



# Monthly Report

July 2014

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



## ***July 2014 Report***

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

Prepared by NYISO Operations Analysis and Services, based on settlements initial settlement data collected on or before August 9, 2014.

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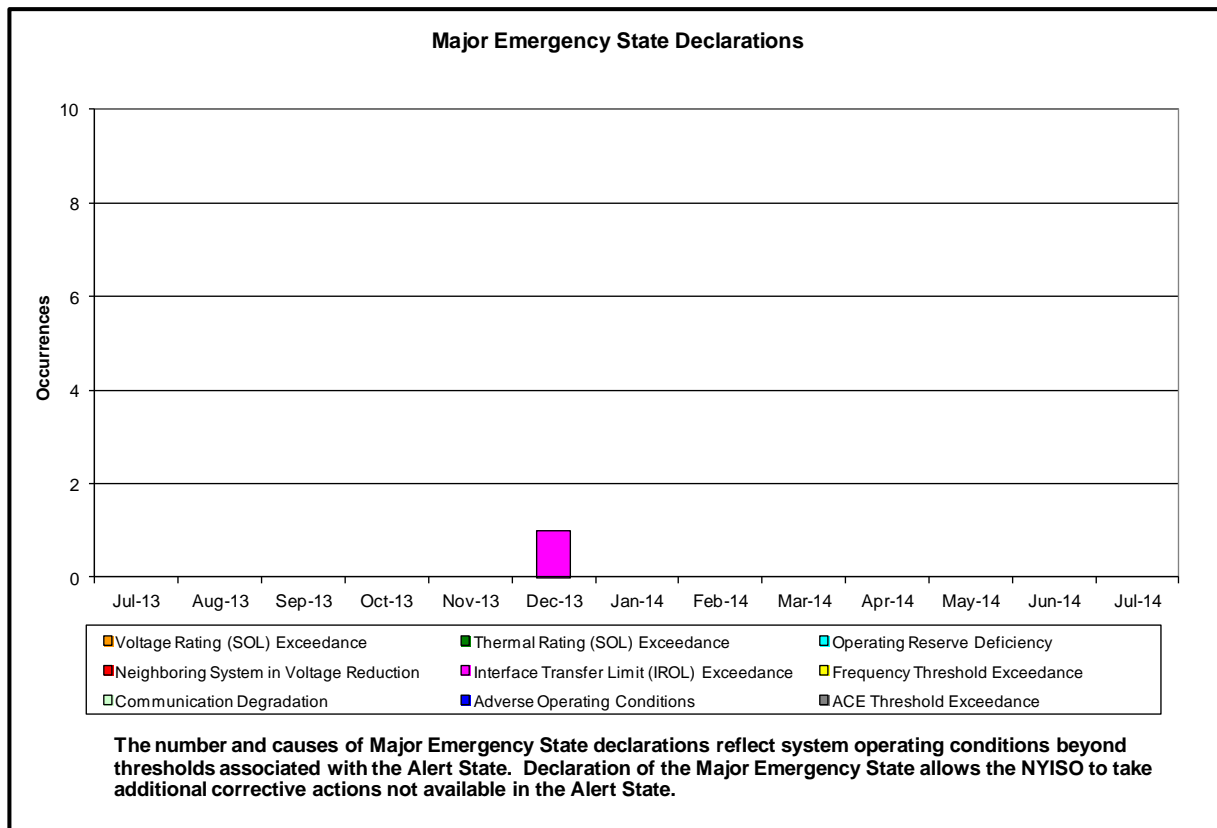
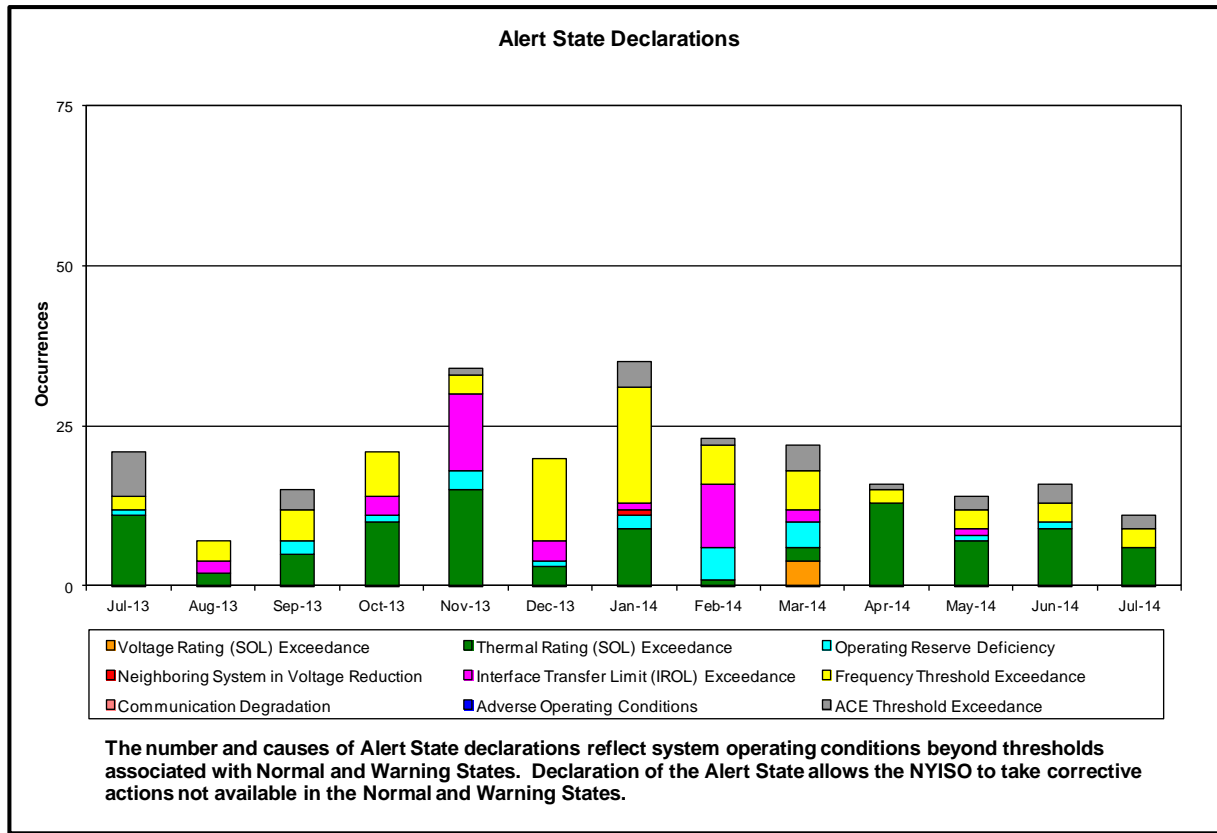
## July 2014 Operations Performance Highlights

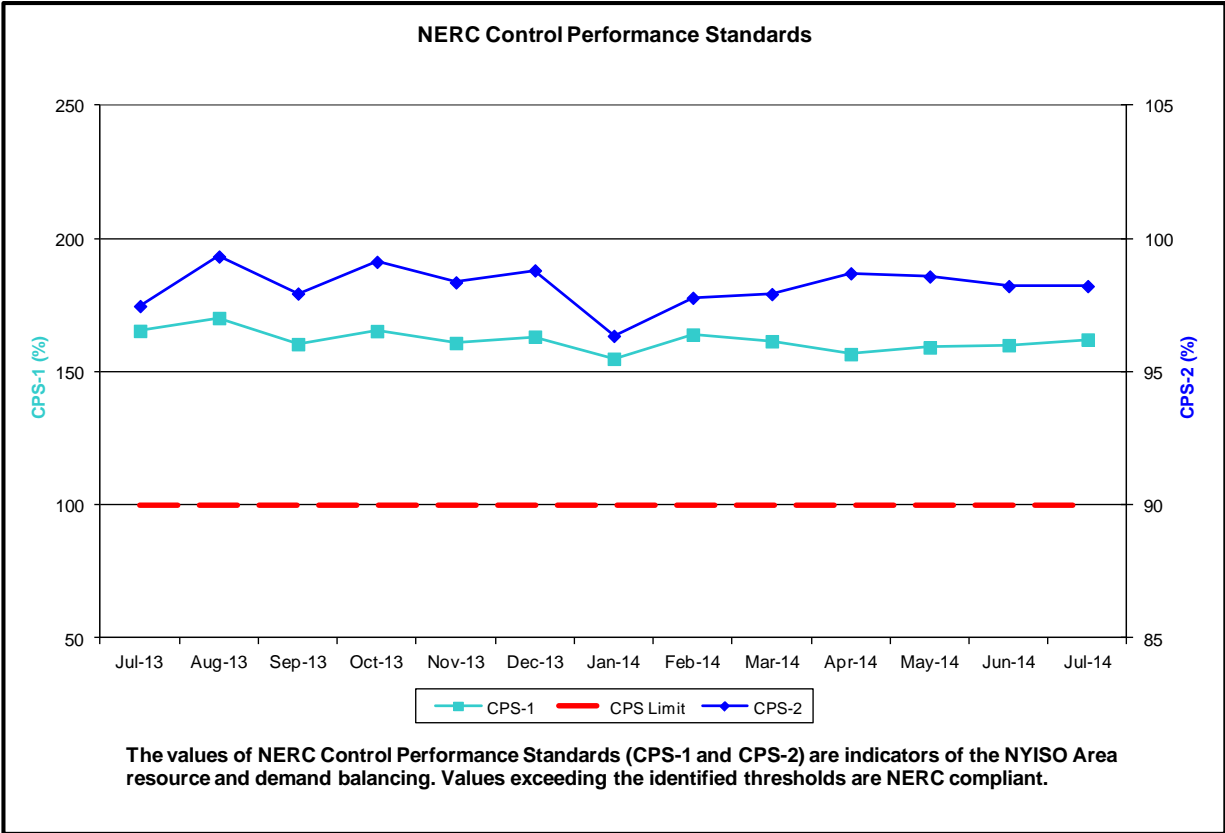
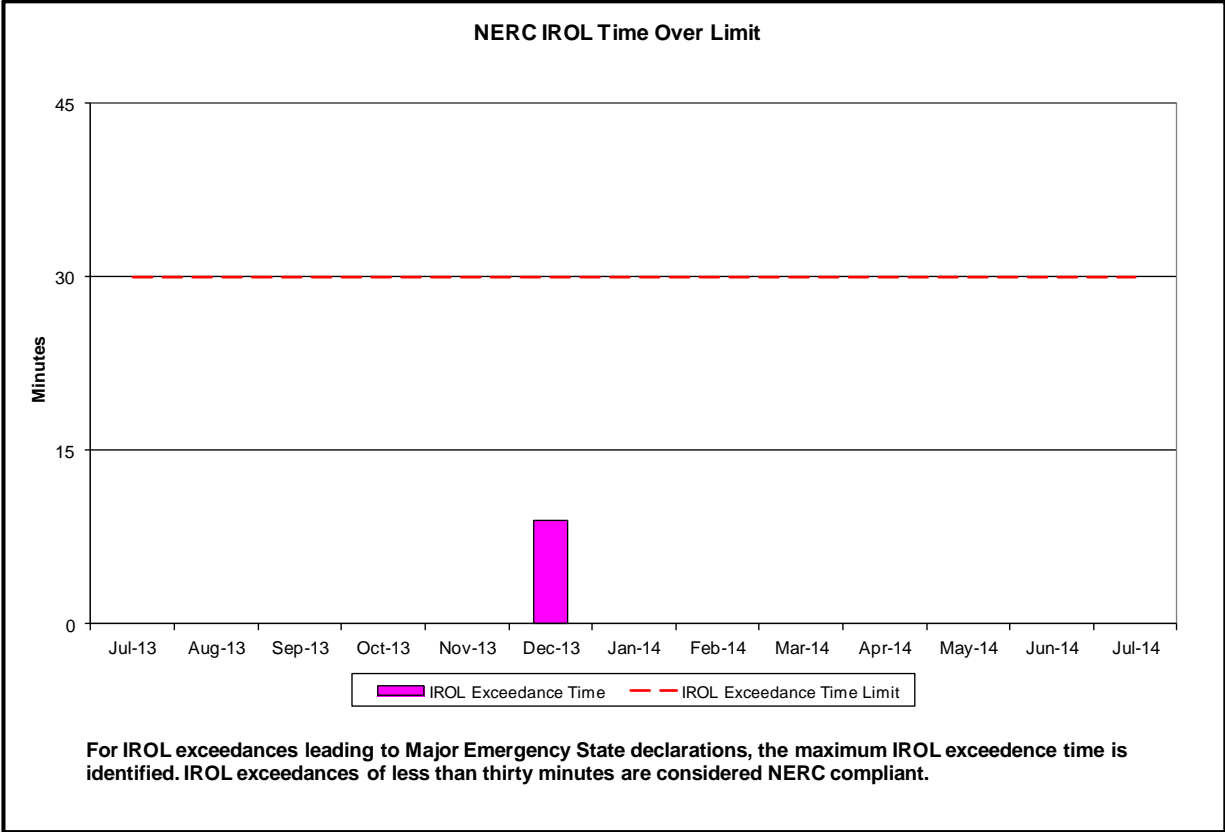
- Peak load of 29,331 MW occurred on 7/1/2014 HB 16
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 35 hours of Thunder Storm Alerts were declared
- 1 hours of NERC TLR level 3 curtailment
- Broader Regional Market Coordination monthly value was \$0.51M
- Broader Regional Market Coordination year-to-date value was \$6.66M
- Statewide uplift cost monthly average was \$(0.55)/MWh
- The following table identifies the Monthly ICAP spot market prices by locality and the price changes from the prior month,

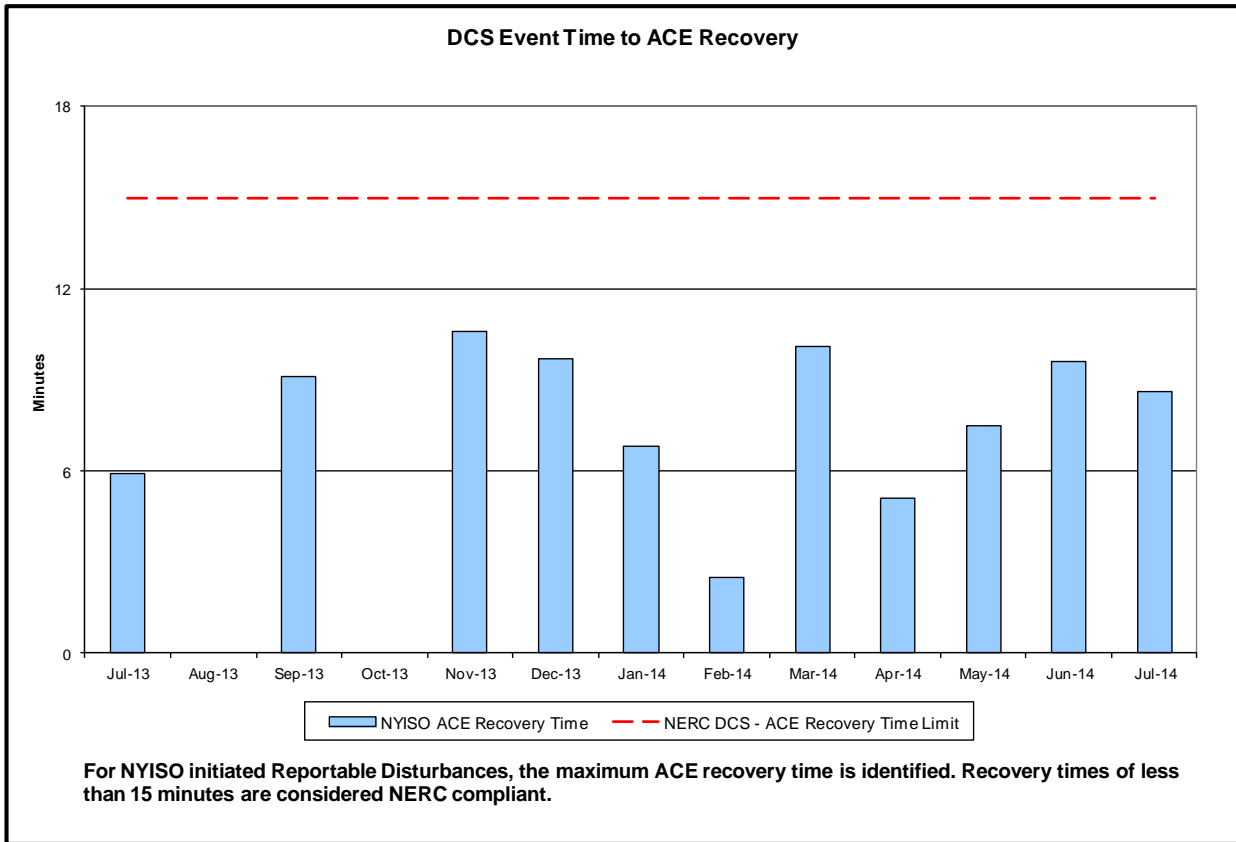
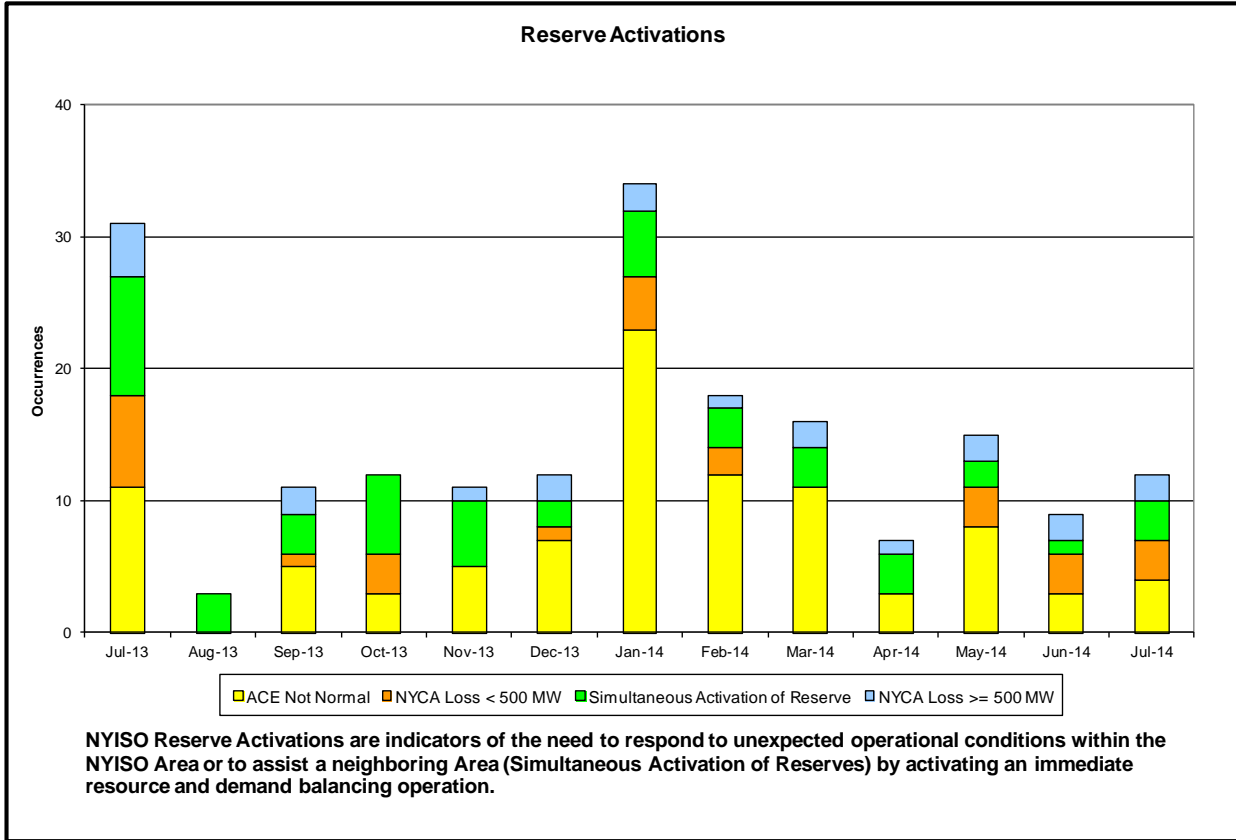
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
August 2014 Spot Price	\$5.80	\$12.25	\$18.56	\$6.47
Change from Prior Month	(\$0.30)	(\$0.07)	(\$0.13)	\$0.01

- NYCA - Price is reduced by \$0.30 due to an increase in Generation UCAP of 87.3 MW and an increase in imports by 88.4 MW UCAP, mostly from PJM.
- NYC - Price is reduced by \$0.13 due to 12.5 MW increase in Generation UCAP

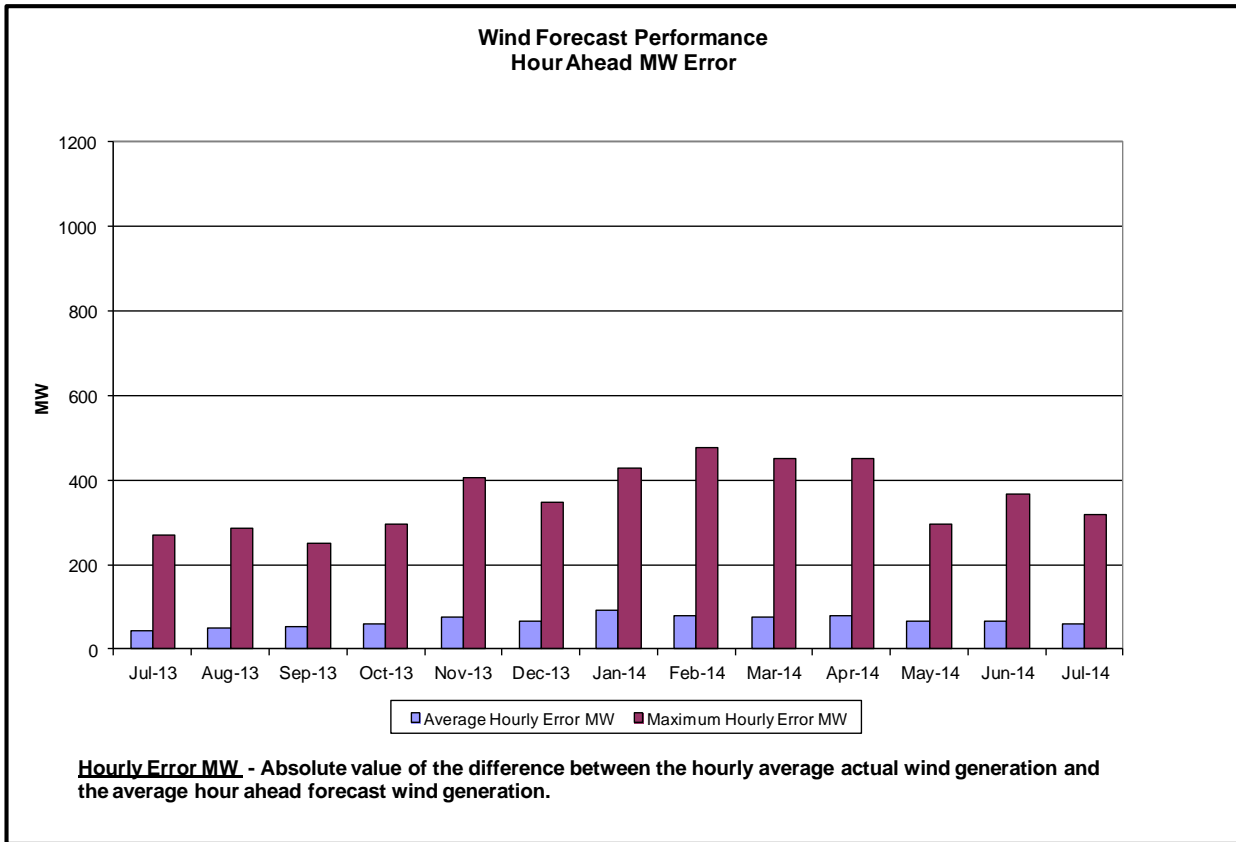
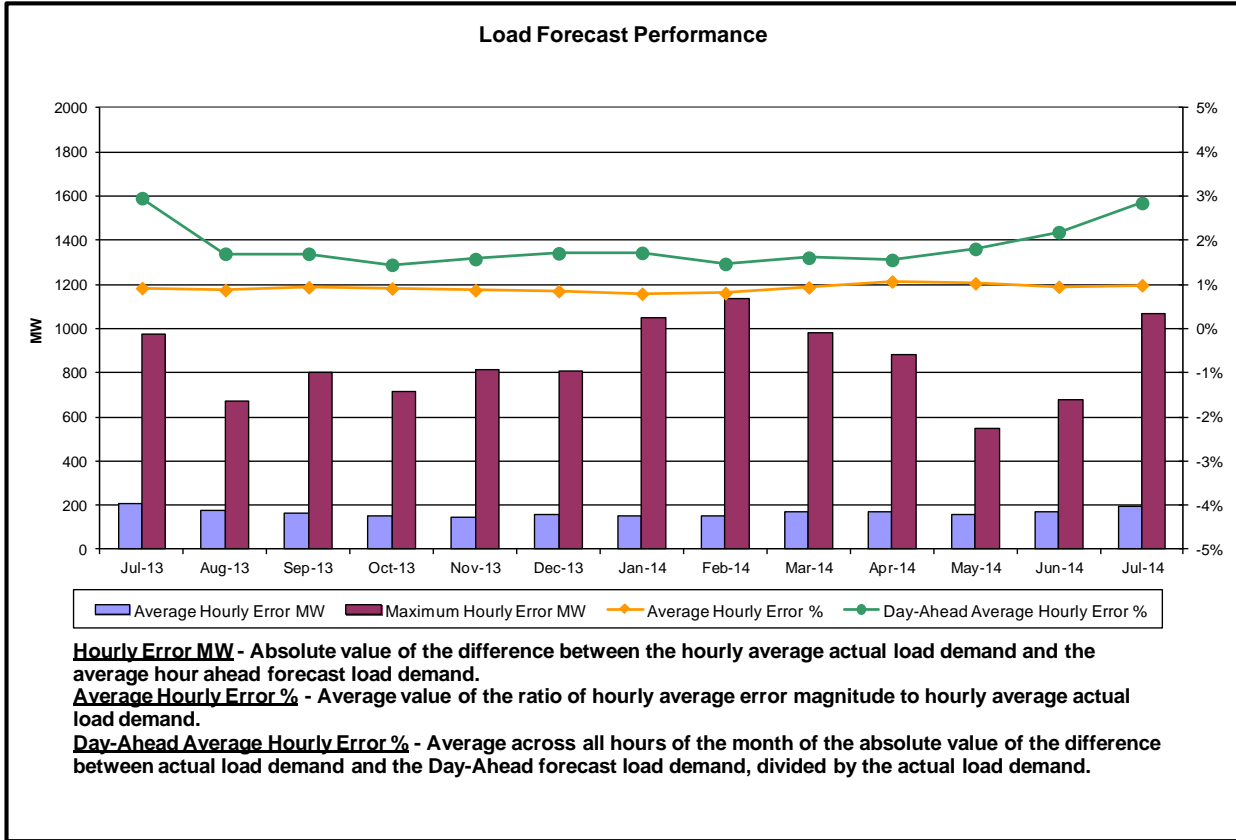
## Reliability Performance Metrics

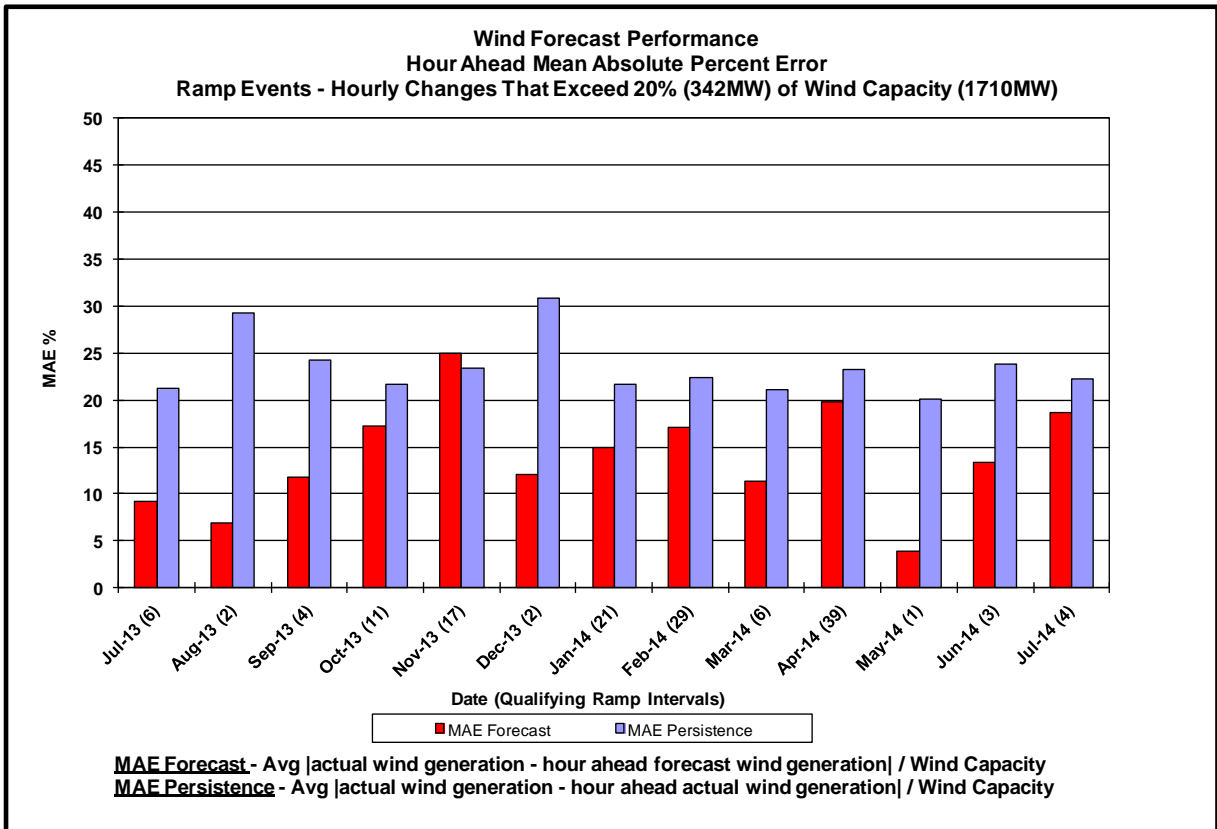
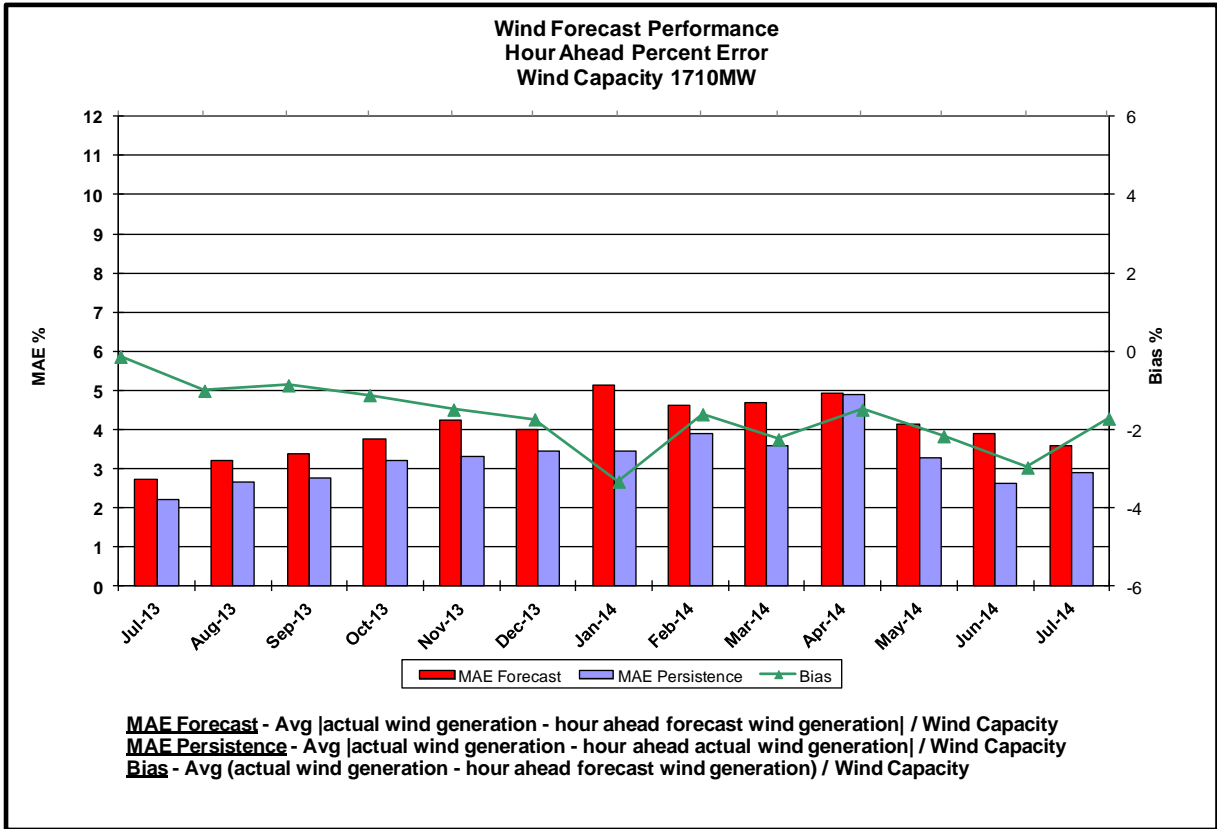


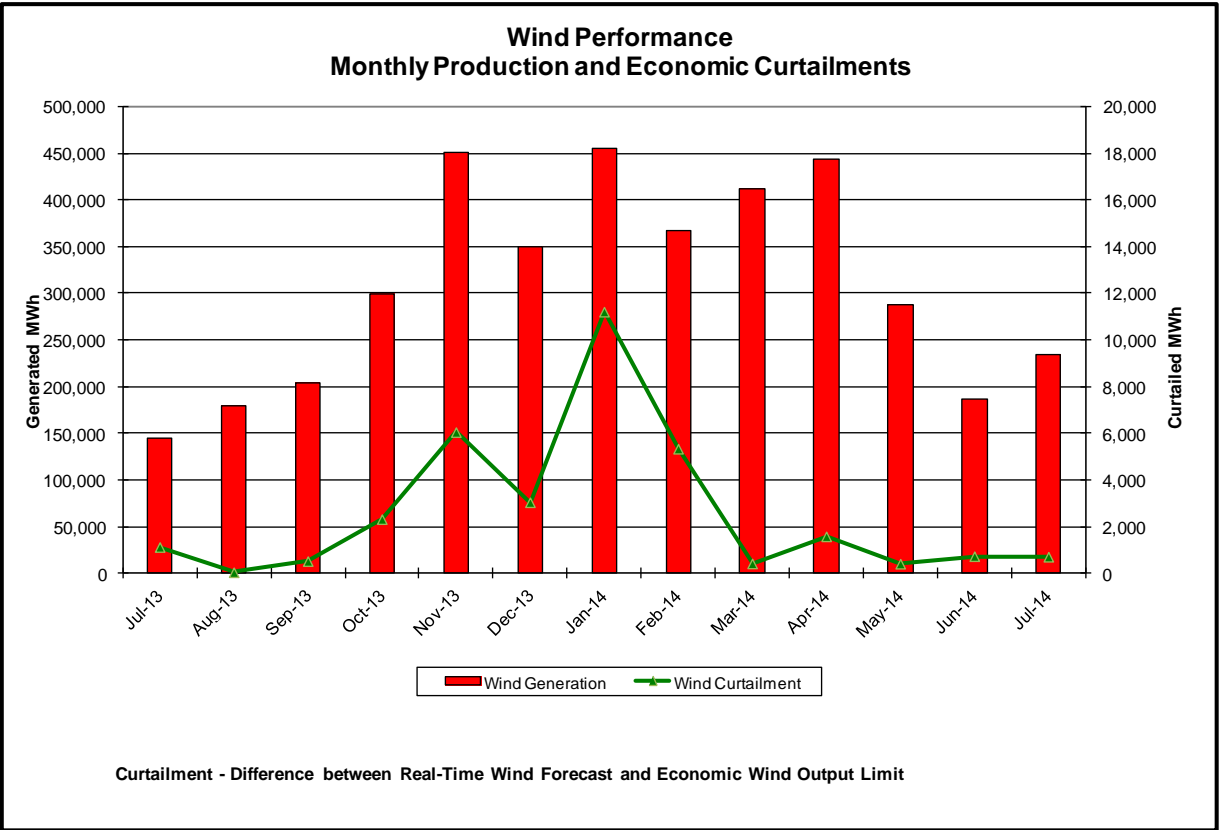
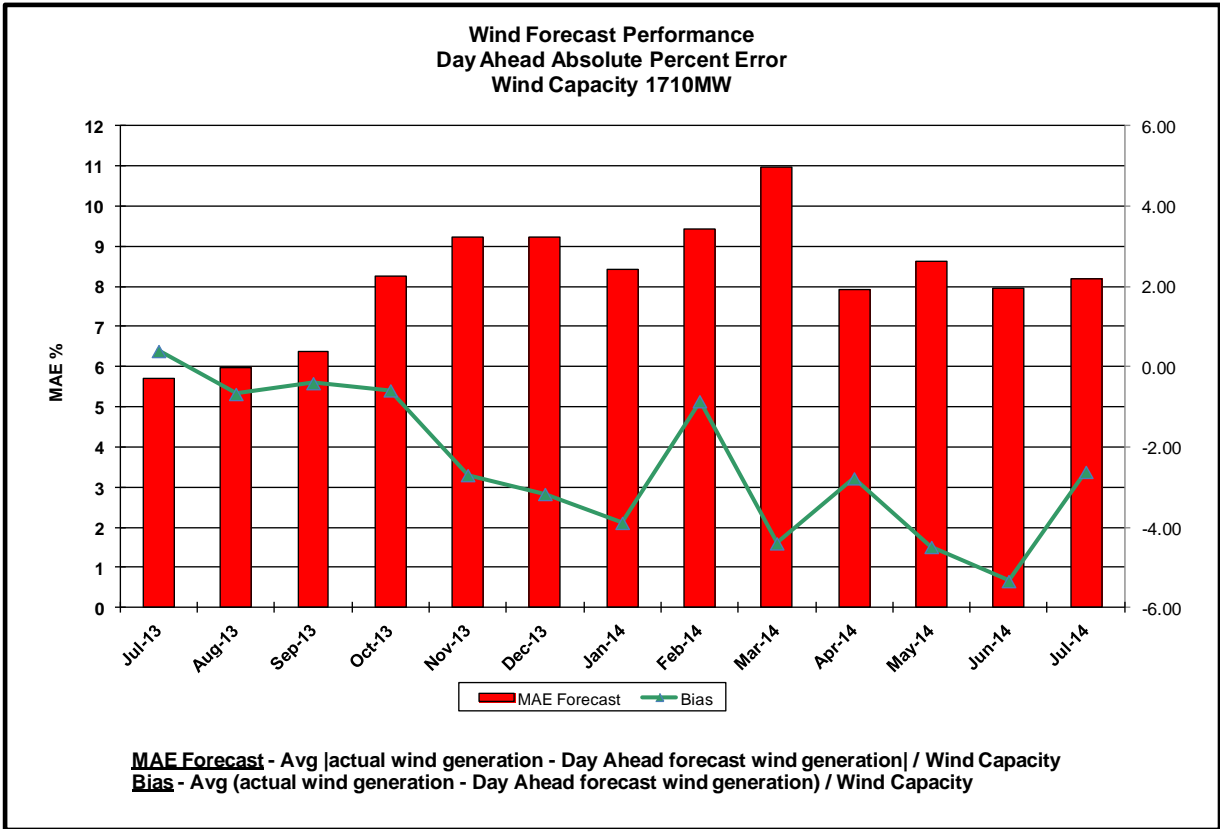


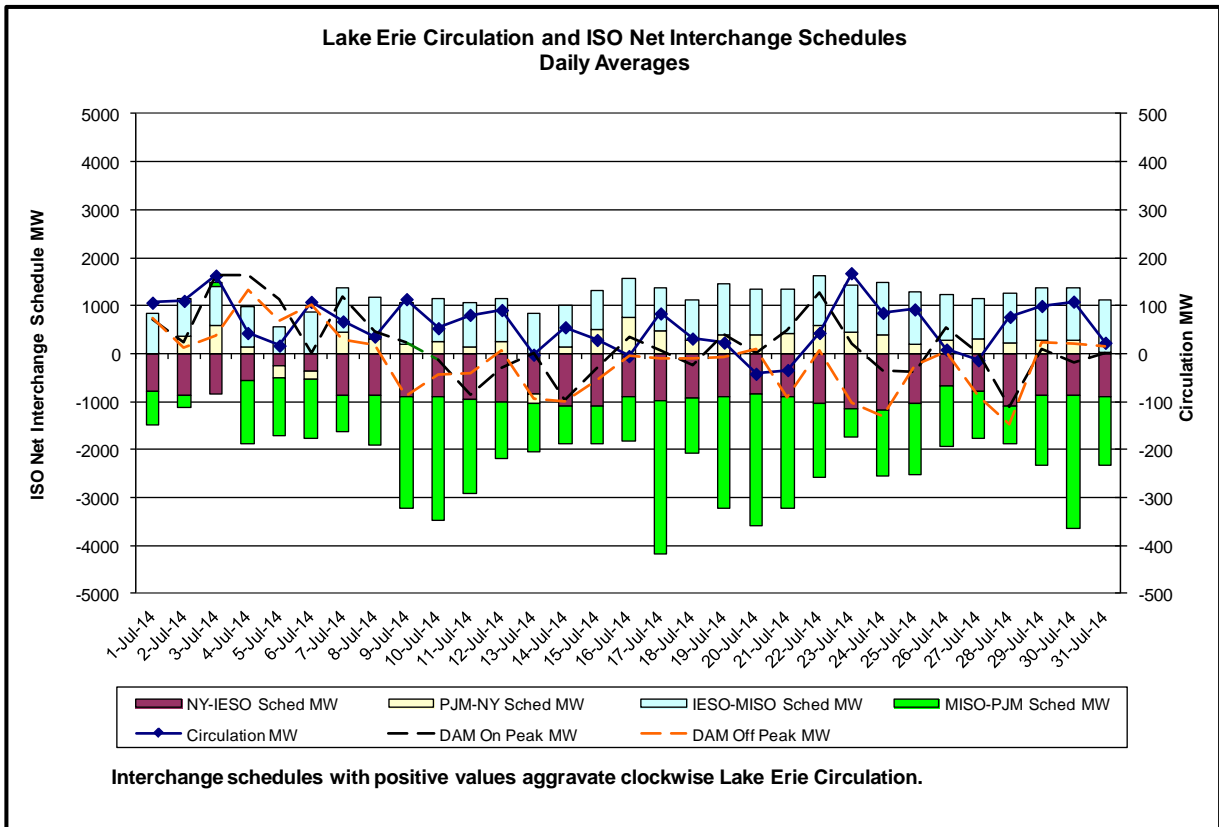
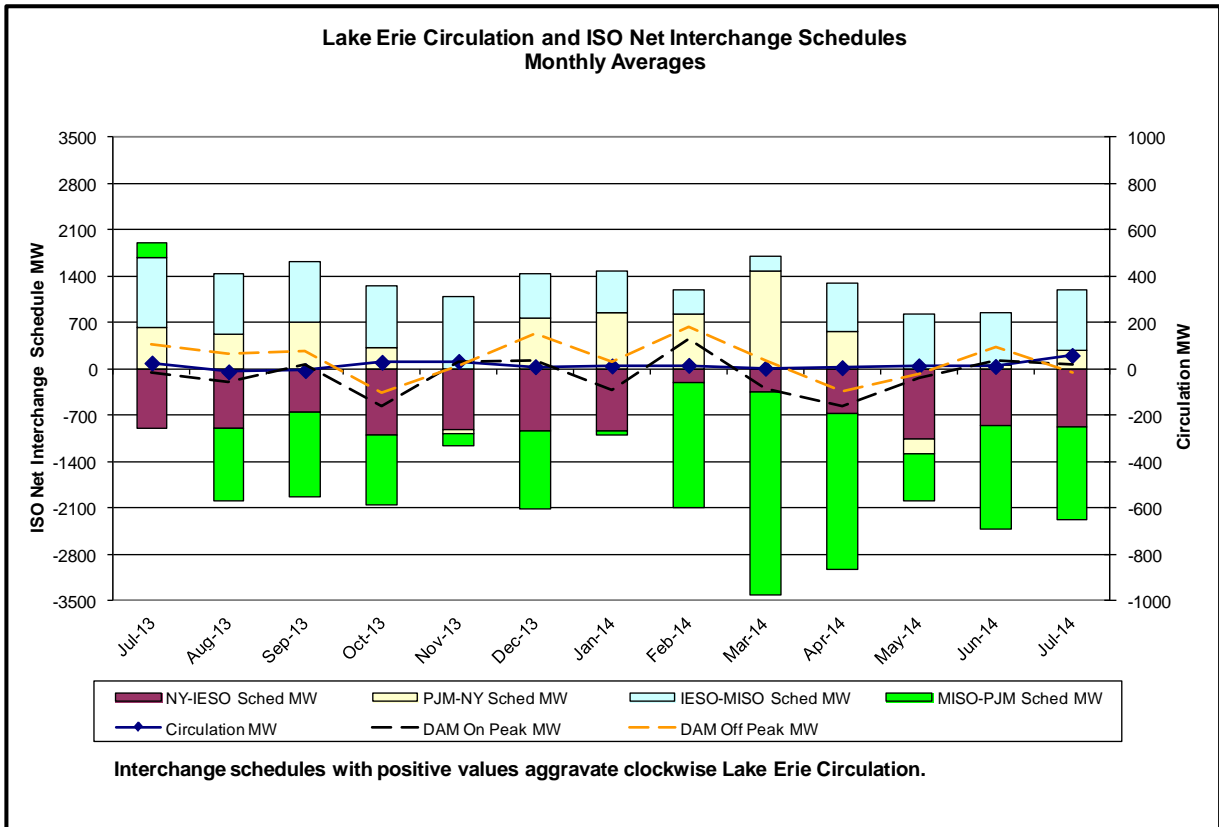




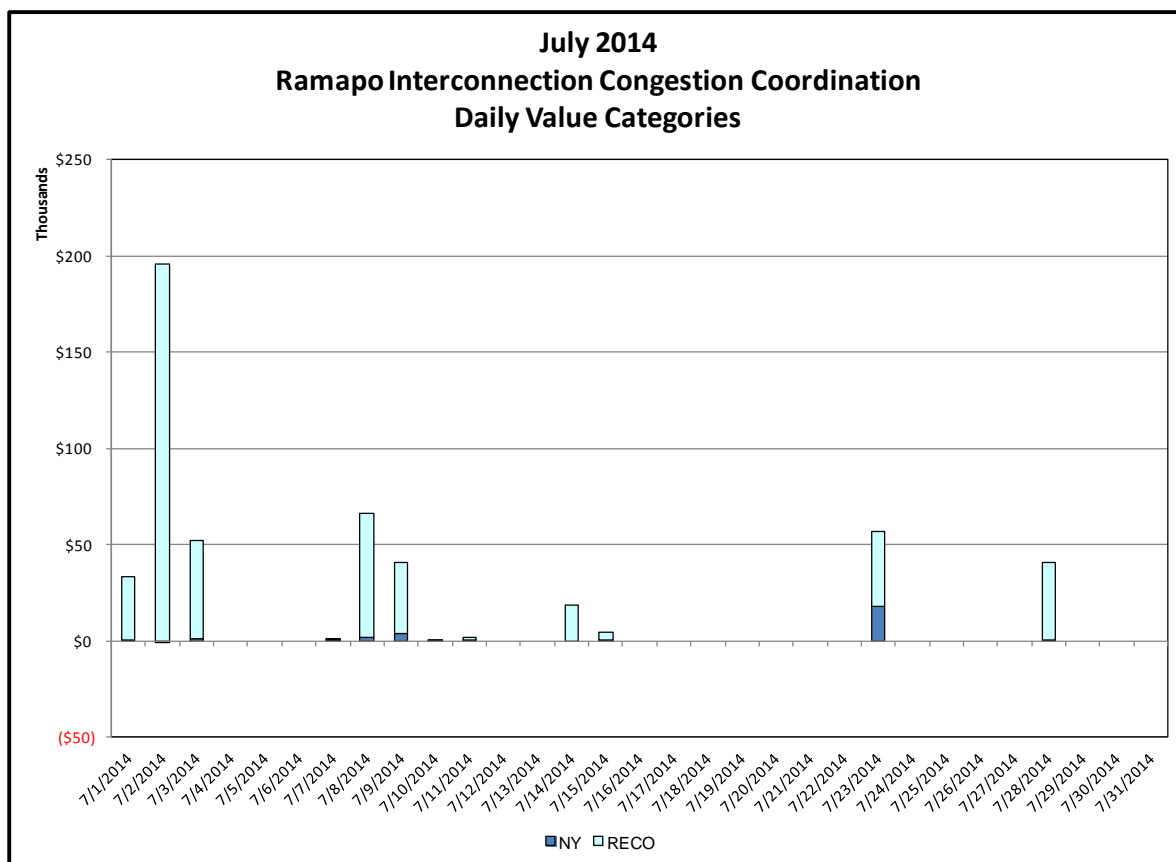
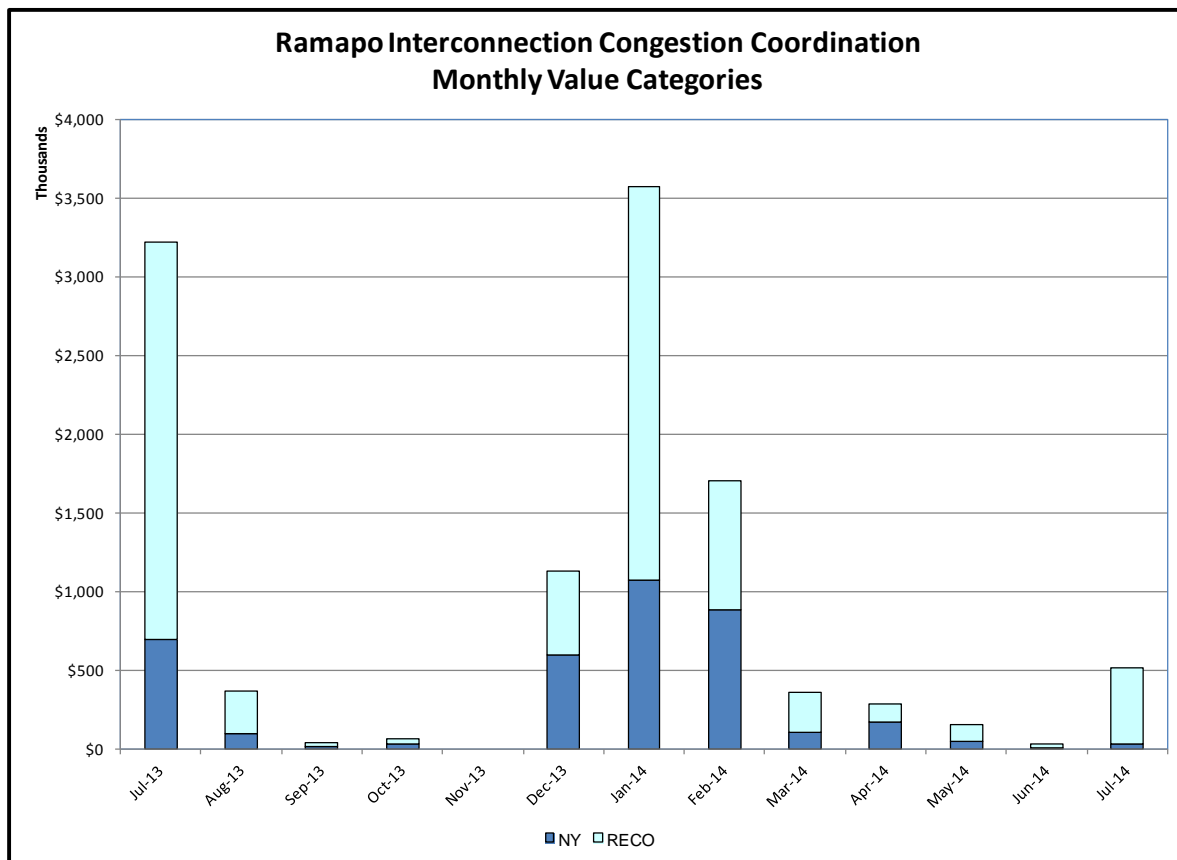






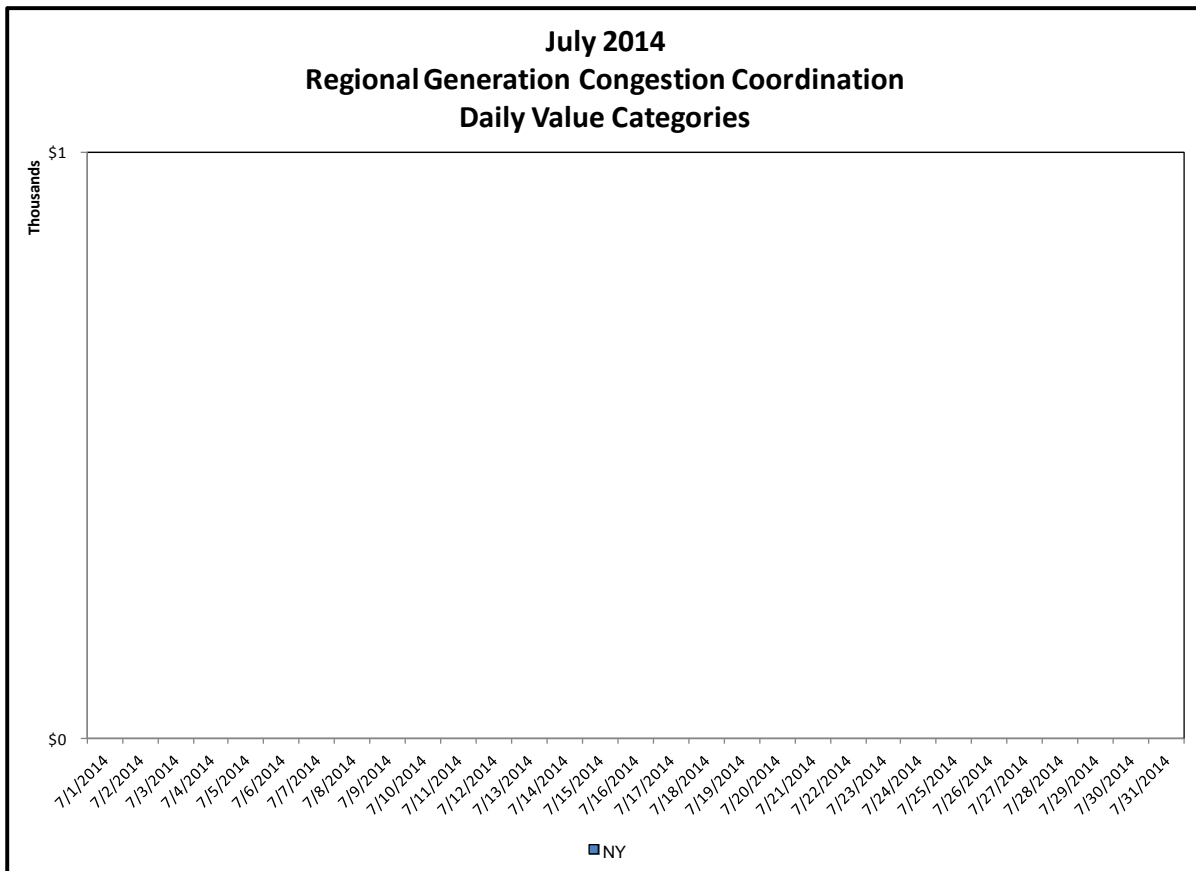
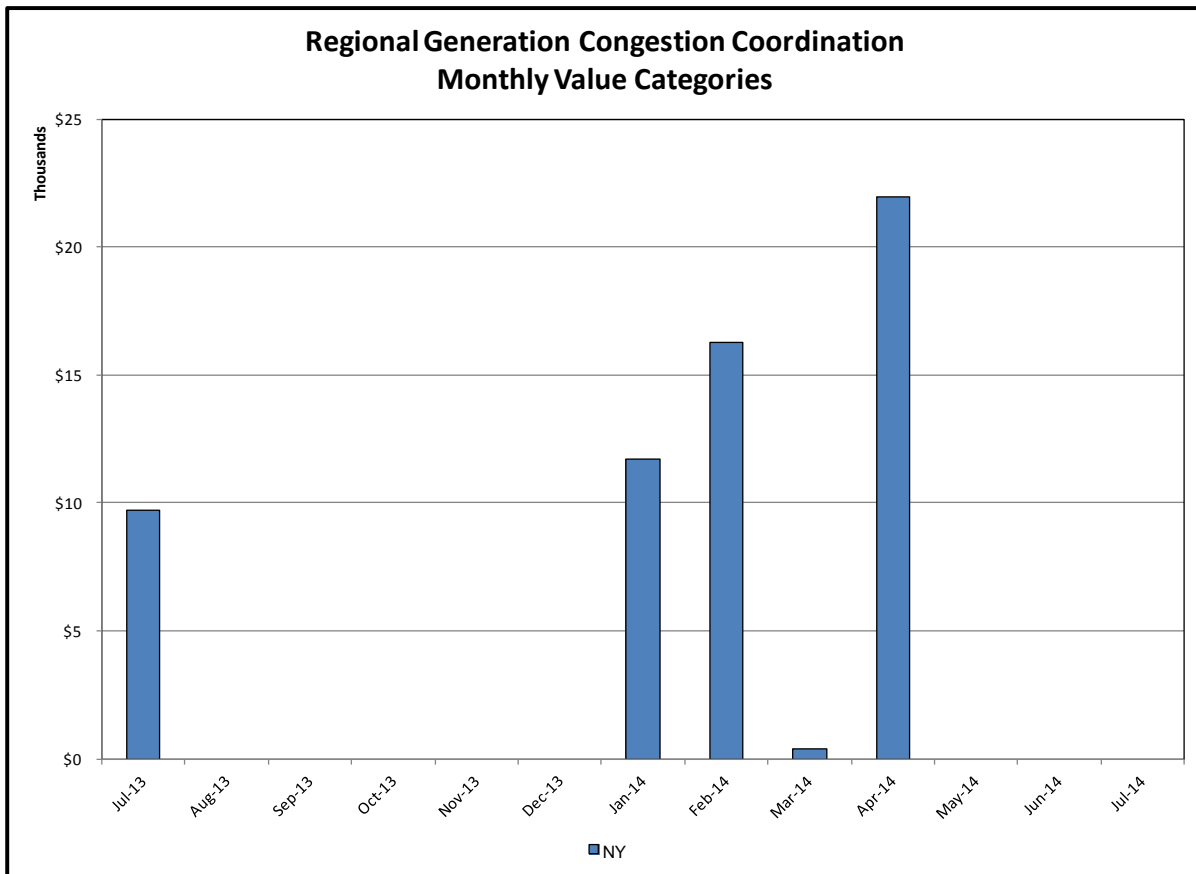


## Broader Regional Market Performance Metrics



**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

Category

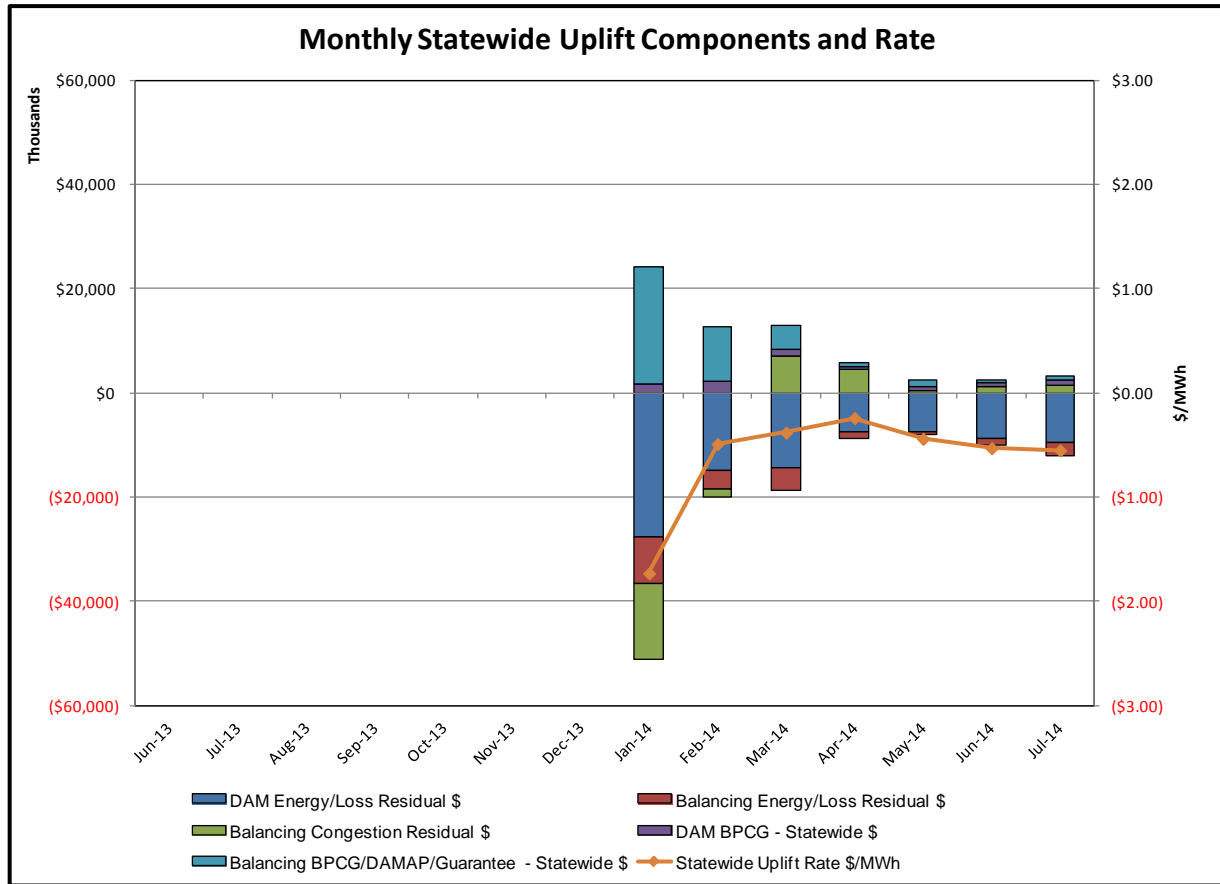
NY

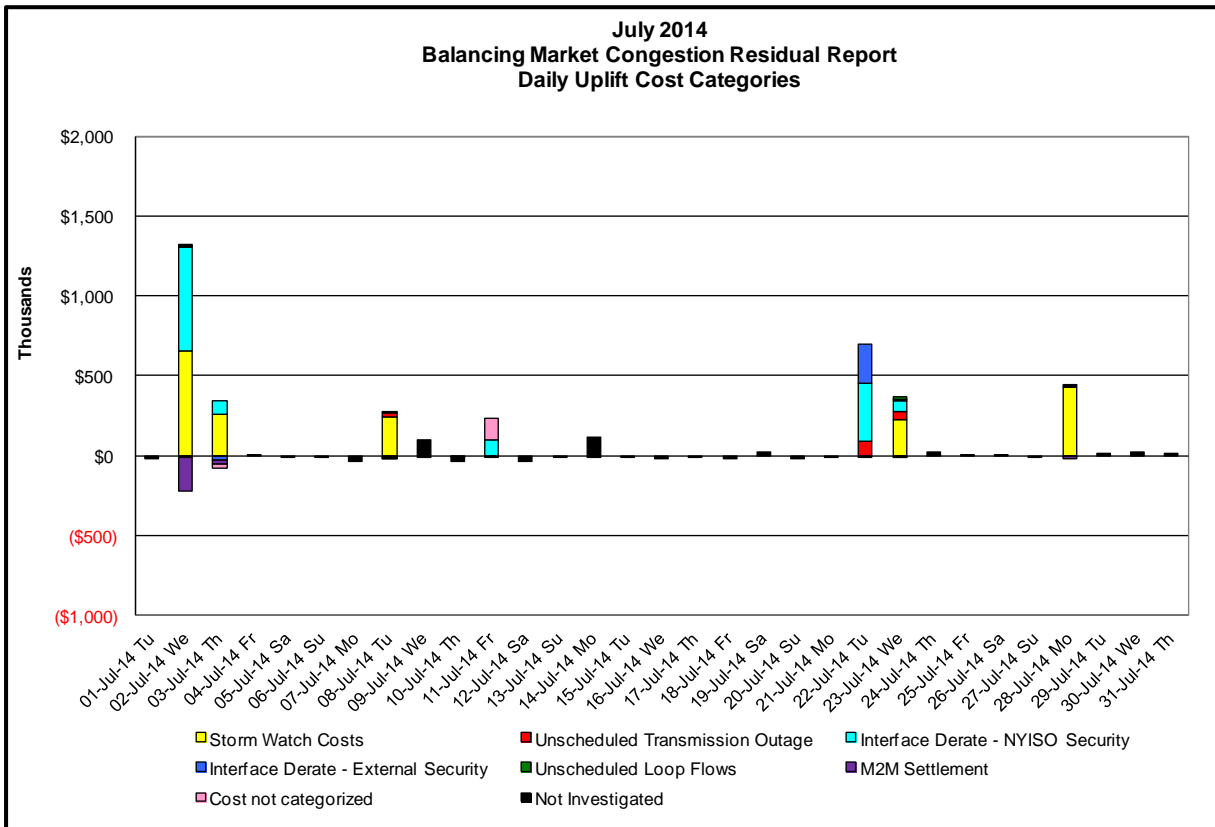
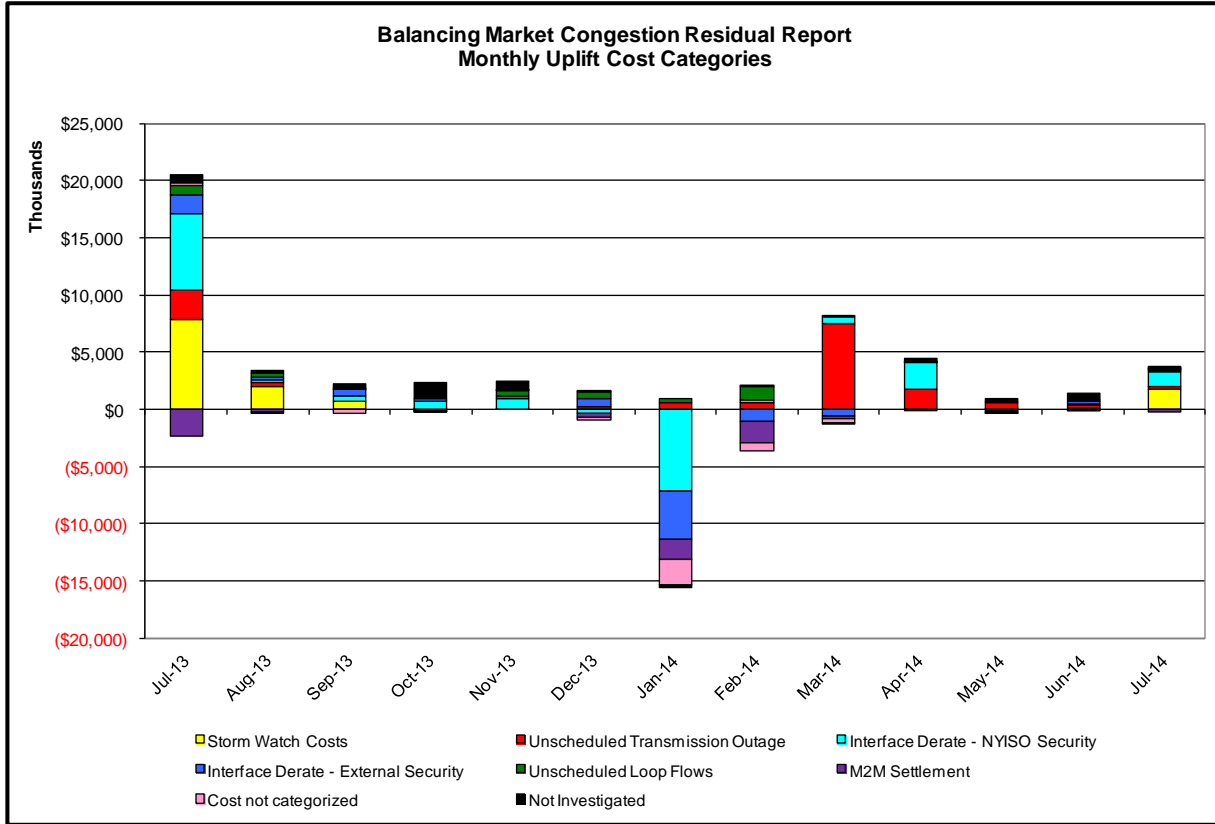
Description

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





Day's investigated in July: 2,3,8,11,22,23,28

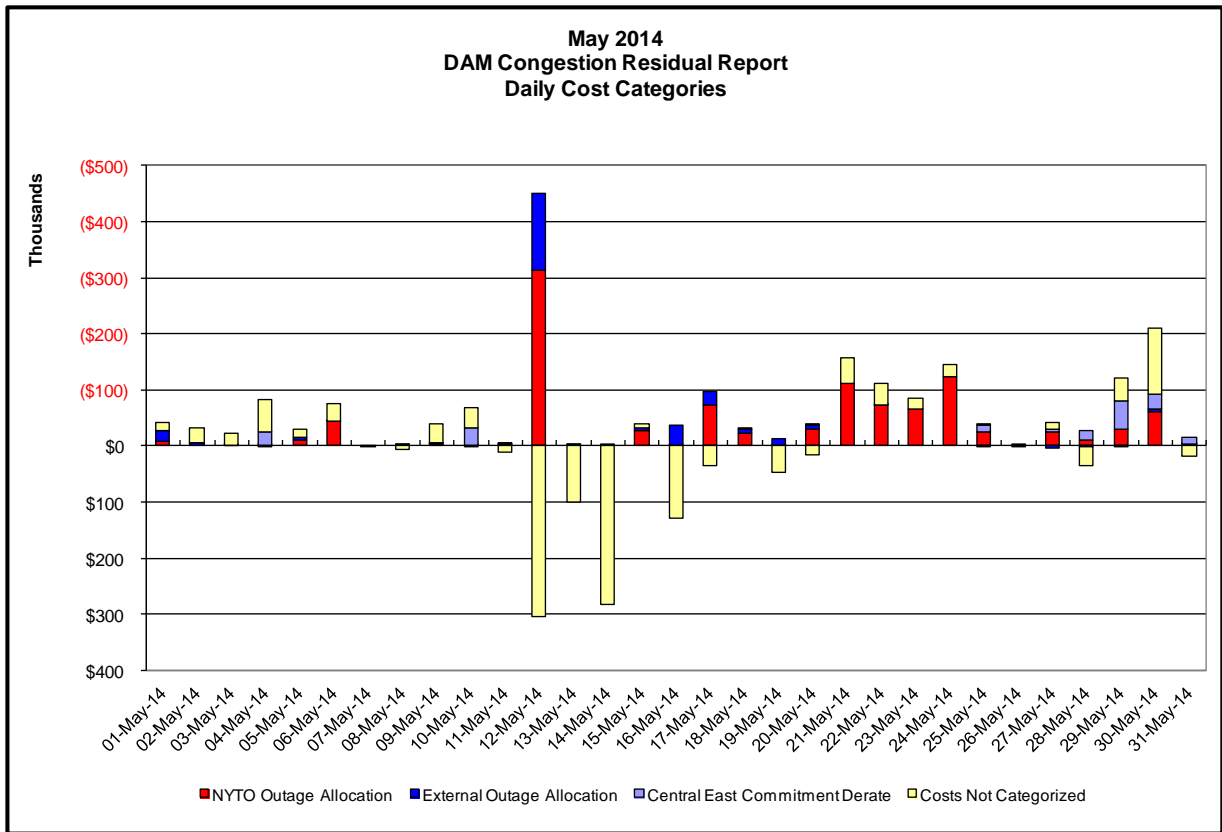
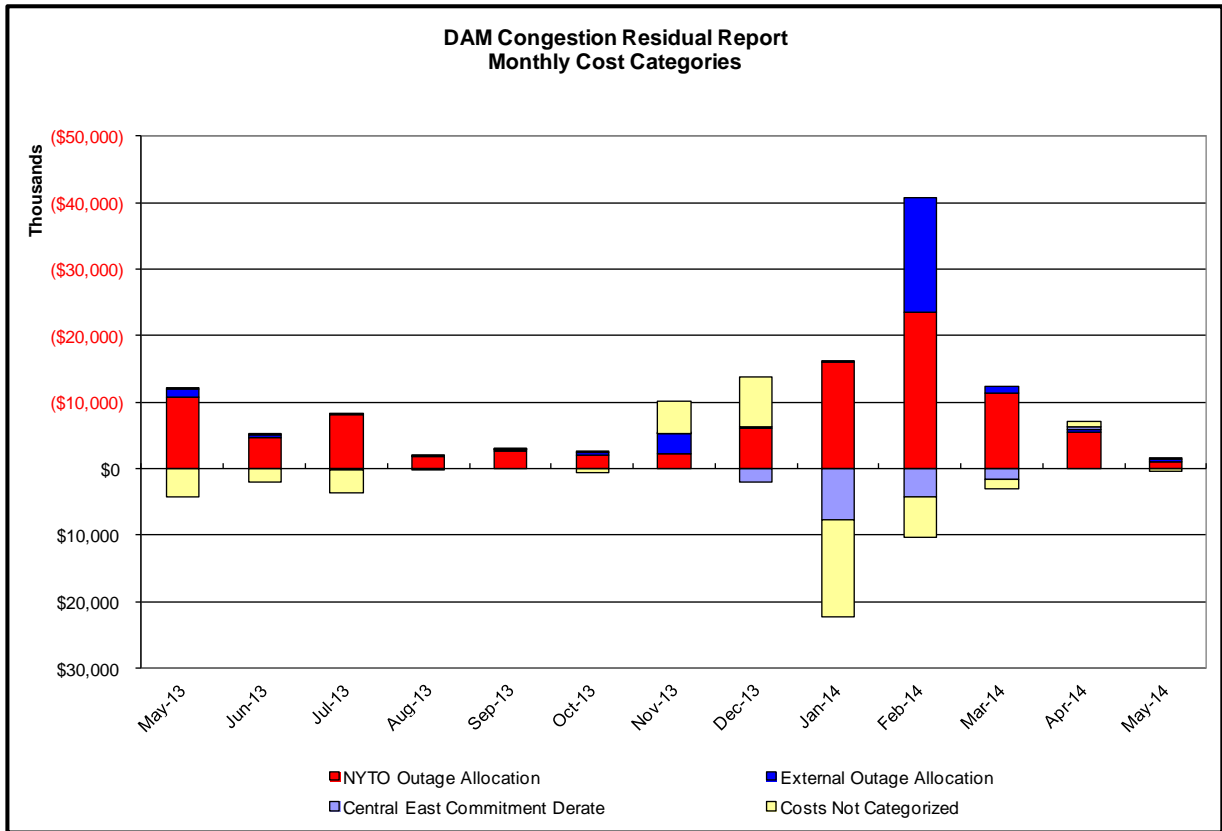
Event	Date (yyyymmdd)	Hours	Description
	7/2/2014	13-21	Thunder storm Alert
	7/2/2014	14	Derate E179St-Heil Gate 138kV (#15053)
	7/2/2014	12-18	Derate Farragut-Gowanus 345kV (#42)
	7/2/2014	14	Derate Gowanus-Greenwood 138kV (#42231)
	7/2/2014	11,17	Derate Gowanus-Greenwood 138kV (#42232)
	7/2/2014	2,23	IESO_AC DNI Ramp Limit
	7/2/2014	13	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Niagara-Packard 230kV (#61)
	7/3/2014	17-21	Thunder storm Alert
	7/3/2014	15-17	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB:SPBK(RNS2):Y49 & M29
	7/3/2014	16-18	Derate Farragut-Gowanus 345kV (#42)
	7/3/2014	0,6	IESO_AC DNI Ramp Limit
	7/8/2014	19-23	Thunder storm Alert
	7/8/2014	16	Forced outage Chateaugay DC 2 Pole Trip
	7/8/2014	15	Forced outage Vernon-Queensbridge 138kV (#31282)
	7/8/2014	14	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB:SPBK(RNS2):Y49 & M29
	7/8/2014	14	Derate Freshkills 345/138kV (#TA1) for I/o SCB:FRESHKILLS(6)
	7/8/2014	17	Uprate Pleasant Valley-Leeds 345kV (#92) for I/o Athens-Pleasant Valley 345kV (#91)
	7/8/2014	17	NYCA DNI Ramp Limit
	7/8/2014	14,15	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Huntley-Sawyer 230kV (#80)
	7/11/2014	14,15	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB:SPBK(RNS2):Y49 & M29
	7/11/2014	14,15,17	Derate Gowanus-Greenwood 138kV (#42231) for I/o TWR:GOETHALS 22 & 21
	7/11/2014	14,15,17	Derate Gowanus-Greenwood 138kV (#42232) for I/o TWR:GOETHALS 22 & 21
	7/22/2014	13	Forced outage Teall Avenue-Oswego 115kV (#10/13-ST)
	7/22/2014	16-21	Derate Huntley-Sawyer 230kV (#80) for I/o Huntley-Sawyer 230kV (#79)
	7/22/2014	14-16	Derate Niagara-Packard 230kV (#61) for I/o TWR:PACKARD 62 & BP76
	7/22/2014	15,18	HQ_Cedars-NY Scheduling Limit
	7/22/2014	14,18	NE_NNC1385 - NY Scheduling Limit
	7/23/2014	17-23	Thunder storm Alert
	7/23/2014	9-17	Forced outage Northport 1385-Northport 138kV (#1385)
	7/23/2014	22,23	NYCA DNI Ramp Limit
	7/23/2014	10-17	Derate Huntley-Sawyer 230kV (#80) for I/o Huntley-Sawyer 230kV (#79)
	7/23/2014	16-17	Derate Gowanus-Greenwood 138kV (#42232) for I/o SCB:GOWANUS(2):41&42231
	7/23/2014	10,11	HQ_Cedars-NY Scheduling Limit
	7/23/2014	10-14	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Huntley-Sawyer 230kV (#80)
	7/23/2014	11,13,14	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Packard-Sawyer 230kV (#78)
	7/28/2014	15-19	Thunder storm Alert
	7/28/2014	20	NYCA DNI Ramp Limit
	7/28/2014	1	IESO_AC DNI Ramp Limit
	7/28/2014	9	IESO_AC-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	

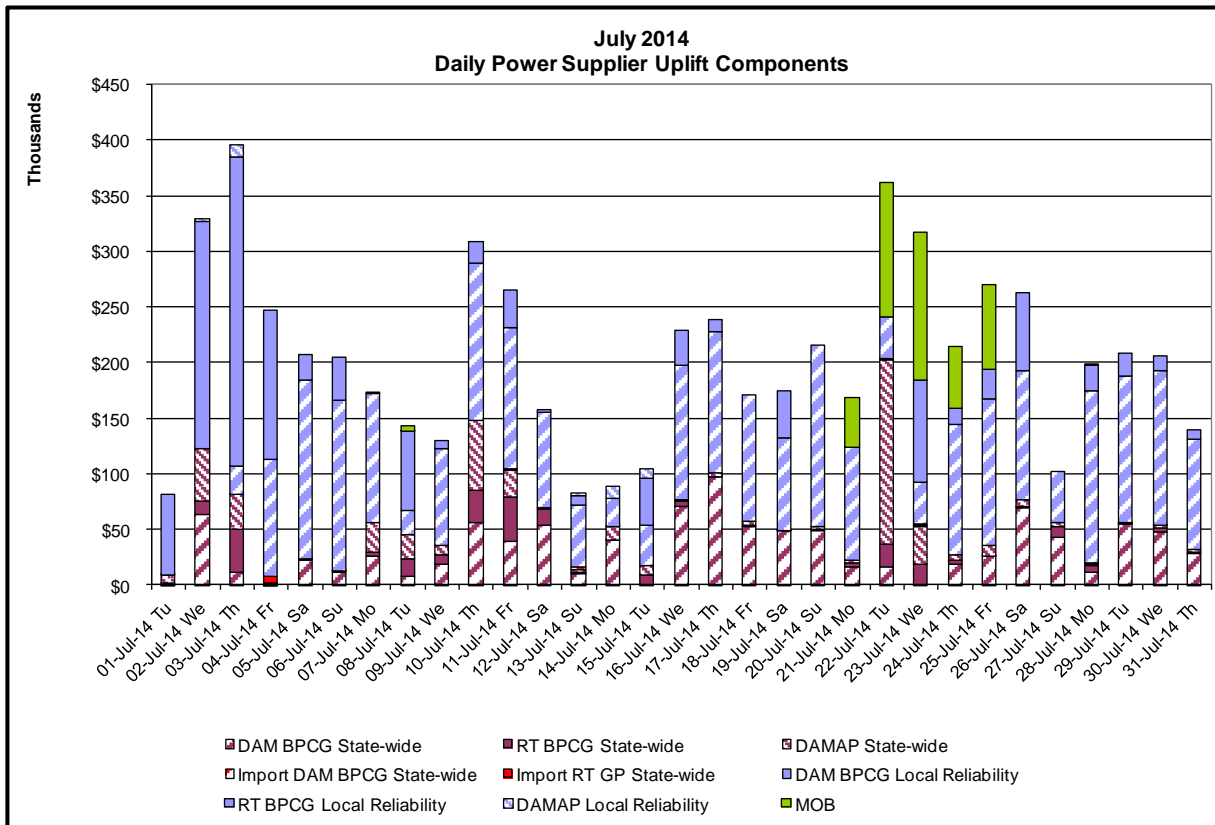
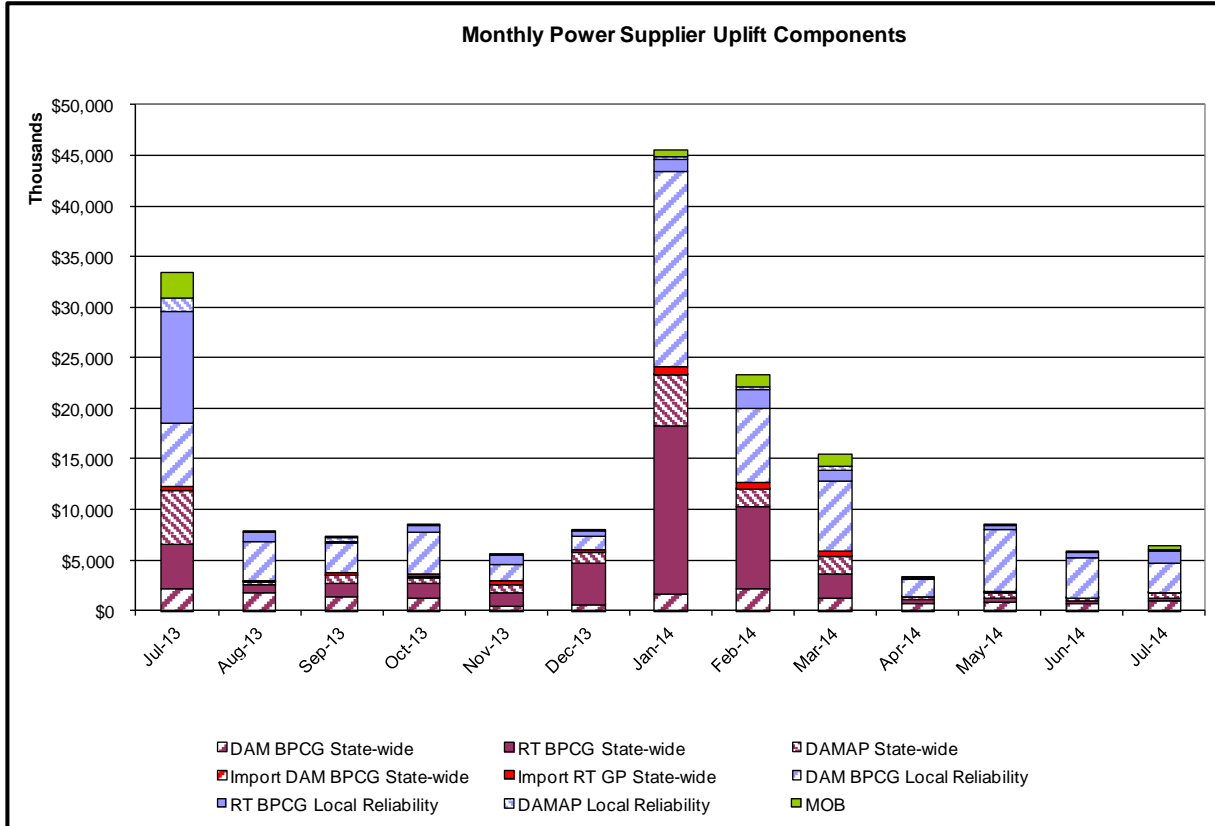
**Monthly Balancing Market Congestion Report Assumptions/Notes**

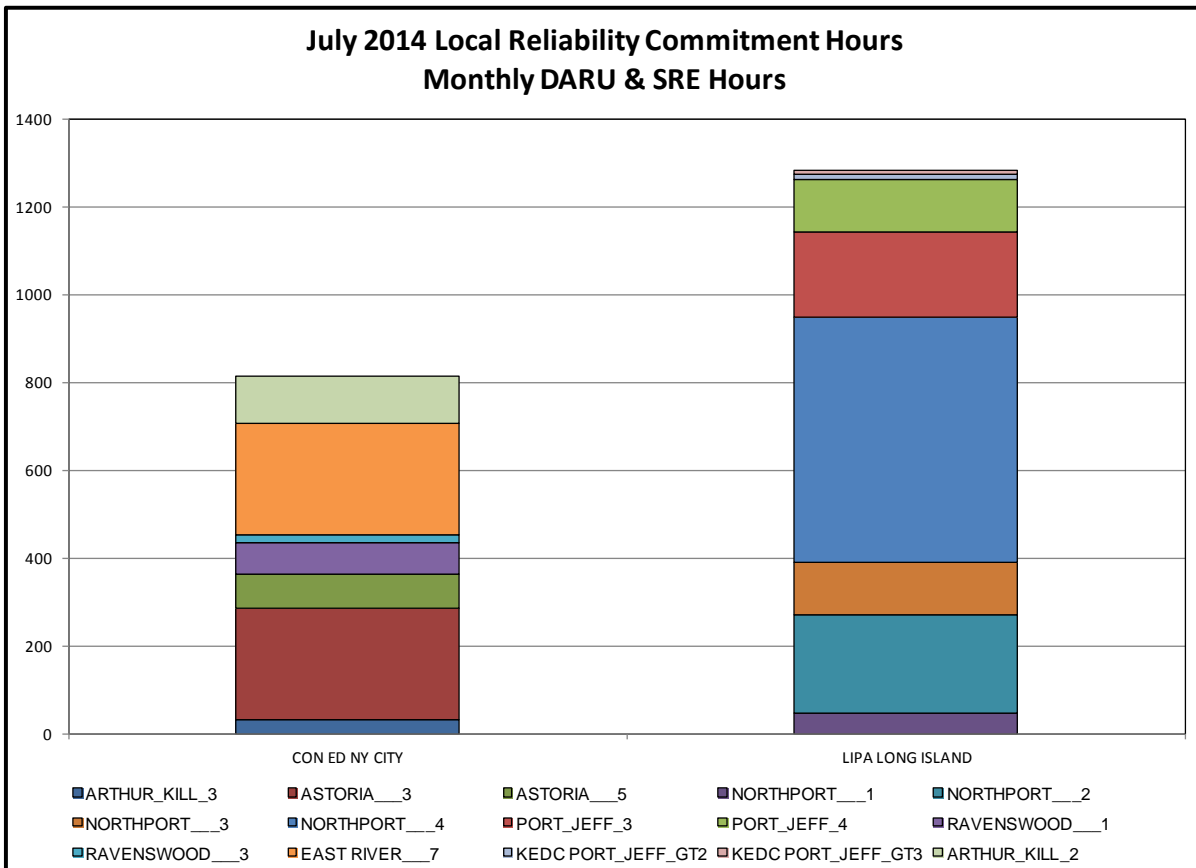
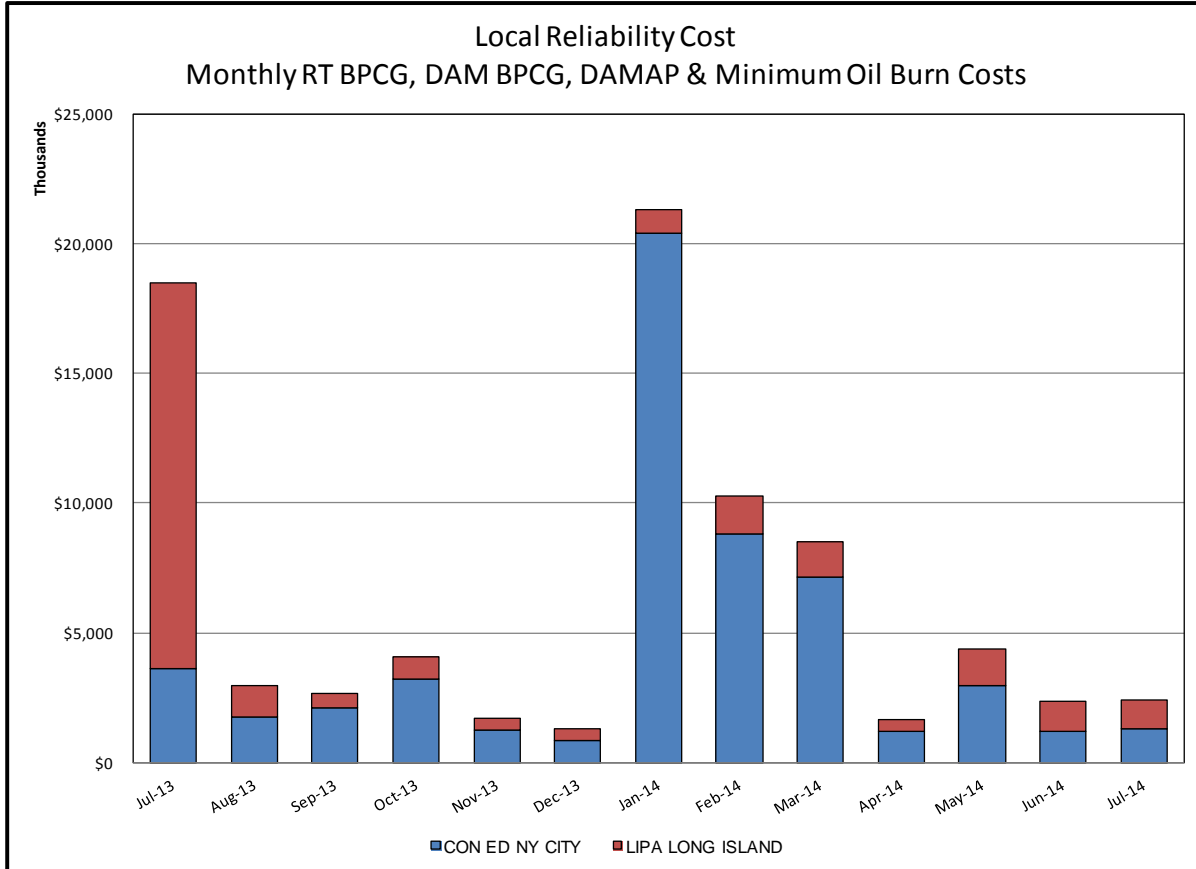
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

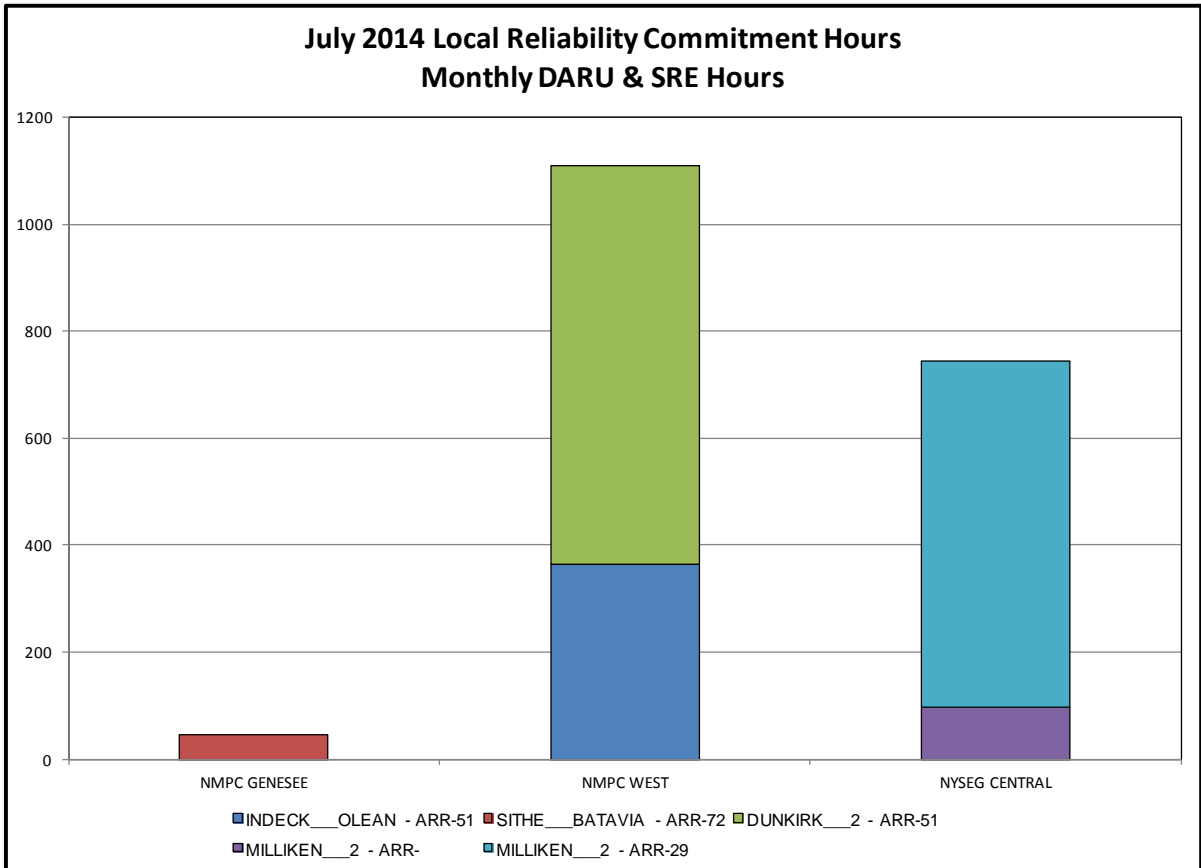
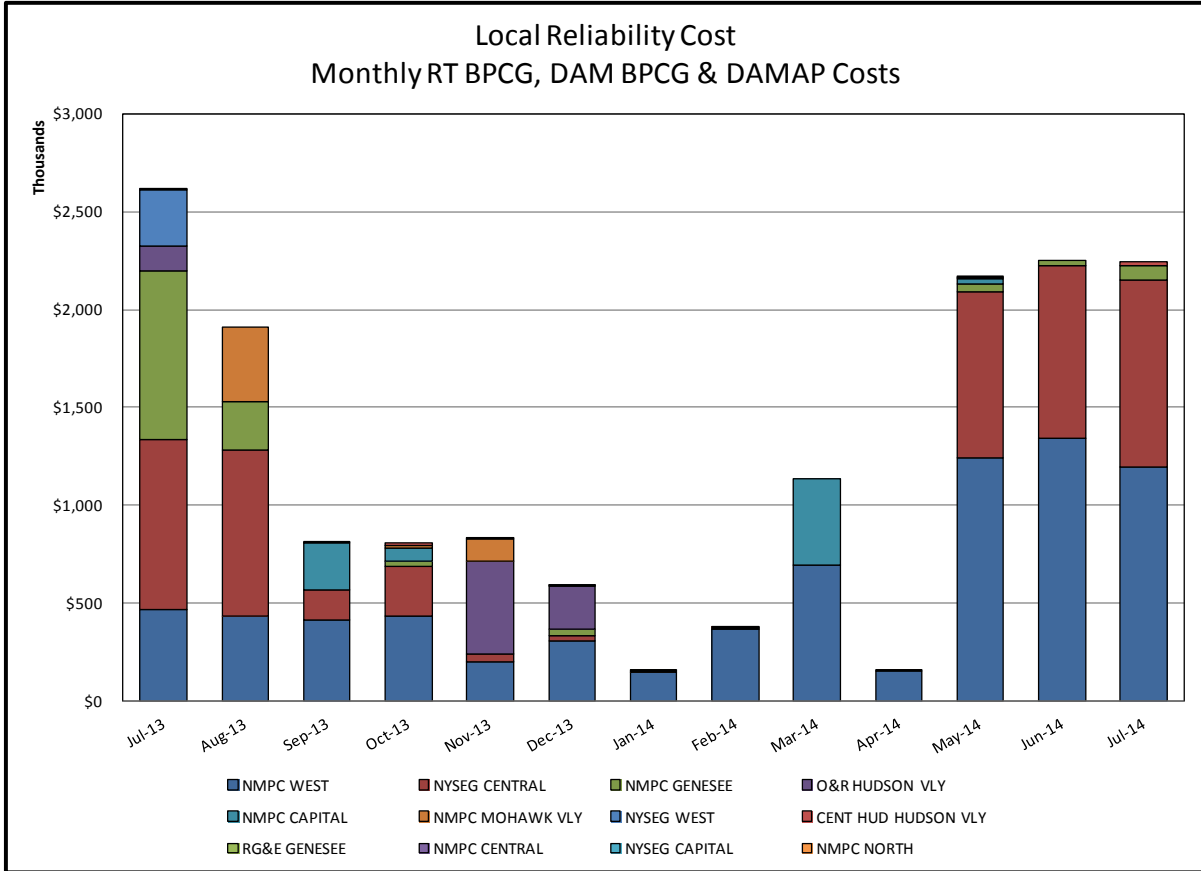


**Day-Ahead Market Congestion Residual Categories**

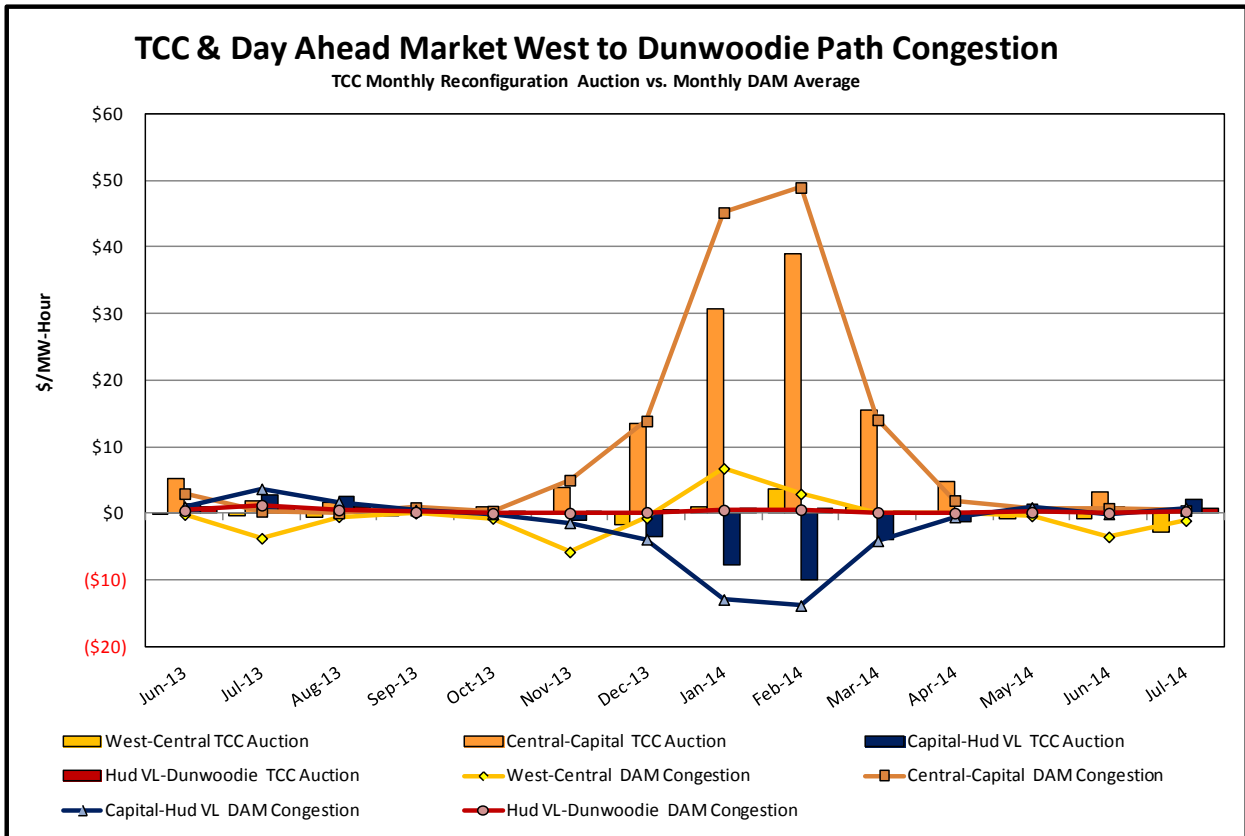
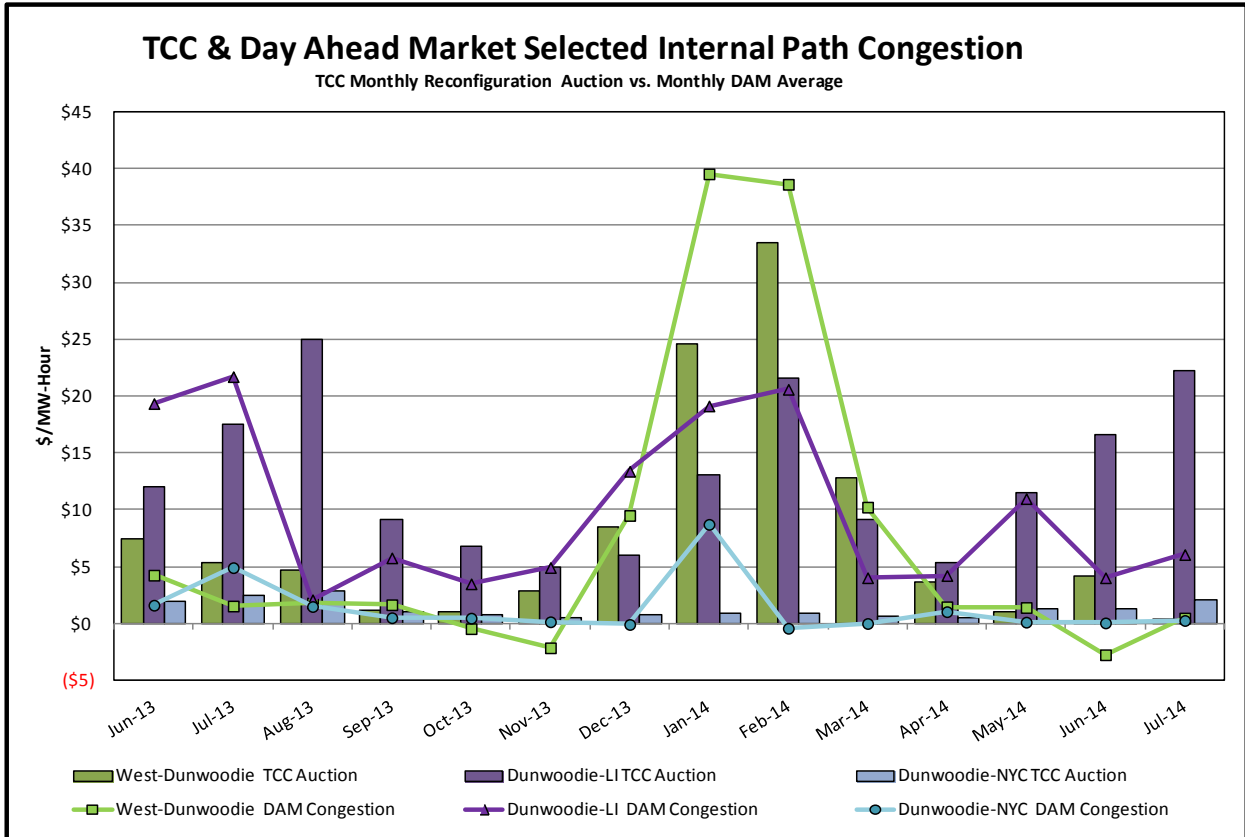
<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
NYTO Outage Allocation	Responsible TO	Direct allocation to NYTO's responsible for transmission equipment status change.	DAM scheduled outage for equipment modeled in-service for the TCC Auction.
External Outage Allocation	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.	





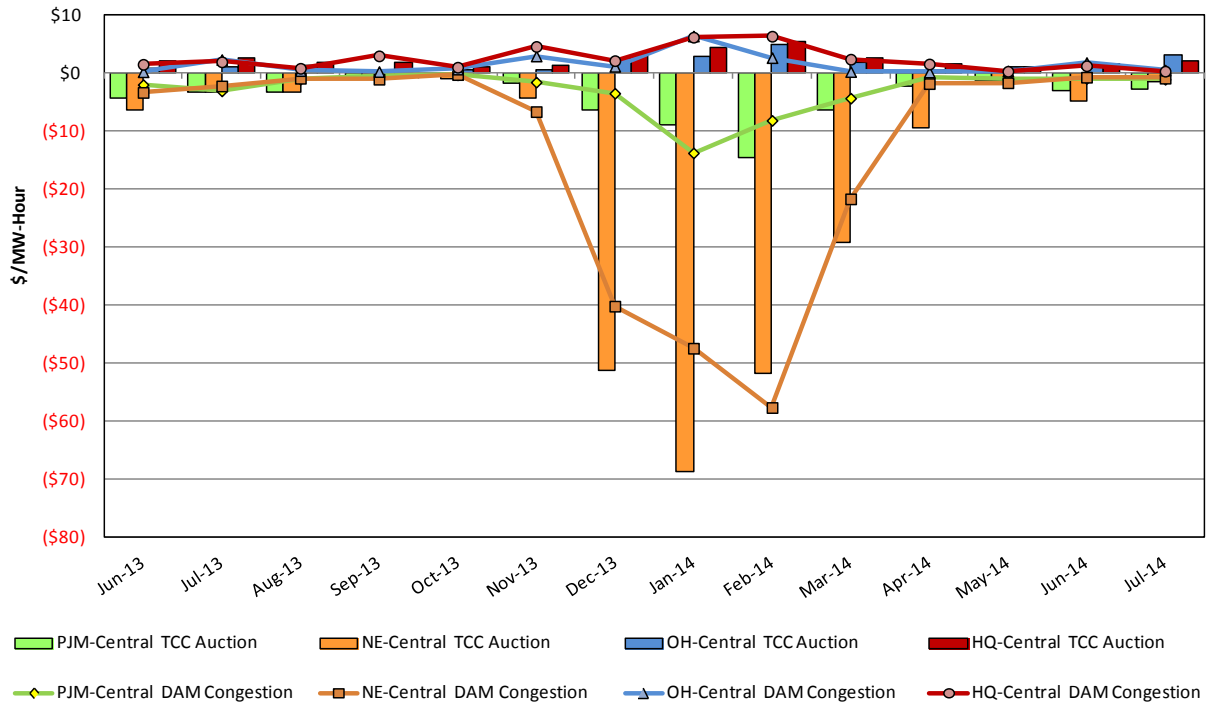


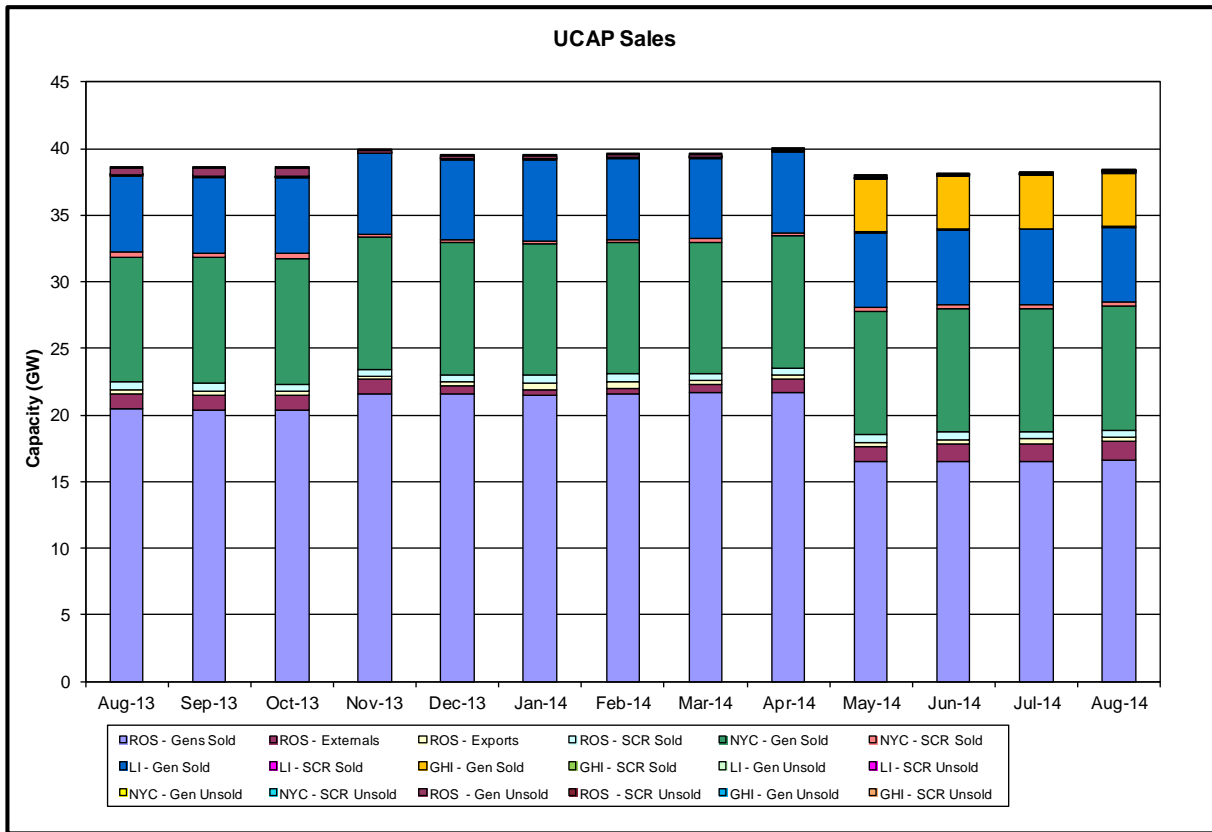
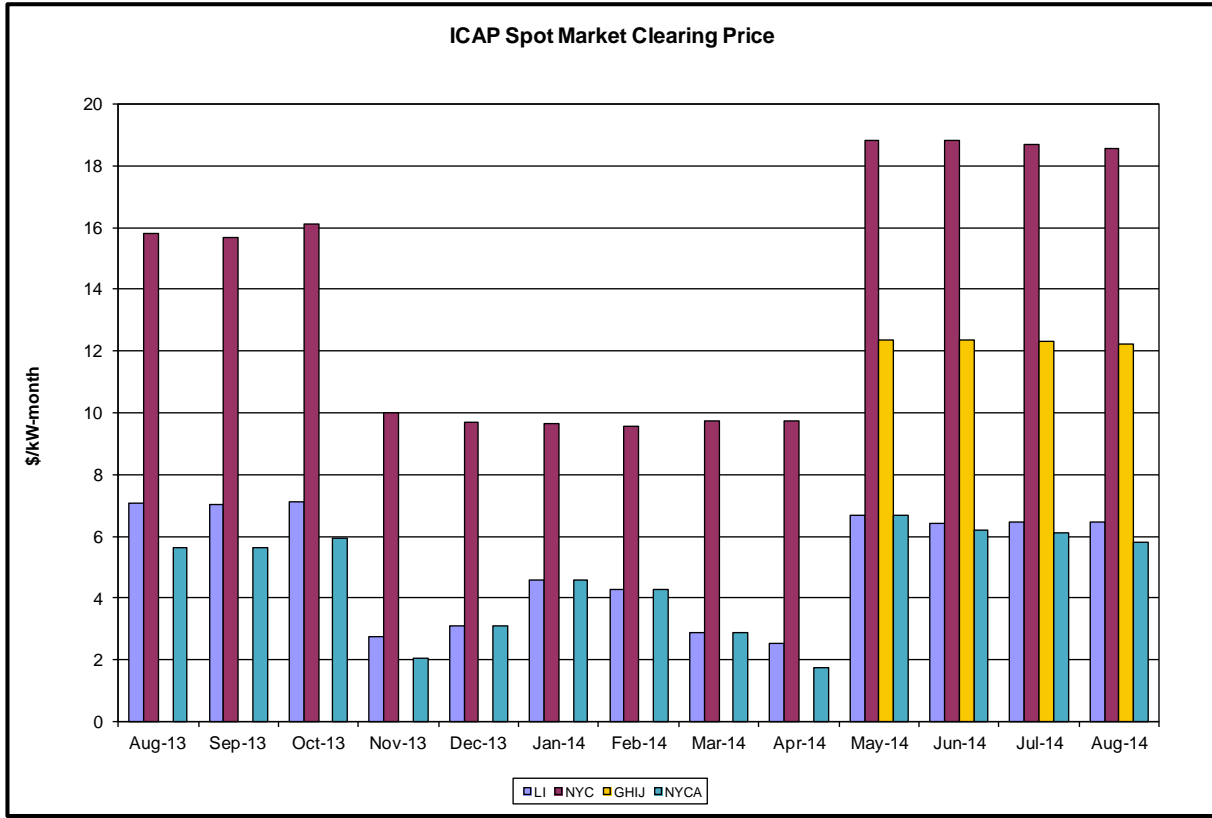




### TCC & Day Ahead Market Selected External Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average

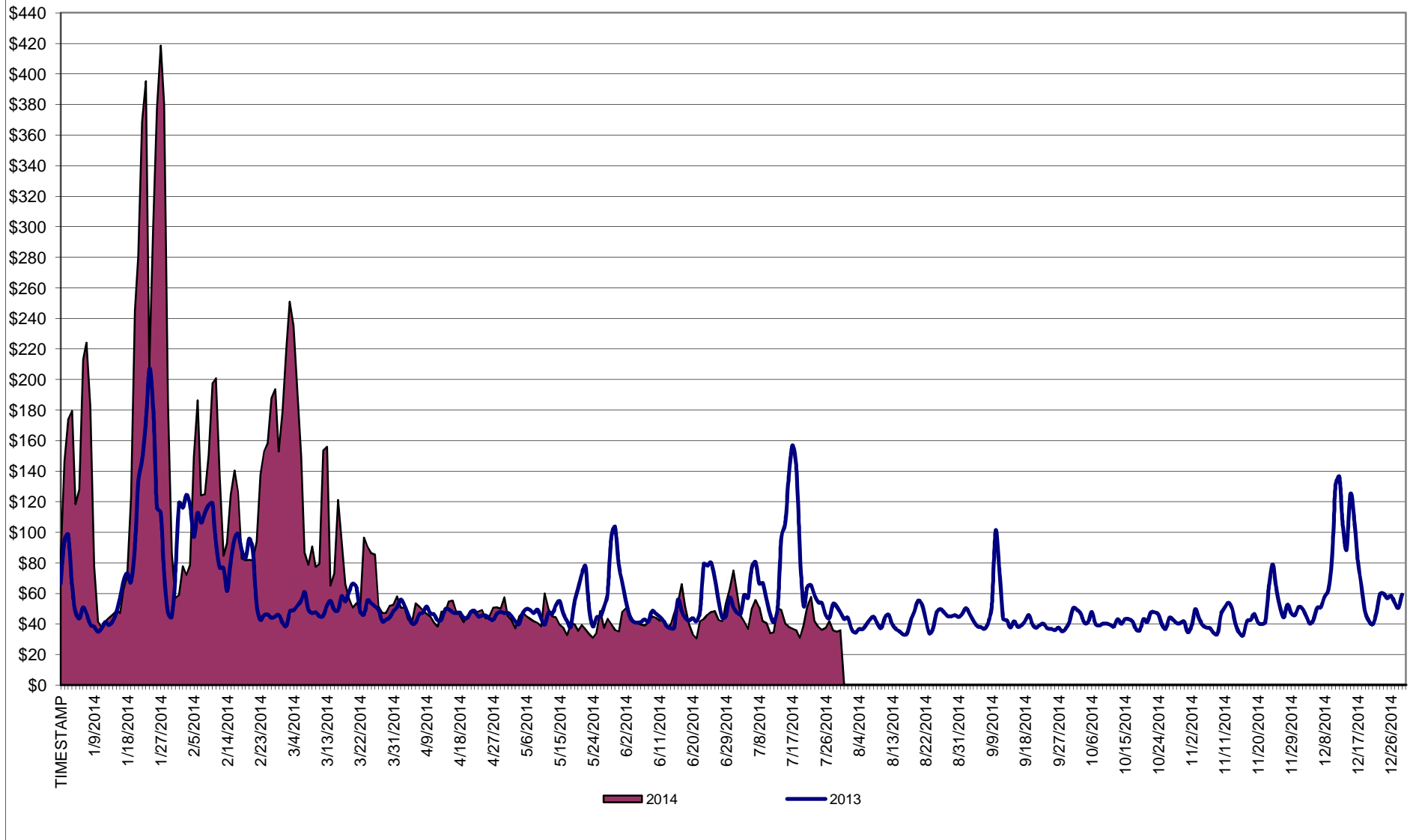




# Market Performance Highlights for July 2014

- **LBMP for July is \$43.96/MWh; higher than \$43.38/MWh in June 2014 and 36% lower than \$68.49/MWh in July 2013.**
  - Day Ahead Load Weighted LBMPs are slightly higher compared to June.
  - Real Time Load Weighted LBMPs are lower compared to June.
- **July 2014 average year-to-date monthly cost of \$89.43/MWh is a 37% increase from \$65.10/MWh in July 2013.**
- **Average daily sendout is 496 GWh/day in July; higher than 456 GWh/day in June 2014 and lower than 561 GWh/day in July 2013.**
- **Natural gas and distillate prices were lower compared to the previous month.**
  - Natural Gas (Transco Z6 NY) was \$2.66/MMBtu, down 18% from \$3.26/MMBtu in June.
  - Jet Kerosene Gulf Coast was \$20.87/MMBtu, down from \$21.36/MMBtu in June.
  - Ultra Low Sulfur No.2 Diesel NY Harbor was \$20.58/MMBtu, down from \$21.16/MMBtu in June.
- **Uplift per MWh is lower compared to the previous month.**
  - Uplift (not including NYISO cost of operations) is (\$0.26)/MWh; lower than (\$0.21)/MWh in June.
    - The Local Reliability Share is \$0.29/MWh, lower than \$0.32 in June.
    - The Statewide Share is (\$0.55)/MWh, lower than (\$0.53)/MWh in June.
  - TSA \$ per NYC MWh is \$0.35/MWh.
  - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than June.

**Daily NYISO Average Cost/MWh (Energy & Ancillary Services)\***  
 2013 Annual Average \$59.13/MWh  
 July 2013 YTD Average \$65.10/MWh  
 July 2014 YTD Average \$89.43/MWh



\* Excludes ICAP payments.

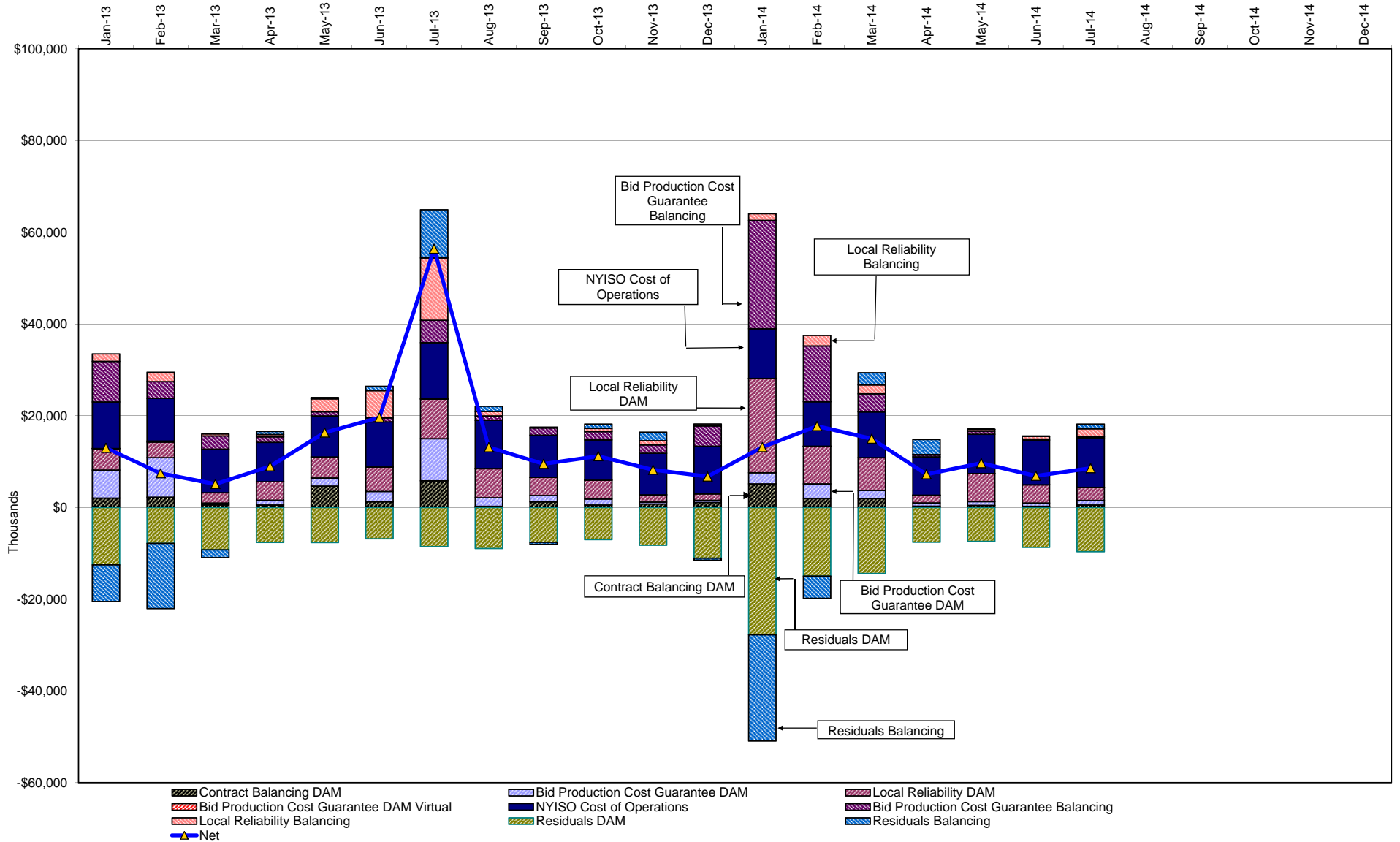
**NYISO Average Cost/MWh (Energy and Ancillary Services) \***  
**from the LBMP Customer point of view**

<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	46.08	40.29	43.38	43.96					
NTAC	0.56	0.64	0.39	1.18	0.69	0.78	0.43					
Reserve	0.78	0.49	0.56	0.46	0.28	0.27	0.26					
Regulation	0.27	0.21	0.22	0.13	0.12	0.12	0.12					
NYISO Cost of Operations	0.69	0.69	0.69	0.69	0.69	0.69	0.69					
Uplift	0.17	0.58	0.35	(0.09)	0.07	(0.21)	(0.26)					
Uplift: Local Reliability Share	1.43	0.75	0.63	0.15	0.51	0.32	0.29					
Uplift: Statewide Share	(1.26)	(0.17)	(0.27)	(0.24)	(0.44)	(0.53)	(0.55)					
Voltage Support and Black Start	0.36	0.36	0.36	0.36	0.36	0.36	0.36					
<b>Avg Monthly Cost</b>	<b>186.18</b>	<b>126.16</b>	<b>112.15</b>	<b>48.82</b>	<b>42.50</b>	<b>45.38</b>	<b>45.56</b>					
Avg YTD Cost	186.18	157.91	142.76	121.95	108.33	97.81	89.43					
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00	0.03	0.35					
<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: 8/5/2014 9:19 AM

Data reflects true-ups thru Mar 2014.

## NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through July 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					
DAM LSE Internal LBMP Energy Sales	52%	50%	53%	56%	53%	54%	58%					
DAM External TC LBMP Energy Sales	5%	7%	6%	3%	2%	3%	1%					
DAM Bilateral - Internal Bilaterals	36%	36%	35%	33%	38%	36%	34%					
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	5%	6%	5%	5%	4%					
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	1%	1%	2%	2%	1%	1%					
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	0%	1%	1%	1%					
<b>Balancing Energy Market MWh</b>	-249,484	-298,340	-116,173	58,263	-503,552	-553,748	-848,037					
Balancing Energy LSE Internal LBMP Energy Sales	-232%	-203%	-294%	-170%	-134%	-114%	-116%					
Balancing Energy External TC LBMP Energy Sales	105%	76%	97%	191%	22%	22%	18%					
Balancing Energy Bilateral - Internal Bilaterals	20%	26%	69%	26%	3%	7%	4%					
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	12%	0%	3%	0%	0%					
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	11%	6%	25%	63%	5%	3%	2%					
Balancing Energy Bilateral - Wheel Through Bilaterals	-4%	-6%	-10%	-11%	1%	-18%	-8%					
<b>Transactions Summary</b>												
LBMP	56%	56%	57%	59%	53%	55%	57%					
Internal Bilaterals	37%	37%	36%	33%	39%	38%	36%					
Import Bilaterals	5%	5%	5%	6%	5%	5%	5%					
Export Bilaterals	2%	1%	2%	2%	2%	1%	1%					
Wheels Through	1%	1%	1%	0%	1%	1%	1%					
<b>Market Share of Total Load</b>												
Day Ahead Market	101.6%	102.1%	100.8%	99.5%	104.0%	103.9%	105.4%					
Balancing Energy +	-1.6%	-2.1%	-0.8%	0.5%	-4.0%	-3.9%	-5.4%					
Total MWh	15,784,780	14,111,175	14,517,397	12,160,010	12,480,906	14,166,181	15,680,301					
Average Daily Energy Sendout/Month GWh	475	460	440	390	391	456	496					

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					
Standard Deviation	\$121.52	\$50.86	\$59.89	\$8.90	\$10.99	\$12.29	\$15.56					
Load Weighted Price **	\$164.06	\$114.77	\$100.81	\$45.19	\$38.05	\$41.14	\$41.18					
<b><u>RTC LBMP</u></b>												
Price *	\$138.41	\$110.71	\$94.71	\$44.00	\$33.16	\$37.34	\$35.32					
Standard Deviation	\$125.42	\$72.22	\$97.72	\$27.44	\$17.51	\$25.39	\$24.90					
Load Weighted Price **	\$147.06	\$115.31	\$98.80	\$45.48	\$34.63	\$39.64	\$37.85					
<b><u>REAL TIME LBMP</u></b>												
Price *	\$137.90	\$111.51	\$93.37	\$42.79	\$34.06	\$38.23	\$35.97					
Standard Deviation	\$122.32	\$70.35	\$89.05	\$19.38	\$17.15	\$23.33	\$27.27					
Load Weighted Price **	\$147.77	\$115.80	\$97.58	\$43.97	\$35.46	\$40.71	\$39.00					
Average Daily Energy Sendout/Month GWh	475	460	440	390	391	456	496					

### 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

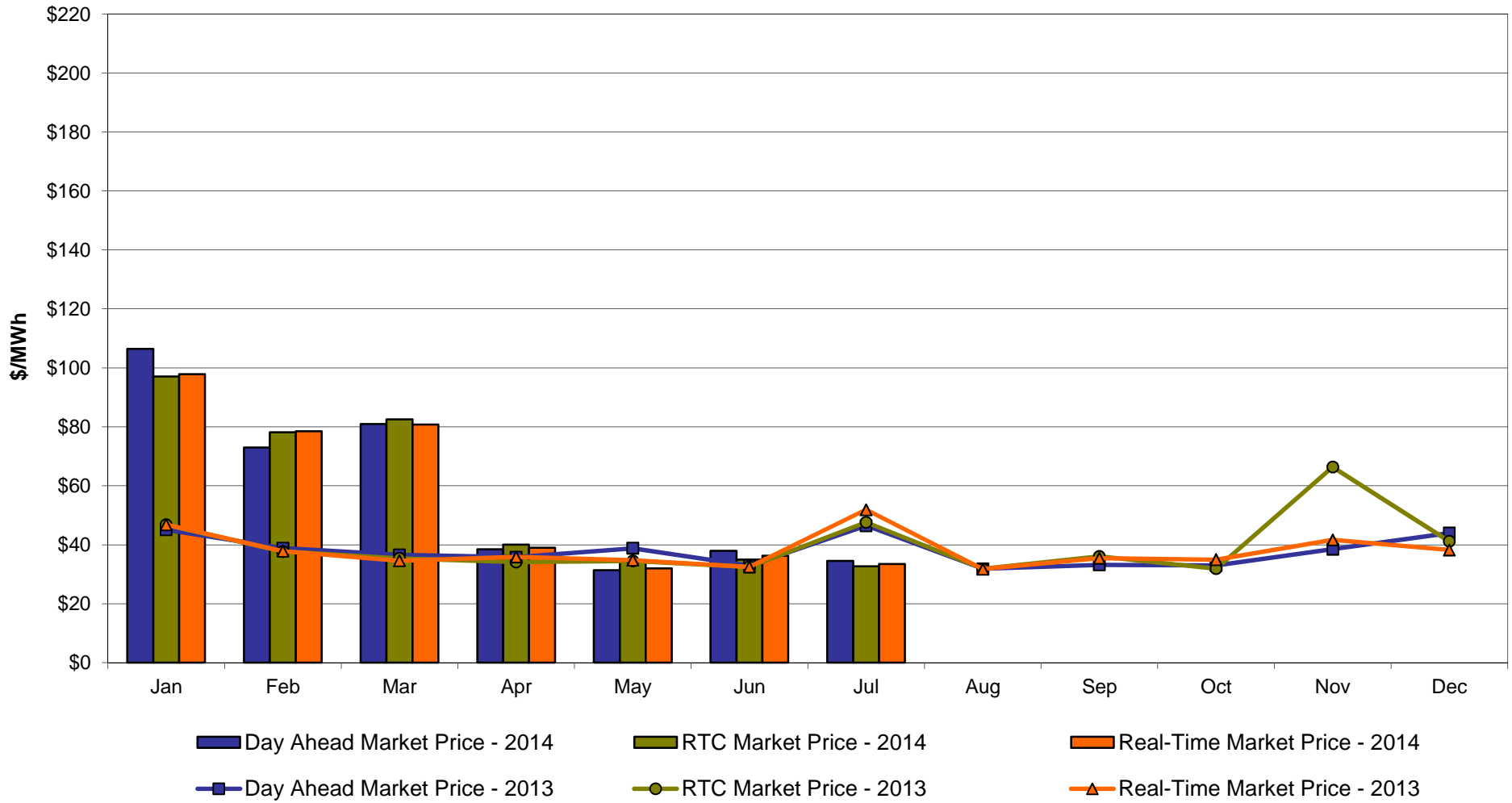


**July 2014 Zonal LBMP Statistics for NYISO (\$/MWh)**

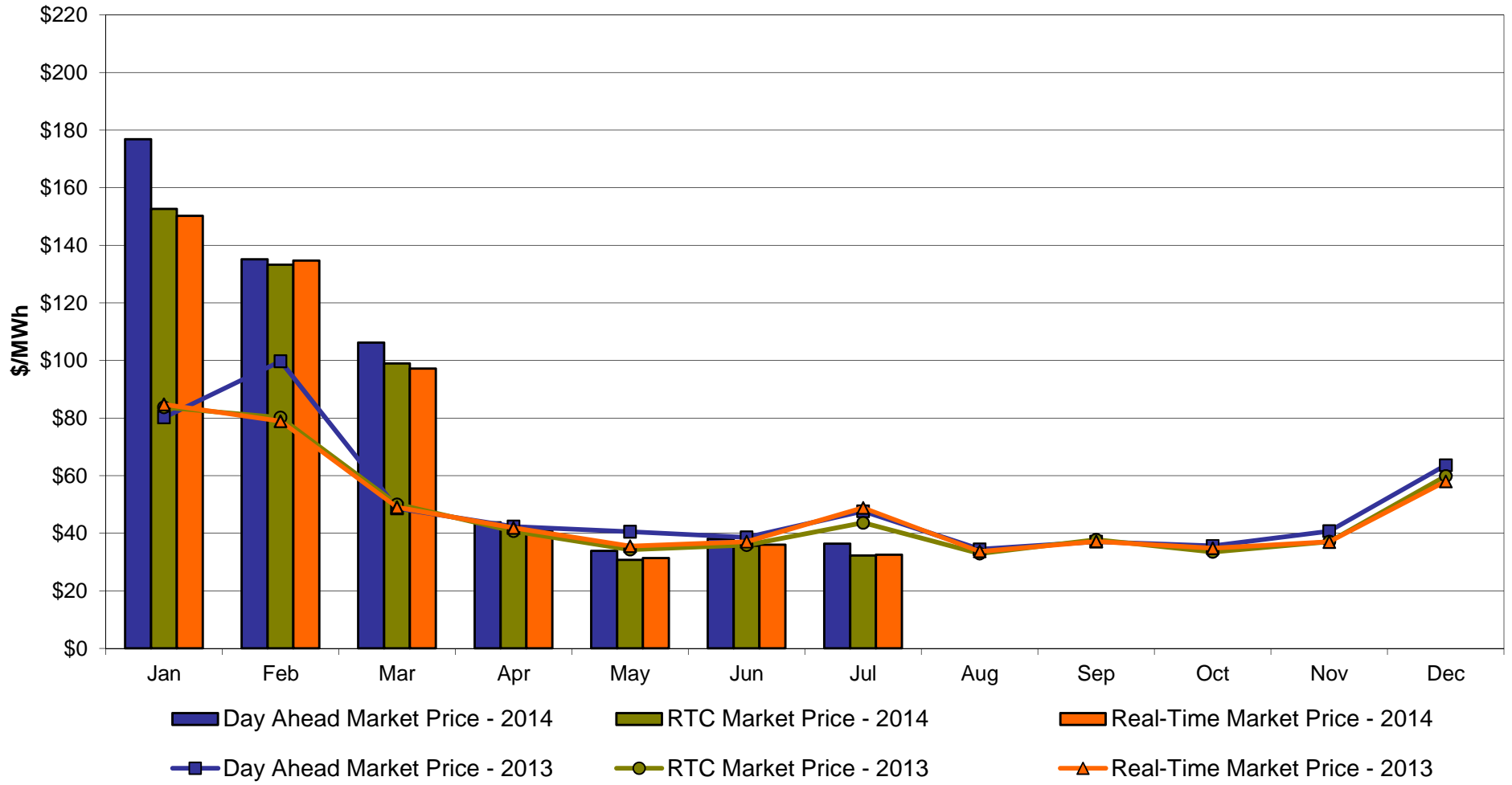
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>
<b>DAY AHEAD LBMP</b>											
Unweighted Price *	34.49	33.24	32.09	34.52	35.00	36.39	38.95	39.31	39.26	39.79	46.55
Standard Deviation	14.29	10.16	9.81	11.25	11.33	12.52	15.32	16.07	16.04	16.19	24.54
<b>RTC LBMP</b>											
Unweighted Price *	32.70	30.04	29.28	31.33	31.60	32.30	35.07	35.43	35.38	35.70	43.78
Standard Deviation	35.35	18.65	18.43	21.15	20.17	20.44	23.20	23.84	23.82	23.75	45.68
<b>REAL TIME LBMP</b>											
Unweighted Price *	33.45	30.25	29.51	31.58	31.84	32.52	35.36	35.73	35.68	36.16	45.34
Standard Deviation	42.52	19.54	19.42	23.16	21.47	21.62	24.83	25.59	25.57	25.45	50.91
	<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>DAY AHEAD LBMP</b>											
Unweighted Price *	32.17	32.61	32.61	36.84	37.54	45.93	41.41	45.14	38.70	39.44	31.81
Standard Deviation	9.10	10.18	10.18	14.18	13.94	24.52	15.76	24.13	14.19	16.06	9.59
<b>RTC LBMP</b>											
Unweighted Price *	27.06	26.86	26.86	31.26	31.48	43.96	43.35	43.68	32.67	33.49	27.22
Standard Deviation	10.03	11.33	11.33	13.46	13.27	56.97	56.74	56.93	13.77	16.04	10.33
<b>REAL TIME LBMP</b>											
Unweighted Price *	29.32	28.79	28.65	33.95	34.00	44.57	36.22	44.16	34.90	35.80	28.78
Standard Deviation	16.37	19.92	19.79	26.38	22.95	50.41	46.69	50.30	23.07	25.66	17.71

\* Straight LBMP averages

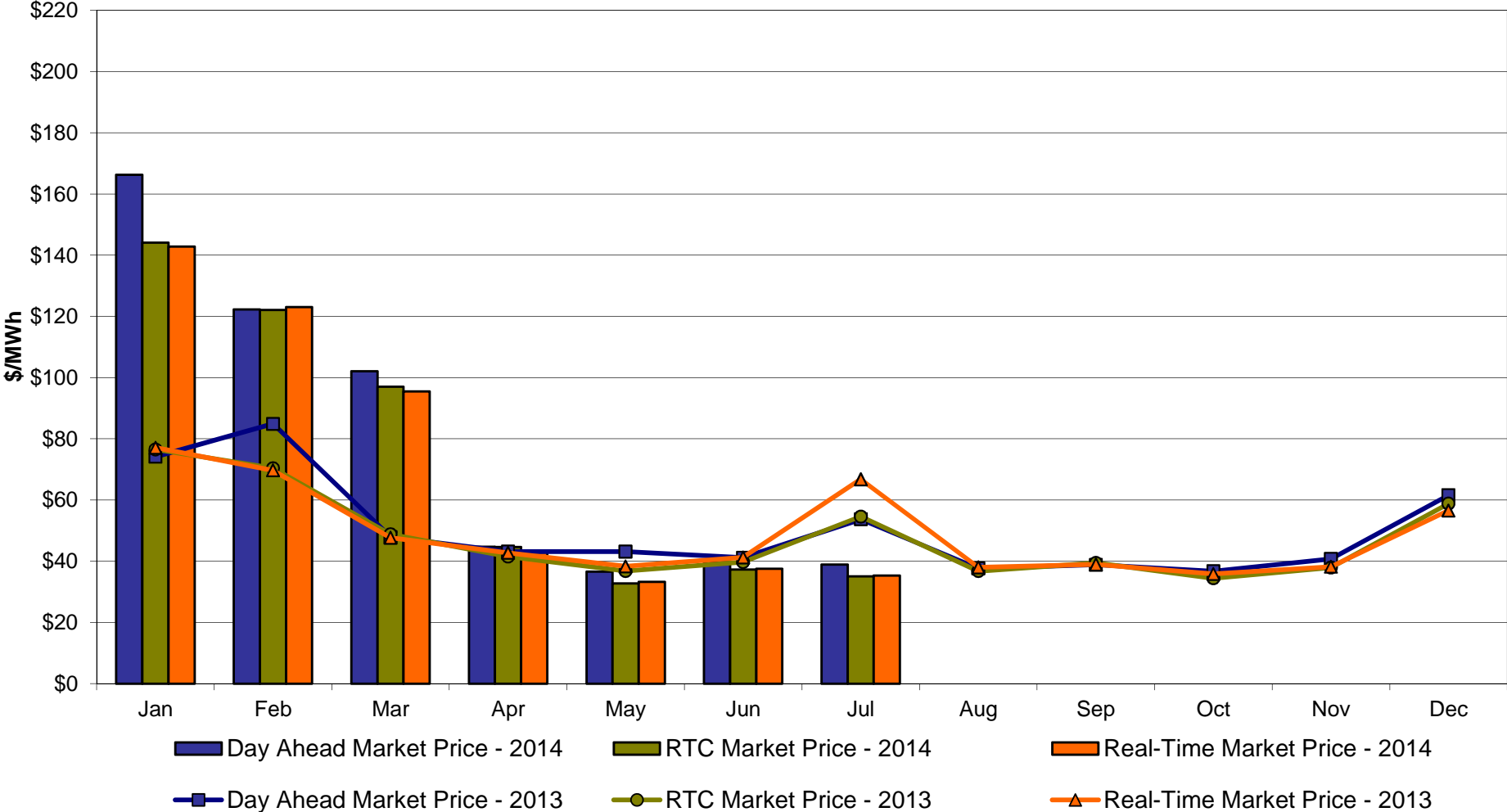
**West Zone A**  
**Monthly Average LBMP Prices 2013 - 2014**



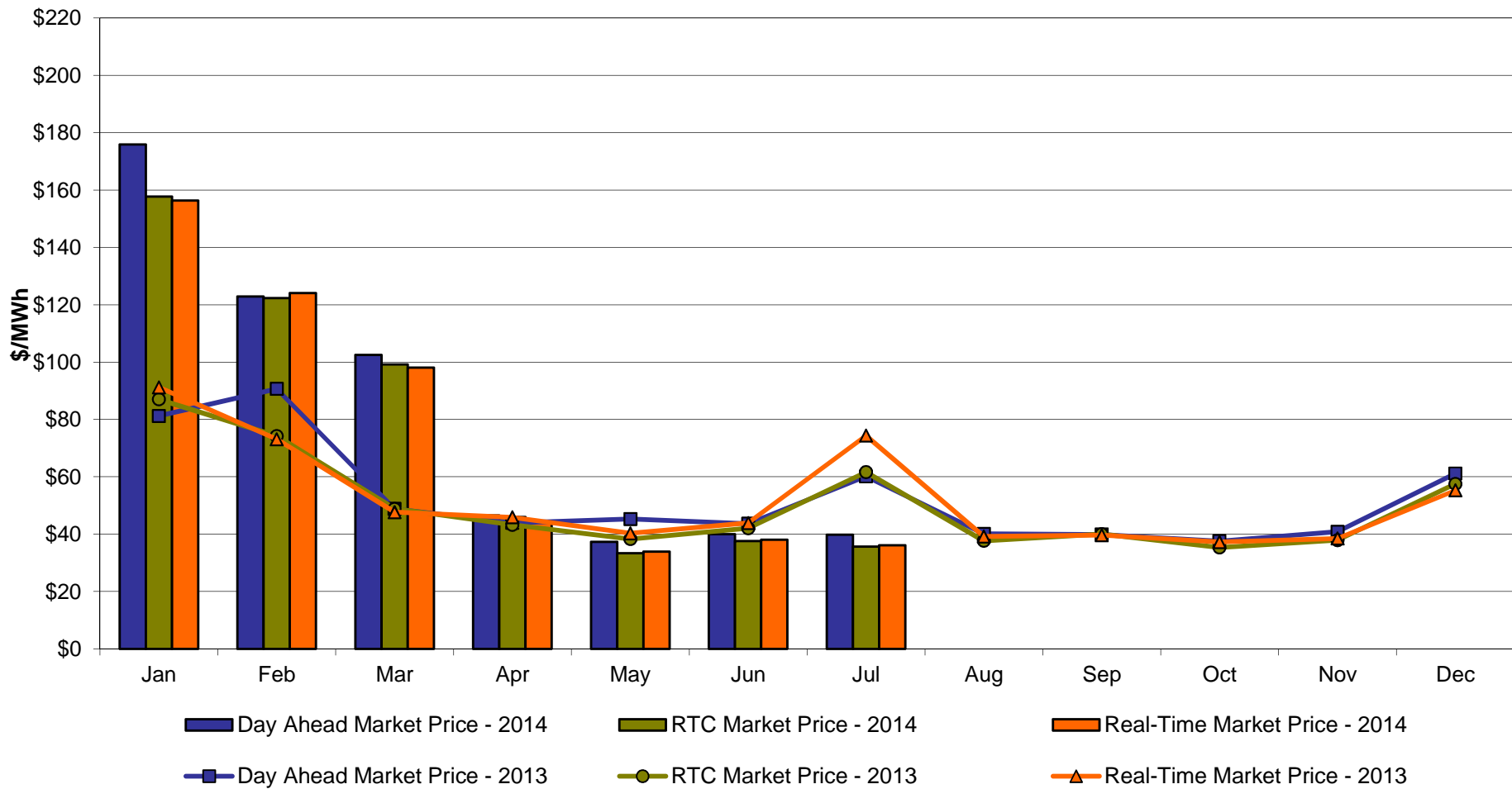
## Capital Zone F Monthly Average LBMP Prices 2013 - 2014



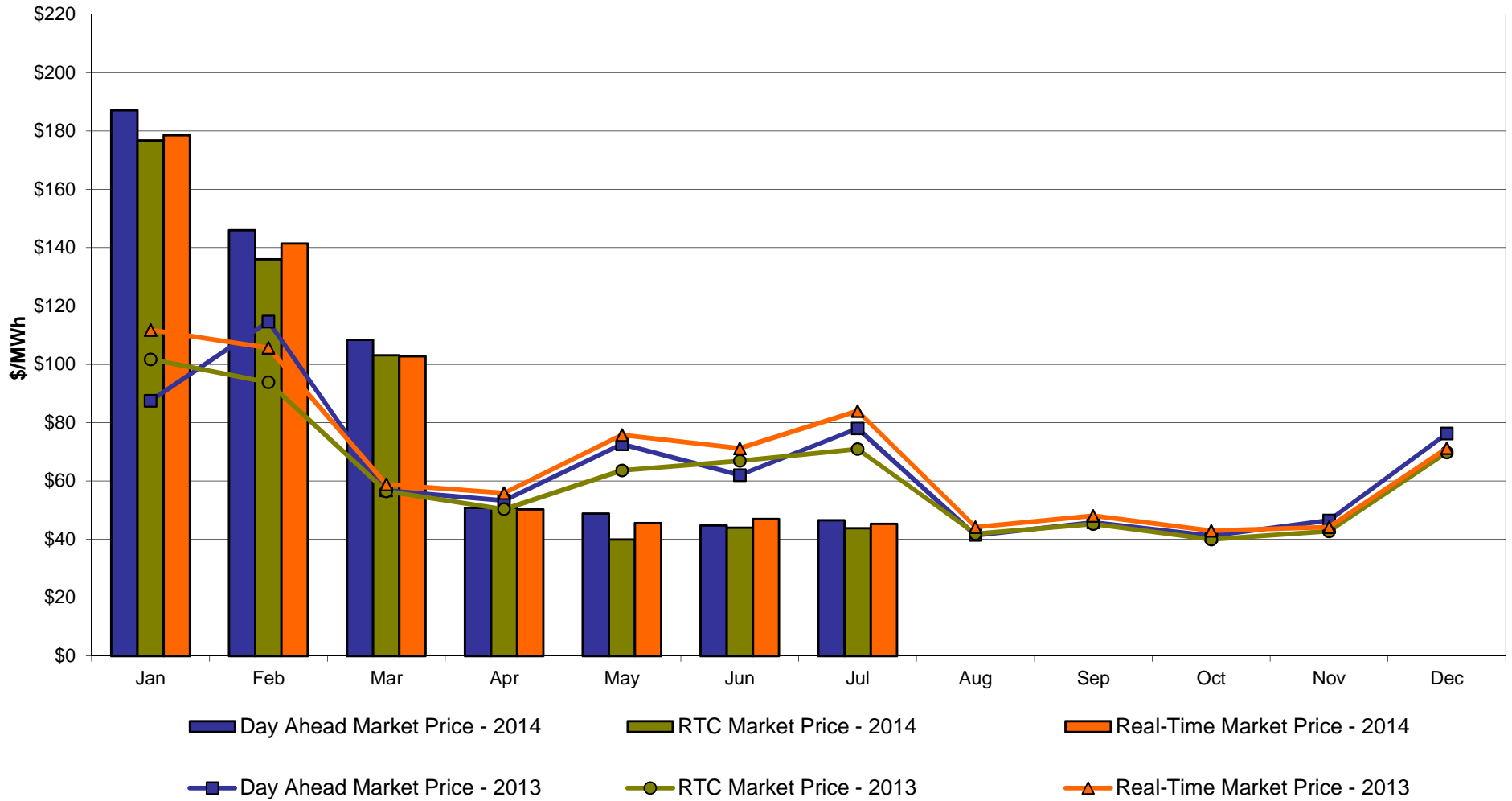
### Hudson Valley Zone G Monthly Average LBMP Prices 2013 - 2014



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

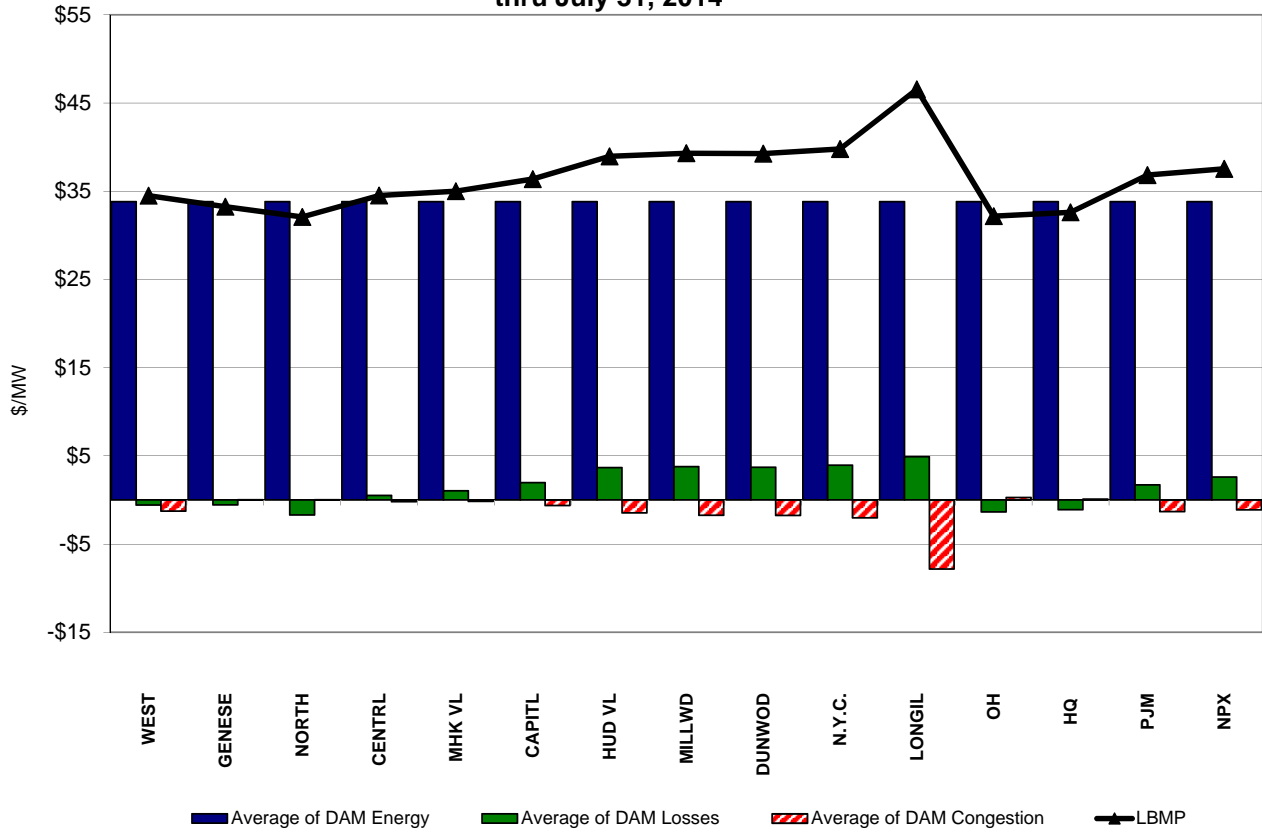


## Long Island Zone K Monthly Average LBMP Prices 2013 - 2014

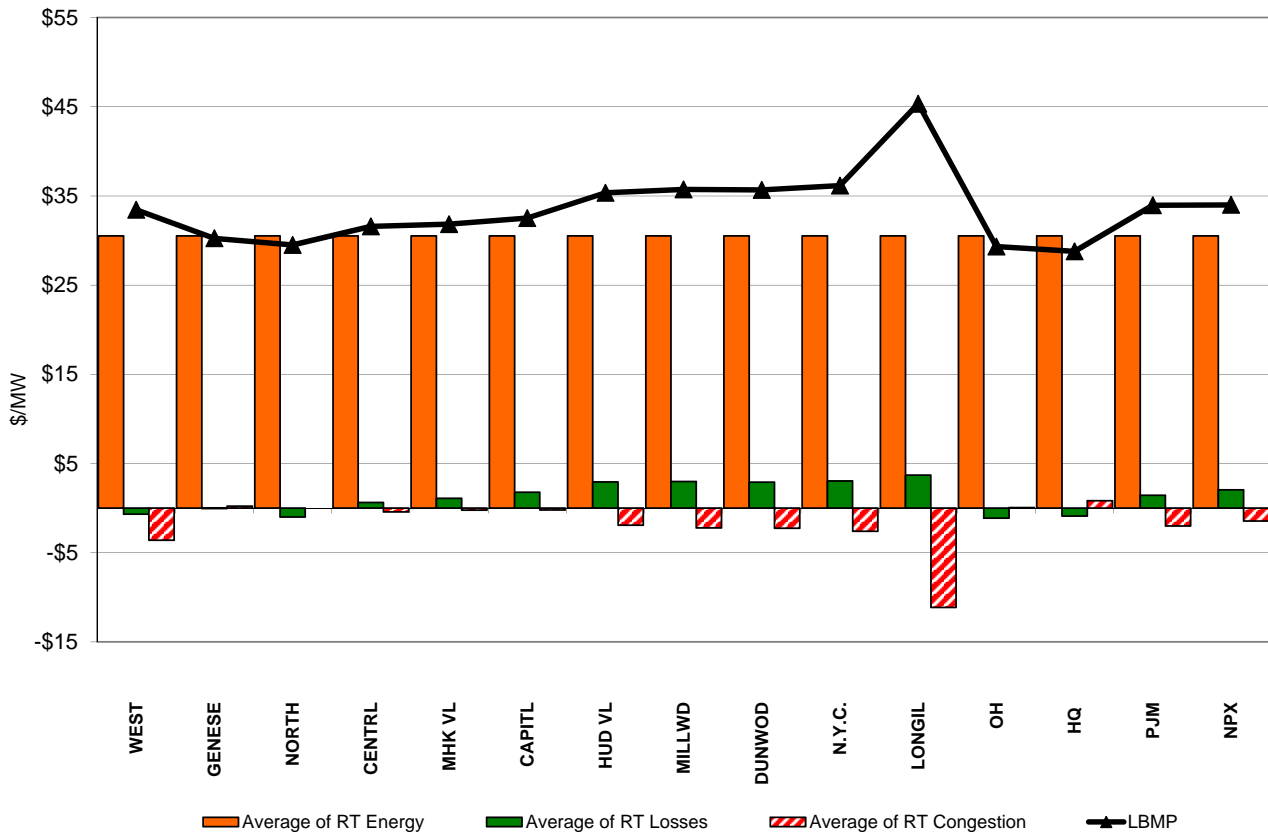




**DAM Zonal Unweighted Monthly Average LBMP Components  
thru July 31, 2014**

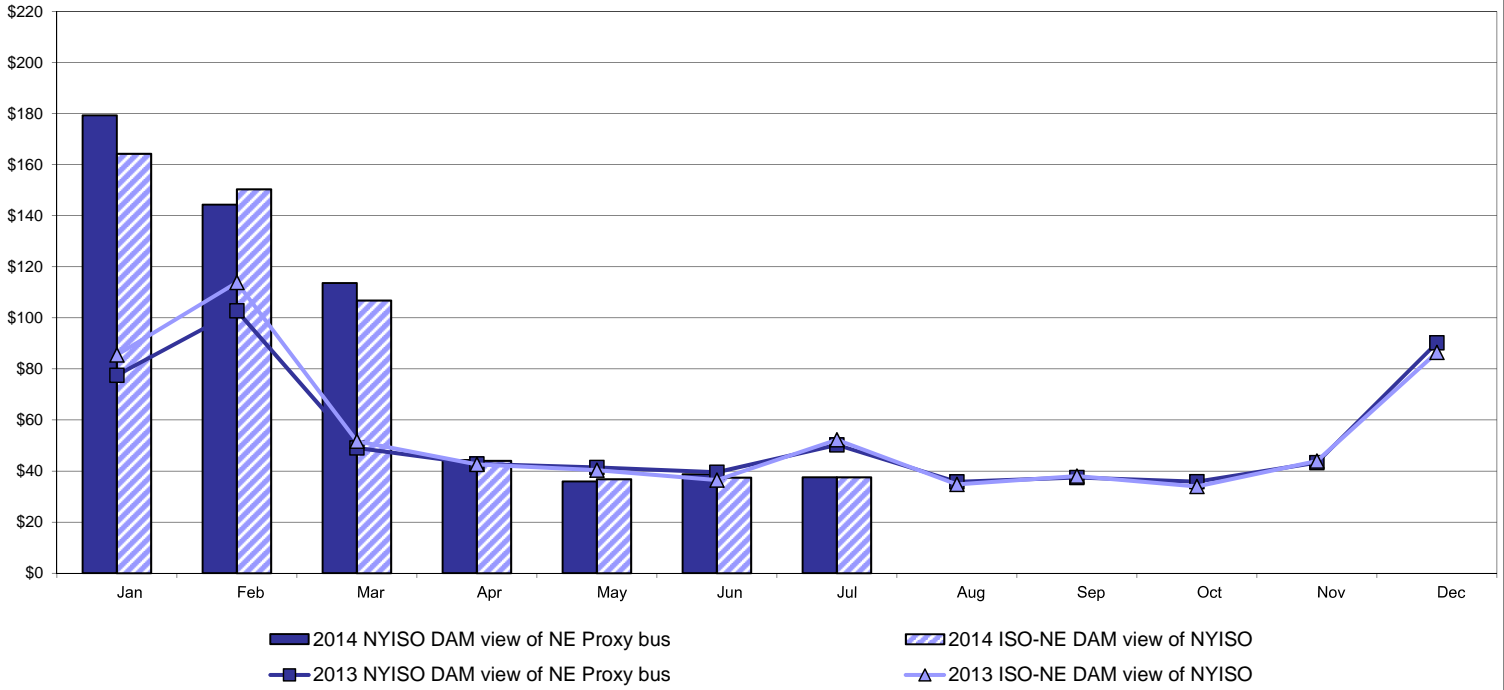


**RT Zonal Unweighted Monthly Average LBMP Components  
thru July 31, 2014**

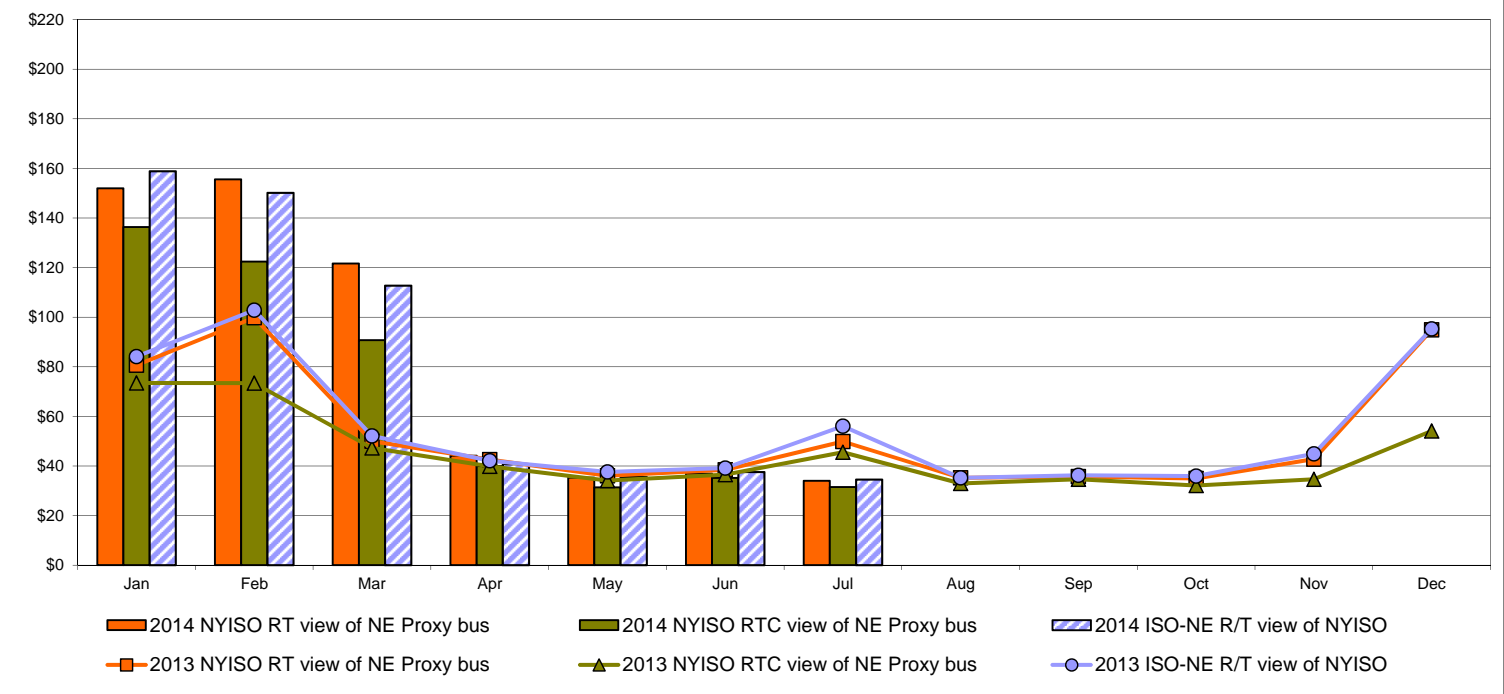


# External Comparison ISO-New England

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

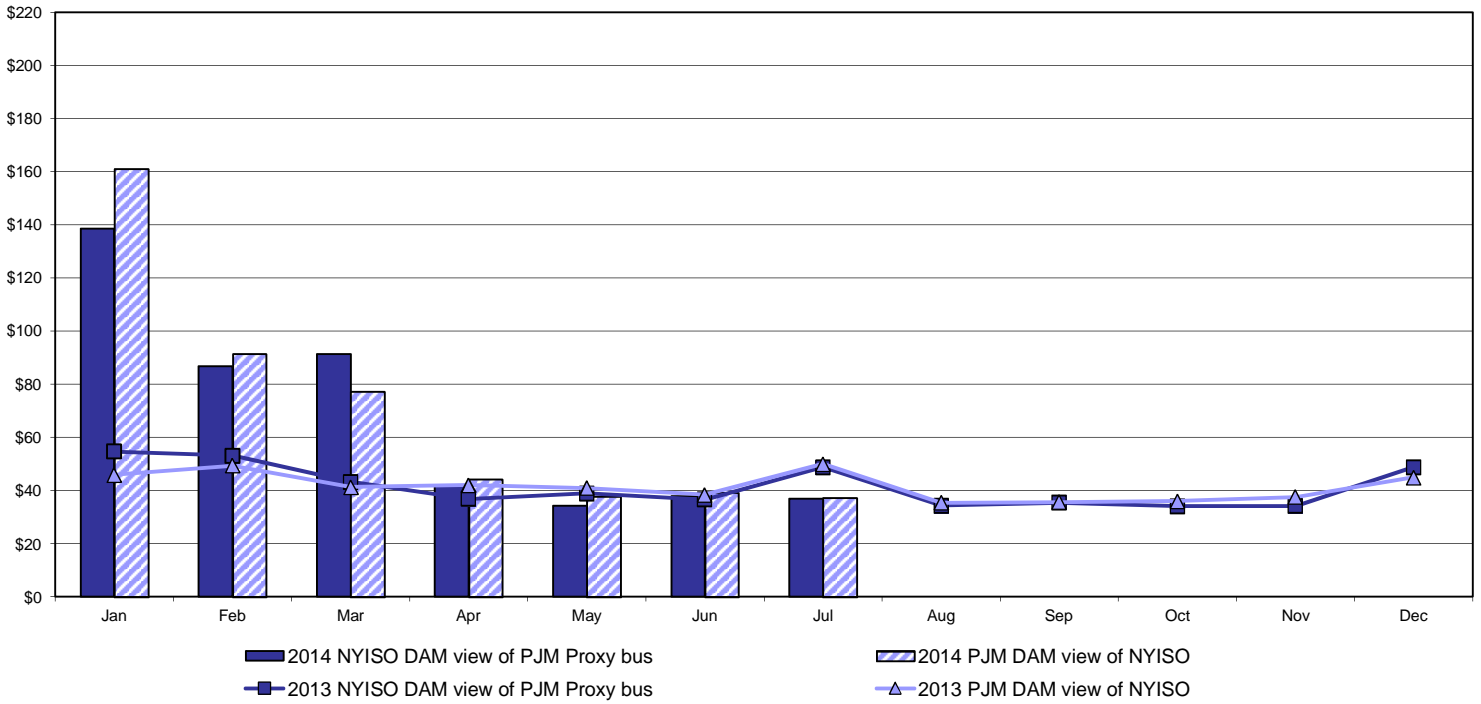


## Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

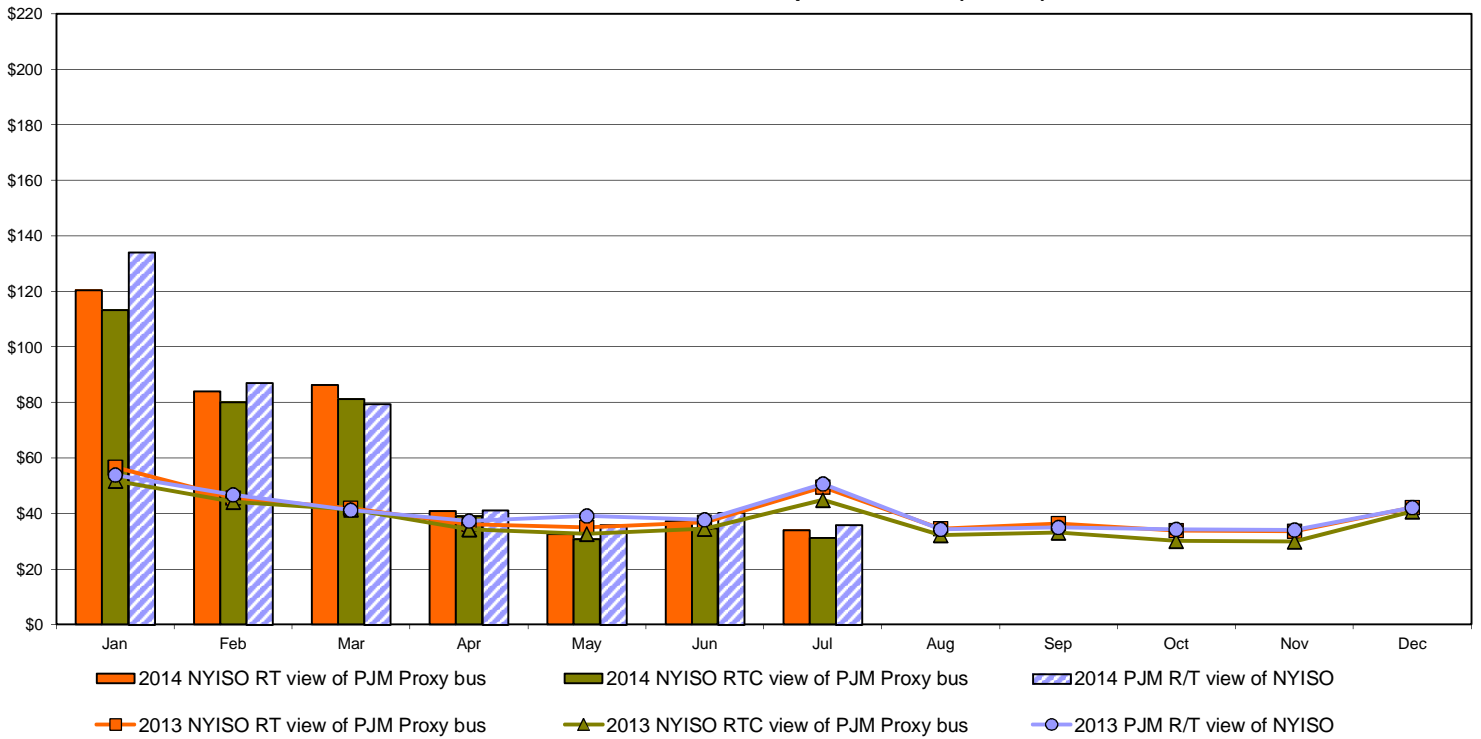


# External Comparison PJM

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

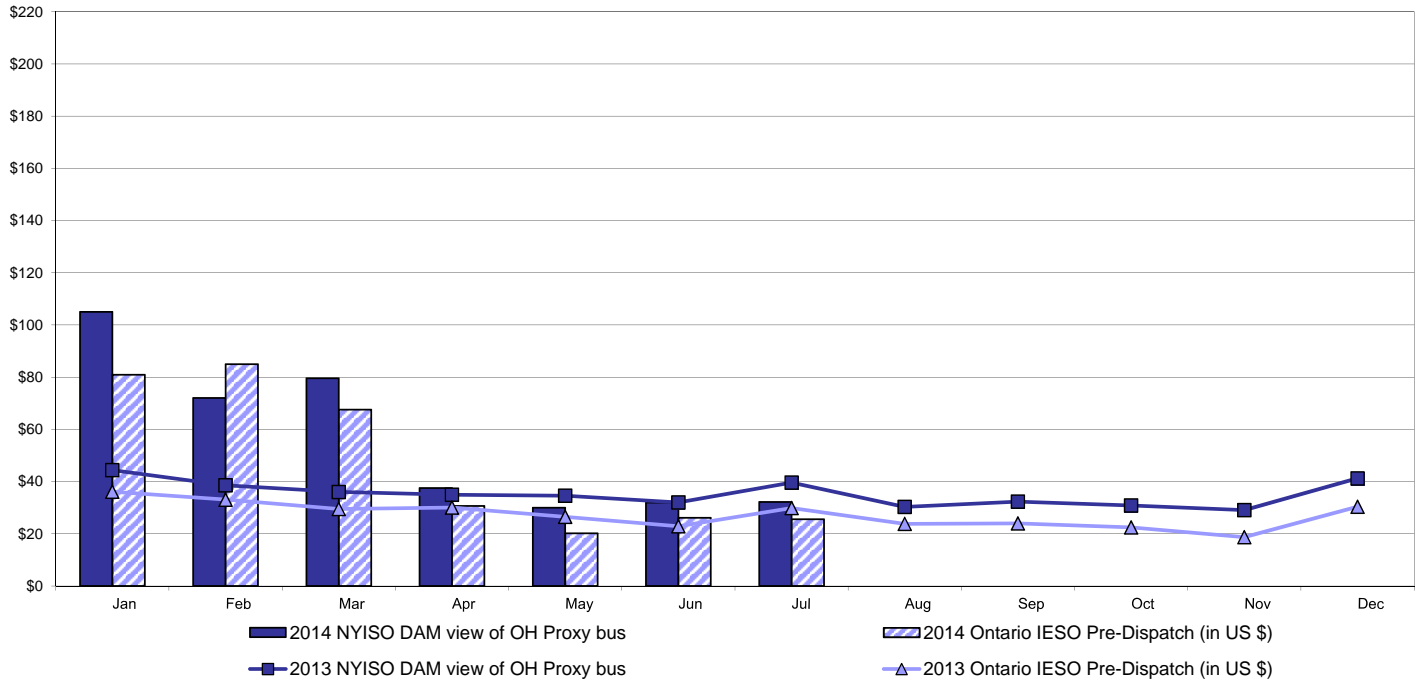


## Real Time Market External Zone Comparison - PJM (\$/MWh)

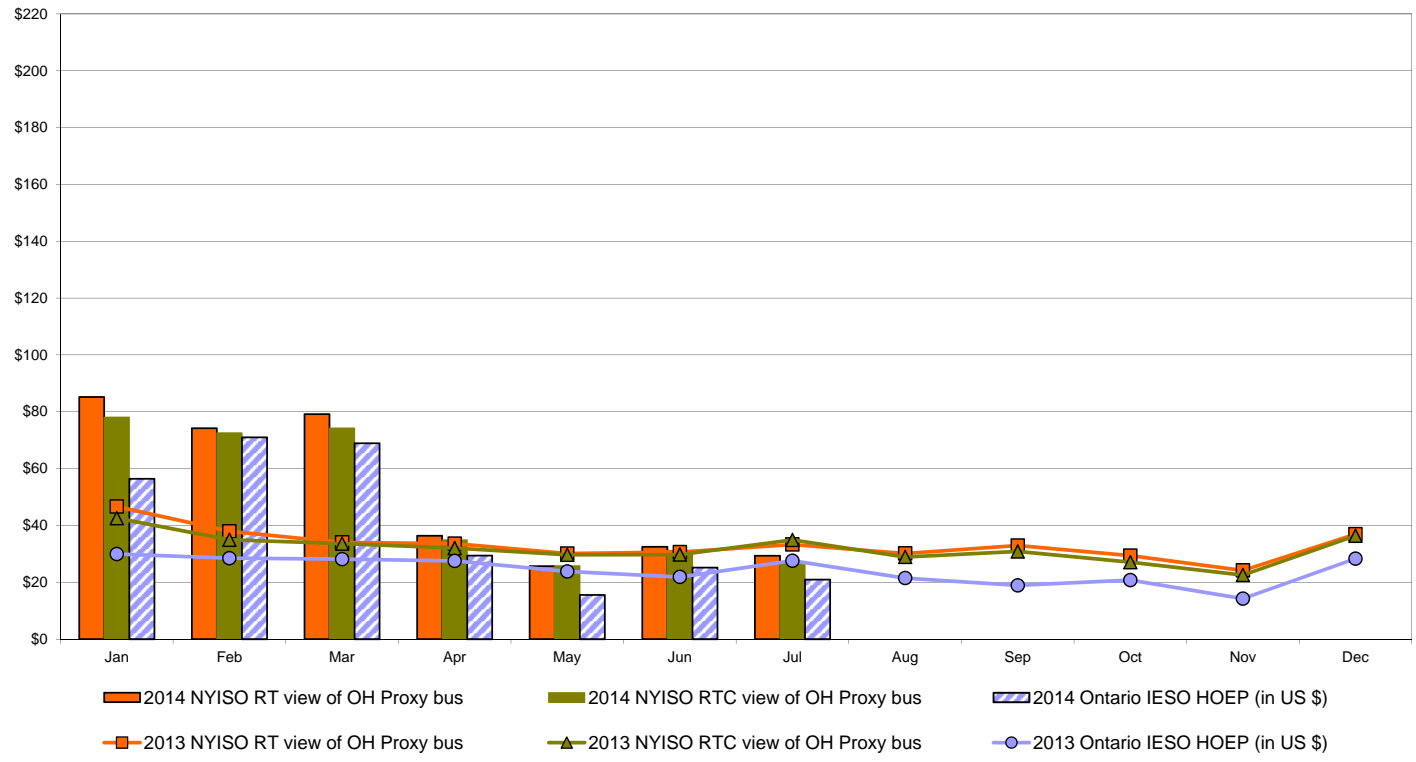


# External Comparison Ontario IESO

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

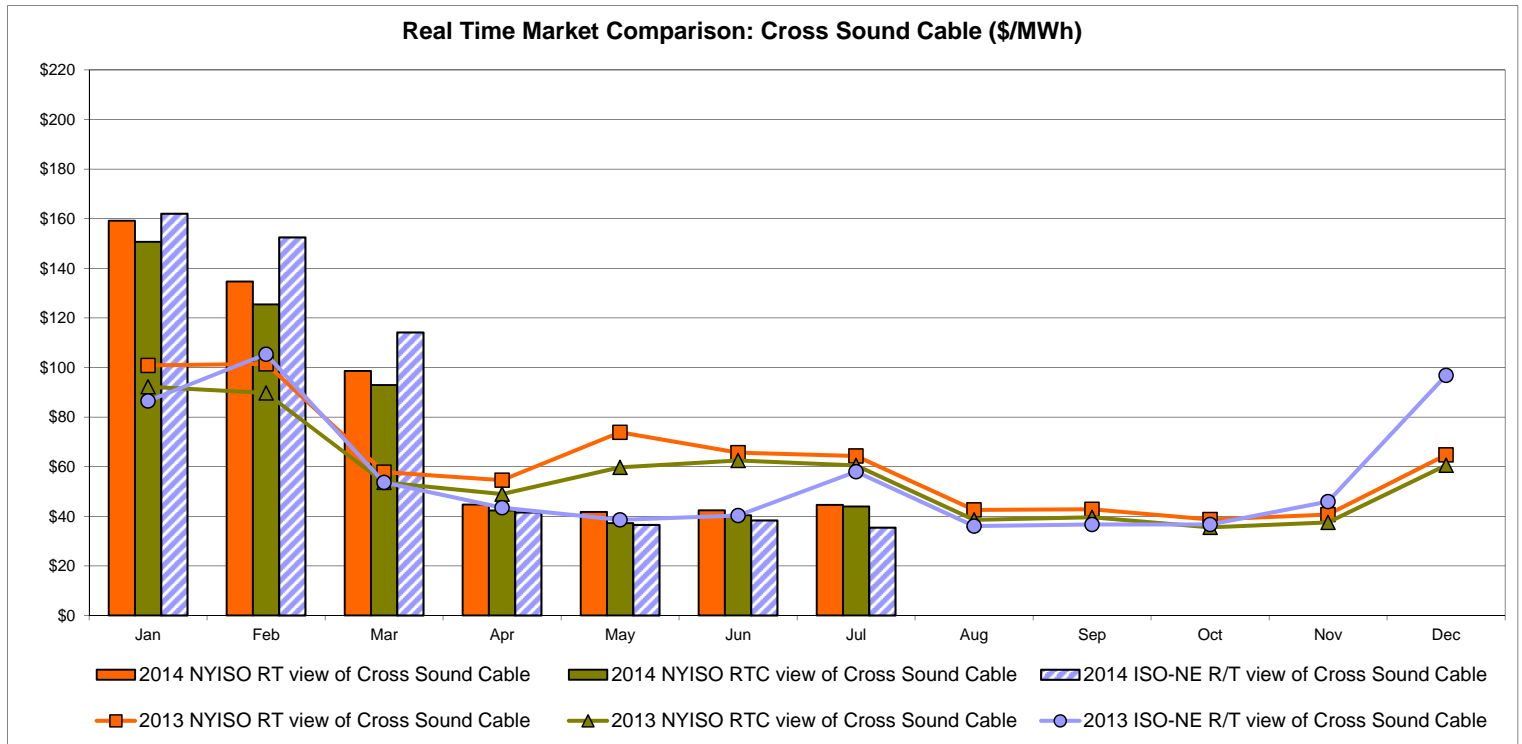
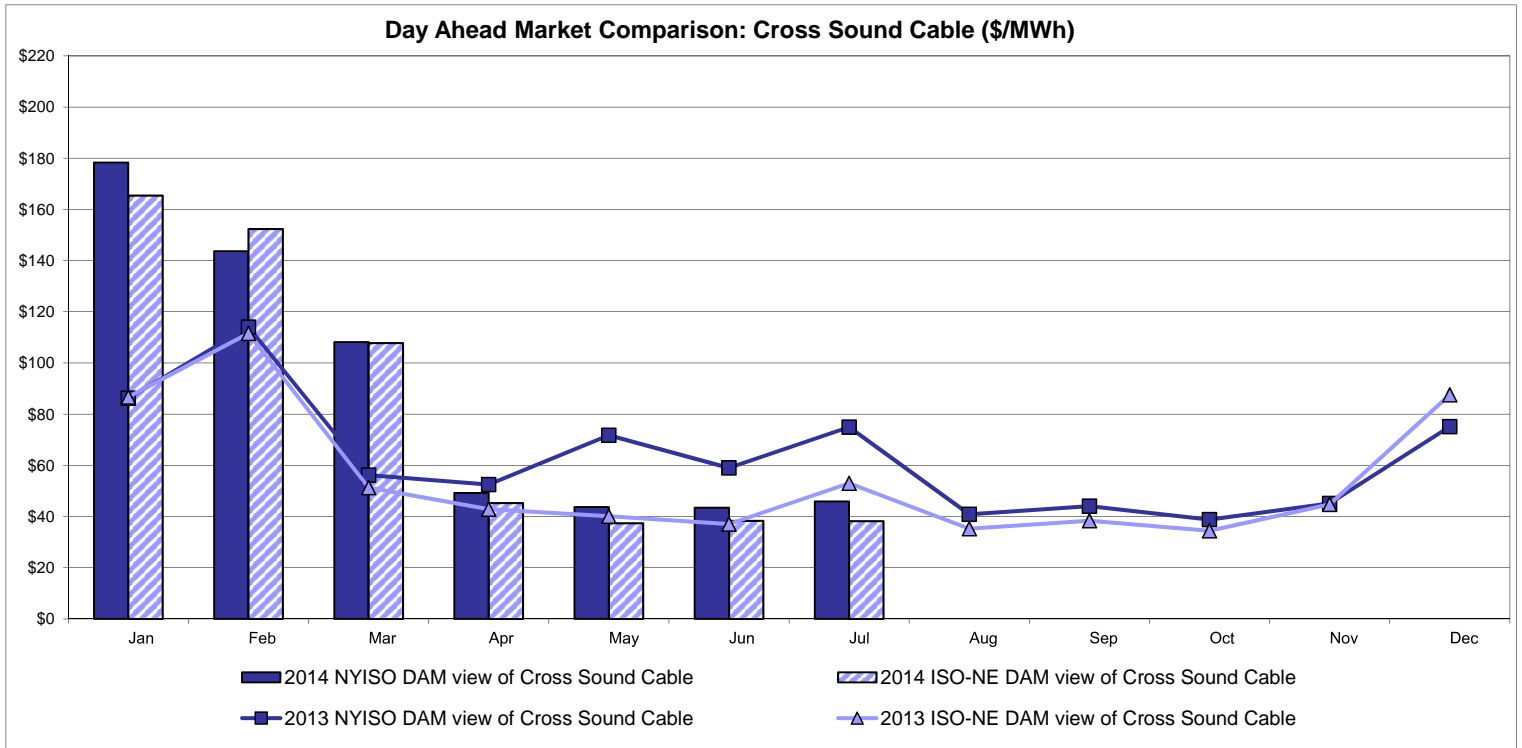


**Real Time Market External Zone Comparison - Ontario IESO (\$/MWh)**



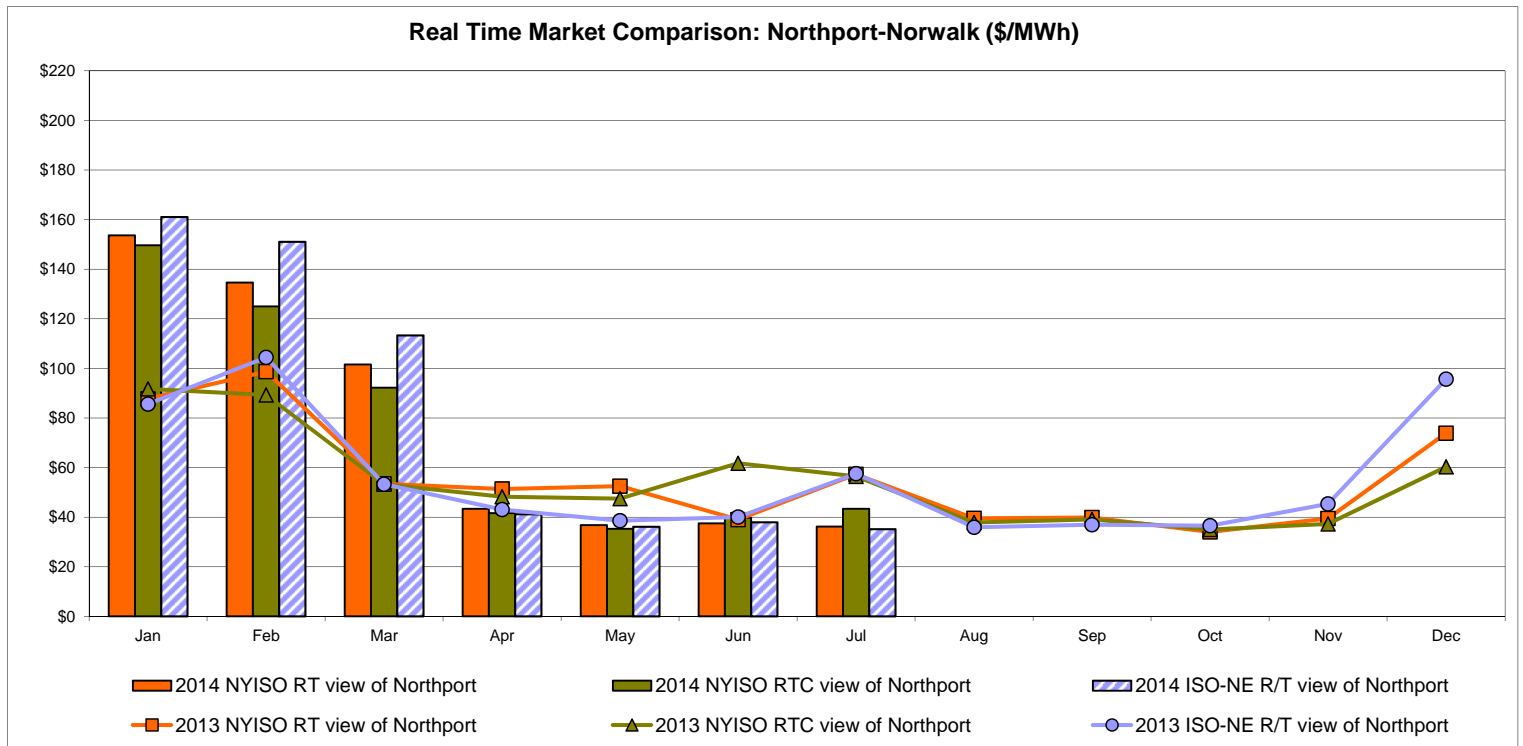
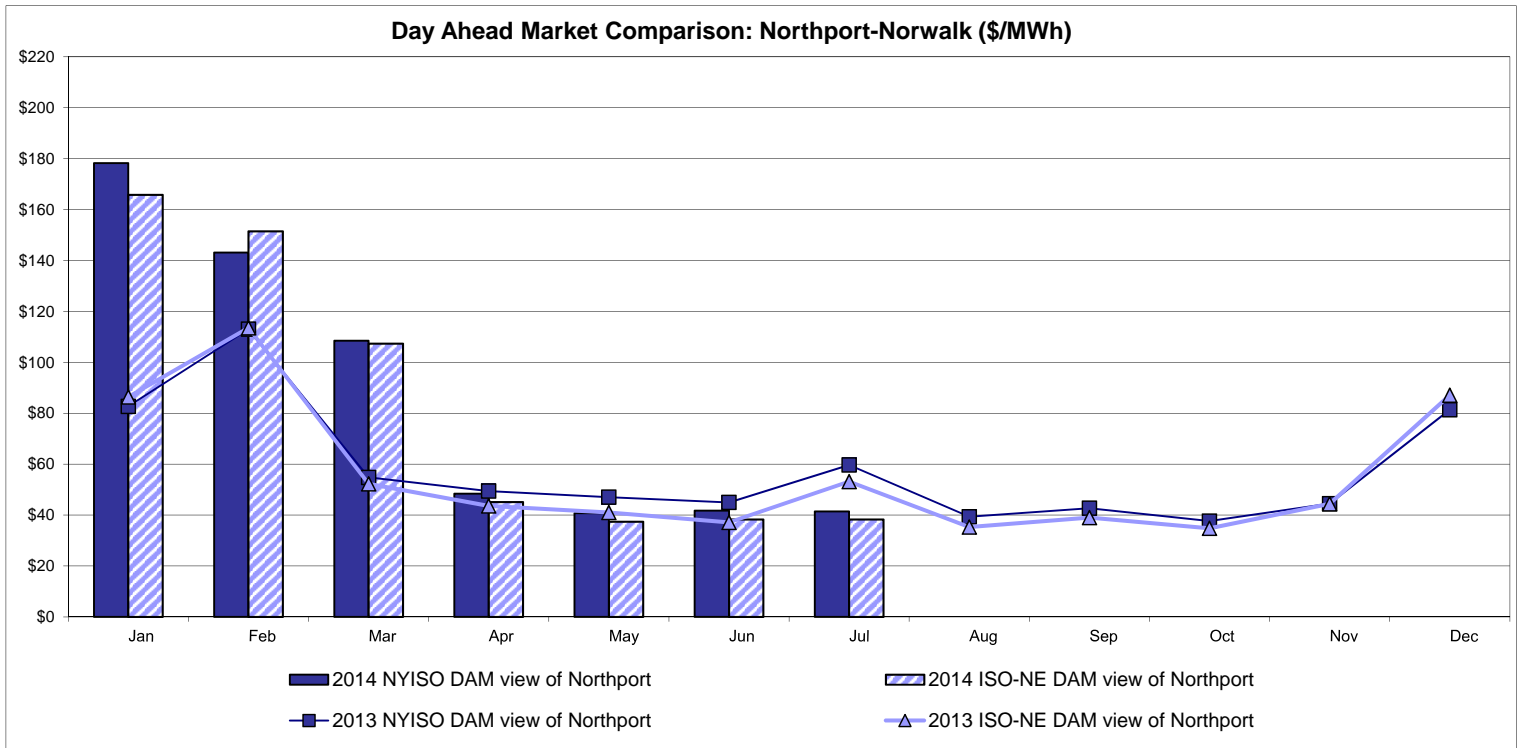
Notes: Exchange factor used for July 2014 was 0.9312 to US \$  
 HOEP: Hourly Ontario Energy Price  
 Pre-Dispatch: Projected Energy Price

# 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.

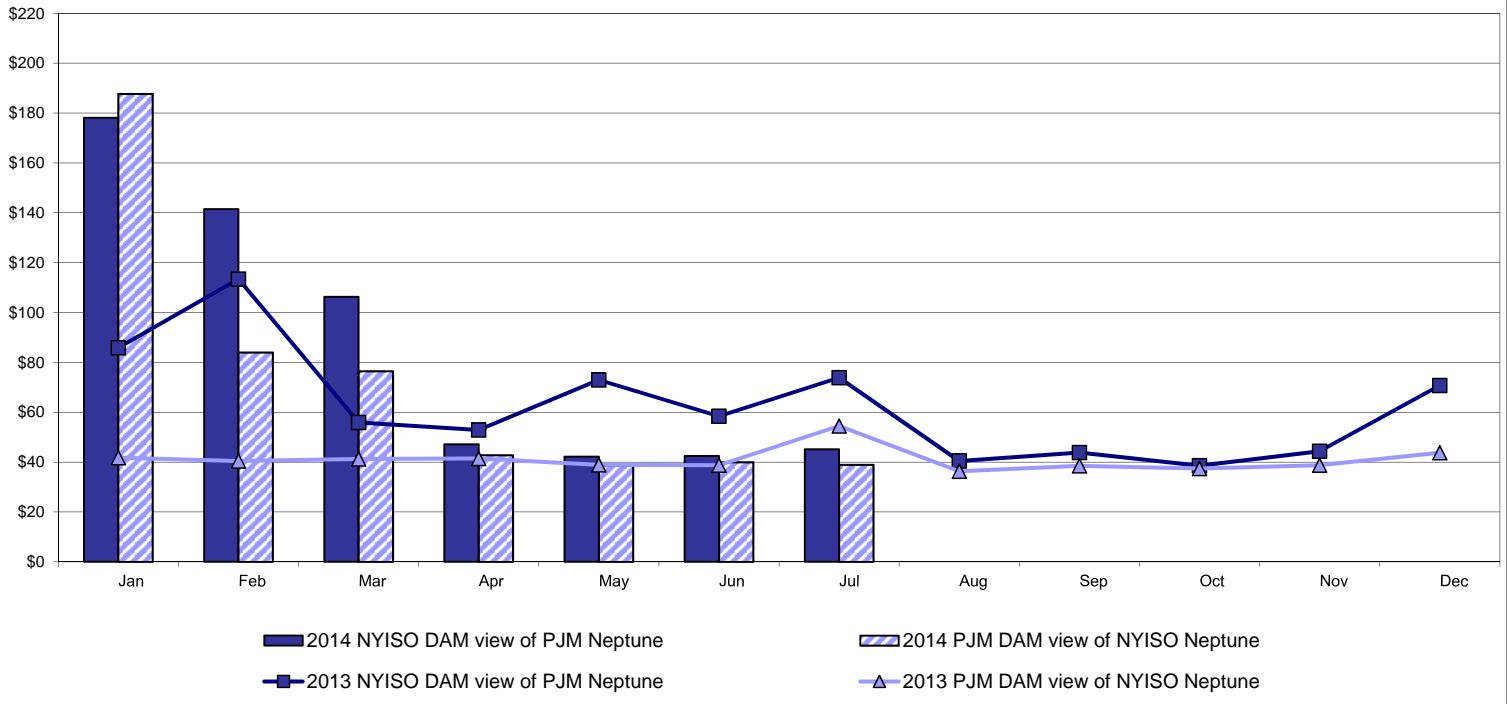
# External Controllable Line: Northport - Norwalk (New England)



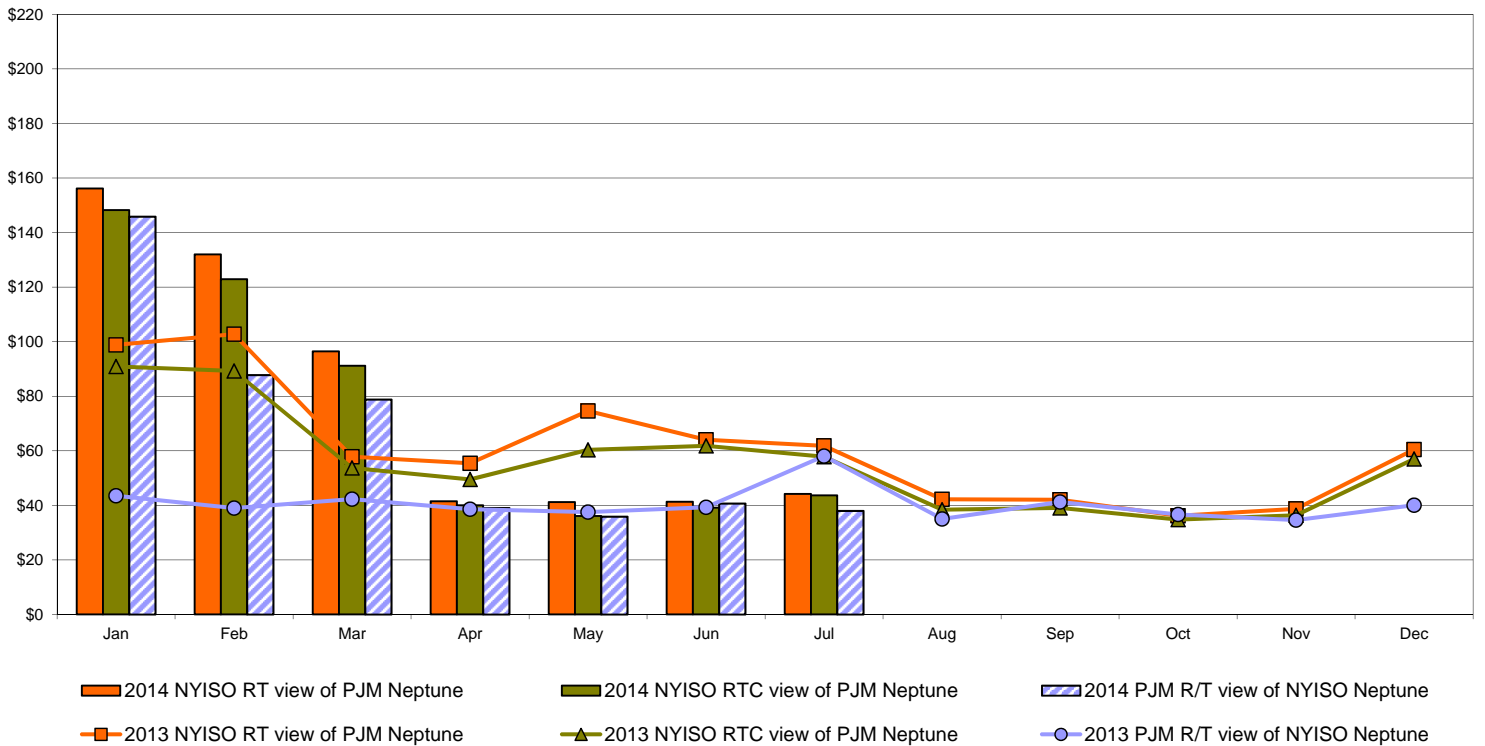
**Note:**  
 ISO-NE Forecast is an advisory posting @ 18:00 day before.  
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.  
 The DAM and R/T prices at the 1385 interface are used for NYISO.

## External Controllable Line: Neptune (PJM)

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

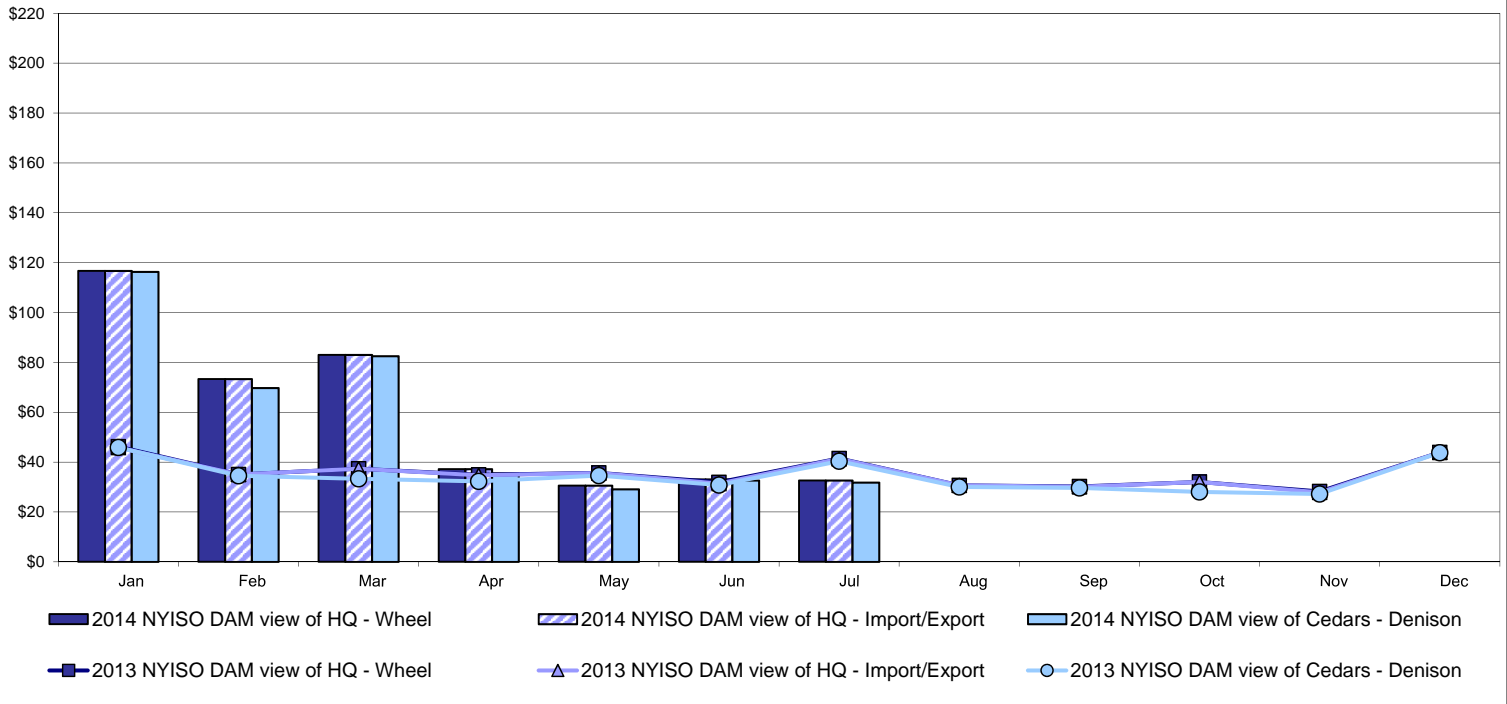


### Real Time Market Comparison: Neptune (\$/MWh)

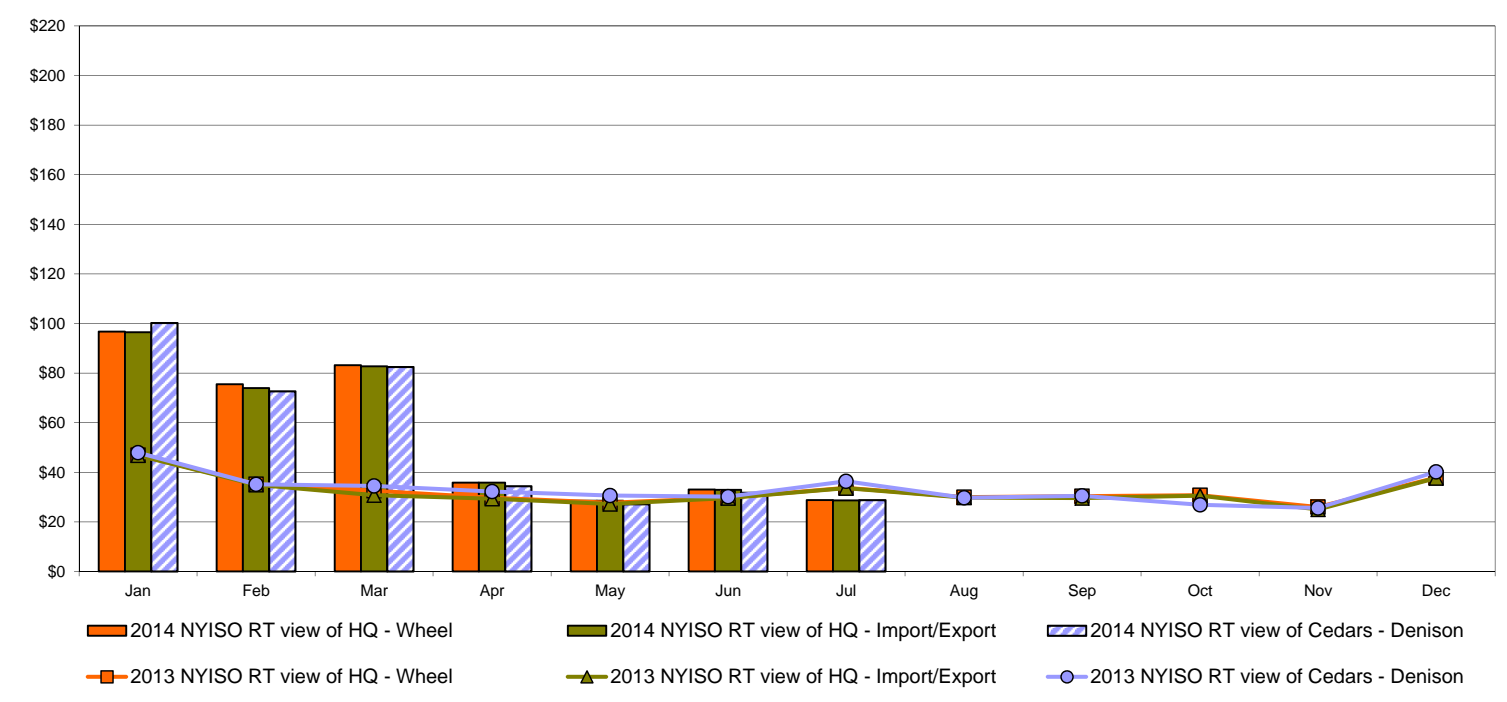


# External Comparison Hydro-Quebec

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



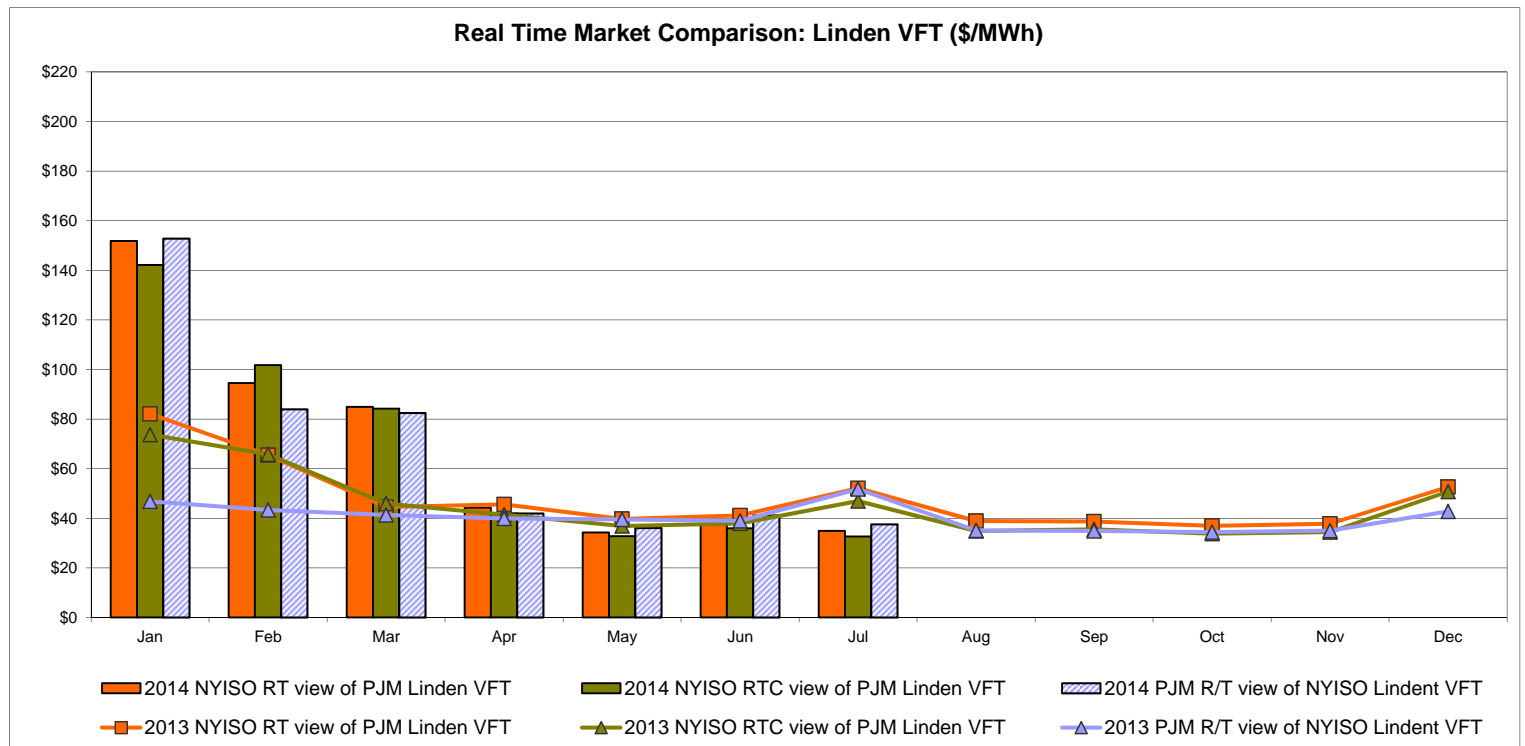
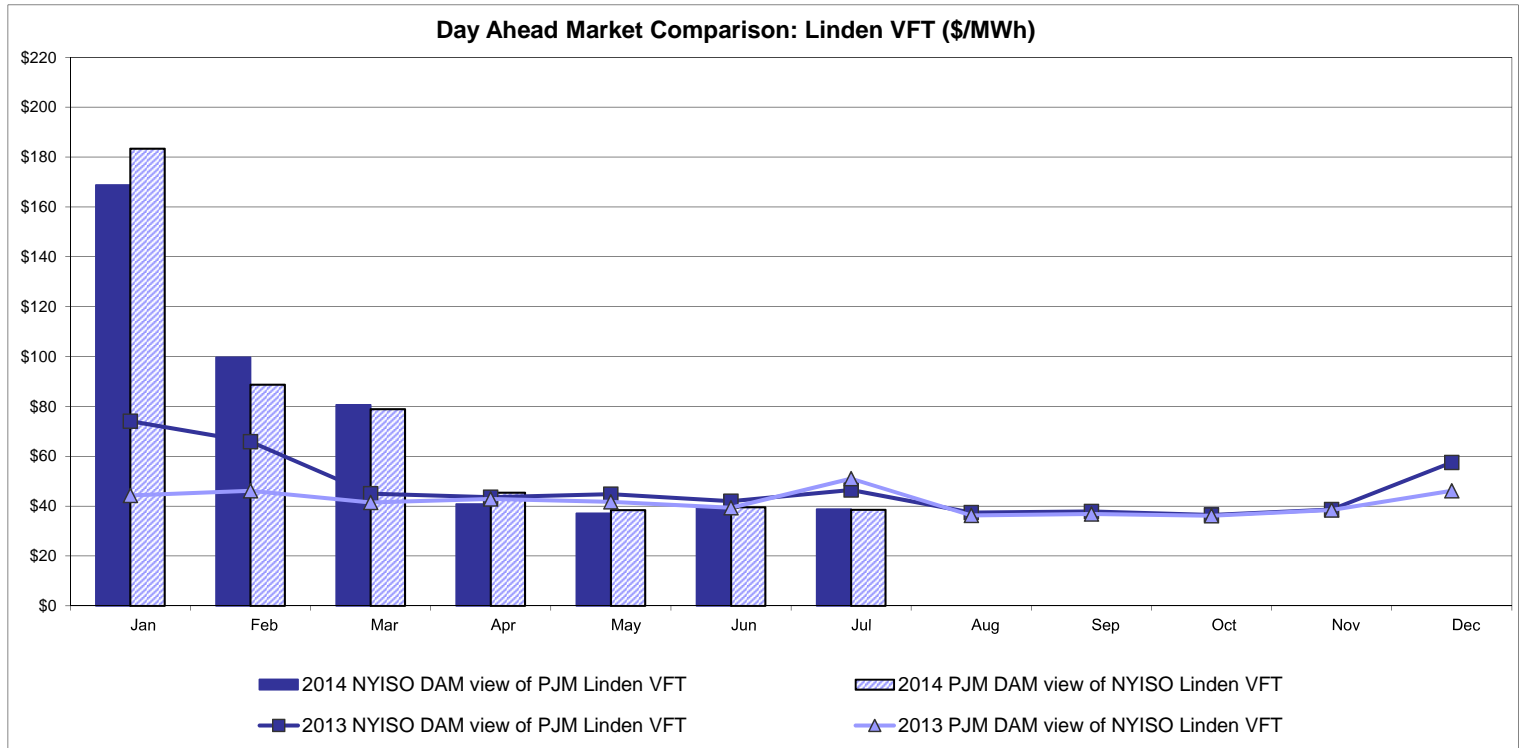
## Real Time Market External Zone Comparison - HQ (\$/MWh)



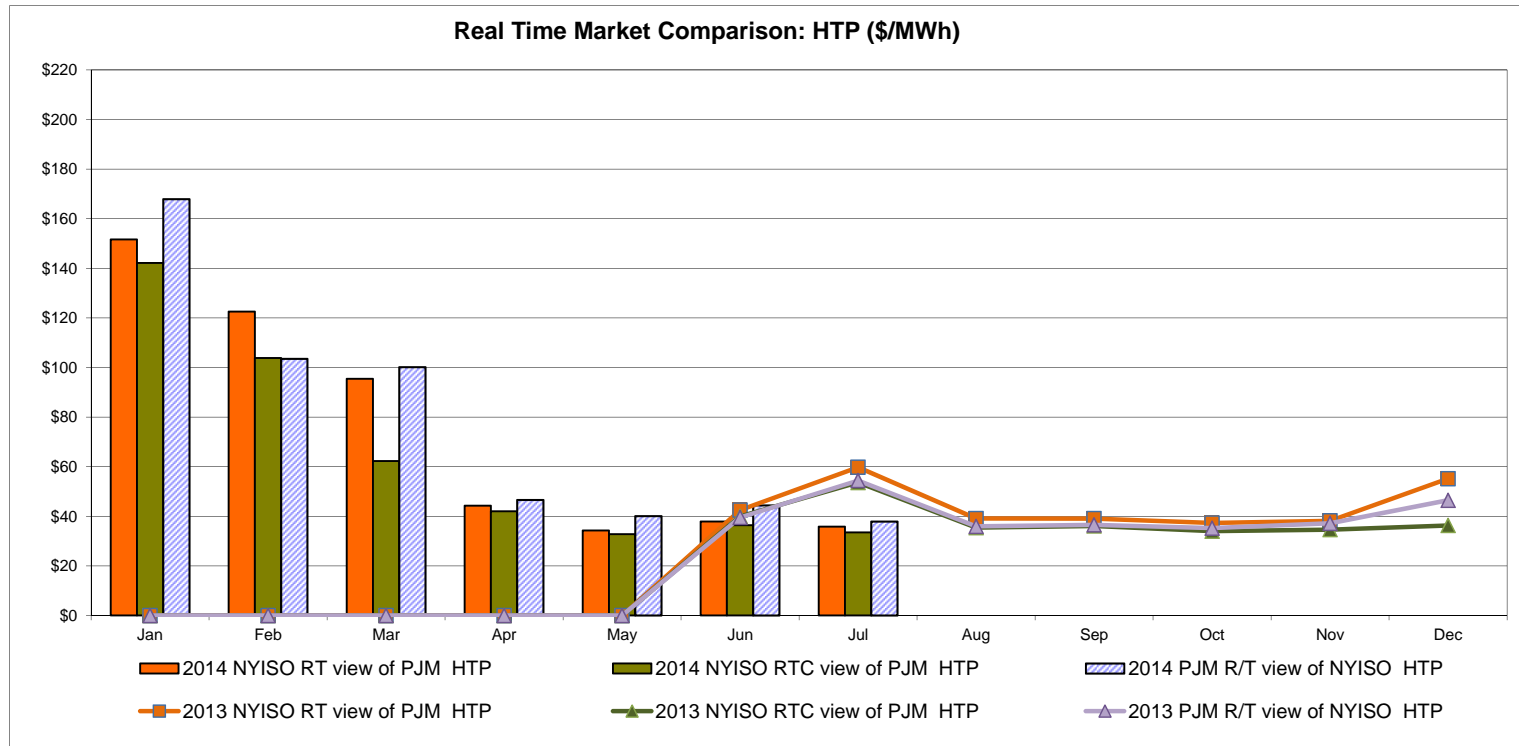
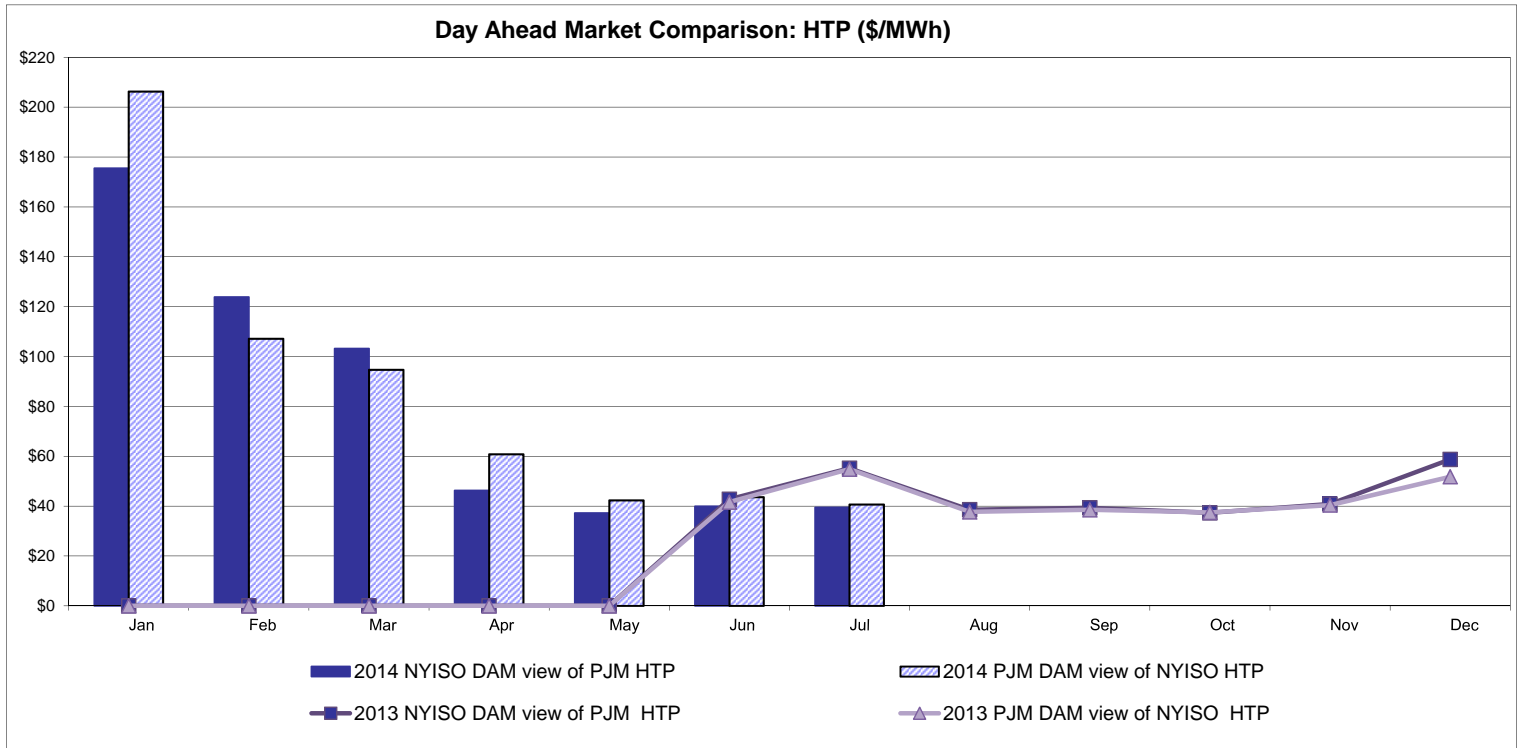
Note:  
Hydro-Quebec Prices are unavailable.



## External Controllable Line: Linden VFT (PJM)



## External Controllable Line: Hudson (PJM)

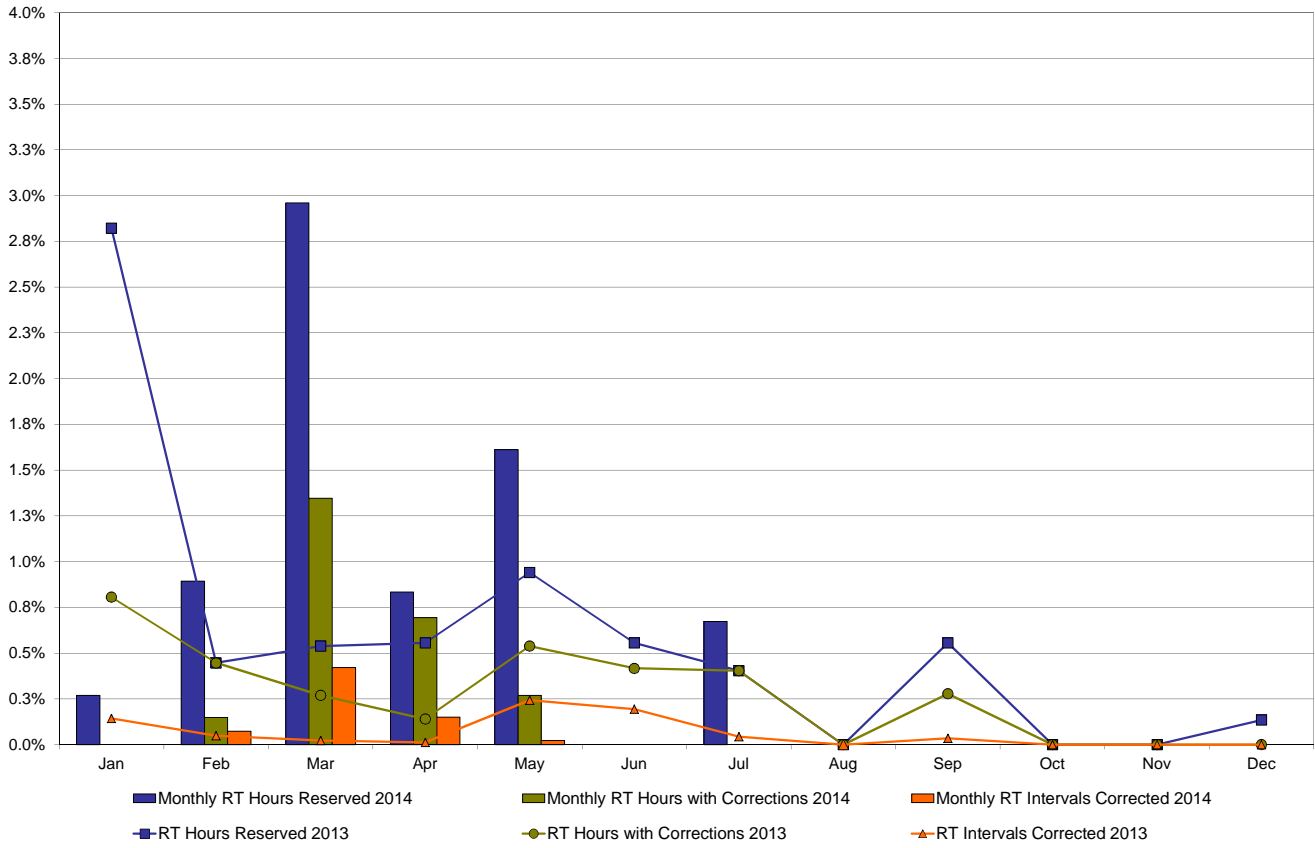


**NYISO Real Time Price Correction Statistics**

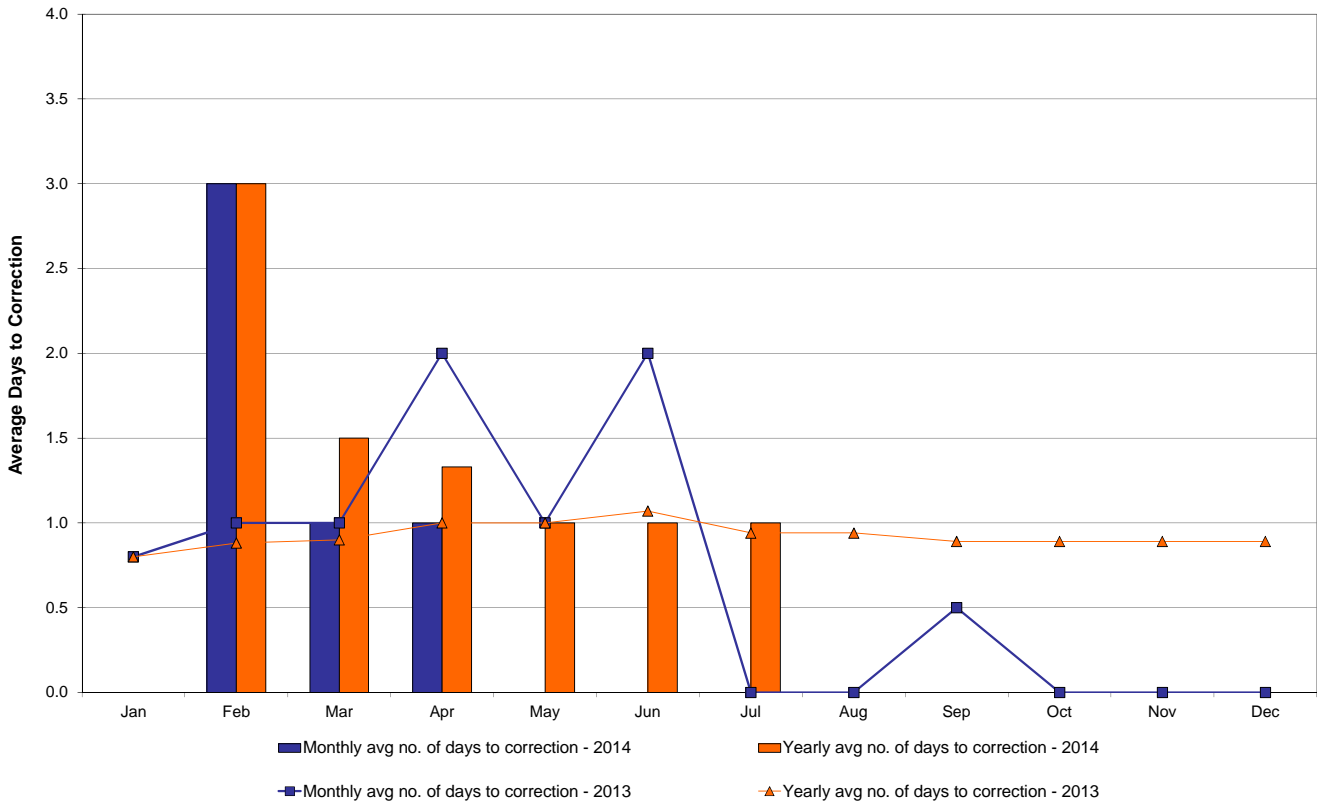
<b>2014</b>		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b>Hour Corrections</b>													
Number of hours with corrections	in the month	0	1	10	5	2	0	0					
Number of hours	in the month	744	672	743	720	744	720	744					
% of hours with corrections	in the month	0.00%	0.15%	1.35%	0.69%	0.27%	0.00%	0.00%					
% of hours with corrections	year-to-date	0.00%	0.07%	0.51%	0.56%	0.50%	0.41%	0.35%					
<b>Interval Corrections</b>													
Number of intervals corrected	in the month	0	6	38	13	2	0	0					
Number of intervals	in the month	9,232	8,205	9,023	8,720	9,030	8,729	8,999					
% of intervals corrected	in the month	0.00%	0.07%	0.42%	0.15%	0.02%	0.00%	0.00%					
% of intervals corrected	year-to-date	0.00%	0.03%	0.17%	0.16%	0.13%	0.11%	0.10%					
<b>Hours Reserved</b>													
Number of hours reserved	in the month	2	6	22	6	12	0	5					
Number of hours	in the month	744	672	743	720	744	720	744					
% of hours reserved	in the month	0.27%	0.89%	2.96%	0.83%	1.61%	0.00%	0.67%					
% of hours reserved	year-to-date	0.27%	0.56%	1.39%	1.25%	1.32%	1.11%	1.04%					
<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					
Avg. number of days to correction	year-to-date	0.00	3.00	1.50	1.33	1.00	1.00	1.00					
<b>Days Without Corrections</b>													
Days without corrections	in the month	31	27	28	28	29	30	31					
Days without corrections	year-to-date	31	58	86	114	143	173	204					
<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

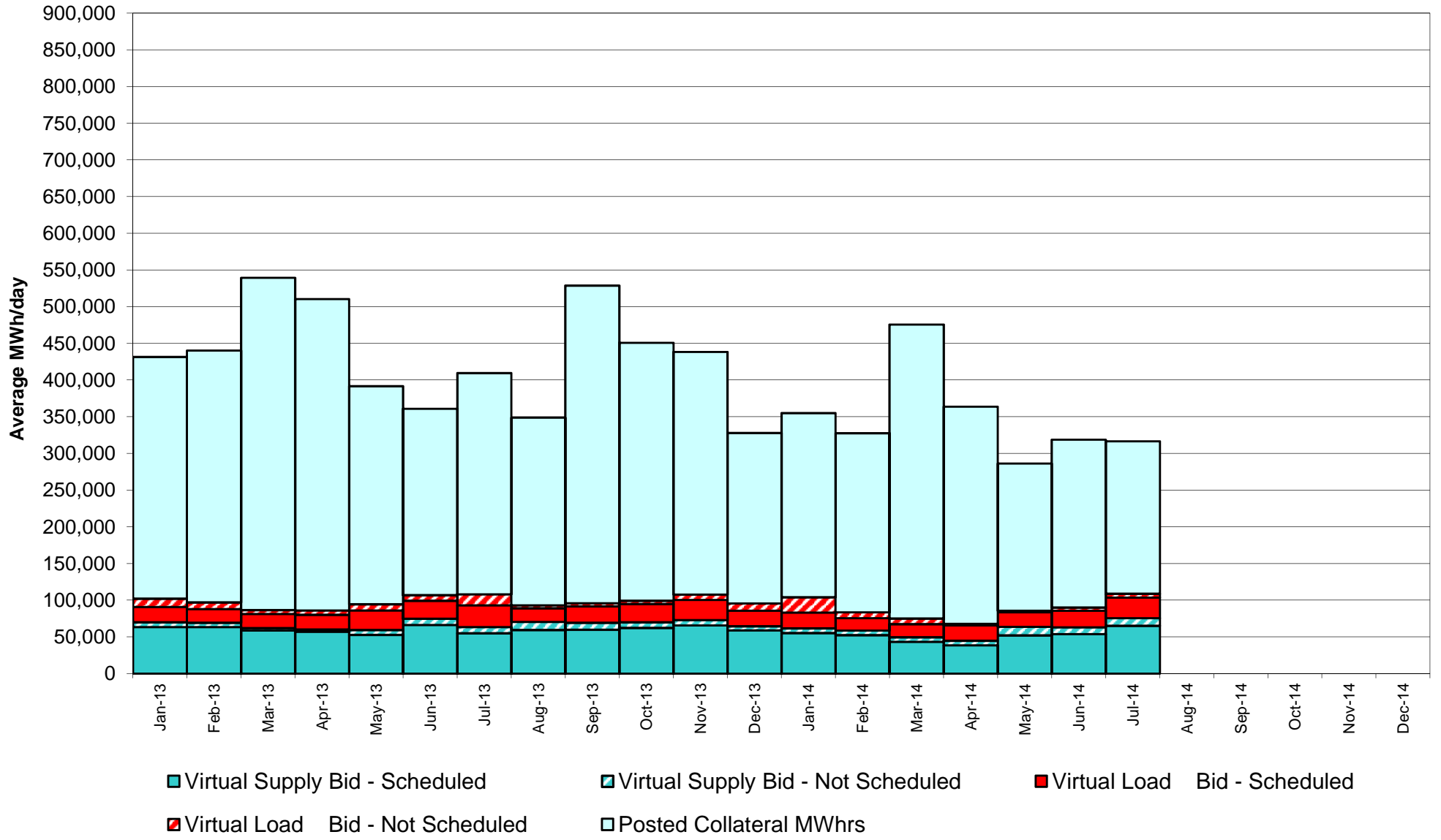


### Annual average time period for making Price Corrections (from reservation date) \*

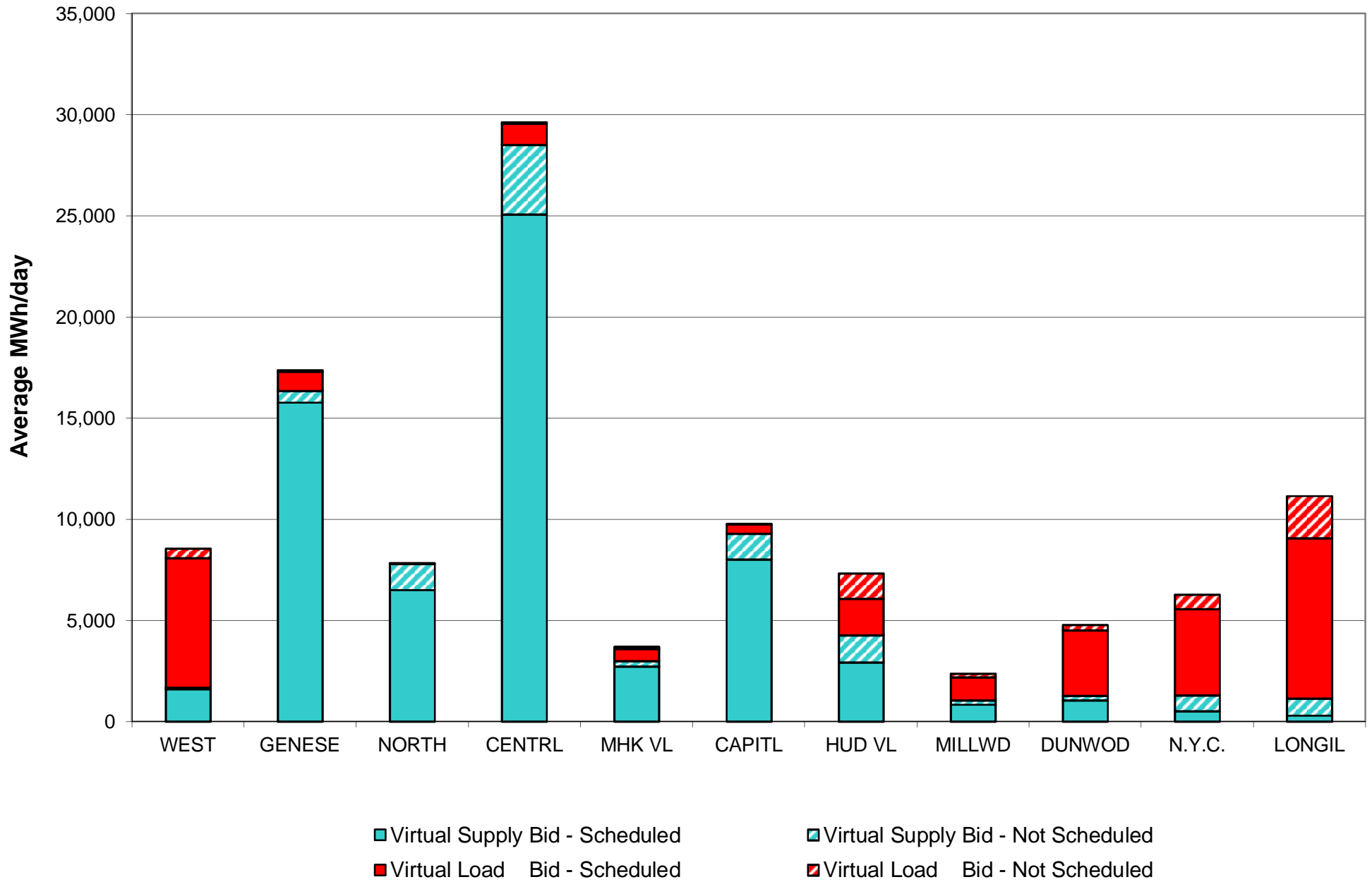


\* Calendar days from reservation date.

## NYISO Virtual Trading Average MWh per day



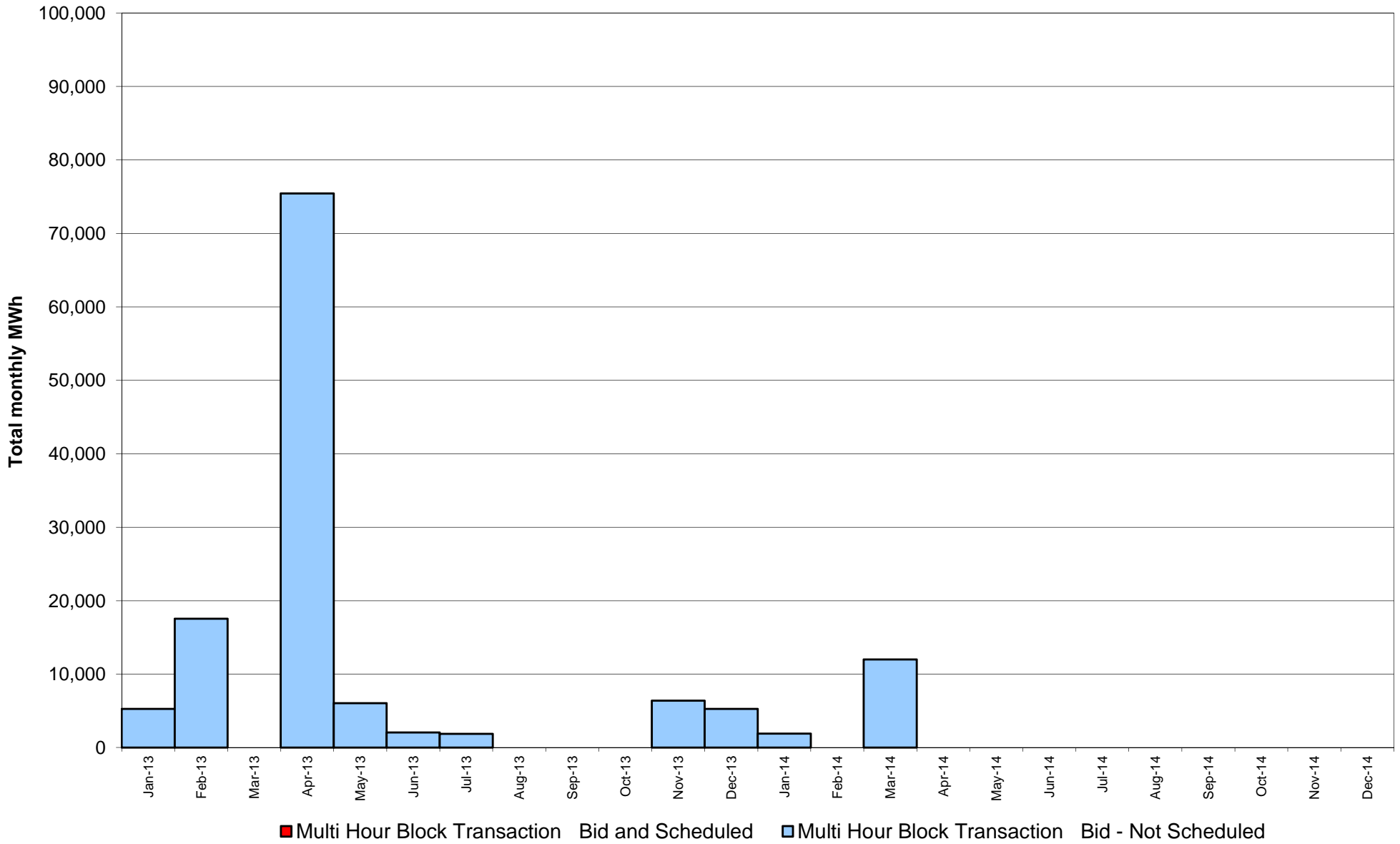
## Virtual Load and Supply Zonal Statistics through July 31, 2014



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

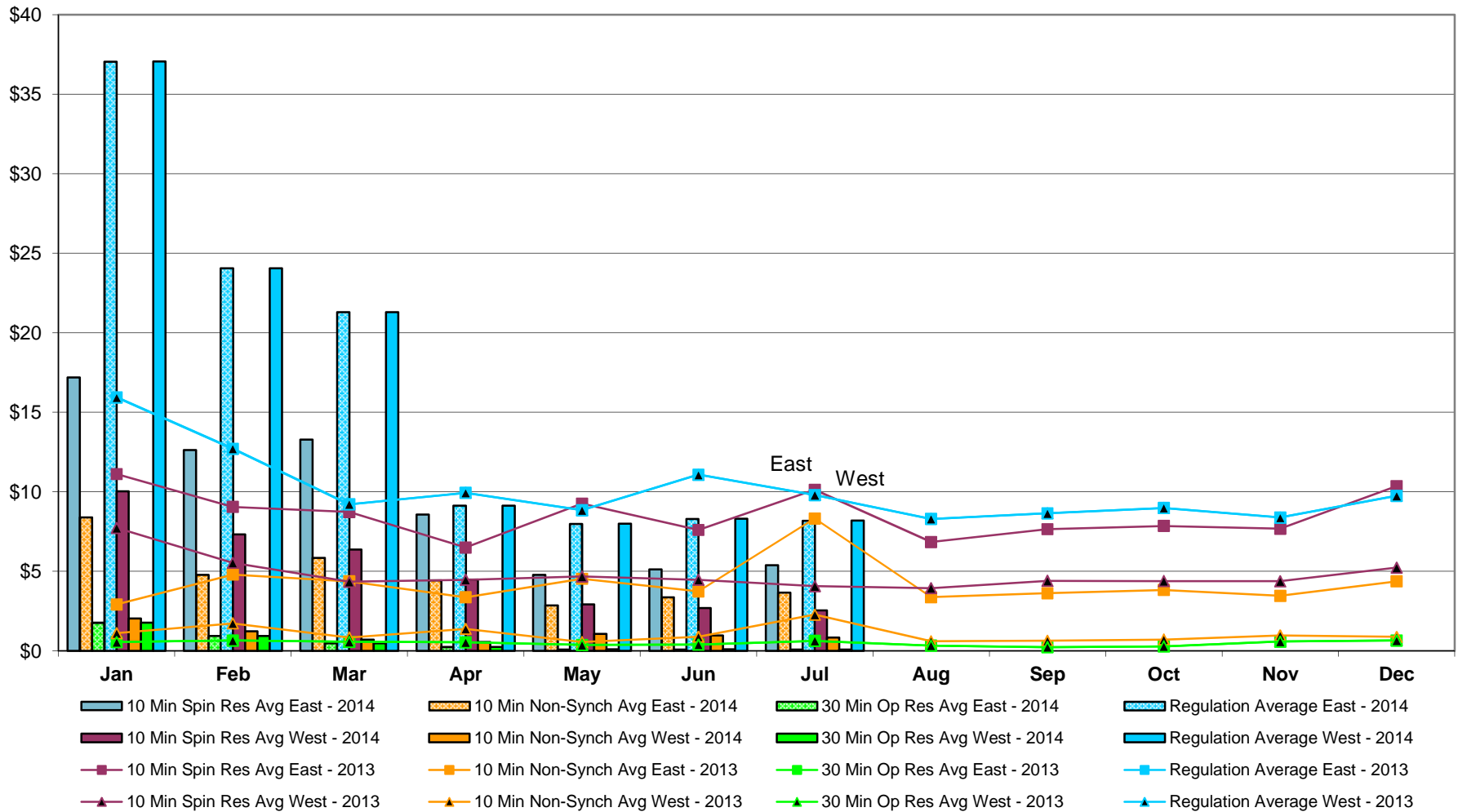
		Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid	
Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled
<b>WEST</b>	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						Aug-14						Aug-14				
	Sep-14						Sep-14						Sep-14				
	Oct-14						Oct-14						Oct-14				
	Nov-14						Nov-14						Nov-14				
	Dec-14						Dec-14						Dec-14				
	<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
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						Aug-14						Aug-14					
Sep-14						Sep-14						Sep-14					
Oct-14						Oct-14						Oct-14					
Nov-14						Nov-14						Nov-14					
Dec-14						Dec-14						Dec-14					
<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
	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					Aug-14						Aug-14					
	Sep-14					Sep-14						Sep-14					
	Oct-14					Oct-14						Oct-14					
	Nov-14					Nov-14						Nov-14					
	Dec-14					Dec-14						Dec-14					
	<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
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						Aug-14						Aug-14					
Sep-14						Sep-14						Sep-14					
Oct-14						Oct-14						Oct-14					
Nov-14						Nov-14						Nov-14					
Dec-14						Dec-14						Dec-14					

## NYISO Multi Hour Block Transactions Monthly Total MWh

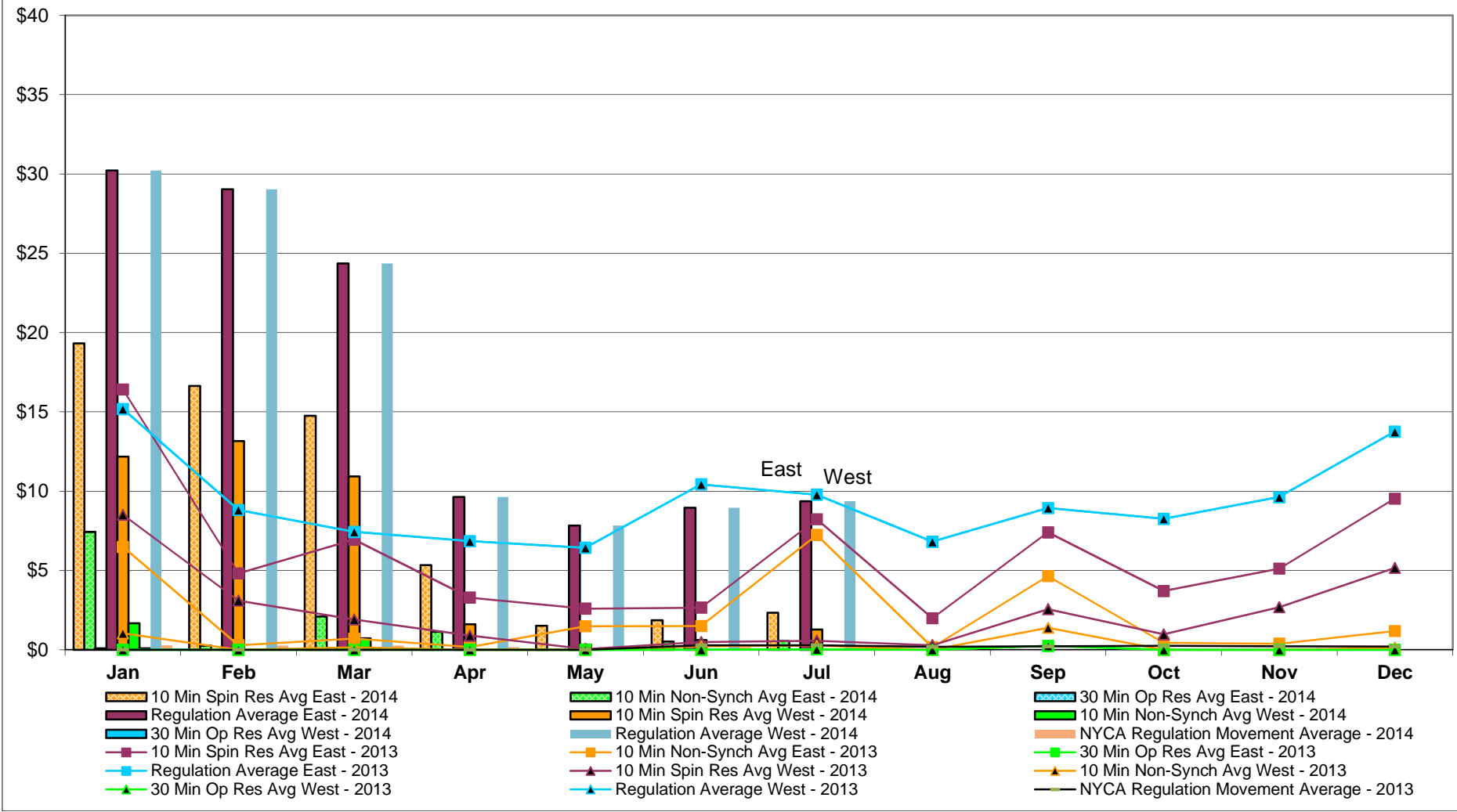




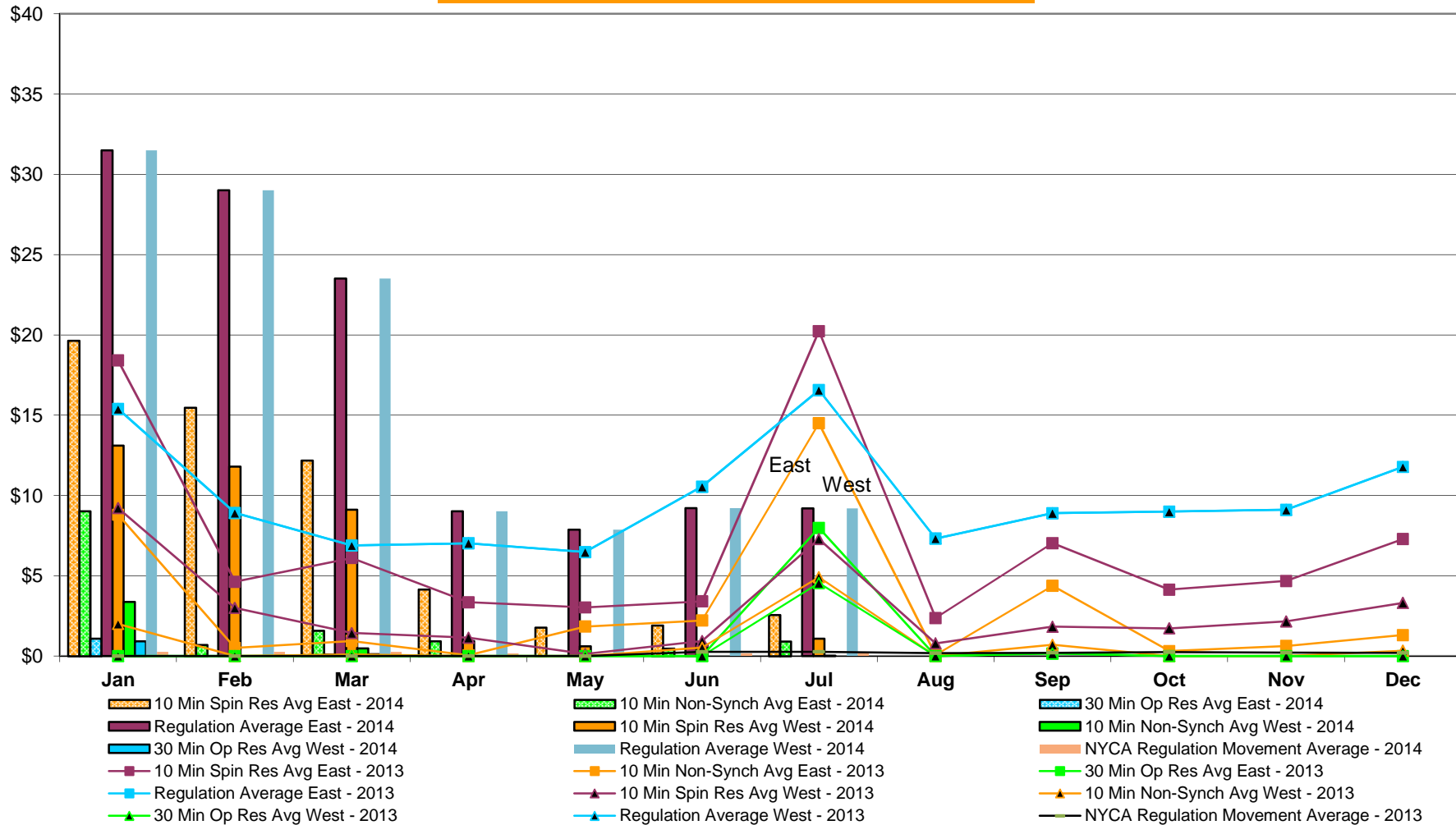
### NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2013 - 2014



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



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



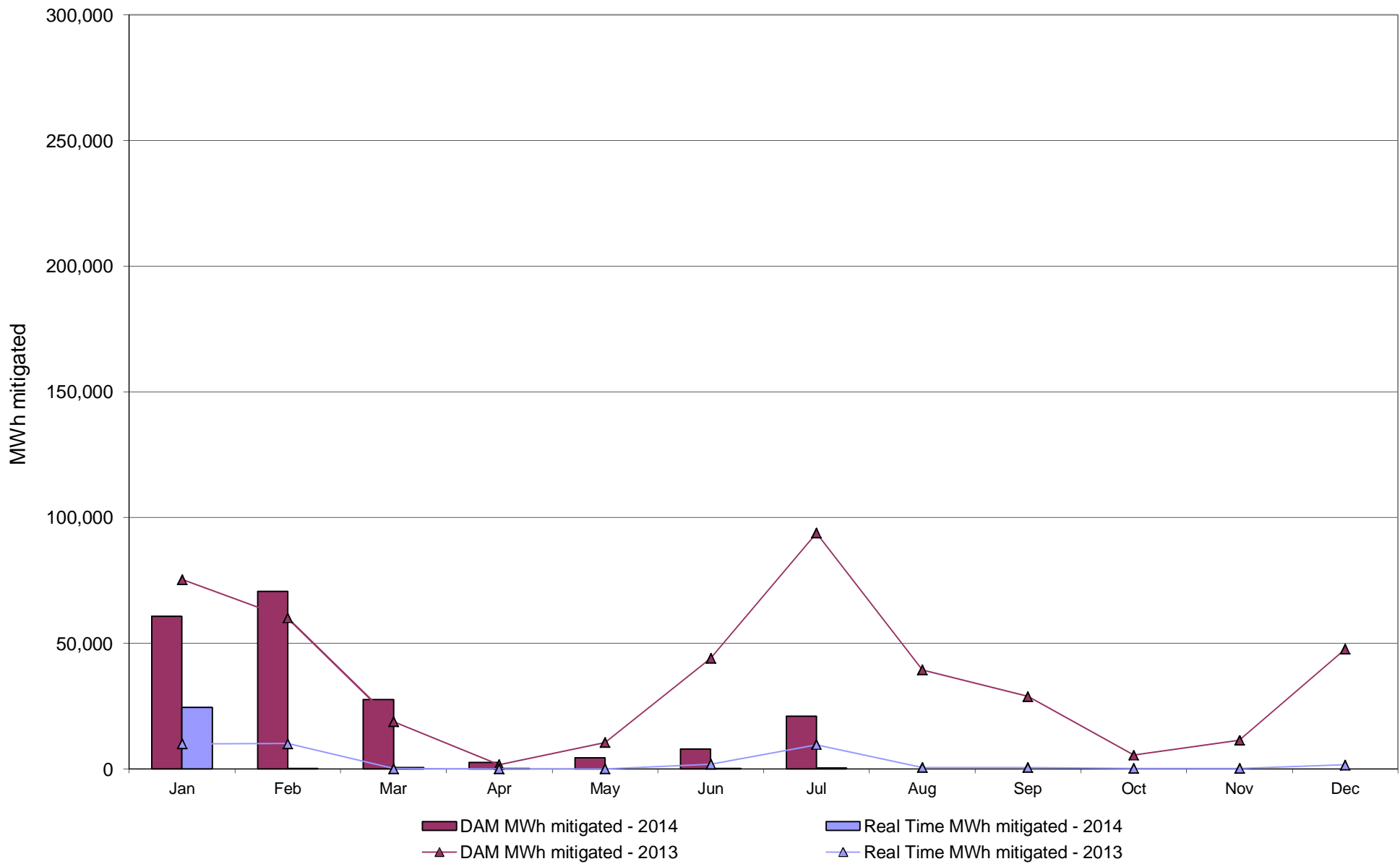
**NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)**

<b>2014</b>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<b>Day Ahead Market</b>												
10 Min Spin East	17.19	12.62	13.27	8.57	4.77	5.11	5.37					
10 Min Spin West	10.02	7.32	6.36	4.47	2.92	2.69	2.54					
10 Min Non Synch East	8.40	4.78	5.86	4.44	2.86	3.37	3.65					
10 Min Non Synch West	2.02	1.23	0.70	0.55	1.06	0.96	0.83					
30 Min East	1.77	0.93	0.47	0.24	0.09	0.08	0.08					
30 Min West	1.77	0.93	0.47	0.24	0.09	0.08	0.08					
Regulation East	37.05	24.05	21.29	9.12	7.99	8.30	8.18					
Regulation West	37.05	24.05	21.29	9.12	7.99	8.30	8.18					
<b>RTC Market</b>												
10 Min Spin East	19.32	16.64	14.76	5.34	1.52	1.87	2.35					
10 Min Spin West	12.18	13.16	10.93	1.61	0.33	0.61	1.27					
10 Min Non Synch East	7.43	0.26	2.10	1.14	0.00	0.52	0.55					
10 Min Non Synch West	1.68	0.00	0.72	0.00	0.00	0.00	0.00					
30 Min East	0.08	0.00	0.12	0.00	0.00	0.00	0.00					
30 Min West	0.08	0.00	0.12	0.00	0.00	0.00	0.00					
Regulation East	30.21	29.03	24.35	9.64	7.83	8.95	9.36					
Regulation West	30.21	29.03	24.35	9.64	7.83	8.95	9.36					
NYCA Regulation Movement	0.28	0.27	0.26	0.17	0.15	0.17	0.21					
<b>Real Time Market</b>												
10 Min Spin East	19.64	15.48	12.19	4.15	1.78	1.92	2.57					
10 Min Spin West	13.10	11.80	9.11	0.94	0.61	0.72	1.08					
10 Min Non Synch East	9.03	0.70	1.59	0.93	0.00	0.48	0.92					
10 Min Non Synch West	3.37	0.00	0.48	0.00	0.00	0.00	0.00					
30 Min East	1.10	0.00	0.11	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					
Regulation East	31.50	29.02	23.52	9.02	7.87	9.21	9.21					
Regulation West	31.50	29.02	23.52	9.02	7.87	9.21	9.21					
NYCA Regulation Movement	0.27	0.27	0.27	0.17	0.15	0.18	0.21					
<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

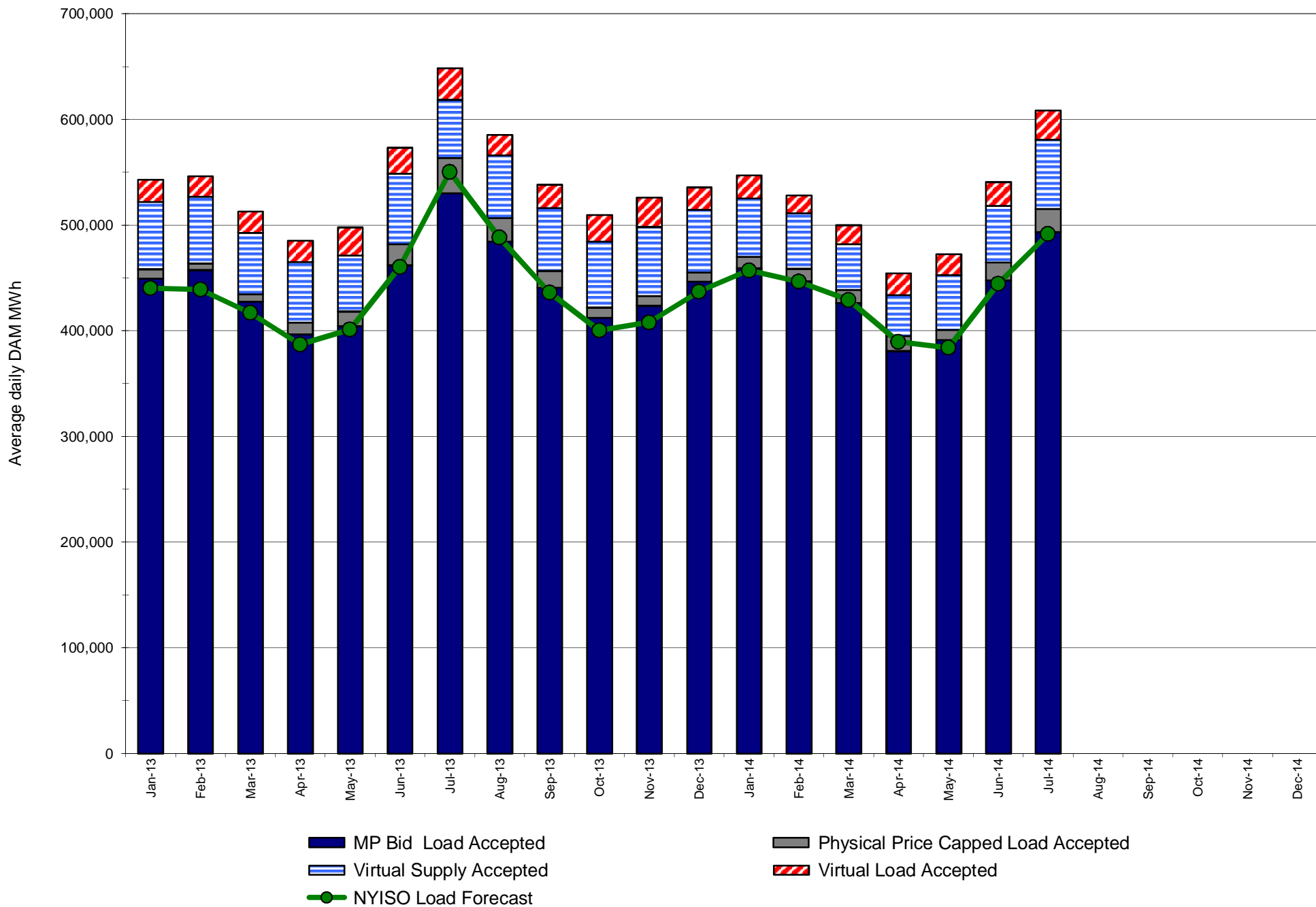
## NYISO In City Energy Mitigation - AMP (NYC Zone) 2013 - 2014 Percentage of committed unit-hours mitigated



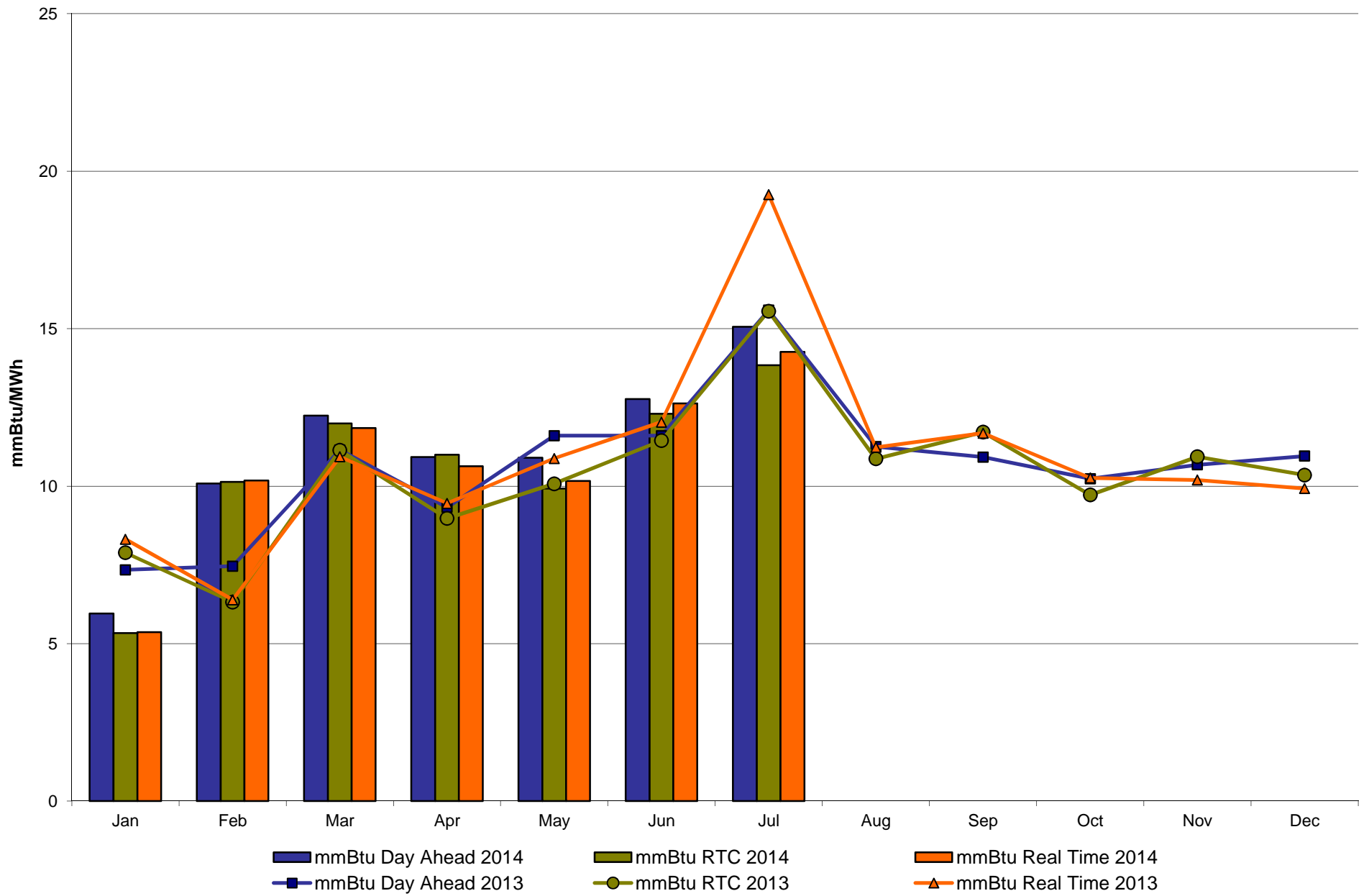
**NYISO In City Energy Mitigation (NYC Zone) 2013 - 2014  
Monthly megawatt hours mitigated**



# NYISO Average Daily DAM Load Bid Summary

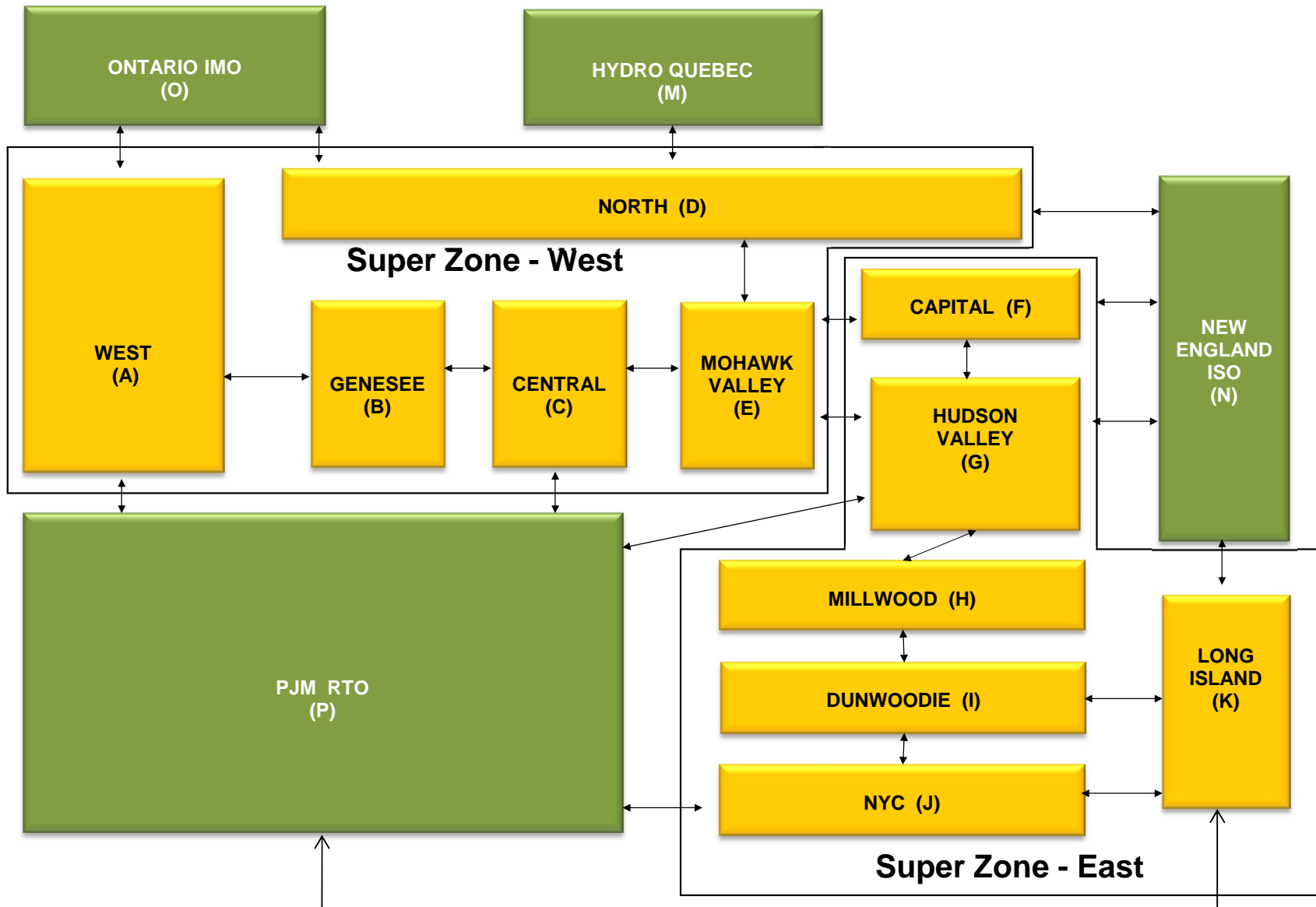


## Monthly Implied Heat Rate 2013-2014





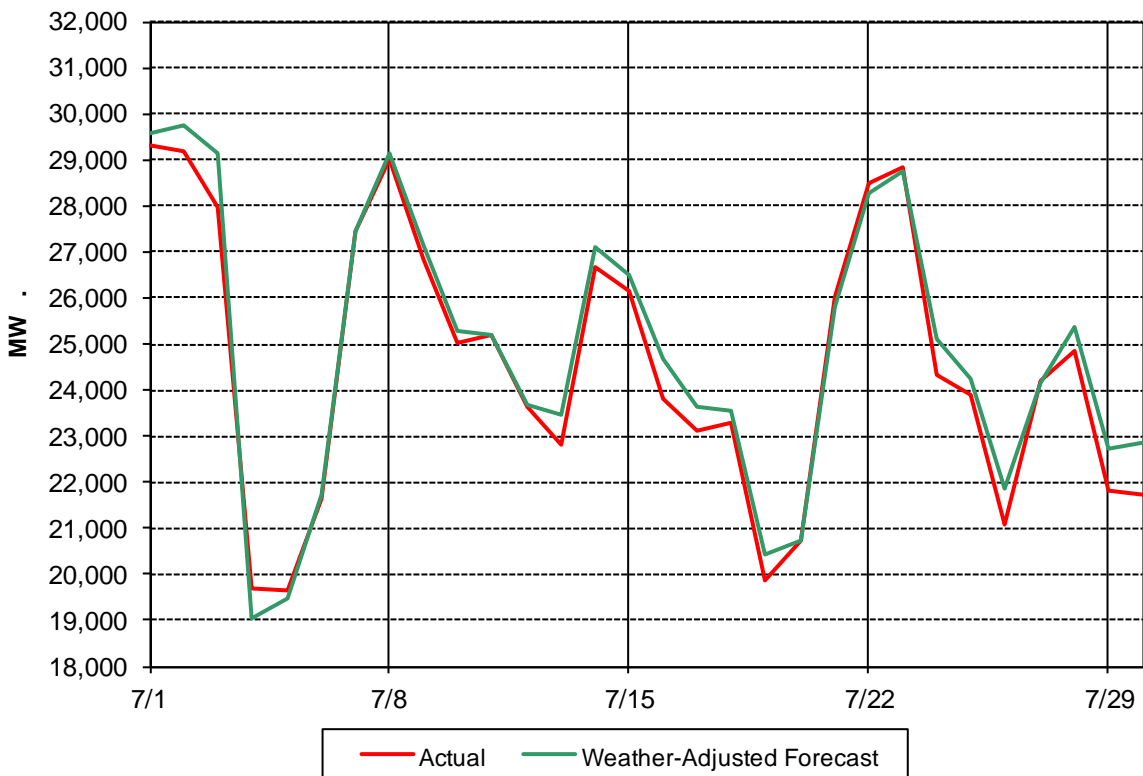
# NYISO LBMP ZONES



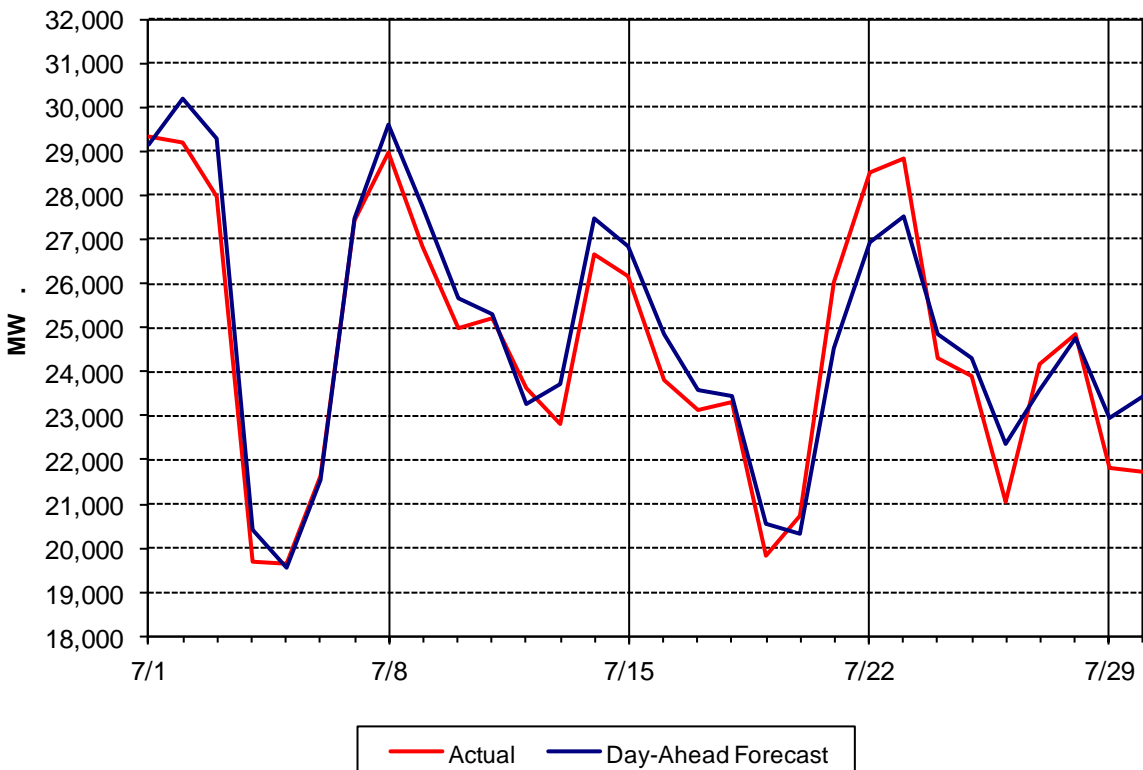
**Billing Codes for Chart 4-C**

<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

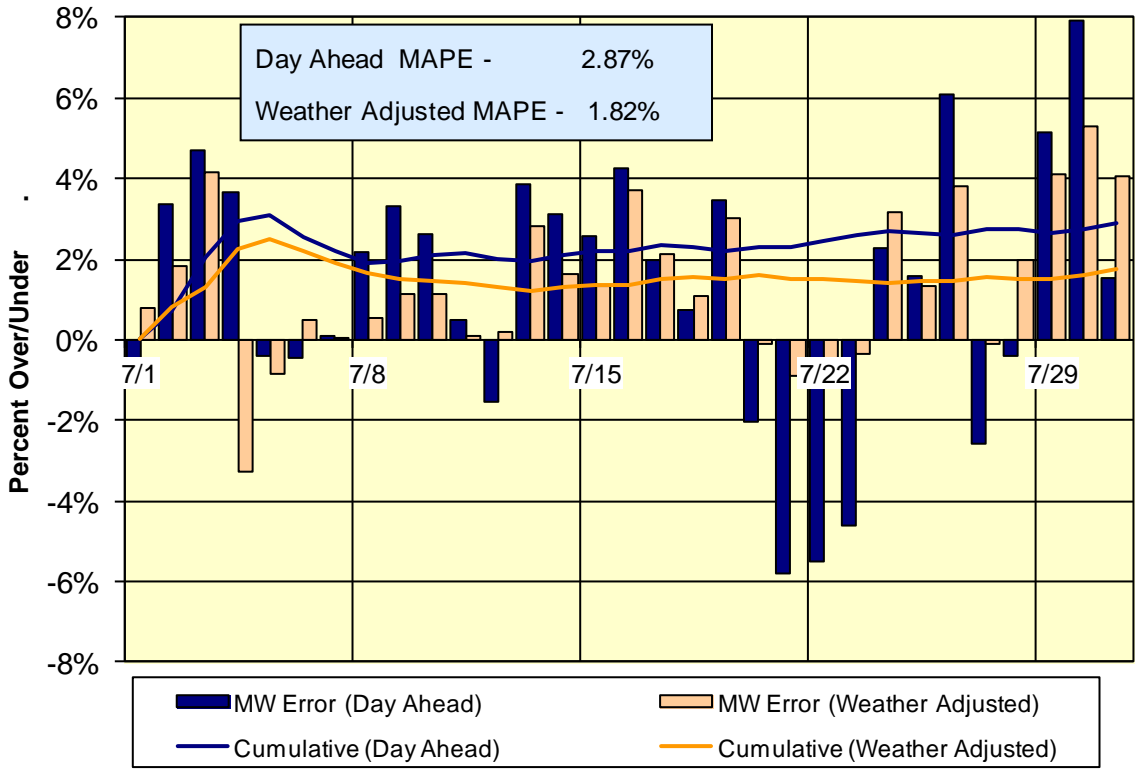
**NYISO Daily Peak Load - July 2014  
Actual vs Weather-Adjusted Forecast**



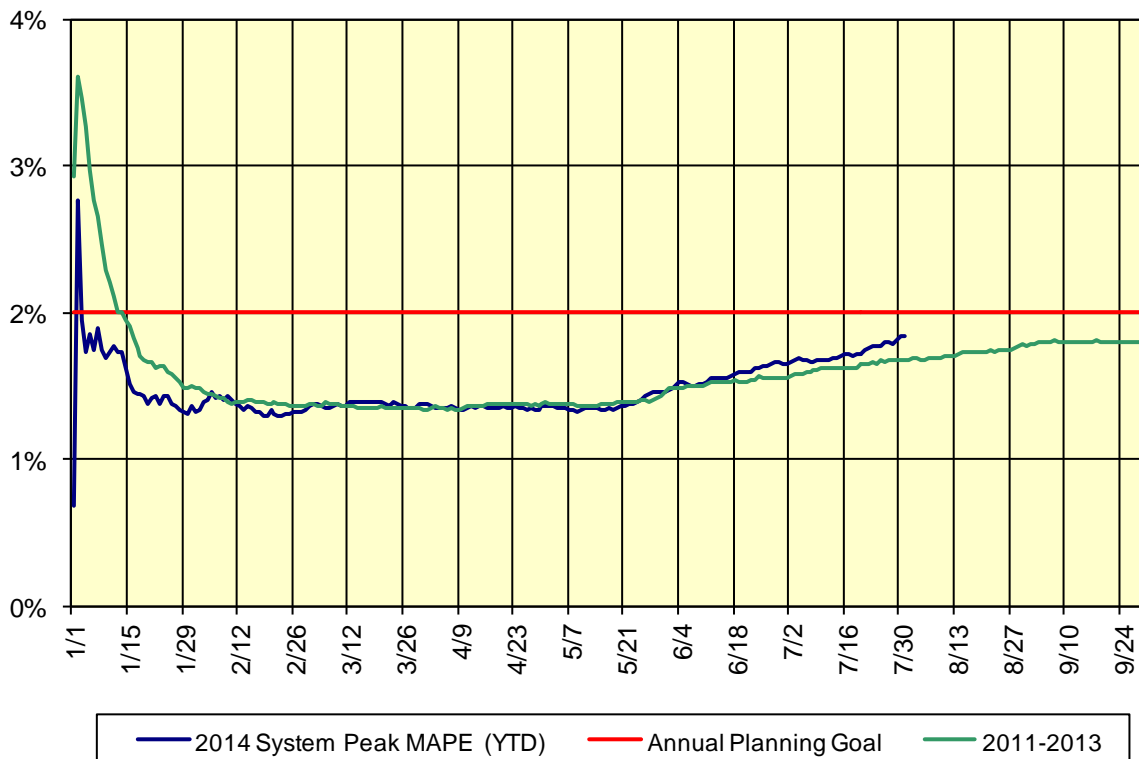
**NYISO Daily Peak Load - July 2014  
Actual vs Forecast**



### Day Ahead Peak Forecast - July 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 – July 2014

Filing Date	Filing Summary	Docket	Order Date	Order Summary
03/31/2014	NYISO annual compliance report re: unreserved use and late study penalties	OA14-2-000	07/02/2014	FERC letter order accepted report as filed
06/18/2014	NYISO filing re: motion to intervene and comment concerning the Erie Power request for tariff waiver of certain interconnection requirements	ER14-2056-000	07/15/2014	FERC order denied the request for tariff waiver
07/02/2014	NYISO compliance filing re: request for revised effective date for Order 1000 tariff revisions	ER13-102-003		
07/03/2014	NYISO filing re: supplement to its 07/02/2014 request to change the effective date of the proposed Order 1000 compliance tariff revisions	ER13-102-004	07/17/2014	Order partially granting and denying rehearing, and partially accepting compliance filings but directing further compliance filings within 60 days
07/11/2014	NYISO confidential filing to the NYPSC re: three-month <i>Reliability Commitment Data Report</i> for the period ending 06/30/2014	PSC Matter No. 10-02007		
07/11/2014	NYISO filing re: 2 <sup>nd</sup> quarter 2014 Electric Quarterly Report	ER02-2001-000		No order to be issued
07/15/2014	NYISO filing re: ministerial error correction to MST Section 23.4, and to correspondingly correct its 06/26/2014 compliance filing to revise the rebuttable presumption of the pivotal supplier threshold for the G-J Locality	ER13-1380-005		
07/18/2014	NYISO filing re: response to the 06/04/2014 ALJ ruling seeking comments on policy issues regarding reforming the energy vision initiative	PSC Case No. 14-M-0101		
07/22/2014	NYISO informational filing re: a CEII copy of the Con Edison System Restoration Plan	ER12-2568-000		
07/25/2014	NYISO filing re: administrative correction to the currently effective definition of the term Modified Wheeling Agreement	ER14-2511-000		
07/28/2014	NYISO filing re: OATT and MST revisions to define certain outage states and associated requirements	ER14-2518-000		
07/29/2014	NYISO confidential email filing to the NYPSC re: quarterly project tracking report	PSC Matter No. 10-02007		
07/31/2014	NYISO filing re: MST revisions to better align the credit requirements for Coordinated Transaction Scheduling External Transactions with the associated market risk	ER14-2552-000		