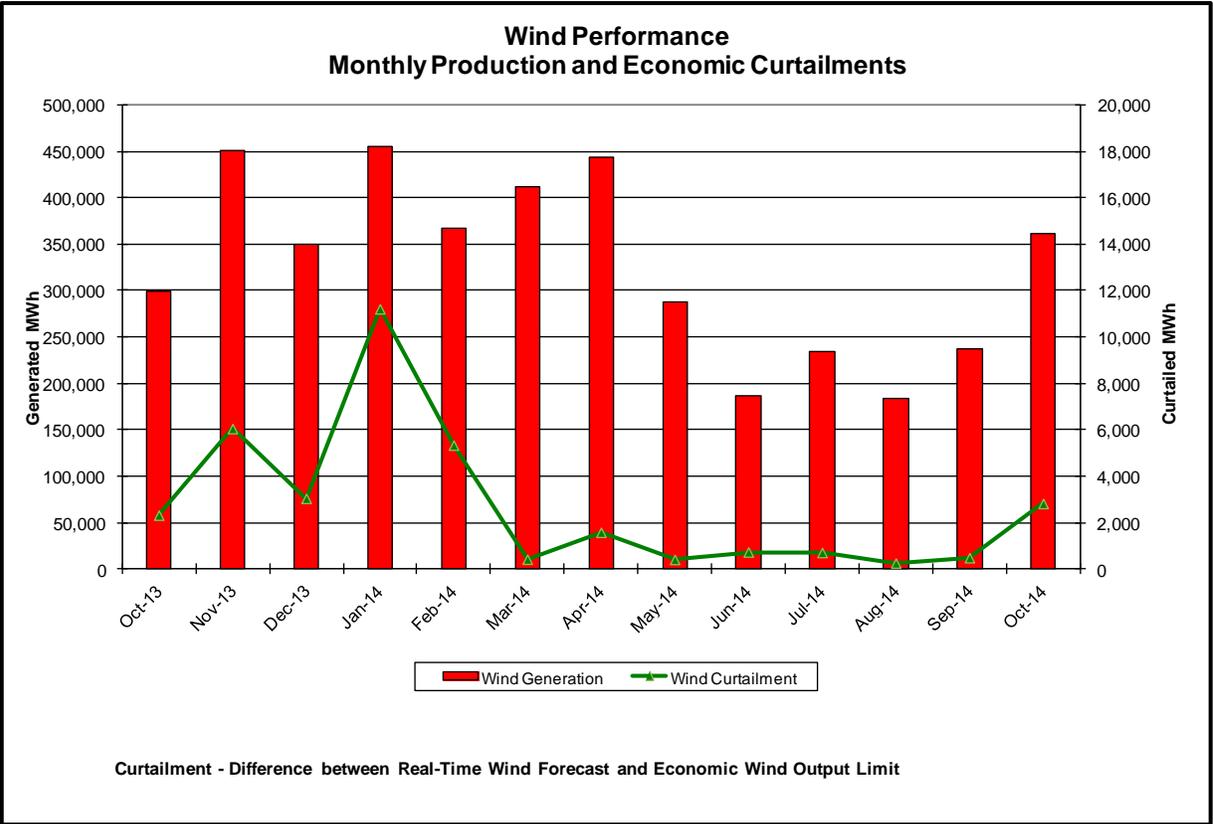
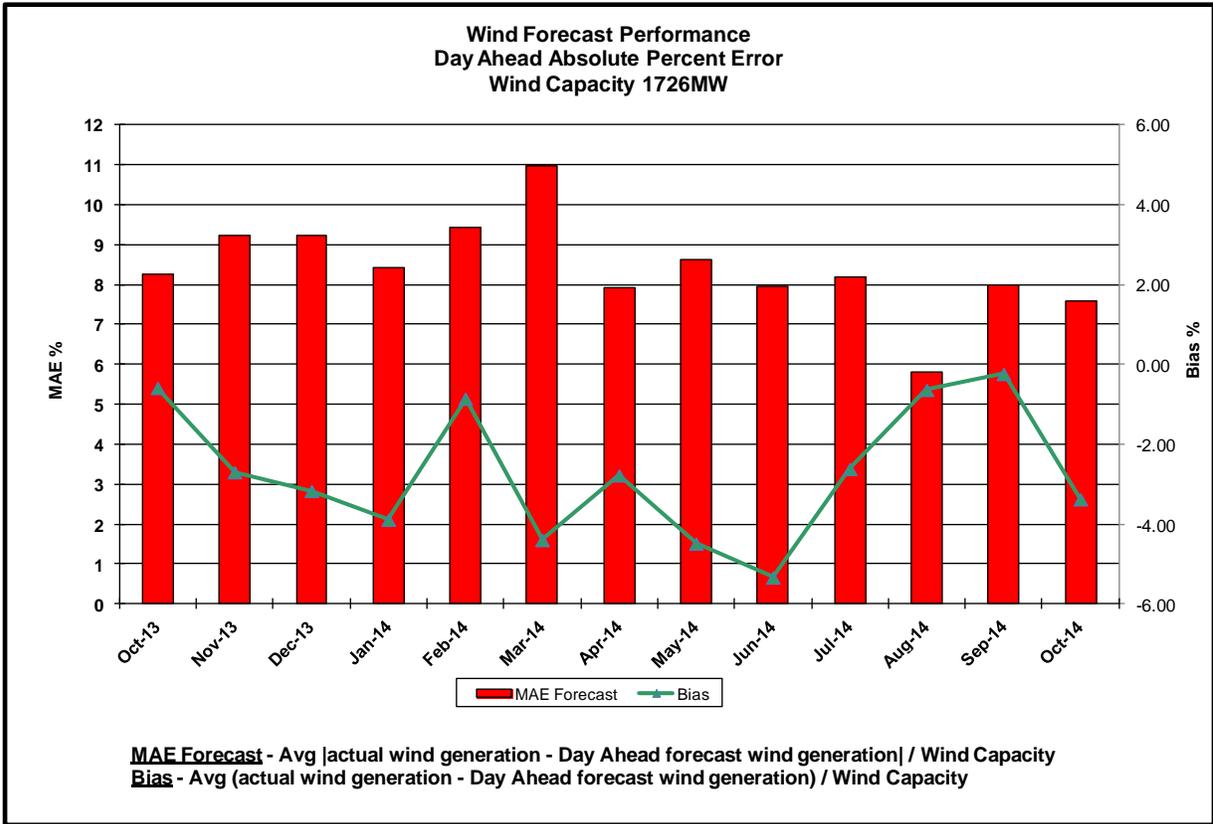


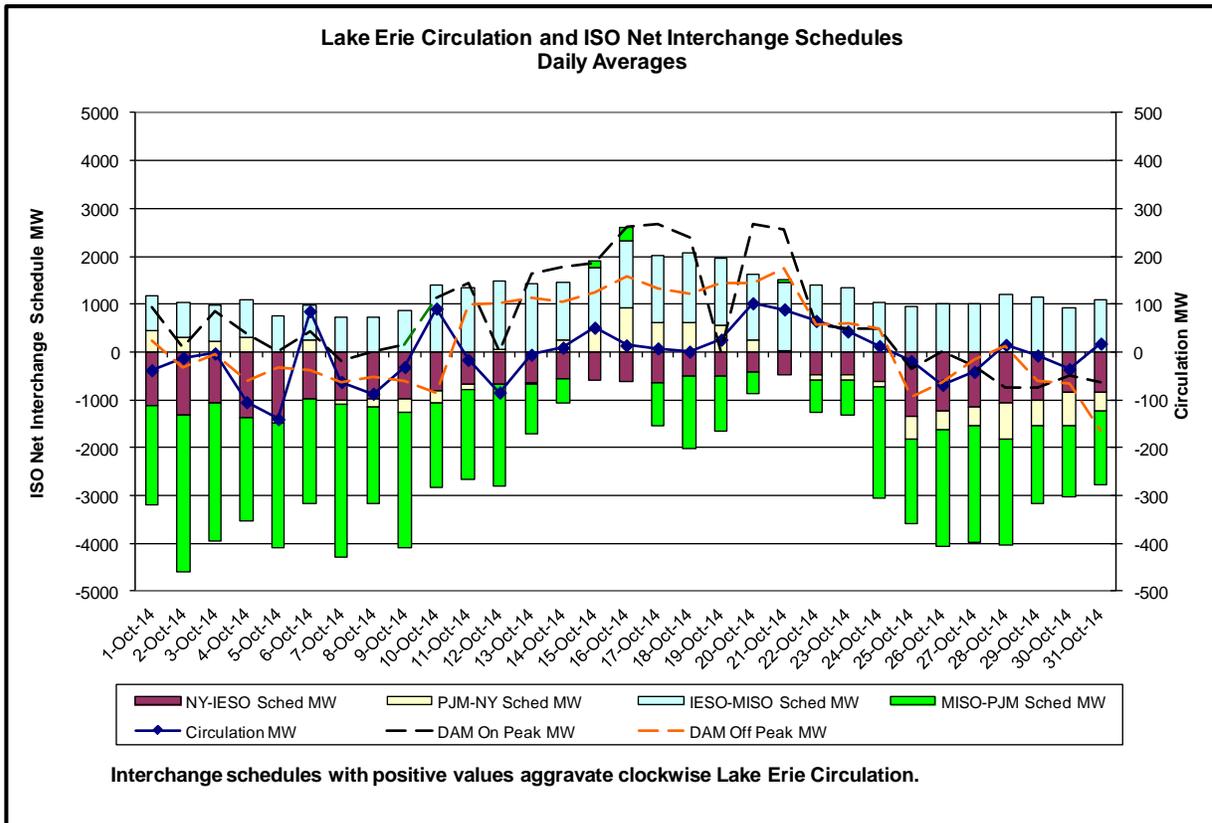
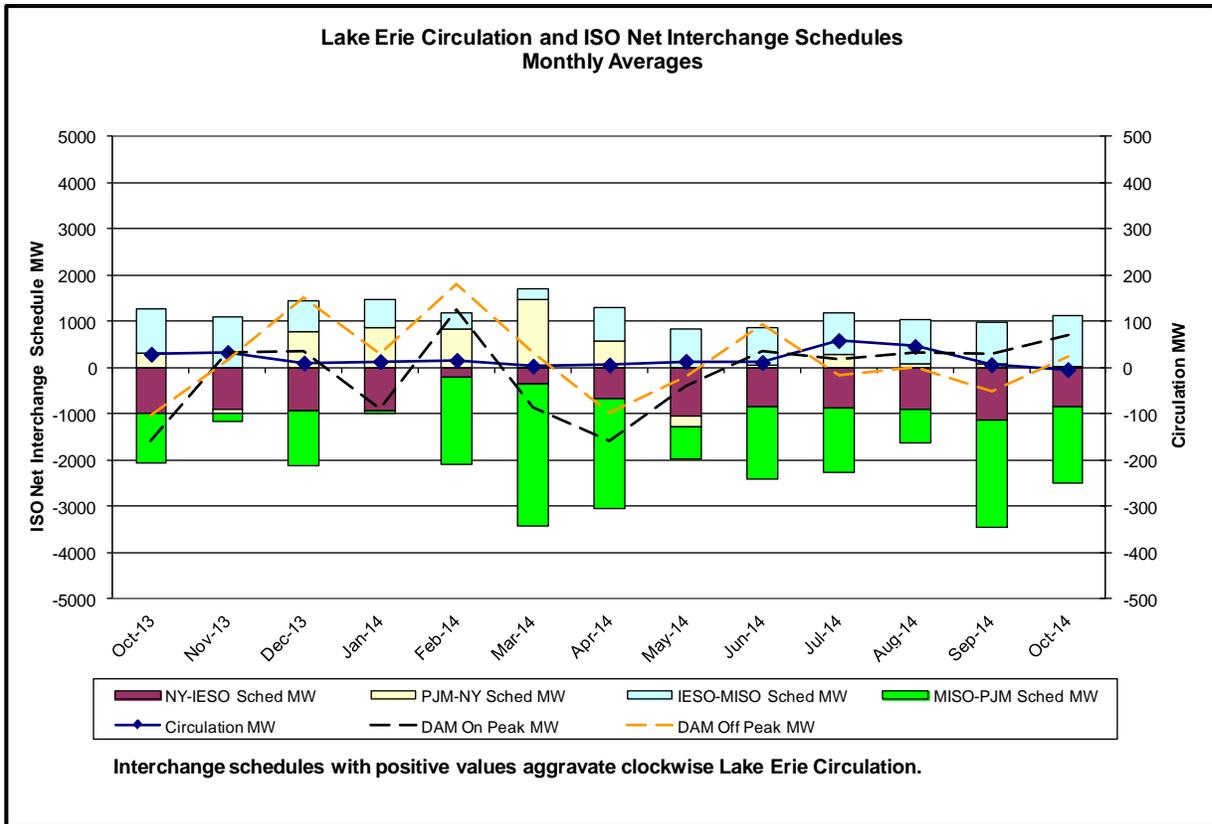




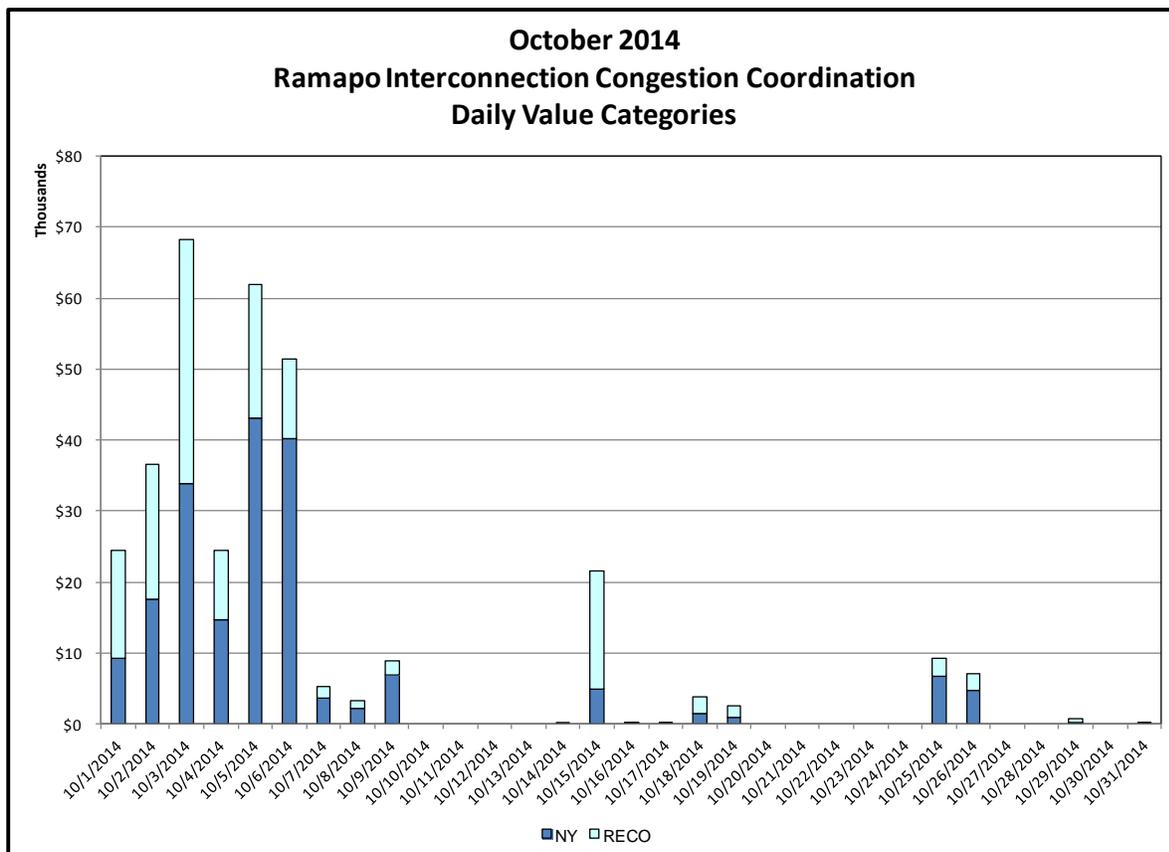
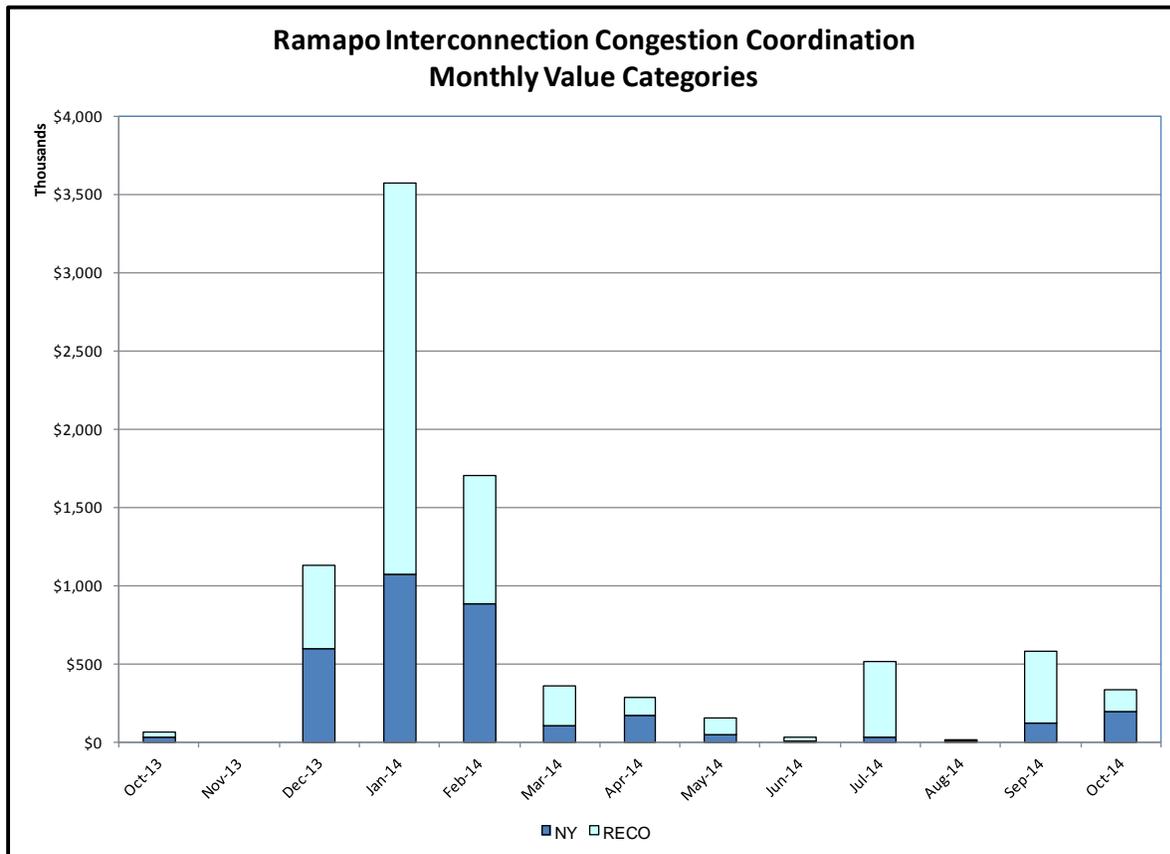






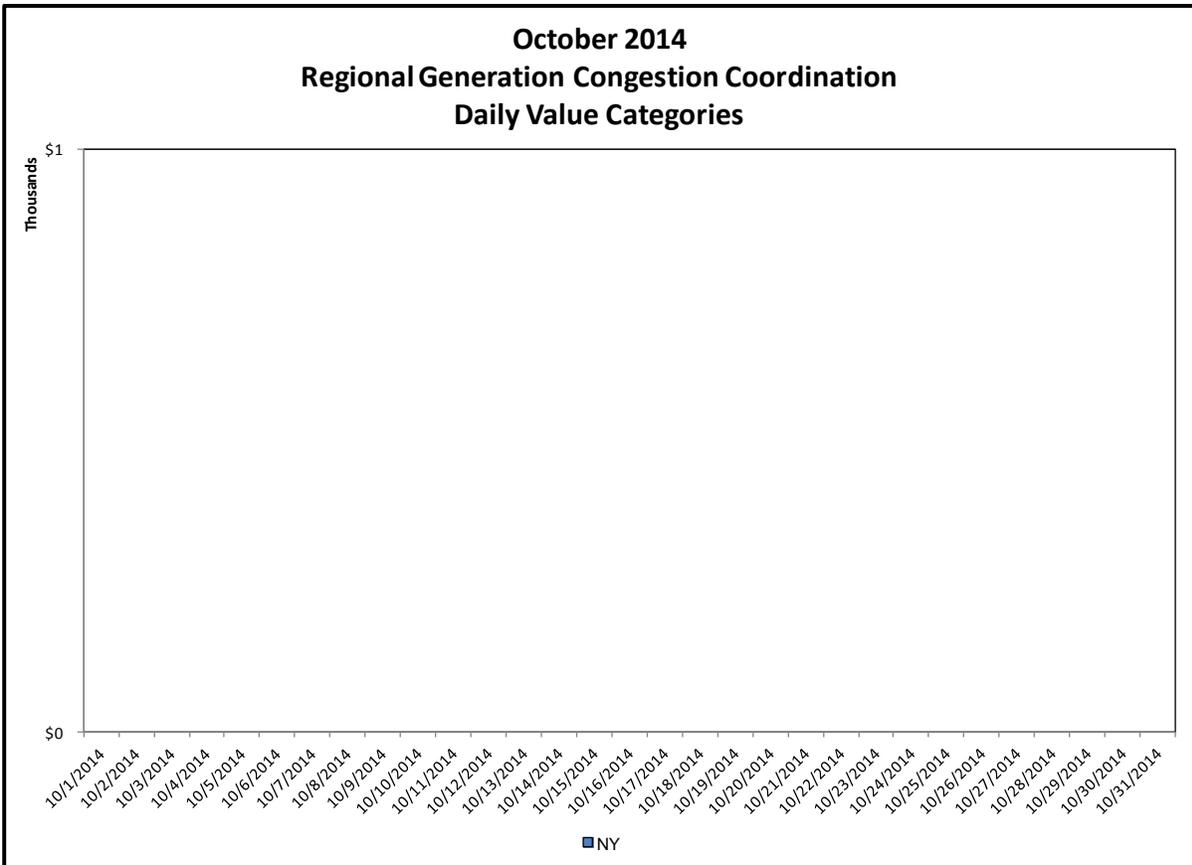
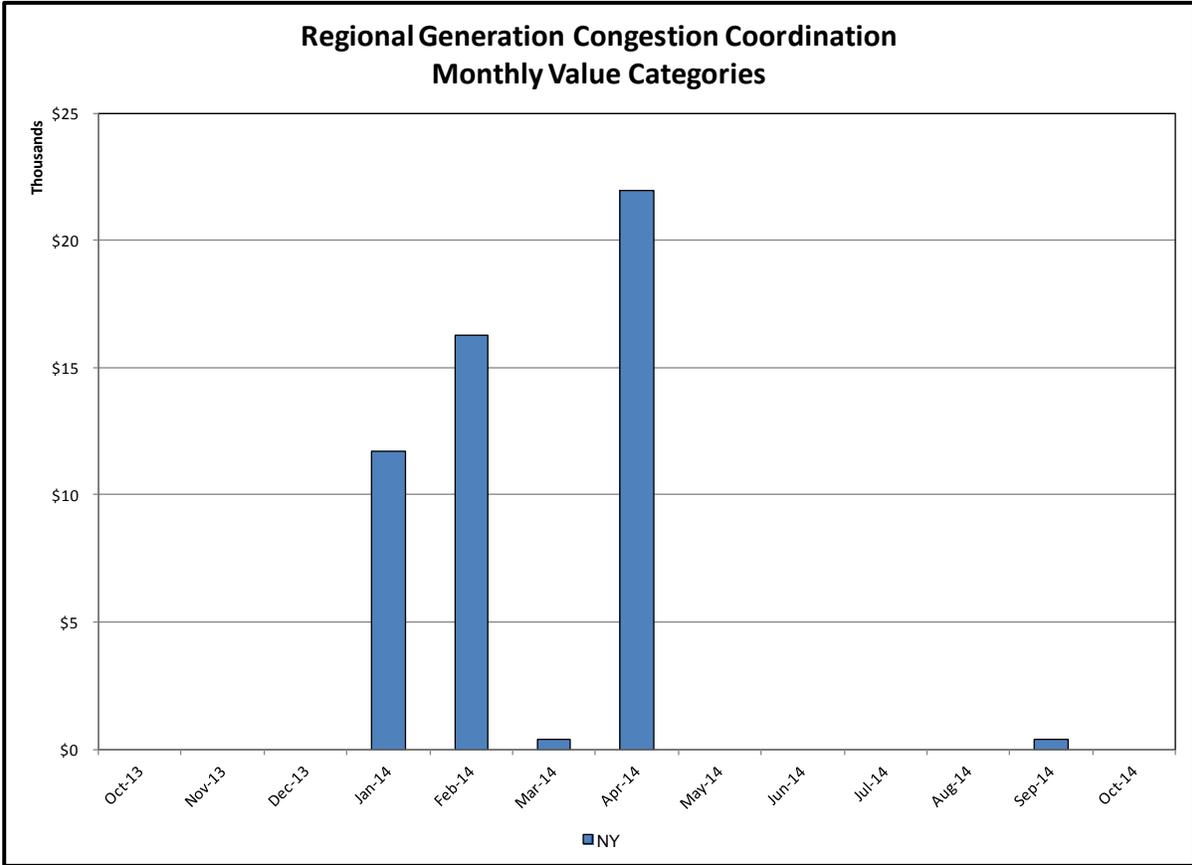


## Broader Regional Market Performance Metrics



**Ramapo Interconnection Congestion Coordination**

<u>Category</u>	<u>Description</u>
NY	Represents the value NY realizes from Market-to-Market Ramapo Coordination. When experiencing congestion, this includes (1) the estimated savings to NY for additional deliveries into NY, plus (2) PJM compensation to NY for additional deliveries into PJM (as compared to the Ramapo Target level, excluding RECO). This is net of any settlements to PJM when they are congested.
RECO	Represents the value of PJM's obligation to deliver 80% of service to RECO load over Ramapo 5018. This includes (1) the estimated reduction in NYCA congestion due to the PJM delivery of RECO over Ramapo 5018, plus (2) PJM compensation to NY for NYCA congestion for the under-delivery or inability to deliver service to RECO load over Ramapo 5018.



### Regional Generation Congestion Coordination

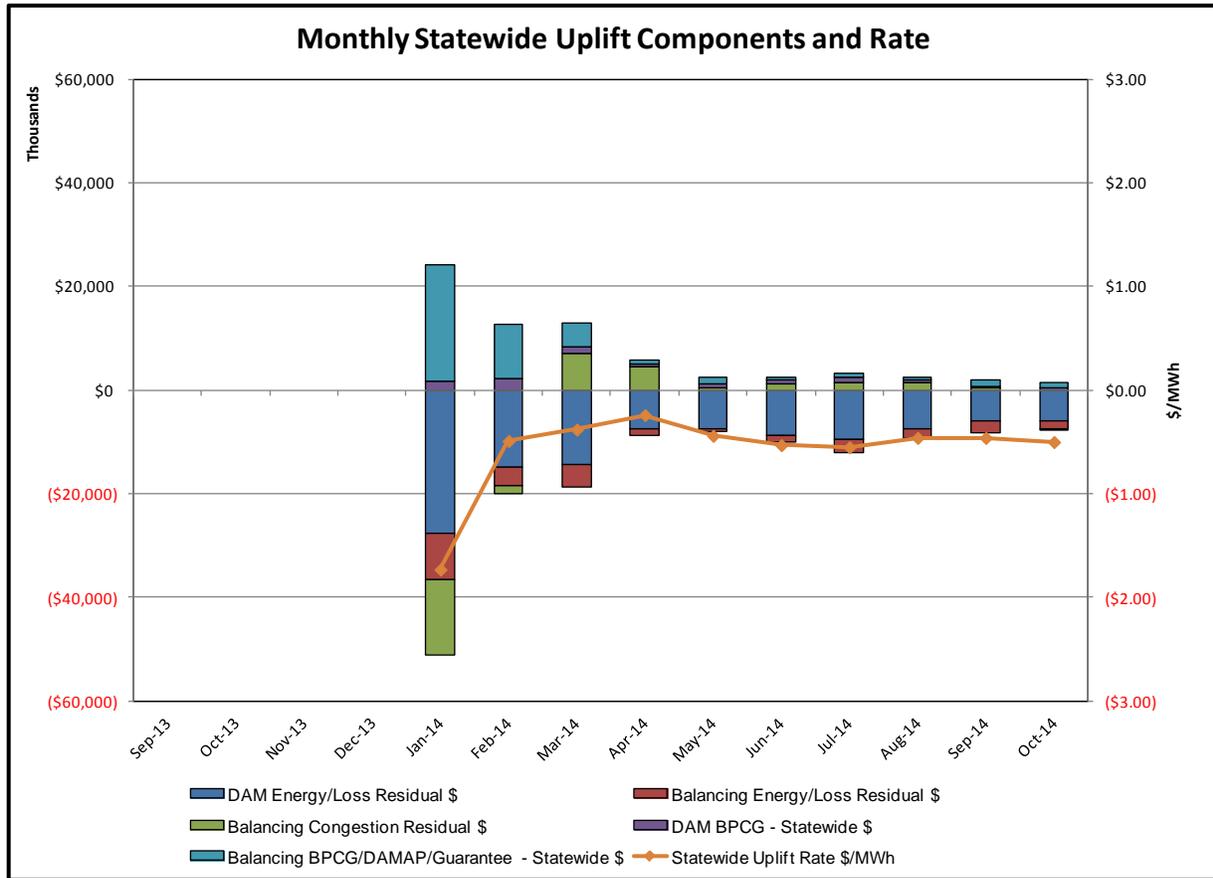
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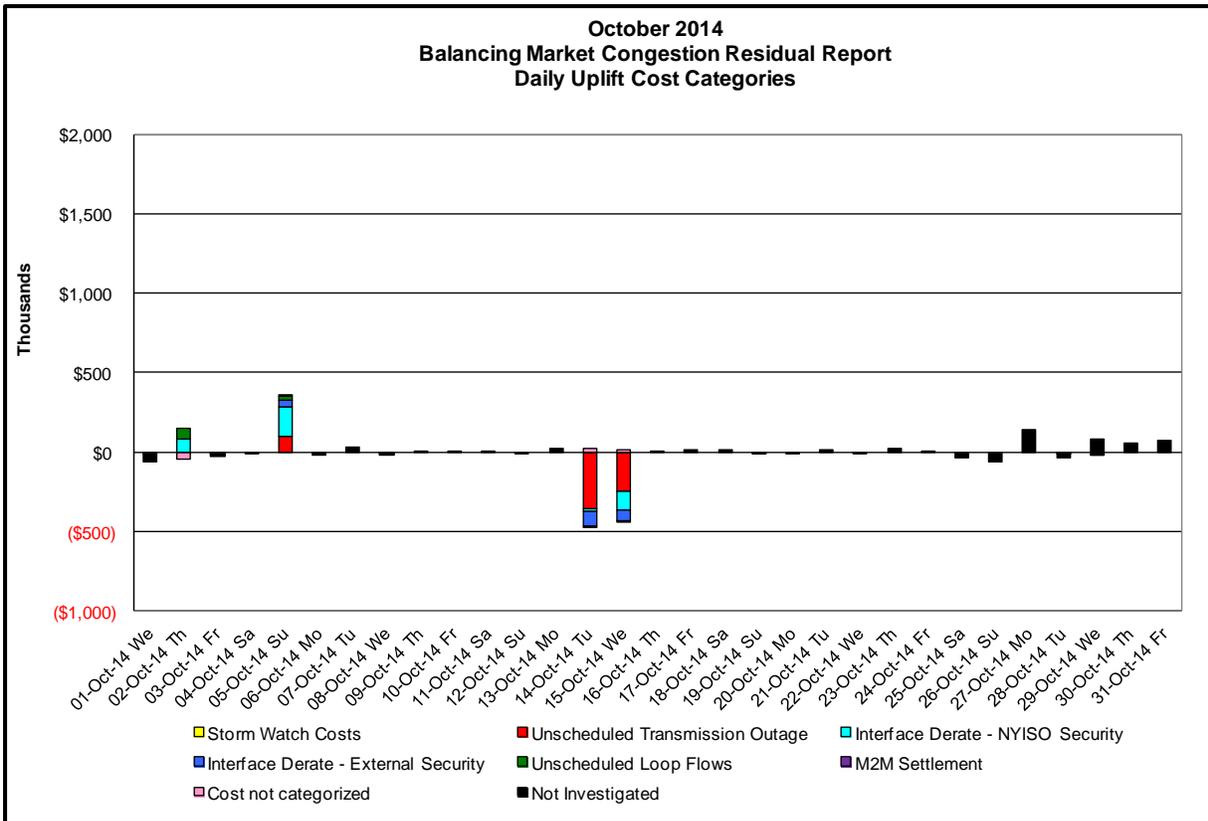
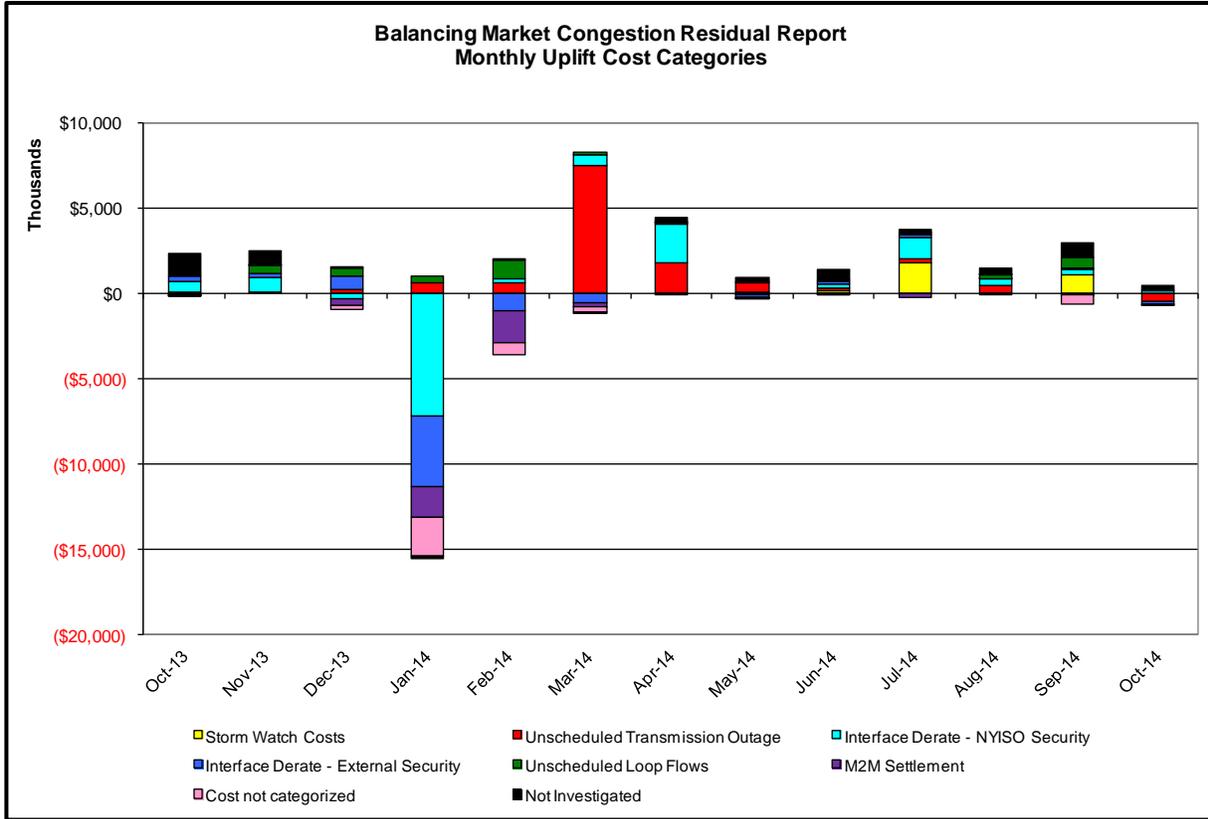
NY

Description

NYISO savings that result from PJM payments to NYISO when PJM's transmission use (PJM's market flow) is greater than PJM's entitlement of the NY transmission system and NYISO is incurring Western or Central NY congestion. Additionally, NYISO savings may result from the more efficient regional utilization of PJM's generation resources to directly address Western or Central NY transmission congestion.

## Market Performance Metrics





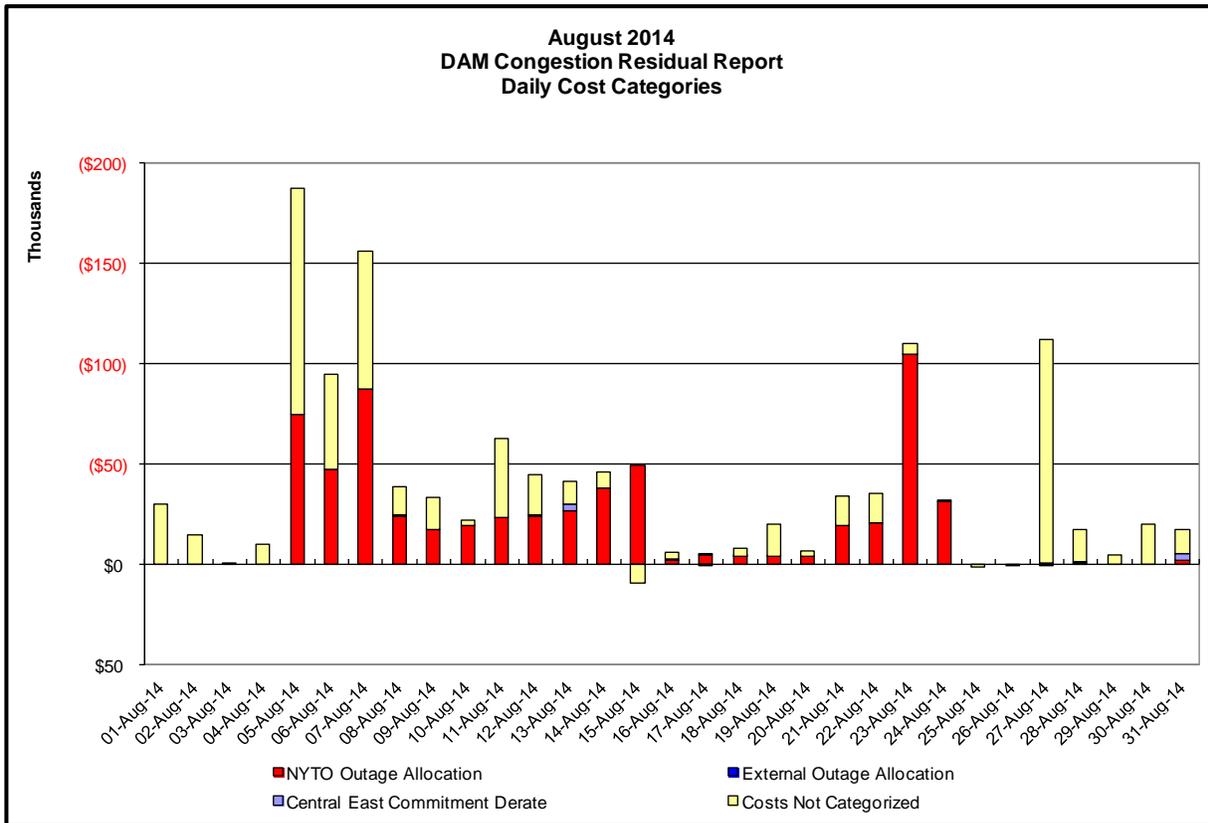
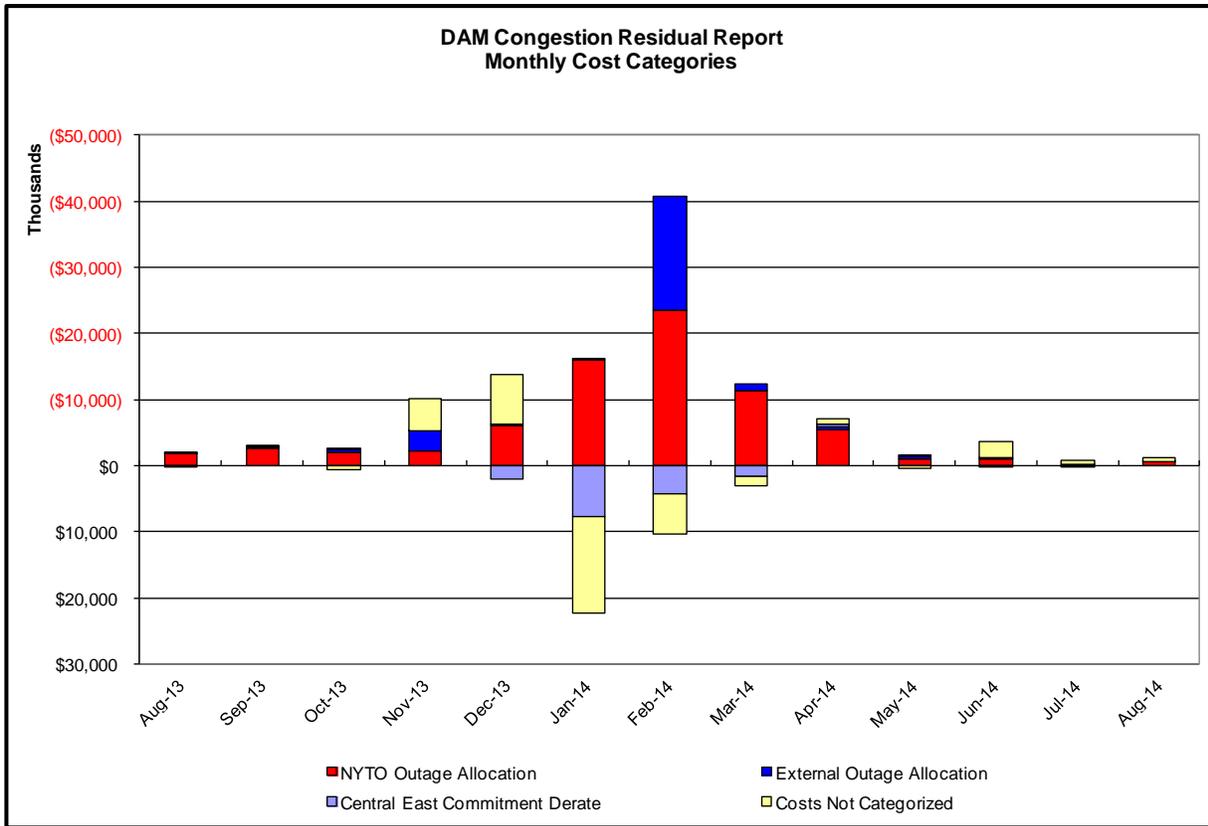
Event	Date (yyyymmdd)	Hours	Description
	10/2/2014	13-15	Derate Niagara-Packard 230kV (#61) for I/o TWR:PACKARD 62 & BP76
	10/2/2014	14-15	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Niagara-Packard 230kV (#61)
	10/5/2014	8-13,17-19	Forced outage Gilboa-Fraser 345kV (#GF5-35)
	10/5/2014	8-11	Forced outage Roseton-Rock Tavern 345kV (#311)
	10/5/2014	8-19	Derate Moses South
	10/5/2014	0	Uprate Farragut-Hudson Avenue 138kV (#32078)
	10/5/2014	8, 10, 13, 18, 19	HQ_CEDARS-NY Scheduling Limit
	10/5/2014	18, 19	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East, Packard Sawyer
	10/14/2014	13, 15-23	Forced outage Newbridge-Duffy Avenue 345kV (#501) & Neptune-Duffy Avenue 345kV
	10/14/2014	20	NYCA DNI Ramp Limit
	10/14/2014	21	NE_NNC1385-NY Scheduling Limit
	10/14/2014	18	NE_AC DNI Ramp Limit
	10/15/2014	0,2-7,10-19,21,22	Forced outage Newbridge-Duffy Avenue 345kV (#501) & Neptune-Duffy Avenue 345kV
	10/15/2014	16, 17	NYCA DNI Ramp Limit
	10/15/2014	10, 11, 13-16	Uprate Leeds-Pleasant Valley 345kV (#92) for I/o Athens-Pleasant Valley 345kV (#91)
	10/15/2014	16-18	Uprate Athens-Pleasant Valley 345kV (#91) for I/o Leeds-Pleasant Valley 345kV (#92)
	10/15/2014	10, 15, 16	Uprate Farragut-Hudson Avenue 138kV (#32078)
	10/15/2014	17, 18, 21, 22	NE_NNC1385-NY Scheduling Limit

### 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 125 MW
M2M Settlement	Market-wide	Settlement result inclusive of coordinated redispatch and Ramapo flowgates	

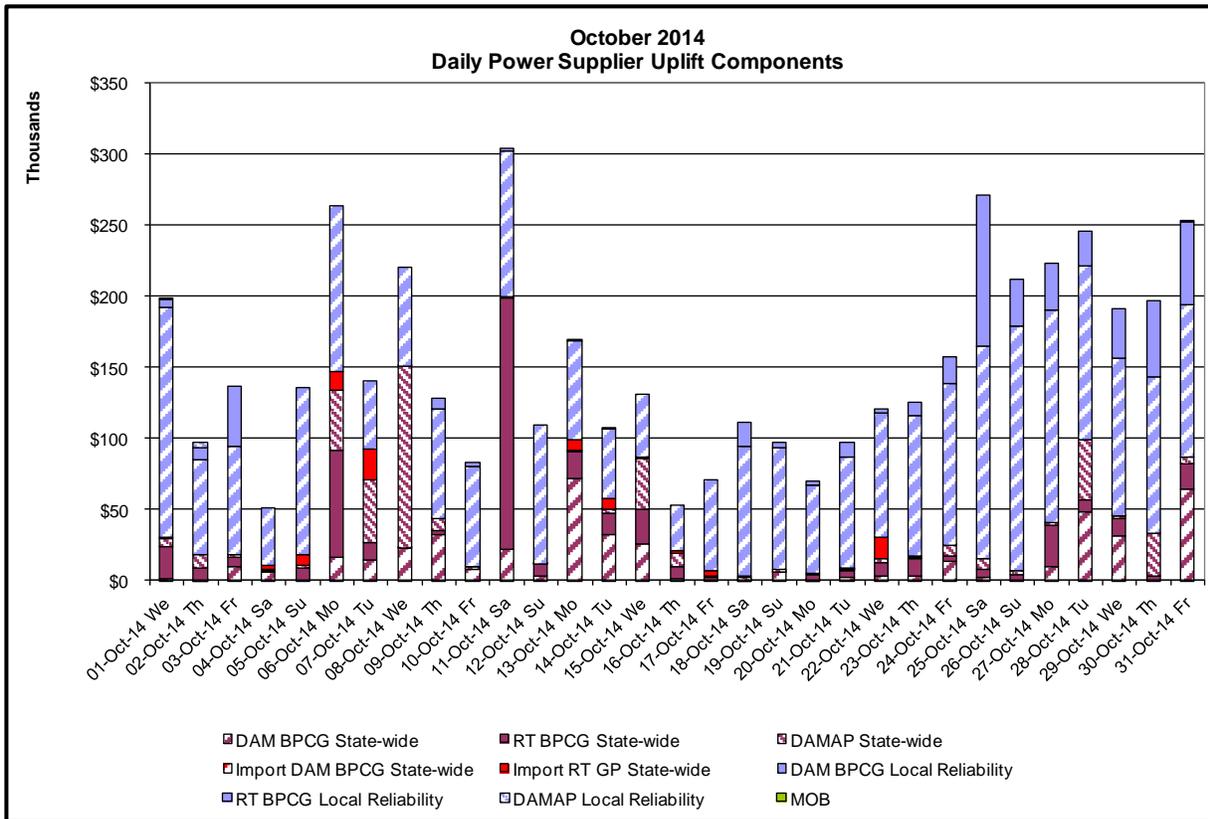
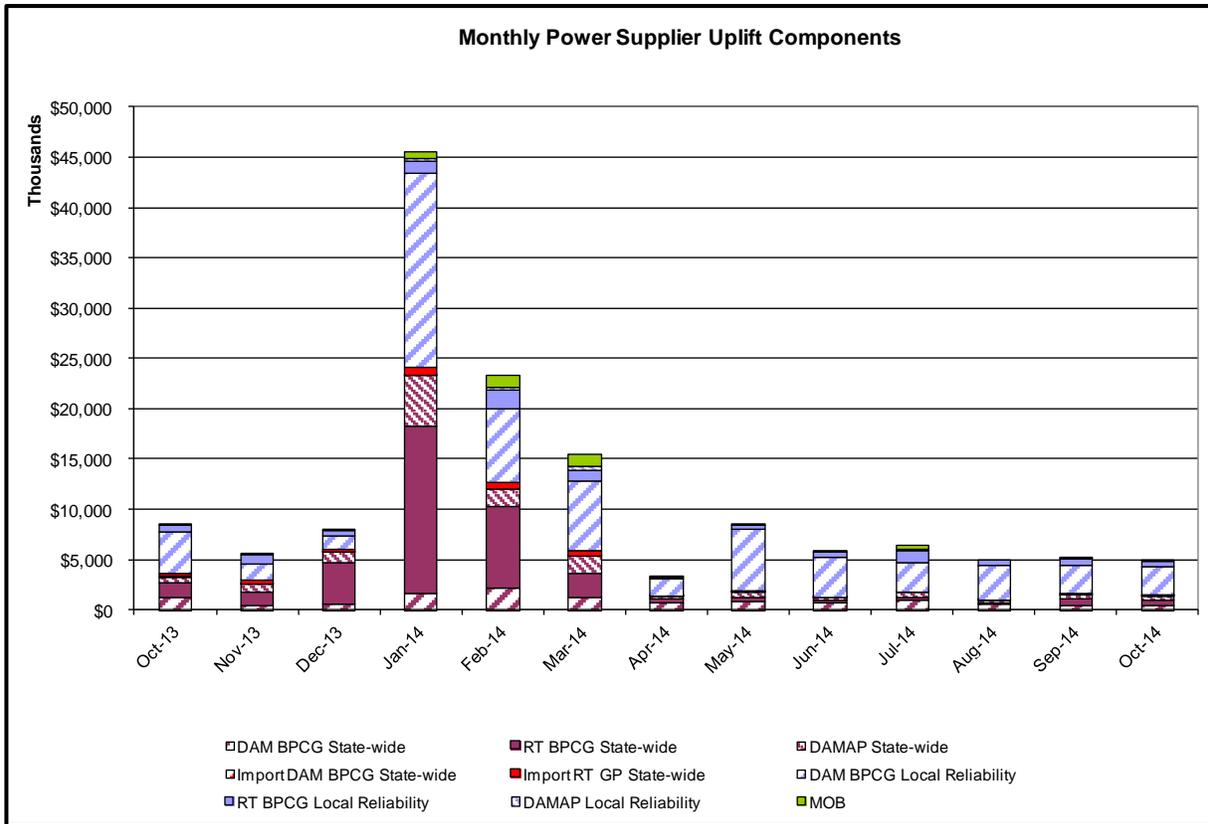
#### Monthly Balancing Market Congestion Report Assumptions/Notes

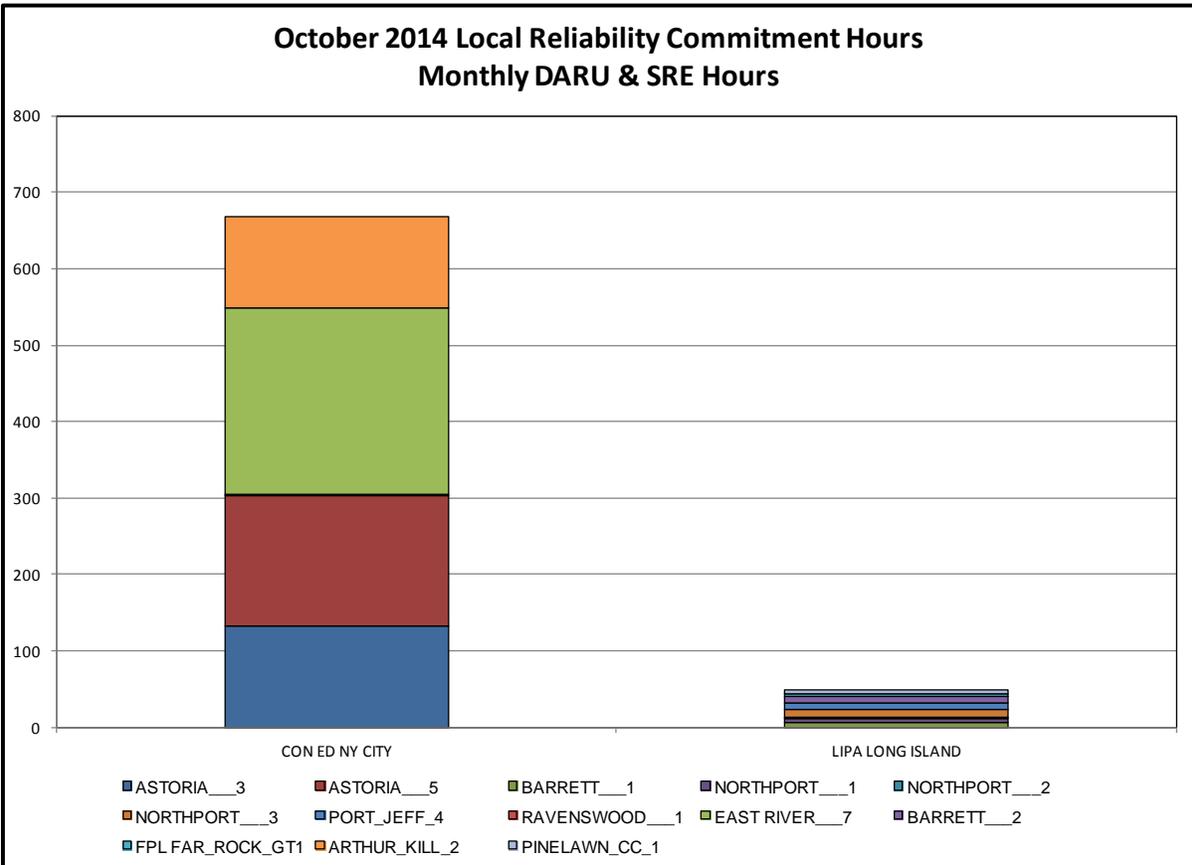
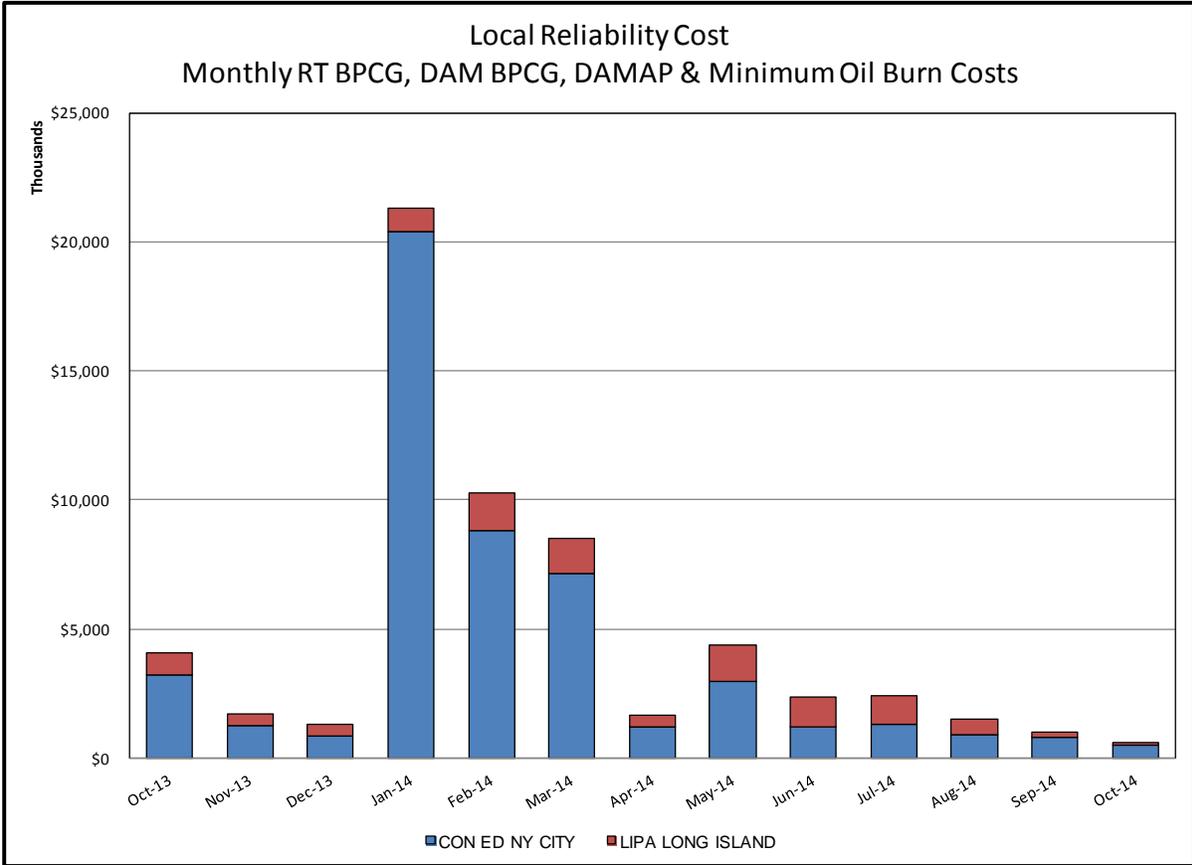
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

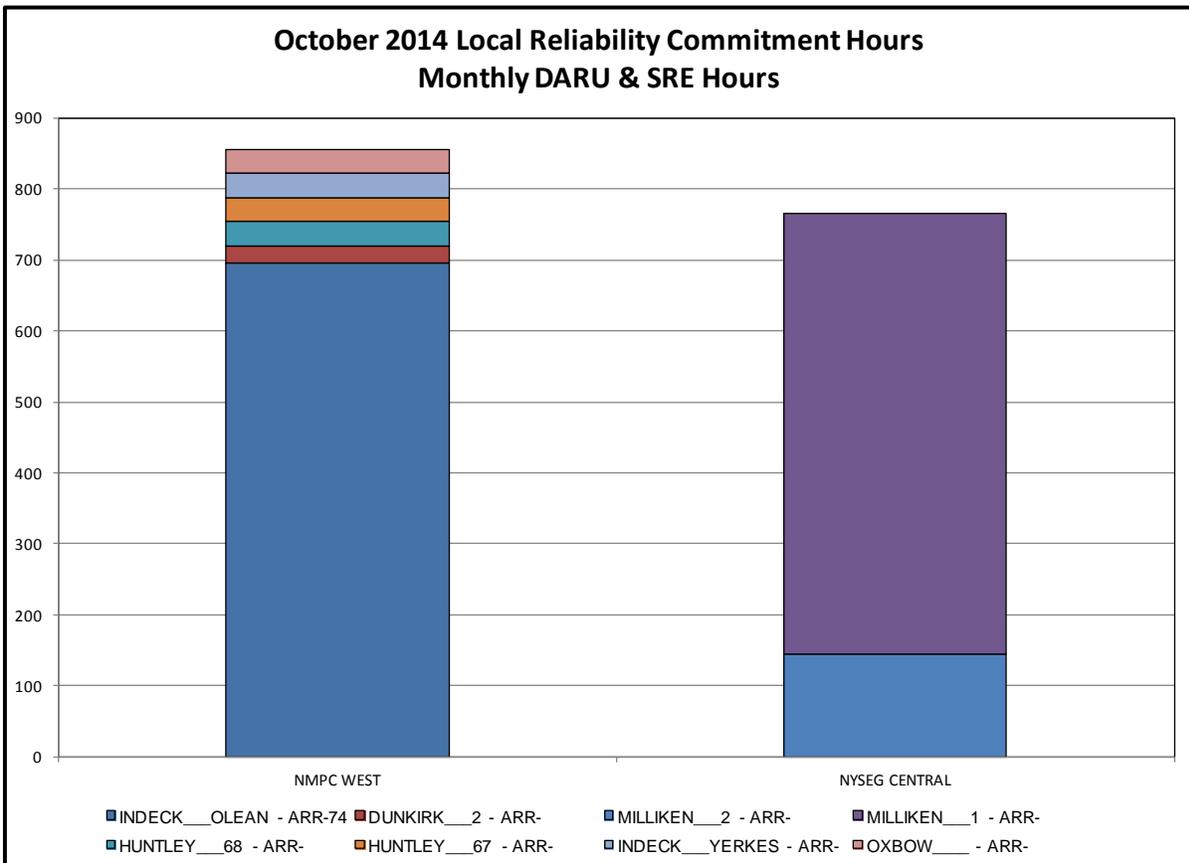
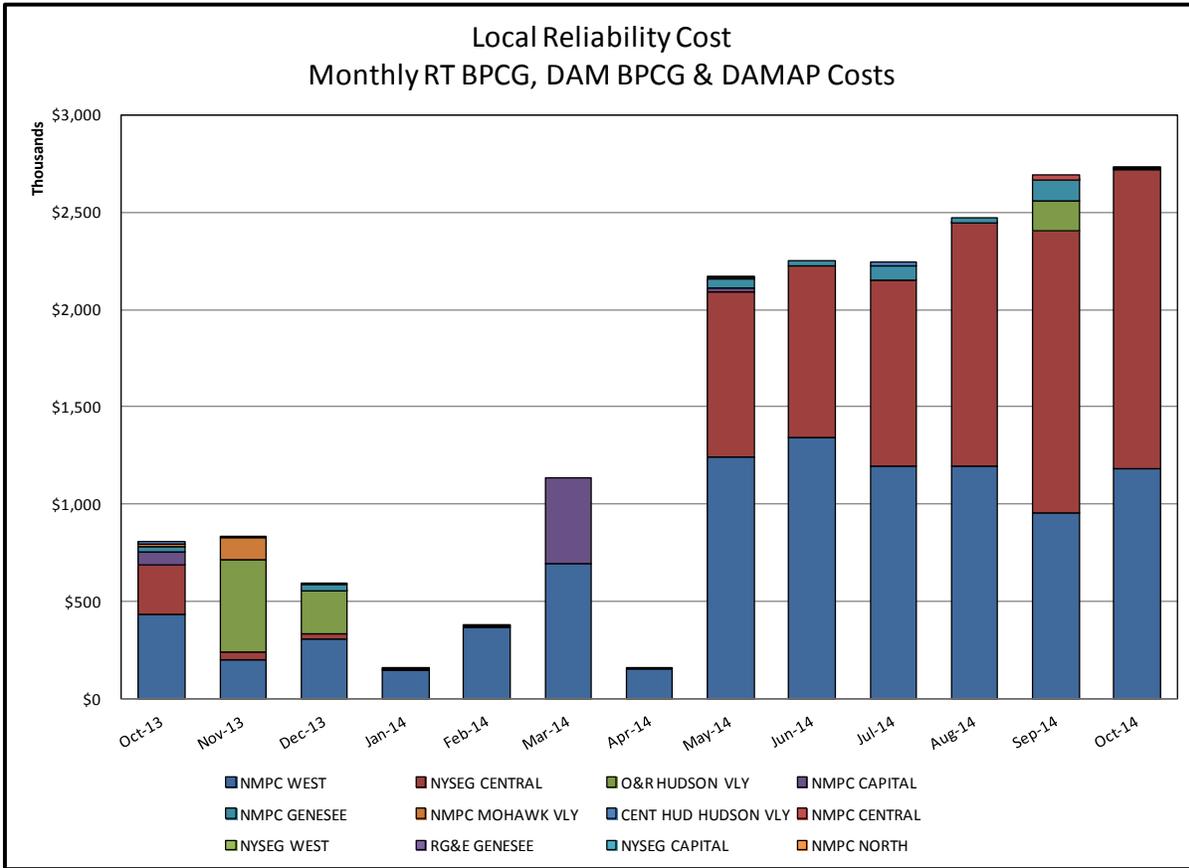


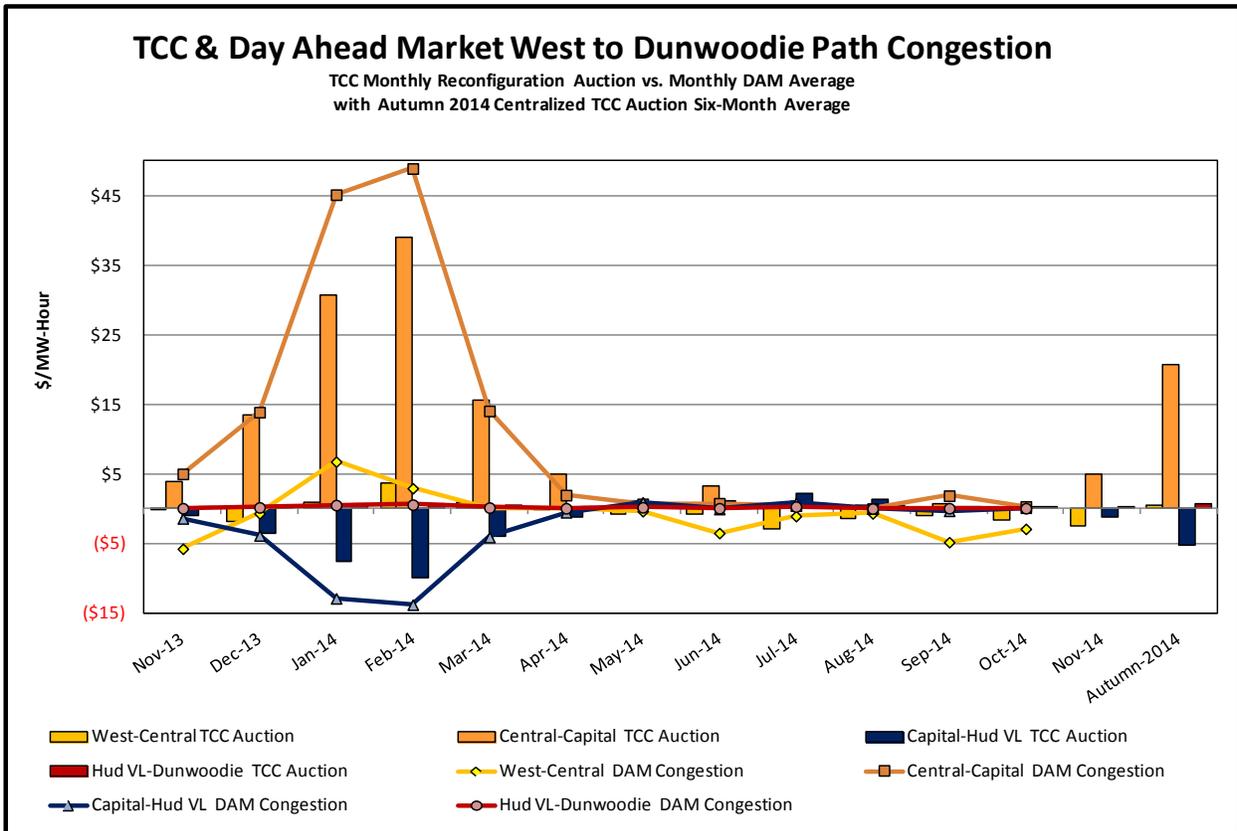
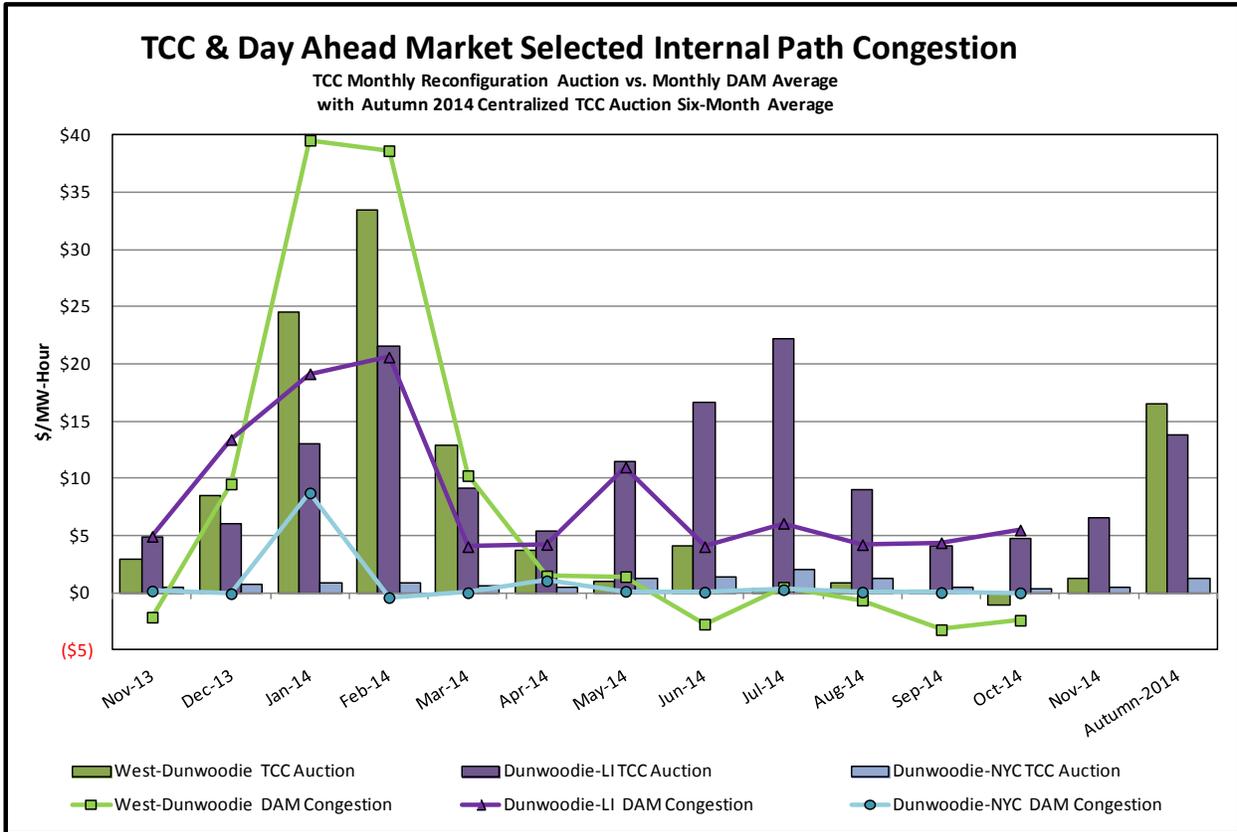
**Day-Ahead Market Congestion Residual Categories**

<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
NYTO Outage Allocation	Responsible TO	Direct allocation to NYTO's responsible for transmission equipment status change.	DAM scheduled outage for equipment modeled in-service for the TCC Auction.
External Outage Allocation	All TO by Monthly Allocation Factor	Direct allocation to transmission equipment status change caused by change in status of external equipment.	Tie line required out-of-service by TO of neighboring control area.
Central East Commitment Derate	All TO by Monthly Allocation Factor	Reductions in the DAM Central East_VC limit as compared to the TCC Auction limit, which are not associated with transmission line outages.	



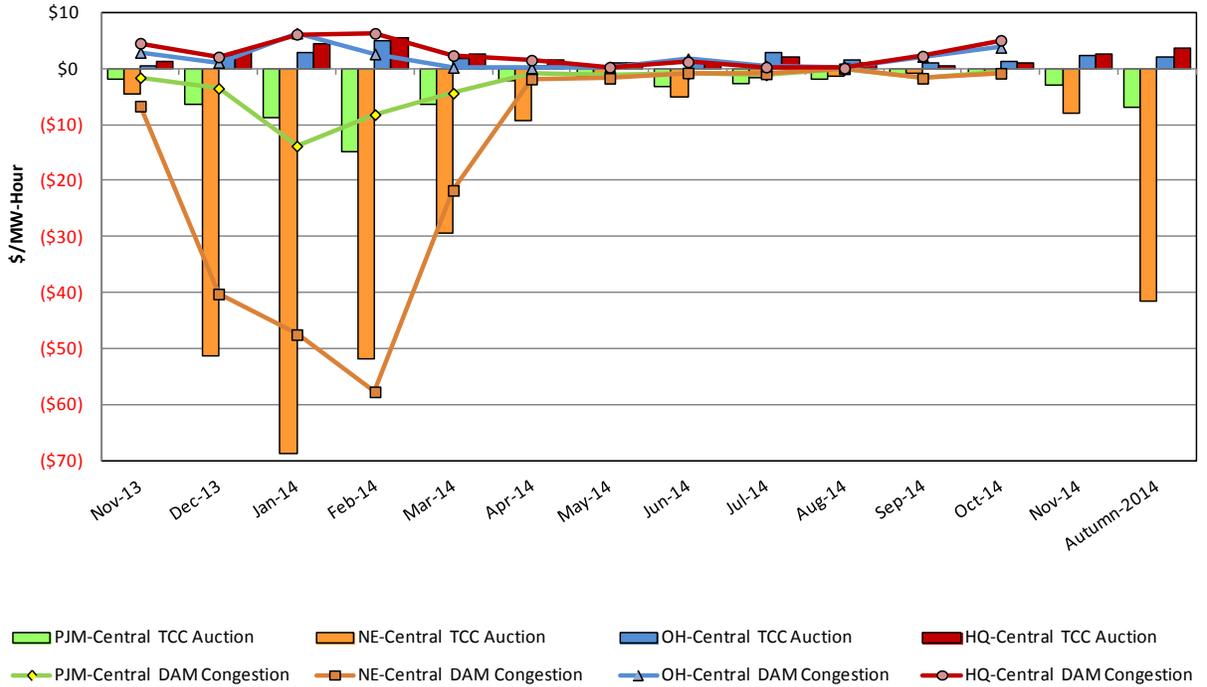


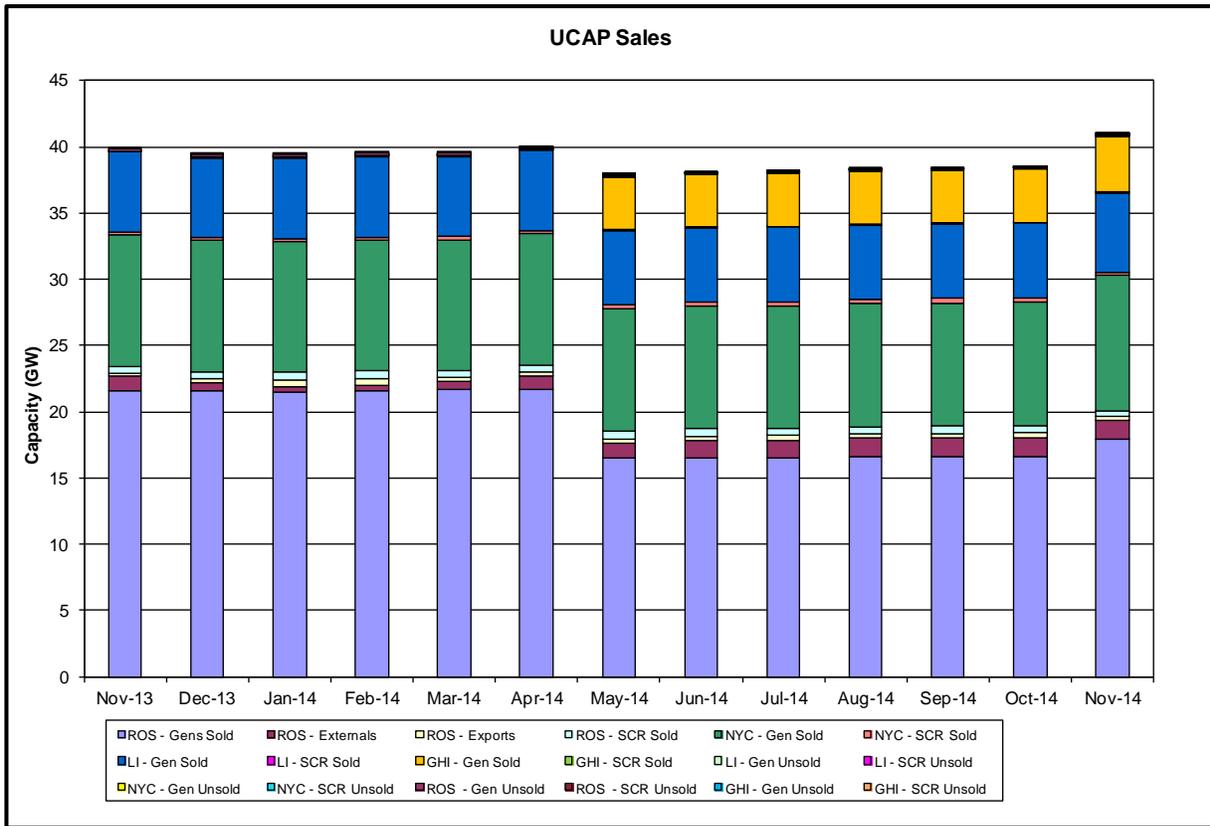
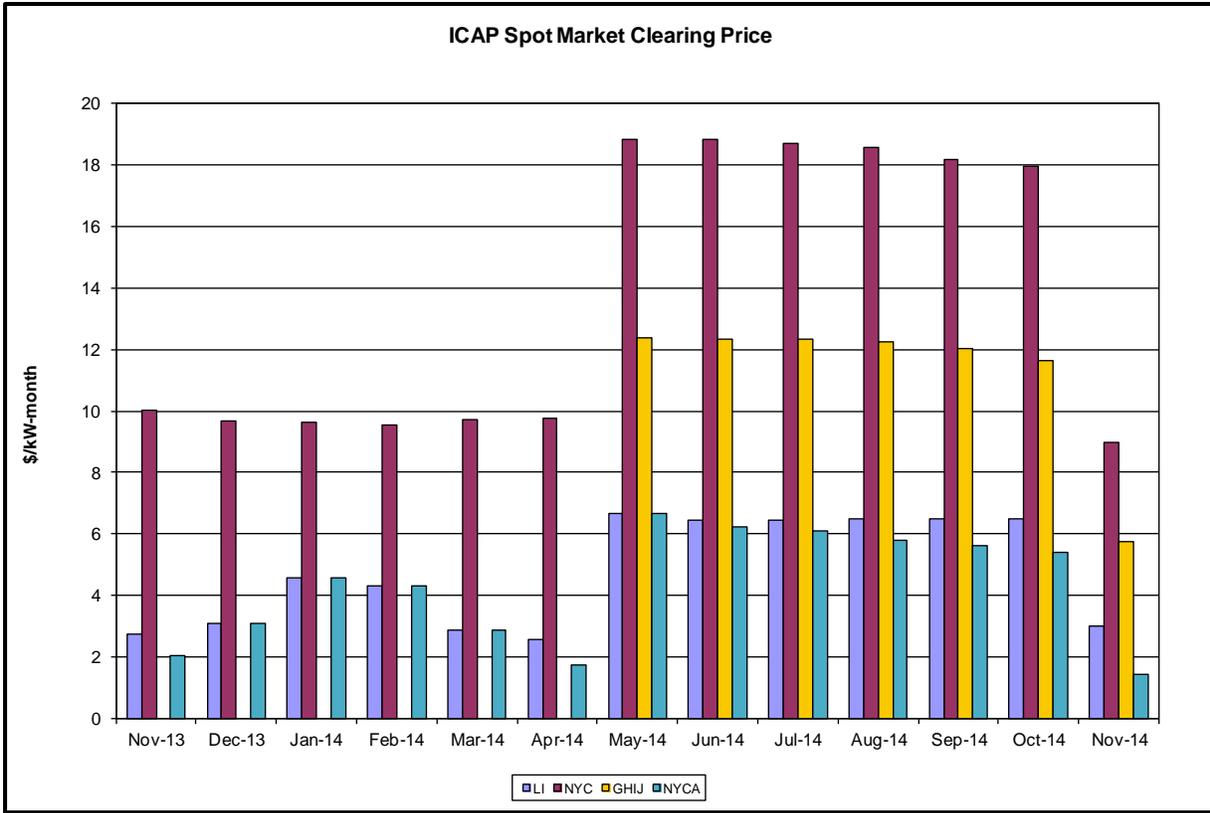




### TCC & Day Ahead Market Selected External Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average  
with Autumn 2014 Centralized TCC Auction Six-Month Average

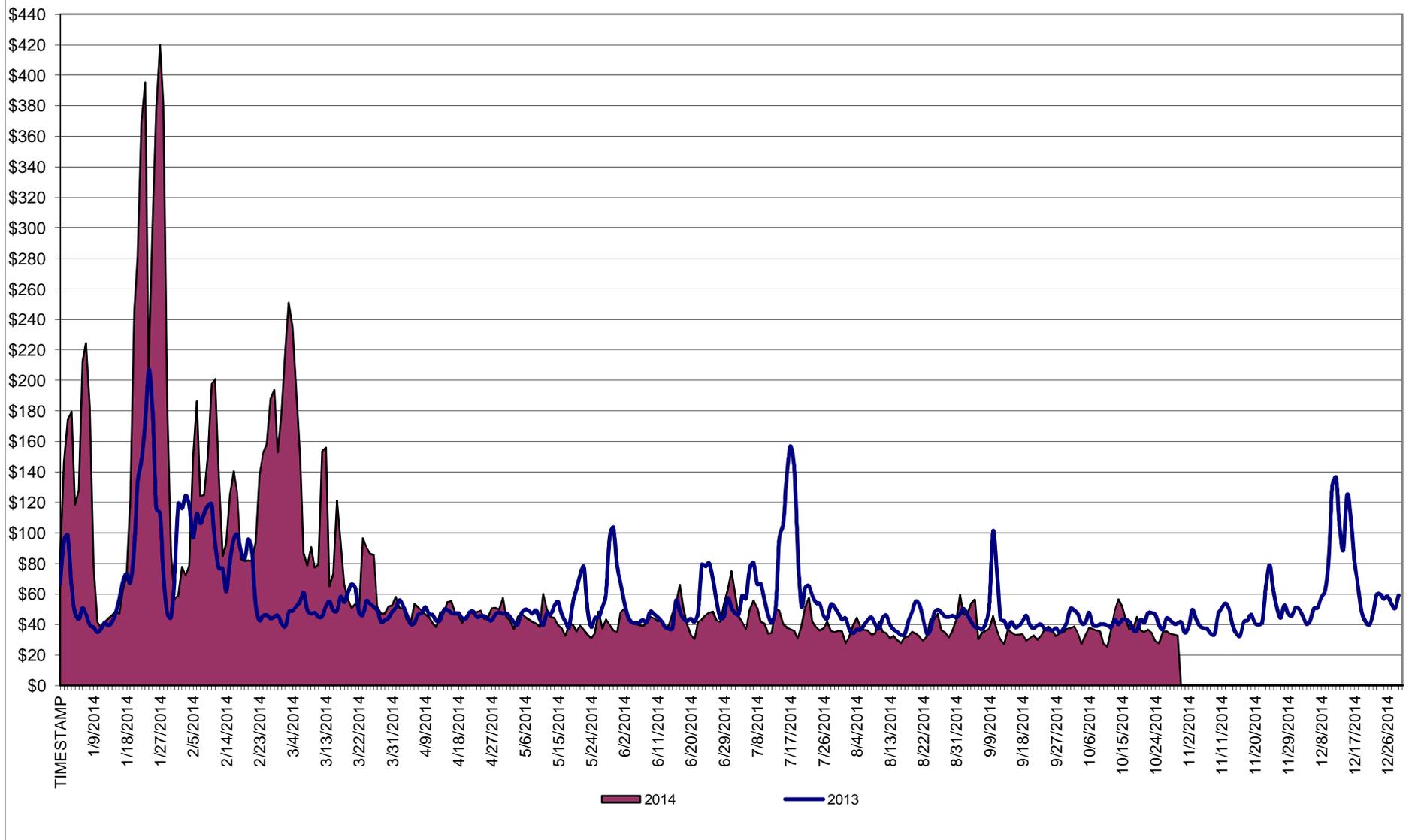




# Market Performance Highlights for October 2014

- **LBMP for October is \$35.59/MWh; lower than the \$37.62/MWh in September 2014 and \$39.85/MWh in October 2013.**
  - Day Ahead and Real Time Load Weighted LBMPs are lower compared to September.
- **October 2014 average year-to-date monthly cost of \$74.62/MWh is a 26% increase from \$59.30/MWh in October 2013.**
- **Average daily sendout is 394 GWh/day in October; lower than 442 GWh/day in September 2014 and 407 GWh/day in October 2013.**
- **Natural gas and distillate prices were lower compared to the previous month.**
  - Natural Gas (Transco Z6 NY) was \$2.12/MMBtu, down 5% from \$2.23/MMBtu in September.
  - Jet Kerosene Gulf Coast was \$18.25/MMBtu, down from \$20.26/MMBtu in September.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$18.11/MMBtu, down from \$19.61/MMBtu in September.
- **Uplift per MWh is lower compared to the previous month.**
  - Uplift (not including NYISO cost of operations) is (\$0.24)/MWh; lower than (\$0.20)/MWh in September.
    - The Local Reliability Share is \$0.26/MWh, comparable to \$0.26 in September.
    - The Statewide Share is (\$0.50)/MWh, lower than (\$0.46)/MWh in September.
  - TSA \$ per NYC MWh is \$0.00/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are lower than September.

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2013 Annual Average \$59.13/MWh  
 October 2013 YTD Average \$59.30/MWh  
 October 2014 YTD Average \$74.62/MWh



\* Excludes ICAP payments.

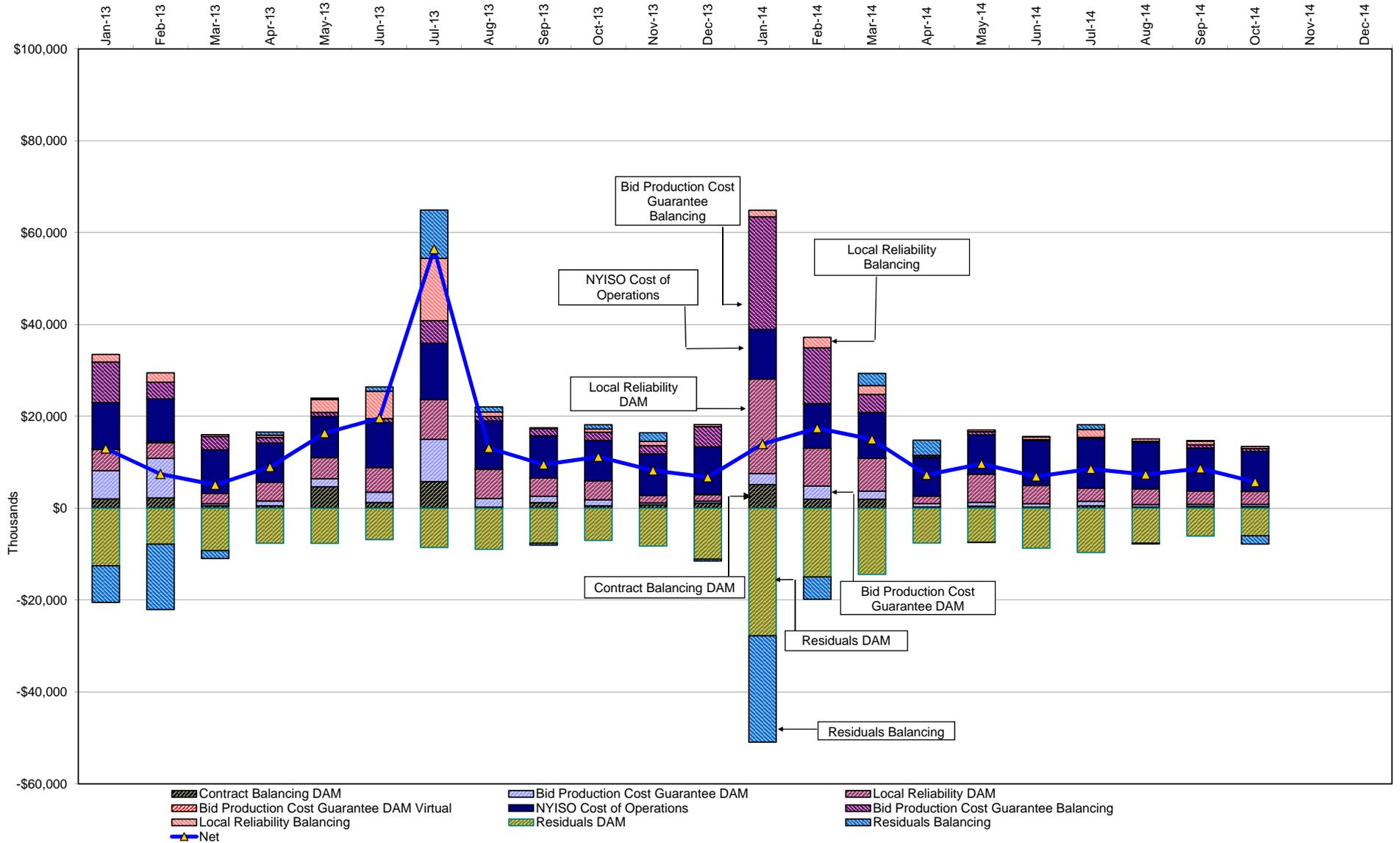
**NYISO Average Cost/MWh (Energy and Ancillary Services) \***  
**from the LBMP Customer point of view**

<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	183.36	123.19	109.58	46.09	40.30	43.39	43.96	34.48	37.62	35.59		
NTAC	0.56	0.64	0.39	1.18	0.69	0.78	0.43	0.41	0.50	0.57		
Reserve	0.78	0.49	0.56	0.46	0.28	0.27	0.26	0.26	0.29	0.47		
Regulation	0.27	0.21	0.22	0.13	0.12	0.12	0.12	0.13	0.11	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		
Uplift	0.22	0.56	0.35	(0.09)	0.07	(0.21)	(0.26)	(0.19)	(0.20)	(0.24)		
Uplift: Local Reliability Share	1.43	0.75	0.62	0.15	0.51	0.32	0.29	0.27	0.26	0.26		
Uplift: Statewide Share	(1.21)	(0.19)	(0.27)	(0.24)	(0.44)	(0.53)	(0.55)	(0.46)	(0.46)	(0.50)		
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		
<b>Avg Monthly Cost</b>	<b>186.24</b>	<b>126.14</b>	<b>112.15</b>	<b>48.82</b>	<b>42.51</b>	<b>45.39</b>	<b>45.56</b>	<b>36.14</b>	<b>39.37</b>	<b>37.57</b>		
Avg YTD Cost	186.24	157.93	142.77	121.97	108.36	97.84	89.45	82.58	78.06	74.62		
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00	0.03	0.35	0.00	0.42	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	66.41
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	(0.05)	0.18	(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>46.31</b>	<b>42.54</b>	<b>45.88</b>	<b>68.36</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: 11/7/2014 9:15 AM

Data reflects true-ups thru June 2014.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through October 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	12,101,747	12,984,458	14,719,929	16,528,338	15,536,610	14,312,509	13,684,158		
DAM LSE Internal LBMP Energy Sales	52%	50%	53%	56%	53%	54%	57%	57%	56%	54%		
DAM External TC LBMP Energy Sales	5%	7%	6%	3%	2%	3%	1%	0%	1%	2%		
DAM Bilateral - Internal Bilaterals	36%	36%	35%	33%	38%	36%	34%	35%	36%	38%		
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	5%	6%	5%	5%	4%	5%	4%	4%		
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	1%	1%	2%	2%	1%	1%	1%	1%	2%		
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	0%	1%	1%	1%	1%	1%	0%		
<b>Balancing Energy Market MWh</b>	-249,484	-298,340	-116,173	54,298	-510,467	-558,413	-848,037	-756,911	-672,451	-994,214		
Balancing Energy LSE Internal LBMP Energy Sales	-232%	-203%	-294%	-190%	-133%	-114%	-116%	-117%	-129%	-124%		
Balancing Energy External TC LBMP Energy Sales	105%	76%	97%	207%	21%	22%	18%	15%	24%	14%		
Balancing Energy Bilateral - Internal Bilaterals	20%	26%	69%	27%	3%	7%	4%	7%	7%	7%		
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	12%	0%	3%	0%	0%	0%	2%	1%		
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	11%	6%	25%	67%	4%	3%	2%	2%	3%	3%		
Balancing Energy Bilateral - Wheel Through Bilaterals	-4%	-6%	-10%	-12%	1%	-18%	-8%	-7%	-7%	-1%		
<b>Transactions Summary</b>												
LBMP	56%	56%	57%	59%	53%	55%	57%	55%	55%	52%		
Internal Bilaterals	37%	37%	36%	33%	39%	38%	36%	37%	38%	42%		
Import Bilaterals	5%	5%	5%	6%	5%	5%	5%	5%	5%	4%		
Export Bilaterals	2%	1%	2%	2%	2%	1%	1%	2%	2%	2%		
Wheels Through	1%	1%	1%	0%	1%	1%	1%	1%	1%	0%		
<b>Market Share of Total Load</b>												
Day Ahead Market	101.6%	102.1%	100.8%	99.6%	104.1%	103.9%	105.4%	105.1%	104.9%	107.8%		
Balancing Energy +	-1.6%	-2.1%	-0.8%	0.4%	-4.1%	-3.9%	-5.4%	-5.1%	-4.9%	-7.8%		
Total MWh	15,784,780	14,111,175	14,517,397	12,156,045	12,473,991	14,161,516	15,680,301	14,779,699	13,640,058	12,689,944		
Average Daily Energy Sendout/Month GWh	475	460	440	390	391	456	496	470	442	394		

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	-531,521
Balancing Energy LSE Internal LBMP Energy Sales	-131%	-117%	-127%	-123%	-133%	-115%	-189%	-113%	-120%	-122%	-134%	-130%
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	14,875,295
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	\$44.16	\$36.61	\$39.17	\$38.82	\$31.78	\$32.49	\$31.65		
Standard Deviation	\$121.52	\$50.86	\$59.89	\$8.90	\$10.99	\$12.29	\$15.56	\$9.90	\$11.59	\$9.77		
Load Weighted Price **	\$164.06	\$114.77	\$100.81	\$45.19	\$38.05	\$41.14	\$41.18	\$33.28	\$34.31	\$32.89		
<b><u>RTC LBMP</u></b>												
Price *	\$138.41	\$110.71	\$94.71	\$44.00	\$33.16	\$37.34	\$35.32	\$31.74	\$32.89	\$29.23		
Standard Deviation	\$125.42	\$72.22	\$97.72	\$27.44	\$17.51	\$25.39	\$24.90	\$23.34	\$33.68	\$20.45		
Load Weighted Price **	\$147.06	\$115.31	\$98.80	\$45.48	\$34.63	\$39.64	\$37.85	\$33.48	\$35.31	\$30.74		
<b><u>REAL TIME LBMP</u></b>												
Price *	\$137.90	\$111.51	\$93.37	\$42.79	\$34.06	\$38.23	\$35.97	\$31.21	\$32.50	\$29.36		
Standard Deviation	\$122.32	\$70.35	\$89.05	\$19.38	\$17.15	\$23.33	\$27.27	\$18.18	\$33.51	\$21.14		
Load Weighted Price **	\$147.77	\$115.80	\$97.58	\$43.97	\$35.46	\$40.71	\$39.00	\$33.13	\$35.42	\$30.81		
Average Daily Energy Sendout/Month GWh	475	460	440	390	391	456	496	470	442	394		

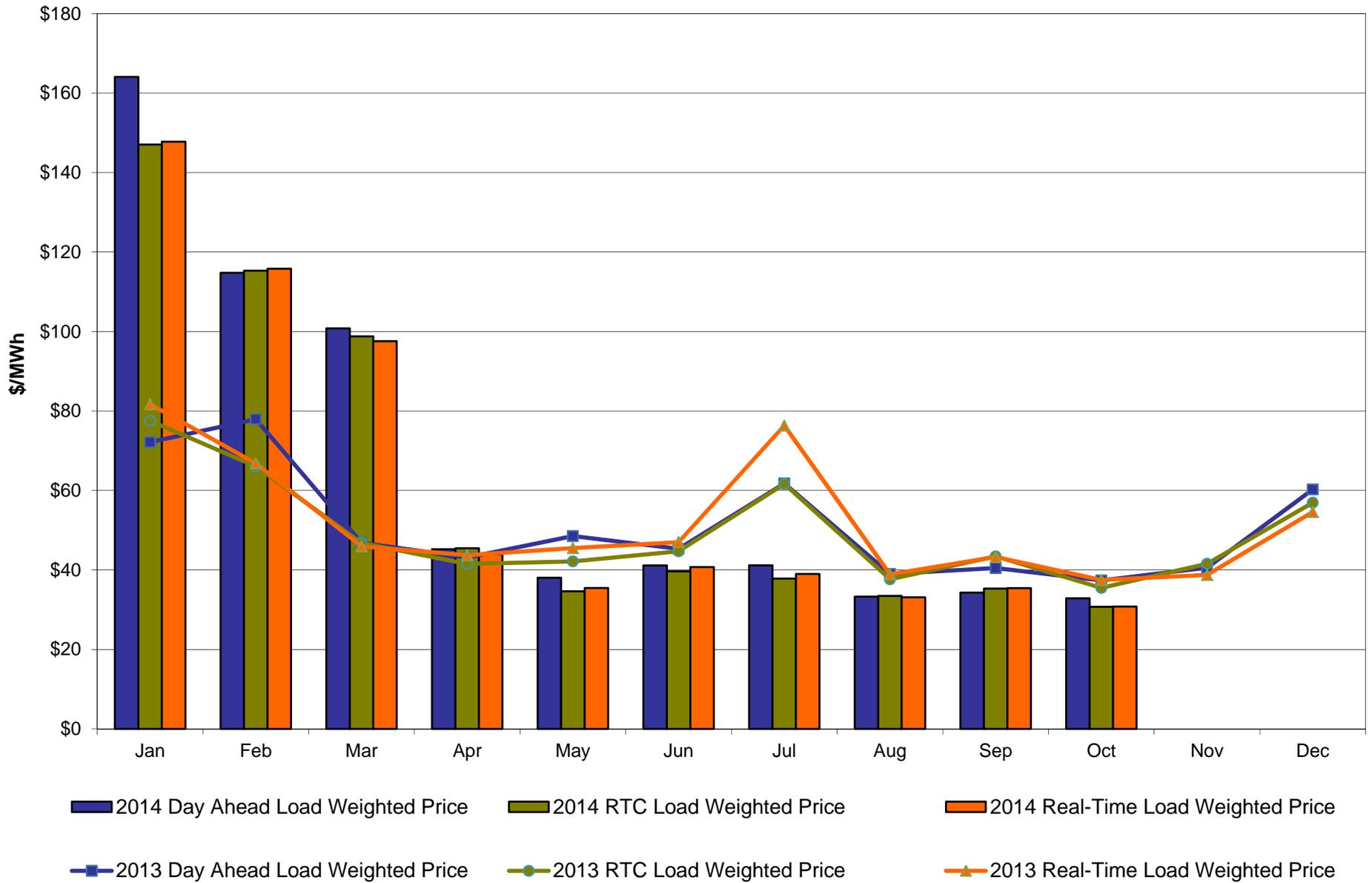
### NYISO Markets 2013 Energy Statistics

	<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

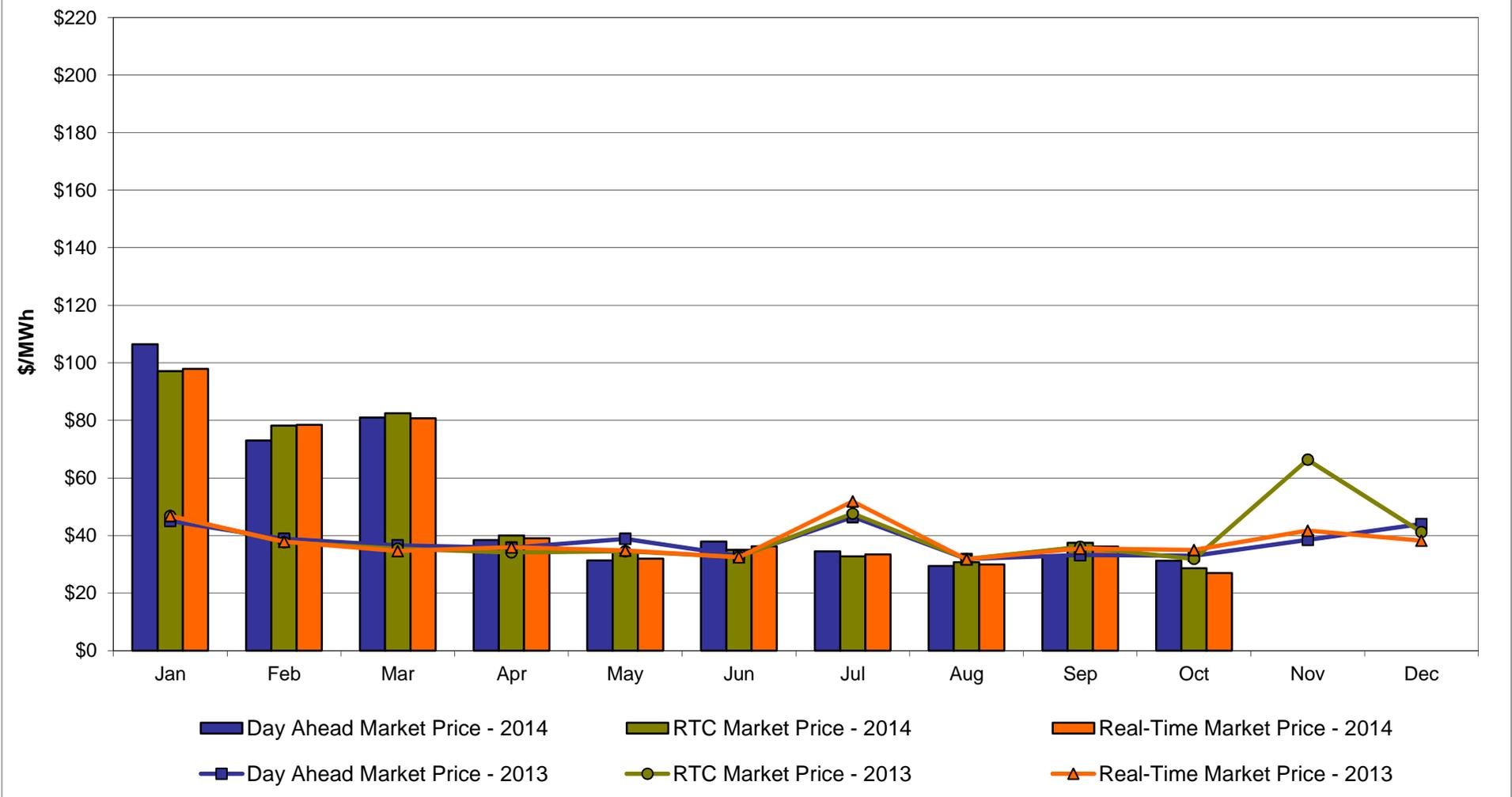


**October 2014 Zonal LBMP Statistics for NYISO (\$/MWh)**

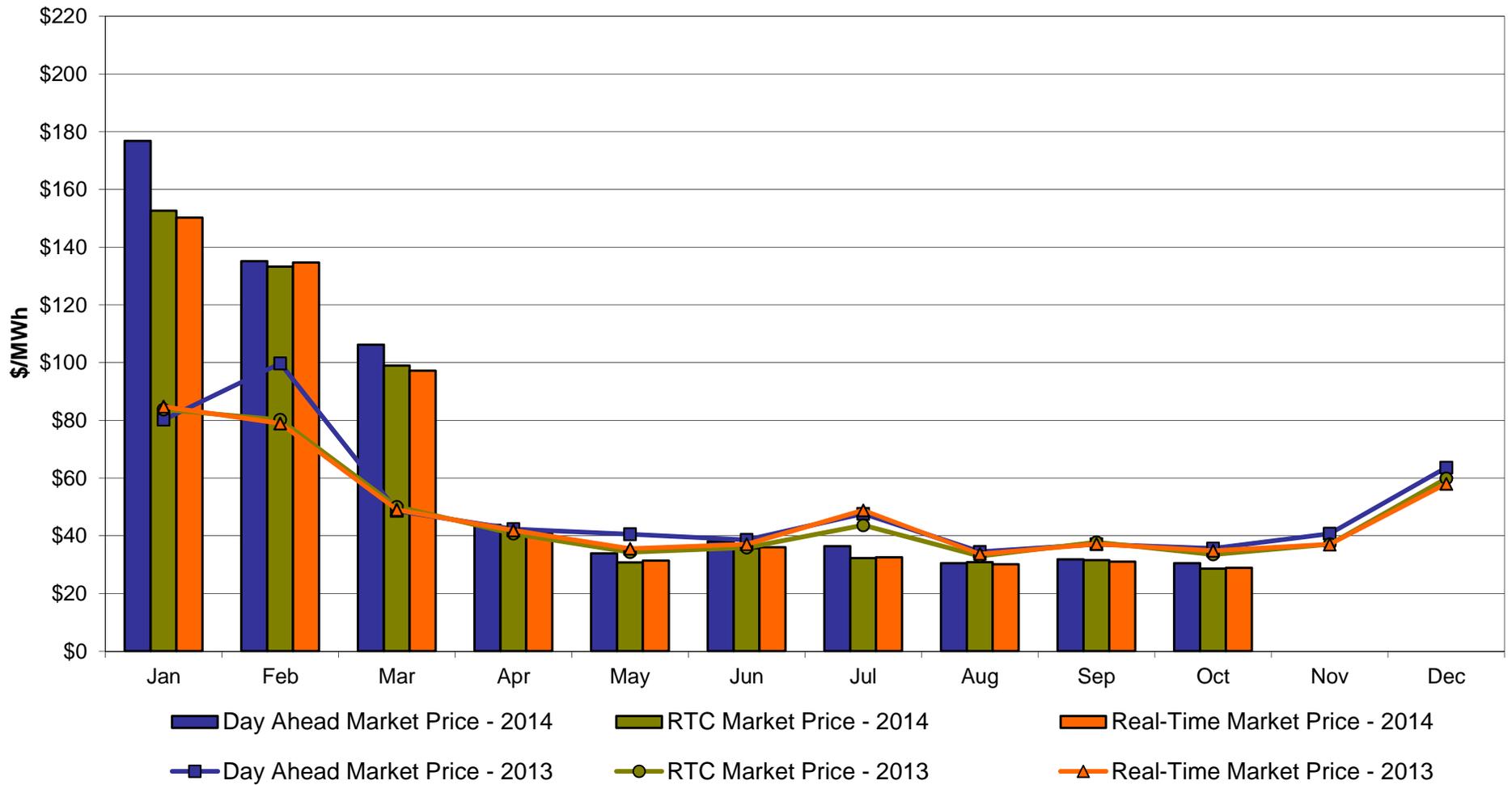
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	31.28	27.77	19.44	29.30	28.87	30.48	31.82	31.95	31.92	32.09	38.36
Standard Deviation	12.21	8.39	7.34	9.13	8.87	9.11	9.69	9.75	9.73	9.74	13.63
<b><u>RTC LBMP</u></b>											
Unweighted Price *	28.59	25.14	19.57	25.92	25.90	28.64	29.32	29.42	29.38	29.48	36.82
Standard Deviation	40.45	17.55	20.51	18.08	18.14	18.20	19.01	19.11	19.08	19.13	44.11
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	26.93	25.15	19.60	25.92	26.00	28.84	29.45	29.55	29.51	29.61	38.68
Standard Deviation	24.64	17.65	20.23	18.24	18.44	18.59	19.64	19.78	19.75	19.76	50.87
	<u>ONTARIO</u> <u>IESO</u> <u>Zone O</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Wheel)</u> <u>Zone M</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Import/Export)</u> <u>Zone M</u>	<u>PJM</u> <u>Zone P</u>	<u>NEW</u> <u>ENGLAND</u> <u>Zone N</u>	<u>CROSS</u> <u>SOUND</u> <u>CABLE</u> <u>Controllable</u> <u>Line</u>	<u>NORTHPORT-</u> <u>NORWALK</u> <u>Controllable</u> <u>Line</u>	<u>NEPTUNE</u> <u>Controllable</u> <u>Line</u>	<u>LINDEN VFT</u> <u>Controllable</u> <u>Line</u>	<u>HUDSON</u> <u>Controllable</u> <u>Line</u>	<u>Dennison</u> <u>Controllable</u> <u>Line</u>
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price *	23.97	24.02	23.82	30.75	31.39	38.59	35.32	36.91	31.98	32.07	18.41
Standard Deviation	7.05	8.10	8.06	9.54	9.50	13.77	10.27	13.11	9.68	9.77	6.85
<b><u>RTC LBMP</u></b>											
Unweighted Price *	21.08	19.28	19.28	25.46	26.42	35.16	33.60	34.52	27.01	27.09	12.47
Standard Deviation	12.92	21.04	21.04	11.62	12.01	42.95	40.70	42.79	12.47	12.51	86.51
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price *	23.97	22.36	22.27	27.81	30.40	39.13	32.97	37.95	29.52	29.61	16.20
Standard Deviation	16.95	21.97	21.97	18.42	18.88	50.95	37.45	50.80	19.79	19.88	19.37

\* Straight LBMP averages

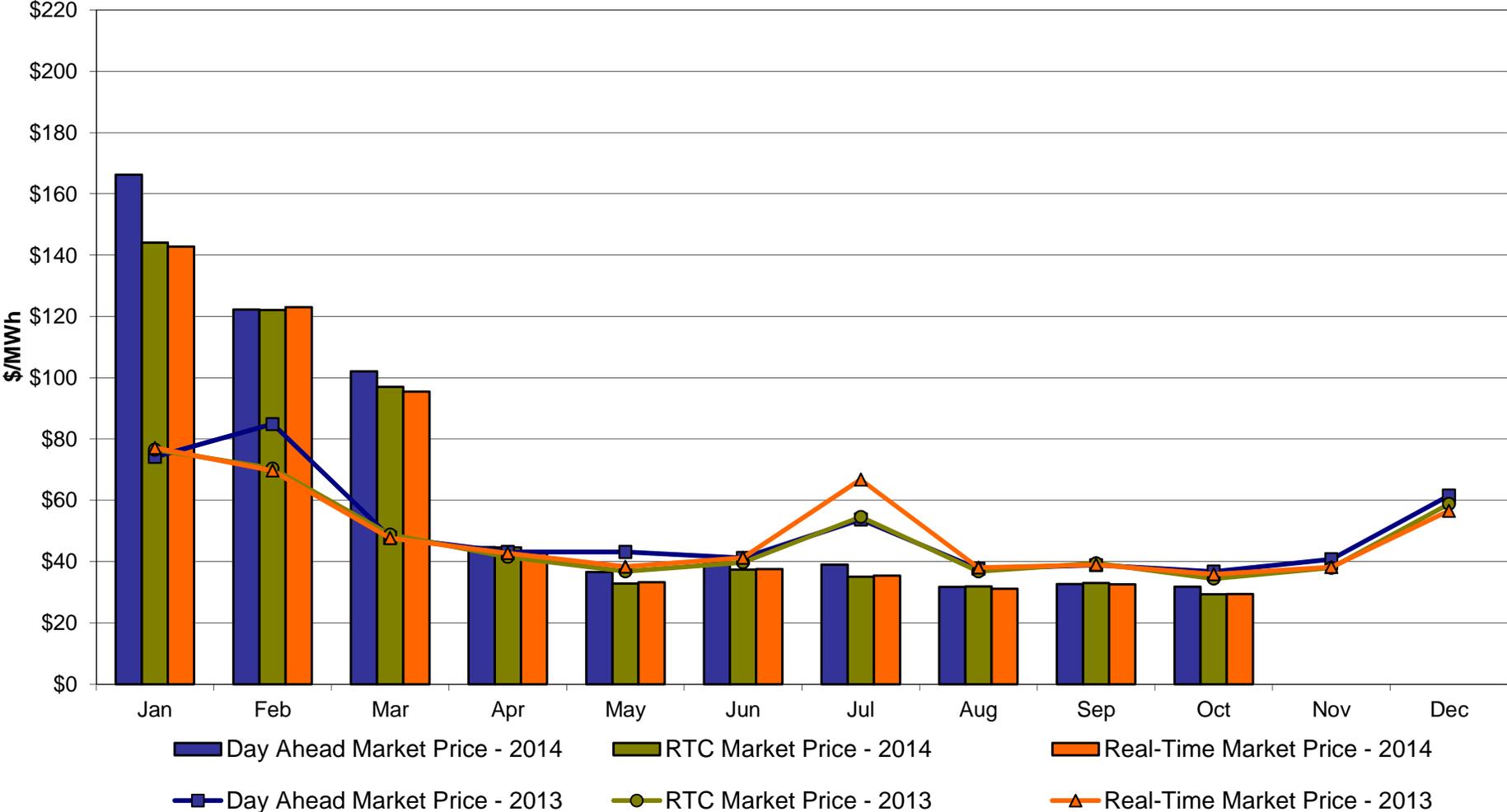
**West Zone A**  
**Monthly Average LBMP Prices 2013 - 2014**



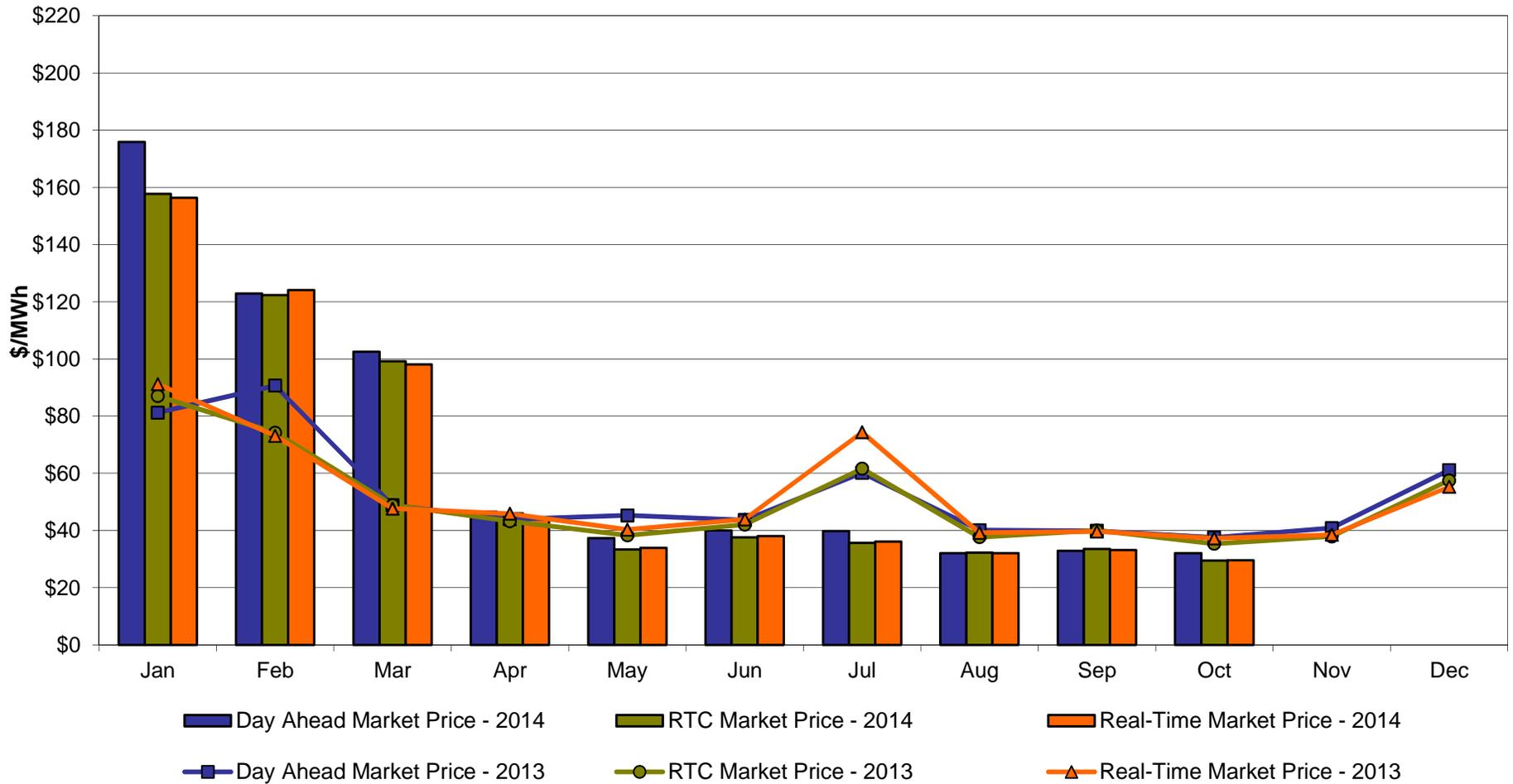
## Capital Zone F Monthly Average LBMP Prices 2013 - 2014



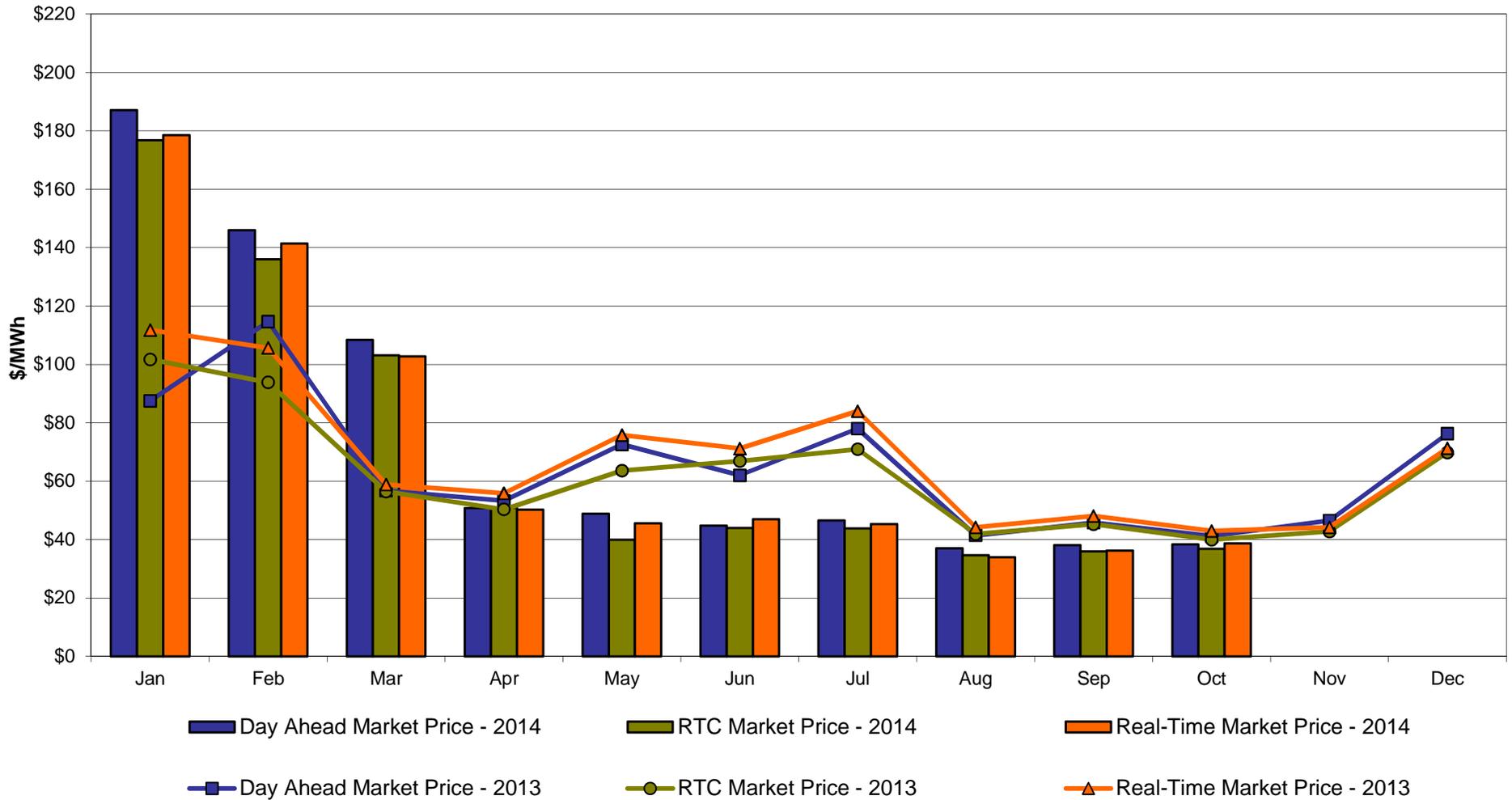
### Hudson Valley Zone G Monthly Average LBMP Prices 2013 - 2014



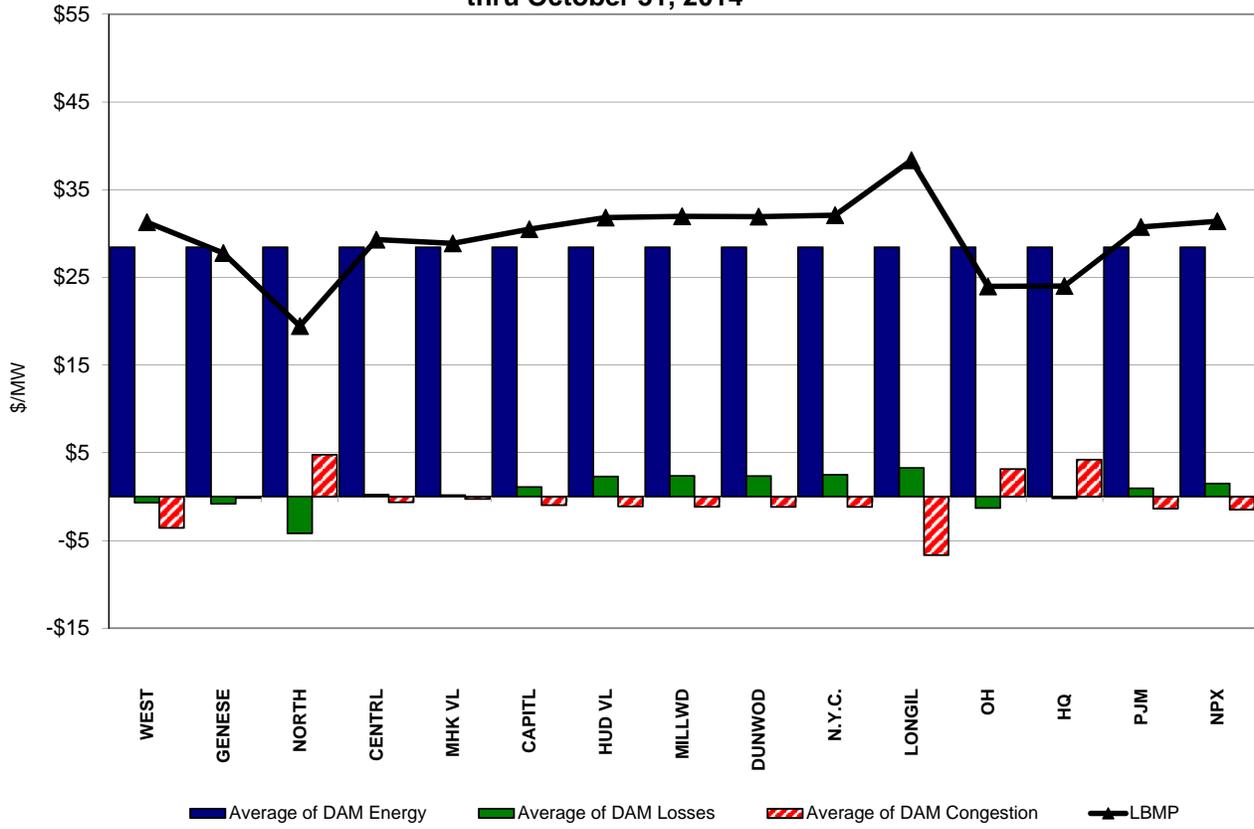
## NYC Zone J Monthly Average LBMP Prices 2013 - 2014



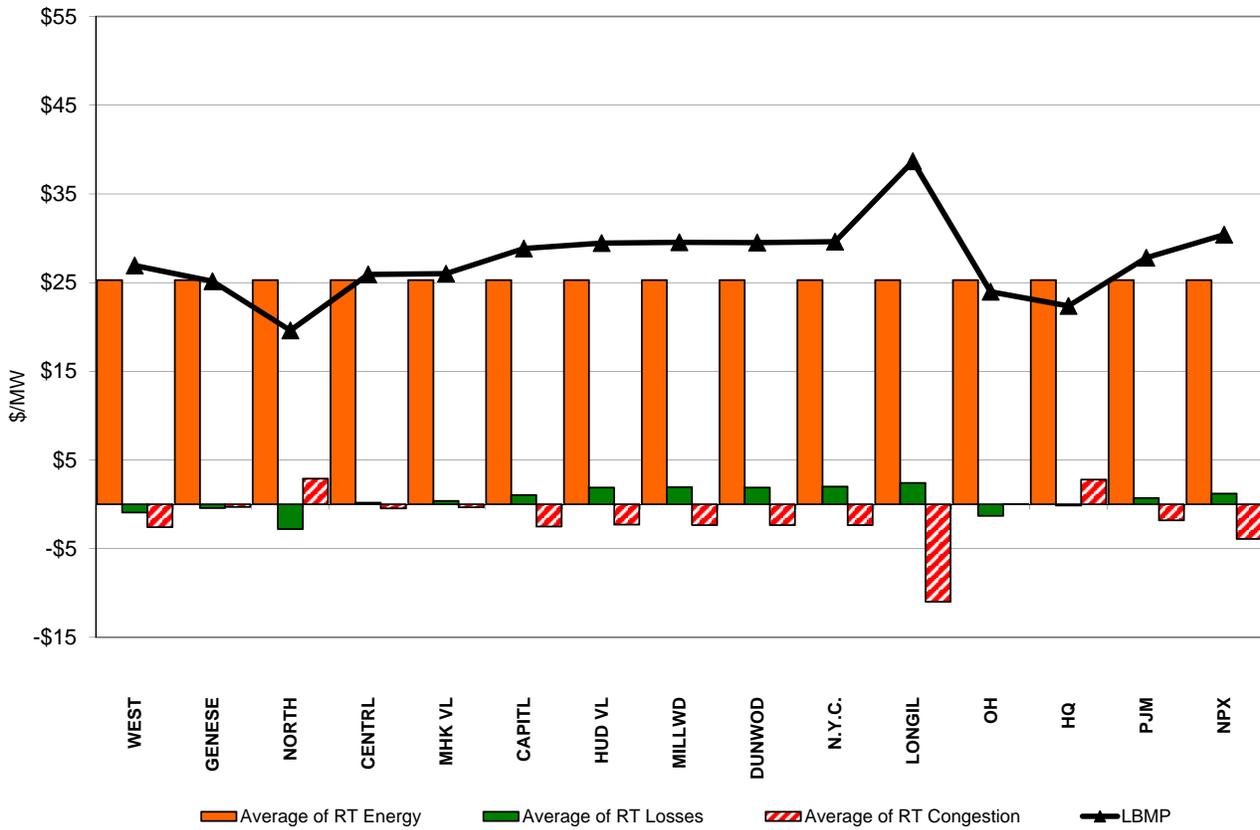
## Long Island Zone K Monthly Average LBMP Prices 2013 - 2014



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

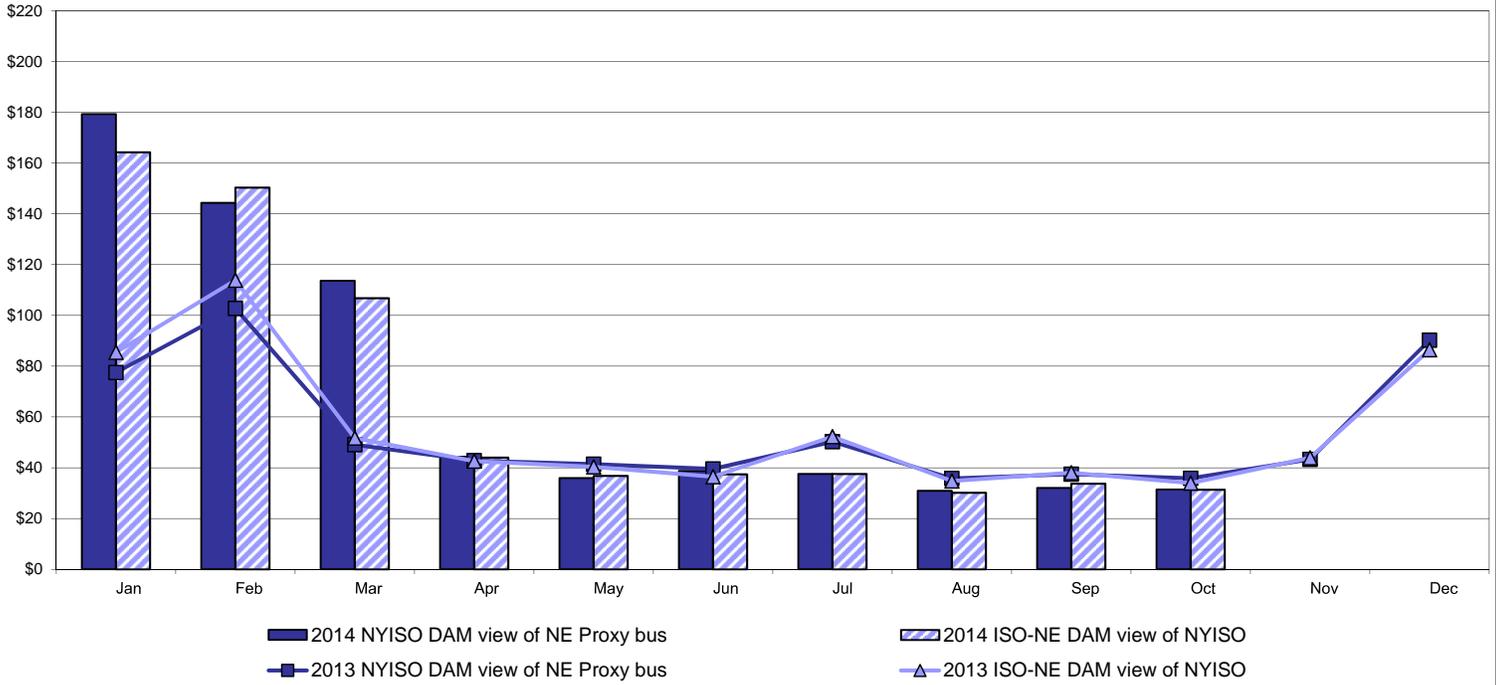


**RT Zonal Unweighted Monthly Average LBMP Components  
thru October 31, 2014**

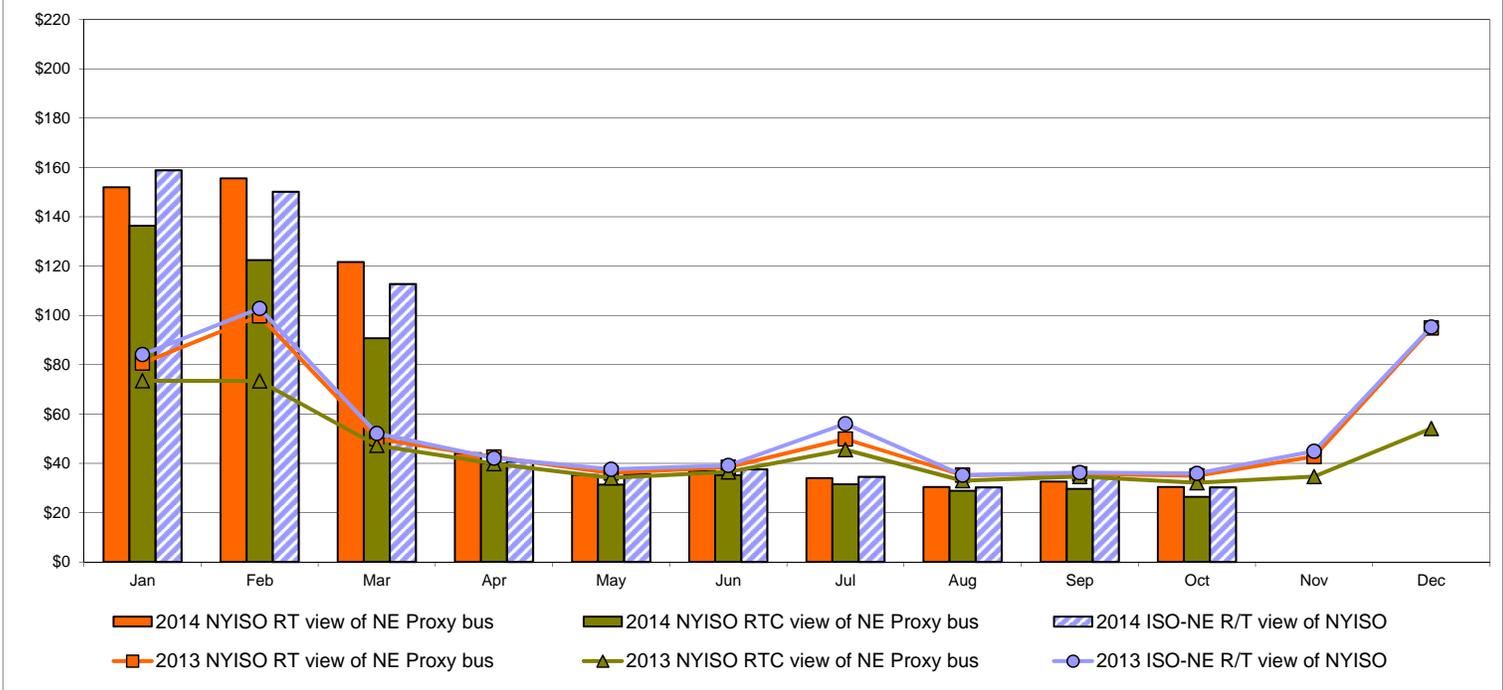


# External Comparison ISO-New England

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

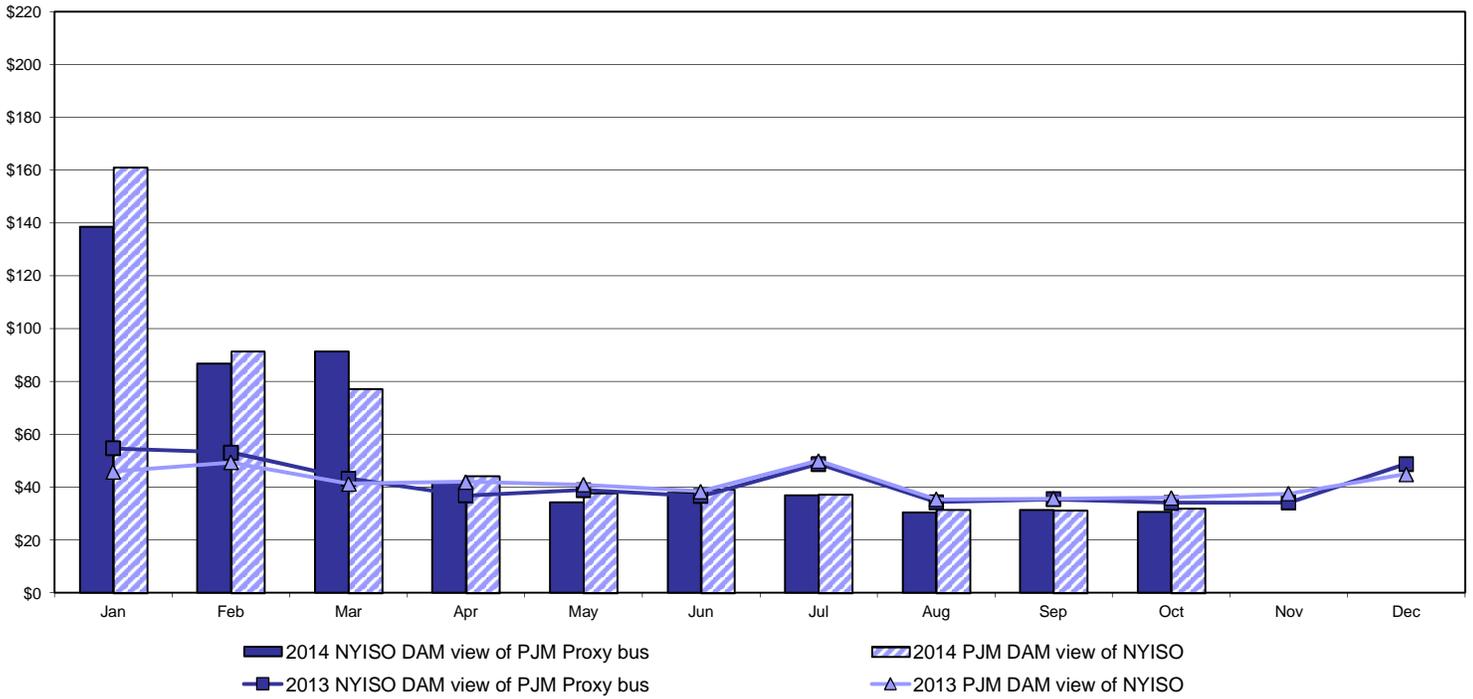


### Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

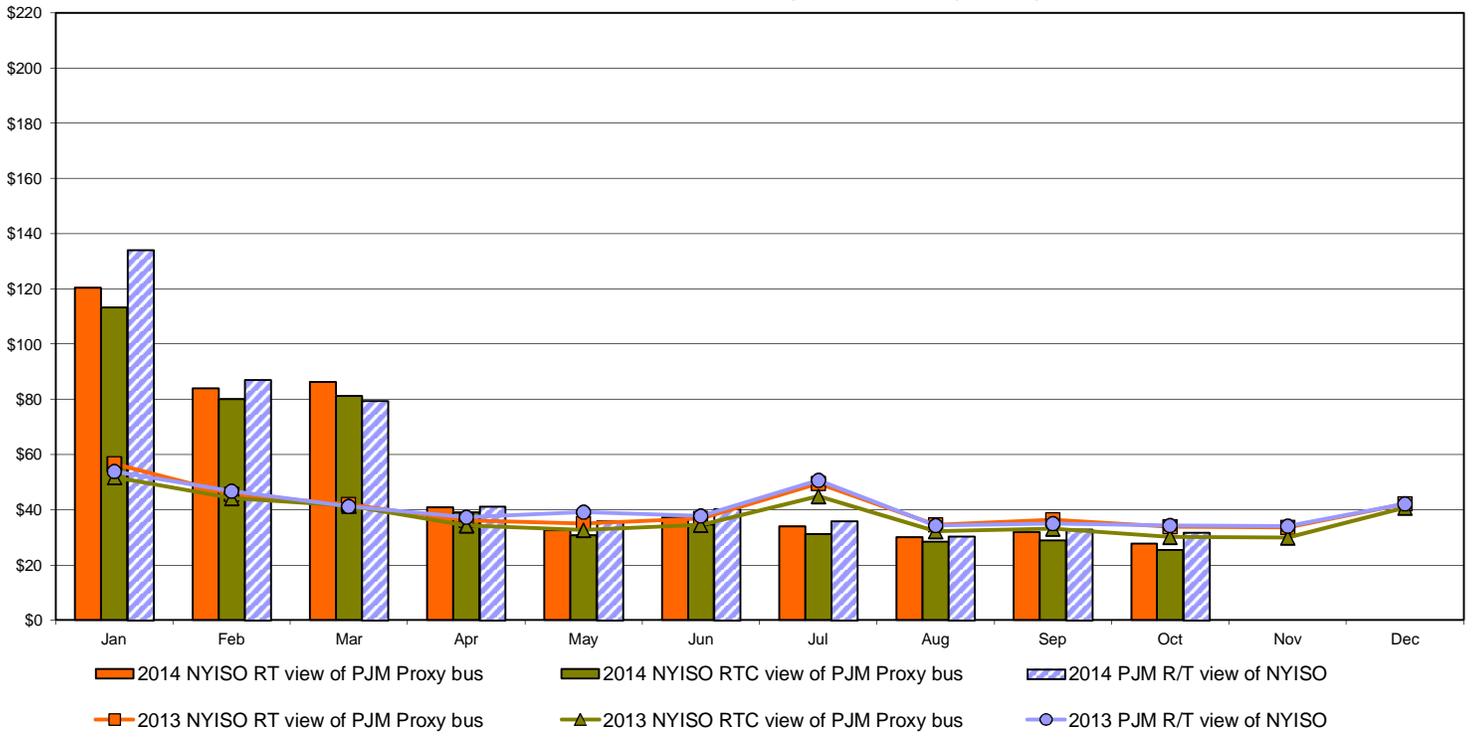


# External Comparison PJM

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

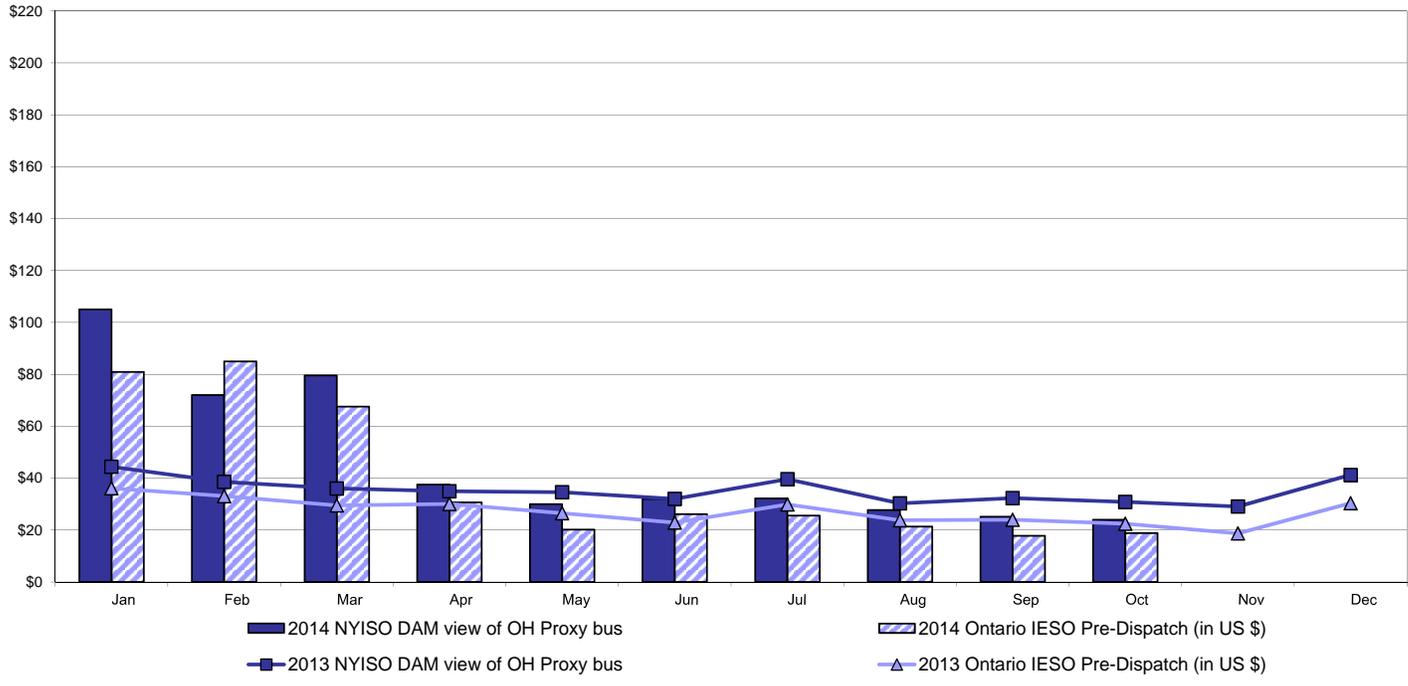


## Real Time Market External Zone Comparison - PJM (\$/MWh)

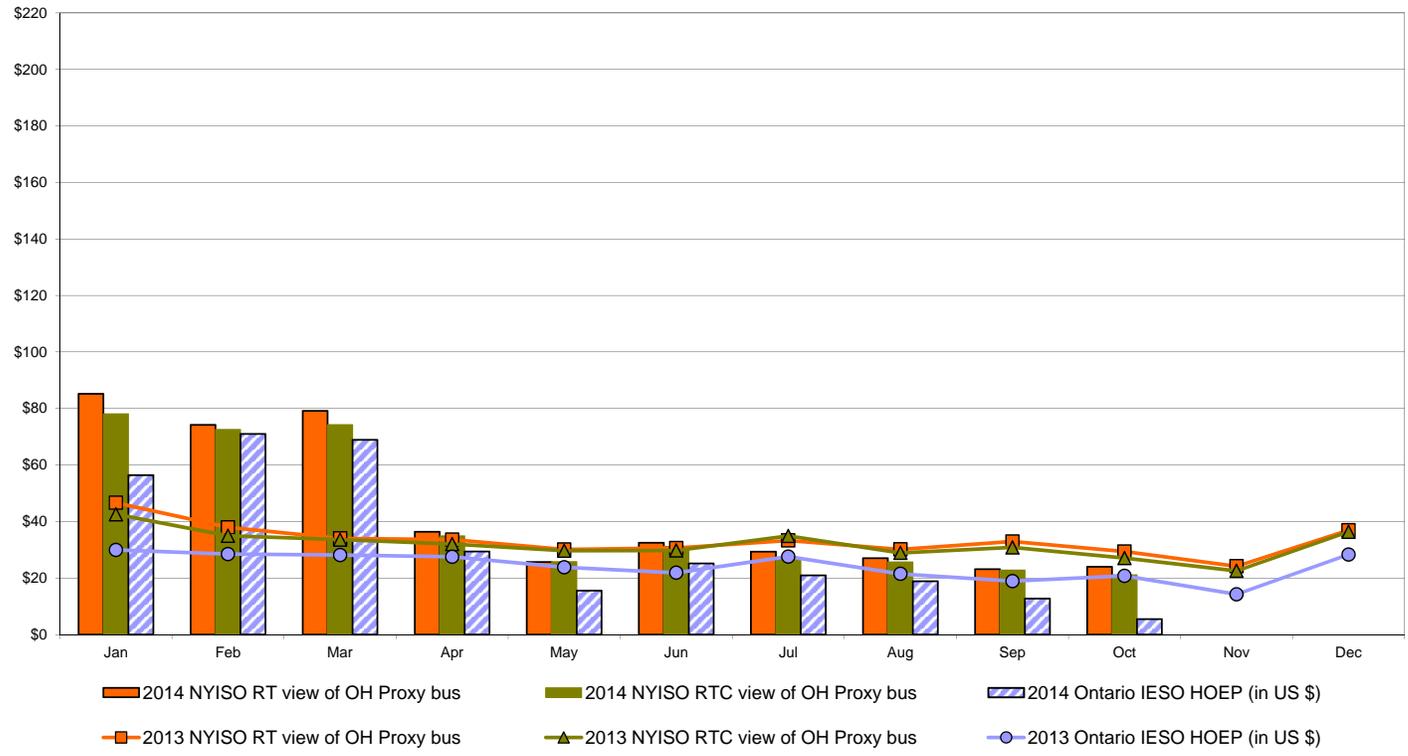


# External Comparison Ontario IESO

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

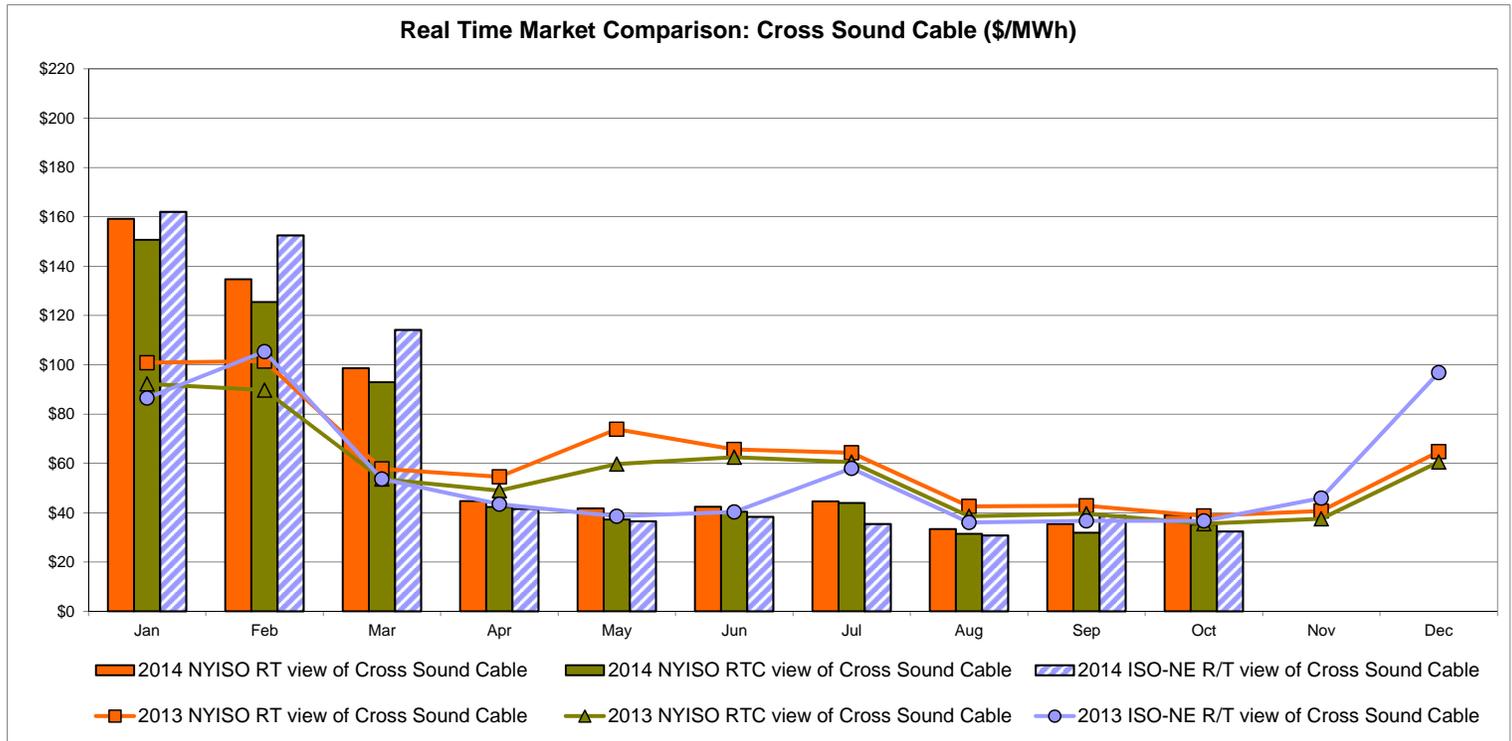
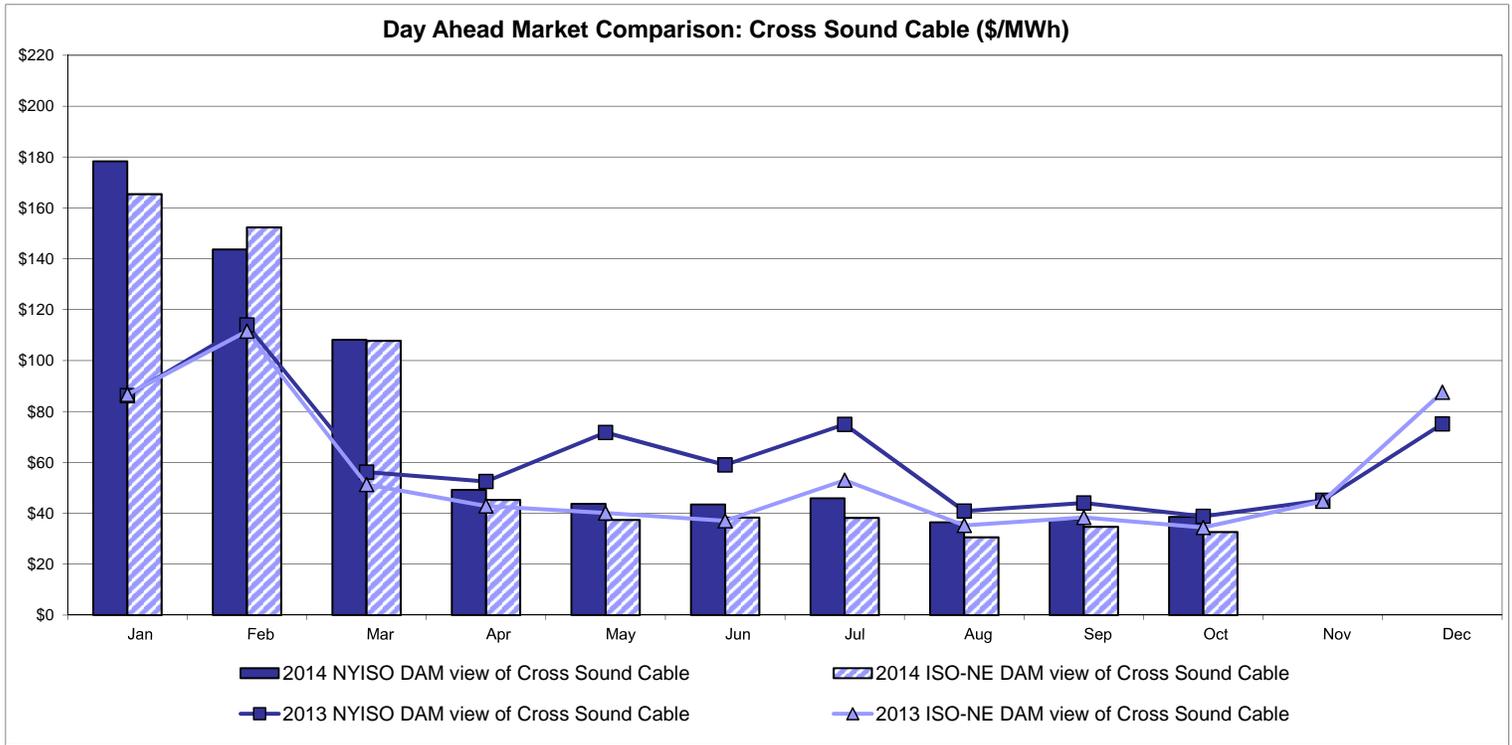


**Real Time Market External Zone Comparison - Ontario IESO (\$/MWh)**



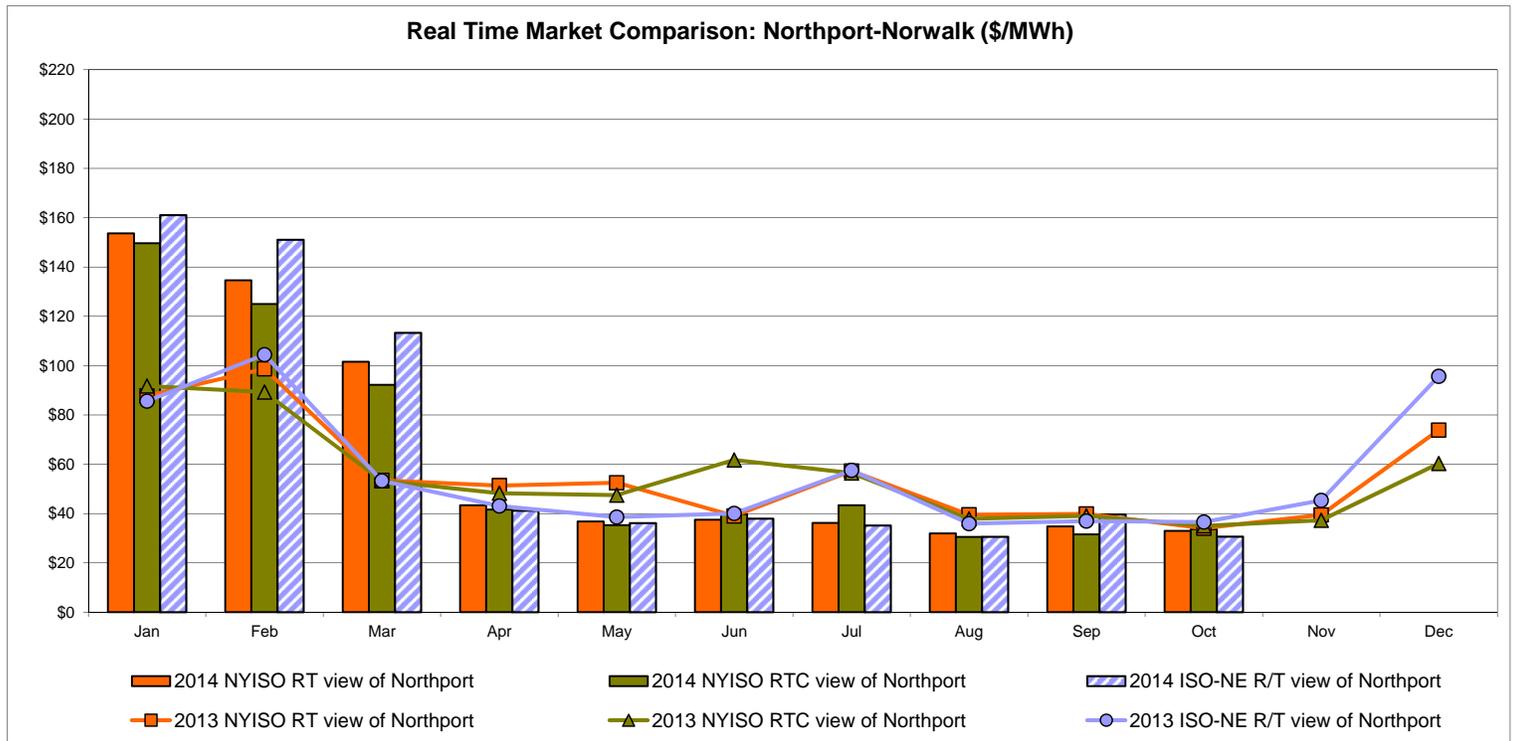
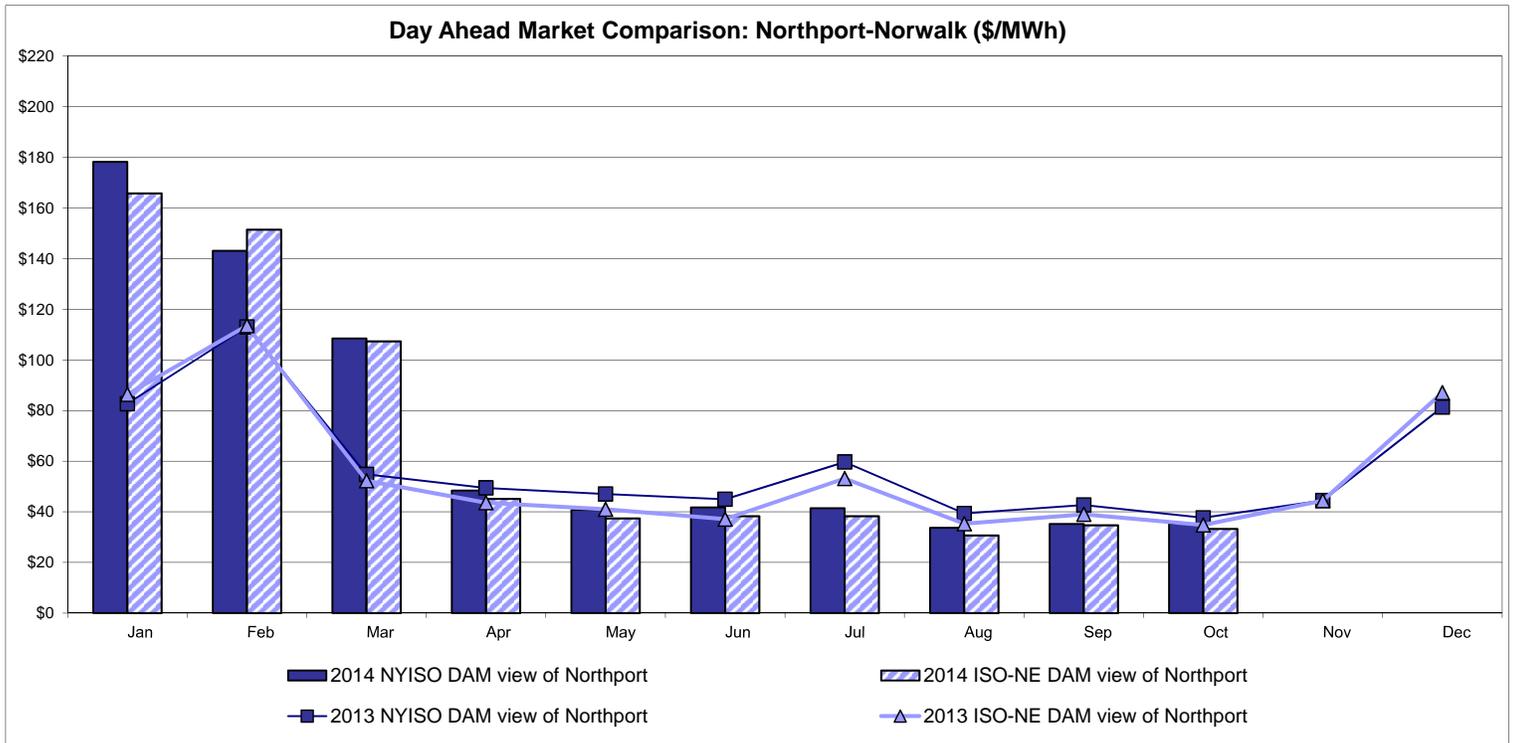
Notes: Exchange factor used for October 2014 was 0.891902 to US  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

# 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.

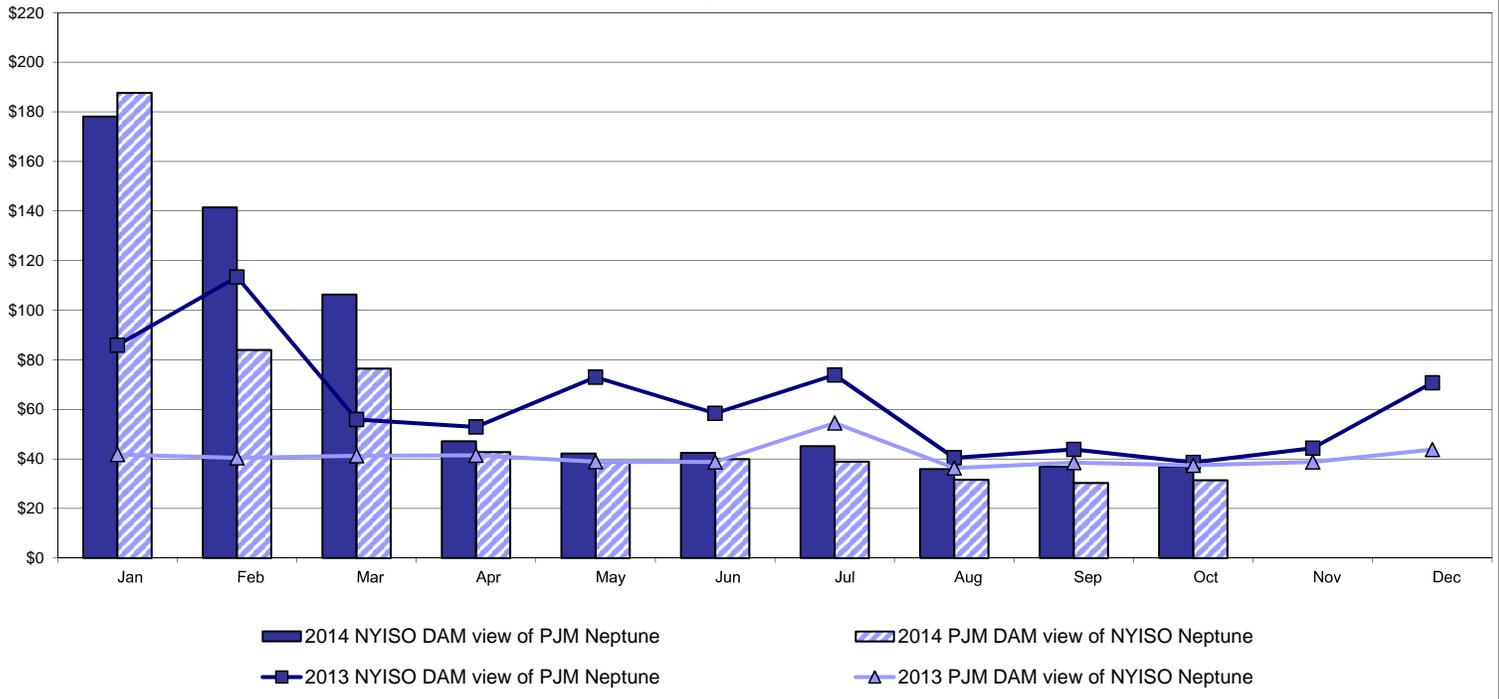
# External Controllable Line: Northport - Norwalk (New England)



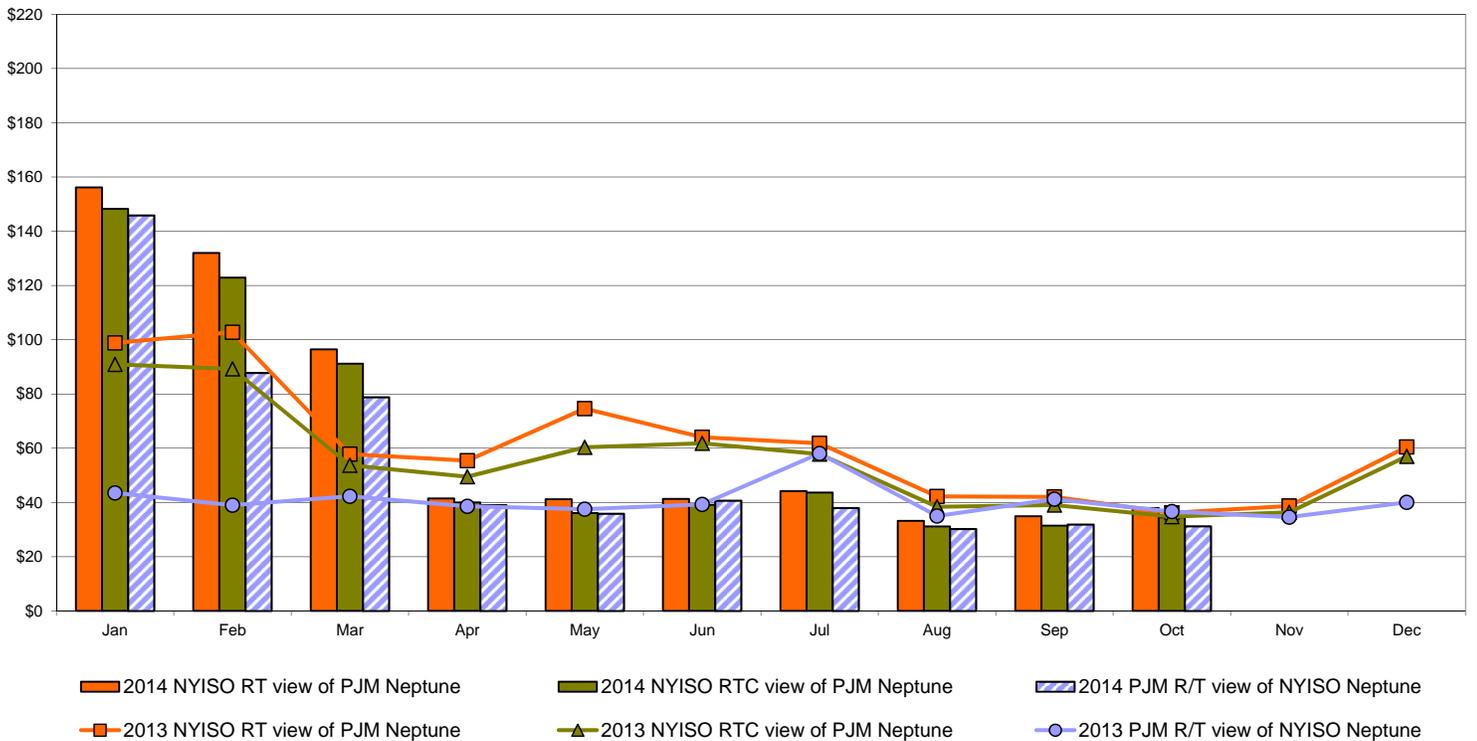
Note:  
 ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

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

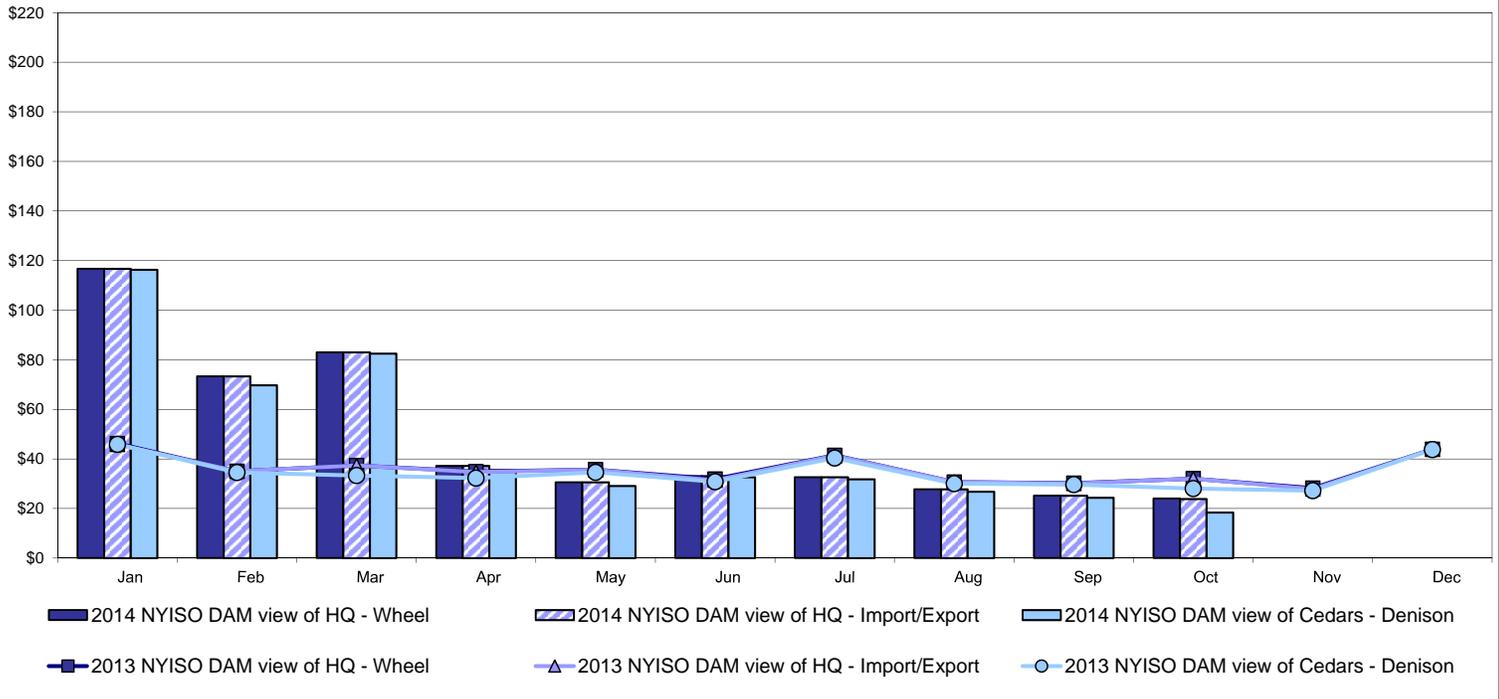


**Real Time Market Comparison: Neptune (\$/MWh)**

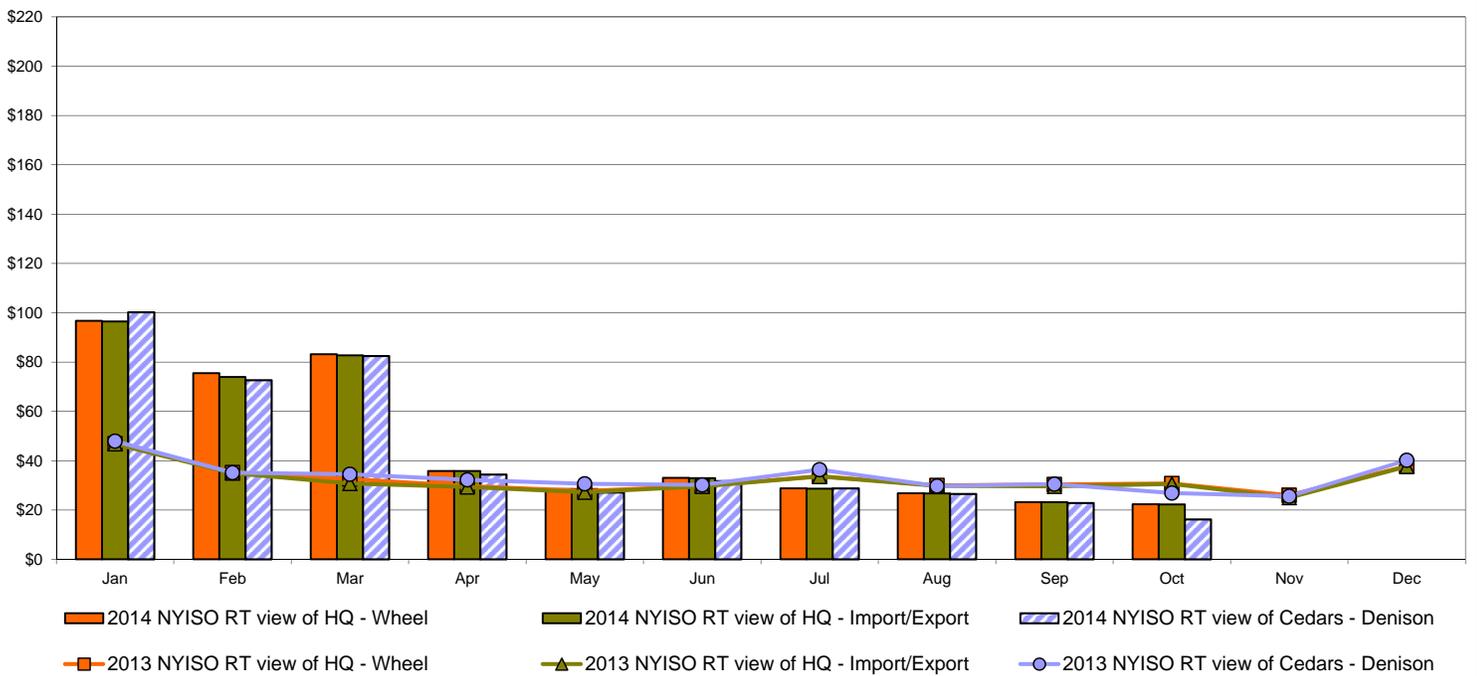


# External Comparison Hydro-Quebec

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

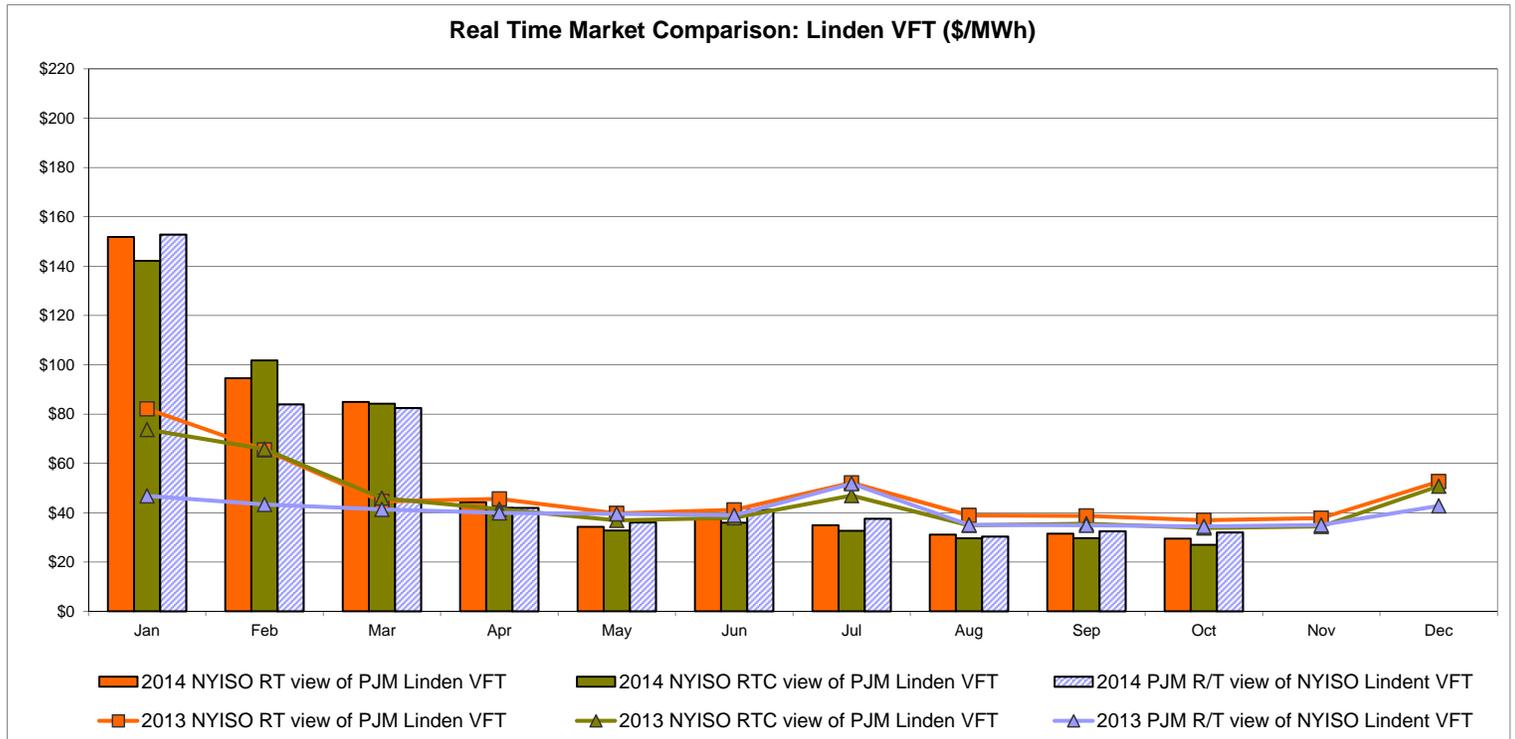
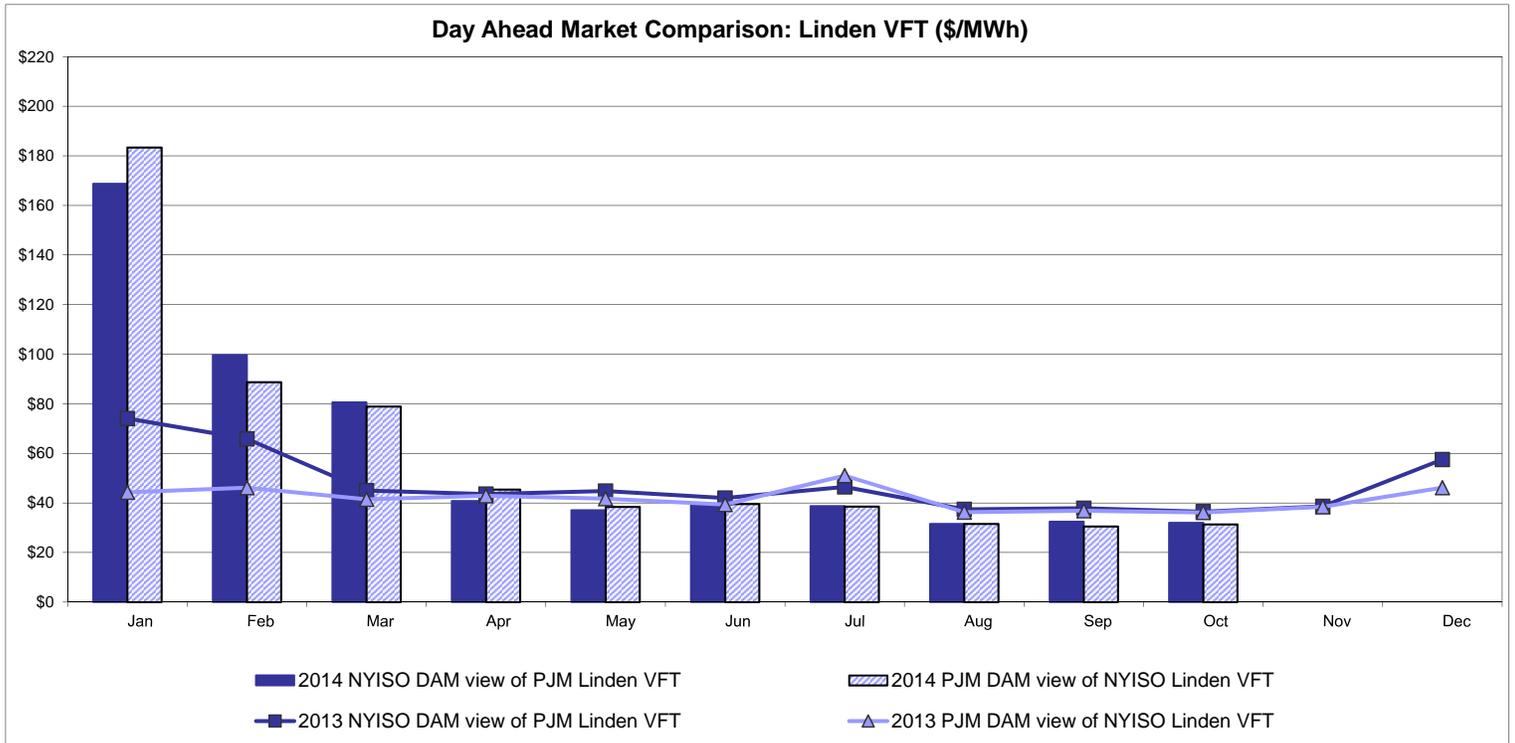


## Real Time Market External Zone Comparison - HQ (\$/MWh)

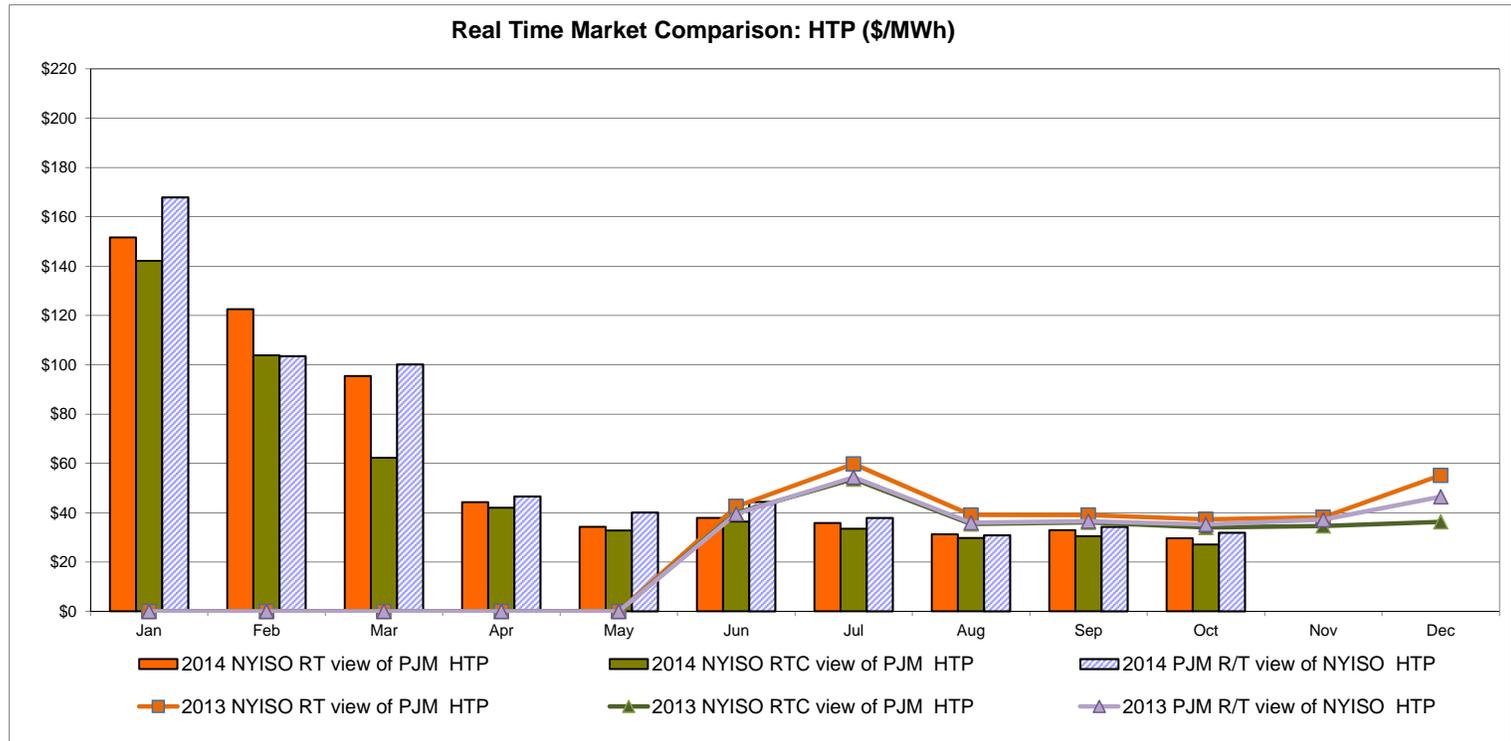
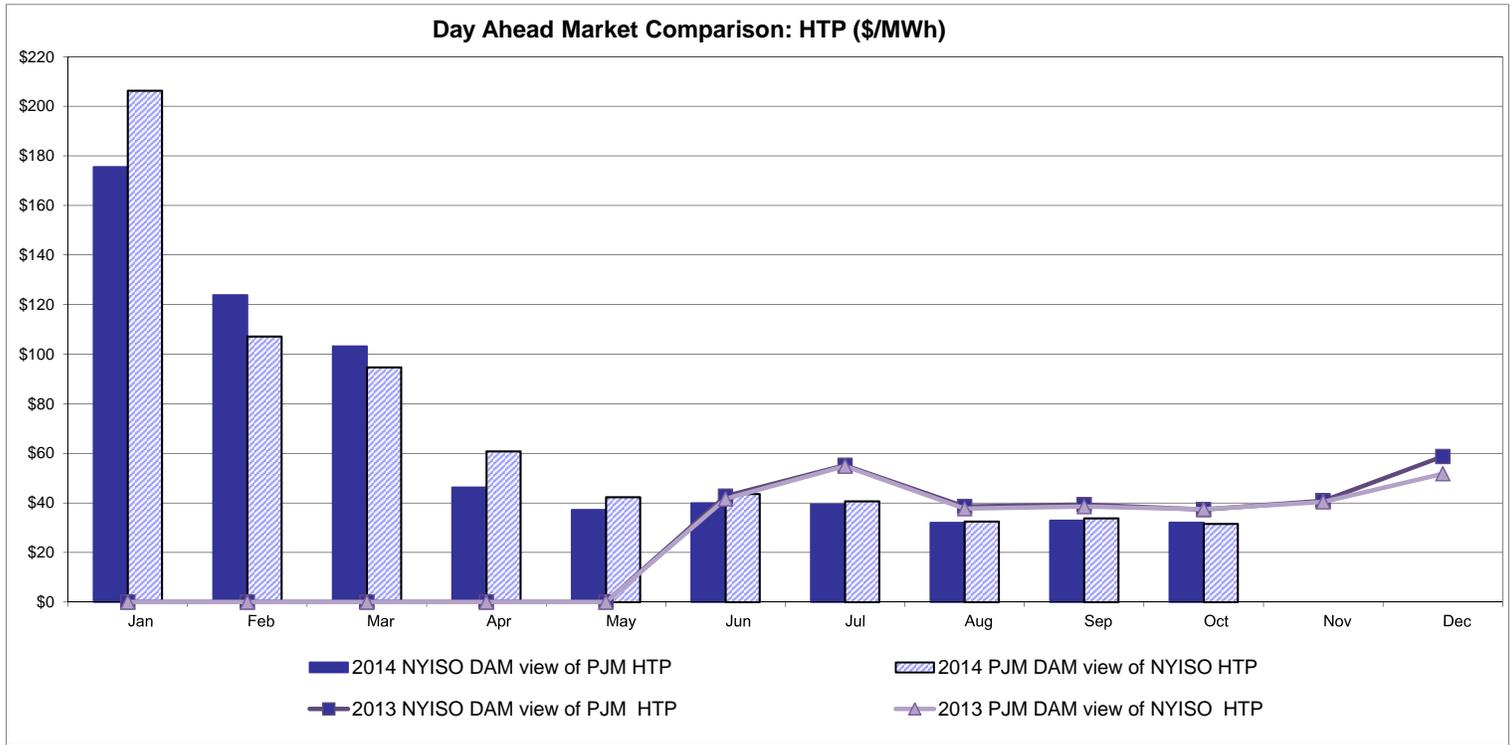


Note:  
Hydro-Quebec Prices are unavailable.

## External Controllable Line: Linden VFT (PJM)



## External Controllable Line: Hudson (PJM)

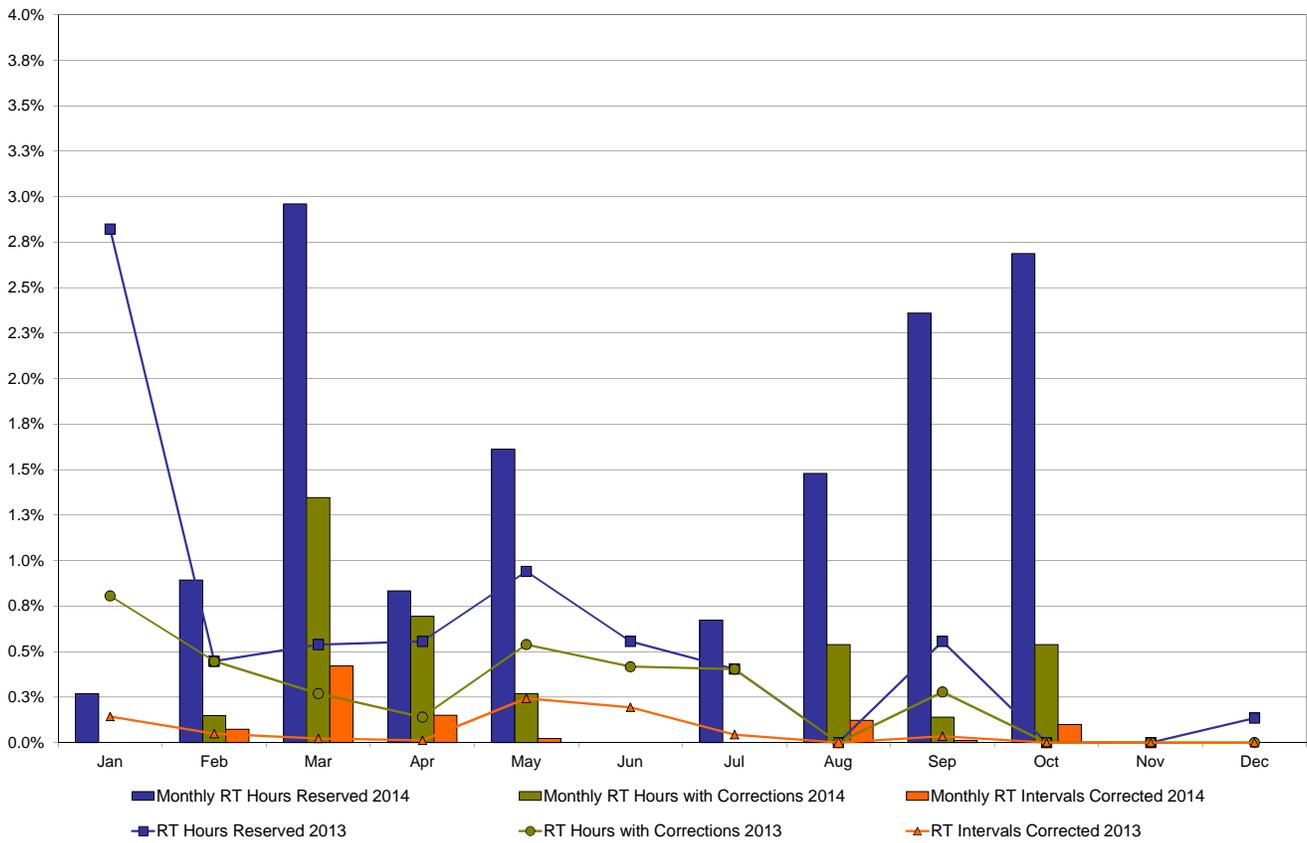


**NYISO Real Time Price Correction Statistics**

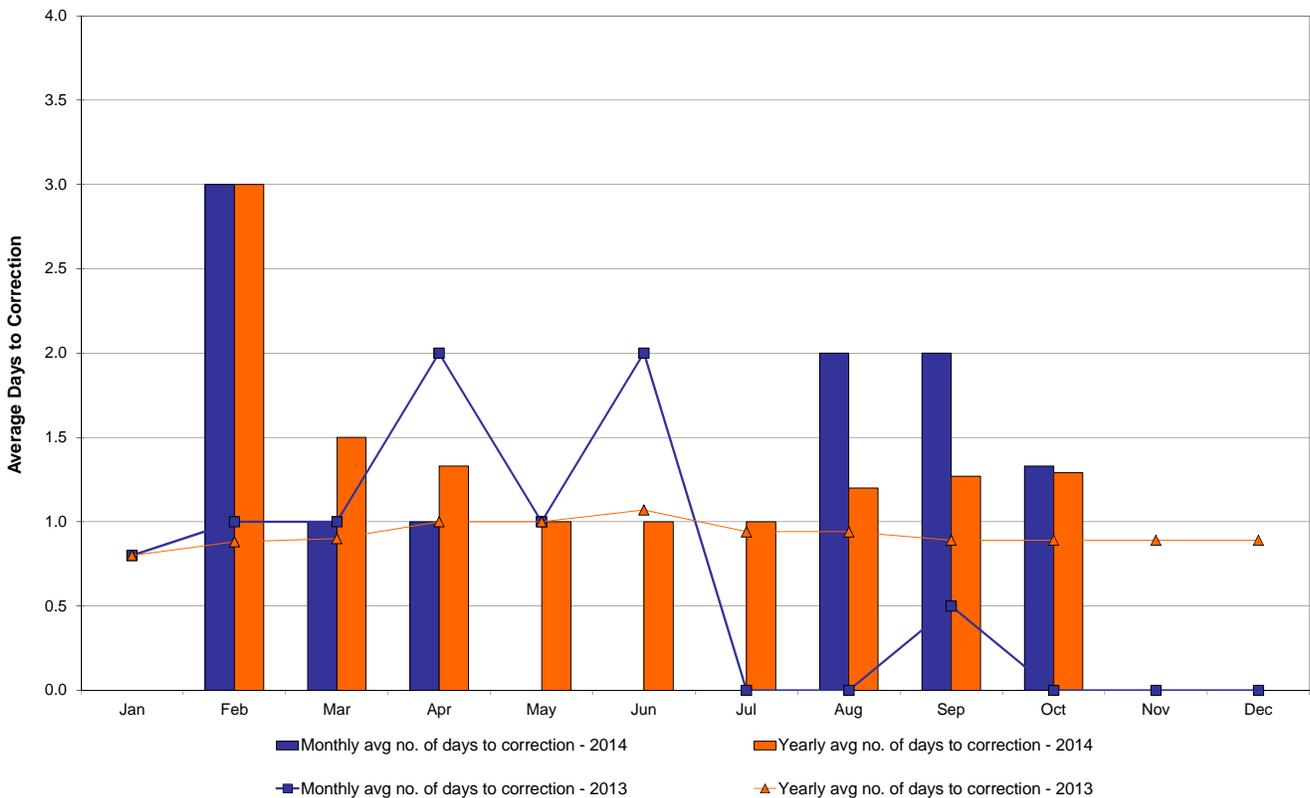
<b>2014</b>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	0	1	10	5	2	0	0	4	1	4		
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744		
% of hours with corrections	in the month	0.00%	0.15%	1.35%	0.69%	0.27%	0.00%	0.00%	0.54%	0.14%	0.54%		
% of hours with corrections	year-to-date	0.00%	0.07%	0.51%	0.56%	0.50%	0.41%	0.35%	0.38%	0.35%	0.37%		
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	0	6	38	13	2	0	0	11	1	9		
Number of intervals	in the month	9,232	8,205	9,023	8,720	9,030	8,729	8,999	8,975	8,779	9,026		
% of intervals corrected	in the month	0.00%	0.07%	0.42%	0.15%	0.02%	0.00%	0.00%	0.12%	0.01%	0.10%		
% of intervals corrected	year-to-date	0.00%	0.03%	0.17%	0.16%	0.13%	0.11%	0.10%	0.10%	0.09%	0.09%		
<b>Hours Reserved</b>													
Number of hours reserved	in the month	2	6	22	6	12	0	5	11	17	20		
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744		
% of hours reserved	in the month	0.27%	0.89%	2.96%	0.83%	1.61%	0.00%	0.67%	1.48%	2.36%	2.69%		
% of hours reserved	year-to-date	0.27%	0.56%	1.39%	1.25%	1.32%	1.11%	1.04%	1.10%	1.24%	1.38%		
<b>Days to Correction *</b>													
Avg. number of days to correction	in the month	0.00	3.00	1.00	1.00	0.00	0.00	0.00	2.00	2.00	1.33		
Avg. number of days to correction	year-to-date	0.00	3.00	1.50	1.33	1.00	1.00	1.00	1.20	1.27	1.29		
<b>Days Without Corrections</b>													
Days without corrections	in the month	31	27	28	28	29	30	31	29	29	28		
Days without corrections	year-to-date	31	58	86	114	143	173	204	233	262	290		
<b>2013</b>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	6	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>Interval Corrections</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>Hours Reserved</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>Days to Correction *</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>Days Without Corrections</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

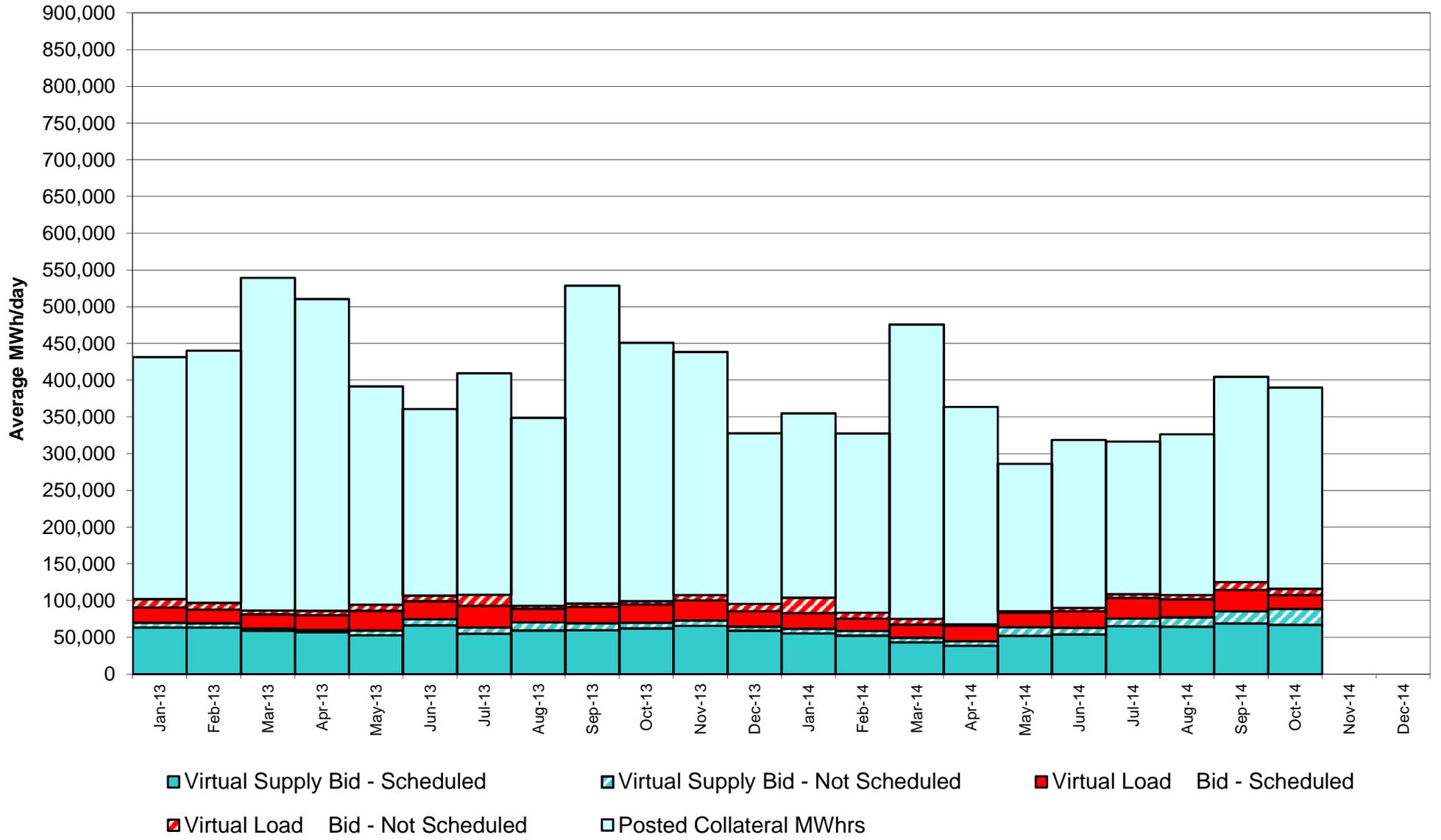


### Annual average time period for making Price Corrections (from reservation date) \*

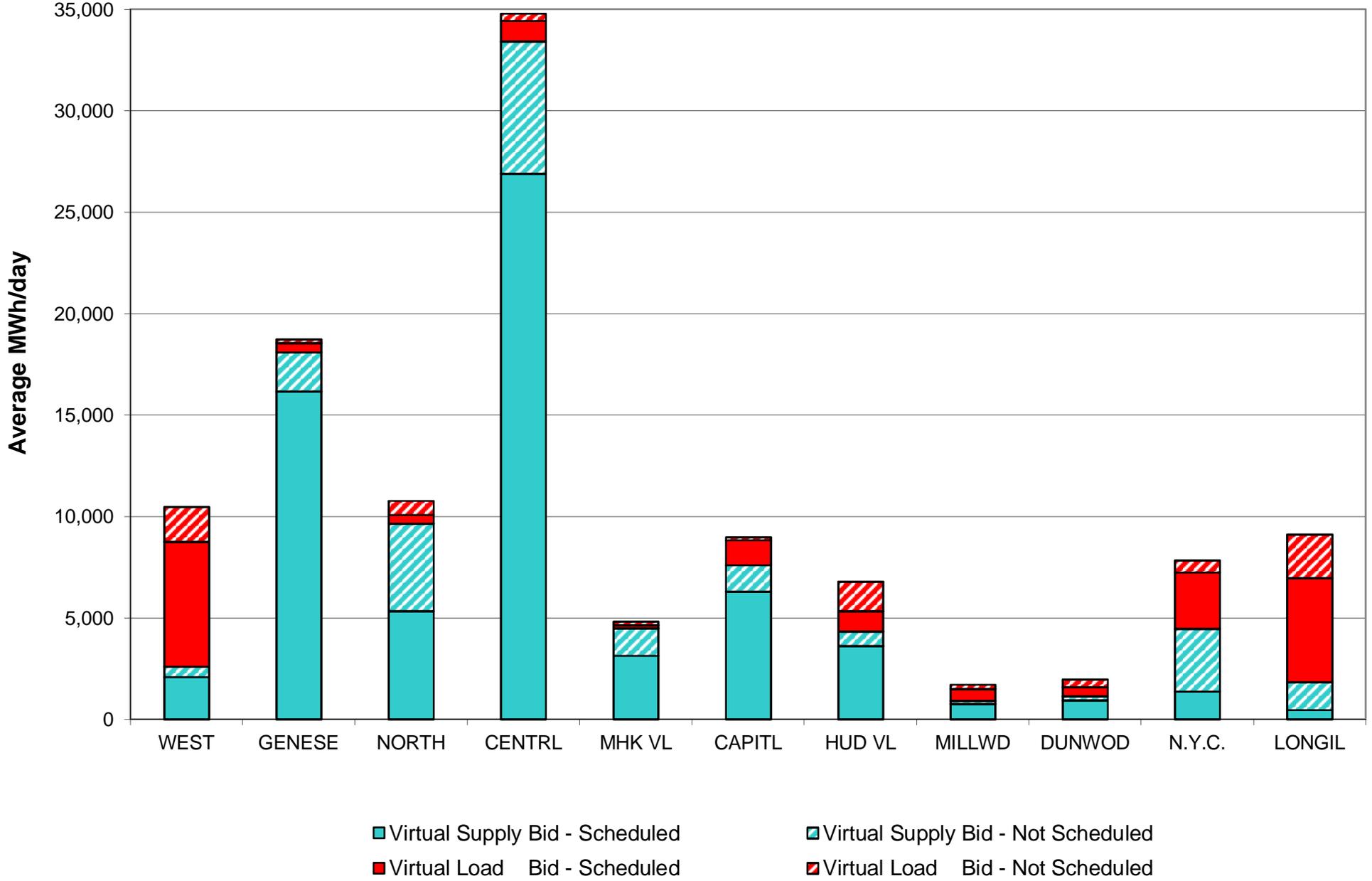


\* Calendar days from reservation date.

## NYISO Virtual Trading Average MWh per day



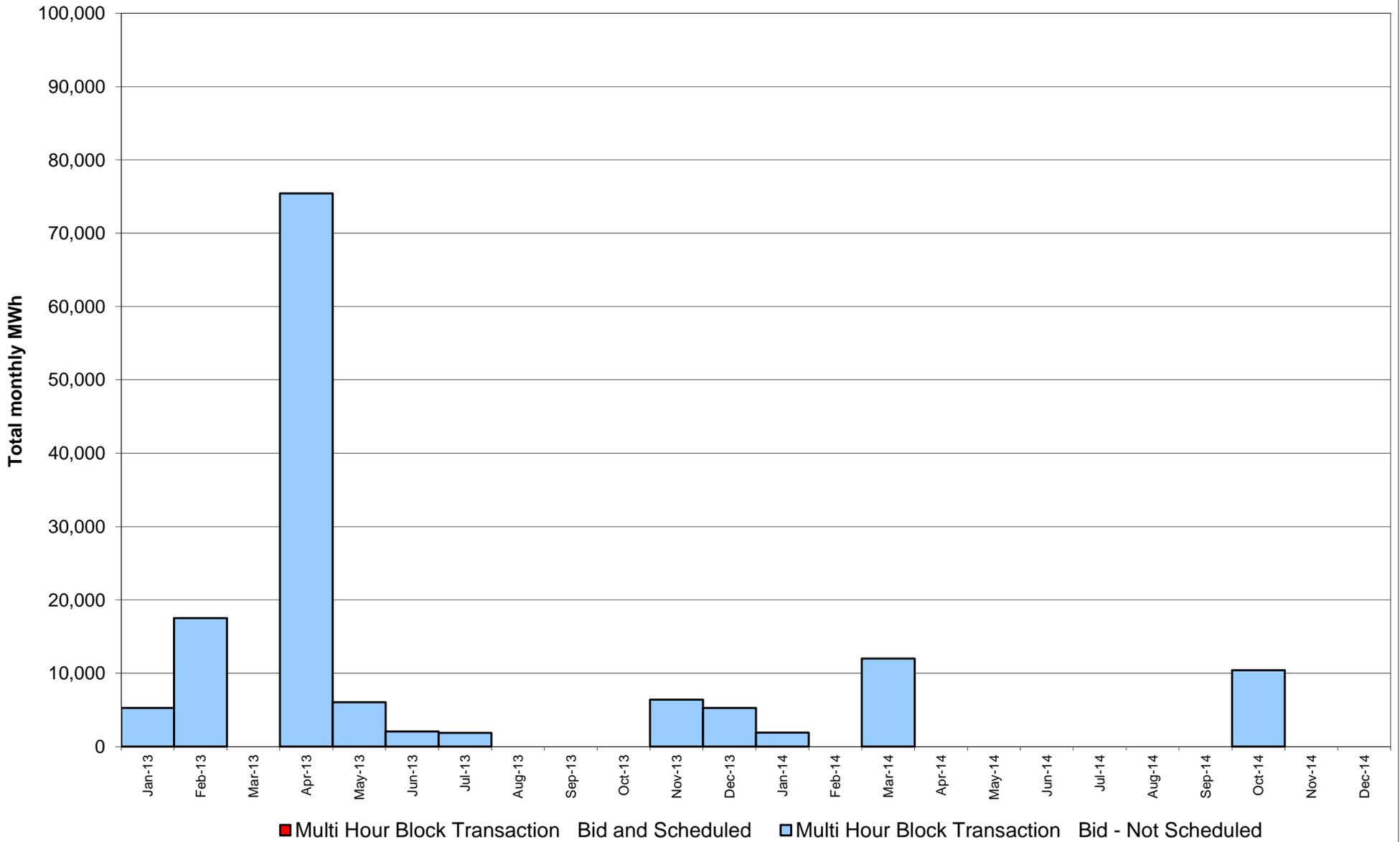
### Virtual Load and Supply Zonal Statistics through October 31, 2014



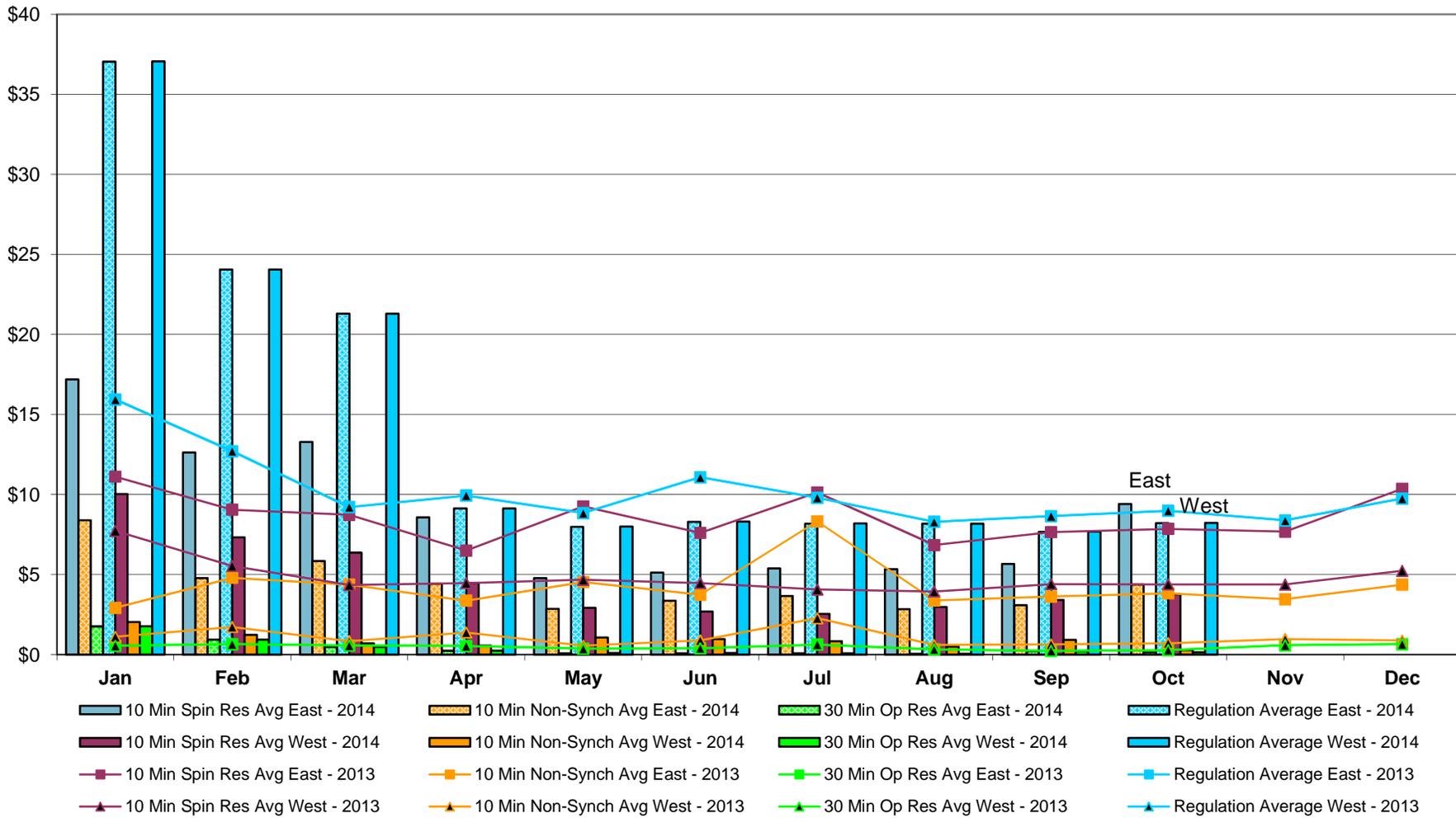
**Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2014**

		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
<b>WEST</b>	Jan-14	6,213	5,063	2,777	155	<b>MHK VL</b>	Jan-14	429	587	1,316	260	<b>DUNWOD</b>	Jan-14	354	631	2,182	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	1,794	146
	Apr-14	7,473	451	1,880	130		Apr-14	242	44	1,685	136		Apr-14	211	17	2,493	87
	May-14	7,071	353	952	158		May-14	231	7	2,372	412		May-14	930	75	580	67
	Jun-14	7,711	1,645	1,701	277		Jun-14	632	115	2,090	195		Jun-14	1,814	96	966	25
	Jul-14	6,396	470	1,608	78		Jul-14	610	99	2,733	256		Jul-14	3,228	249	1,043	243
	Aug-14	7,802	1,161	1,574	255		Aug-14	148	59	3,327	1,114		Aug-14	1,647	106	1,146	255
	Sep-14	9,250	3,395	1,481	468		Sep-14	286	125	3,406	1,108		Sep-14	2,189	271	1,059	95
	Oct-14	6,159	1,704	2,094	496		Oct-14	152	190	3,136	1,355		Oct-14	426	380	939	215
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
<b>GENESE</b>	Jan-14	434	279	5,230	425	<b>CAPITL</b>	Jan-14	1,439	1,278	3,985	379	<b>N.Y.C.</b>	Jan-14	2,627	3,843	666	1,083
	Feb-14	473	107	5,250	487		Feb-14	1,116	871	4,100	127		Feb-14	2,470	1,392	521	625
	Mar-14	1,164	176	6,014	88		Mar-14	1,237	939	4,623	129		Mar-14	3,075	1,308	152	1,172
	Apr-14	551	13	8,329	173		Apr-14	780	107	4,476	133		Apr-14	3,335	289	152	2,900
	May-14	134	18	5,223	798		May-14	479	17	5,367	337		May-14	2,276	165	205	4,679
	Jun-14	211	2	9,133	405		Jun-14	367	93	5,631	333		Jun-14	2,741	390	121	3,613
	Jul-14	979	78	15,781	549		Jul-14	452	31	8,007	1,290		Jul-14	4,273	712	513	780
	Aug-14	817	62	14,782	938		Aug-14	753	8	7,039	1,402		Aug-14	3,526	270	768	740
	Sep-14	484	122	16,937	1,394		Sep-14	1,939	132	6,605	933		Sep-14	4,575	594	1,072	630
	Oct-14	446	174	16,151	1,958		Oct-14	1,218	138	6,311	1,304		Oct-14	2,781	600	1,369	3,096
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
<b>NORTH</b>	Jan-14	47	168	6,579	1,592	<b>HUD VL</b>	Jan-14	1,612	1,554	4,091	466	<b>LONGIL</b>	Jan-14	7,605	6,704	59	375
	Feb-14	110	4	5,732	1,308		Feb-14	634	1,325	3,963	792		Feb-14	5,365	2,494	145	230
	Mar-14	121	10	6,390	895		Mar-14	552	1,130	3,644	1,081		Mar-14	5,083	1,885	166	223
	Apr-14	67	4	8,216	1,007		Apr-14	413	725	4,889	918		Apr-14	7,434	579	102	18
	May-14	89	1	7,535	955		May-14	817	358	4,407	760		May-14	6,303	1,452	83	151
	Jun-14	17	0	4,710	1,222		Jun-14	1,007	964	3,669	640		Jun-14	6,607	1,264	97	77
	Jul-14	42	1	6,501	1,278		Jul-14	1,828	1,243	2,924	1,328		Jul-14	7,903	2,104	304	854
	Aug-14	146	344	6,615	1,624		Aug-14	1,349	1,507	3,568	987		Aug-14	6,681	2,246	412	1,306
	Sep-14	166	359	6,631	3,973		Sep-14	1,194	1,752	4,736	1,957		Sep-14	6,722	2,911	682	943
	Oct-14	414	710	5,341	4,316		Oct-14	996	1,456	3,632	695		Oct-14	5,109	2,157	470	1,378
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
<b>CENTRL</b>	Jan-14	675	392	27,758	624	<b>MILLWD</b>	Jan-14	235	401	848	470	<b>NYISO</b>	Jan-14	21,670	20,900	55,491	6,098
	Feb-14	419	155	27,395	1,484		Feb-14	324	183	1,015	357		Feb-14	16,907	7,888	52,604	6,097
	Mar-14	466	359	16,130	1,822		Mar-14	278	293	872	262		Mar-14	17,855	7,700	43,485	6,082
	Apr-14	222	13	5,535	430		Apr-14	119	54	878	255		Apr-14	20,848	2,295	38,637	6,187
	May-14	743	0	24,434	3,035		May-14	395	32	1,104	392		May-14	19,467	2,478	52,261	11,742
	Jun-14	829	25	24,422	2,180		Jun-14	670	66	1,230	254		Jun-14	22,606	4,660	53,771	9,221
	Jul-14	1,041	71	25,054	3,466		Jul-14	1,148	184	840	213		Jul-14	27,900	5,243	65,308	10,336
	Aug-14	1,119	65	24,453	4,027		Aug-14	573	91	809	266		Aug-14	24,561	5,920	64,494	12,915
	Sep-14	1,638	450	25,200	4,692		Sep-14	926	236	1,161	322		Sep-14	29,368	10,348	68,970	16,514
	Oct-14	1,020	363	26,898	6,511		Oct-14	574	208	768	150		Oct-14	19,294	8,081	67,108	21,473
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				

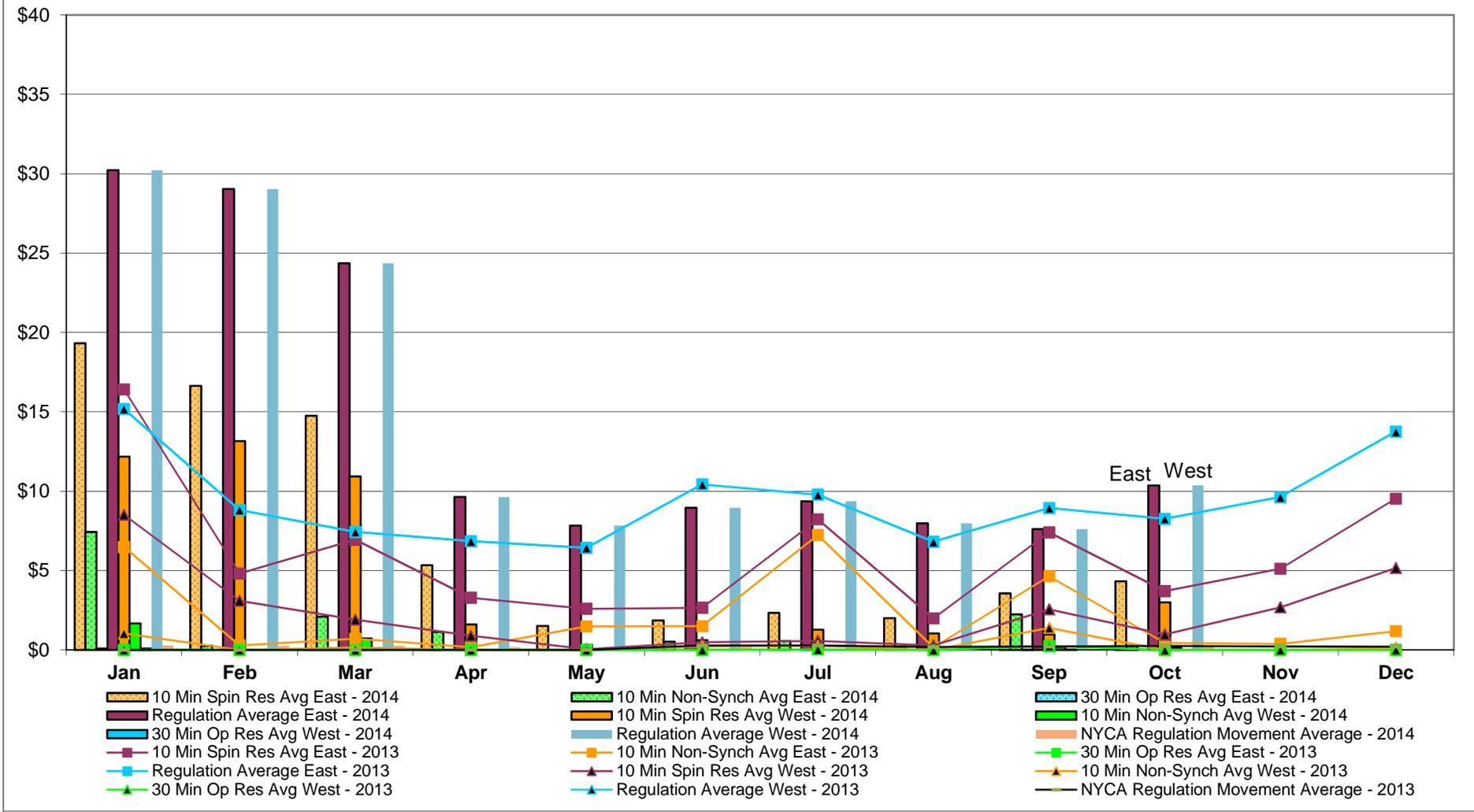
## NYISO Multi Hour Block Transactions Monthly Total MWh



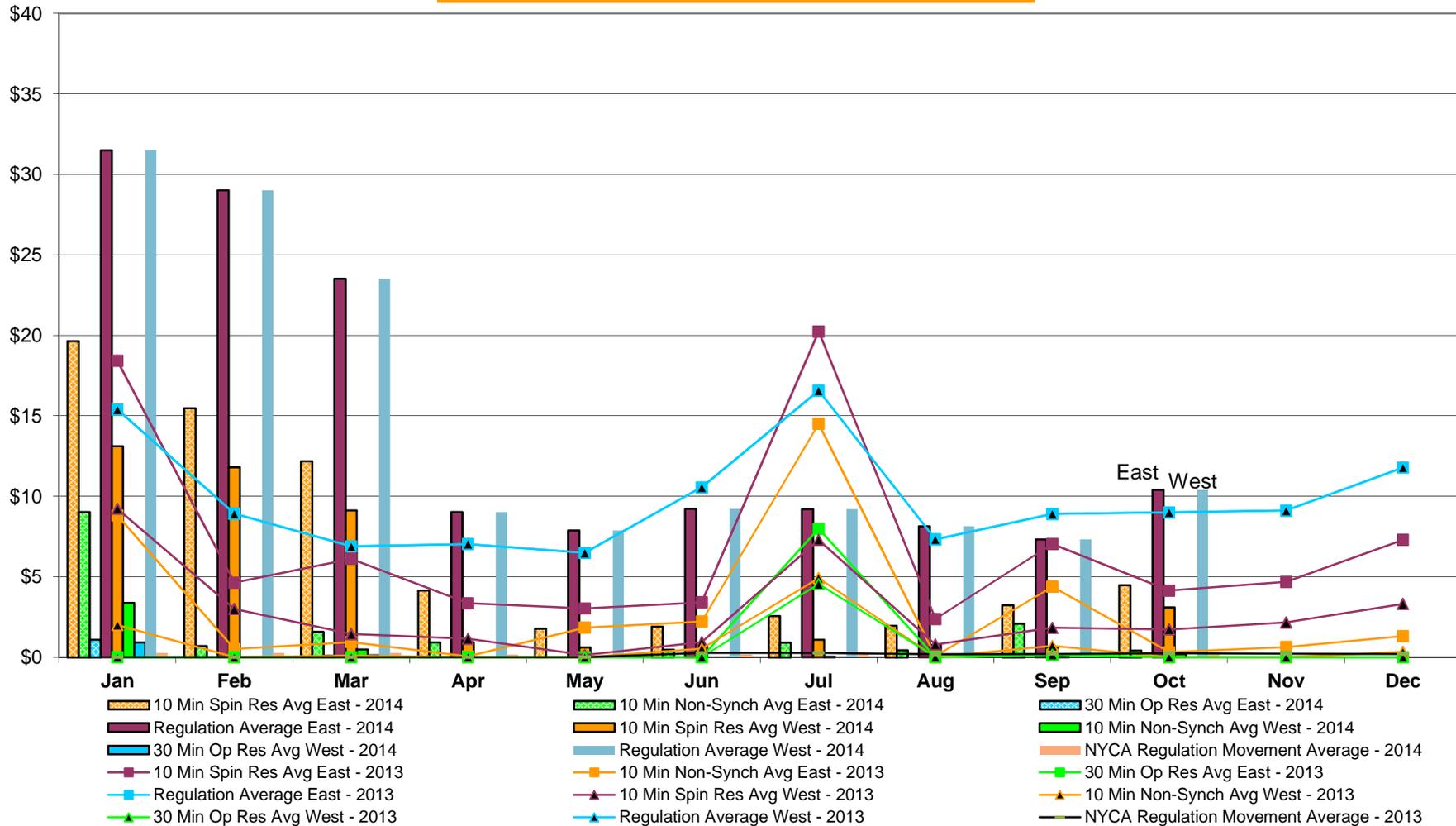
### NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2013 - 2014



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



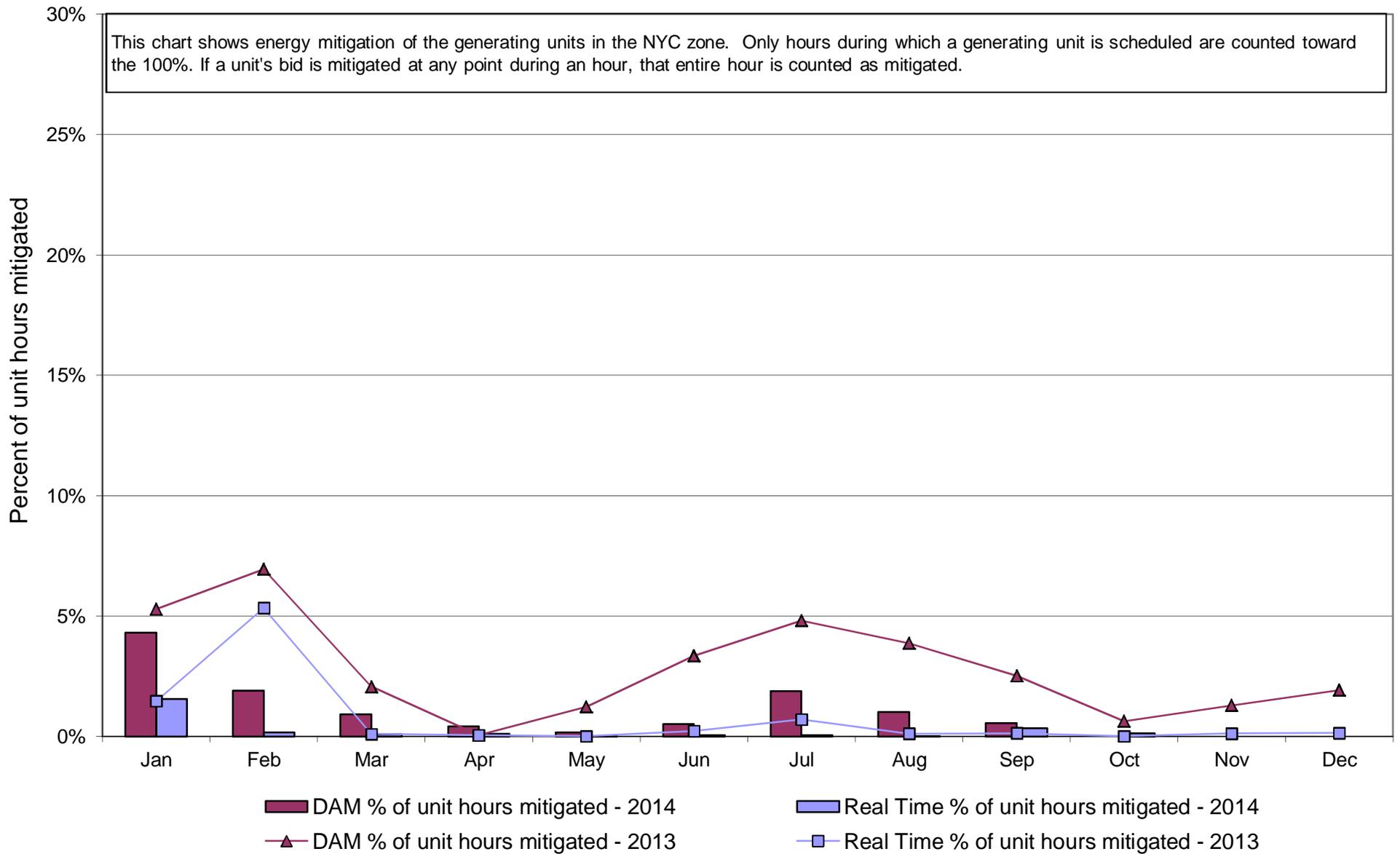
## NYISO Monthly Average Ancillary Service Prices Real Time Market 2013 - 2014



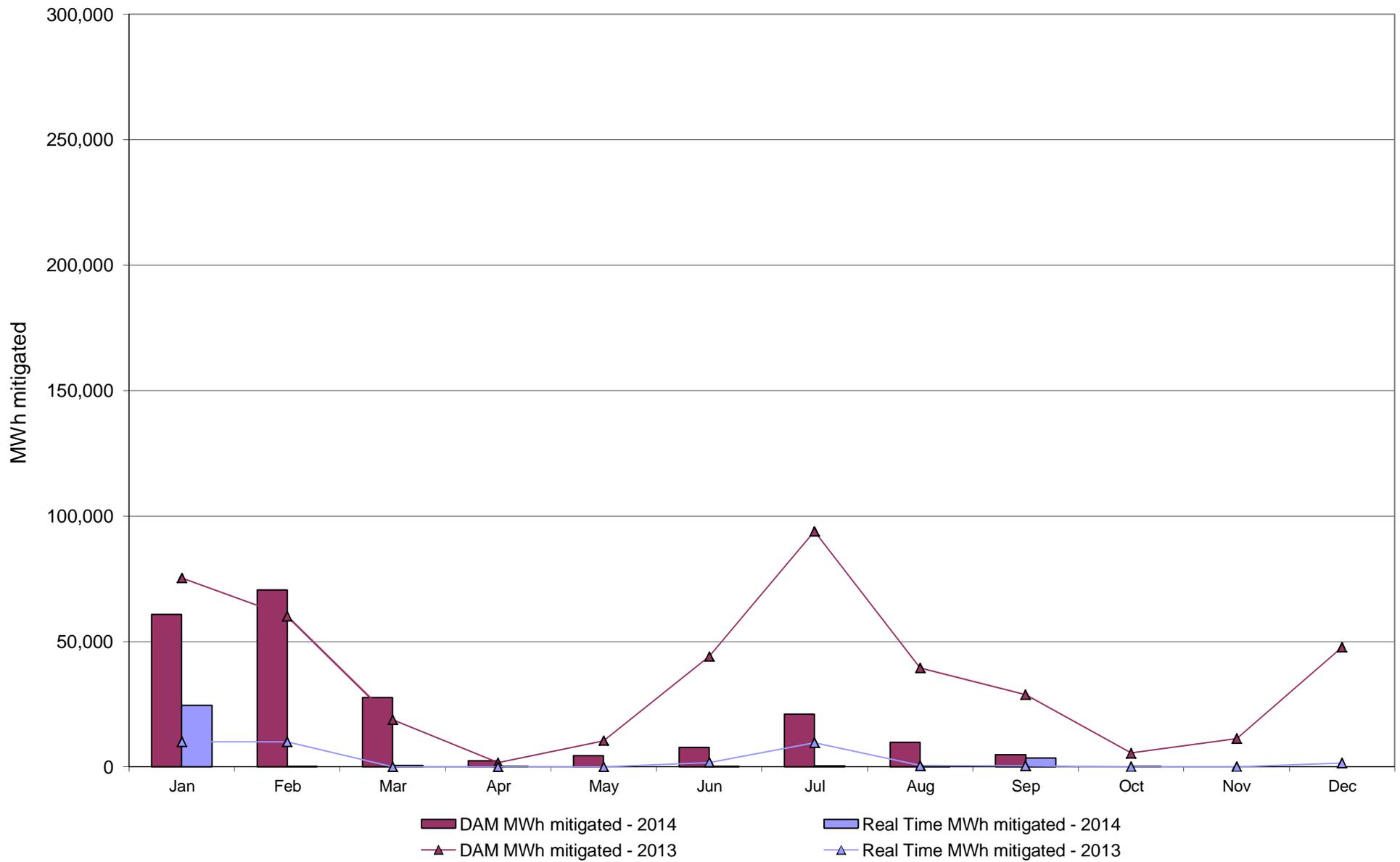
**NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)**

<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>Day Ahead Market</b>												
10 Min Spin East	17.19	12.62	13.27	8.57	4.77	5.11	5.37	5.33	5.66	9.41		
10 Min Spin West	10.02	7.32	6.36	4.47	2.92	2.69	2.54	2.96	3.41	3.76		
10 Min Non Synch East	8.40	4.78	5.86	4.44	2.86	3.37	3.65	2.85	3.08	4.40		
10 Min Non Synch West	2.02	1.23	0.70	0.55	1.06	0.96	0.83	0.49	0.91	0.27		
30 Min East	1.77	0.93	0.47	0.24	0.09	0.08	0.08	0.04	0.21	0.14		
30 Min West	1.77	0.93	0.47	0.24	0.09	0.08	0.08	0.04	0.21	0.14		
Regulation East	37.05	24.05	21.29	9.12	7.99	8.30	8.18	8.18	7.67	8.21		
Regulation West	37.05	24.05	21.29	9.12	7.99	8.30	8.18	8.18	7.67	8.21		
<b>RTC Market</b>												
10 Min Spin East	19.32	16.64	14.76	5.34	1.52	1.87	2.35	2.00	3.57	4.32		
10 Min Spin West	12.18	13.16	10.93	1.61	0.33	0.61	1.27	1.04	0.98	2.99		
10 Min Non Synch East	7.43	0.26	2.10	1.14	0.00	0.52	0.55	0.20	2.25	0.25		
10 Min Non Synch West	1.68	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.17	0.13		
30 Min East	0.08	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.02	0.00		
30 Min West	0.08	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.02	0.00		
Regulation East	30.21	29.03	24.35	9.64	7.83	8.95	9.36	7.97	7.62	10.36		
Regulation West	30.21	29.03	24.35	9.64	7.83	8.95	9.36	7.97	7.62	10.36		
NYCA Regulation Movement	0.28	0.27	0.26	0.17	0.15	0.17	0.21	0.18	0.21	0.20		
<b>Real Time Market</b>												
10 Min Spin East	19.64	15.48	12.19	4.15	1.78	1.92	2.57	1.96	3.23	4.47		
10 Min Spin West	13.10	11.80	9.11	0.94	0.61	0.72	1.08	0.76	0.60	3.10		
10 Min Non Synch East	9.03	0.70	1.59	0.93	0.00	0.48	0.92	0.44	2.09	0.42		
10 Min Non Synch West	3.37	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.05	0.20		
30 Min East	1.10	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30 Min West	0.92	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Regulation East	31.50	29.02	23.52	9.02	7.87	9.21	9.21	8.13	7.31	10.39		
Regulation West	31.50	29.02	23.52	9.02	7.87	9.21	9.21	8.13	7.31	10.39		
NYCA Regulation Movement	0.27	0.27	0.27	0.17	0.15	0.18	0.21	0.19	0.21	0.19		
<b>2013</b>												
	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b>Day Ahead Market</b>												
10 Min Spin East	11.12	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>RTC Market</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>Real Time Market</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

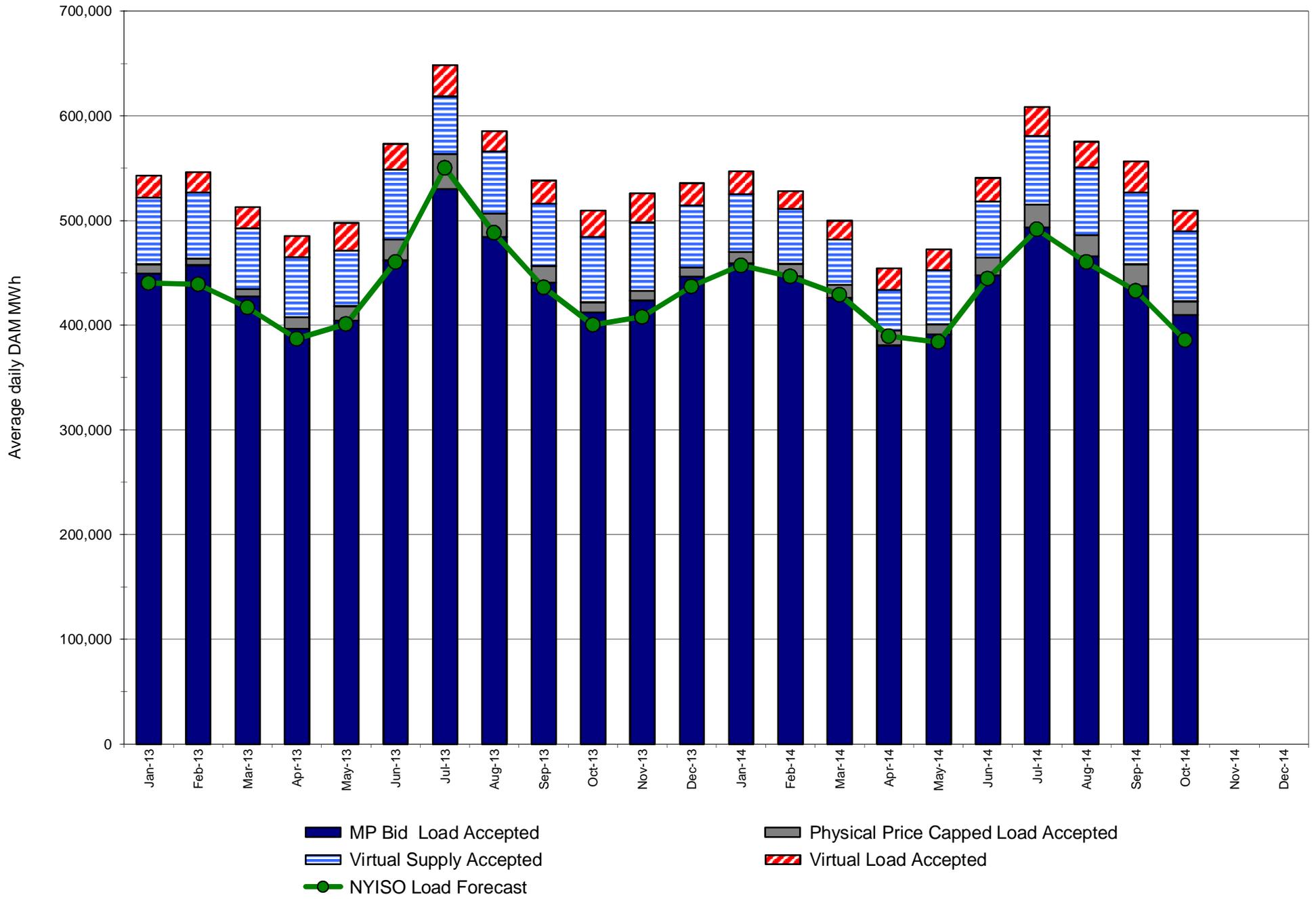
## NYISO In City Energy Mitigation - AMP (NYC Zone) 2013 - 2014 Percentage of committed unit-hours mitigated



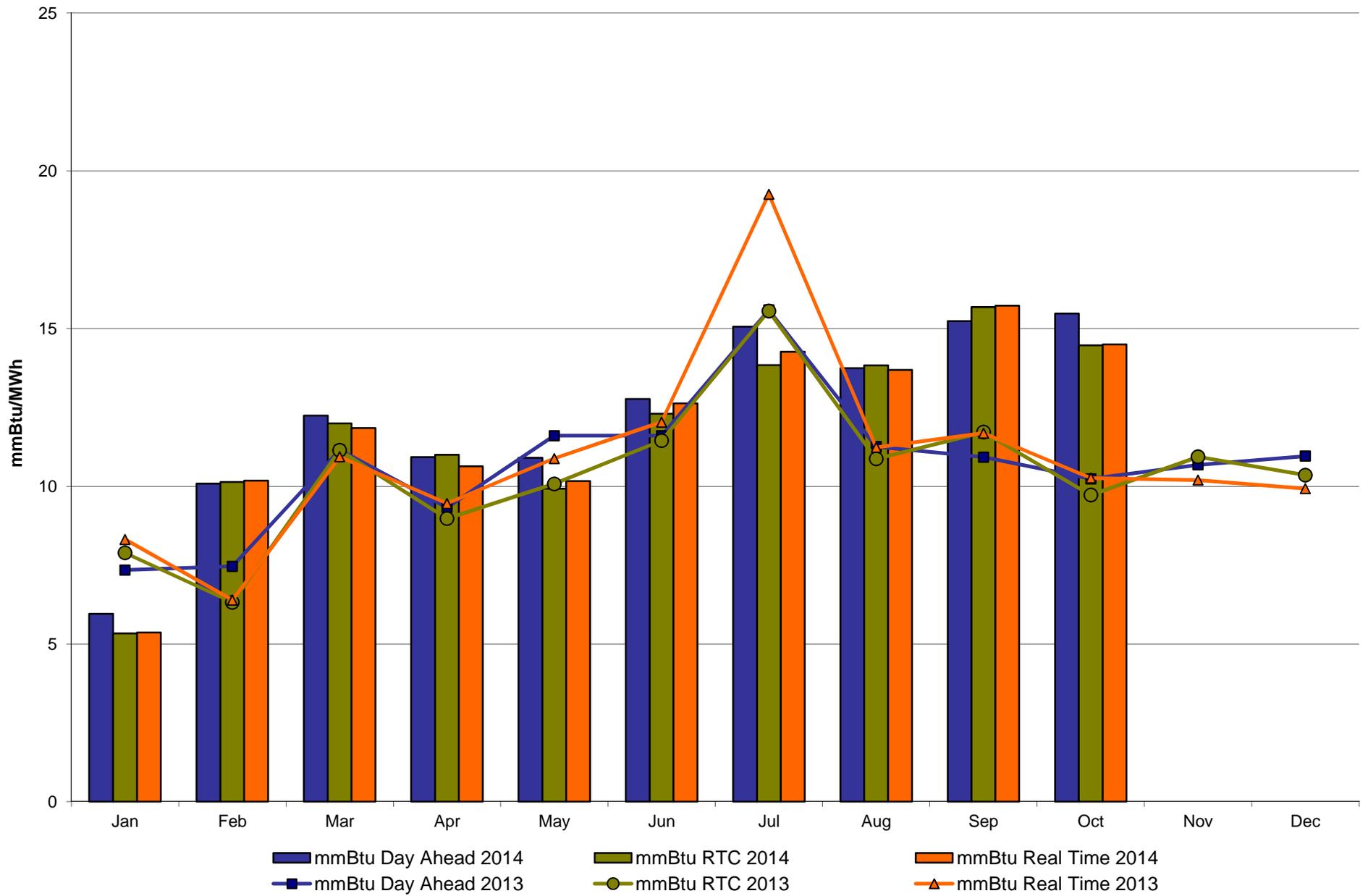
**NYISO In City Energy Mitigation (NYC Zone) 2013 - 2014  
Monthly megawatt hours mitigated**



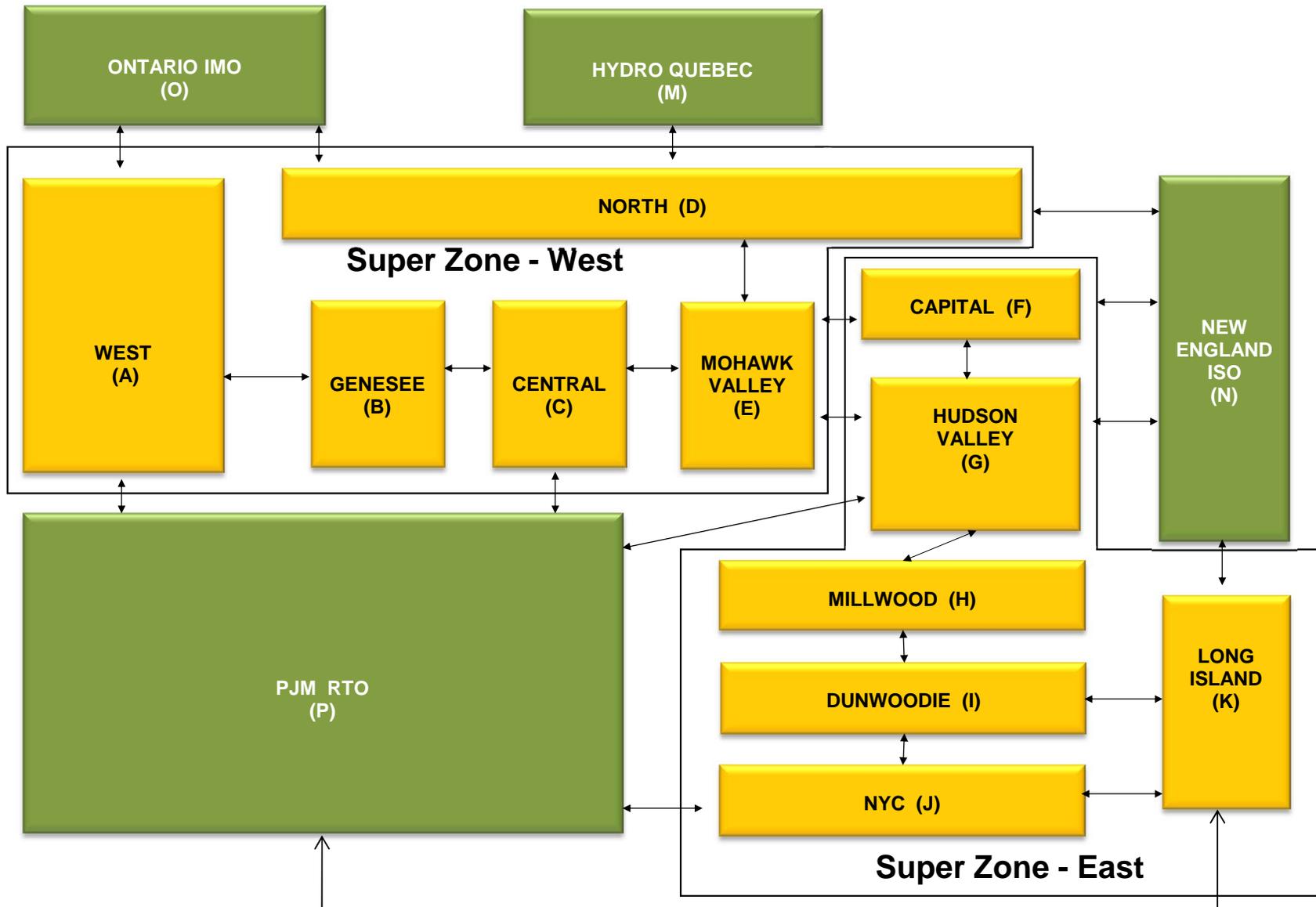
### NYISO Average Daily DAM Load Bid Summary



## Monthly Implied Heat Rate 2013-2014



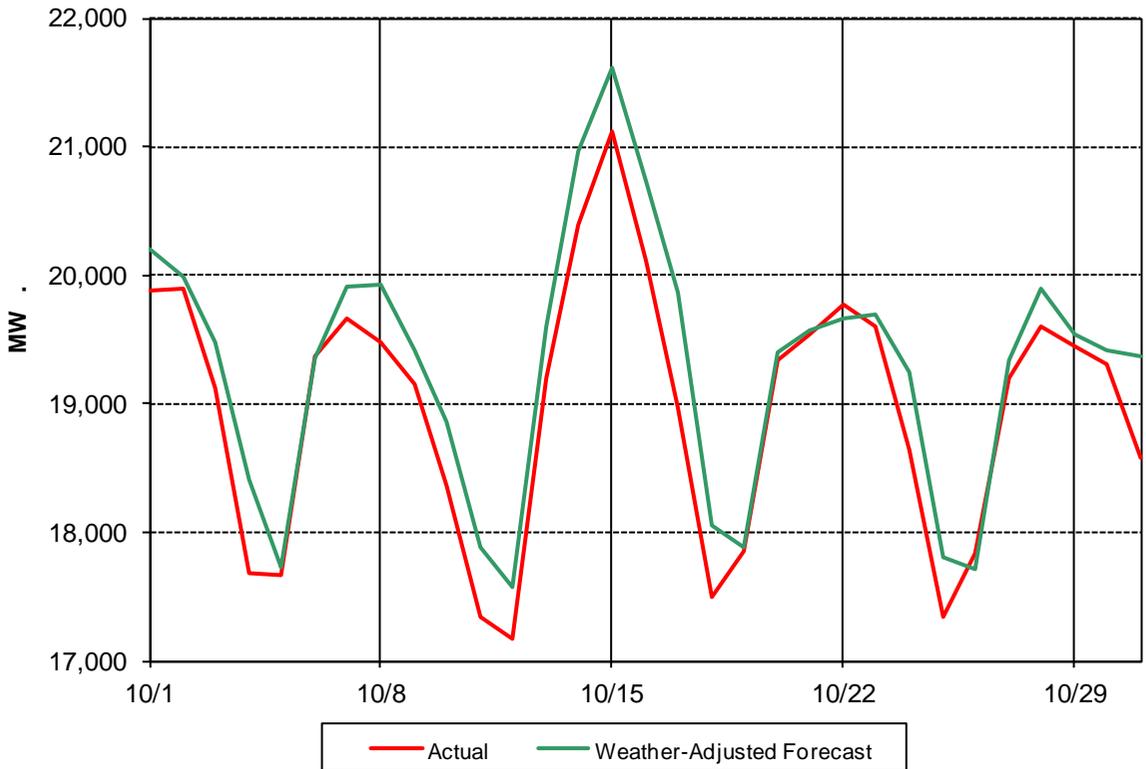
# NYISO LBMP ZONES



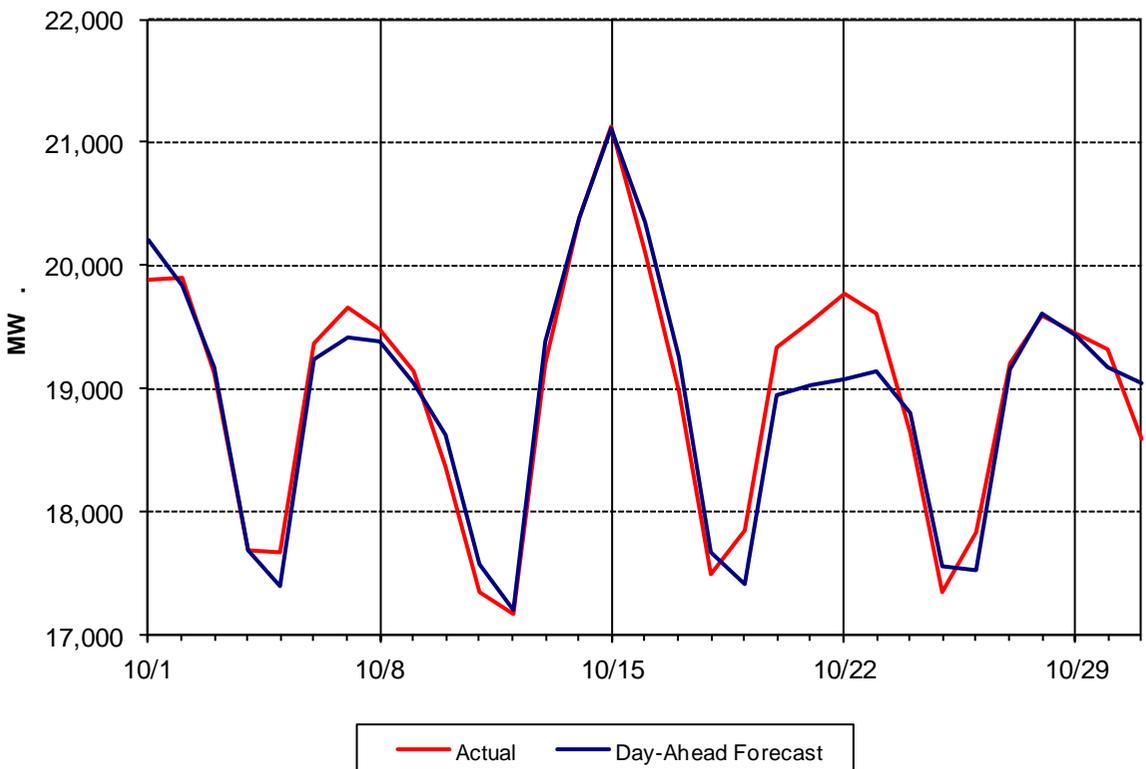
**Billing Codes for Chart 4-C**

<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

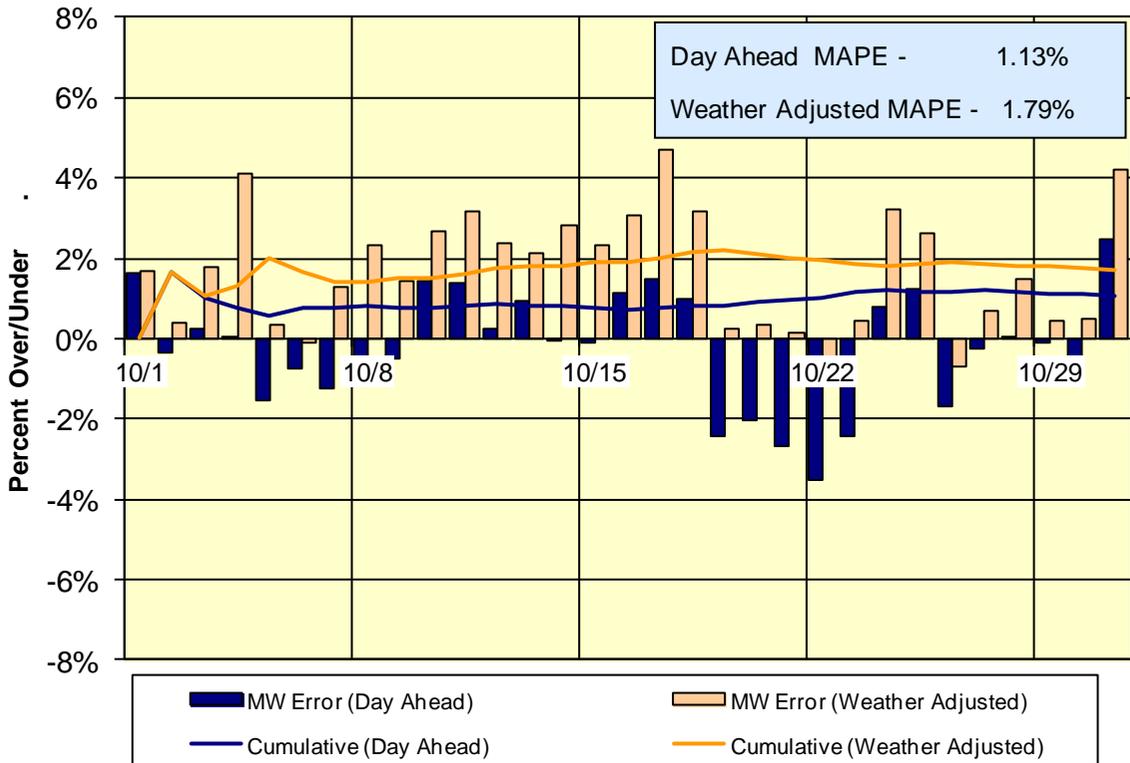
**NYISO Daily Peak Load - October 2014  
Actual vs. Weather-Adjusted Forecast**



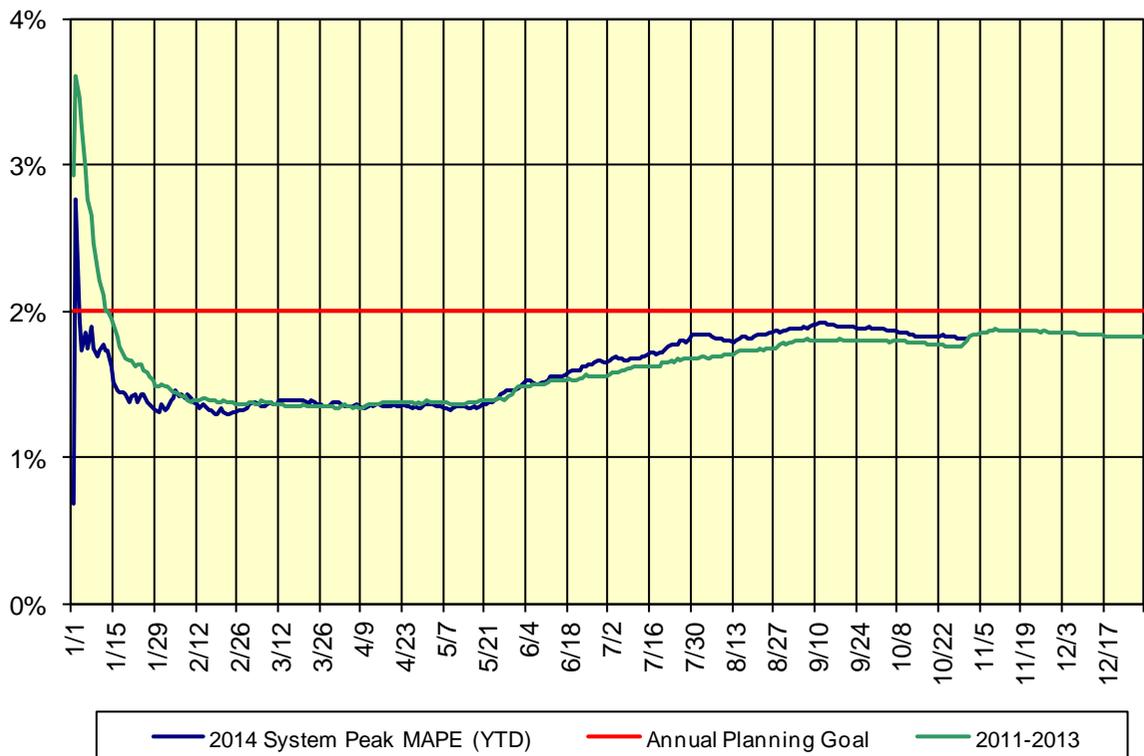
**NYISO Daily Peak Load - October 2014  
Actual vs. Forecast**



### Day Ahead Peak Forecast - October 2014 Percent Error - Actual & Weather Adjusted



### Day-Ahead Forecast Accuracy - Cumulative Performance 2014 Year-to-Date



## Summary Description of Regulatory Filings, Investigations, Rulemakings and Related Orders in NYISO Matters – October 2014

Filing Date	Filing Summary	Docket	Order Date	Order Summary
08/01/2014	NYISO/NYTO joint compliance filing per Order No. 792 re: revisions to the OATT Small Generator Interconnection Agreement and Procedures	RM13-2-000 ER14-2573-000	10/06/2014	FERC deficiency letter requested additional information to be filed within 15 days (i.e., 10/21/2014) in order process the filing
08/08/2014	NYISO filing re: OATT and MST revisions to eliminate non-firm point-to-point transmission service for external transactions	ER14-2623-000	10/08/2014	FERC order accepted tariff revisions effective 10/09/2014, as requested
10/01/2014	NYISO filing re: post technical conference comments on the trading of natural gas and the proposal to establish an electronic information and trading platform	AD14-19-000		
10/03/2014	NYISO filing re: to incorporate into OATT Attachment L, Table 1A amendments or corrections to ETAs that have become Accepted Revisions since the last Section 205 filing on this topic	ER15-23-000		
10/03/2014	NYISO filing to the PSC re: proposals for Public Policy Transmission Needs that were submitted to the NYISO by stakeholders and other interested parties	Case No. 14-E-0454		
10/07/2014	NYISO refiling re: unexecuted minimum oil burn agreement between TC Ravenswood, LLC and the NYISO to defer Commission action for an additional 60 days	ER14-1822-003		
10/08/2014	NYISO compliance filing re: setting the tariff effective date for the accepted tariff revisions to implement External Coordinated Transaction Scheduling with ISO-NE	ER12-701-002		
10/08/2014	NYISO compliance filing re: setting the tariff effective date for the accepted tariff revisions to implement External Coordinated Transaction Scheduling with PJM	ER14-552-001		
10/08/2014	NYISO compliance filing re: setting the tariff effective date for credit-related tariff revisions necessary to implement External Coordinated Transaction Scheduling	ER14-2552-001		
10/13/2014	NYISO filing to the PSC re: confidential documents comprising the NYISO's three-month <i>Reliability Commitment Data Report</i> for the period ending 09/30/2014	Matter No. 10-02007		

10/14/2014	NYISO filing re: third quarter 2014 Electric Quarterly Report	ER02-2001-000		
10/16/2014	NYISO and PJM joint filing re: notice of effective date for previously accepted Joint Operating Agreement revisions concerning the implementation of Coordinated Transaction Scheduling	ER14-2236-001		
10/16/2014	NYISO compliance filing re: notice to FERC and MPs that Coordinated Transaction Scheduling (CTS) with PJM will be activated on 11/04/2014 and to designate, in MST Section 4.4, all of NYISO's PJM proxy generator buses as CTS enabled	ER14-552-002		
10/20/2014	NYISO filing re: comments to the Department of Energy concerning the draft <i>National Electric Transmission Congestion Study</i>	No docket No.		
10/20/2014	NYISO filing re: request for rehearing of the Order No. 676-H compliance deadline for Public Key Infrastructure standards in WEQ-012	RM05-5-024		
10/20/2014	NYISO filing re: answer to a third party protest of the 09/15/2014, joint NYISO/NYTO compliance filing concerning the Order No. 1000 regional planning proceeding	ER13-102-006		
10/20/2014	NYISO, TC Ravenswood, Con Edison, City of New York, NYPA, and NYPSC joint filing re: an uncontested offer of settlement regarding the NYS Reliability Council Rule I-R3 (Loss of Generator Gas Supply – NYC)	ER14-1822-000		
10/21/2014	NYISO filing re: response to deficiency letter and refiling of Order No. 792 compliance concerning SGIA/SGIP revisions	ER14-2573-001		
10/22/2014	NYISO filing re: motion to intervene and comment concerning the FirstEnergy v. PJM complaint proceeding regarding demand response	EL14-55-000		
10/23/2014	NYISO filing re: answer to a third party protest and comment filed in response to the NYISO's 09/17/2014 filing proposing OATT revisions to permit voluntary sharing of certain non-public operational information with natural gas pipelines and local distribution companies	ER14-2895-000		