



Monthly Report

October 2013

Rick Gonzales
Rana Mukerji
Robert Fernandez

TABLE OF CONTENTS

- Operations Performance Metrics Report
- Market Operation's Report
- Daily Loads
- Project Status Report
- Regulatory Filings

Operations Performance Metrics Monthly Report



October 2013 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 8, 2013.

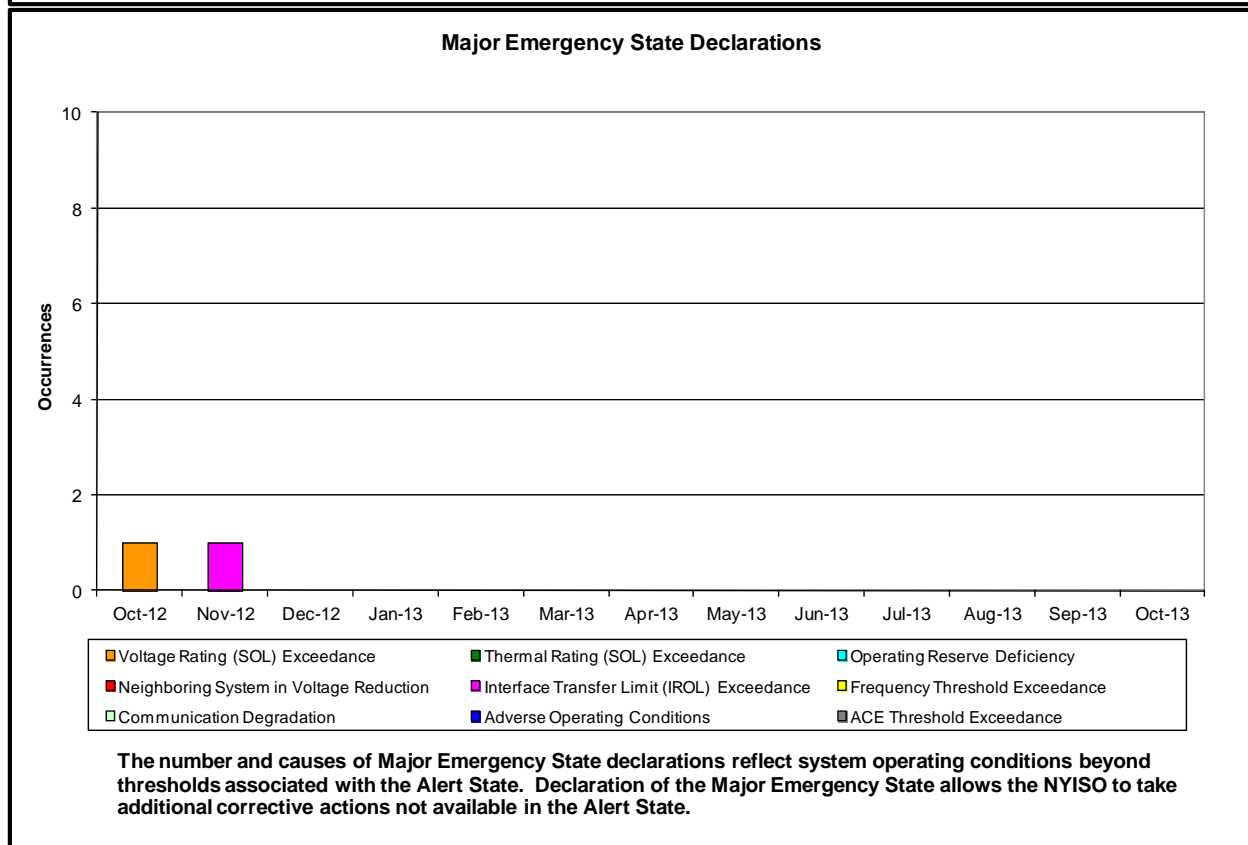
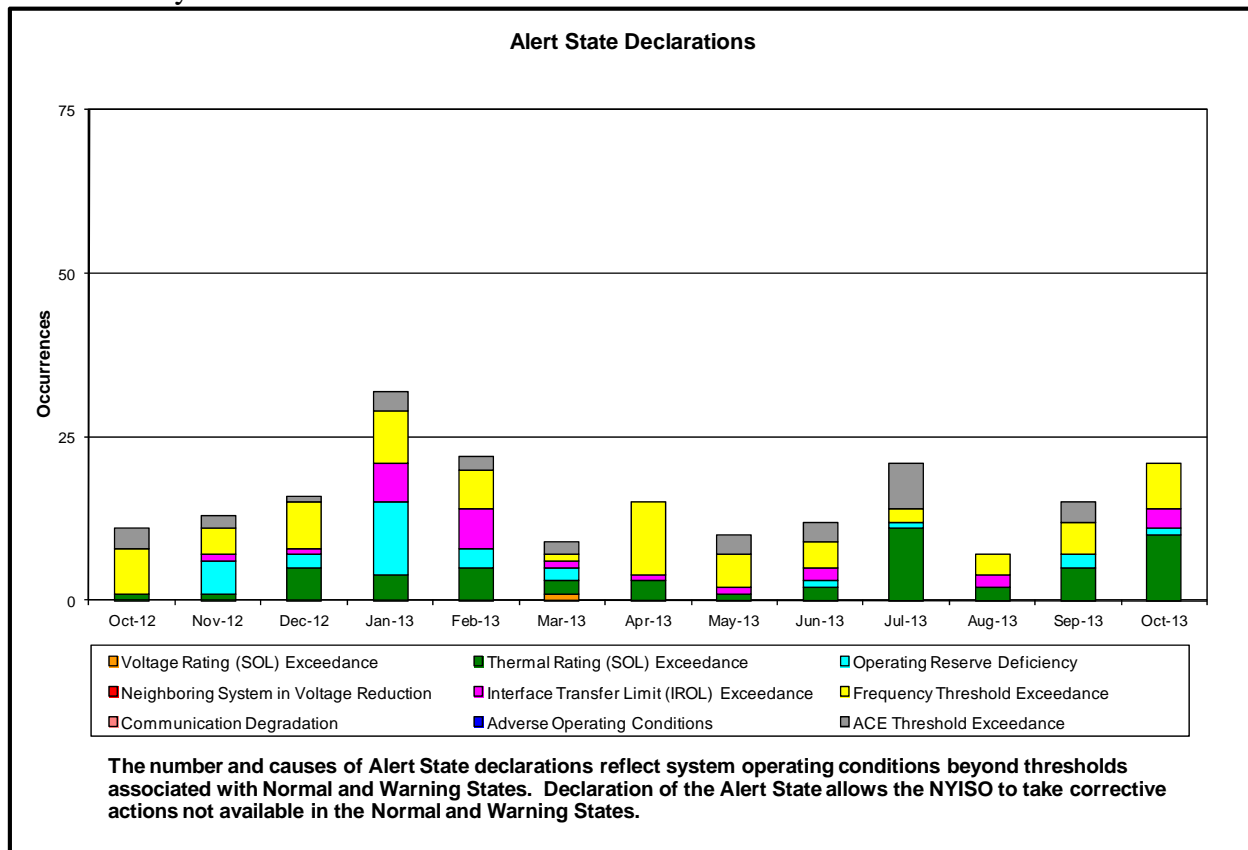
Table of Contents

- ♦ **Highlights**
 - *Operations Performance*
- ♦ **Reliability Performance Metrics**
 - *Alert State Declarations*
 - *Major Emergency State Declarations*
 - *IROL Exceedance Times*
 - *Balancing Area Control Performance*
 - *Reserve Activations*
 - *Disturbance Recovery Times*
 - *Load Forecasting Performance*
 - *Wind Forecasting Performance*
 - *Wind Curtailment Performance*
 - *Lake Erie Circulation and ISO Schedules*
- ♦ **Broader Regional Market Performance Metrics**
 - *Ramapo Interconnection Congestion Coordination Monthly Value*
 - *Ramapo Interconnection Congestion Coordination Daily Value*
 - *Regional Generation Congestion Coordination Monthly Value*
 - *Regional Generation Congestion Coordination Daily Value*
- ♦ **Market Performance Metrics**
 - *RTM Congestion Residuals Monthly Trend*
 - *RTM Congestion Residuals Daily Costs*
 - *RTM Congestion Residuals Event Summary*
 - *RTM Congestion Residuals Cost Categories*
 - *DAM Congestion Residuals Monthly Trend*
 - *DAM Congestion Residuals Daily Costs*
 - *DAM Congestion Residuals Cost Categories*
 - *NYCA Unit Uplift Components Monthly Trend*
 - *NYCA Unit Uplift Components Daily Costs*
 - *Local Reliability Costs Monthly Trend & Commitment Hours*
 - *TCC Monthly Clearing Price with DAM Congestion*
 - *ICAP Spot Market Clearing Price*
 - *UCAP Awards*

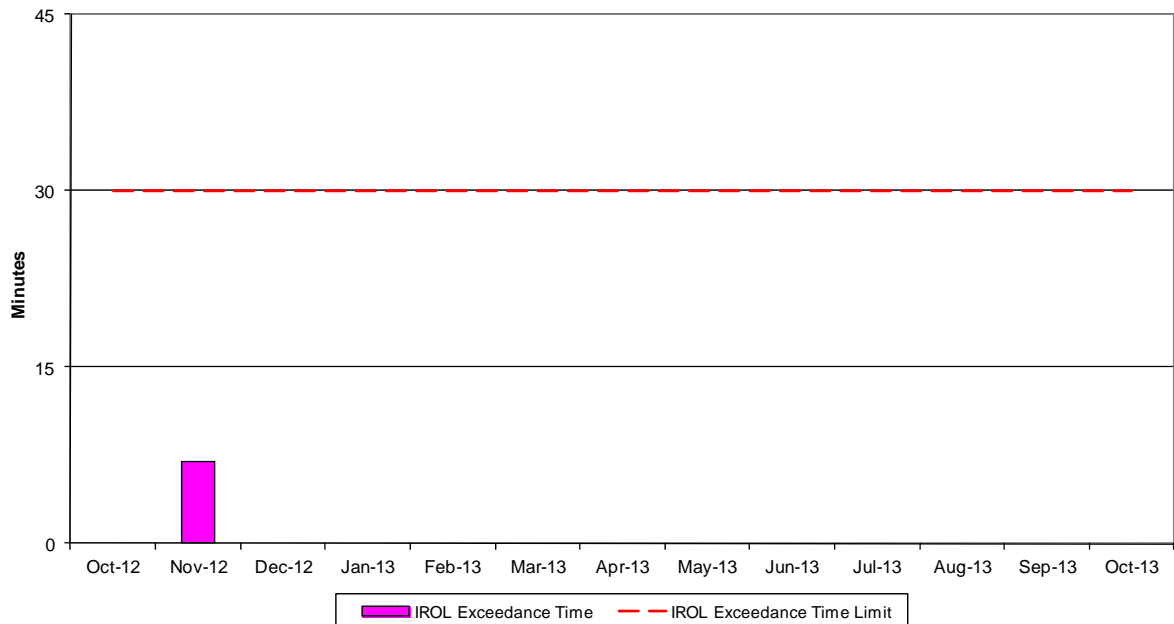
October 2013 Operations Performance Highlights

- Peak load of 22,316 MW occurred on 10/4/2013 HB 15
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 1 hour of Thunder Storm Alerts was declared
- 0 hours of NERC TLR level 3 curtailment
- Broader Regional Market Coordination monthly value was \$0.07M
- Broader Regional Market Coordination year-to-date value was \$11.5M
- Statewide uplift cost monthly average was (\$0.21)//MWh
- Local reliability uplift cost monthly average was \$0.38/MWh

- Reliability Performance Metrics

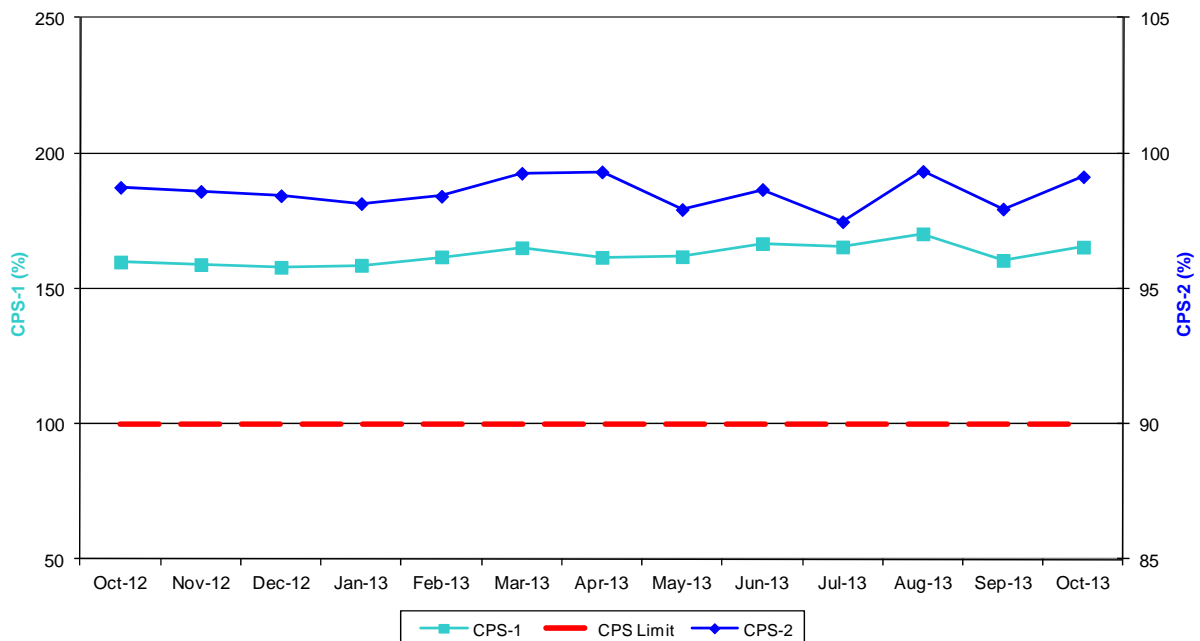


NERC IROL Time Over Limit



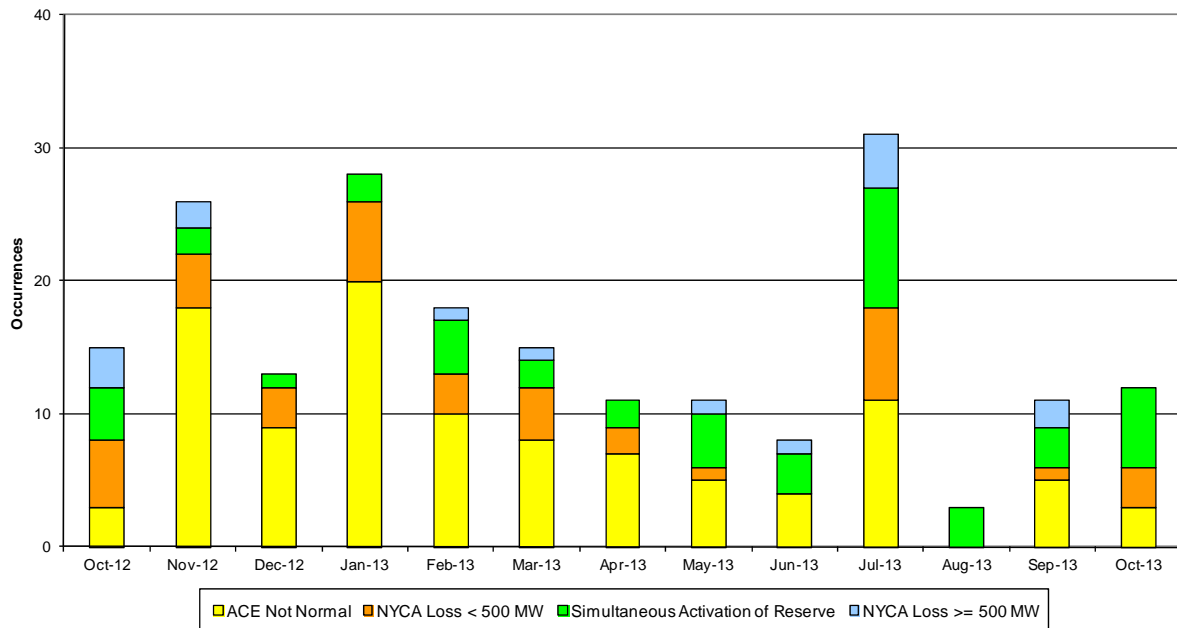
For IROL exceedances leading to Major Emergency State declarations, the maximum IROL exceedance time is identified. IROL exceedances of less than thirty minutes are considered NERC compliant.

NERC Control Performance Standards



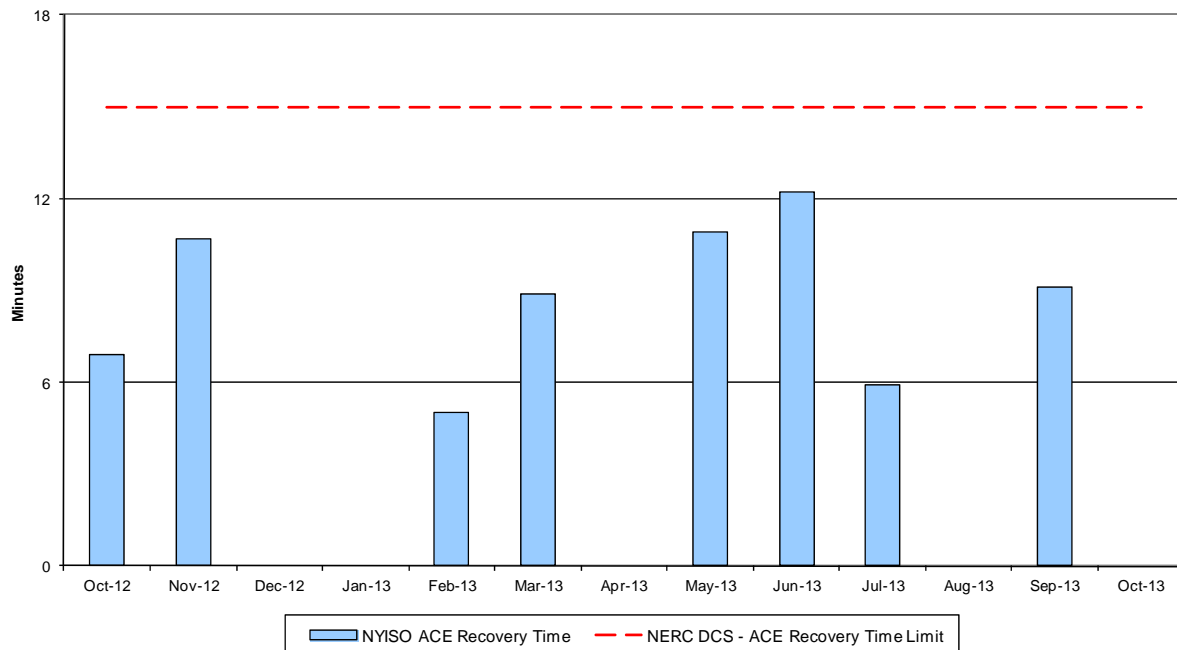
The values of NERC Control Performance Standards (CPS-1 and CPS-2) are indicators of the NYISO Area resource and demand balancing. Values exceeding the identified thresholds are NERC compliant.

Reserve Activations



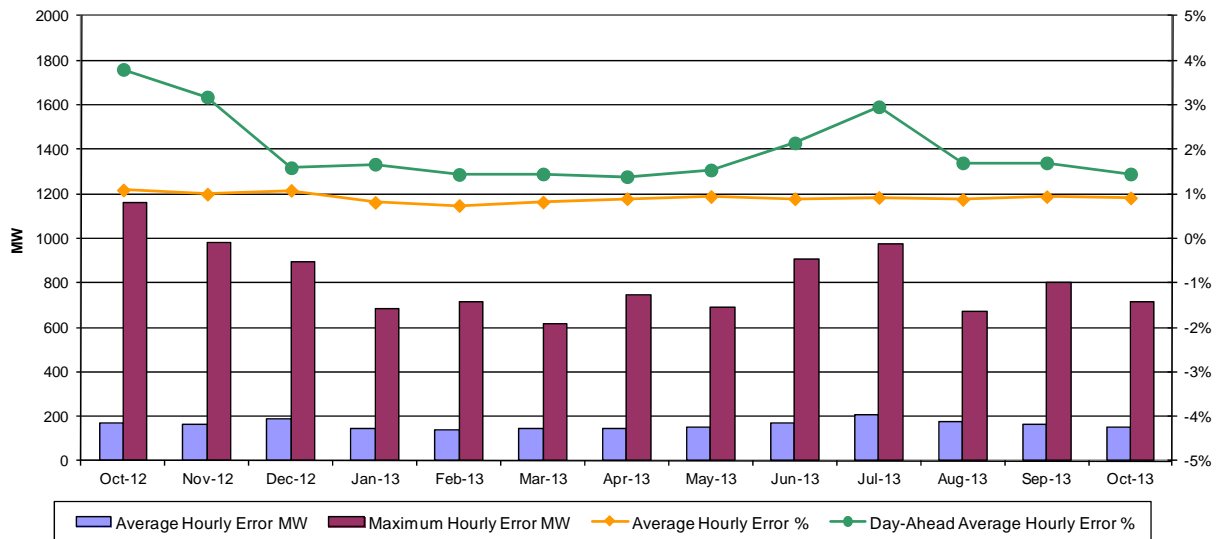
NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Simultaneous Activation of Reserves) by activating an immediate resource and demand balancing operation.

DCS Event Time to ACE Recovery



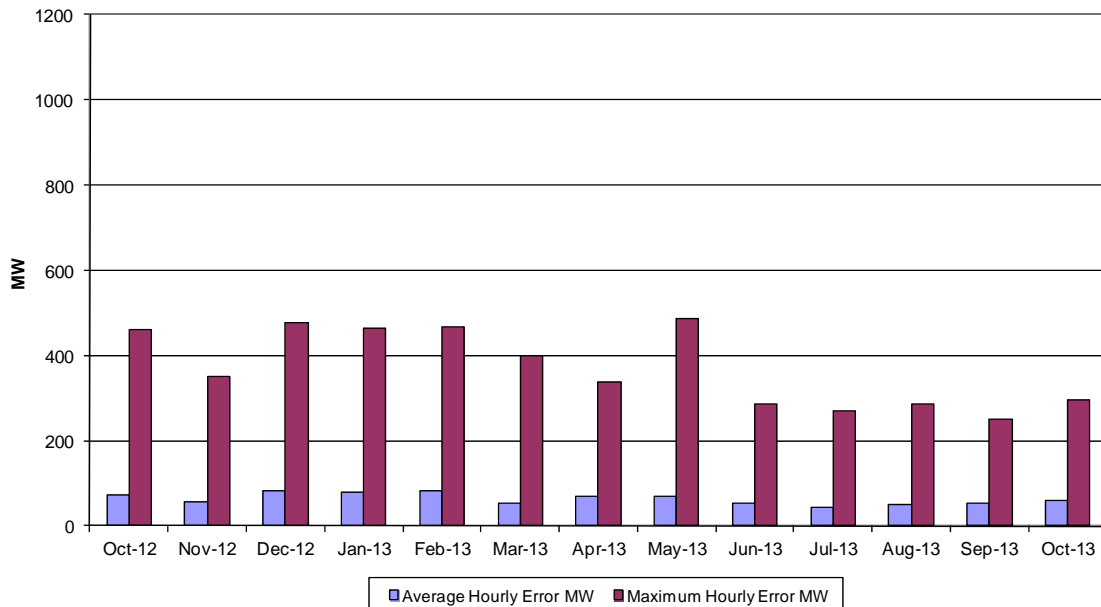
For NYISO initiated Reportable Disturbances, the maximum ACE recovery time is identified. Recovery times of less than 15 minutes are considered NERC compliant.

Load Forecast Performance



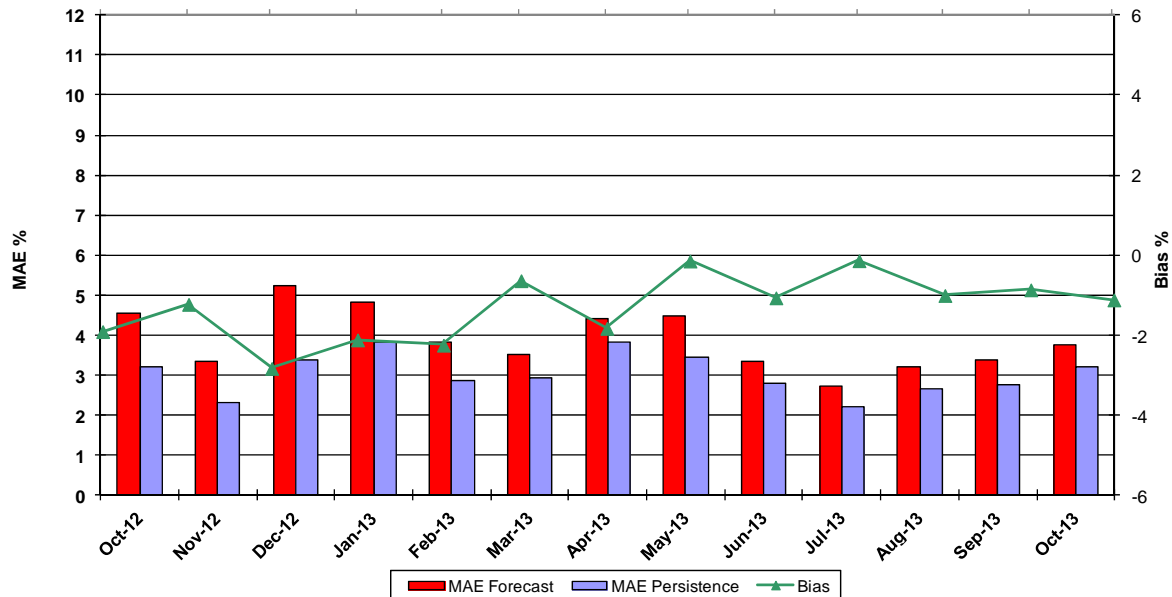
Hourly Error MW - Absolute value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.
Average Hourly Error % - Average value of the ratio of hourly average error magnitude to hourly average actual load demand.
Day-Ahead Average Hourly Error % - Average across all hours of the month of the absolute value of the difference between actual load demand and the Day-Ahead forecast load demand, divided by the actual load demand.

Wind Forecast Performance Hour Ahead MW Error



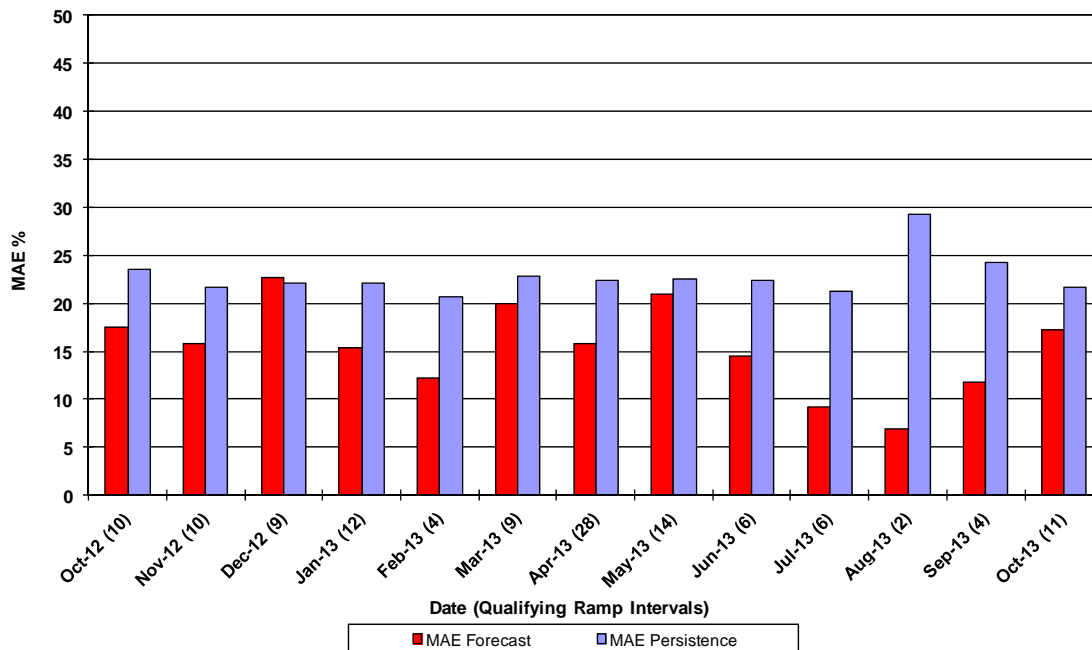
Hourly Error MW - Absolute value of the difference between the hourly average actual wind generation and the average hour ahead forecast wind generation.

**Wind Forecast Performance
Hour Ahead Percent Error
Wind Capacity 1616MW**

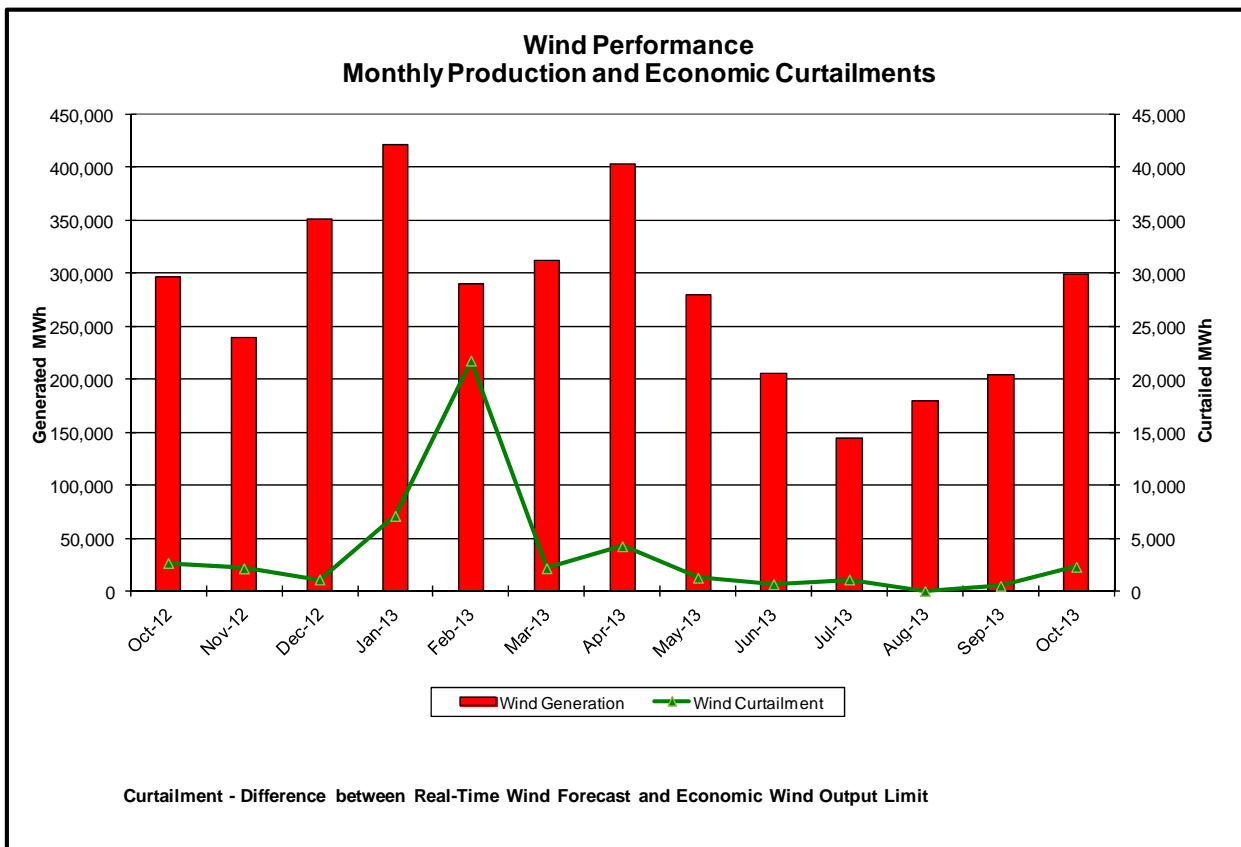
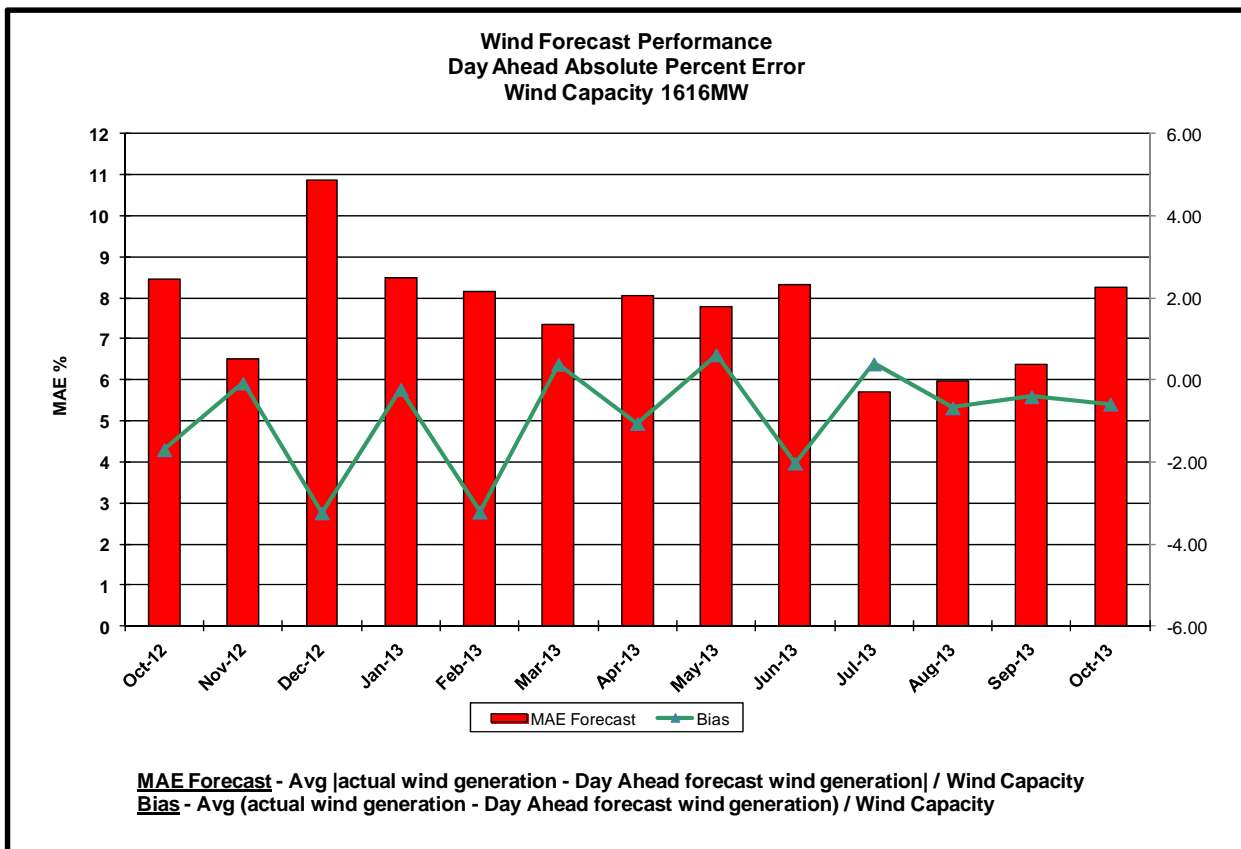


MAE Forecast - Avg [actual wind generation - hour ahead forecast wind generation] / Wind Capacity
MAE Persistence - Avg [actual wind generation - hour ahead actual wind generation] / Wind Capacity
Bias - Avg (actual wind generation - hour ahead forecast wind generation) / Wind Capacity

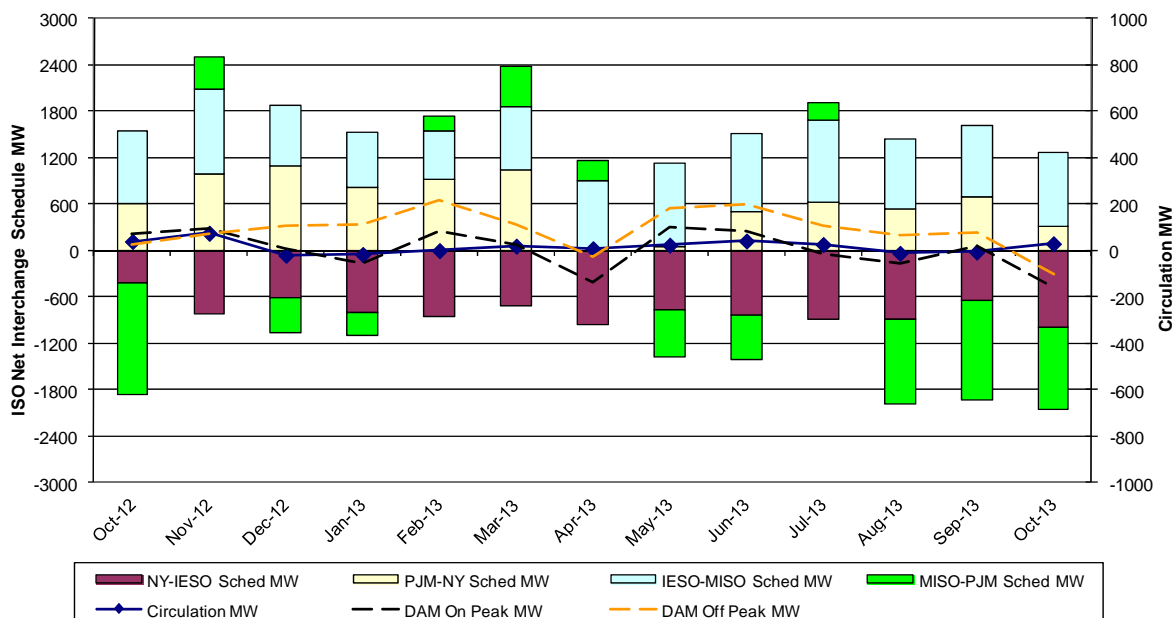
**Wind Forecast Performance
Hour Ahead Mean Absolute Percent Error
Ramp Events - Hourly Changes That Exceed 20% (323MW) of Wind Capacity (1616MW)**



MAE Forecast - Avg [actual wind generation - hour ahead forecast wind generation] / Wind Capacity
MAE Persistence - Avg [actual wind generation - hour ahead actual wind generation] / Wind Capacity

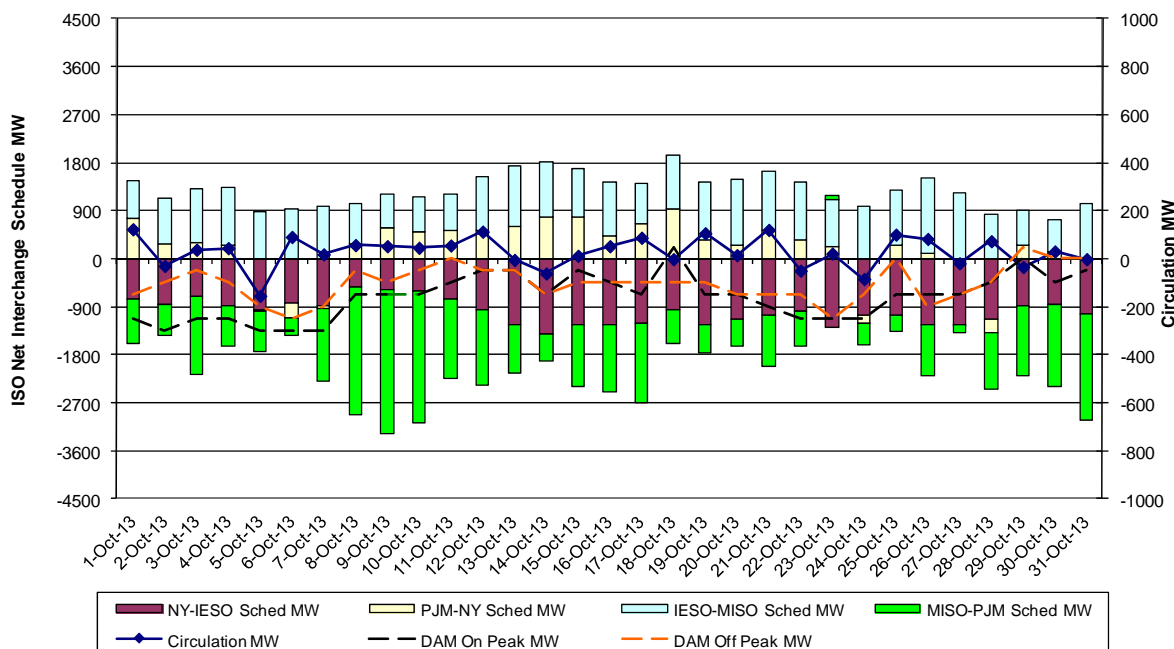


**Lake Erie Circulation and ISO Net Interchange Schedules
Monthly Averages**



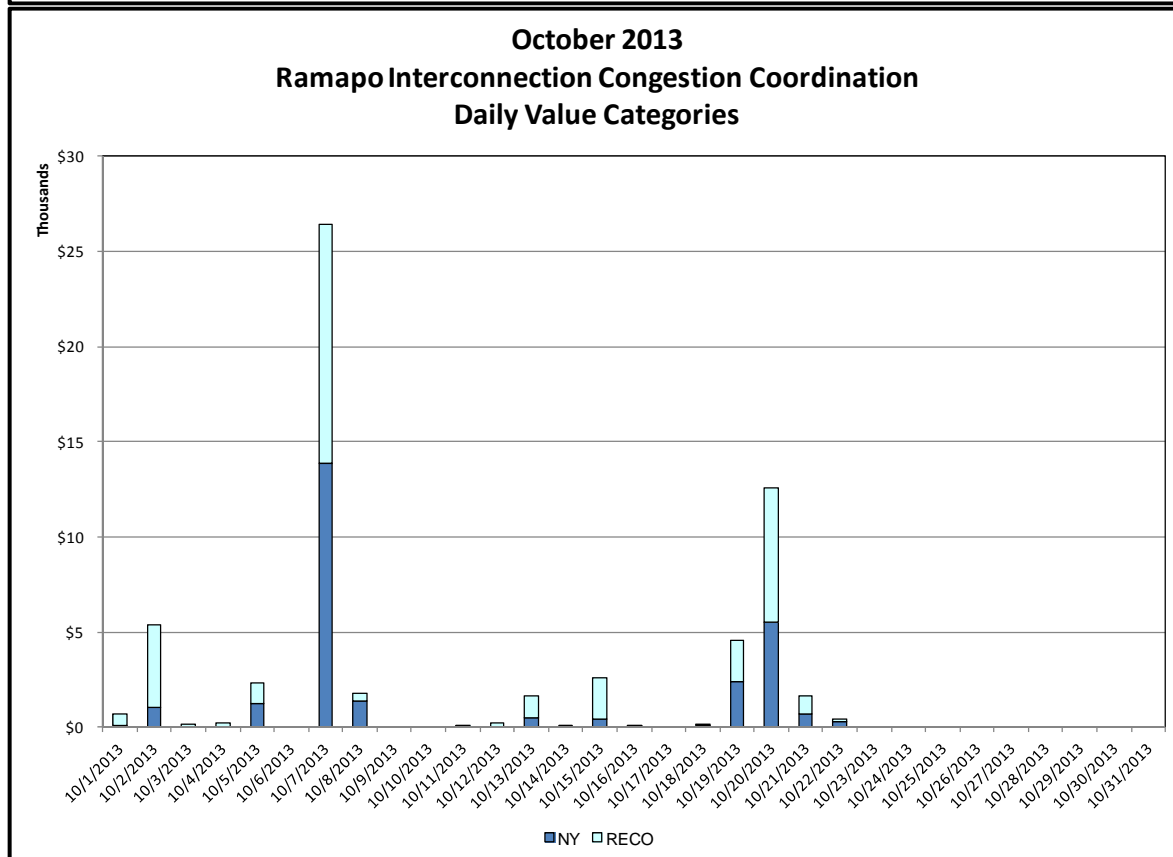
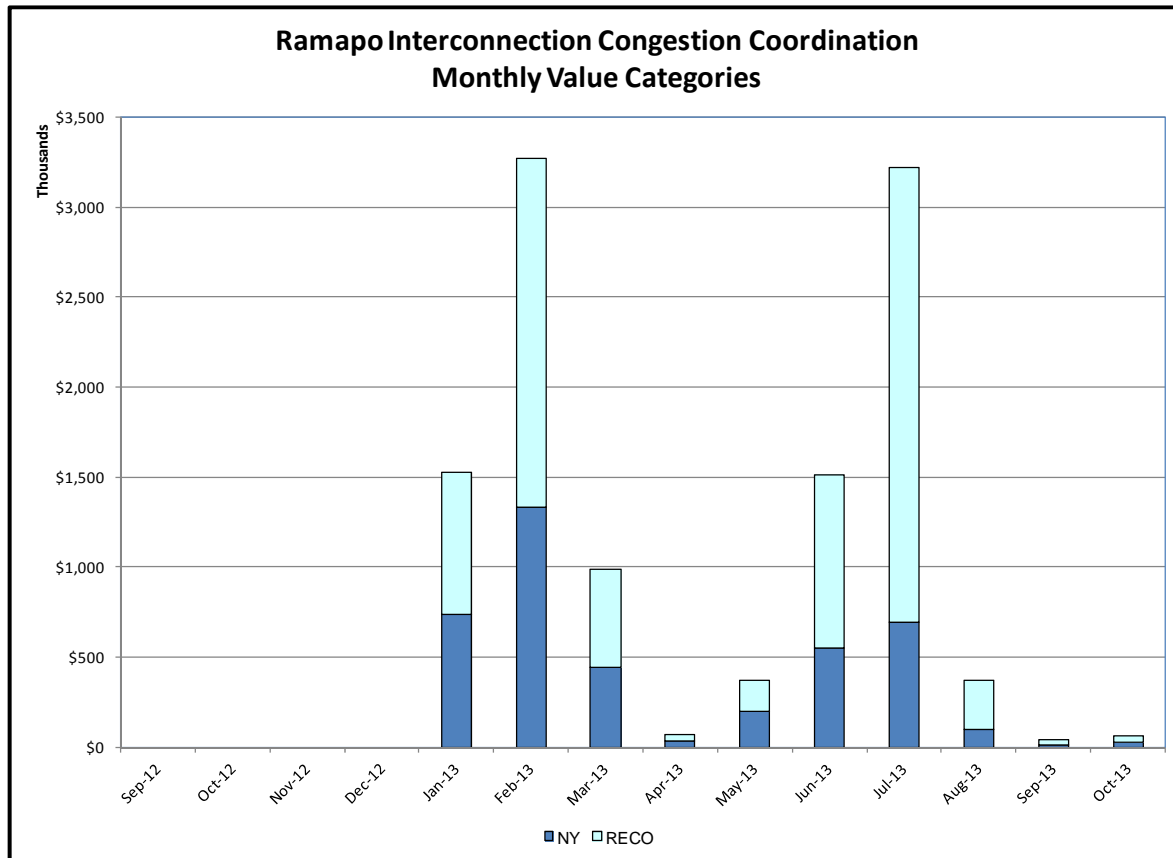
Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

**Lake Erie Circulation and ISO Net Interchange Schedules
Daily Averages**



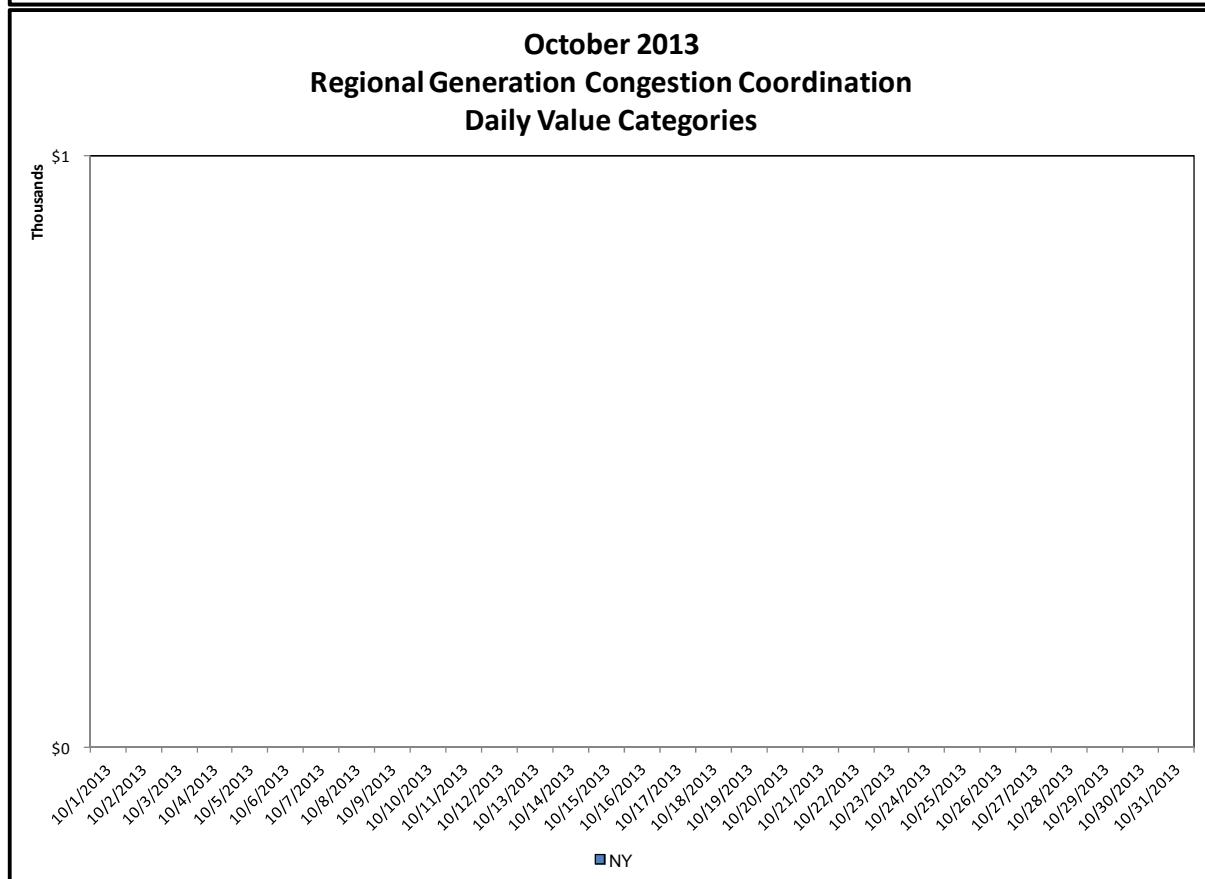
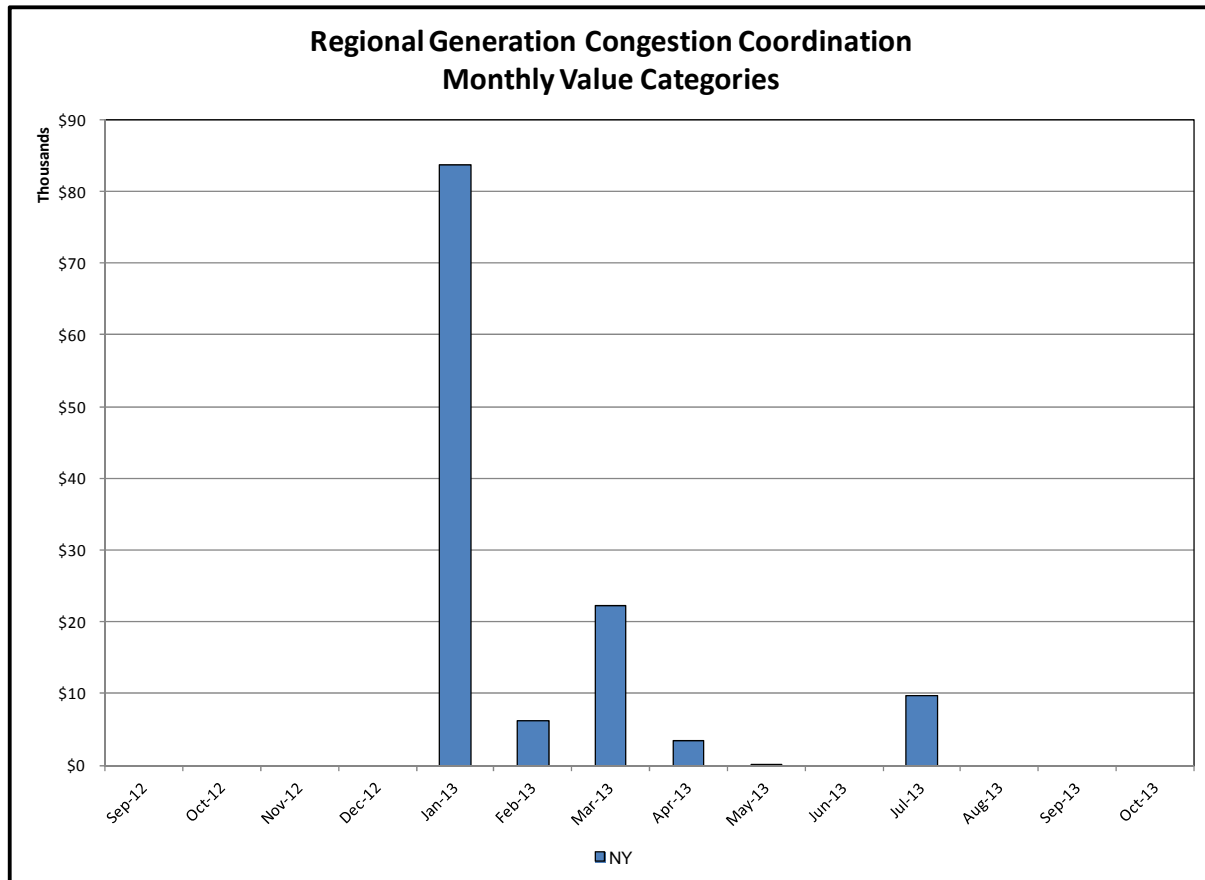
Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

Broader Regional Market Performance Metrics



Ramapo Interconnection Congestion Coordination

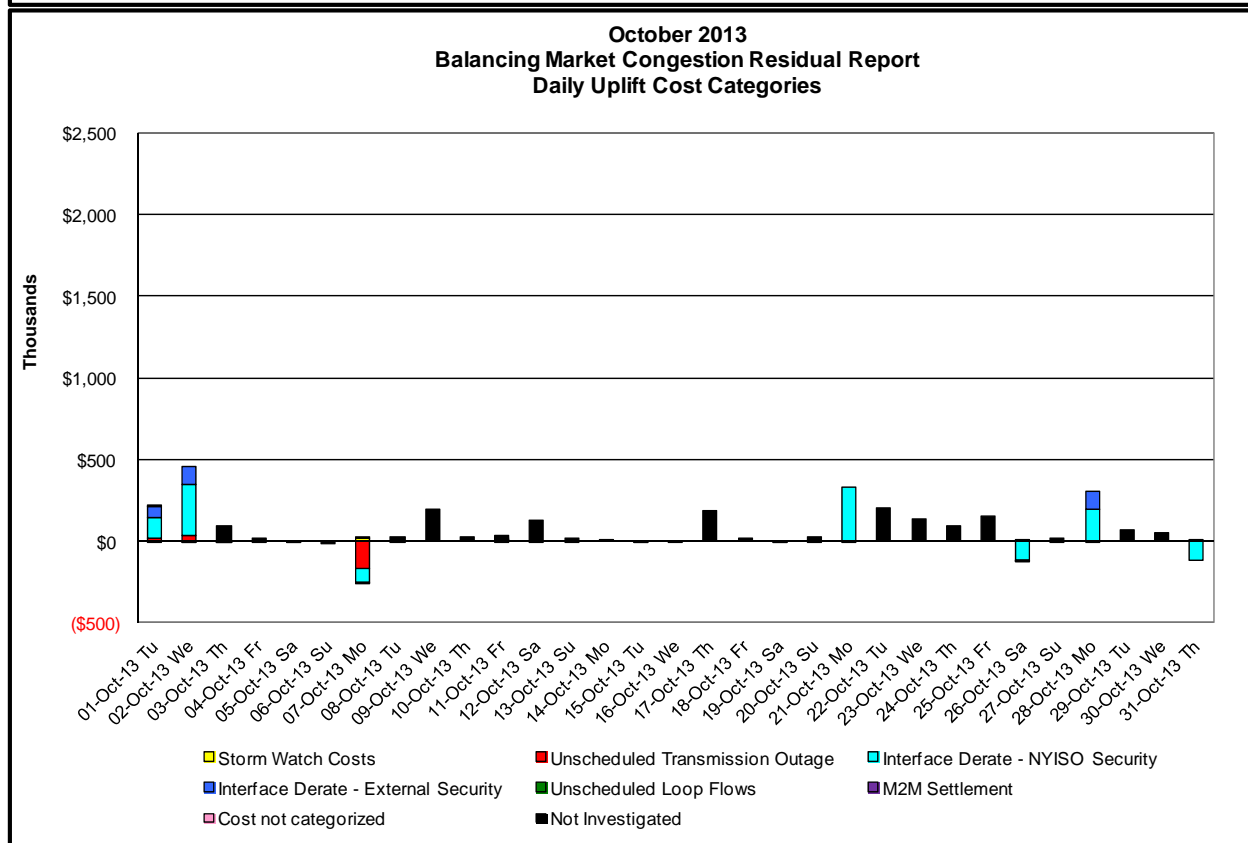
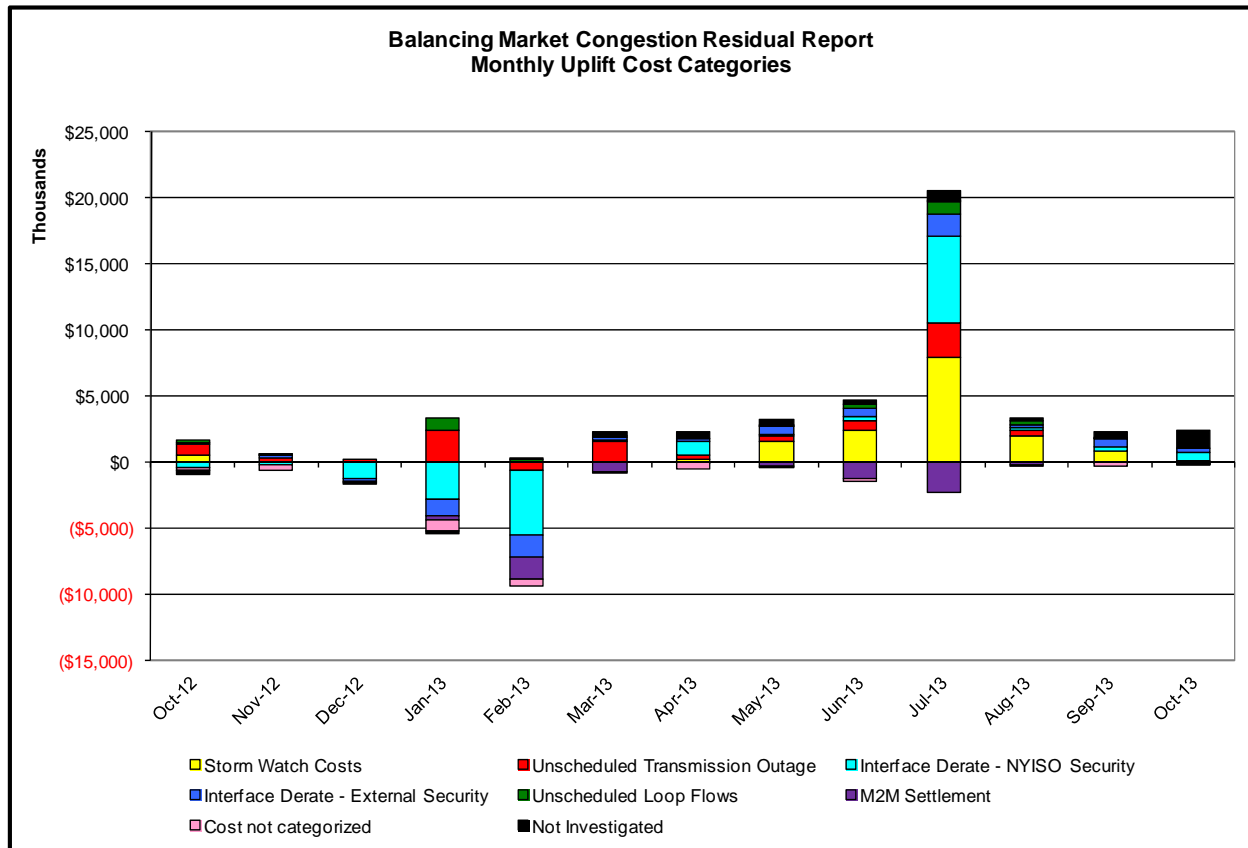
<u>Category</u>	<u>Description</u>
NY	Represents the value NY realizes from Market-to-Market Ramapo Coordination. When experiencing congestion, this includes (1) the estimated savings to NY for additional deliveries into NY, plus (2) PJM compensation to NY for additional deliveries into PJM (as compared 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

<u>Category</u>	<u>Description</u>
NY	<p>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.</p>

Market Performance Metrics



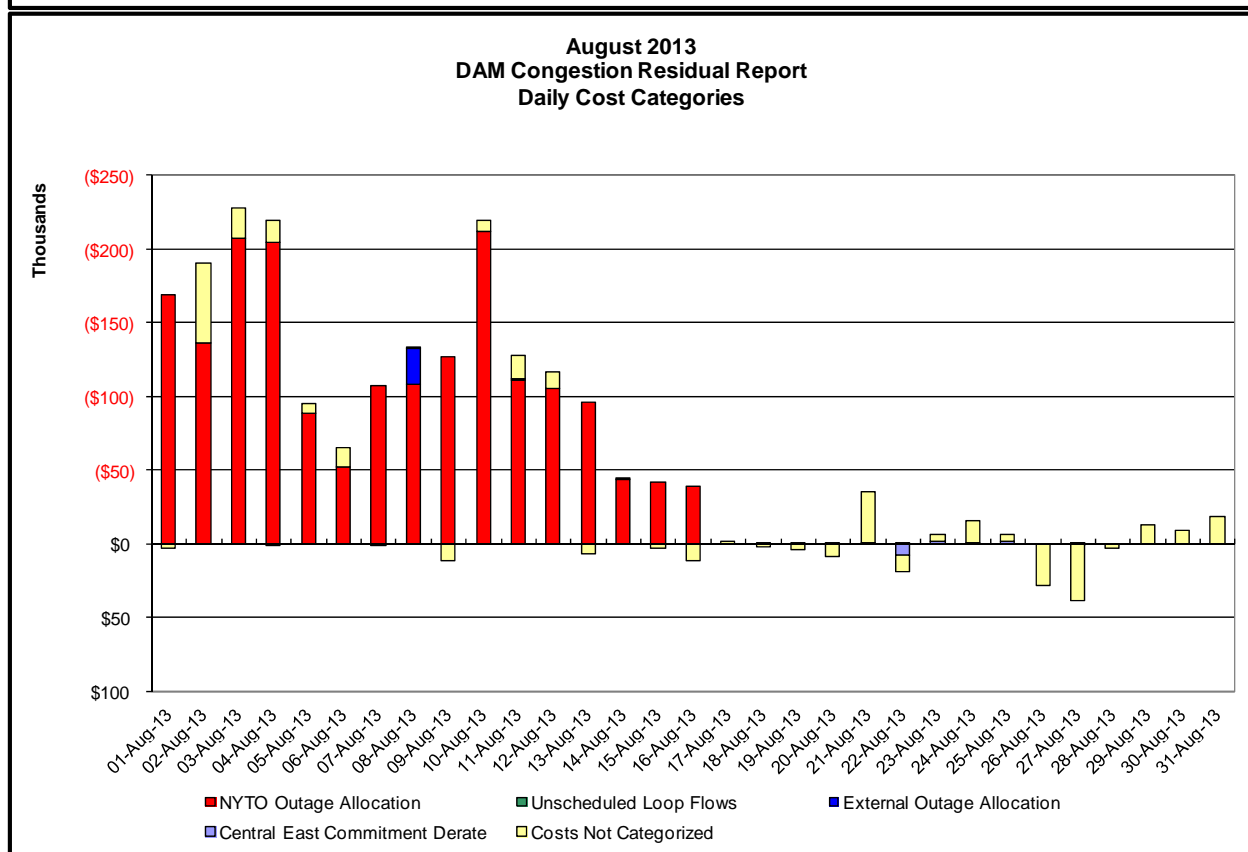
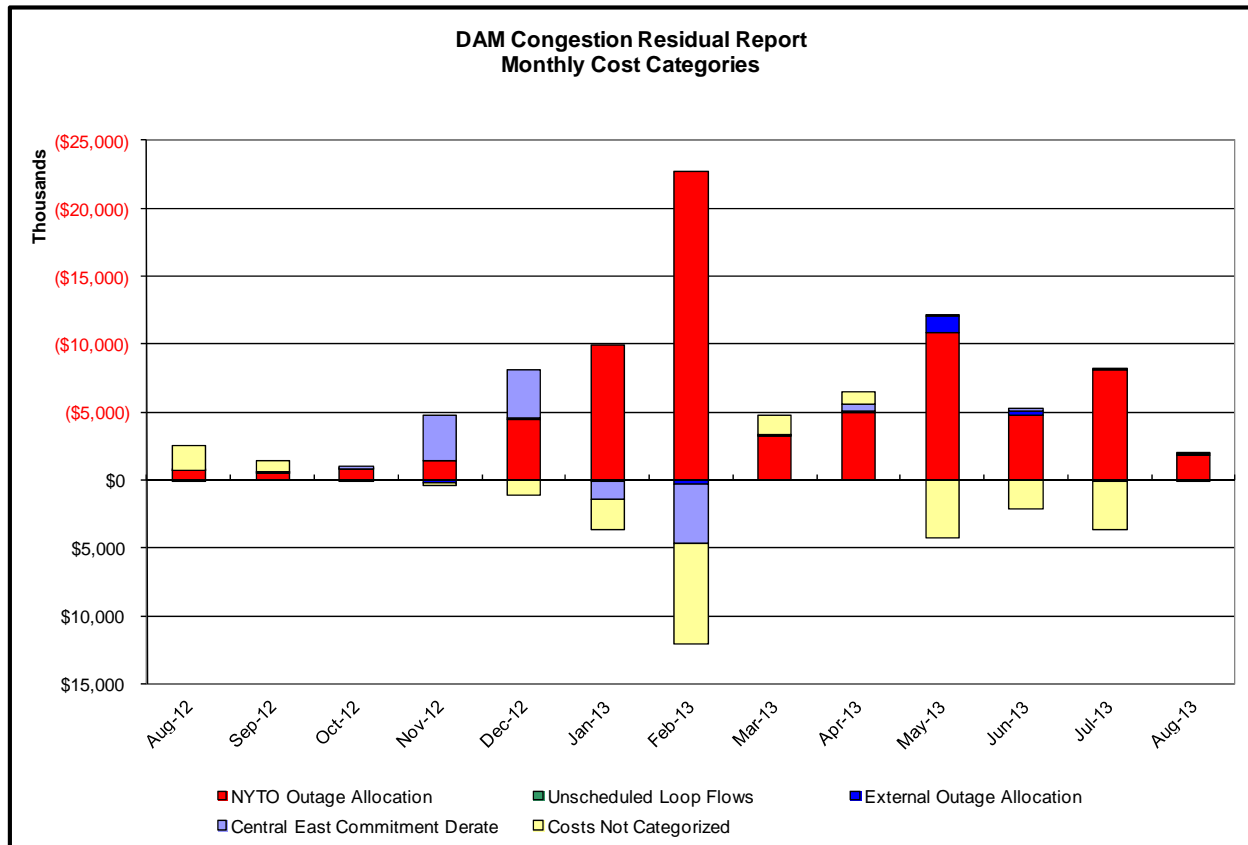
Day's investigated in October: 1,2,7,21,26,28,31			
Event	Date (yyyymmdd)	Hours	Description
	10/1/2013	19-22	Extended outage Gowanus-Greenwood 138kV (#42232)
	10/1/2013	15,16	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SprainBrook-East Garden City 345kV (#Y49)
	10/1/2013	12, 13, 15, 16, 19-22	Derate Gowanus-Greenwood 138kV (#42231) for I/o TWR:GOETHALS 22 & 21 & A2253
	10/1/2013	8-13, 19, 20	Derate Packard-Sawyer 230kV (#77) for I/o Packard-Sawyer 230kV (#78)
	10/1/2013	12, 13, 15, 16, 19-22	Derate Rainey-Vernon 138kV (#36312)
	10/1/2013	10-13, 15, 16, 19	HQ_CEDARS-NY Scheduling Limit
	10/1/2013	1	NE_NNC1385-NY Scheduling Limit
	10/2/2013	9-11	Forced outage MottHaven-Rainey 345kV (#Q11)
	10/2/2013	20	Uprate Central East
	10/2/2013	13, 17-19	Derate East Garden City-Valley Stream 138kV (#262)
	10/2/2013	11	Derate Gowanus-Greenwood 138kV (#42231) for I/o TWR:GOETHALS 22 & 21 & A2253
	10/2/2013	22	Uprate MottHaven-Rainey 345kV (#Q12)
	10/2/2013	8-12, 17-19	Derate Packard-Sawyer 230kV (#78) for I/o Packard-Sawyer 230kV (#77)
	10/2/2013	12	Derate Queensbridge/Vernon
	10/2/2013	12	PJM_AC DNI Ramp Limit
	10/2/2013	9	NE_NNC1385-NY Scheduling Limit
	10/7/2013	16	Thunder Storm Alert
	10/7/2013	0-7, 11-13, 17-23	Cancelled outage Malone-Willis 115kV (#MW-1)
	10/7/2013	8	Forced outage Homer City - Stolle Road 345kV (#37)
	10/7/2013	0-7, 12-15, 17	Cancelled outage Rock Tavern - Ramapo 345kV (#77)
	10/7/2013	21	NYCA DNI Ramp Limit
	10/7/2013	0-7, 12-15, 17	Uprate Central East
	10/7/2013	22, 23	Uprate Malone-Willis 115kV (#MW-1) for TWR:WILLIS MW1 & MW2
	10/7/2013	9	Derate Niagara-Packard 230kV (#62) for TWR:Niagara 61 & 64
	10/21/2013	17	NYCA DNI Ramp Limit
	10/21/2013	12-19	Derate East Garden City-Valley Stream 138kV (#262) for I/o BUS:BARRETT 292 & 459 & G2
	10/21/2013	12	Derate East Garden City-Valley Stream 138kV (#262) for I/o SCB:NEWBRDG 1380, 461, BK6
	10/21/2013	12-18	Derate Freeport-Newbridge 138kV (#461)
	10/21/2013	10, 12-16	Derate Gardenville A-Stolle Road 230kV (#66) for I/o TWR:PACKARD 77 & 78
	10/26/2013	17, 19	Uprate Central East
	10/26/2013	13-16, 19	Uprate Dunwoodie-Shore Road 345kV (#Y50)
	10/26/2013	13-20	Uprate Malone-Willis 115kV (#MW-1) for TWR:WILLIS MW1 & MW2
	10/26/2013	7	NE_NNC1385-NY Scheduling Limit
	10/28/2013	8, 9, 11-18	Derate East Garden City-Valley Stream 138kV (#262) for I/o BUS:BARRETT 292 & 459 & G2
	10/28/2013	8, 9, 11-18	Derate Freeport-Newbridge 138kV (#461)
	10/28/2013	11, 18	Derate Gardenville A-Stolle Road 230kV (#66) for I/o TWR:PACKARD 77 & 78
	10/28/2013	9, 11-18	Derate West 49th St.-Sprainbrook 345kV (#M51)
	10/28/2013	11-17	HQ_CEDARS-NY Scheduling Limit
	10/31/2013	19, 20	Forced outage FreshKills 345/138kV (#TB1)
	10/31/2013	10-12, 16, 17	Uprate Astoria Annex-East 13th Street 345kV (#Q35L) for SIN:48&Q35M&BK10&BK11
	10/31/2013	10	Uprate Astoria Annex-East 13th Street 345kV (#Q35M) for SIN:B47&Q35L&E13TH BK16&BK167
	10/31/2013	10-13, 16-18	Uprate Central East
	10/31/2013	10, 13	Uprate Dunwoodie-Shore Road 345kV (#Y50)
	10/31/2013	8	Derate Freeport-Newbridge 138kV (#461)
	10/31/2013	13-18	Uprate Malone-Willis 115kV (#MW-1) for TWR:WILLIS MW1 & MW2
	10/31/2013	20	Derate Mott Haven-Dunwoodie 345kV (#71) for I/o Mott Haven-Dunwoodie 345kV (#72)

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	

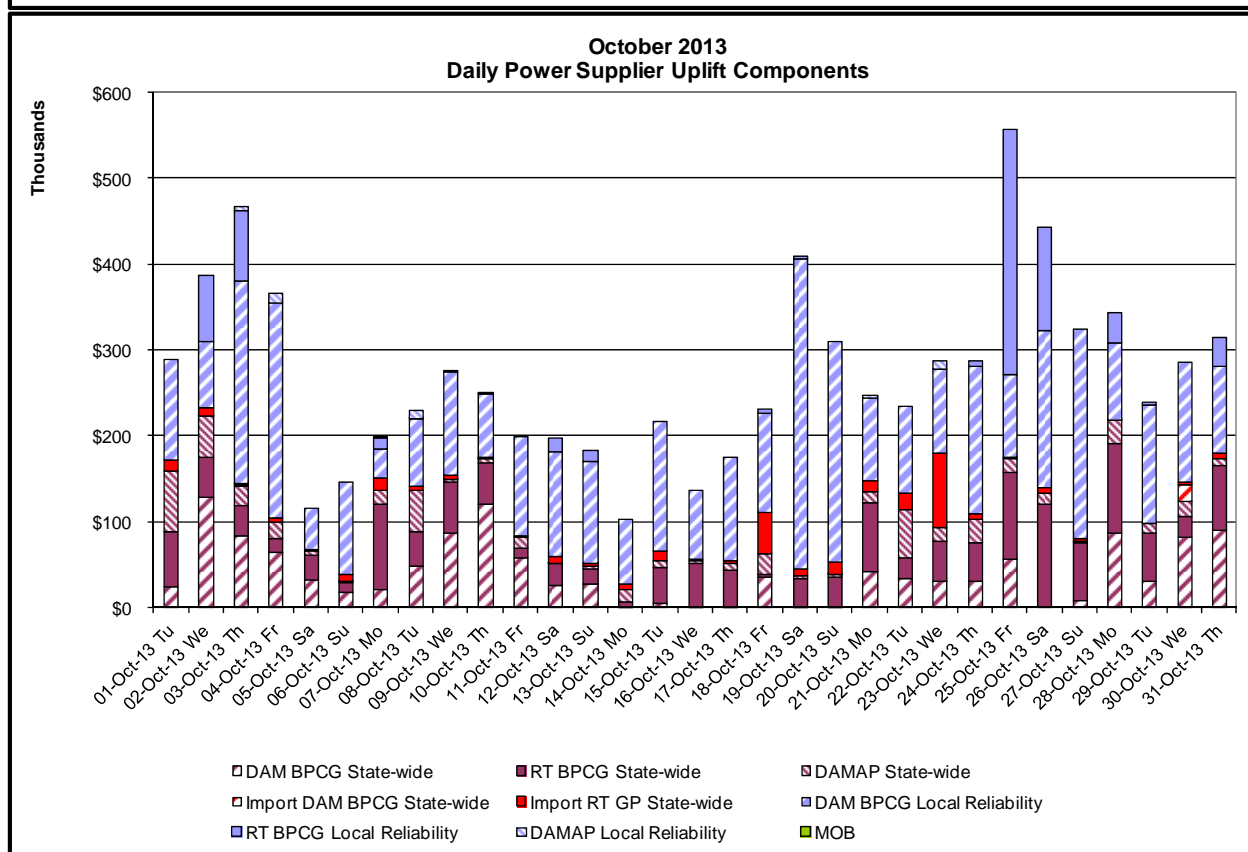
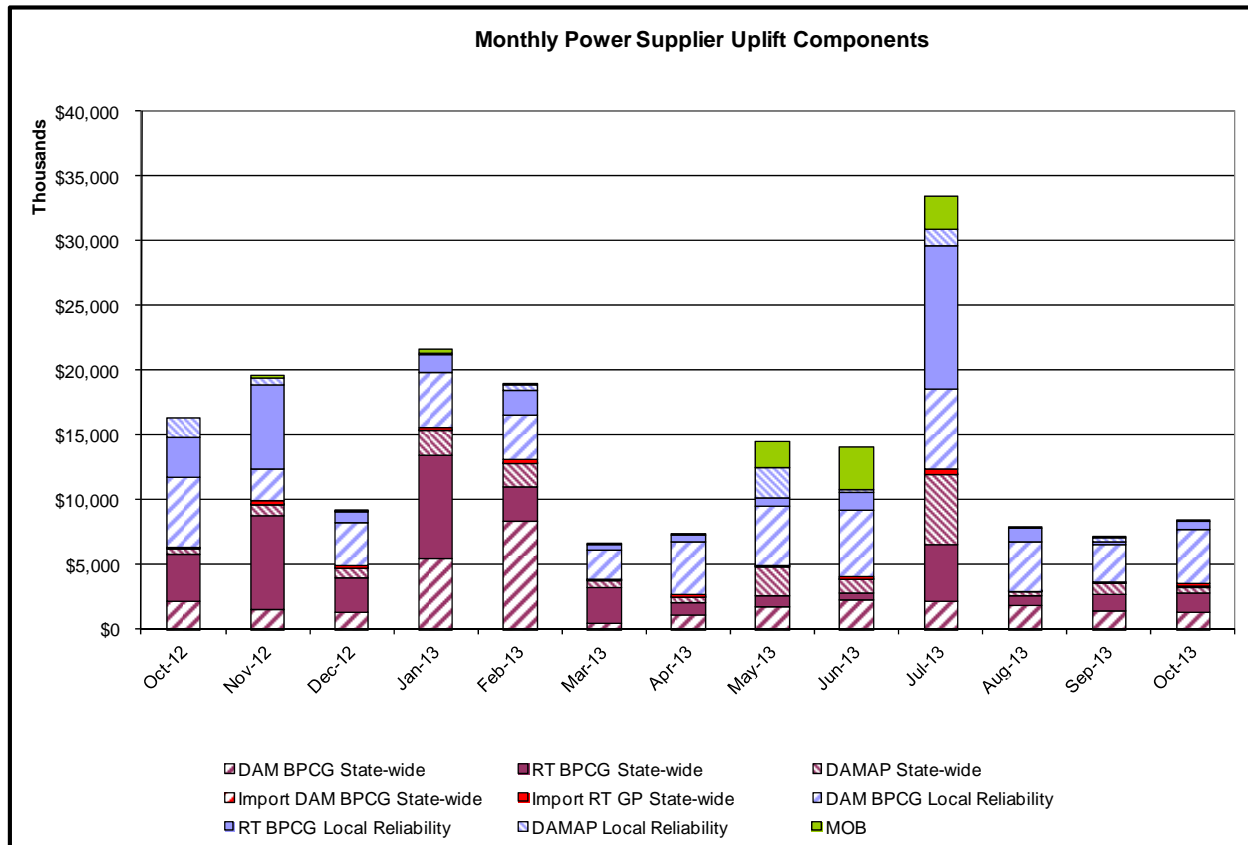
Monthly Balancing Market Congestion Report Assumptions/Notes

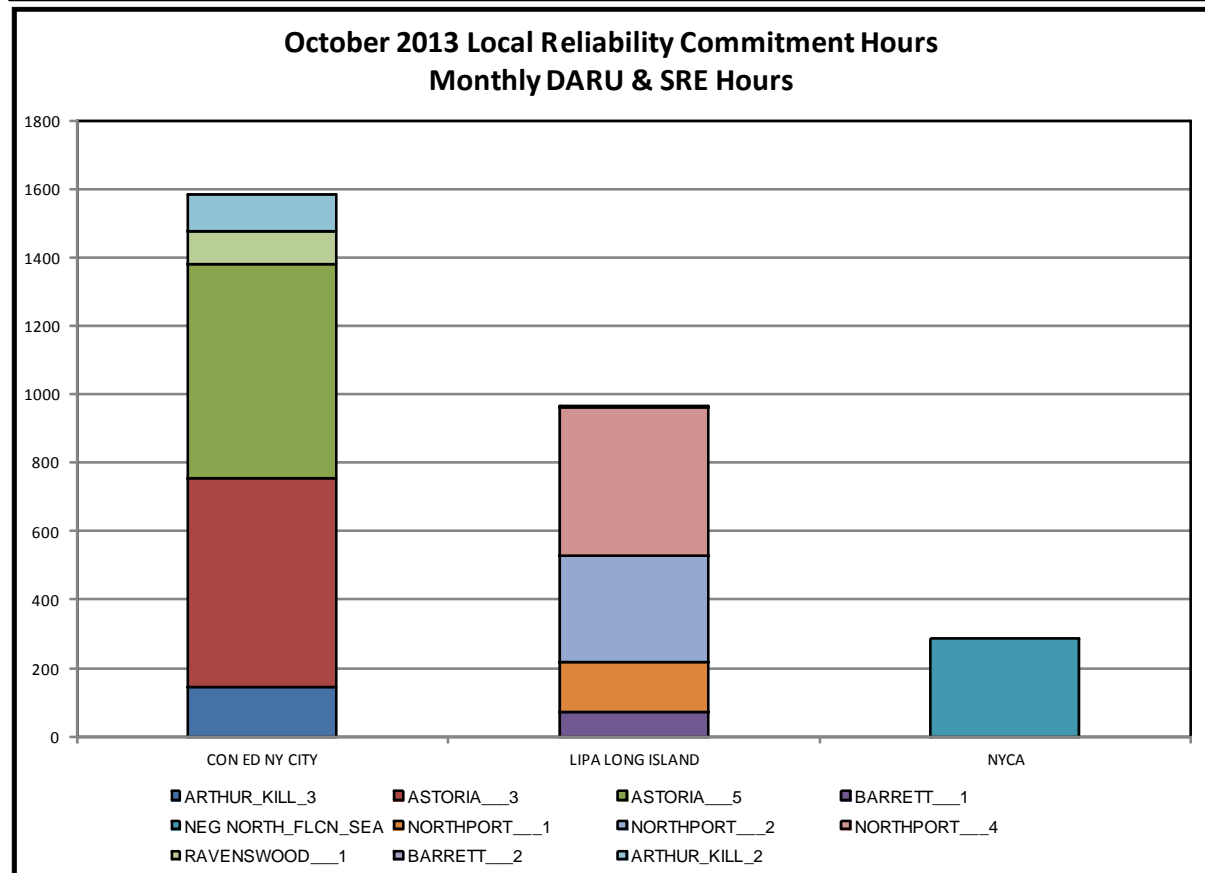
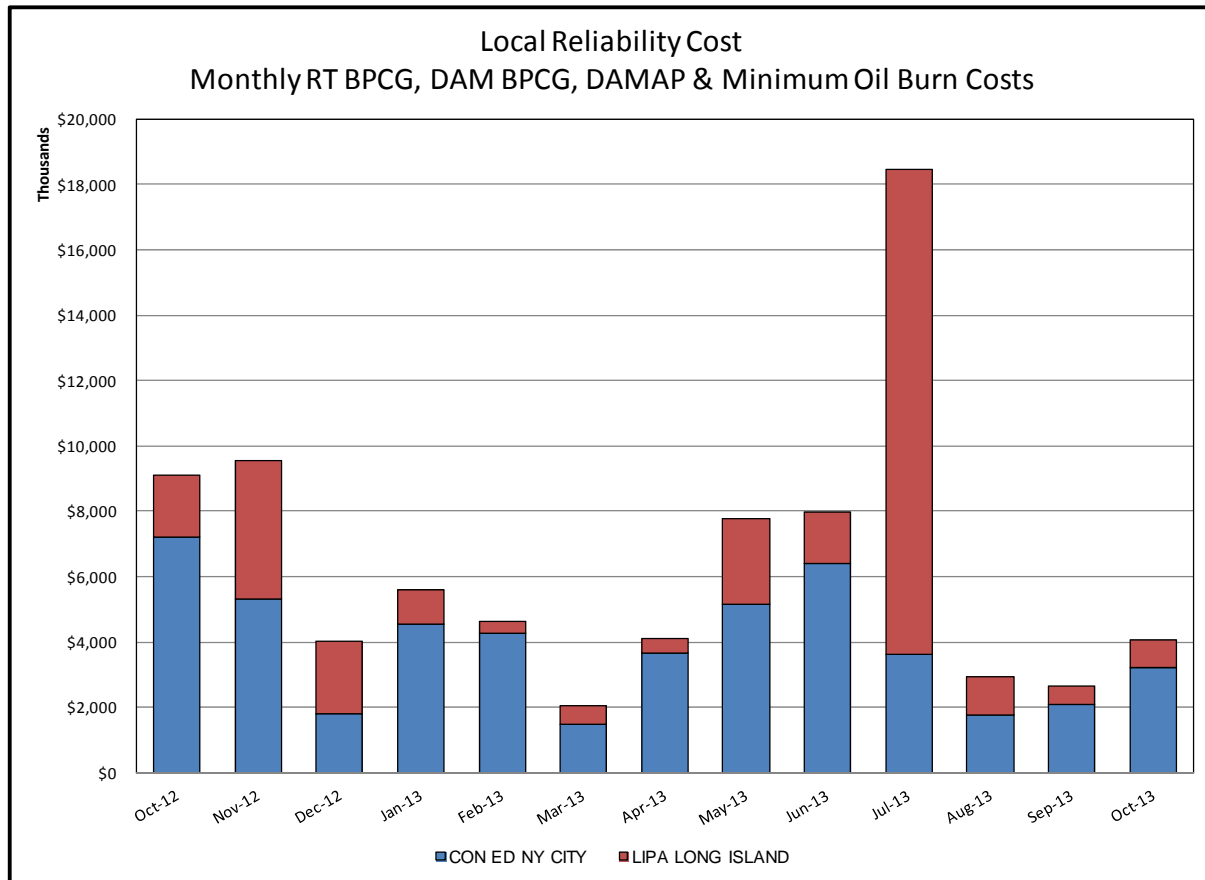
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

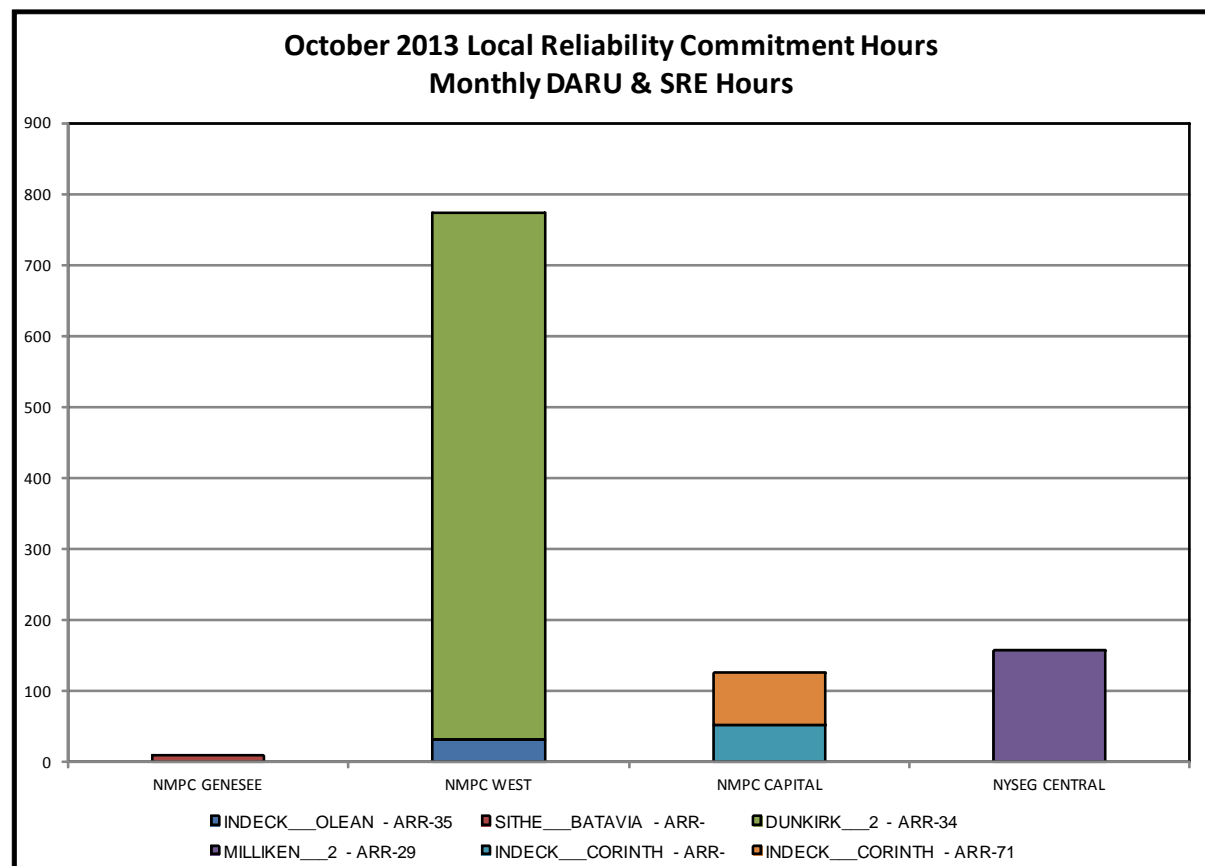
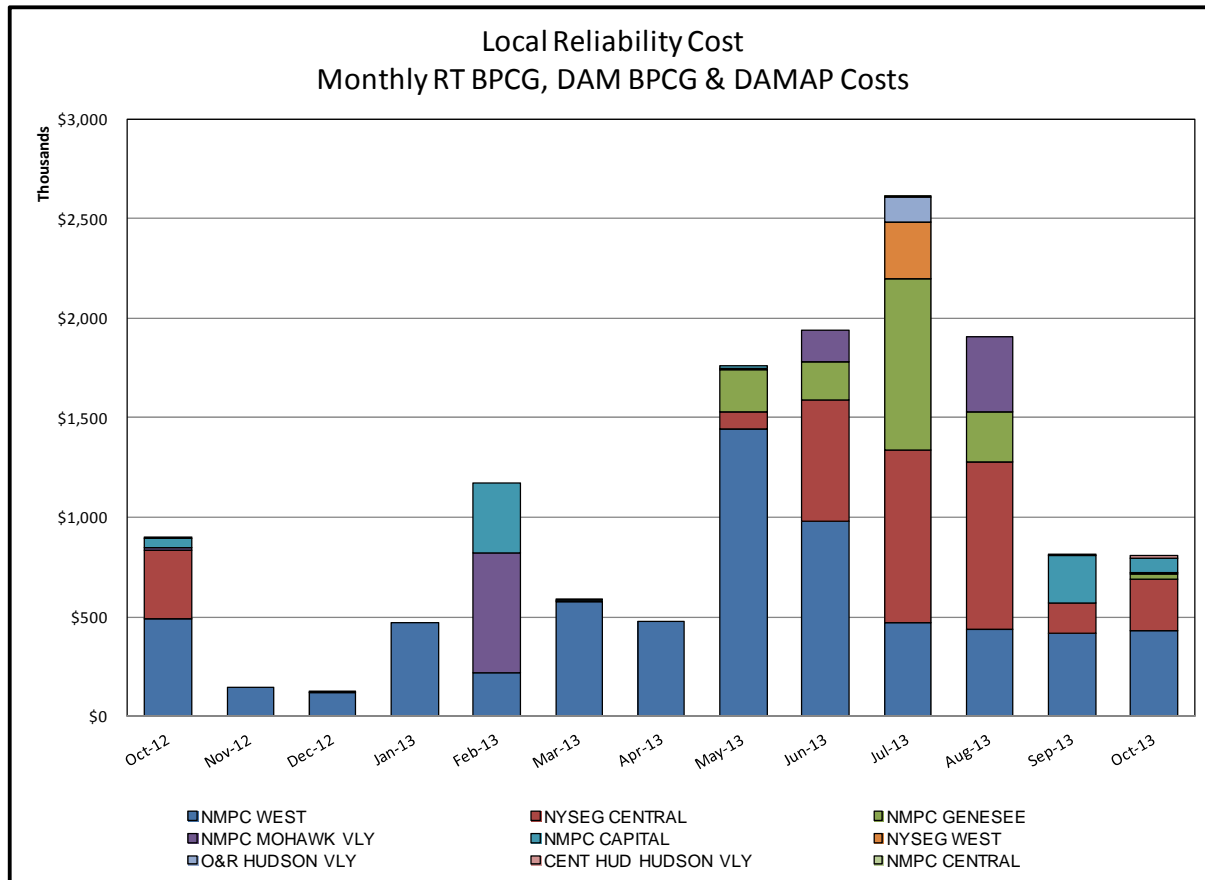


Day-Ahead Market Congestion Residual Categories

<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.
Unscheduled Loop Flows	All TO by Monthly Allocation Factor	Residual impact of Lake Erie circulation, MW difference between the DAM and TCC Auction.	Lake Erie Loop Flow Assumptions
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.	

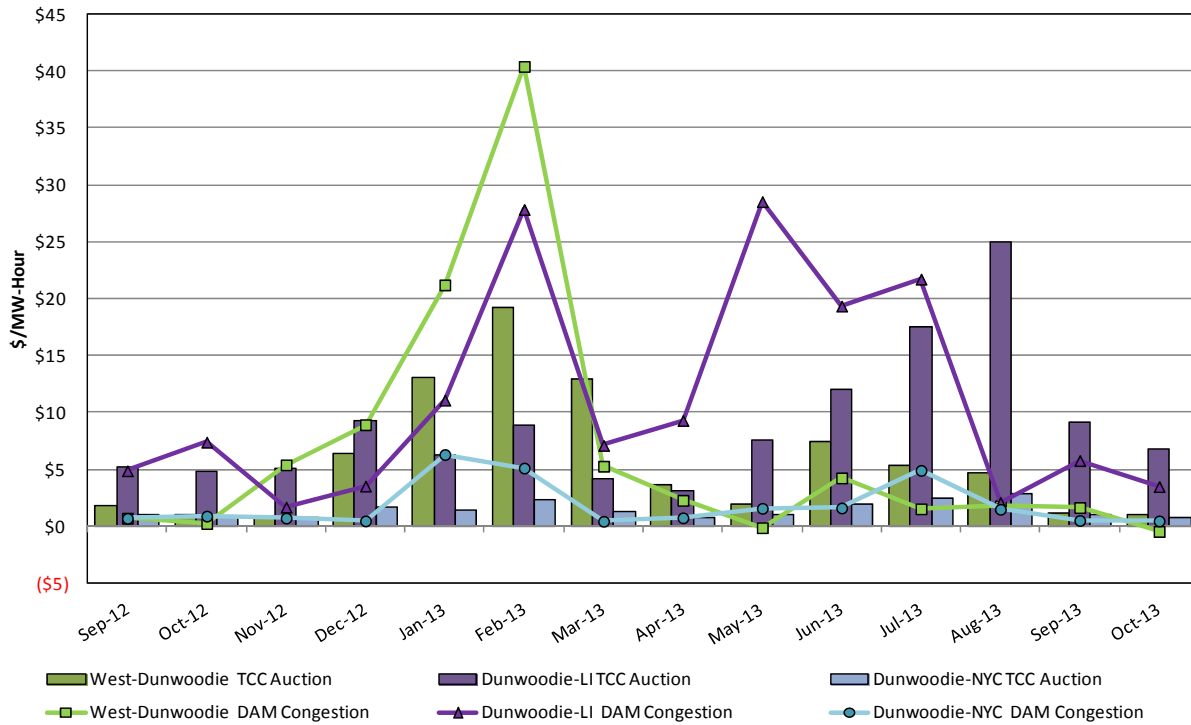






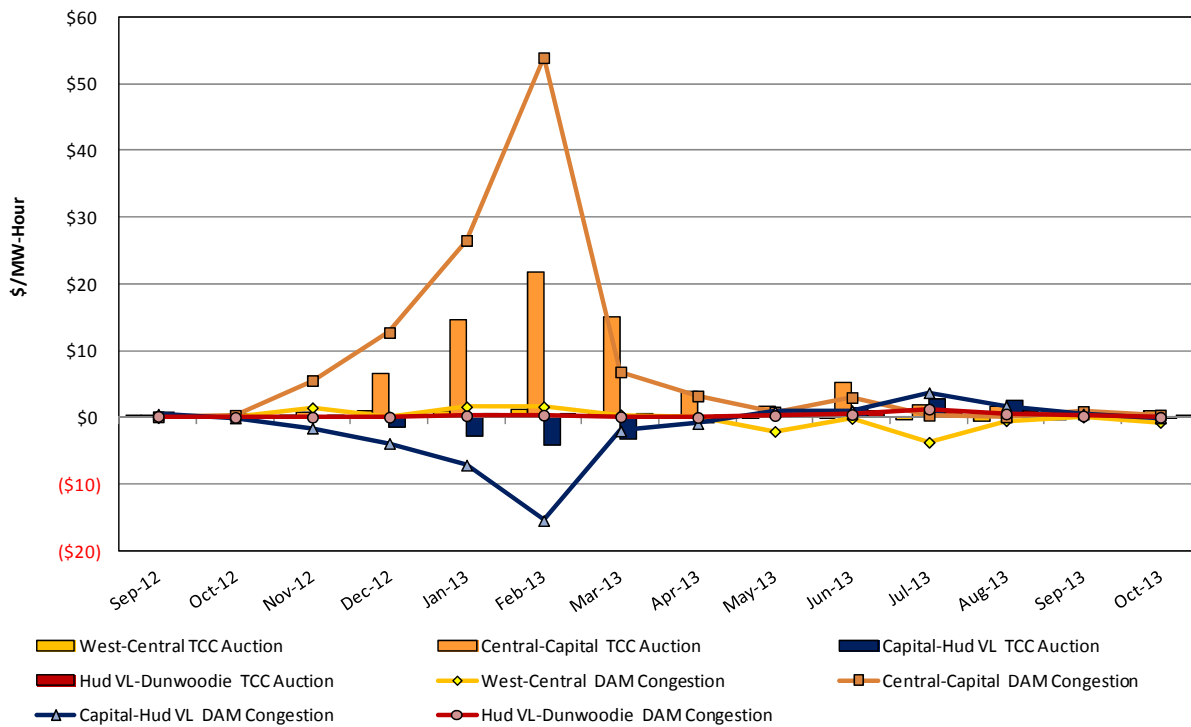
TCC & Day Ahead Market Selected Internal Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average



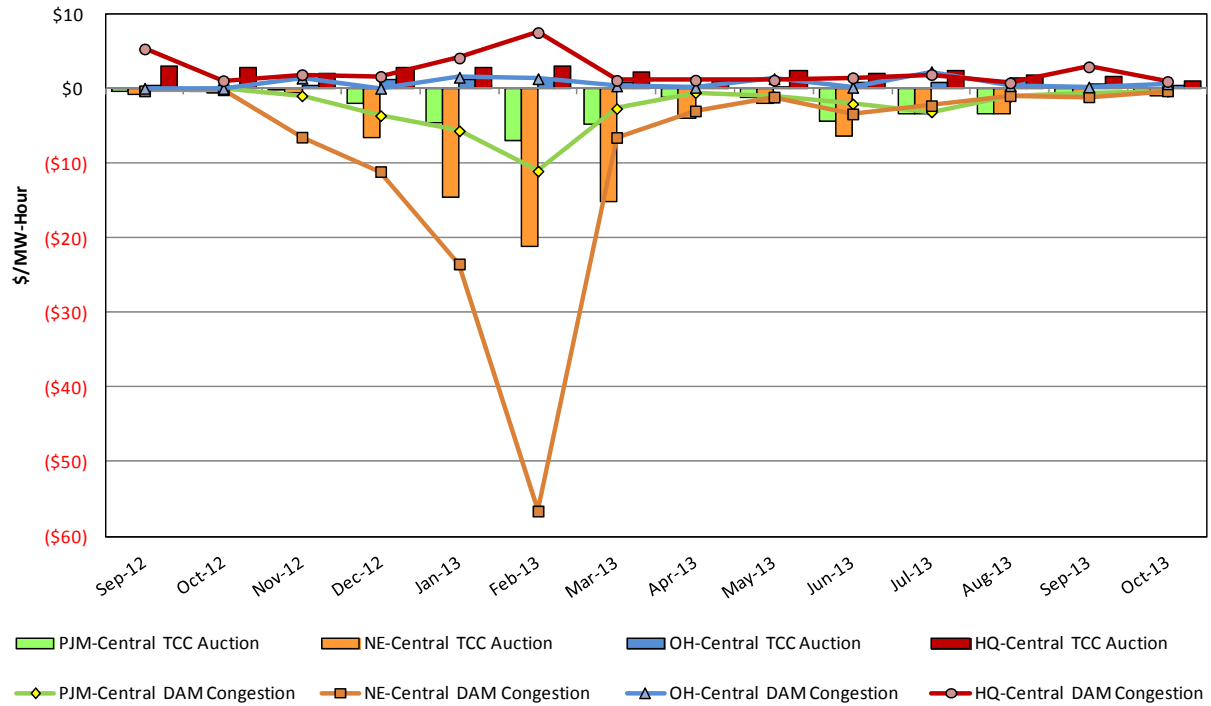
TCC & Day Ahead Market West to Dunwoodie Path Congestion

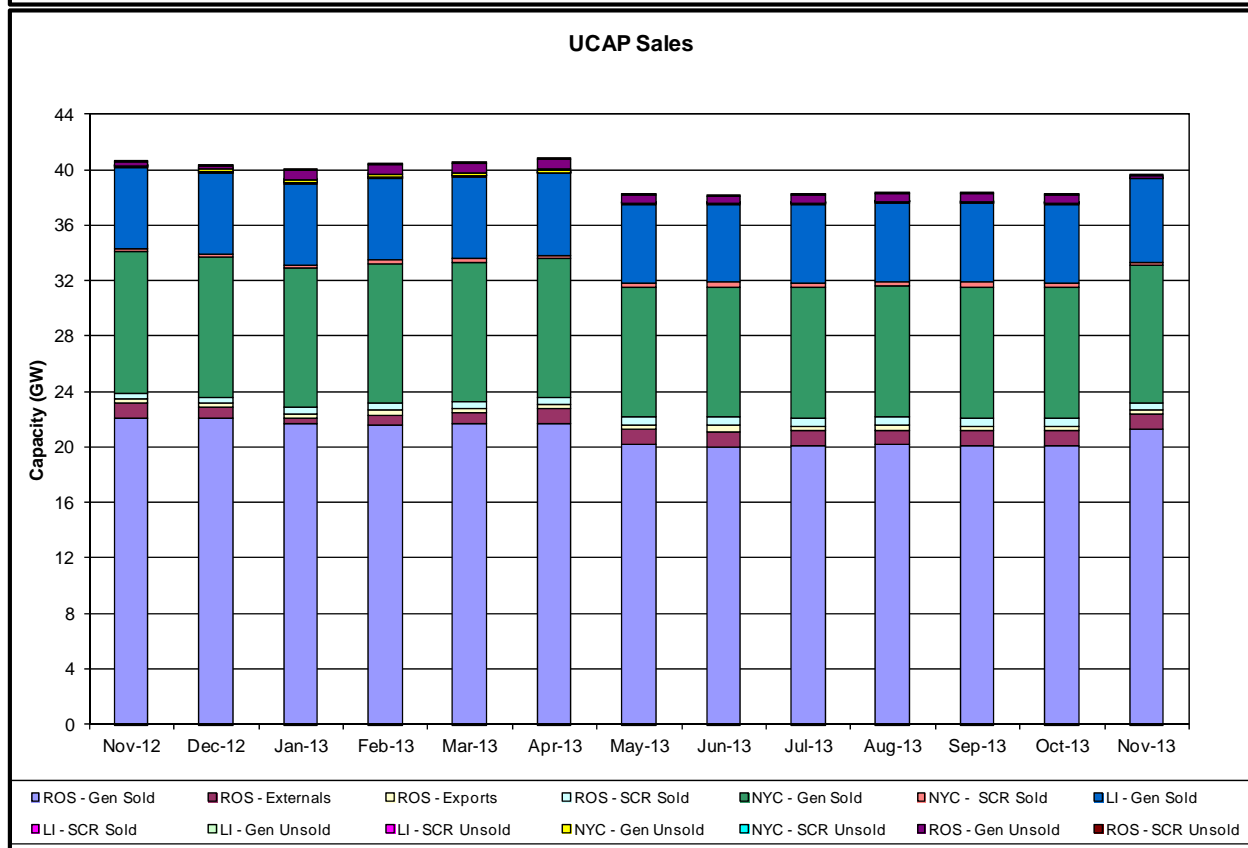
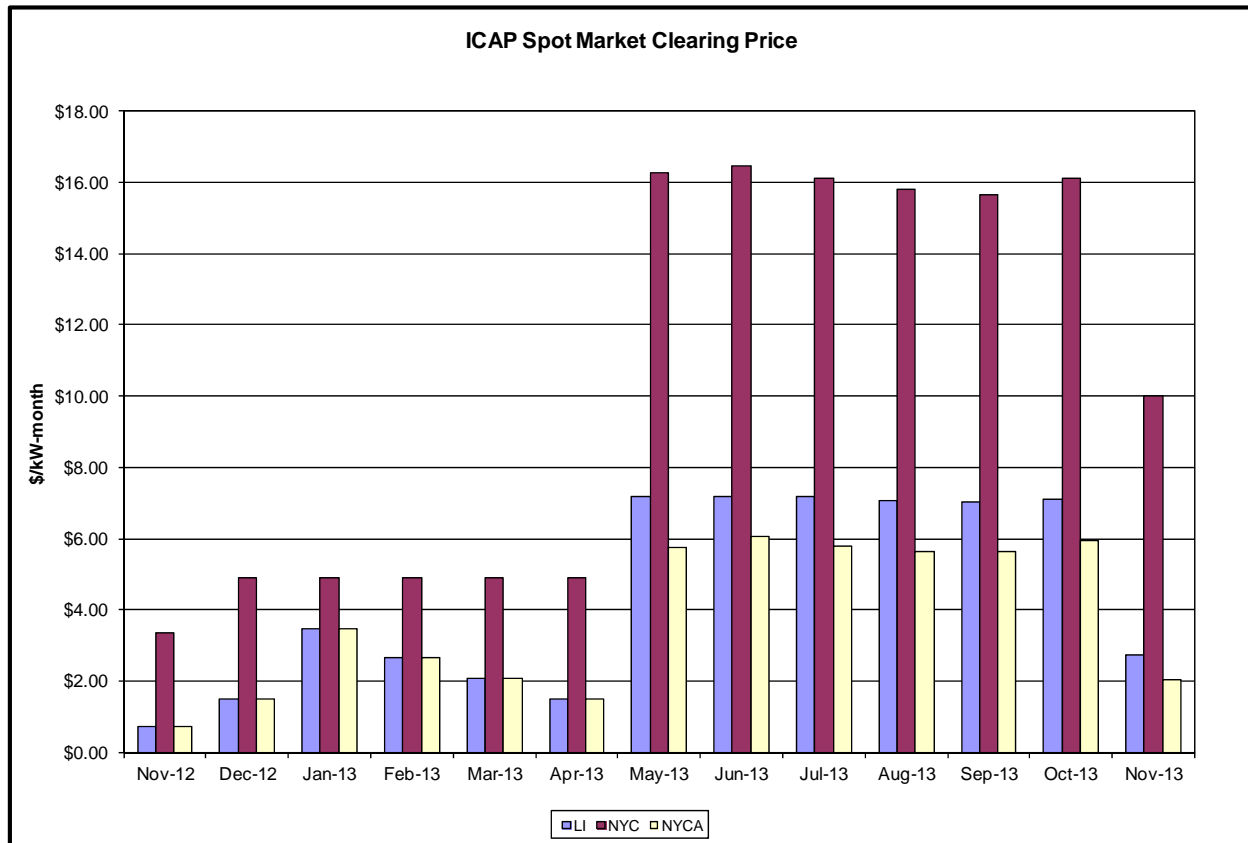
TCC Monthly Reconfiguration Auction vs. Monthly DAM Average



TCC & Day Ahead Market Selected External Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average

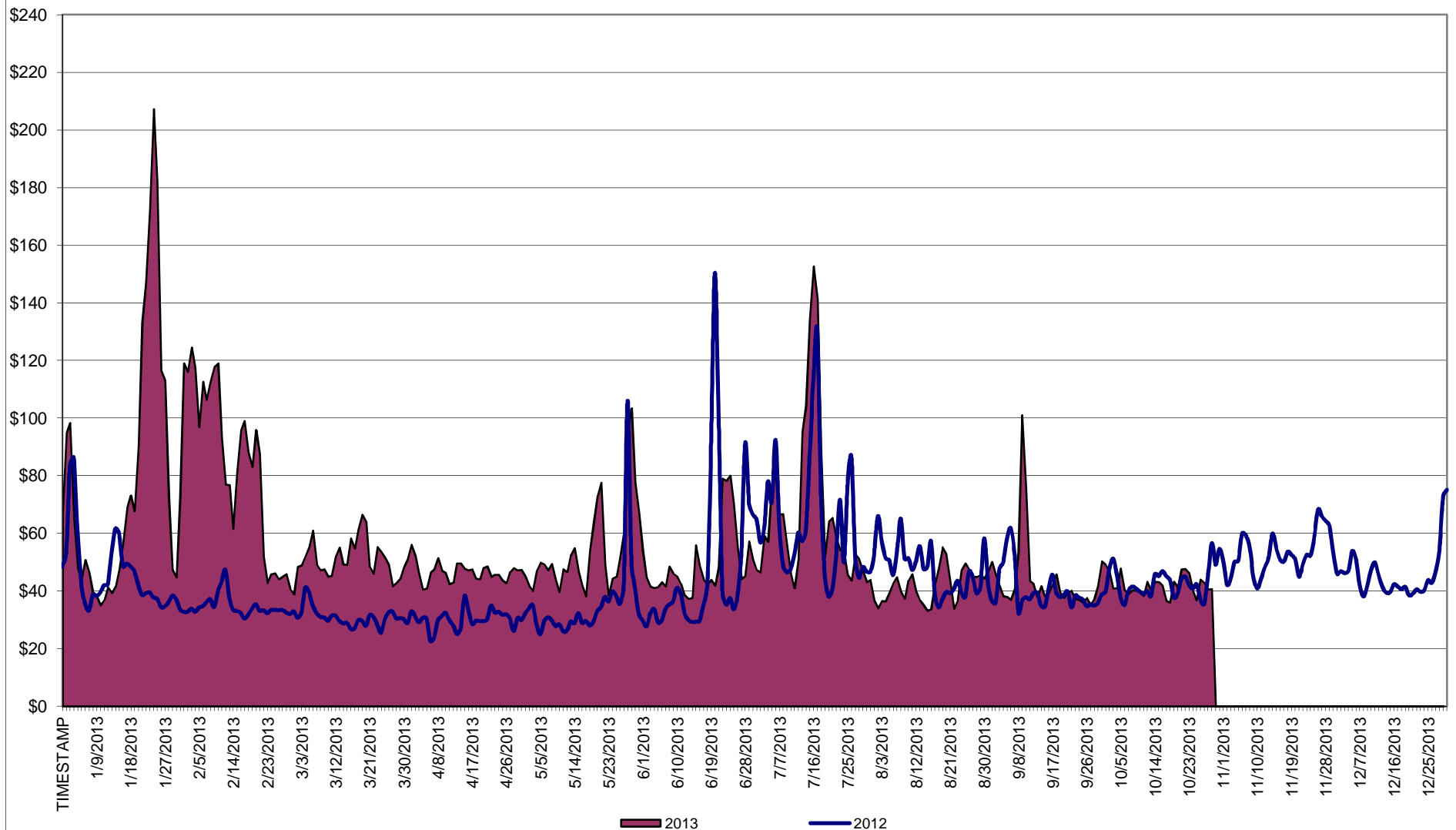




Market Performance Highlights for October 2013

- **LBMP for October is \$39.83/MWh; lower than \$44.22/MWh in September and higher than \$39.30/MWh in October 2012.**
 - Day Ahead and Real Time Load Weighted LBMPs are lower compared to September.
- **October 2013 average year-to-date monthly cost of \$59.20/MWh is an increase from \$44.33/MWh in October 2012.**
- **Average daily sendout is 407 GWh/day in October; lower than 438 GWh/day in September 2013 and higher than 398 GWh/day in October 2012.**
- **Natural gas prices and distillate prices were lower compared to the previous month.**
 - Natural Gas (Transco Z6 NY) was \$3.63/MMBtu, down from \$3.71/MMBtu in September.
 - Jet Kerosene Gulf Coast was \$21.33/MMBtu, down from \$21.84/MMBtu in September.
 - Ultra Low Sulfur No.2 Diesel NY Harbor was \$21.38/MMBtu, down from \$21.85/MMBtu in September.
- **Uplift per MWh is higher compared to the previous month.**
 - Uplift (not including NYISO cost of operations) is \$0.16/MWh; higher than (\$0.14)/MWh in September.
 - The Local Reliability Share is \$0.38/MWh, higher than \$0.23 in September.
 - The Statewide Share is (\$0.21)/MWh, higher than (\$0.36)/MWh in September.
 - TSA \$ per NYC MWh is \$0.01/MWh.
 - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than September.

Daily NYISO Average Cost/MWh (Energy & Ancillary Services)*
 2012 Annual Average \$45.28/MWh
 October 2012 YTD Average \$44.33/MWh
 October 2013 YTD Average \$59.20/MWh



* Excludes ICAP payments.

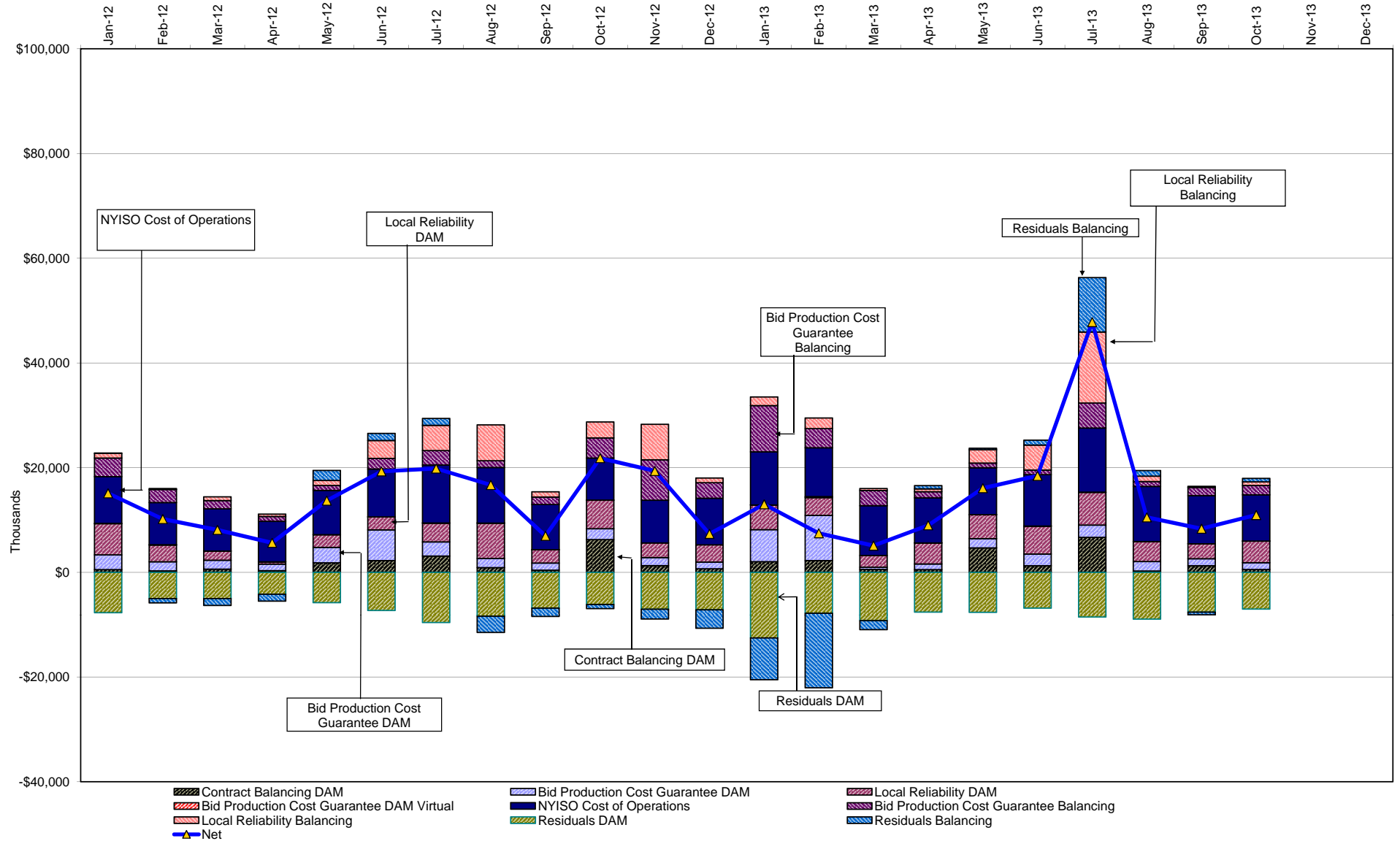
NYISO Average Cost/MWh (Energy and Ancillary Services) *
from the LBMP Customer point of view

2013	<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	68.36	40.80	44.22	39.83		
NTAC	0.79	0.83	0.76	0.94	0.89	0.90	0.70	0.32	0.61	0.91		
Reserve	0.38	0.44	0.43	0.36	0.49	0.34	0.50	0.32	0.38	0.42		
Regulation	0.13	0.13	0.10	0.11	0.09	0.13	0.11	0.13	0.13	0.16		
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	0.21	(0.15)	(0.33)	0.02	0.38	0.40	1.55	(0.15)	(0.14)	0.16		
Uplift: Local Reliability Share	0.44	0.40	0.19	0.37	0.55	0.72	1.13	0.32	0.23	0.38		
Uplift: Statewide Share	(0.23)	(0.55)	(0.52)	(0.35)	(0.17)	(0.31)	0.42	(0.47)	(0.36)	(0.21)		
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		
Avg Monthly Cost	82.34	88.06	50.96	46.95	55.12	53.00	72.27	42.48	46.25	42.55		
Avg YTD Cost	82.34	85.08	74.02	67.81	65.47	63.36	64.99	62.16	60.62	59.20		
TSA \$ per NYC MWh	0.00	0.00	0.00	0.04	0.58	0.61	1.52	0.43	0.22	0.01		
2012	<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
Avg Monthly Cost	46.75	34.75	31.19	30.29	36.52	50.27	66.14	48.46	41.17	42.44	53.26	46.74
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
2011	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	74.91	55.60	46.98	46.44	48.49	60.33	75.76	56.04	46.86	42.49	38.97	39.73
NTAC	0.62	0.75	0.86	0.81	1.13	1.22	0.66	0.60	0.43	0.56	0.62	0.69
Reserve	0.44	0.50	0.41	0.43	0.48	0.28	0.28	0.13	0.25	0.41	0.26	0.28
Regulation	0.20	0.18	0.15	0.12	0.10	0.15	0.12	0.09	0.08	0.09	0.08	0.09
NYISO Cost of Operations	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Uplift	1.26	0.58	0.45	0.21	(0.02)	0.61	1.42	0.65	0.15	(0.21)	0.11	0.15
Uplift: Local Reliability Share	0.95	0.71	0.33	0.38	0.36	0.82	1.19	0.87	0.45	0.23	0.19	0.19
Uplift: Statewide Share	0.31	(0.12)	0.12	(0.18)	(0.38)	(0.21)	0.24	(0.21)	(0.30)	(0.44)	(0.08)	(0.05)
Voltage Support and Black Start	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Avg Monthly Cost	78.50	58.69	49.92	49.07	51.24	63.67	79.30	58.58	48.83	44.40	41.11	42.00
Avg YTD Cost	78.50	68.82	62.36	59.14	57.52	58.70	62.77	62.13	60.66	59.18	57.76	56.47
TSA \$ per NYC MWh	0.00	0.00	0.00	0.13	0.00	1.45	0.38	1.59	0.15	0.00	0.00	0.00

* Excludes ICAP payments.
Market Mitigation and Analysis
Prepared: 11/5/2013 9:50 AM

Data reflects true-ups thru June 2013.

NYISO Dollar Flows - Uplift- OATT Schedule 1 components - Data through October 31, 2013



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

2013	<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>
<u>Day Ahead Market MWh</u>	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		
DAM LSE Internal LBMP Energy Sales	56%	55%	56%	57%	56%	57%	59%	57%	55%	51%		
DAM External TC LBMP Energy Sales	4%	6%	3%	3%	1%	1%	1%	0%	0%	0%		
DAM Bilateral - Internal Bilaterals	38%	37%	38%	37%	37%	36%	33%	36%	38%	41%		
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	3%	4%	5%	5%	4%	5%		
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%		
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%		
<u>Balancing Energy Market MWh</u>	-471,167	-648,574	-501,253	-525,278	-501,948	-669,315	-296,335	-905,673	-750,587	-682,567		
Balancing Energy LSE Internal LBMP Energy Sales	-131%	-117%	-127%	-123%	-133%	-115%	-188%	-113%	-120%	-123%		
Balancing Energy External TC LBMP Energy Sales	33%	20%	23%	21%	35%	16%	78%	9%	11%	14%		
Balancing Energy Bilateral - Internal Bilaterals	4%	10%	11%	3%	5%	4%	10%	3%	6%	6%		
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	1%	4%	0%	0%	0%		
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	5%	3%	4%	5%	4%	2%	3%	1%	2%	4%		
Balancing Energy Bilateral - Wheel Through Bilaterals	-11%	-16%	-11%	-6%	-11%	-9%	-7%	0%	1%	0%		
<u>Transactions Summary</u>												
LBMP	59%	59%	58%	59%	55%	56%	59%	54%	53%	49%		
Internal Bilaterals	39%	39%	40%	39%	39%	38%	34%	39%	41%	43%		
Import Bilaterals	0%	0%	0%	0%	4%	4%	5%	5%	4%	6%		
Export Bilaterals	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%		
Wheels Through	1%	0%	1%	1%	0%	1%	1%	1%	1%	1%		
<u>Market Share of Total Load</u>												
Day Ahead Market	103.2%	104.8%	103.6%	104.2%	103.9%	104.7%	101.7%	106.0%	105.7%	105.4%		
Balancing Energy +	-3.2%	-4.8%	-3.6%	-4.2%	-3.9%	-4.7%	-1.7%	-6.0%	-5.7%	-5.4%		
Total MWh	14,668,929	13,467,615	13,748,838	12,438,627	12,949,362	14,203,656	17,677,979	15,184,764	13,270,885	12,728,932		
Average Daily Energy Sendout/Month GWh	453	453	429	398	407	469	561	485	438	407		
2012	<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>
<u>Day Ahead Market MWh</u>	14,877,279	13,473,786	13,590,456	12,482,692	13,324,441	14,898,725	17,946,019	17,185,445	14,262,425	13,354,729	12,839,137	14,719,983
DAM LSE Internal LBMP Energy Sales	58%	57%	58%	59%	61%	63%	65%	63%	61%	60%	62%	57%
DAM External TC LBMP Energy Sales	1%	1%	0%	1%	1%	1%	1%	1%	0%	1%	3%	3%
DAM Bilateral - Internal Bilaterals	38%	40%	40%	38%	36%	35%	32%	34%	37%	38%	33%	37%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
DAM Bilateral - Wheel Through Bilaterals	1%	0%	1%	1%	1%	1%	1%	1%	0%	0%	1%	1%
<u>Balancing Energy Market MWh</u>	-878,126	-816,828	-896,684	-371,022	-31,455	-528,764	-579,200	-528,885	-695,280	-752,624	13,283	-737,059
Balancing Energy LSE Internal LBMP Energy Sales	-110%	-111%	-110%	-126%	-561%	-129%	-126%	-138%	-121%	-126%	-1421%	-108%
Balancing Energy External TC LBMP Energy Sales	9%	7%	7%	20%	347%	23%	19%	30%	13%	20%	1411%	7%
Balancing Energy Bilateral - Internal Bilaterals	1%	1%	1%	4%	107%	8%	6%	4%	4%	3%	7%	0%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	4%	3%	3%	7%	54%	3%	2%	2%	3%	3%	135%	3%
Balancing Energy Bilateral - Wheel Through Bilaterals	-3%	0%	-1%	-4%	-46%	-5%	0%	2%	1%	1%	-32%	-2%
<u>Transactions Summary</u>												
LBMP	57%	56%	55%	59%	61%	62%	65%	63%	59%	58%	65%	58%
Internal Bilaterals	41%	42%	43%	39%	36%	36%	33%	35%	39%	40%	33%	39%
Import Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Export Bilaterals	2%	2%	2%	2%	2%	1%	1%	1%	1%	2%	2%	2%
Wheels Through	1%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	1%
<u>Market Share of Total Load</u>												
Day Ahead Market	106.3%	106.5%	107.1%	103.1%	100.2%	103.7%	103.3%	103.2%	105.1%	106.0%	99.9%	105.3%
Balancing Energy +	-6.3%	-6.5%	-7.1%	-3.1%	-0.2%	-3.7%	-3.3%	-3.2%	-5.1%	-6.0%	0.1%	-5.3%
Total MWh	13,999,153	12,656,958	12,693,772	12,111,670	13,292,986	14,369,961	17,366,819	16,656,560	13,567,145	12,602,105	12,852,420	13,982,924
Average Daily Energy Sendout/Month GWh	443	431	407	396	420	471	551	529	447	398	410	434

+ 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 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>
<u>DAY AHEAD LBMP</u>												
Price *	\$69.17	\$75.82	\$45.97	\$42.21	\$45.87	\$42.66	\$56.90	\$37.19	\$38.32	\$36.15		
Standard Deviation	\$47.21	\$29.98	\$9.40	\$7.84	\$18.77	\$17.98	\$37.12	\$11.85	\$15.21	\$9.15		
Load Weighted Price **	\$72.17	\$77.95	\$46.85	\$43.13	\$48.52	\$45.32	\$61.77	\$39.00	\$40.47	\$37.37		
<u>RTC LBMP</u>												
Price *	\$73.69	\$64.15	\$45.75	\$40.50	\$39.51	\$42.00	\$55.41	\$35.90	\$39.06	\$34.08		
Standard Deviation	\$88.27	\$36.96	\$22.62	\$14.79	\$24.44	\$30.96	\$58.54	\$18.35	\$60.70	\$17.38		
Load Weighted Price **	\$77.52	\$66.07	\$46.79	\$41.52	\$42.14	\$44.70	\$61.64	\$37.65	\$43.41	\$35.49		
<u>REAL TIME LBMP</u>												
Price *	\$76.47	\$64.87	\$45.01	\$42.74	\$42.32	\$43.93	\$65.57	\$37.03	\$39.02	\$36.02		
Standard Deviation	\$83.80	\$38.96	\$16.27	\$15.96	\$26.99	\$34.72	\$89.92	\$20.11	\$36.85	\$19.07		
Load Weighted Price **	\$81.71	\$66.83	\$45.94	\$43.73	\$45.50	\$47.00	\$76.32	\$38.92	\$43.28	\$37.47		
Average Daily Energy Sendout/Month GWh	453	453	429	398	407	469	561	485	438	407		

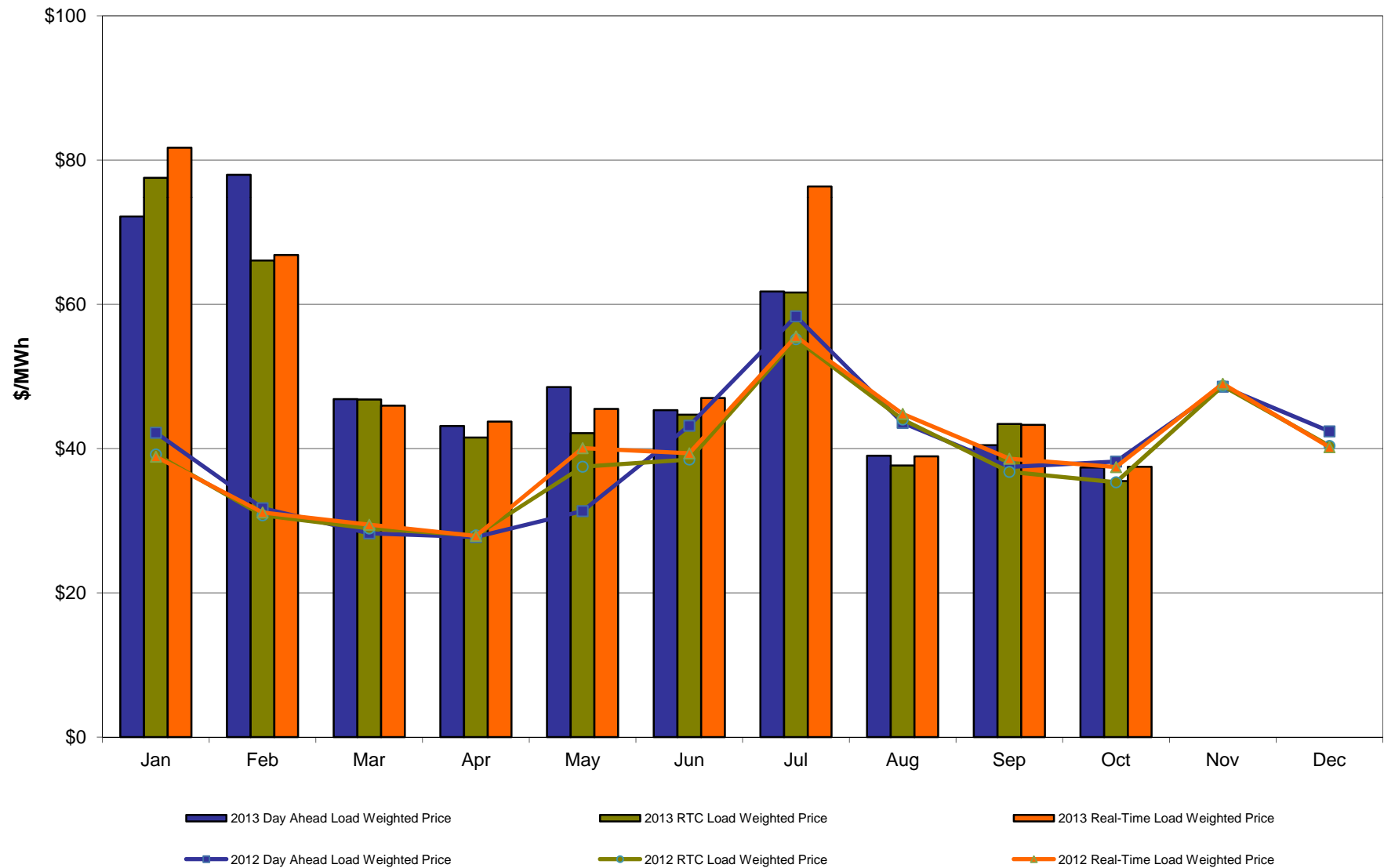
NYISO Markets 2012 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>DAY AHEAD LBMP</u>												
Price *	\$40.91	\$31.15	\$27.44	\$26.88	\$29.79	\$38.71	\$53.95	\$41.17	\$35.74	\$37.10	\$47.31	\$41.47
Standard Deviation	\$15.62	\$6.23	\$7.00	\$7.04	\$10.22	\$31.58	\$32.19	\$15.94	\$11.26	\$8.21	\$11.52	\$10.18
Load Weighted Price **	\$42.20	\$31.73	\$28.25	\$27.72	\$31.33	\$43.17	\$58.33	\$43.57	\$37.44	\$38.19	\$48.58	\$42.38
<u>RTC LBMP</u>												
Price *	\$37.93	\$30.31	\$28.15	\$27.19	\$34.27	\$34.58	\$51.05	\$41.79	\$34.76	\$34.11	\$46.72	\$39.13
Standard Deviation	\$23.43	\$7.26	\$22.87	\$15.67	\$46.03	\$57.26	\$60.86	\$22.90	\$23.14	\$19.02	\$33.25	\$22.23
Load Weighted Price **	\$39.19	\$30.75	\$28.93	\$27.97	\$37.49	\$38.48	\$55.17	\$44.03	\$36.77	\$35.33	\$48.69	\$40.37
<u>REAL TIME LBMP</u>												
Price *	\$37.35	\$30.54	\$28.47	\$27.00	\$35.22	\$34.29	\$50.68	\$41.95	\$36.05	\$36.24	\$47.35	\$39.17
Standard Deviation	\$23.75	\$9.77	\$20.94	\$15.14	\$56.38	\$55.53	\$51.60	\$23.86	\$26.89	\$14.43	\$27.30	\$14.67
Load Weighted Price **	\$38.88	\$31.14	\$29.44	\$27.89	\$40.06	\$39.34	\$55.54	\$44.81	\$38.59	\$37.43	\$48.98	\$40.19
Average Daily Energy Sendout/Month GWh	443	431	407	396	420	471	551	529	447	398	410	434

* Average zonal load weighted prices.

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

NYISO Monthly Average Internal LBMPs 2012- 2013

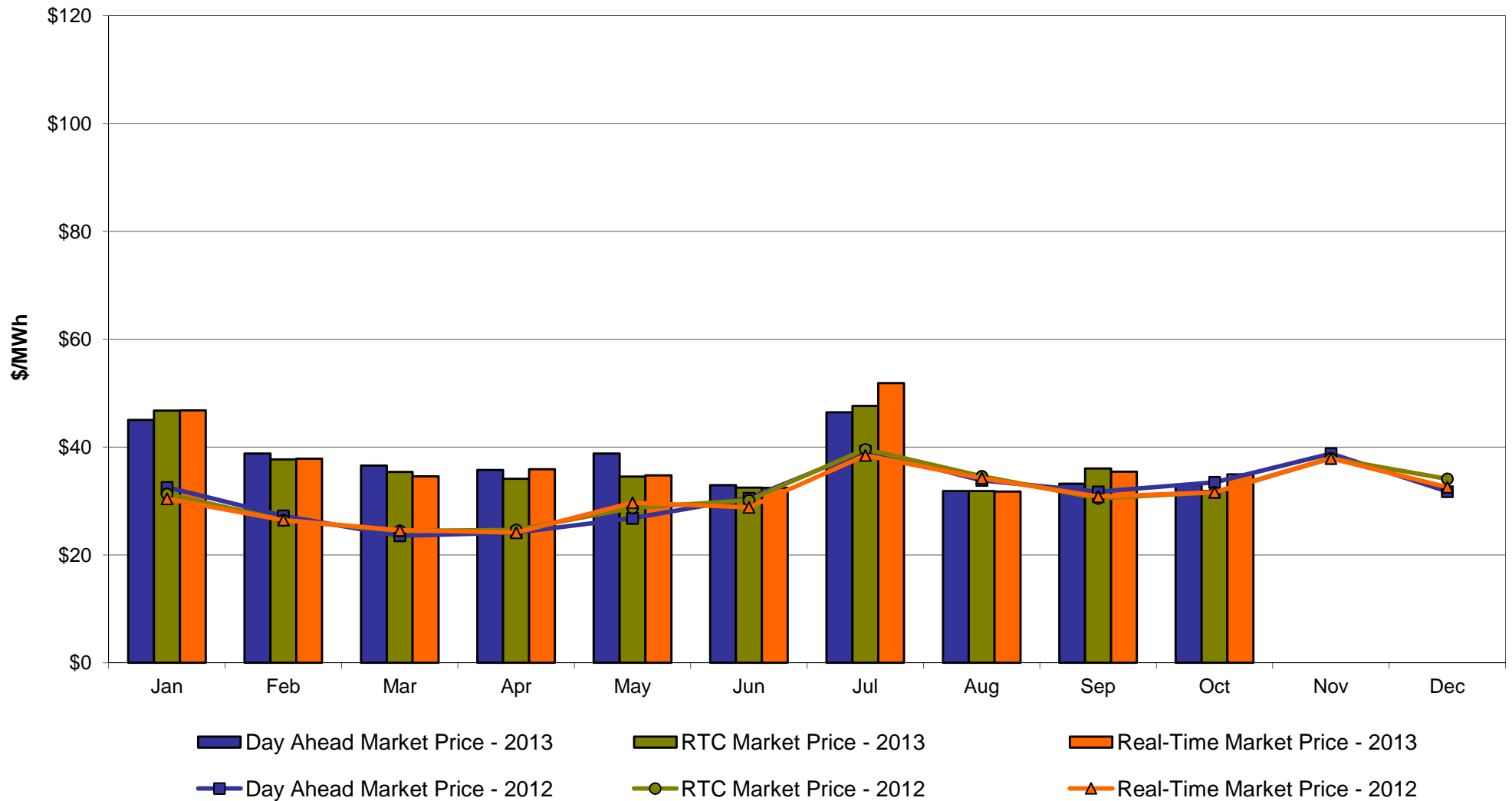


October 2013 Zonal LBMP Statistics for NYISO (\$/MWh)

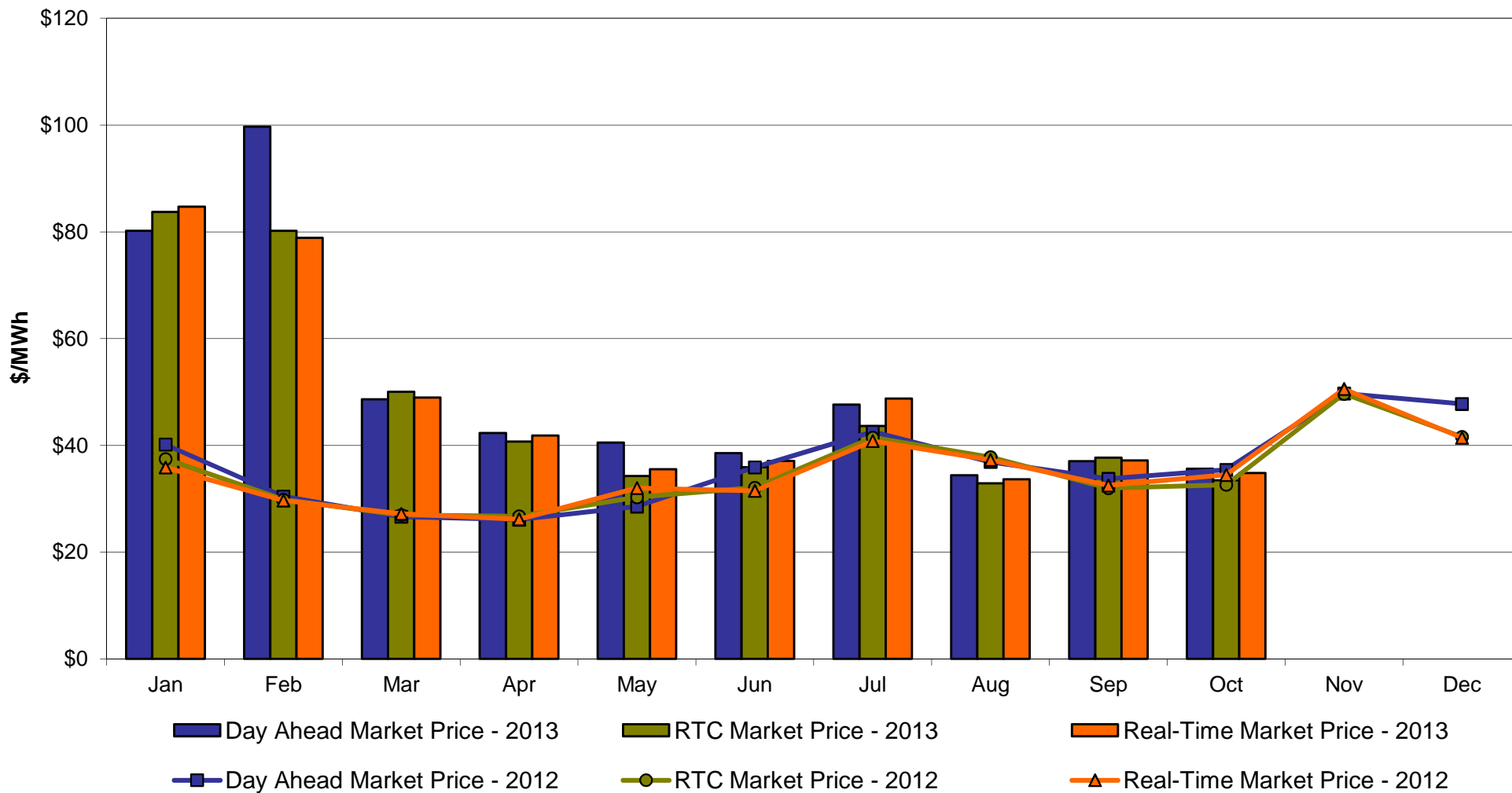
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	33.00	32.68	28.47	33.65	33.88	35.61	36.70	36.79	36.80	37.55	41.21
Standard Deviation	8.49	7.84	7.09	8.23	8.31	8.75	9.17	9.25	9.23	9.59	12.37
<u>RTC LBMP</u>											
Unweighted Price *	31.86	30.11	25.99	31.07	31.34	33.48	34.44	34.21	34.19	35.35	39.96
Standard Deviation	30.13	15.05	18.48	15.50	15.55	15.94	16.48	16.38	16.34	16.83	26.35
<u>REAL TIME LBMP</u>											
Unweighted Price *	34.95	31.39	27.42	32.52	32.76	34.81	35.89	35.65	35.64	37.24	42.95
Standard Deviation	31.59	16.34	15.79	16.96	16.91	17.52	18.19	18.17	18.14	19.37	31.91
	<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>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	30.84	32.03	32.03	34.09	35.81	38.84	37.65	38.58	36.45	37.28	28.05
Standard Deviation	6.77	7.62	7.62	8.26	8.71	10.92	9.11	10.47	8.94	9.34	6.80
<u>RTC LBMP</u>											
Unweighted Price *	27.09	27.95	27.78	30.23	32.12	35.52	35.04	34.75	33.77	34.01	24.63
Standard Deviation	9.26	11.03	10.94	10.79	10.58	28.10	27.90	28.17	11.71	11.98	16.09
<u>REAL TIME LBMP</u>											
Unweighted Price *	29.41	30.74	30.53	33.82	34.92	38.67	34.02	36.19	36.97	37.28	26.86
Standard Deviation	14.58	16.21	16.07	19.86	17.38	43.18	28.78	31.88	19.40	20.00	14.42

* Straight LBMP averages

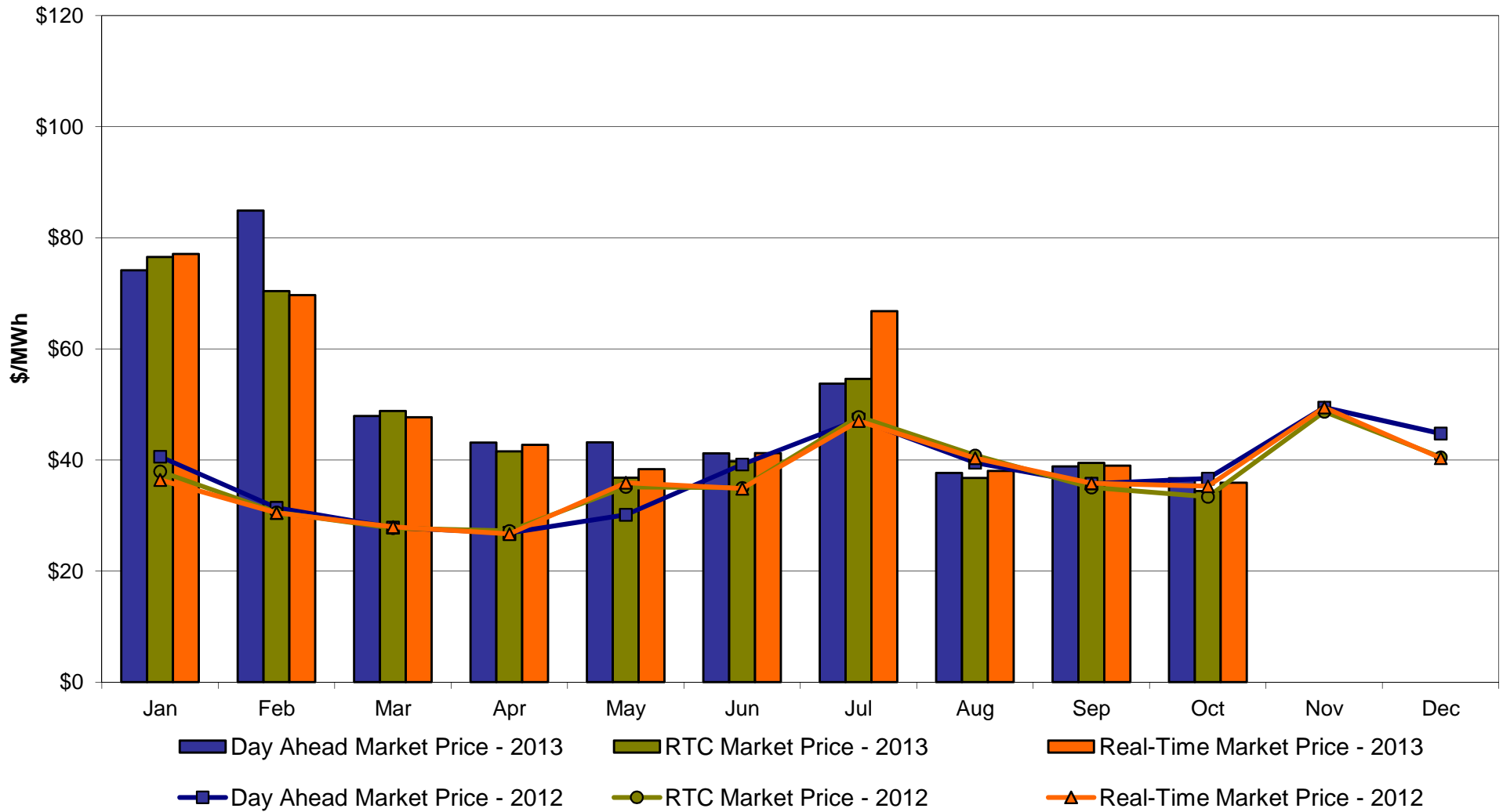
West Zone A **Monthly Average LBMP Prices 2012 - 2013**



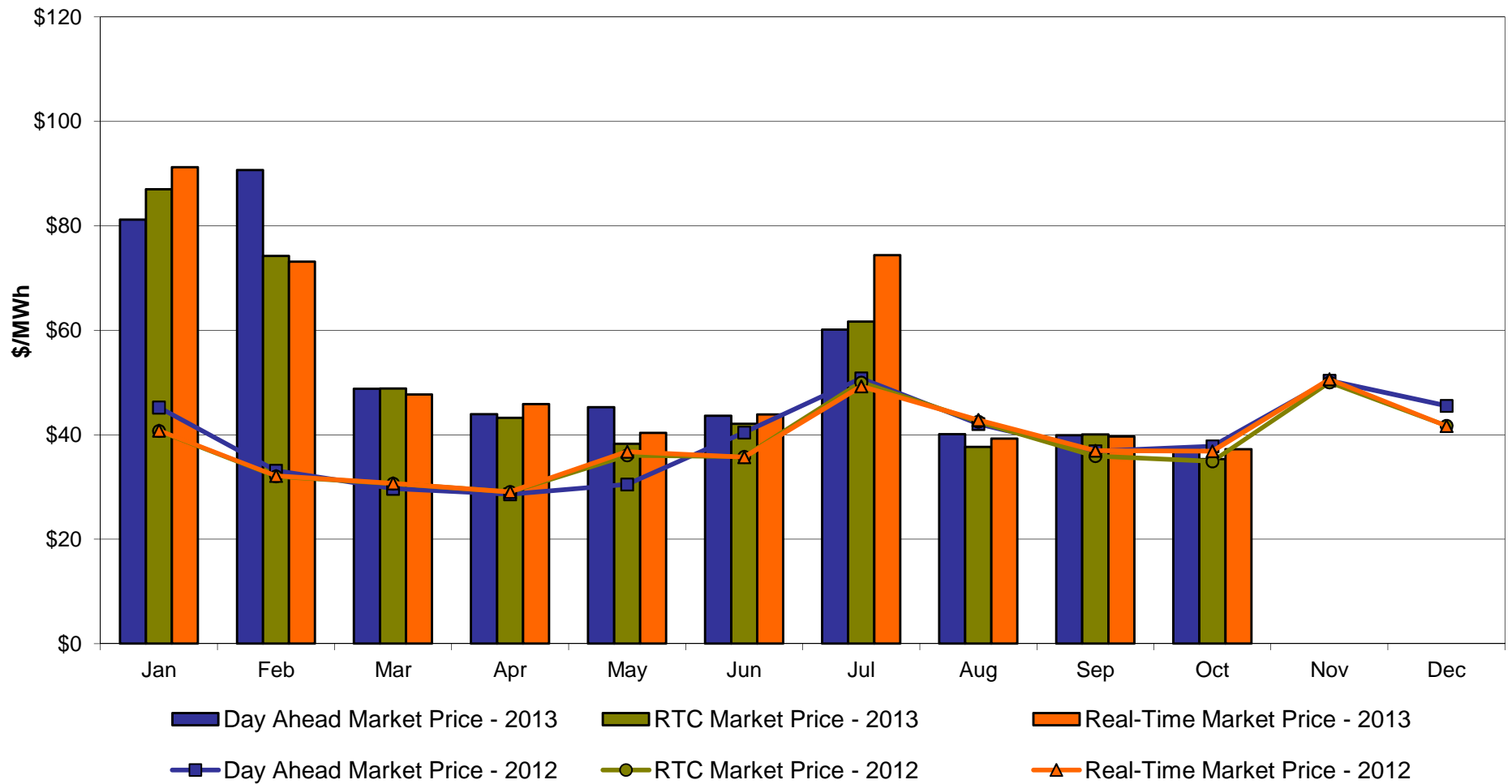
Capital Zone F **Monthly Average LBMP Prices 2012 - 2013**



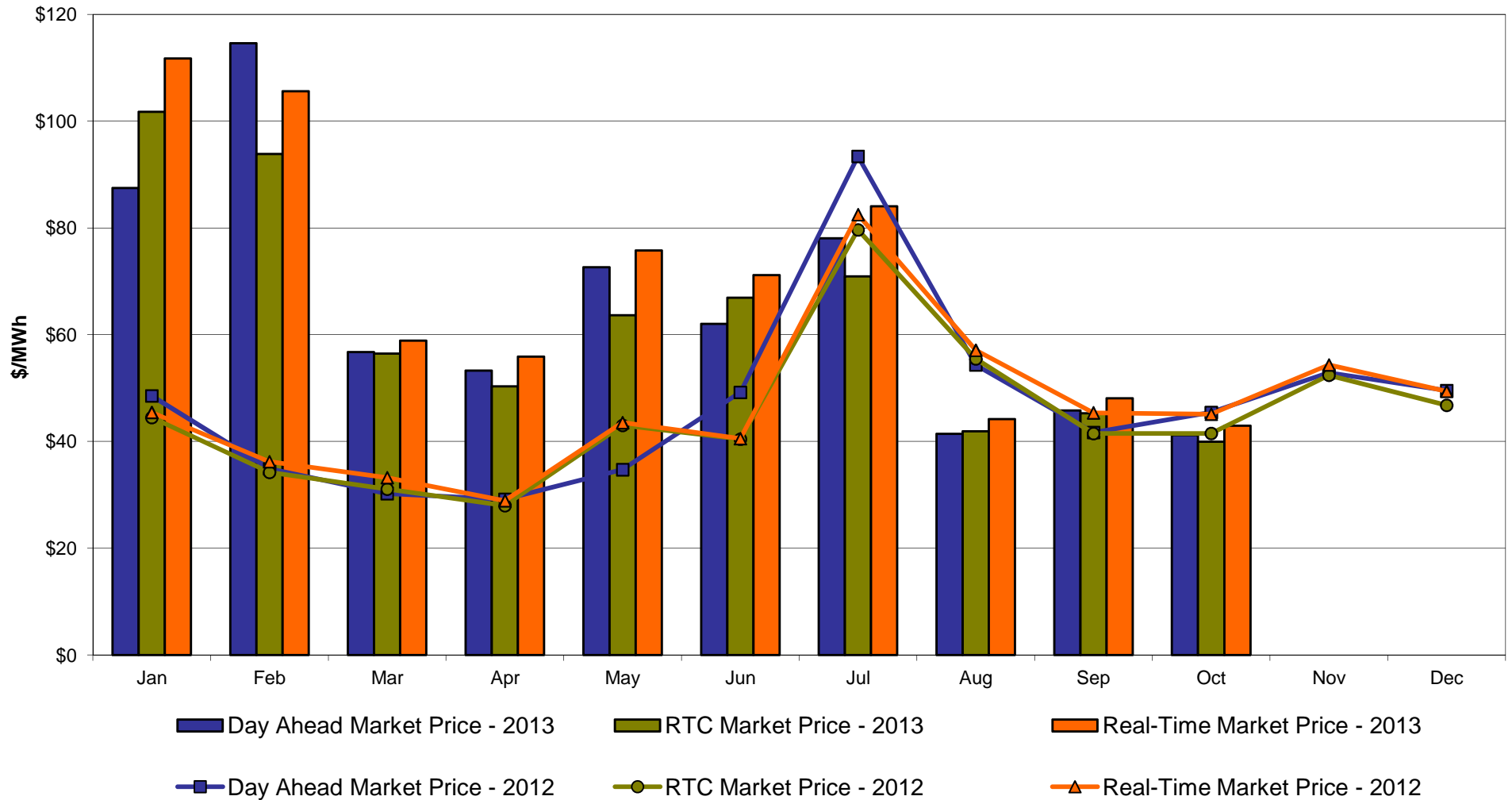
Hudson Valley Zone G **Monthly Average LBMP Prices 2012 - 2013**



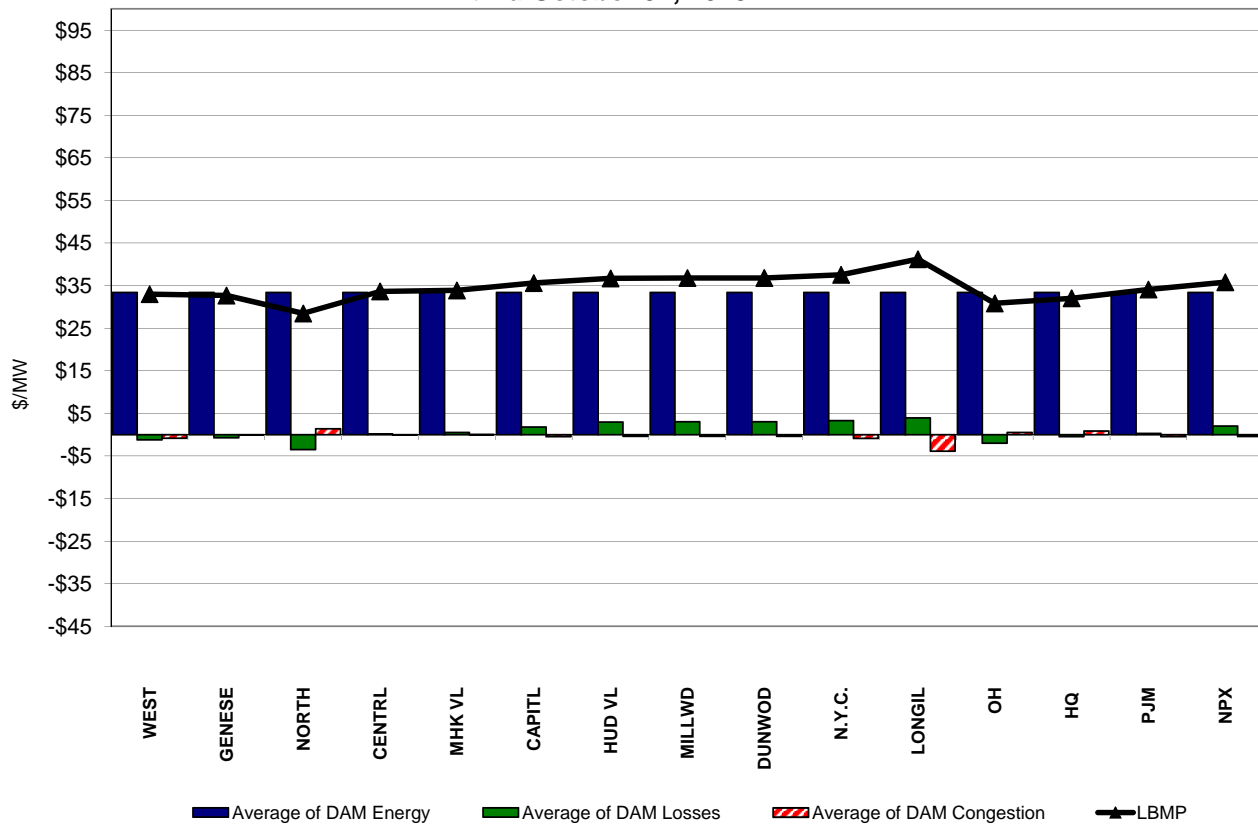
NYC Zone J Monthly Average LBMP Prices 2012 - 2013



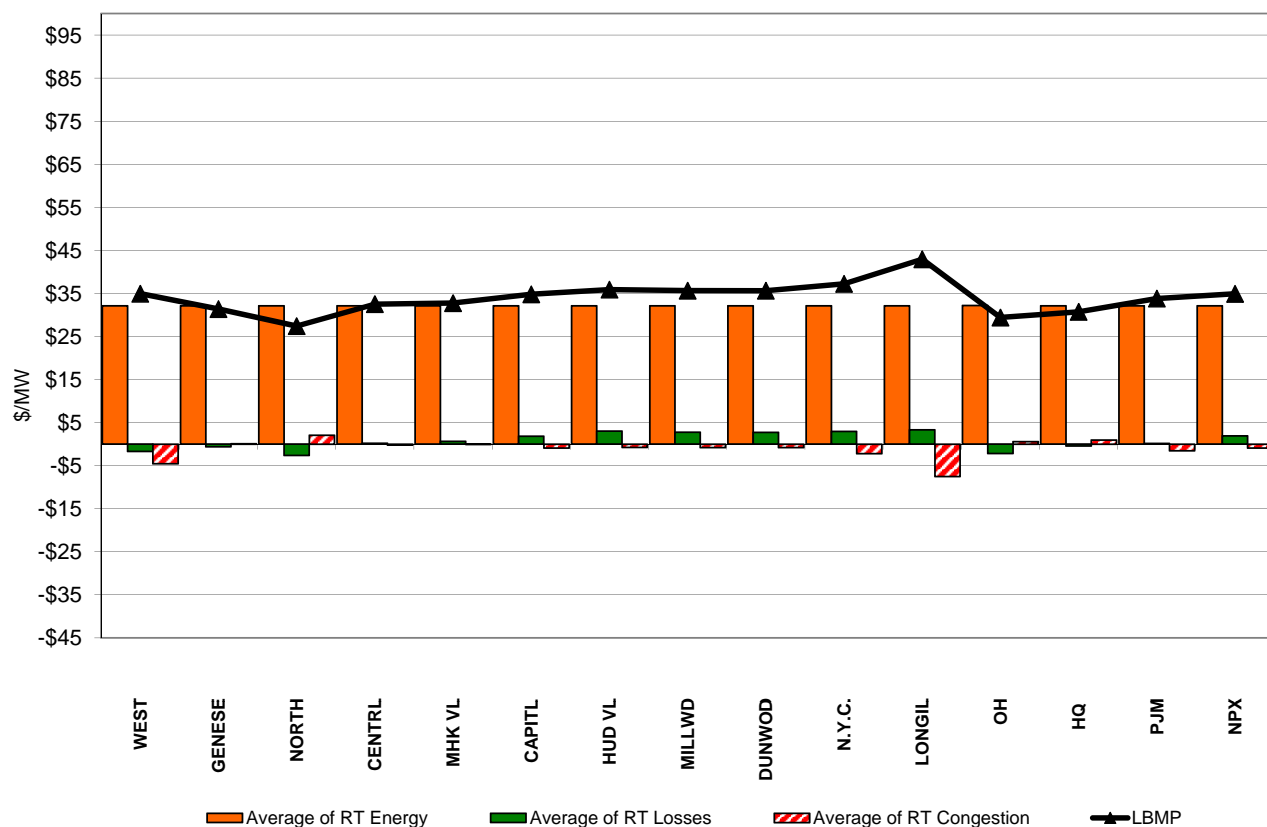
Long Island Zone K Monthly Average LBMP Prices 2012 - 2013



**DAM Zonal Unweighted Monthly Average LBMP Components
thru October 31, 2013**

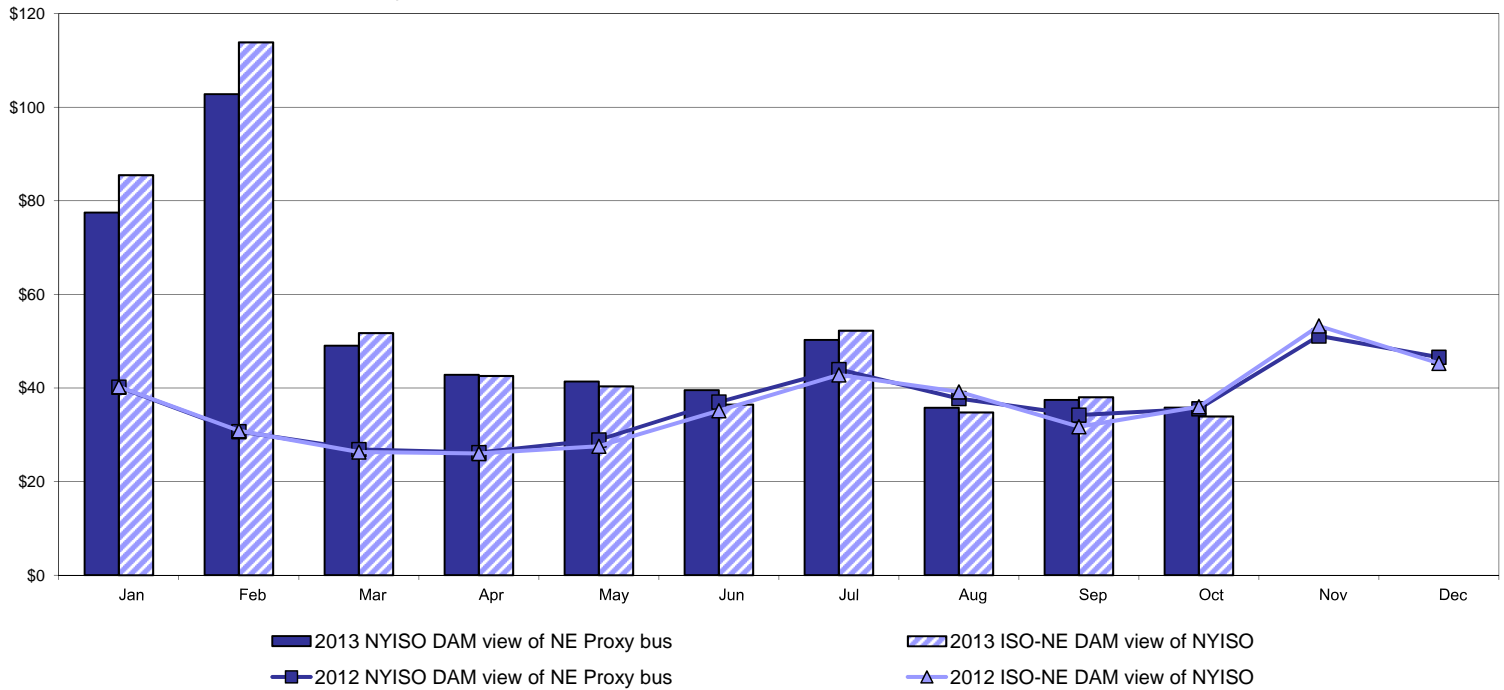


**RT Zonal Unweighted Monthly Average LBMP Components
thru October 31, 2013**

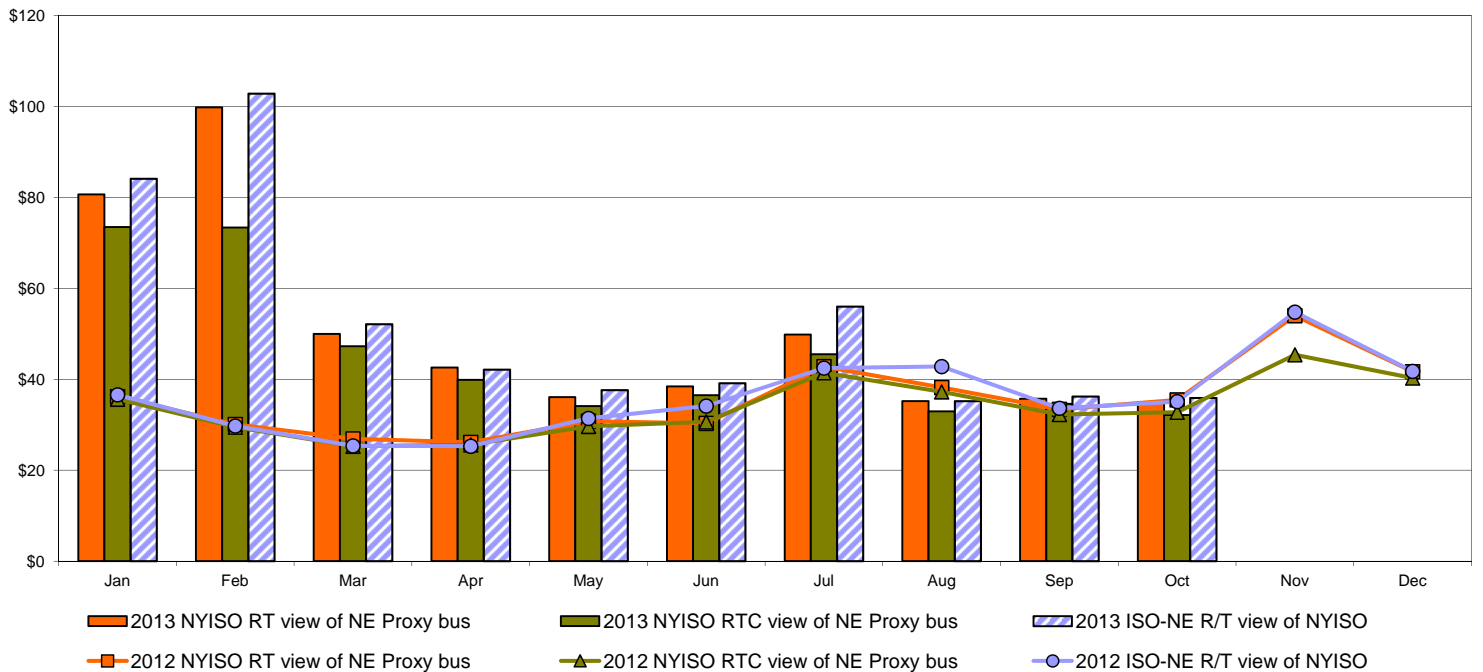


External Comparison ISO-New England

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

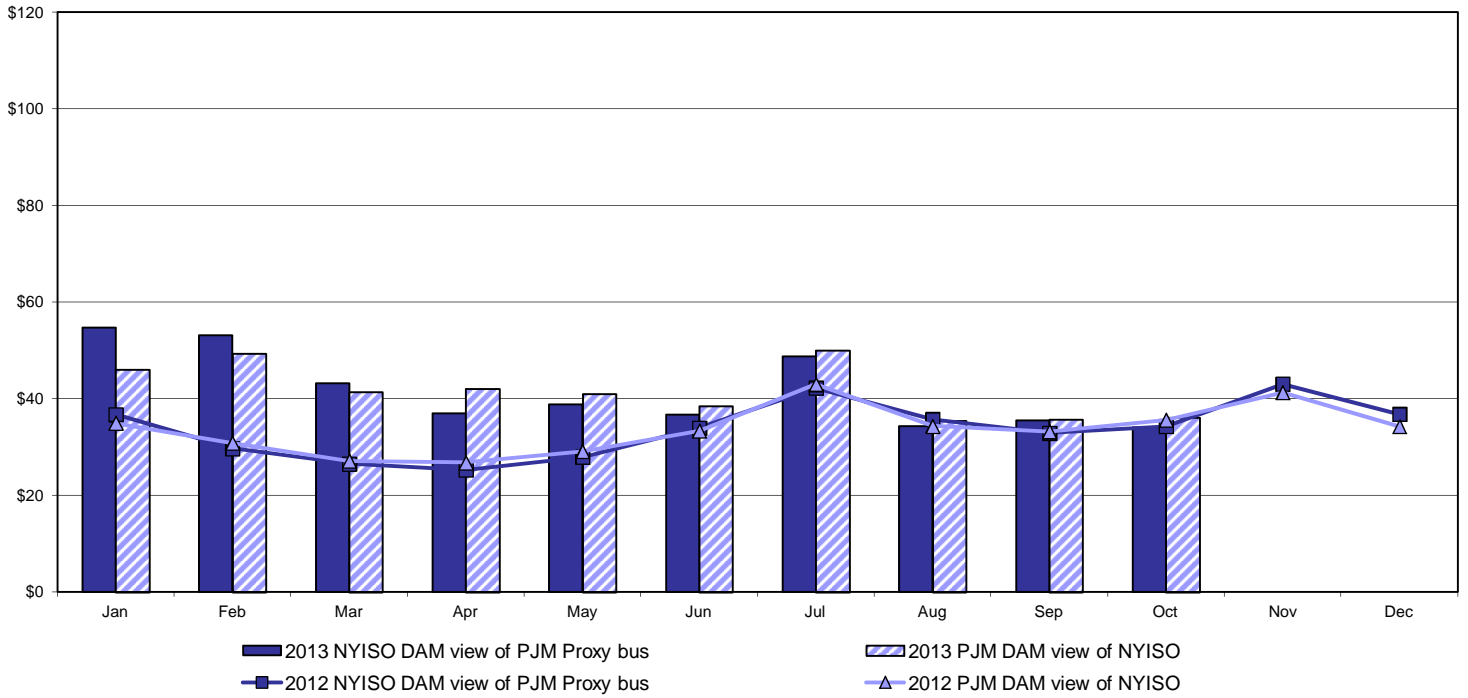


Real Time Market External Zone Comparison: ISO-NE (\$/MWh)

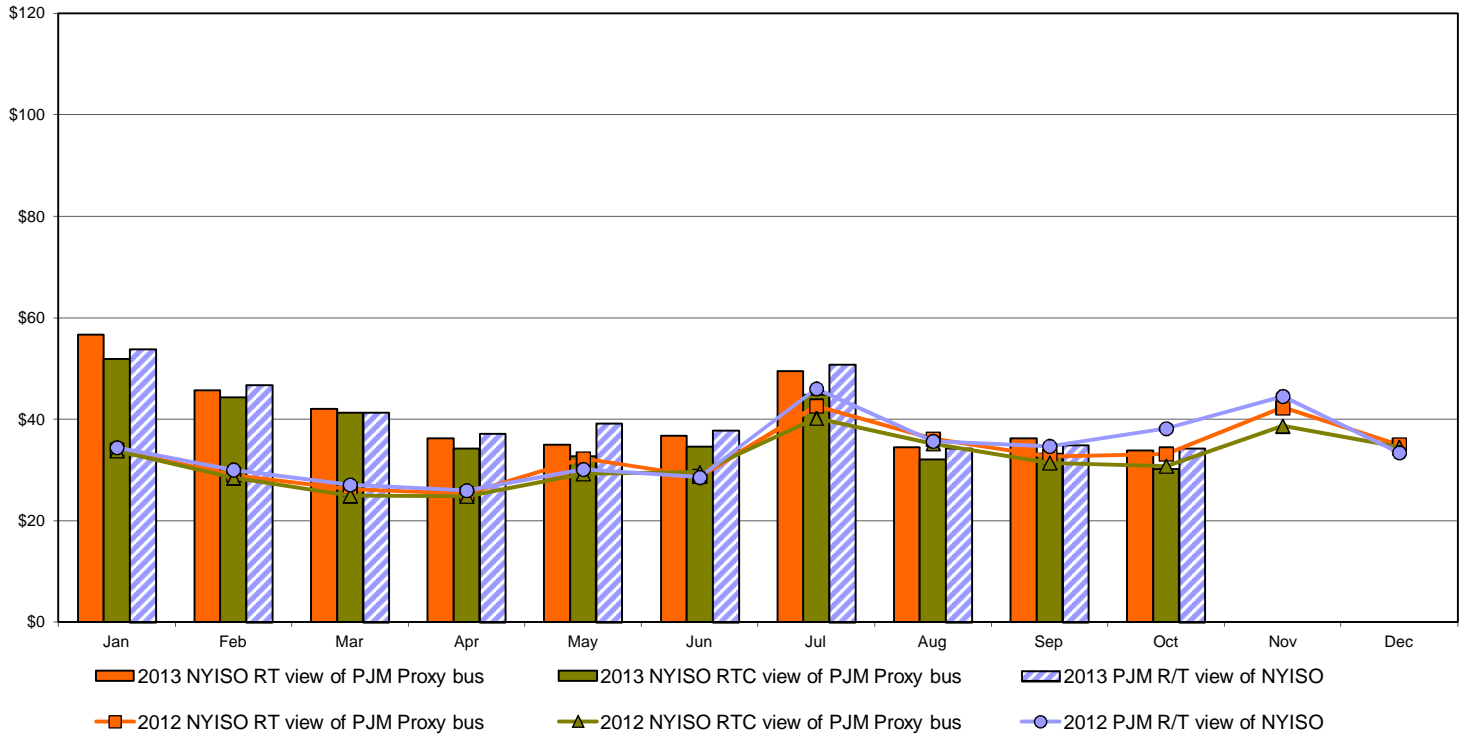


External Comparison PJM

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

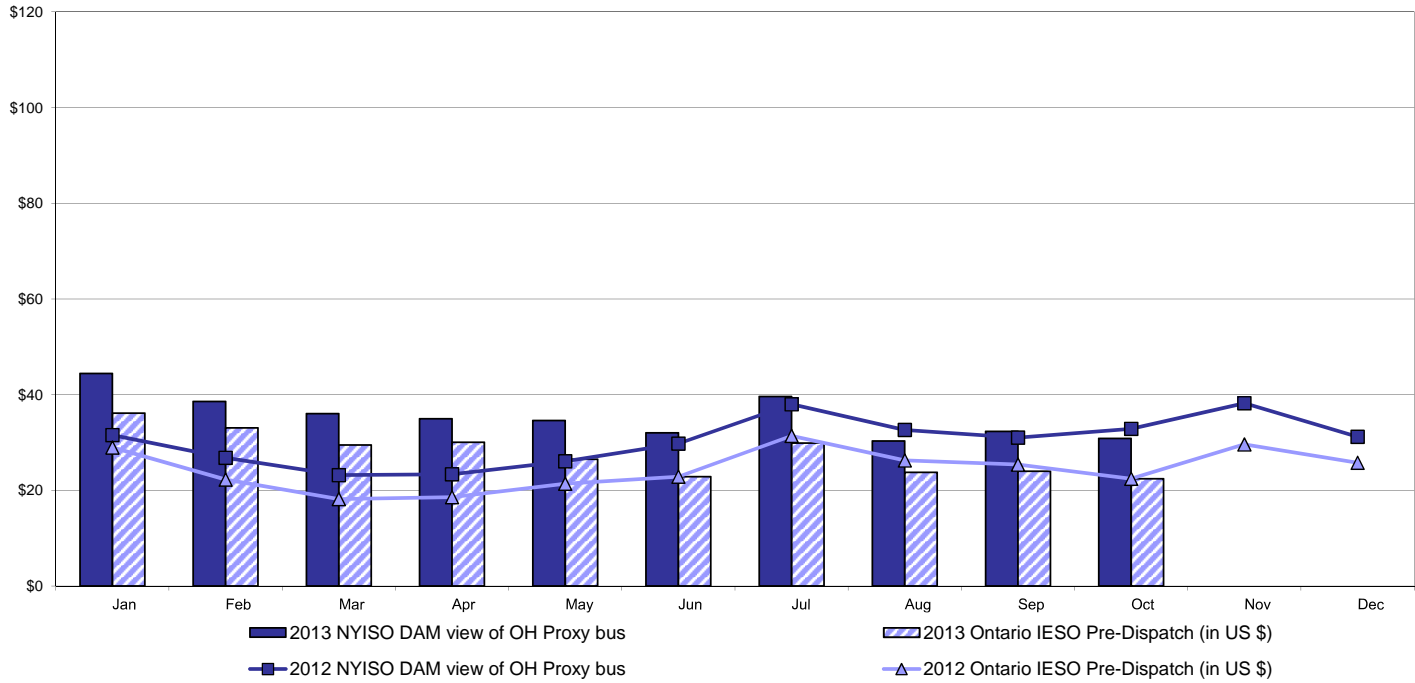


Real Time Market External Zone Comparison - PJM (\$/MWh)

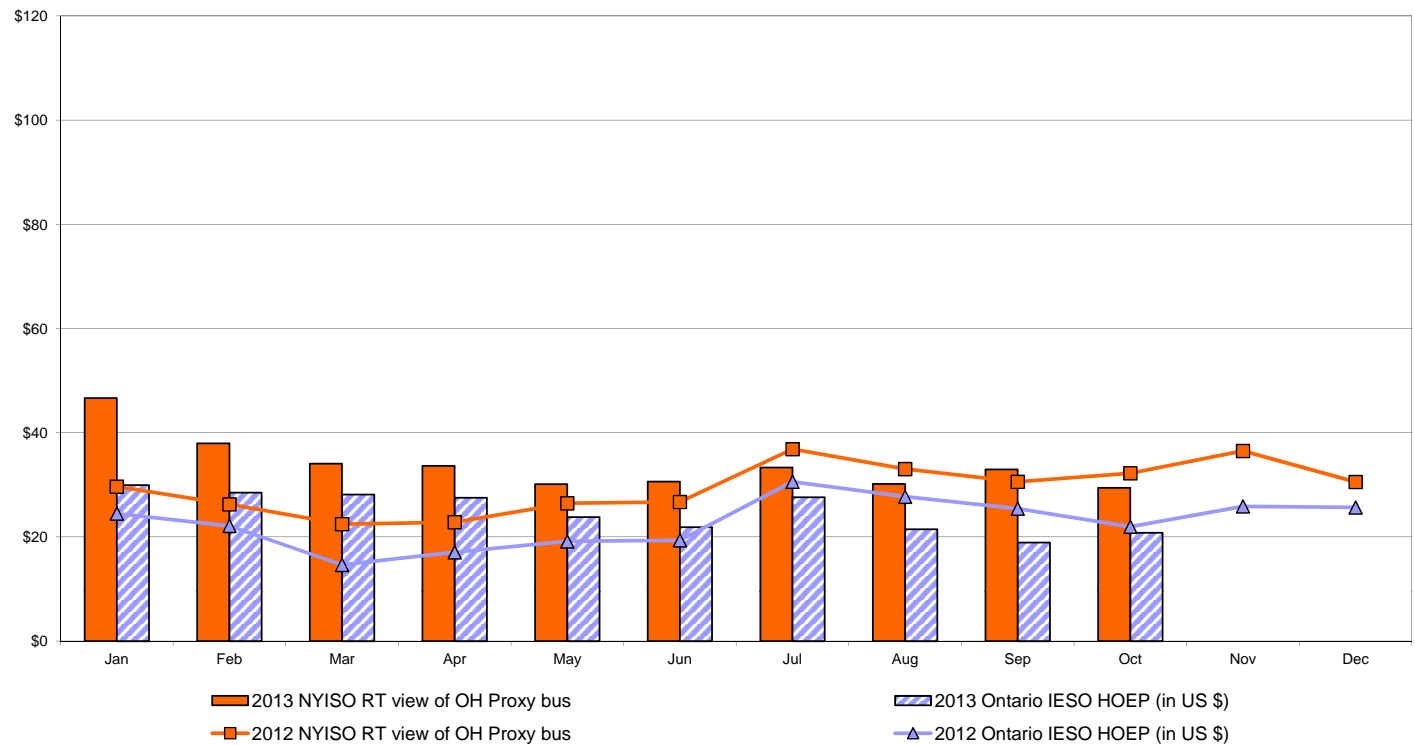


External Comparison Ontario IESO

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

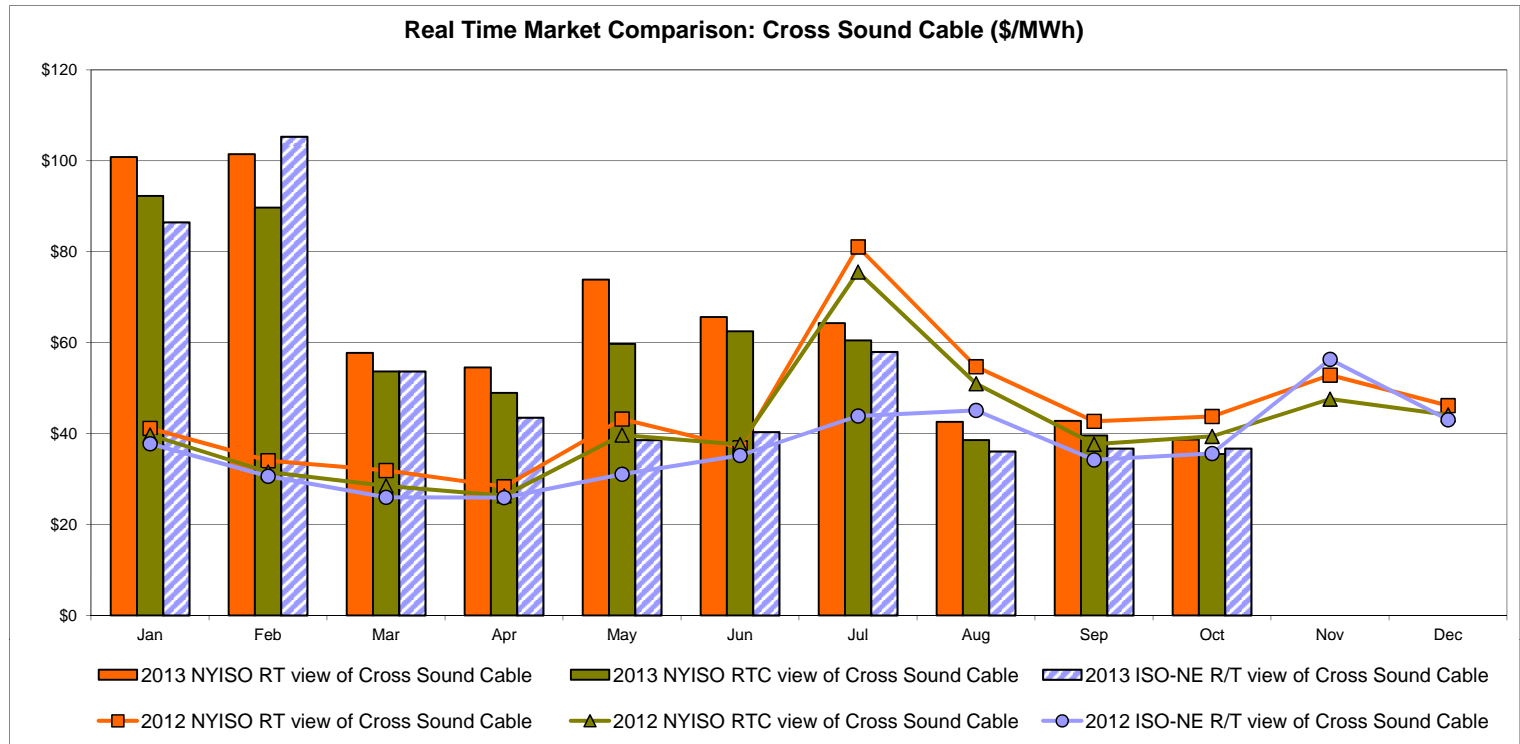
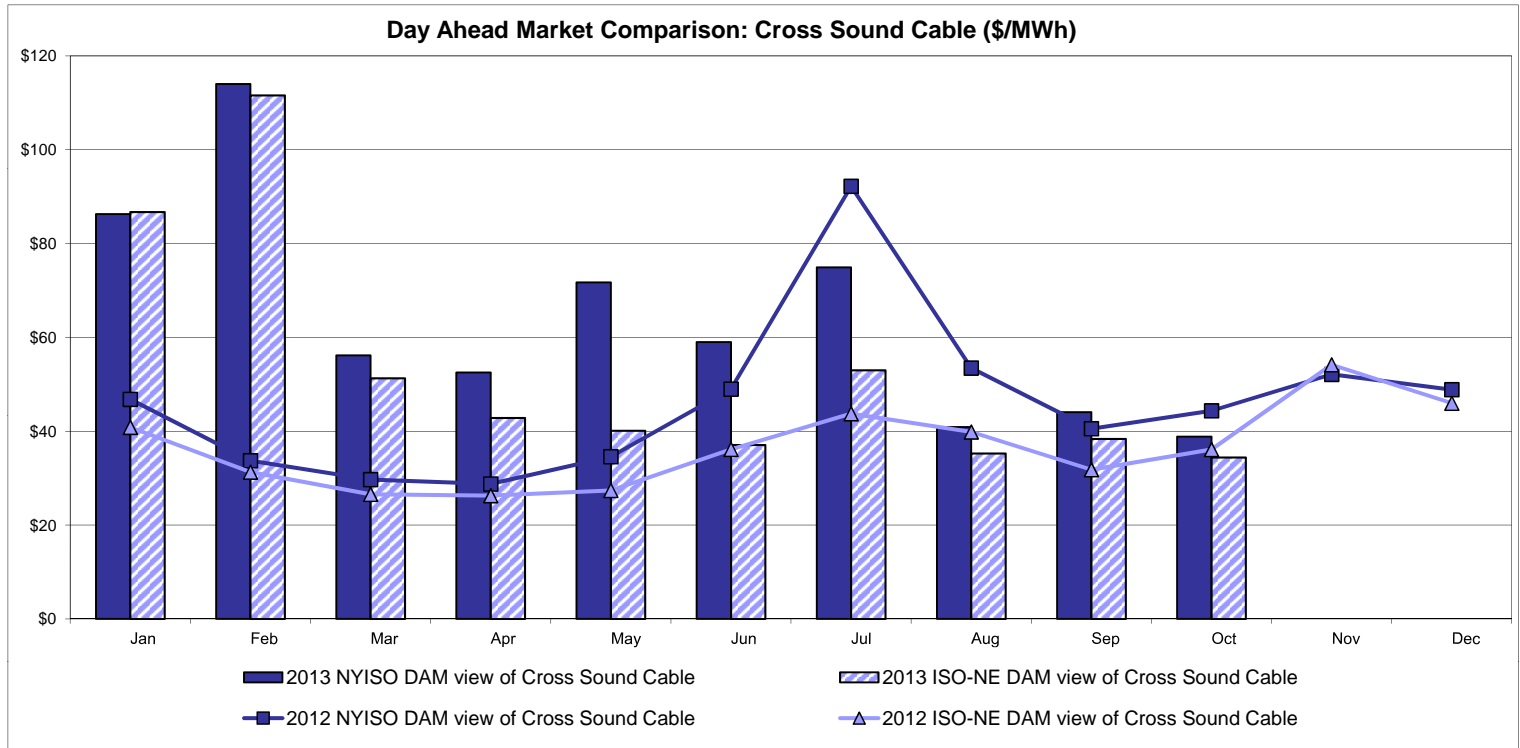


Real Time Market External Zone Comparison - Ontario IESO (\$/MWh)



Notes: Exchange factor used for October 2013 was 0.965 to US \$
 HOEP: Hourly Ontario Energy Price
 Pre-Dispatch: Projected Energy Price

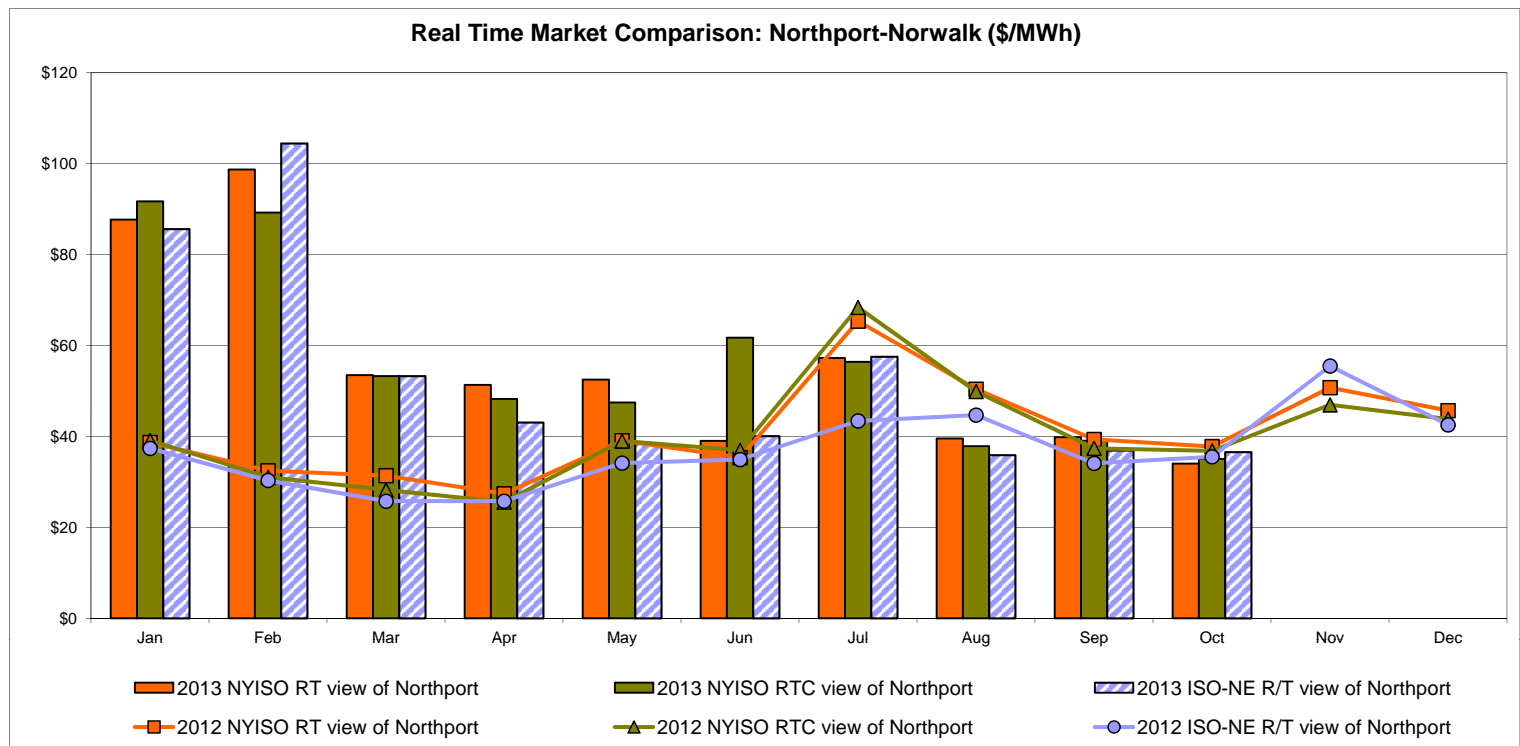
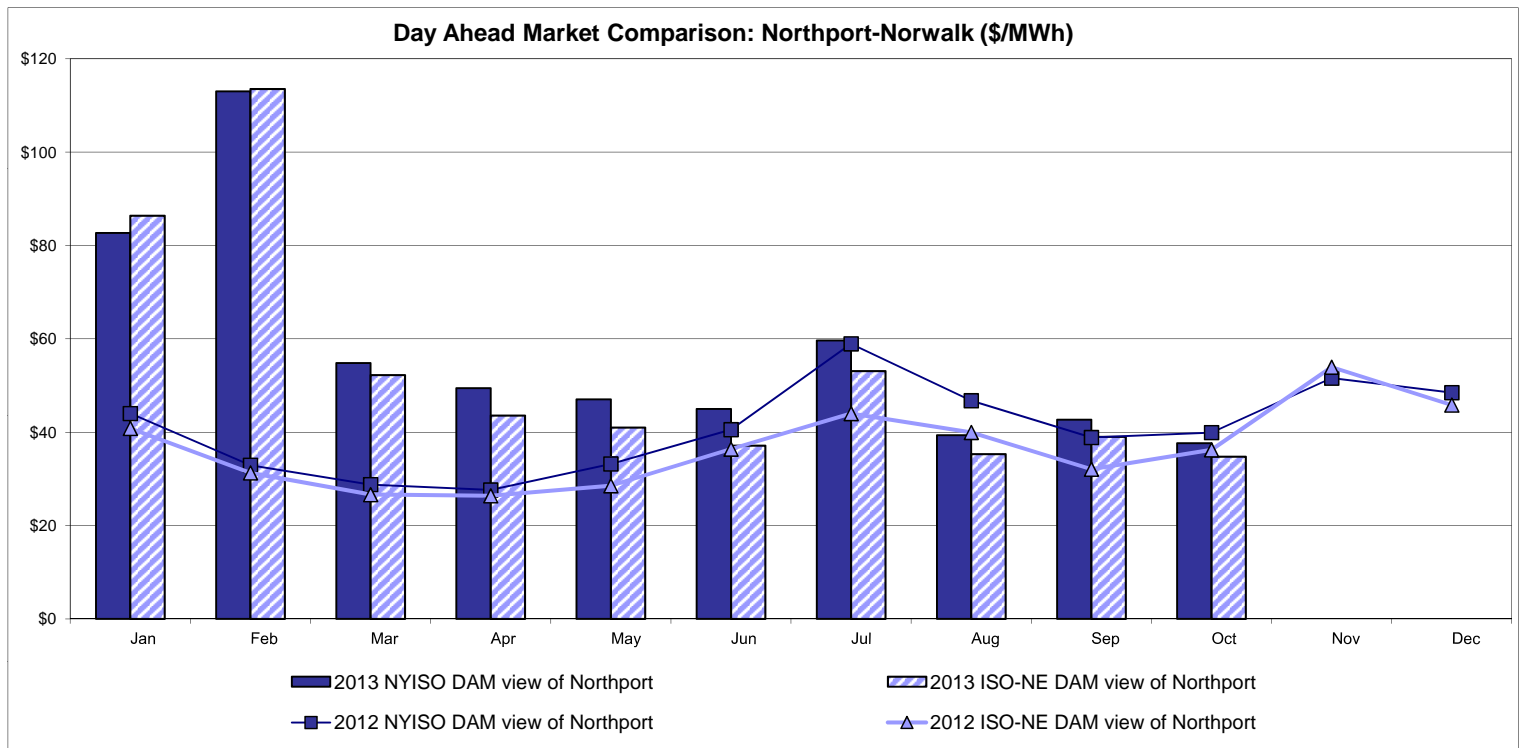
External Controllable Line: Cross Sound Cable (New England)



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)

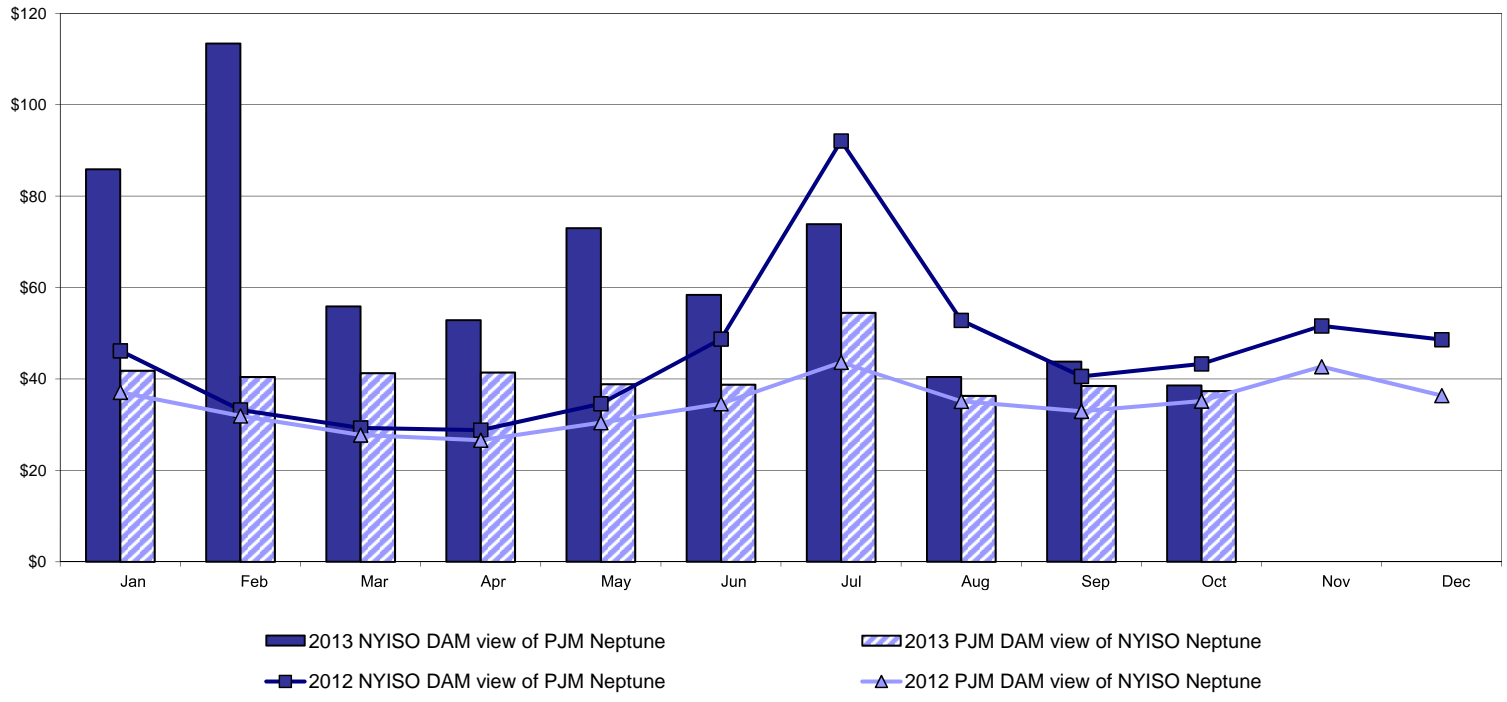


Note:

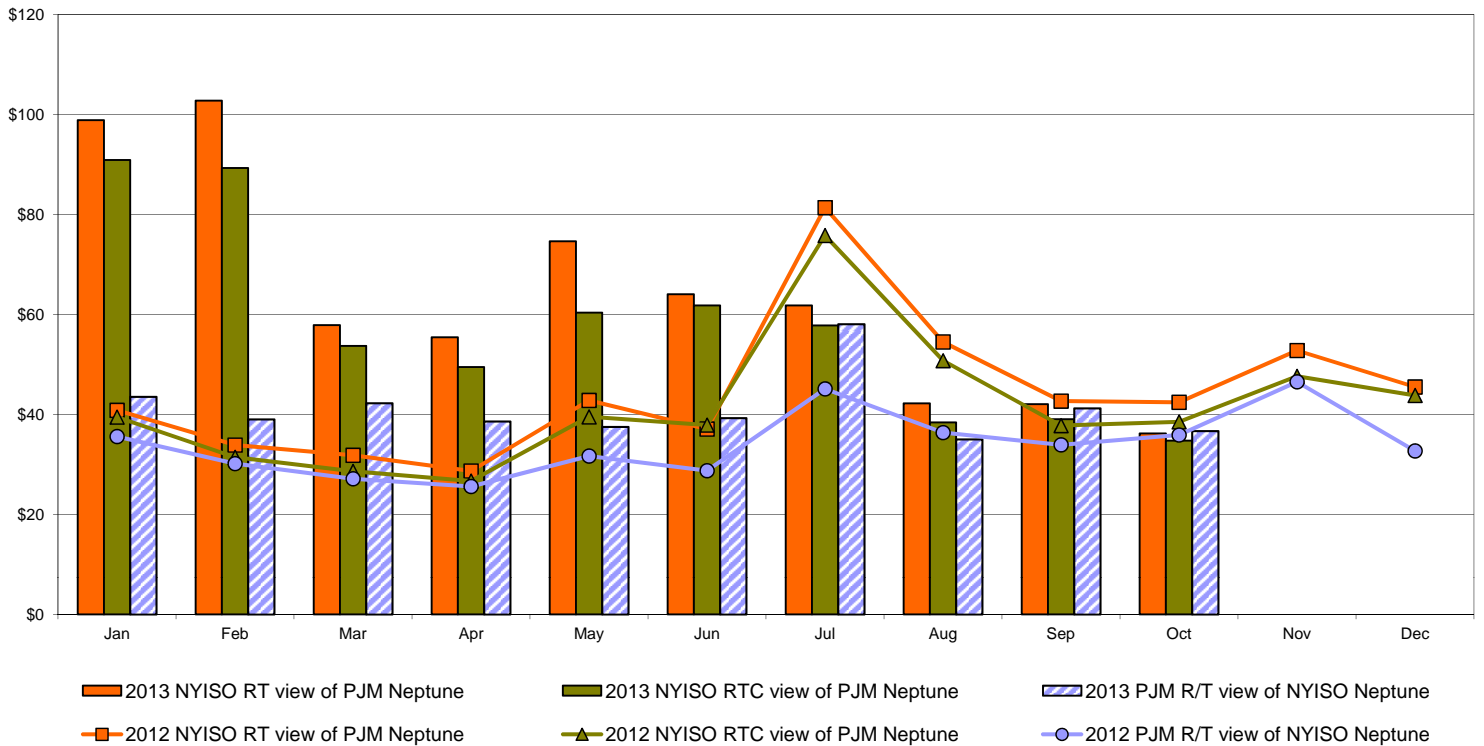
ISO-NE Forecast is an advisory posting @ 18:00 day before.
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.
 The DAM and R/T prices at the 1385 interface are used for NYISO.

External Controllable Line: Neptune (PJM)

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

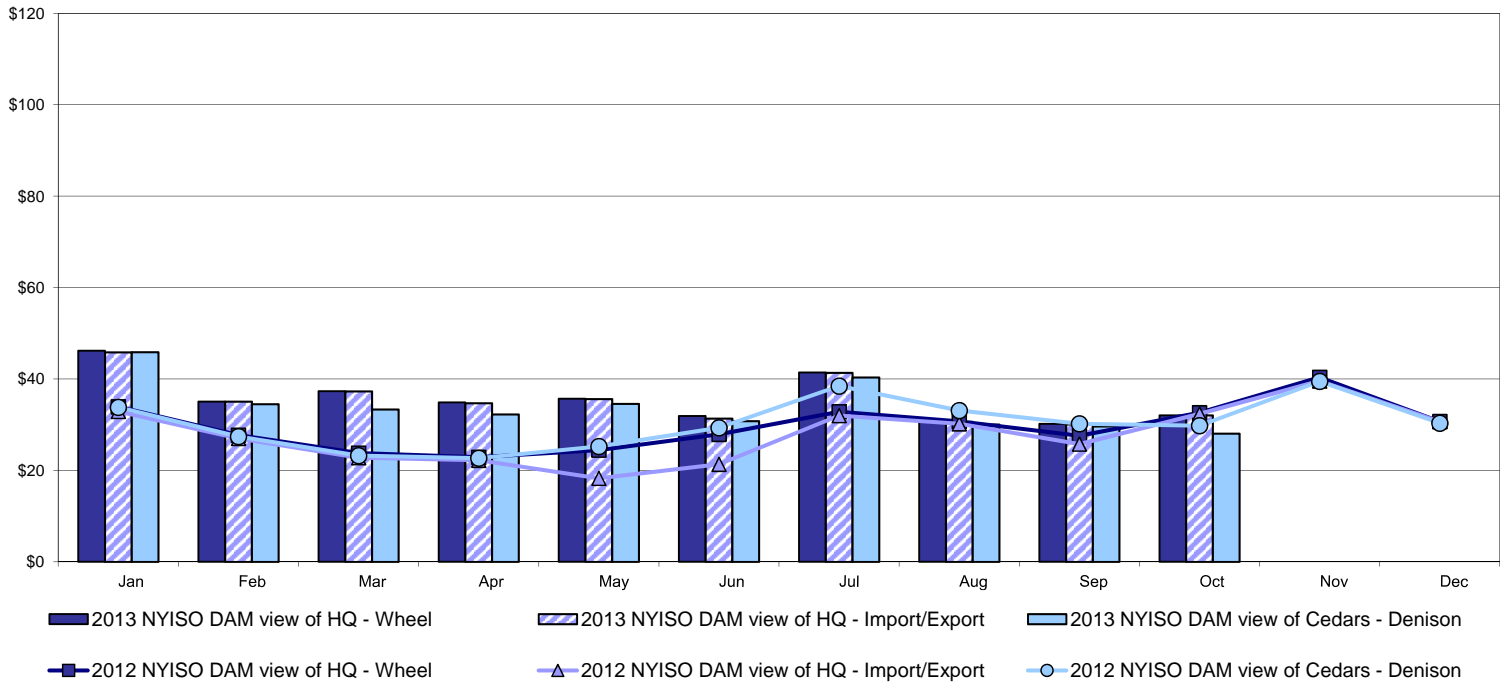


Real Time Market Comparison: Neptune (\$/MWh)

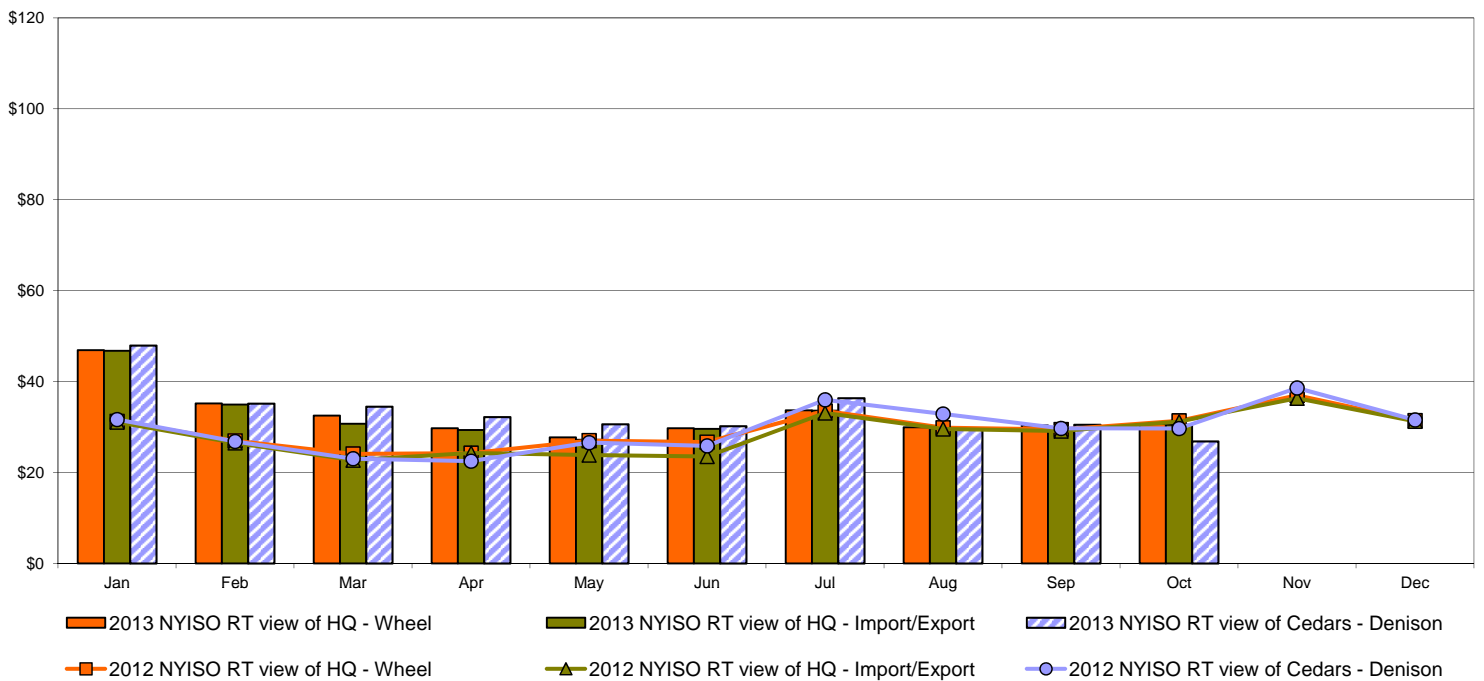


External Comparison Hydro-Quebec

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

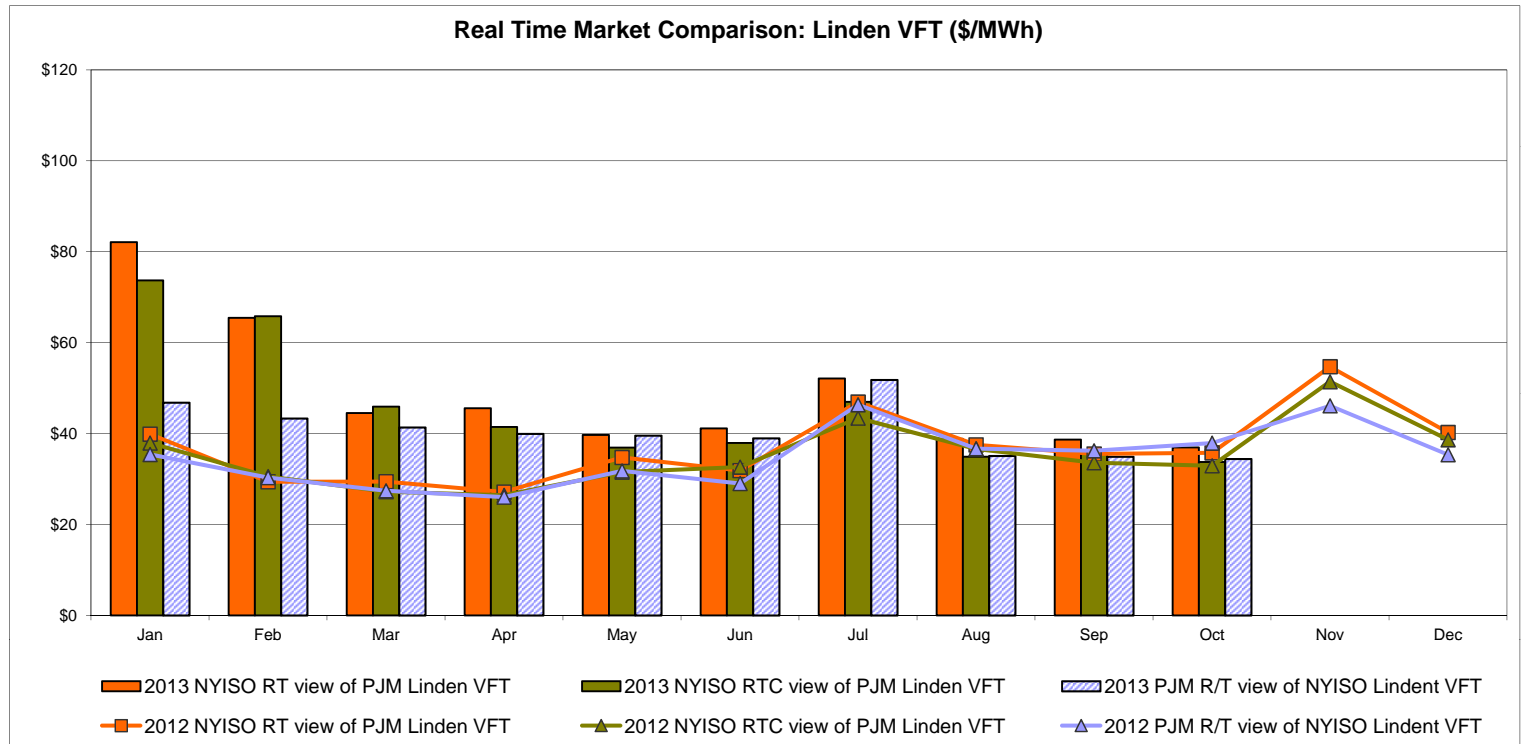
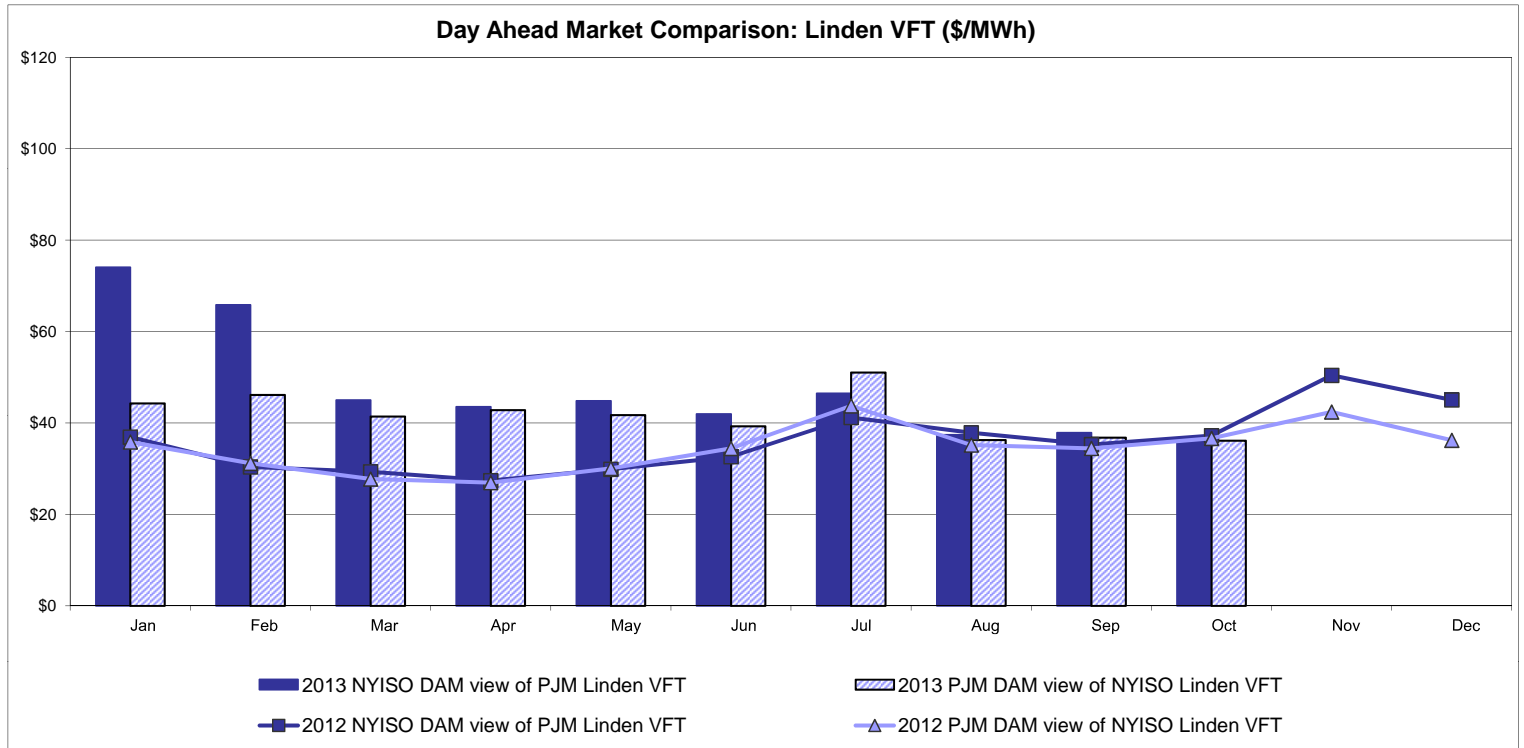


Real Time Market External Zone Comparison - HQ (\$/MWh)

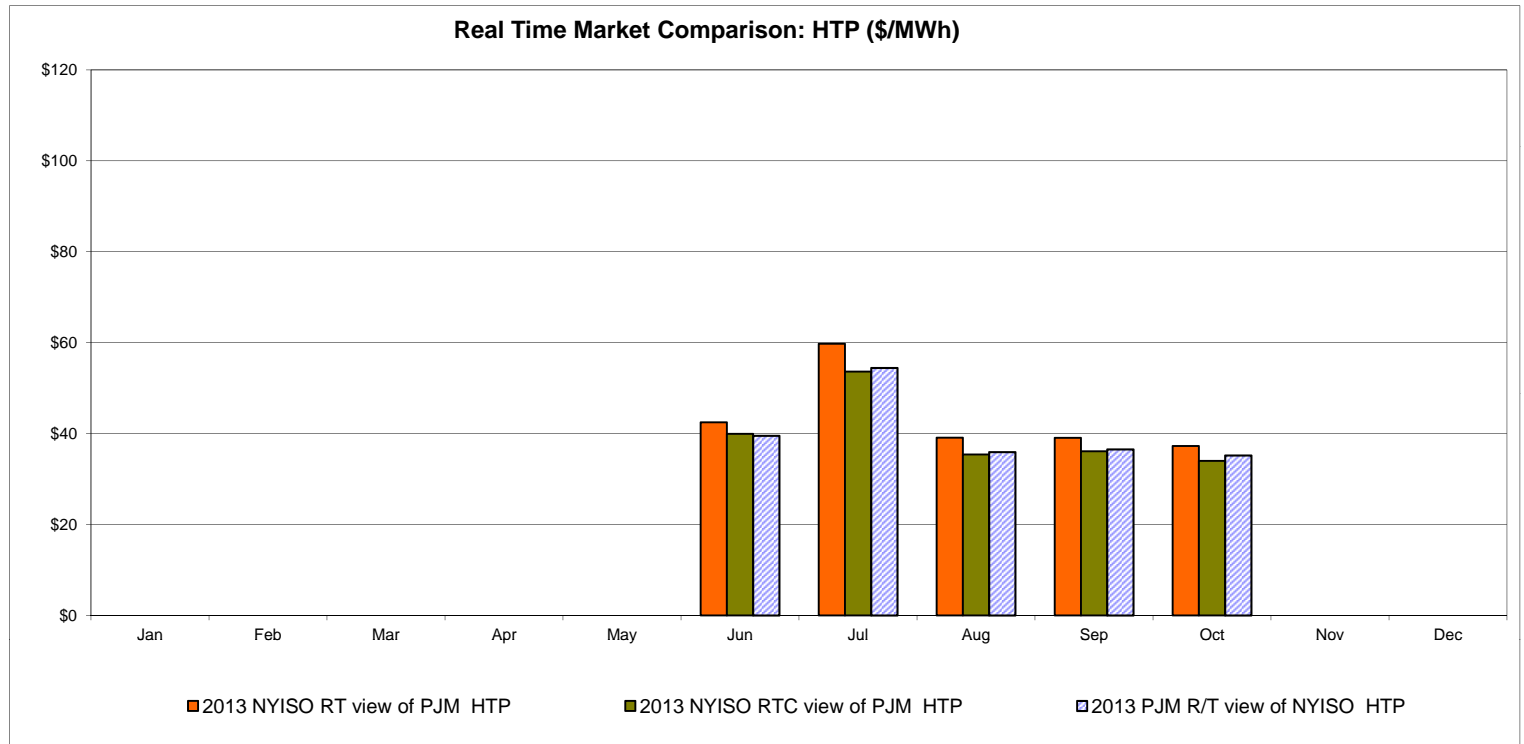
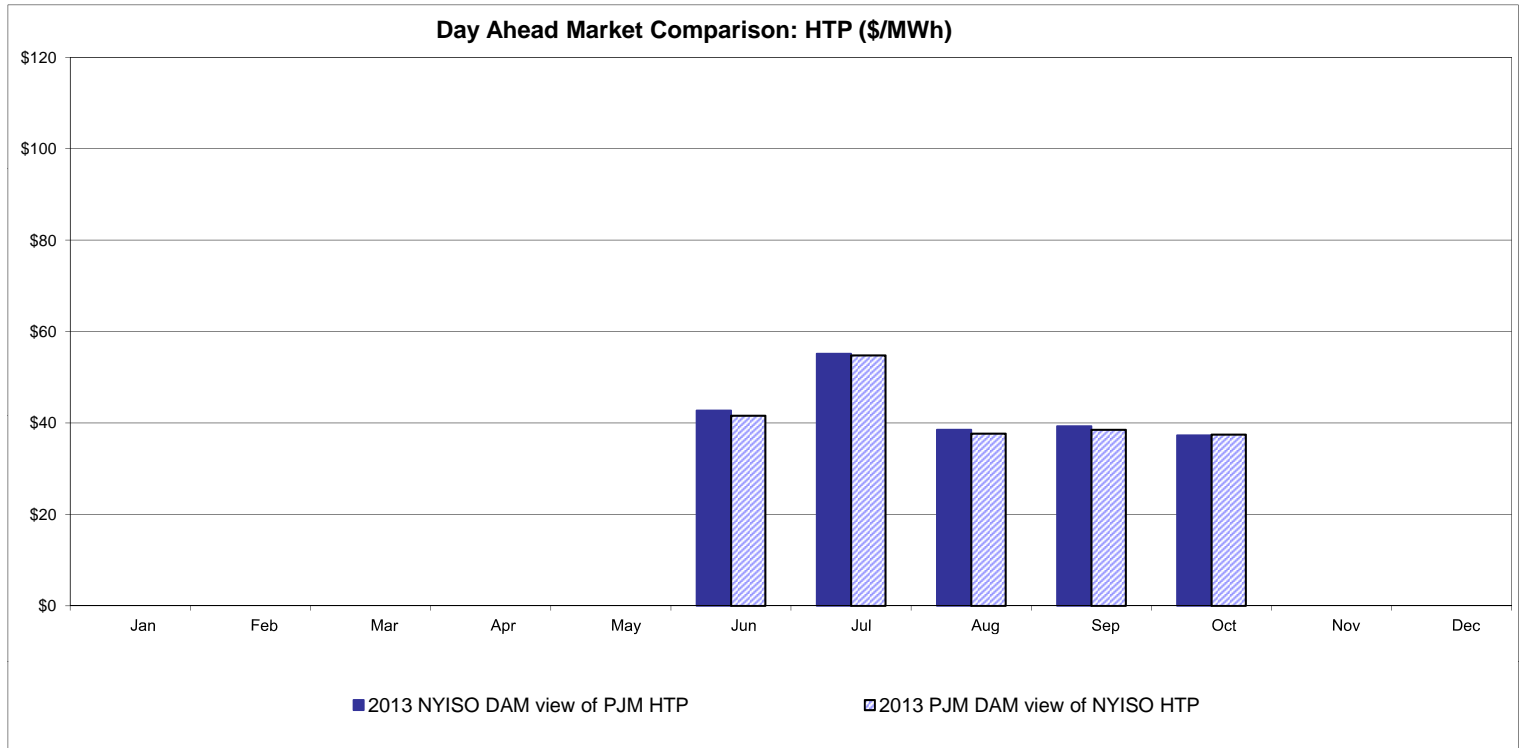


Note:
Hydro-Quebec Prices are unavailable.

External Controllable Line: Linden VFT (PJM)



External Controllable Line: Hudson (PJM)

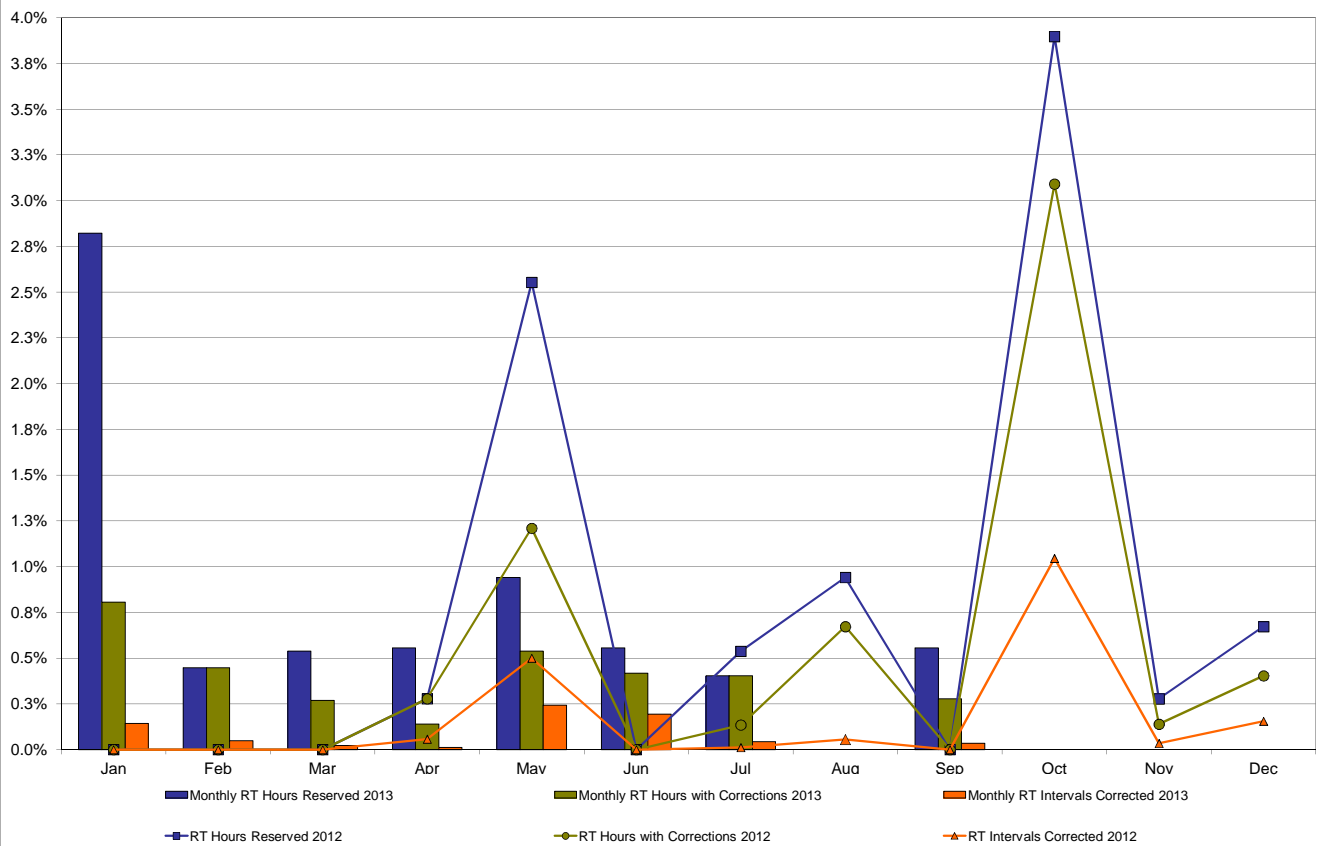


NYISO Real Time Price Correction Statistics

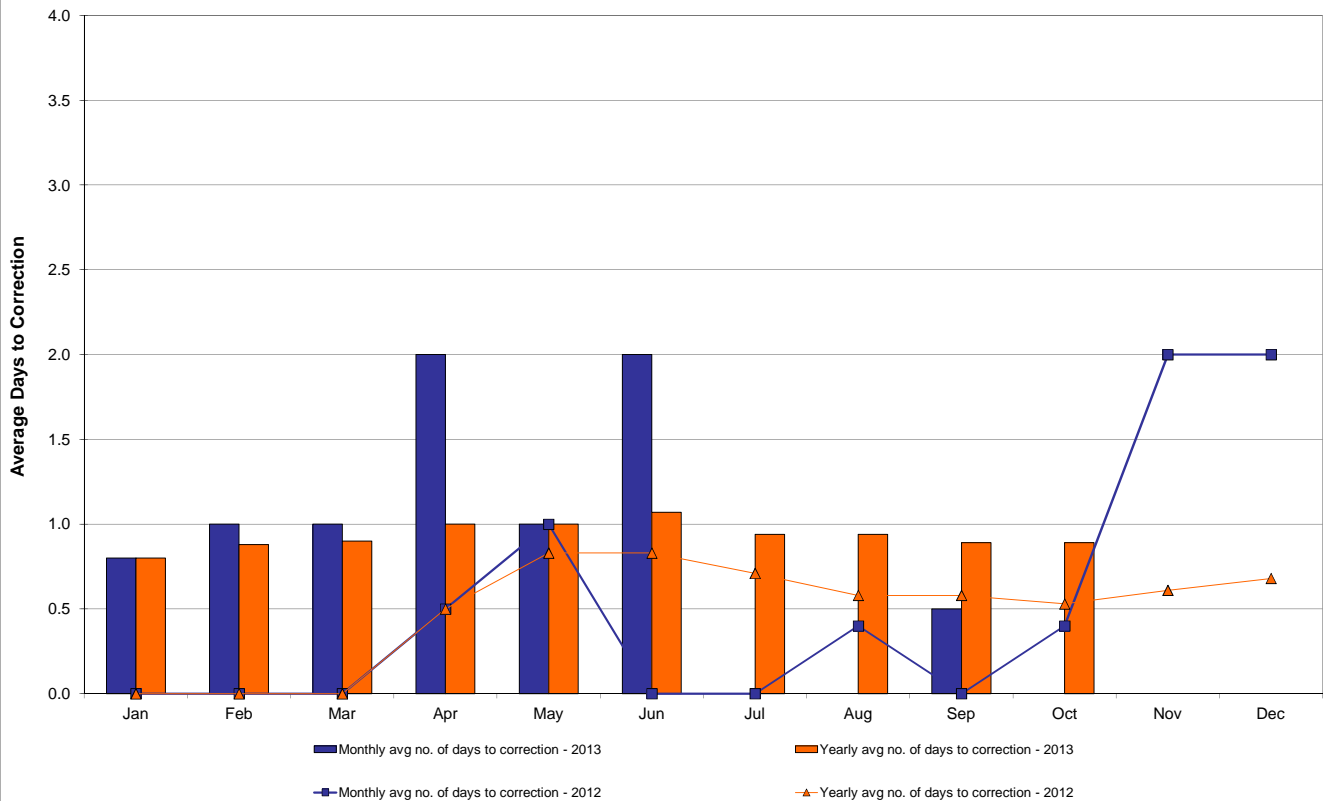
2013		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Hour Corrections</u>													
Number of hours with corrections	in the month	6	3	2	1	4	3	3	0	2	0		
Number of hours	in the month	744	672	743	720	744	720	744	744	720	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%		
% 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%		
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	13	4	2	1	22	17	4	0	3	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		
% 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%		
% 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%		
<u>Hours Reserved</u>													
Number of hours reserved	in the month	21	3	4	4	7	4	3	0	4	0		
Number of hours	in the month	744	672	743	720	744	720	744	744	720	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%		
% 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%		
<u>Days to Correction *</u>													
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		
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		
<u>Days Without Corrections</u>													
Days without corrections	in the month	26	25	29	29	28	29	29	31	28	31		
Days without corrections	year-to-date	26	51	80	109	137	166	195	226	254	285		
2012		<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>
<u>Hour Corrections</u>													
Number of hours with corrections	in the month	0	0	0	2	9	0	1	5	0	23	1	3
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours with corrections	in the month	0.00%	0.00%	0.00%	0.28%	1.21%	0.00%	0.13%	0.67%	0.00%	3.09%	0.14%	0.40%
% of hours with corrections	year-to-date	0.00%	0.00%	0.00%	0.07%	0.30%	0.25%	0.23%	0.29%	0.26%	0.55%	0.51%	0.50%
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	0	0	0	5	45	0	1	5	0	94	3	14
Number of intervals	in the month	9,025	8,399	8,977	8,716	9,013	8,786	9,100	9,044	8,724	8,987	8,856	9,036
% of intervals corrected	in the month	0.00%	0.00%	0.00%	0.06%	0.50%	0.00%	0.01%	0.06%	0.00%	1.05%	0.03%	0.15%
% of intervals corrected	year-to-date	0.00%	0.00%	0.00%	0.01%	0.11%	0.09%	0.08%	0.08%	0.07%	0.17%	0.16%	0.16%
<u>Hours Reserved</u>													
Number of hours reserved	in the month	0	0	0	2	19	0	4	7	0	29	2	5
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	0.00%	0.00%	0.00%	0.28%	2.55%	0.00%	0.54%	0.94%	0.00%	3.90%	0.28%	0.67%
% of hours reserved	year-to-date	0.00%	0.00%	0.00%	0.07%	0.58%	0.48%	0.49%	0.55%	0.49%	0.83%	0.78%	0.77%
<u>Days to Correction *</u>													
Avg. number of days to correction	in the month	0.00	0.00	0.00	0.50	1.00	0.00	0.00	0.40	0.00	0.40	2.00	2.00
Avg. number of days to correction	year-to-date	0.00	0.00	0.00	0.50	0.83	0.83	0.71	0.58	0.58	0.53	0.61	0.68
<u>Days Without Corrections</u>													
Days without corrections	in the month	31	29	31	28	27	30	30	26	30	27	29	30
Days without corrections	year-to-date	31	60	91	119	146	176	206	232	262	289	318	348

* Calendar days from reservation date.

Percentage of Real-Time Corrections

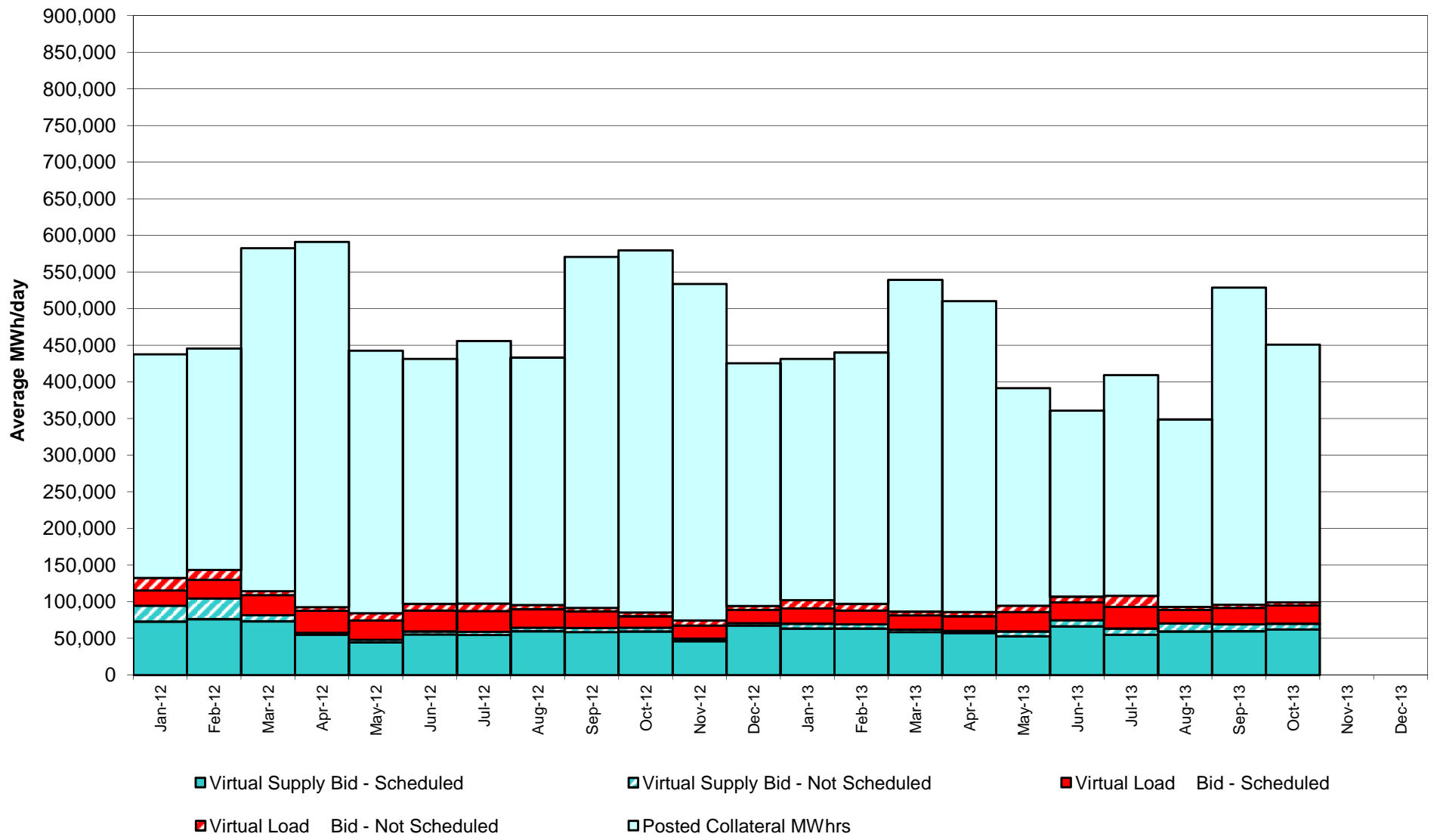


Annual average time period for making Price Corrections (from reservation date) *

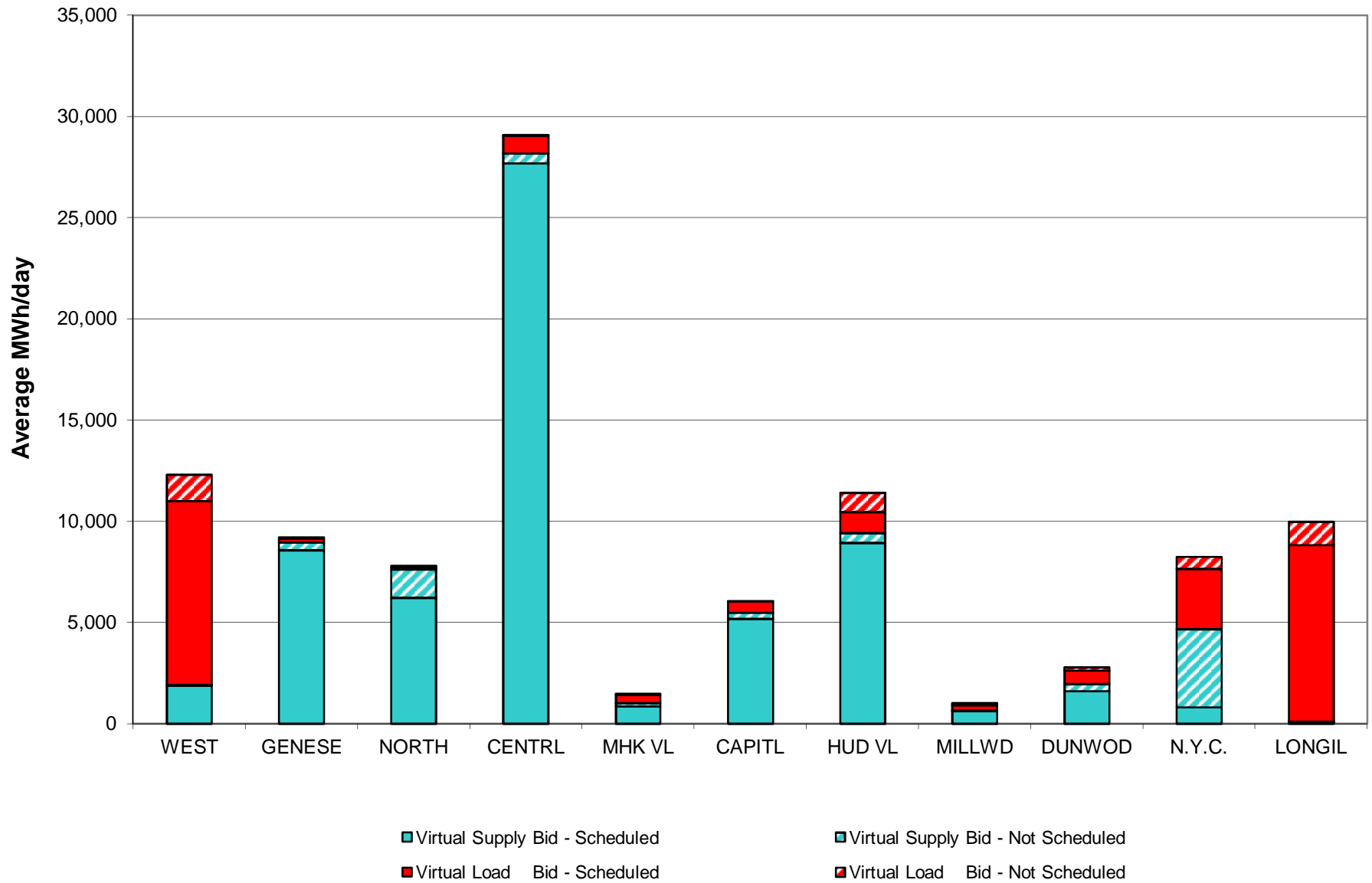


* Calendar days from reservation date.

NYISO Virtual Trading Average MWh per day



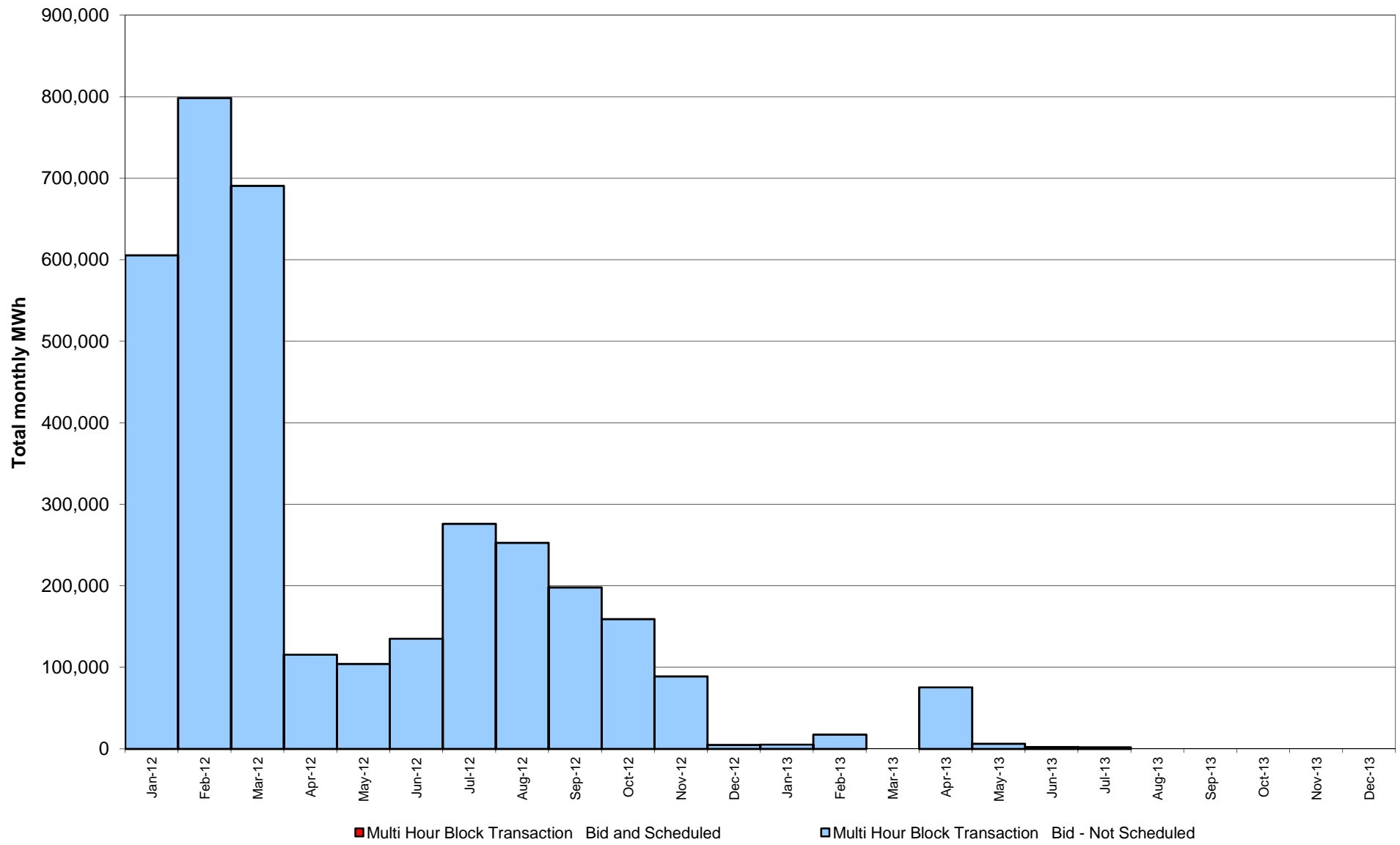
Virtual Load and Supply Zonal Statistics through October 31, 2013



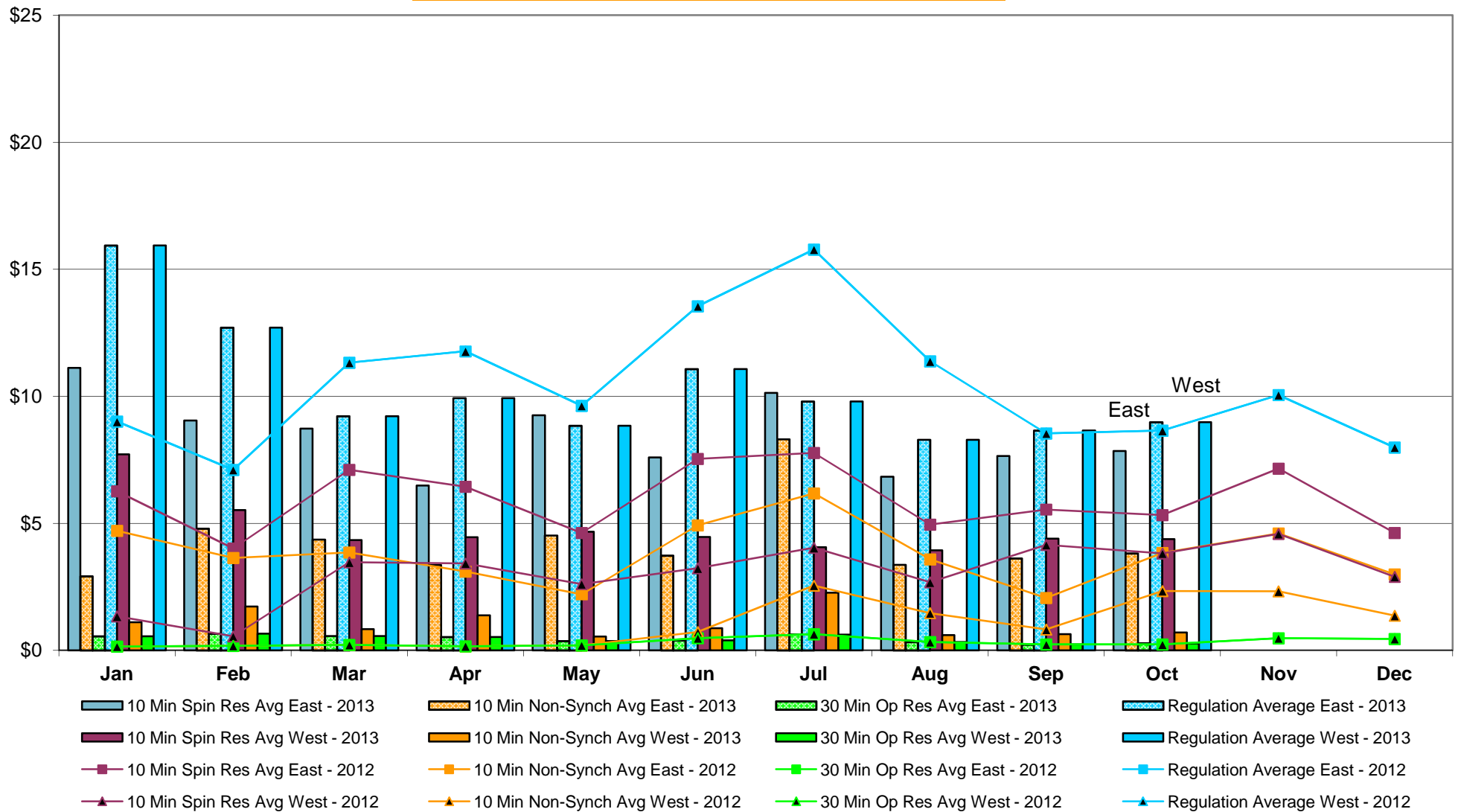
Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2013

		Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid	
Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled	Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled
WEST	Jan-13	5,393	880	4,402	409	MHK VL	Jan-13	617	477	695	273	DUNWOD	Jan-13	410	859	1682	491
	Feb-13	3,366	263	3,940	151		Feb-13	480	324	370	72		Feb-13	448	294	2570	1216
	Mar-13	3,221	70	4,824	401		Mar-13	733	72	455	32		Mar-13	698	249	1630	270
	Apr-13	3,771	549	3,702	236		Apr-13	250	25	740	56		Apr-13	394	621	2361	242
	May-13	6,533	717	2,963	415		May-13	398	150	1140	198		May-13	2255	600	1359	258
	Jun-13	4,209	425	4,163	1,085		Jun-13	196	193	1227	523		Jun-13	3272	336	1362	354
	Jul-13	3,854	1,048	3,726	489		Jul-13	409	255	930	272		Jul-13	4064	1164	1299	205
	Aug-13	3,273	489	2,969	853		Aug-13	251	15	980	284		Aug-13	2572	277	1573	418
	Sep-13	3,906	348	1,961	164		Sep-13	229	129	1025	350		Sep-13	2952	376	1354	306
	Oct-13	9,086	1,299	1,886	34		Oct-13	404	61	878	148		Oct-13	657	150	1613	350
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
GENESE	Jan-13	184	207	5,822	492	CAPITL	Jan-13	2053	1313	3977	1088	N.Y.C.	Jan-13	3192	2206	1171	414
	Feb-13	238	60	5,305	266		Feb-13	1175	1148	5323	585		Feb-13	3964	2187	689	450
	Mar-13	636	24	5,867	24		Mar-13	1945	452	4418	604		Mar-13	2474	688	623	45
	Apr-13	538	26	6,978	153		Apr-13	1573	981	3063	585		Apr-13	5374	558	545	24
	May-13	440	195	7,639	274		May-13	1254	624	2254	660		May-13	5443	753	394	40
	Jun-13	89	194	7,213	801		Jun-13	509	602	5483	638		Jun-13	5732	1097	755	999
	Jul-13	364	209	4,569	365		Jul-13	706	351	5081	630		Jul-13	7490	3998	1367	3129
	Aug-13	113	26	5,279	368		Aug-13	242	97	5676	1448		Aug-13	3461	682	2437	3792
	Sep-13	439	104	7,020	437		Sep-13	947	92	5345	370		Sep-13	3193	796	788	4052
	Oct-13	169	73	8,568	399		Oct-13	572	26	5192	294		Oct-13	2996	591	816	3852
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
NORTH	Jan-13	206	115	6,458	997	HUD VL	Jan-13	849	1042	9608	971	LONGIL	Jan-13	7420	3530	419	882
	Feb-13	376	72	5,234	969		Feb-13	1353	684	10729	819		Feb-13	6410	3439	442	682
	Mar-13	121	46	6,582	709		Mar-13	835	824	4831	783		Mar-13	7422	1814	579	135
	Apr-13	23	6	7,827	510		Apr-13	1724	621	7958	709		Apr-13	5474	1674	340	82
	May-13	91	59	8,434	735		May-13	3226	1375	7847	932		May-13	5758	3582	257	210
	Jun-13	55	34	6,624	1,688		Jun-13	1912	777	10419	1006		Jun-13	7152	3355	227	201
	Jul-13	63	7	6,321	1,293		Jul-13	2572	2122	6603	533		Jul-13	7750	5034	280	774
	Aug-13	125	247	5,247	1,649		Aug-13	1734	786	7344	1201		Aug-13	5680	930	267	289
	Sep-13	177	52	5,019	1,921		Sep-13	1532	1060	8072	1098		Sep-13	7662	1326	240	127
	Oct-13	97	86	6,233	1,394		Oct-13	1042	959	8933	479		Oct-13	8733	1154	92	1
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				
CENTRL	Jan-13	436	244	28,385	349	MILLWD	Jan-13	173	162	894	214	NYISO	Jan-13	20932	11035	63512	6579
	Feb-13	794	499	27,674	231		Feb-13	197	250	1250	184		Feb-13	18802	9219	63526	5626
	Mar-13	1,054	430	27,791	13		Mar-13	543	278	1028	211		Mar-13	19682	4947	58627	3227
	Apr-13	798	861	22,488	112		Apr-13	233	100	1147	183		Apr-13	20151	6021	57149	2892
	May-13	516	226	19,878	2,645		May-13	818	290	572	152		May-13	26733	8572	52738	6520
	Jun-13	1,015	229	28,370	554		Jun-13	603	452	715	301		Jun-13	24743	7693	66557	8150
	Jul-13	1,275	361	24,599	431		Jul-13	1076	503	329	79		Jul-13	29624	15052	55105	8198
	Aug-13	949	27	26,789	298		Aug-13	499	178	1059	122		Aug-13	18898	3754	59620	10722
	Sep-13	238	219	27,972	548		Sep-13	719	206	922	390		Sep-13	21995	4708	59717	9763
	Oct-13	845	74	27,696	494		Oct-13	239	121	607	61		Oct-13	24840	4594	62515	7508
	Nov-13						Nov-13						Nov-13				
	Dec-13						Dec-13						Dec-13				

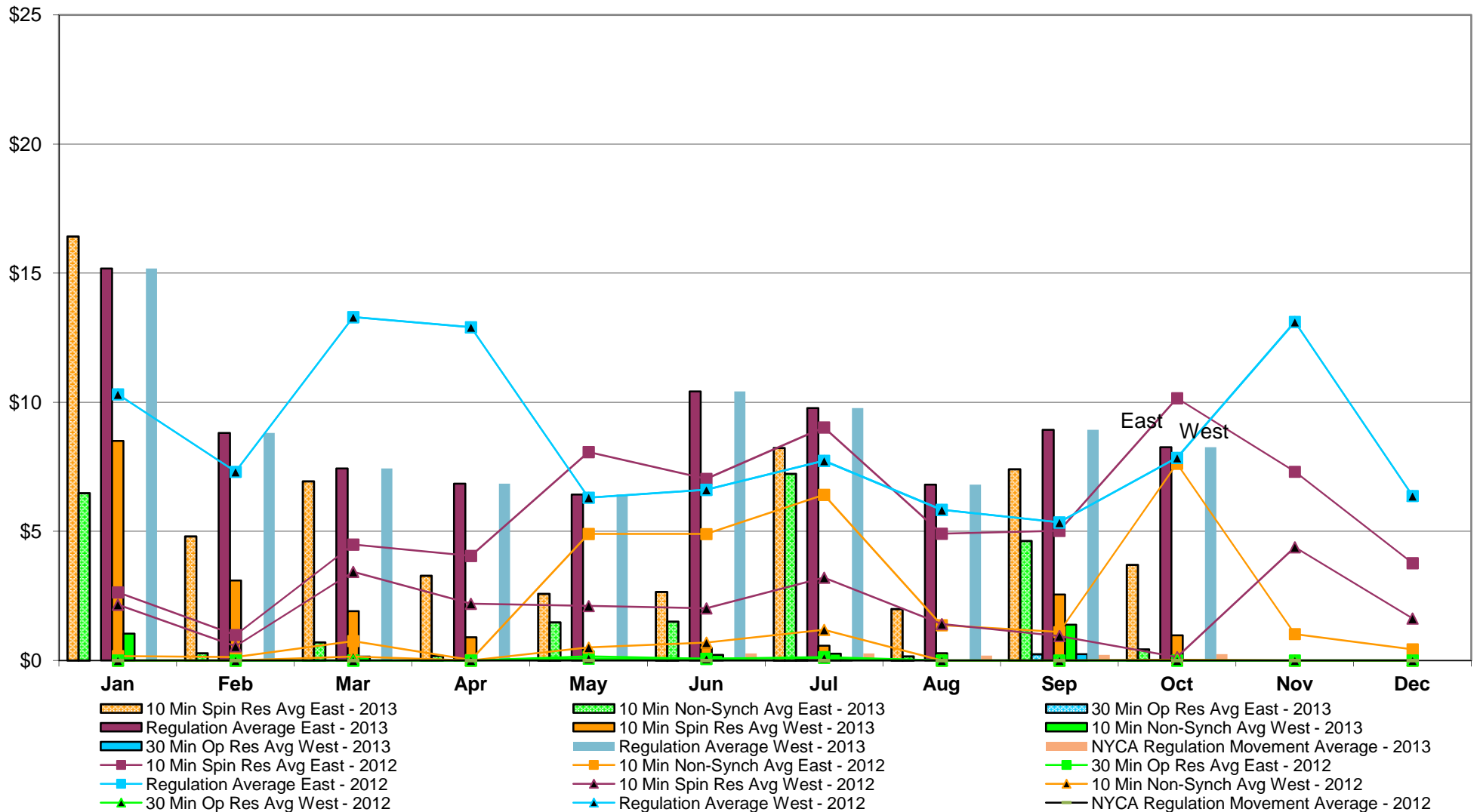
NYISO Multi Hour Block Transactions Monthly Total MWh



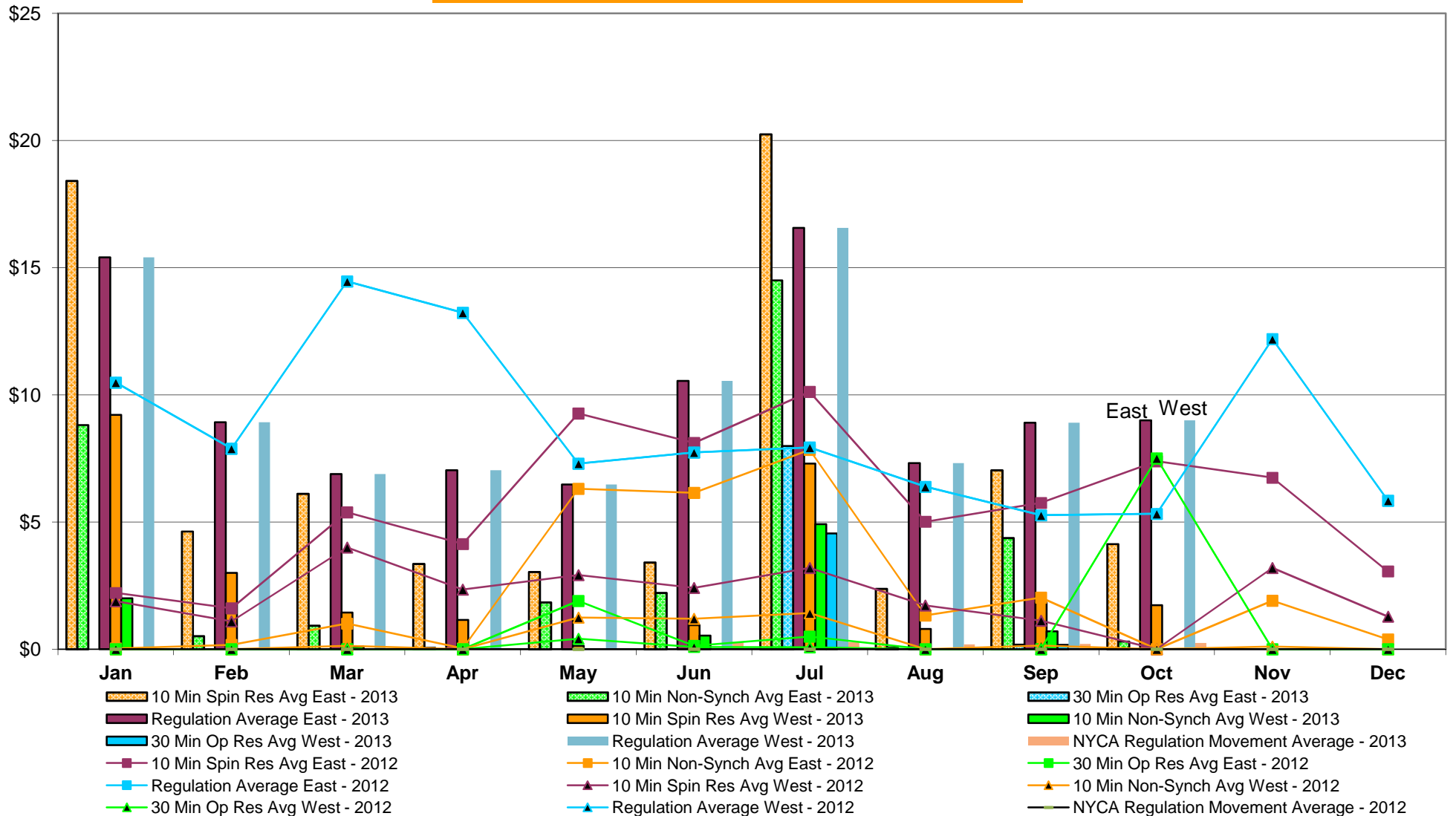
NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2012 - 2013



NYISO Monthly Average Ancillary Service Prices RTC Market 2012 - 2013



NYISO Monthly Average Ancillary Service Prices Real Time Market 2012 - 2013

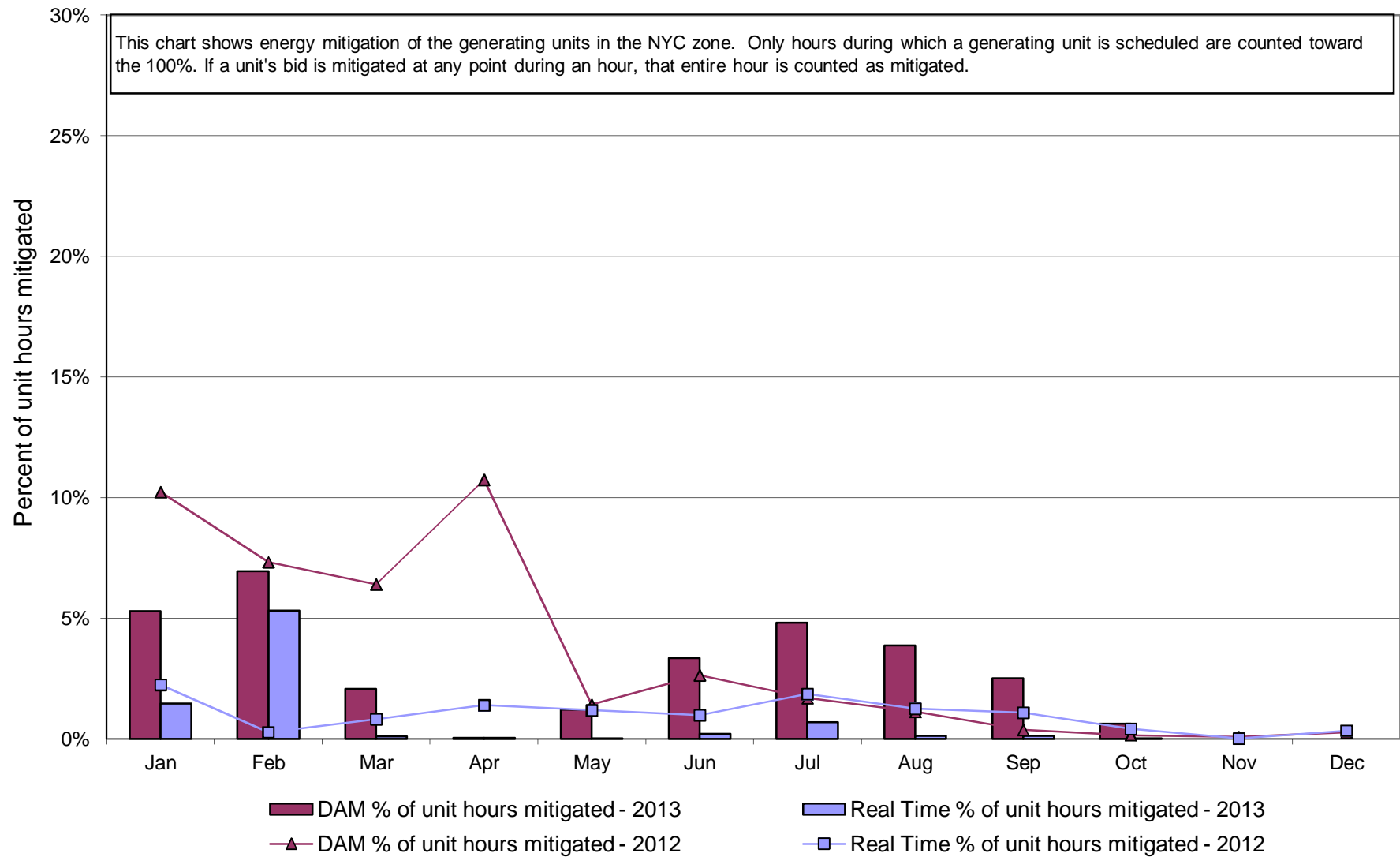


NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH)

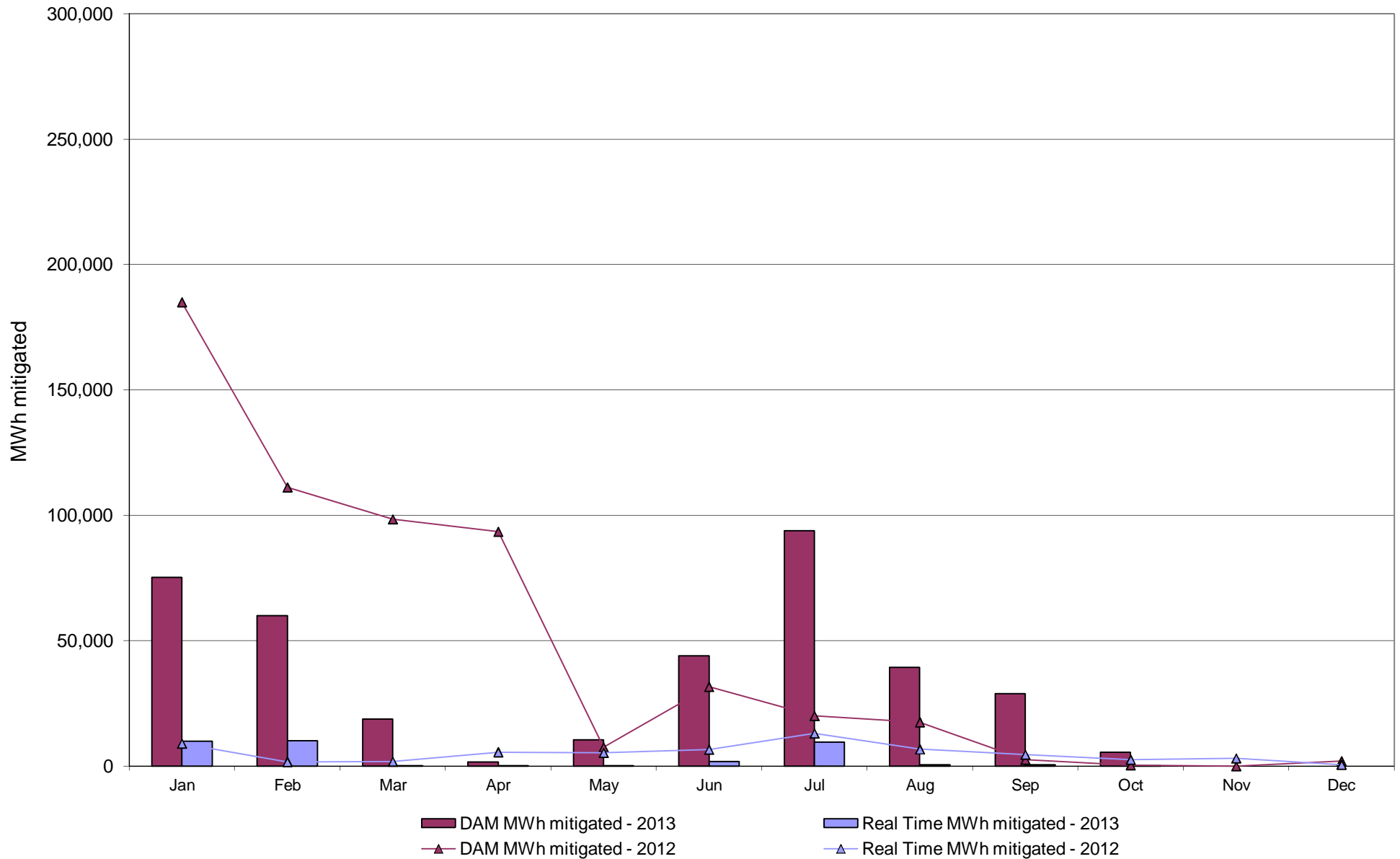
<u>2013</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Day Ahead Market</u>												
10 Min Spin East	11.12	9.05	8.73	6.49	9.25	7.59	10.13	6.84	7.65	7.85		
10 Min Spin West	7.72	5.53	4.34	4.46	4.67	4.46	4.06	3.94	4.40	4.38		
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		
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		
30 Min East	0.56	0.65	0.56	0.53	0.36	0.40	0.62	0.33	0.23	0.28		
30 Min West	0.56	0.65	0.56	0.53	0.36	0.40	0.62	0.33	0.23	0.28		
Regulation East	15.94	12.70	9.21	9.93	8.84	11.07	9.80	8.29	8.65	8.98		
Regulation West	15.94	12.70	9.21	9.93	8.84	11.07	9.80	8.29	8.65	8.98		
<u>RTC Market</u>												
10 Min Spin East	16.42	4.81	6.94	3.28	2.59	2.65	8.23	1.99	7.40	3.70		
10 Min Spin West	8.50	3.10	1.90	0.90	0.05	0.48	0.57	0.29	2.56	0.97		
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		
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		
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.24	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		
Regulation East	15.18	8.81	7.43	6.84	6.42	10.42	9.77	6.81	8.93	8.26		
Regulation West	15.18	8.81	7.43	6.84	6.42	10.42	9.77	6.81	8.93	8.26		
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.27	0.28	0.18	0.21	0.24		
<u>Real Time Market</u>												
10 Min Spin East	18.42	4.63	6.12	3.35	3.03	3.41	20.24	2.37	7.03	4.14		
10 Min Spin West	9.22	3.00	1.44	1.15	0.13	0.94	7.29	0.80	1.83	1.73		
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		
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		
30 Min East	0.00	0.00	0.00	0.00	0.00	0.00	7.99	0.00	0.17	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		
Regulation East	15.40	8.92	6.89	7.03	6.48	10.55	16.57	7.32	8.90	9.00		
Regulation West	15.40	8.92	6.89	7.03	6.48	10.55	16.57	7.32	8.90	9.00		
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.19	0.21	0.24		
<u>2012</u>	<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>
<u>Day Ahead Market</u>												
10 Min Spin East	6.26	4.01	7.11	6.44	4.62	7.54	7.77	4.95	5.55	5.32	7.15	4.62
10 Min Spin West	1.34	0.56	3.46	3.43	2.61	3.23	4.04	2.68	4.16	3.82	4.58	2.90
10 Min Non Synch East	4.71	3.64	3.85	3.11	2.21	4.92	6.18	3.58	2.07	3.84	4.60	2.99
10 Min Non Synch West	0.15	0.18	0.22	0.16	0.20	0.72	2.55	1.47	0.82	2.34	2.32	1.37
30 Min East	0.15	0.18	0.22	0.16	0.20	0.48	0.64	0.33	0.23	0.23	0.48	0.45
30 Min West	0.15	0.18	0.22	0.16	0.20	0.48	0.64	0.33	0.23	0.23	0.48	0.45
Regulation East	9.01	7.11	11.33	11.77	9.63	13.55	15.78	11.38	8.54	8.65	10.05	7.99
Regulation West	9.01	7.11	11.33	11.77	9.63	13.55	15.78	11.38	8.54	8.65	10.05	7.99
<u>RTC Market</u>												
10 Min Spin East	2.64	0.99	4.49	4.05	8.07	7.03	9.02	4.91	5.02	10.16	7.31	3.77
10 Min Spin West	2.16	0.55	3.43	2.20	2.11	2.02	3.21	1.41	0.95	0.13	4.39	1.63
10 Min Non Synch East	0.17	0.13	0.75	0.02	4.90	4.90	6.42	1.36	1.10	7.62	1.02	0.43
10 Min Non Synch West	0.00	0.00	0.15	0.00	0.50	0.69	1.19	0.00	0.00	0.03	0.00	0.00
30 Min East	0.00	0.00	0.00	0.00	0.16	0.07	0.13	0.00	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.07	0.07	0.10	0.00	0.00	0.00	0.00	0.00
Regulation East	10.31	7.31	13.30	12.91	6.31	6.61	7.74	5.83	5.35	7.85	13.11	6.38
Regulation West	10.31	7.31	13.30	12.91	6.31	6.61	7.74	5.83	5.35	7.85	13.11	6.38
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Real Time Market</u>												
10 Min Spin East	2.21	1.61	5.38	4.14	9.27	8.11	10.12	5.01	5.75	9.93	6.74	3.06
10 Min Spin West	1.89	1.09	4.00	2.34	2.92	2.41	3.20	1.72	1.13	0.28	3.19	1.28
10 Min Non Synch East	0.03	0.17	1.01	0.03	6.31	6.15	7.84	1.33	2.03	7.39	1.91	0.39
10 Min Non Synch West	0.00	0.00	0.13	0.00	1.24	1.20	1.42	0.00	0.14	0.00	0.10	0.00
30 Min East	0.00	0.00	0.00	0.00	1.90	0.13	0.49	0.00	0.00	0.00	0.00	0.00
30 Min West	0.00	0.00	0.00	0.00	0.41	0.09	0.08	0.00	0.00	0.00	0.00	0.00
Regulation East	10.49	7.89	14.46	13.23	7.30	7.74	7.93	6.39	5.27	7.50	12.20	5.84
Regulation West	10.49	7.89	14.46	13.23	7.30	7.74	7.93	6.39	5.27	7.50	12.20	5.84
NYCA Regulation Movement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NYISO In City Energy Mitigation - AMP (NYC Zone) 2012 - 2013

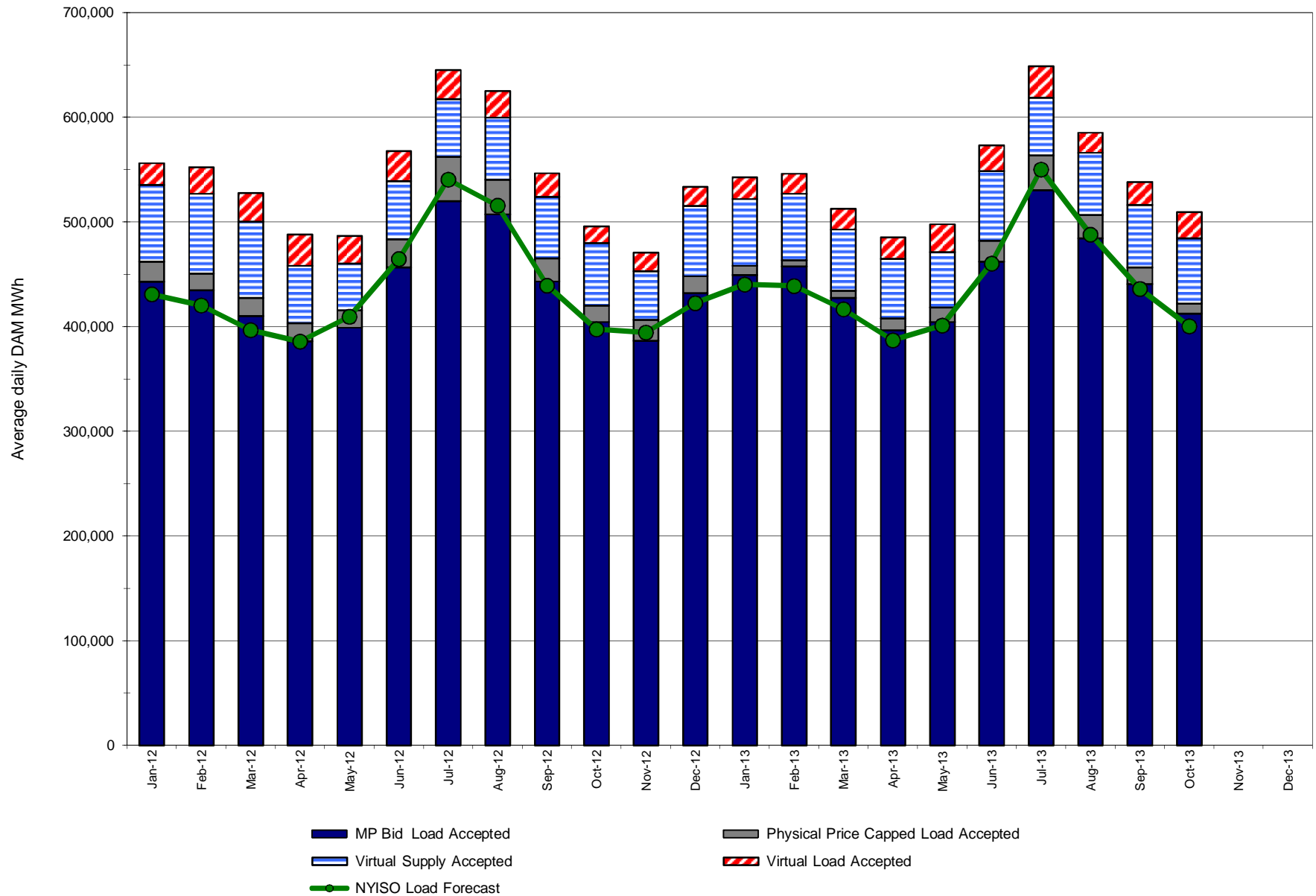
Percentage of committed unit-hours mitigated



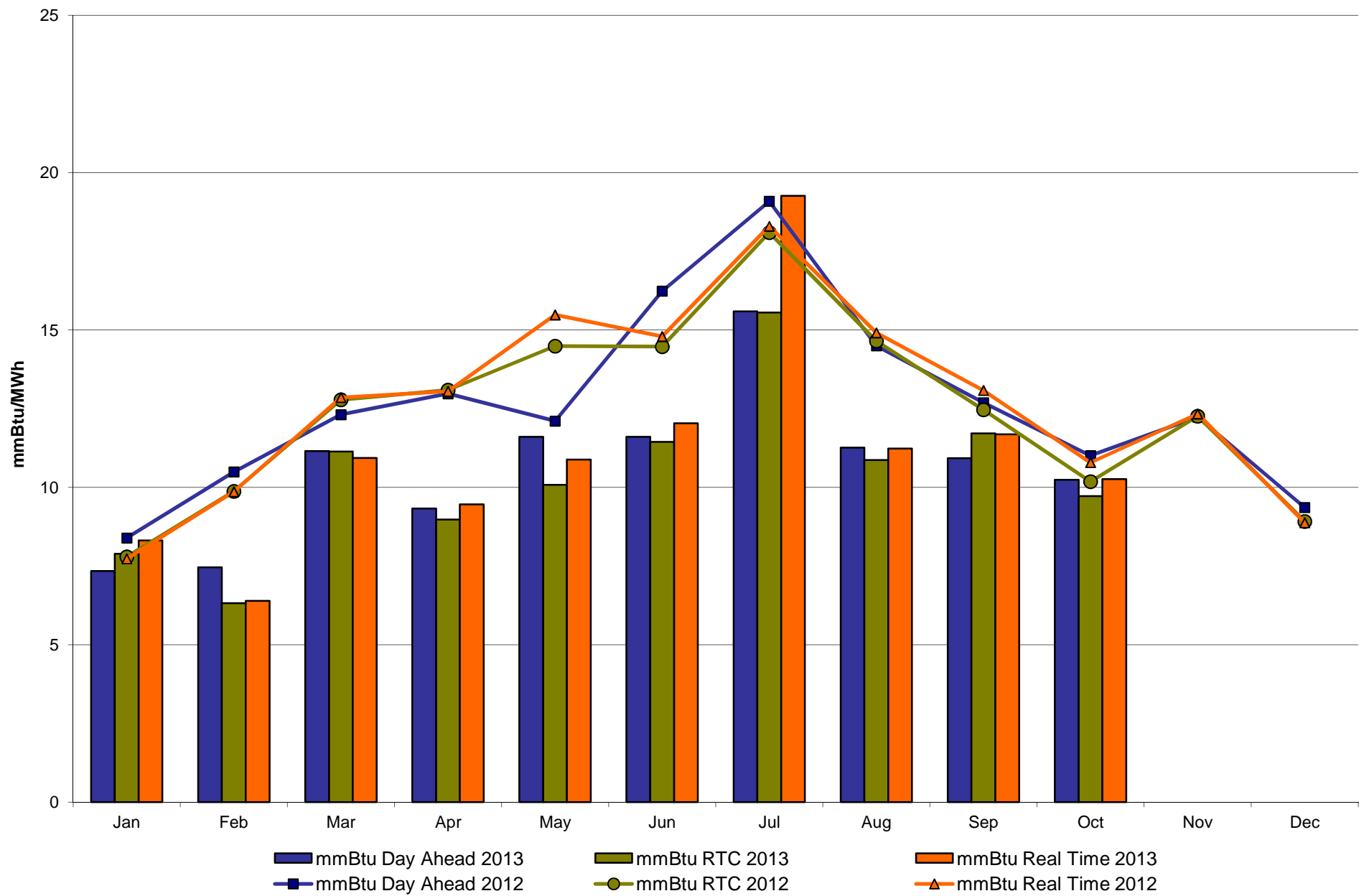
NYISO In City Energy Mitigation (NYC Zone) 2012 - 2013 **Monthly megawatt hours mitigated**



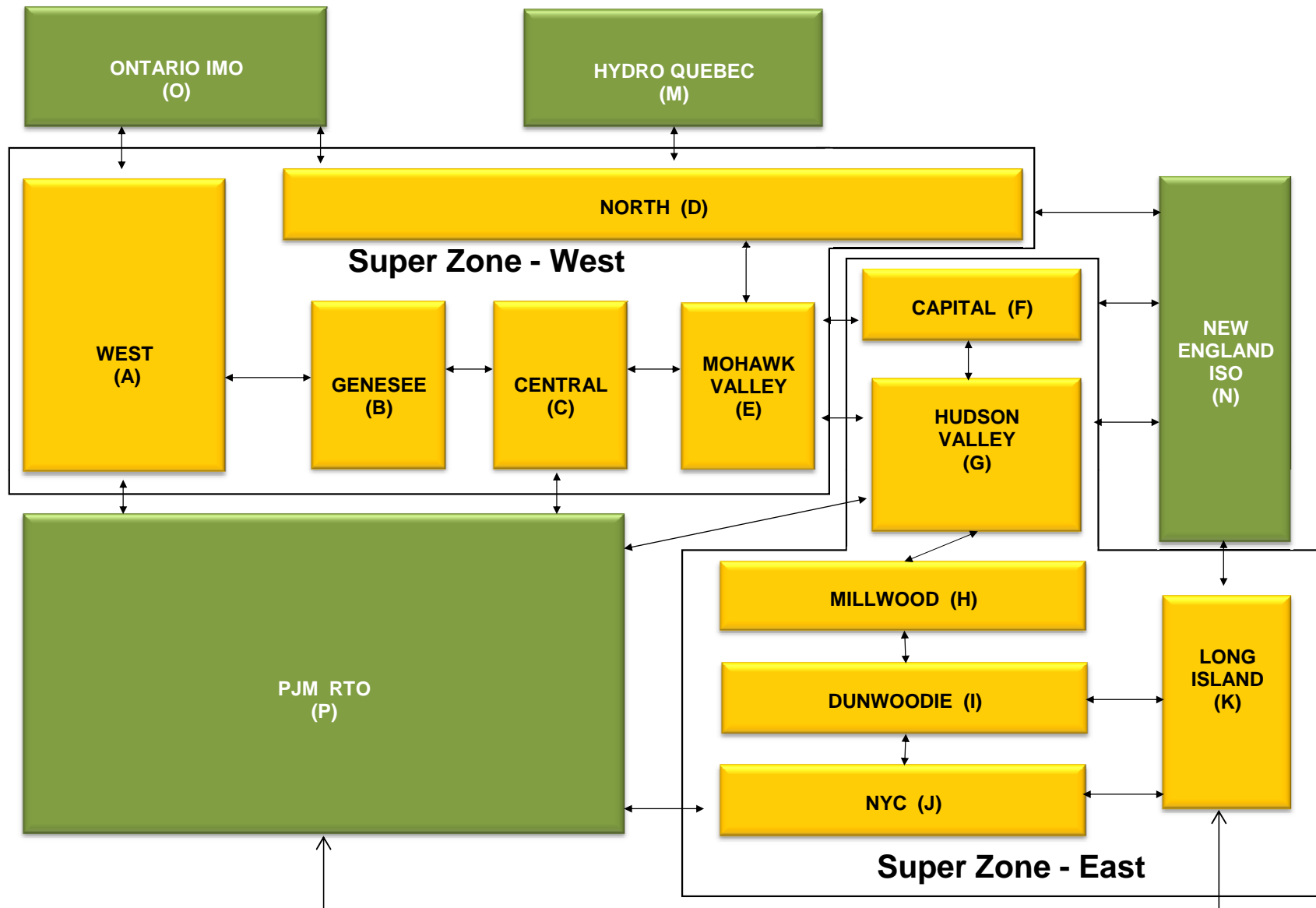
NYISO Average Daily DAM Load Bid Summary



Monthly Implied Heat Rate 2012-2013



NYISO LBMP ZONES



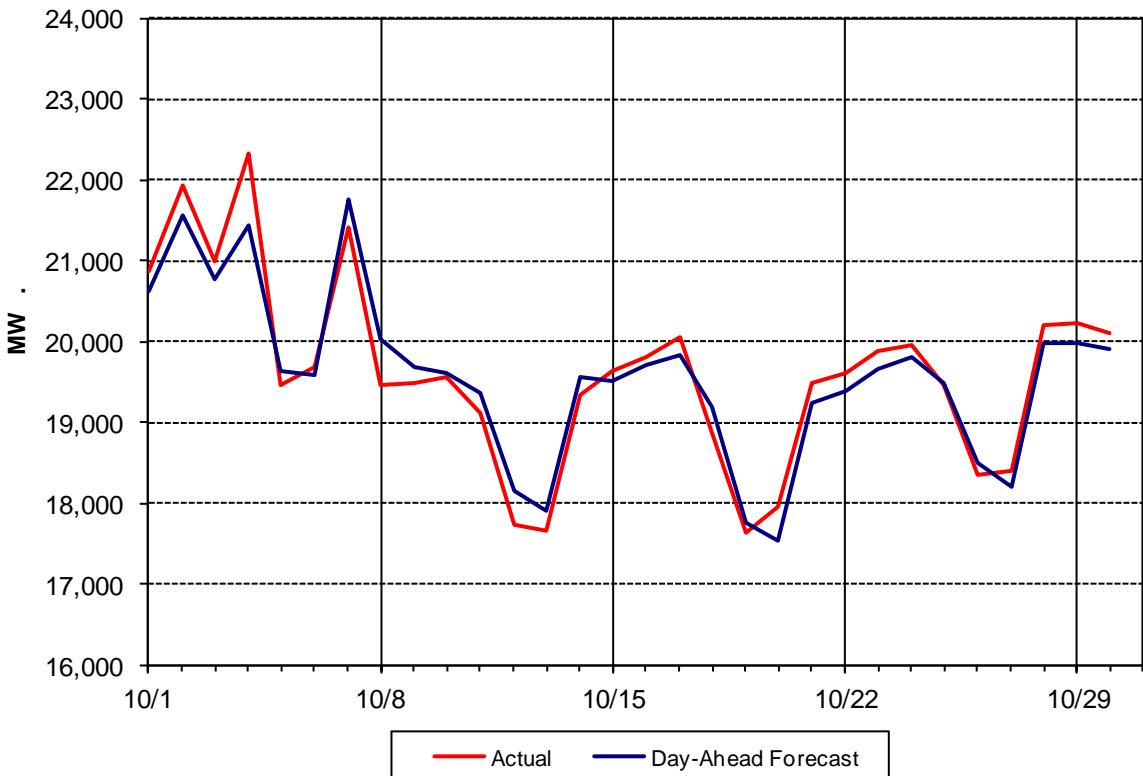
Billing Codes for Chart 4-C

Chart - C Category Name	Billing Code	Billing Category Name
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

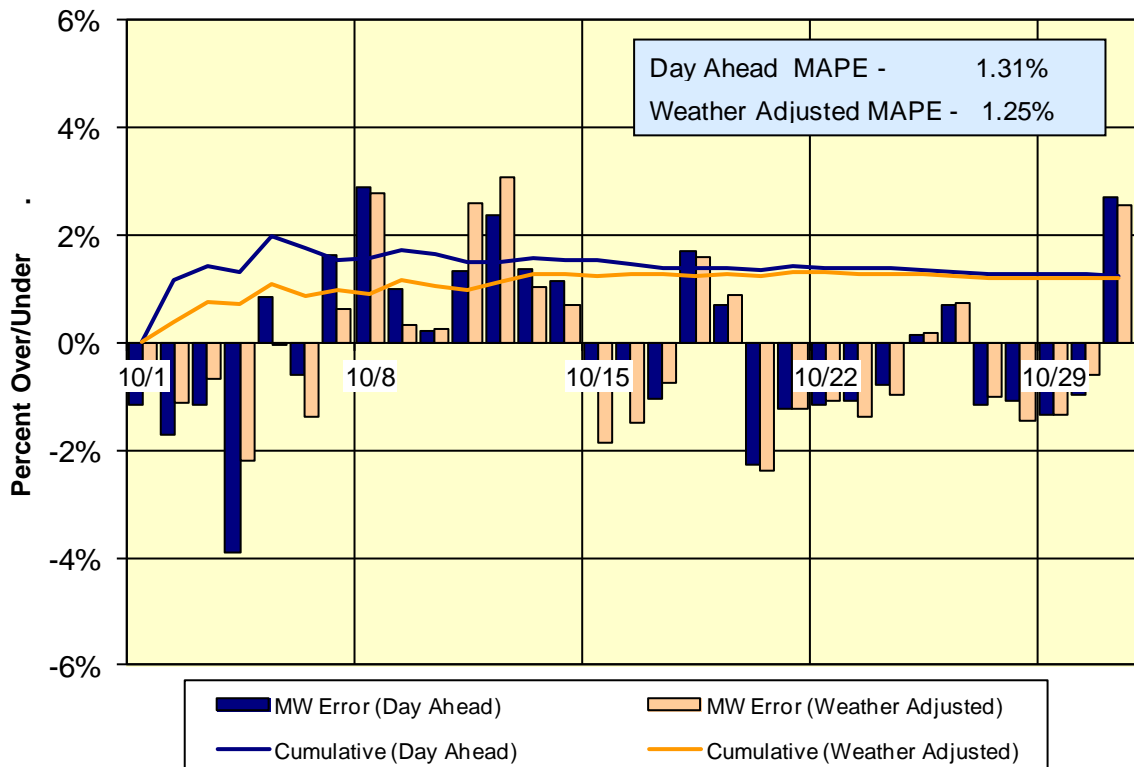
NYISO Daily Peak Load - October 2013
Actual vs Weather-Adjusted Forecast



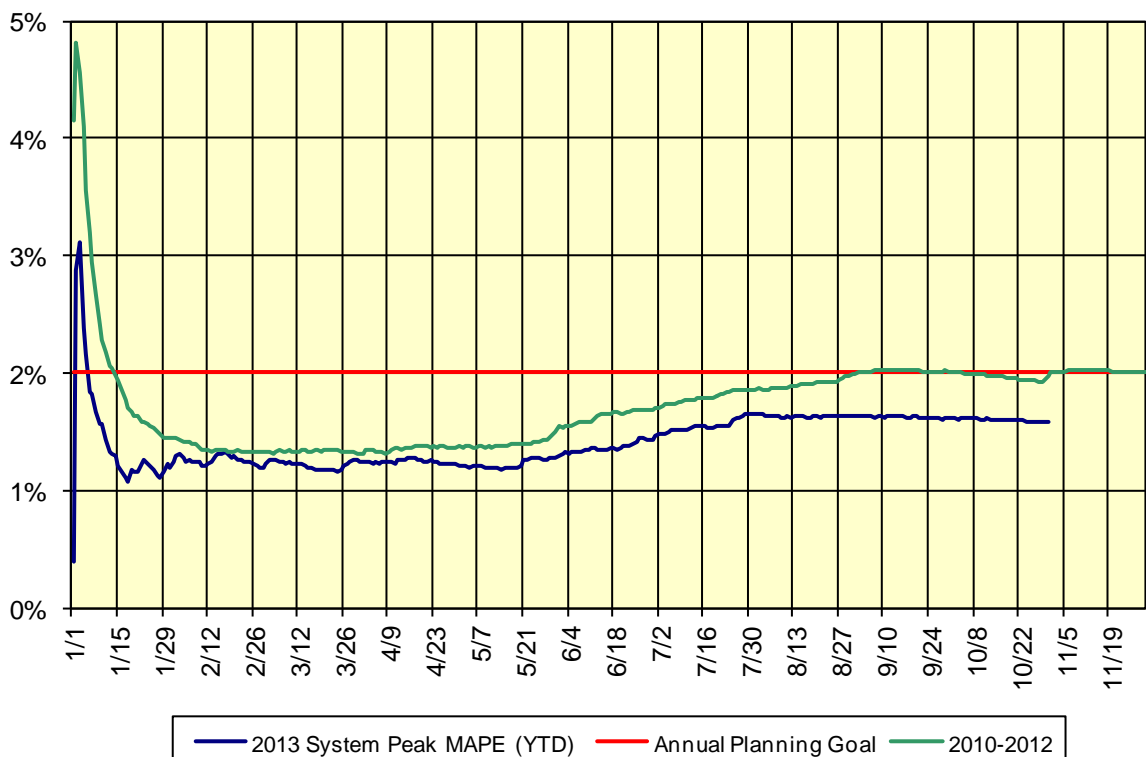
NYISO Daily Peak Load - October 2013
Actual vs Forecast



Day Ahead Peak Forecast - October 2013 Percent Error - Actual & Weather Adjusted



Day-Ahead Forecast Accuracy - Cumulative Performance 2013 Year-to-Date





2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Business Intelligence Products	
FERC Order 760	<p>Status: In May 2012 the FERC, issued Order No. 760 – Enhancement of Electricity Market Surveillance and Analysis through Ongoing Electronic Delivery of Data from Regional Transmission Organizations and Independent System Operators ("Order 760"). Multiple implementations are required in order to comply with the Order. Per NYISO's compliance filing, NYISO has scheduled four deployments to begin providing the following data sets: (1) Supply offers for energy, (2) Virtual offers and bids and demand bids for energy, (3) Marginal cost estimates, energy and ancillary service awards, resource output, internal bilateral contract and uplift data, and (4) Day-ahead shift factors, supply offer and demand bids for ancillary services, capacity market offers, designations and prices, pricing data for interchange transactions, and TCC data. Data sets one, two and three have been deployed to production for on-going data delivery to FERC. The remaining phase is scheduled for delivery later in 2013.</p> <p>Deliverables: The focus of this project in 2013 is the implementation of a fully automated process for on-going data delivery in compliance with the Order.</p>
eTariff Business Owner Assignment	<p>Status: NYISO's eTariff software has an add-on module called, Compliance Functionality, which leverages the electronic storage of the tariff beyond simply filing tariff changes with FERC. It provides the ability to associate a Business Owner with each tariff section and provides for email notifications when those sections are modified.</p> <p>Deliverables: The 2013 project will focus on implementation of the Compliance Functionality module.</p>
Capacity Market Products	
Additional Capacity Zones	<p>Status: The NYISO and stakeholders developed the rationale in 2010 for creating additional capacity zones, identified as a recommendation in the 2009 State of the Market report. NYISO submitted a FERC compliance filing in January 2011 to define the criteria for creating new capacity zones. The Market Design Concept was discussed with stakeholders in late October 2011, and the compliance filing was submitted in November 2011. Functional requirements are complete and software development is underway. NYISO submitted its compliance filing on April 30 and FERC issued an Order in August. In October NYISO submitted a request for FERC to reconsider phasing in the new zone. Implementation is scheduled for 2014 consistent with the next Demand Curve Reset.</p> <p>Deliverables: The 2013 project will focus on completing software development and testing for a January 2014 software deployment.</p>
Demand Curve Reset	<p>Status: Every three years the NYISO is required by the Market Services Tariff to update the demand curves. Price signals need to reflect the latest net cost of new entry estimates, providing the correct signals for market entry and exit. Also, the study must include potential new capacity locations. The study is complete. Oral arguments were presented to the Board in October. Additional information on the Frame F with SCR unit will be provided to the Board in November per its request following oral arguments in October.</p>



Project	Status and Milestone Deliverables
ICAP Reference System	<p>Deliverables: The 2013 project will focus on completing the study and submitting the compliance filing.</p> <p>Status: Market Mitigation and Analysis (MMA) collects extensive financial data from generation owners in order to perform the ICAP market mitigation measures. Now that the data collection process is standardized, efficiency and transparency could be gained by creating a web-based data portal that would allow MPs to upload and review their data. The NYISO and its consultants could use the data portal in the review process and to facilitate discussions with MPs. The anticipated deliverable is a Web-based software application, similar in concept to the Reference Level Software (RLS), but with different functionality. This software will enable MMA to complete pre-mitigation determinations for new capacity zones in an automated and timely manner.</p> <p>Deliverables: The 2013 project will focus on completing software development and beginning the testing phase for a March 2014 software deployment.</p>
Demand Response Products	
DSASP Aggregations	<p>Status: Based on the NYISO's response to FERC Order 719, in 2010 NYISO and stakeholders discussed the changes needed to accommodate aggregated small demand response resources providing ancillary services (DSASP). The Market Design Concept to treat aggregations in the same manner as individual DSASP resources was proposed and approved by Market Participants at the December 2010 BIC. Functional requirements for direct communications were successfully completed and communicated to the Market Participants in 2011. Market rule changes and software changes are required to support the implementation of DSASP Aggregations. The deployment targeted for 4thQ 2012 has been rescheduled for 1st quarter 2013 due to the resource reallocation required to implement Order 755 in October. This project was deployed to production successfully in March. This project is complete.</p> <p>Deliverables: The focus of the 2013 project is the implementation of the required rule changes and software changes.</p>
Demand Response – Real Time Energy Market	<p>Status: NYISO will focus on the development of market rules and identification of software changes required to permit demand response entities to participate in the NYISO's real-time energy market. BIC and OC approved the Market Design concepts for this multi-year project in December 2012.</p> <p>Deliverables: Completing the functional requirements specification is the focus of the project in 2013.</p>
SCR Provisional ACL	<p>Status: The SCR Program is the largest of the NYISO's demand response programs, both in the number of individual demand side resources and MW. Since the SCR baseline changes were implemented in April 2011, the NYISO has received a significant number of comments, including three market participant presentations at the ICAPWG, regarding SCRs enrolled with a Provisional ACL. One of the presentations related to using the Provisional ACL as a way to allow resources to account for an increase in load since the last Capability Period, which would allow the SCR to offer more capacity. The</p>



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
	<p>scope of the project is intended to address four key areas from stakeholder comments:</p> <ol style="list-style-type: none">1) Address allowance for the use of Provisional ACL for SCRs that change RIPs;2) Review the limitation on Provisional ACL for three consecutive Capability Periods;3) Review SCR Load Zone Peak Hours for Winter ACL; and4) Address increased baseline with reporting process to increase ACL values within a Capability Period. <p>Deliverables: The focus of the 2013 project is the implementation of the required rule changes and software changes.</p>
SCR Baseline Study	<p>Status: This project will evaluate the current Average Coincident Load (ACL) against a number of alternative response baseline calculations using a Customer Baseline Load (CBL) for SCRs. In February 2011, when the NYISO proposed, and stakeholders accepted, the change to the SCR baseline from Average Peak Monthly Demand (APMD) to ACL, the NYISO committed to conducting a study to evaluate an additional set of baseline calculations for measuring event response. The objective of the study is to determine if there is a method of estimating response to an event that will provide a better estimate of event response than the ACL.</p> <p>Deliverables: Completing the study is the focus of the project in 2013.</p>
Order 745 – Day Ahead Demand Response Program (DADRP) Compliance	<p>Status: NYISO planned to implement the net benefits test in March 2012 based on the compliance filing submitted in August 2011. However, implementation was placed on hold pending a response from FERC. Also, as part of the compliance obligation, NYISO completed a study in August 2012 to evaluate the feasibility of incorporating a dynamic net benefits test into the day-ahead and real-time unit commitment and scheduling processes. A compliance filing detailing the results of the feasibility study was submitted to FERC in September 2012. FERC issued an Order on May 16, 2013 in response to NYISO's August 2011 filing. NYISO requested a 60-day extension on the compliance filing, which was subsequently approved for August 14. Also, NYISO requested rehearing on the cost allocation methodology.</p> <p>Deliverables: Upon receipt of responses from FERC regarding the August 14, 2013 compliance filing and the request for rehearing, NYISO will evaluate the responses and determine a feasible implementation date.</p>
Energy Market Products	
Ancillary Services Mitigation	<p>Status: Per recommendation of NYISO's Market Advisor, NYISO should modify two mitigation provisions that may limit competitive 10-minute reserves offers in the day-ahead market. A market design concept was presented to stakeholders in the 4th quarter of 2011. Tariff changes and software changes were originally planned for 4th quarter 2012; this project has been rescheduled for delivery in 1st quarter 2013 due to the resource reallocation required to implement Order 755 in October. The software changes were successfully deployed in January 2013. This project is complete.</p>



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Coordinated Transaction Scheduling (CTS) with New England	<p>Deliverables: This project will focus on implementation of required tariff changes and software changes to support the market design.</p> <p>Status: As part of the Broader Regional Markets initiatives, ISO New England (ISO-NE) and NYISO commenced the joint Inter-Regional Interchange Scheduling (IRIS) project. The main goal of this project is to improve price convergence between proxy buses of the two ISOs. For the IRIS project, two approaches were proposed according to the IRIS white paper¹ : Tie Optimization (TO) and Coordinated Transaction Schedule (CTS). The two ISOs agreed to pursue the latter. To implement the CTS approach, two design options were also proposed: the supply curve method proposed by NYISO; and the marginal equivalent algorithm suggested by ISO-NE. The two ISOs agreed to pursue the supply curve method based on the assumption that it is much easier to implement. In 2012 FERC accepted the tariff changes to implement CTS.</p> <p>Deliverables: The focus of this project in 2013 is completion of the functional requirements and building out and testing affected internal applications to reduce the development and testing effort needed prior to activation.</p>
Coordinated Transaction Scheduling with PJM	<p>Status: The State of the Market has recommended that NYISO continue to work with its neighbors to provide market efficiencies from transaction scheduling. This project will look to expand upon the work and concepts outlined in CTS with NE to improve transaction scheduling inefficiencies that can occur between PJM's physical transaction modeling and NYISO's economic based scheduling models. A market design concept was completed in 4th quarter 2012. NYISO and PJM Stakeholders have approved the market design.</p> <p>Deliverables: The focus of this project in 2013 stakeholder approval of the market design.</p>
Scheduling and Pricing: Enhanced Scarcity Pricing	<p>Status: The 2010 State of the Market recommends the NYISO investigate the possibility of more efficient price setting when energy within the NYCA is scarce. The NYISO will evaluate the causes for the pricing inefficiency and, if necessary, develop and review with stakeholders potential market enhancements that will best capture most efficient price for periods with scarce energy. The Market Design was approved by MC in 4th quarter 2012. Software changes were deployed in June with activation pending FERC approval. FERC approved the tariff changes on July 8 with activation of the software shortly thereafter. This project is complete.</p> <p>Deliverables: The focus of this project in 2013 is FERC approval of tariff changes and implementation of the software changes.</p>

¹ IRIS white paper (ISO New England), January 5, 2011, [Online] www.iso-ne.com/pubs/whthpprs/iris_white_paper.pdf



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Enterprise Products	
Ranger Messaging Integration Phase II	<p>Status: The 2012 Ranger Messaging Integration Project introduced new, core technology to integrate internal applications and new partner integrations such as Market to Market and other BRM initiatives. Phase II of this project will begin the use of Software AG technology to retire legacy Tibco Business Works implementations. The scope of Phase II includes the following:</p> <ul style="list-style-type: none"> • Re-engineer and replace existing enterprise service bus applications • Implement a central repository for tracking and managing deployed services and dependencies • Replace the Ranger embedded Tibco client with Software AG client libraries • Re-engineering Wind Integration as an ESB supported ICCP integration service to support future ICCP integrations <p>Deliverables: The focus of this project in 2013 is a series of deployments to complete the identified scope.</p>
Enterprise Project Management (EPM): Phase II	<p>Status: In 2012 NYISO implemented Microsoft Project 2010 on the EPMLive application in a hosted environment that provides NYISO with up-to-date project scheduling and tracking tools, centralized and consistent project reporting for improved portfolio management, and improved project team collaboration. Phase II and subsequent phases will continue the implementation of the EPMLive application to provide a centralized system with enterprise time reporting, and an enterprise view of project demand, resource capacity, project costs, and resource utilization to support key decision making processes.</p> <p>Deliverables: The focus of this project in 2013 is to migrate the platform in-house, followed by deployment of time tracking and functional requirements for resource management.</p>
Finance Products	
Energy Transaction Credit Enhancements	<p>Status: Enhancements to the CMS application are needed to better align the credit requirements for external transactions (imports, exports, wheels) to the evolving market design for transactions occurring as part of the Broader Regional Markets initiatives. Market rules have been approved by stakeholders and detailed requirements are complete. Completion of the software development was originally scheduled for 4th quarter 2012 with implementation planned for 1st quarter 2013; this project was rescheduled for delivery in 2nd quarter 2013 due to the resource reallocation required to implement Order 755 in October 2012. This project was deployed successfully in June. This project is complete.</p> <p>Deliverables: The focus of this project in 2013 is implementation of the software changes.</p>



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Oracle Financials Upgrade	<p>Status: The purpose of this project is to upgrade the existing application to an enhanced and more technologically advanced version of Oracle Financials to better support the existing functionality of the Finance team and to allow the team to perform at a higher level of efficiency. An upgrade will provide the Finance team the ability to utilize improved and more user friendly functions in the existing modules. Also, an upgrade to the latest version will allow the team to take advantage of new modules and functionality to further automate manual processes for procurement and utilize additional functionality for accounts payable, sub-ledger accounting and reporting tools. The Architectural Design has been completed and the software upgrade is scheduled to begin in December.</p> <p>Deliverables: The focus of this project in 2013 is completion of the Architectural Design and initiation of the software upgrade.</p>
Performance Tracking System Replacement	<p>Status: The purpose of this project is to replace the existing NYISO Performance Tracking System (PTS). PTS is the source of Generator RTD MW data for all real-time settlements data calculations and the source of all inputs into the sub-zonal load calculation. The functional requirements were completed in 2012. Software development is complete and testing is under way for deployment later this year.</p> <p>Deliverables: The focus of this project in 2013 is deployment of the replacement system to production.</p>
Operations & Reliability Products	
Energy Management System (EMS) Visualization	<p>Status: This is a multi-year project to determine the requirements, design and to implement the necessary situational awareness, data redundancy and communication infrastructure to facilitate operational control from the new Krey Primary Control Center. The Architectural Design was completed in 2012.</p> <p>Deliverables: The focus of this project in 2013 is implementation in the new Primary Control Center.</p>
Hudson Transmission Partners (HTP) Controllable Tie Line	<p>Status: This project supports the implementation of a new controllable tie line from PJM into NYCA. Targeted commercial date is mid- 2013. Software changes are targeted for 1st quarter 2013 based on a revised schedule from HTP. The software was deployed successfully in March to enable testing prior to commercial operation. This project is complete.</p> <p>Deliverables: The focus of this project in 2013 is to deploy the required software changes in support of the targeted commercial operation date.</p>
Load Forecaster Upgrade	<p>Status: The purpose of this project is to replace the existing load forecaster application supplied by Itron with Itron's new product called, MetrixDR, for purposes of updated technology and functionality, operational enhancements and easier maintenance.</p> <p>Deliverables: The focus of this project in 2013 is working with the vendor to complete software development with plans to begin testing and implement in 2014.</p>



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Phase I Meter Upgrade	<p>Status: The purpose of this project is to move existing and new circuits to a new configuration and to add the new building to the network, which is required in order to fully support Phase I data needs in the new control center. The Architectural Design was completed in 2012.</p> <p>Deliverables: The focus of this project in 2013 is completion of the upgrade.</p>
Ranger Optimization & Performance Enhancements	<p>Status: The NYISO's unit commitment and economic dispatch process utilizes Lagrangian Relaxation (LR) and MINOS technologies. These are being replaced across the industry with Mixed Integer Programming (MIP)/linear programming optimization approach. The NYISO is the last remaining Ventyx/ABB customer on legacy LR/MINOS, which was developed in the late 1970s. MIP provides increased constraint modeling flexibility through high level modeling languages and current compiler and system optimization development, as well as greater IT support.</p> <p>Deliverables: The focus of this project in 2013 is working with the vendor to complete software development with plans to begin testing and implement in 2014.</p>
Planning and TCC Market Products	
High Performance Computing (HPC) Phase III	<p>Status: The purpose of this project is to better support tariff mandated activities performed by the Planning group, such as IRM, RNA, and CARIS. HPC Phase 1, implemented in 2011, established a single High Performance Computing (HPC) environment and procured a site license for running GE MARS. This resulted in a significant efficiency gain with application run time shifting from 16 hours to 30 minutes on average. Phase II of the project established the GE MAPS application in the HPC environment in 2012. Phase III will reconfigure the deployment of the applications within the HPC environment to spread load across both facilities, and procure licensing beyond the seven cores for GE MAPS. Phase III was implemented in June. This project is complete.</p> <p>Deliverables: The focus of this project in 2013 is implementation.</p>
Multi-Duration Centralized TCC Auction Phase II	<p>Status: This project continues the 2012 efforts to provide TCC Auction enhancements. Phase I was implemented in 2012 to offer the Non-Historic Fixed-Price TCC product beginning with the Spring 2013 Centralized Auction per NYISO's compliance filing. Subsequent phases will focus on delivering additional functionality and automation in priority order with the MPs. Phase II will focus on requirements and implementation of the top priority, which is the Balance-of-Period auction format and any required credit management system changes. Once implemented, MPs would be able to reconfigure their remaining months within the capability period and adjust credit requirements to match the remaining capability period. The functional requirements have been documented and approved.</p> <p>Deliverables: The focus of this project in 2013 is completion of the functional requirements.</p>



2013 Major Product Enhancements

Project	Status and Milestone Deliverables
Siemens PTI Model-on-Demand Phase II	<p>Status: Currently, updates to the transmission model are emailed to NYISO by the TOs. The purpose of this project is to implement a web portal for the Siemens PTI Model-on-Demand software that will allow the TOs to provide, review, update, correct, and approve network model data in a structured, interactive manor. NYISO will then review, work with TOs to update and correct if needed, and approve. As part of this project a redundant production environment and matching staging test environment will be developed. The software design specification was completed in 2012. The web portal was implemented in September. This project is complete.</p> <p>Deliverables: The focus of this project in 2013 is implementation of the web portal.</p>

Summary Description of Regulatory Filings, Investigations and Rulemakings and Related Orders in NYISO Matters - October 2013

Filing Date	Filing Summary	Docket	Order Date	Order Summary
8/6/2013	NYISO filing re: request for a one-time waiver to use the updated data from the 2013 Load and Capacity Data Report for the Class Year 2012 Annual Transmission Baseline Assessment	ER13-2119-000	10/7/2013	FERC order granting the waiver
10/1/2013	NYISO filing re: to allow longer term Long Island TCCs to be offered in the NYISO centralized TCC auctions	ER14-2-000		
10/4/2013	NYISO filing re: enhancements to its special case resource demand response program	ER14-39-000		
10/4/2013	NYISO compliance filing re: report on buyer-side mitigation rules for small suppliers, renewable resources and special case resources in new capacity zones	ER12-360-000		
10/4/2013	NYISO filing re: answer to a third party answer concerning NYISO's visibility into said third party's bilateral contracts with NYAPP's member customers	ER11-4338-002		
10/4/2013	NYISO filing of a motion re: request to extend a limited tariff waiver period in order to complete the bundled package of software improvements prior to deployment	ER13-2016-000	10/24/2013	FERC notice granting NYISO an extension of its limited tariff waiver up to and including 11/14/13
10/15/2013	NYISO and NYTO joint compliance filing re: Order No. 1000 intra-regional transmission planning requirements	ER13-102-002		
10/21/2013	NYISO filing re: revisions to the minimum participation criteria for the NYISO markets	ER14-144-000		
10/21/2013	NYISO filing re: limited answer addressing material inaccuracies in a third party motion concerning NYISO's supply curve	ER11-4338-002		
10/22/2013	NYISO filing re: request to file limited answer out-of-time	ER11-4338-002		
10/22/2013	NYISO filing re: notice of implementation of real time guarantee payment mitigation software for regulation capacity and regulation movement bids	ER13-2016-000		
10/28/2013	NYISO filing re: request for reconsideration of one element of the 8/13/13 new capacity zone order concerning the rejection of a proposed phase-in of the price impacts of the G-J Locality	ER13-1380-000		
10/30/2013	NYISO filing re: notice of delayed implementation of the real time guarantee payment mitigation software	ER13-2016-000		

Filing Date	Filing Summary	Docket	Order Date	Order Summary
10/31/2013	NYISO filing re: informational report describing how well its revised scarcity pricing mechanism achieved its objectives during the summer of 2013	ER13-909-000		
10/31/2013	NYISO and Con Ed joint filing re: amended and restated large generator interconnection agreement among NYISO, Con Ed and Bayonne Energy Center, LLC	ER14-239-000		