

Operations Performance Metrics Monthly Report



October 2014 Report

Operations & Reliability Department New York Independent System Operator

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

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*

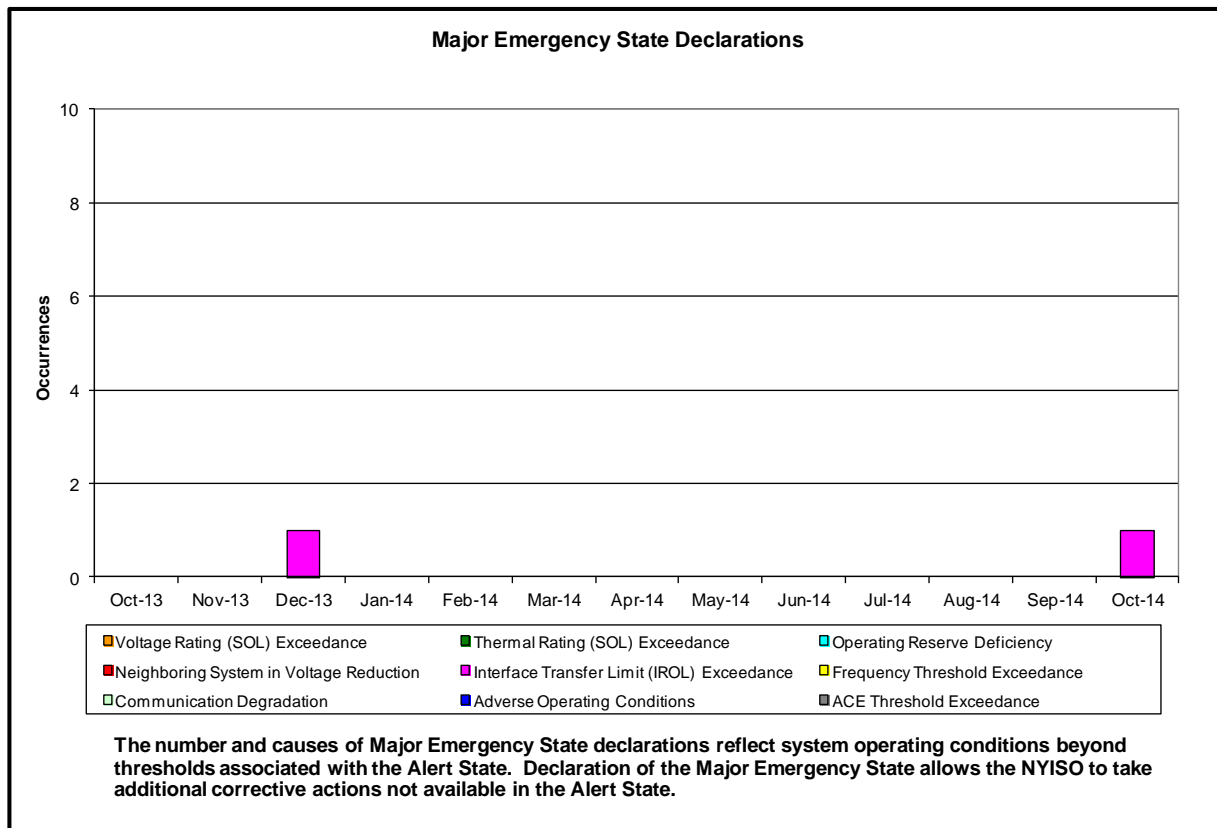
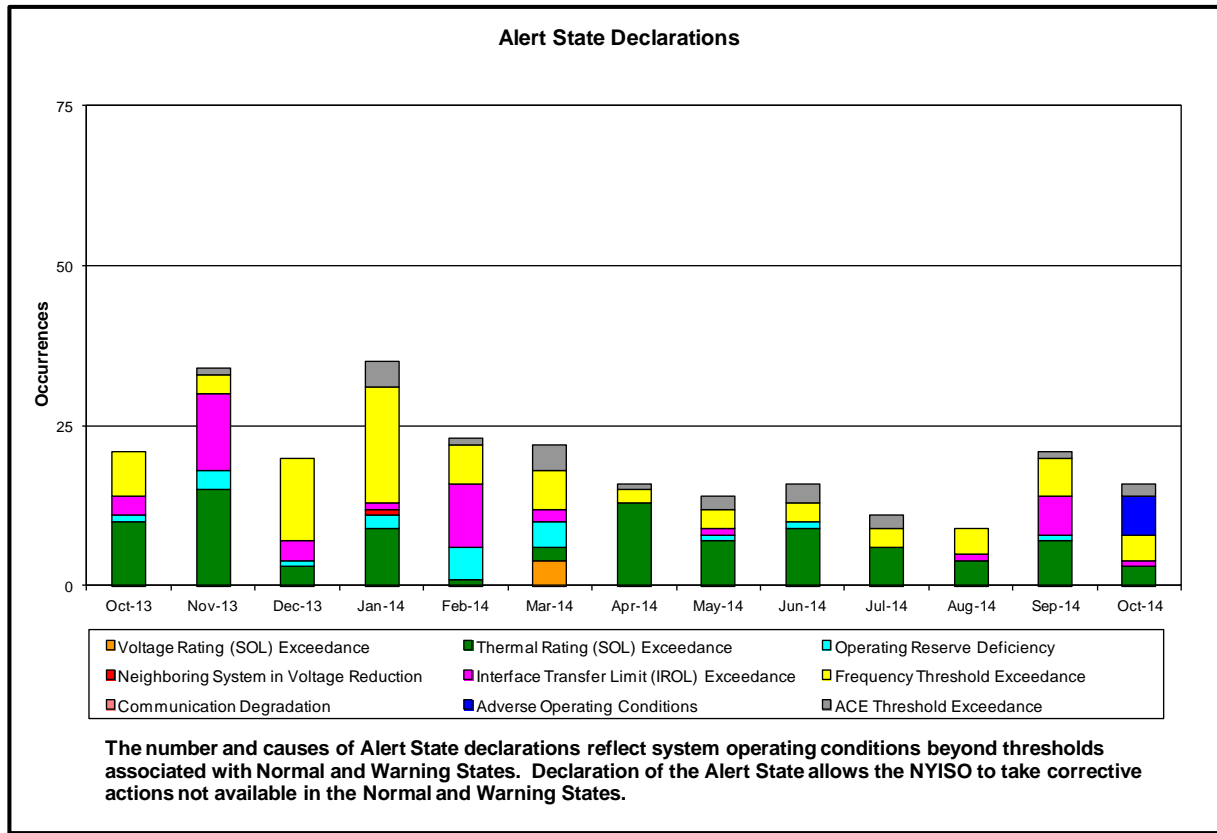
- ◆ **Market Performance Metrics**
 - *Monthly Statewide Uplift Components and Rate*
 - *RTM Congestion Residuals Monthly Trend*
 - *RTM Congestion Residuals Daily Costs*
 - *RTM Congestion Residuals Event Summary*
 - *RTM Congestion Residuals Cost Categories*
 - *DAM Congestion Residuals Monthly Trend*
 - *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*

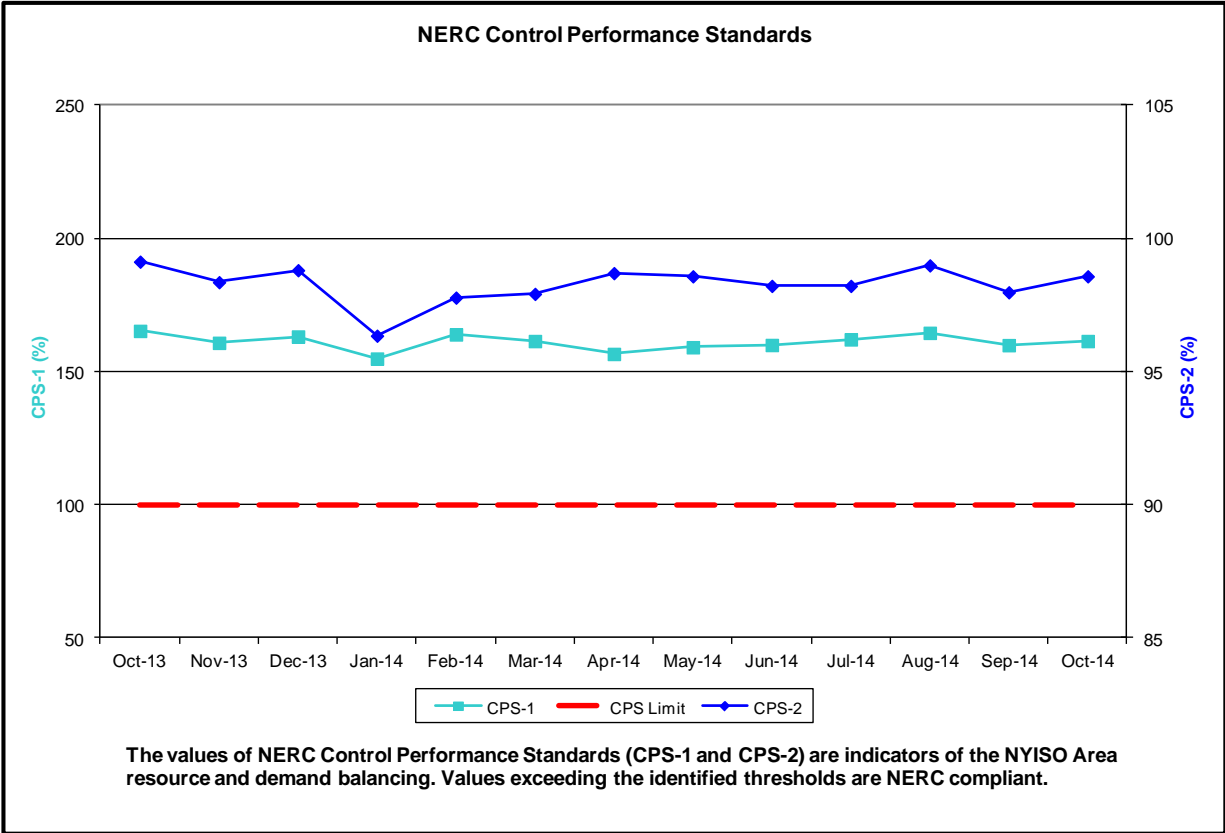
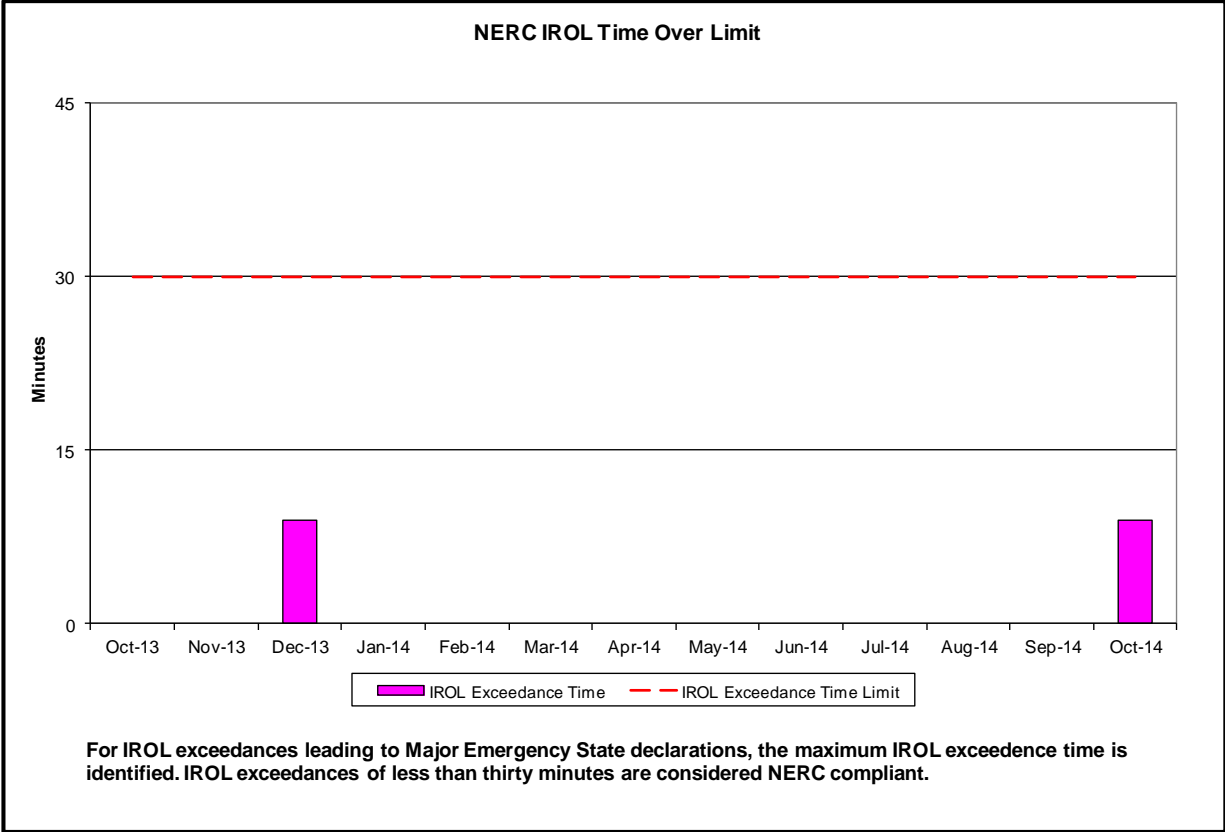
October 2014 Operations Performance Highlights

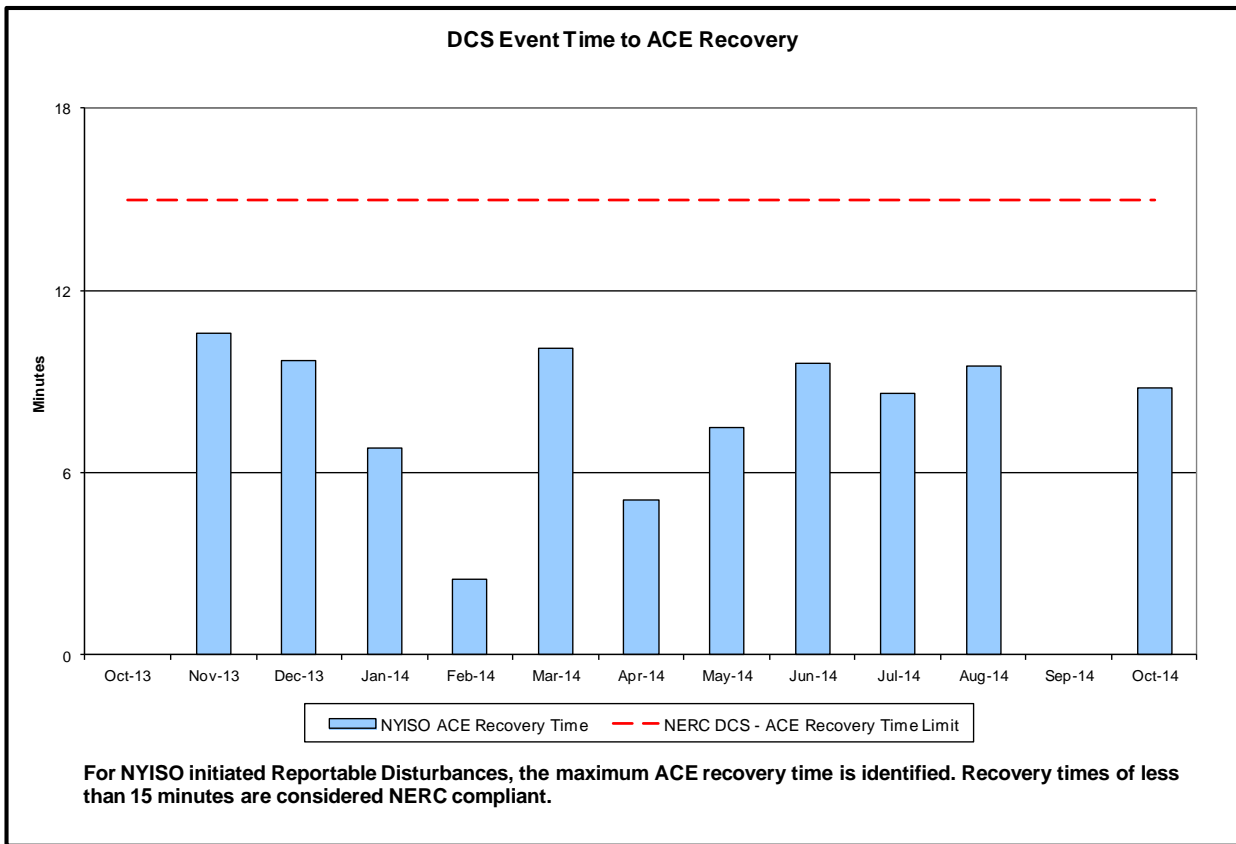
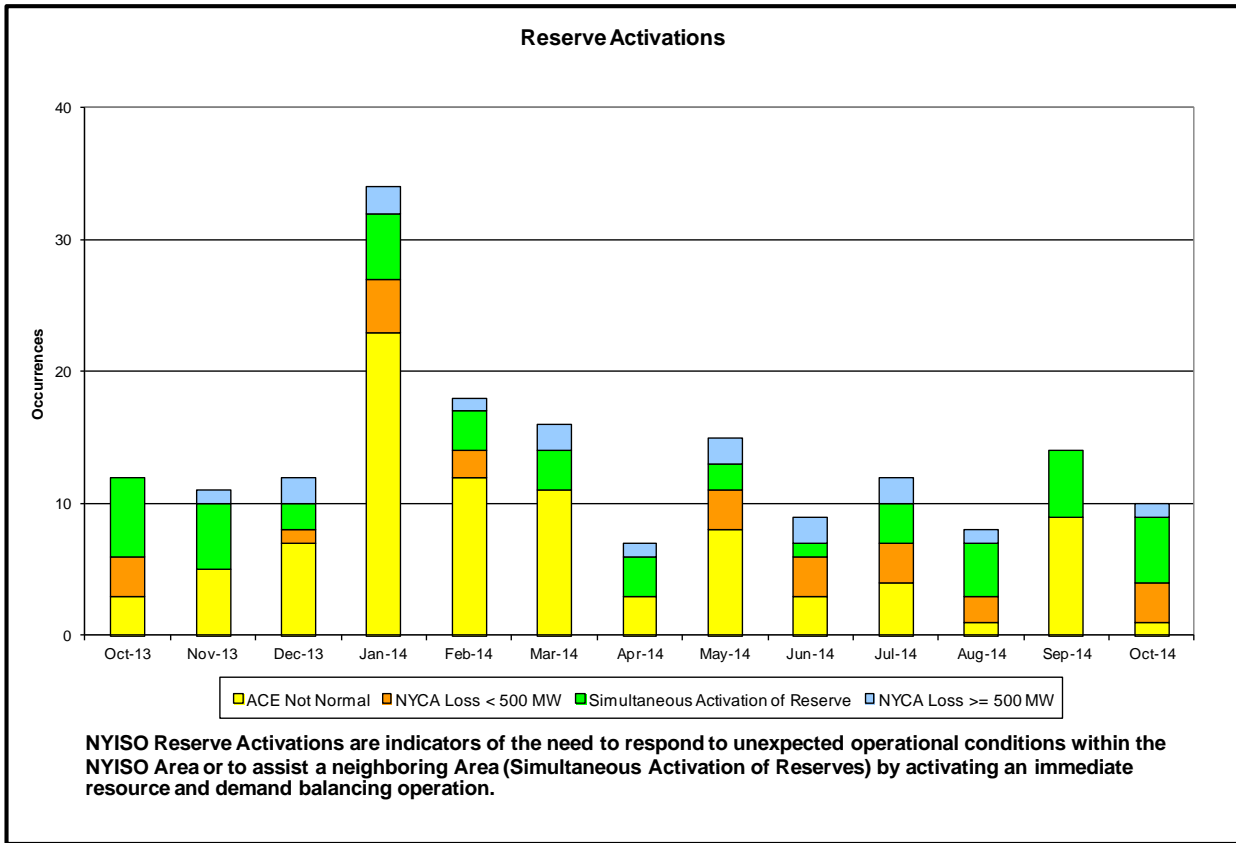
- Peak load of 21,125 MW occurred on 10/15/2014 HB 18
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 0 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- Broader Regional Market Coordination monthly value was \$0.33M
- Broader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

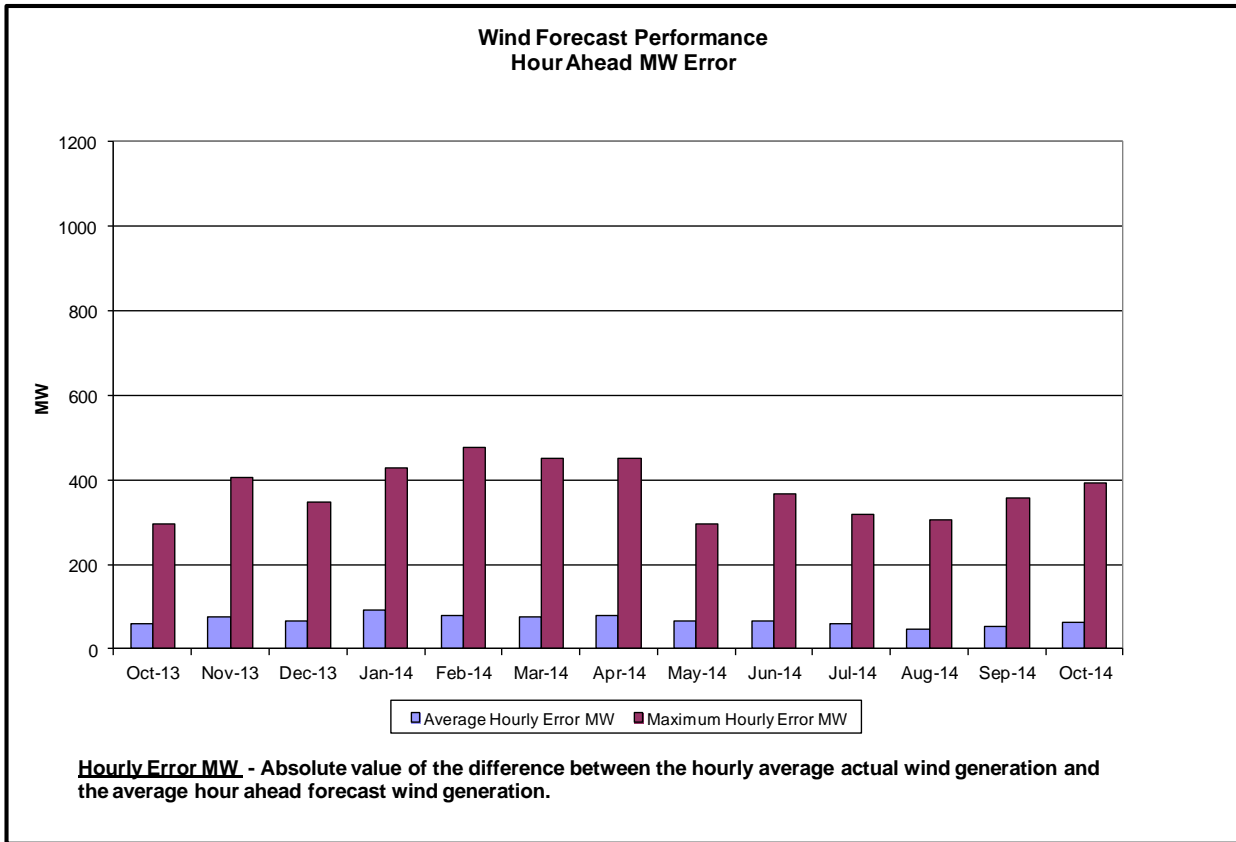
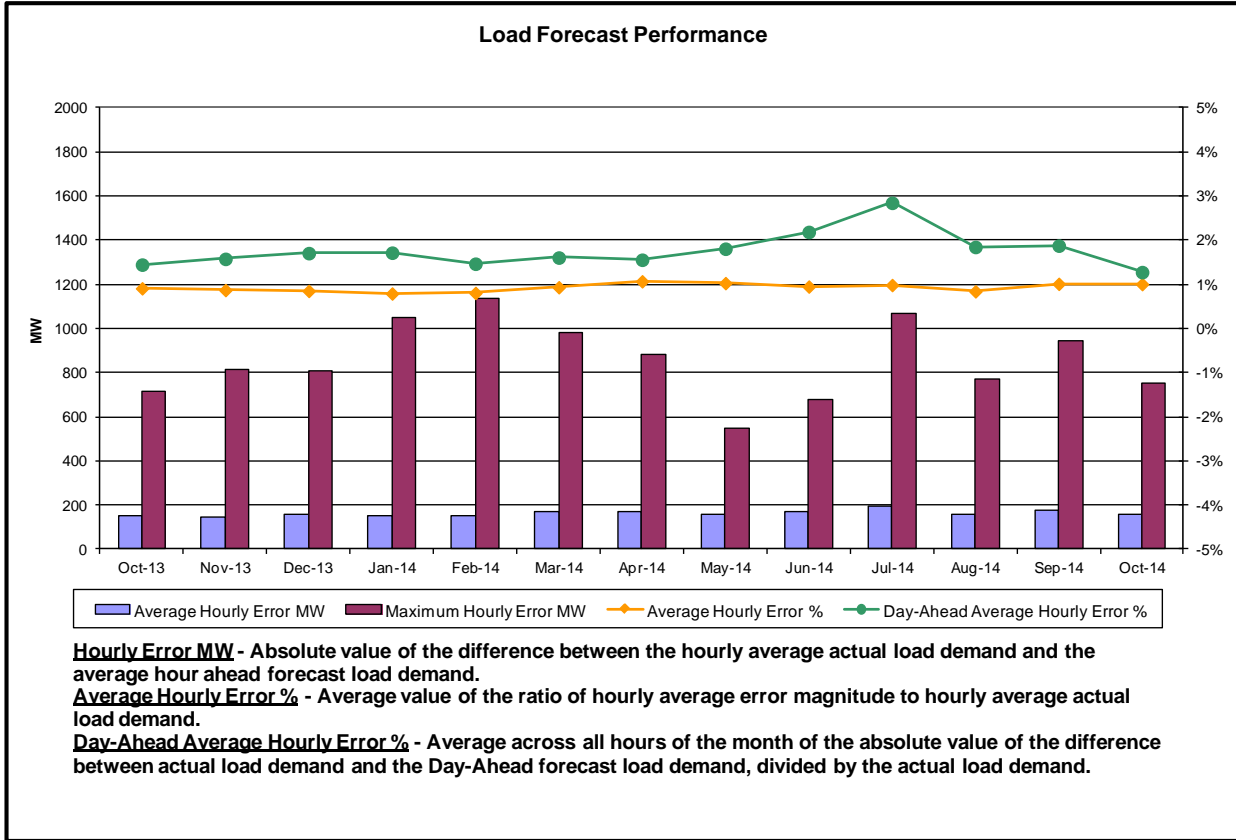
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
November 2014 Spot Price	\$1.43	\$5.76	\$8.96	\$2.99
Change from Prior Month	N/A	N/A	N/A	N/A

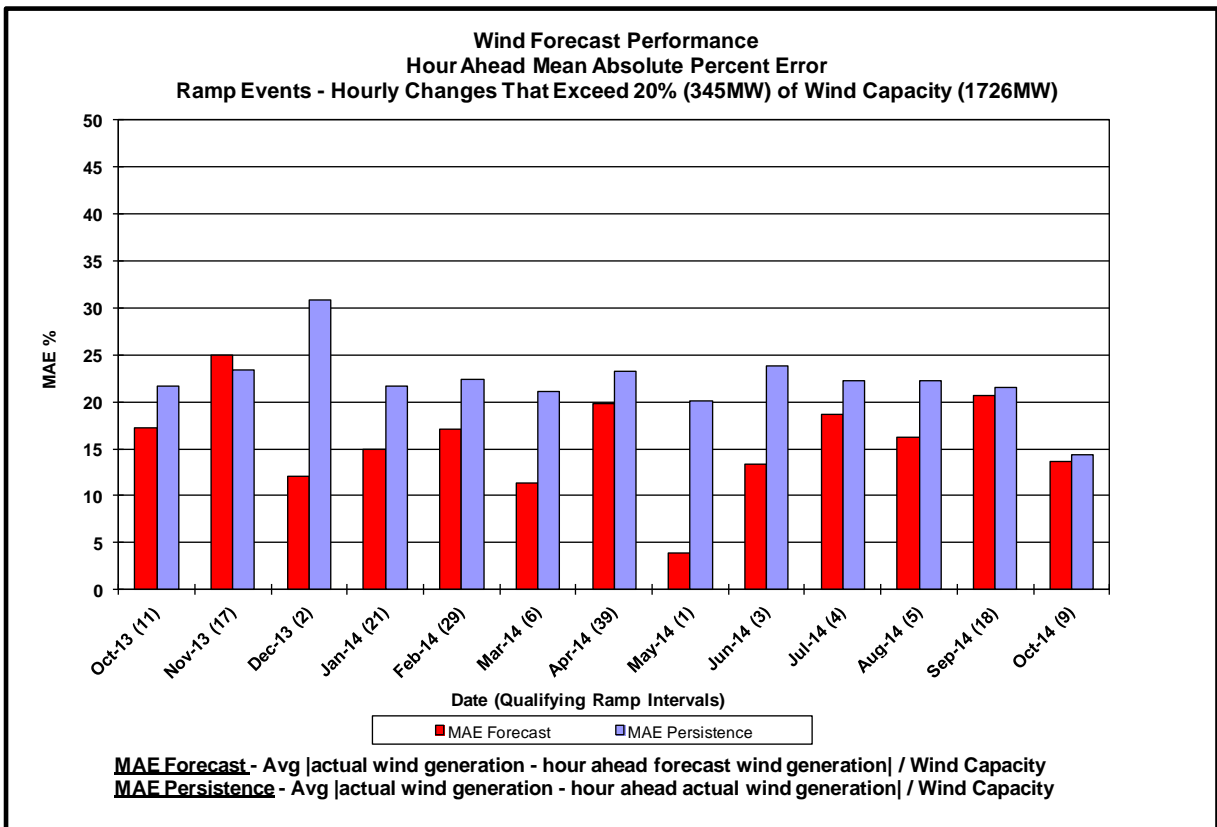
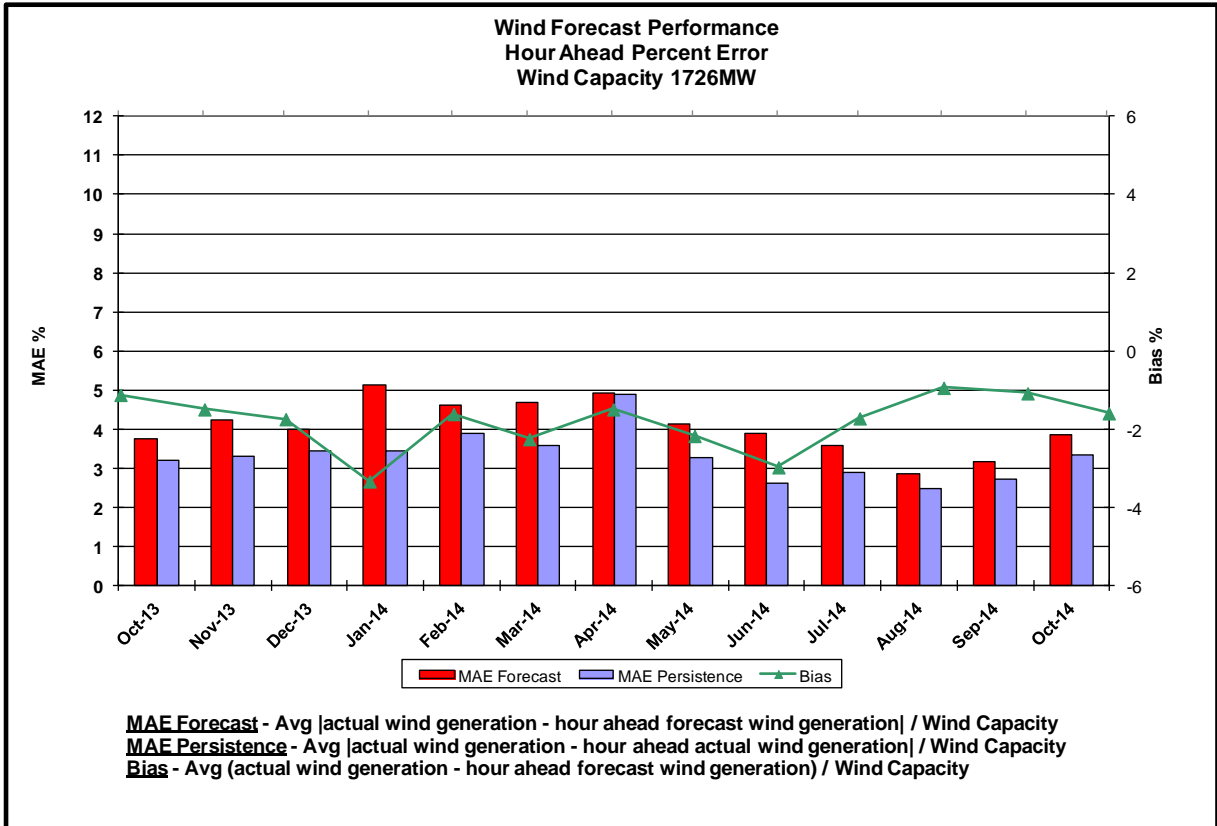
Reliability Performance Metrics

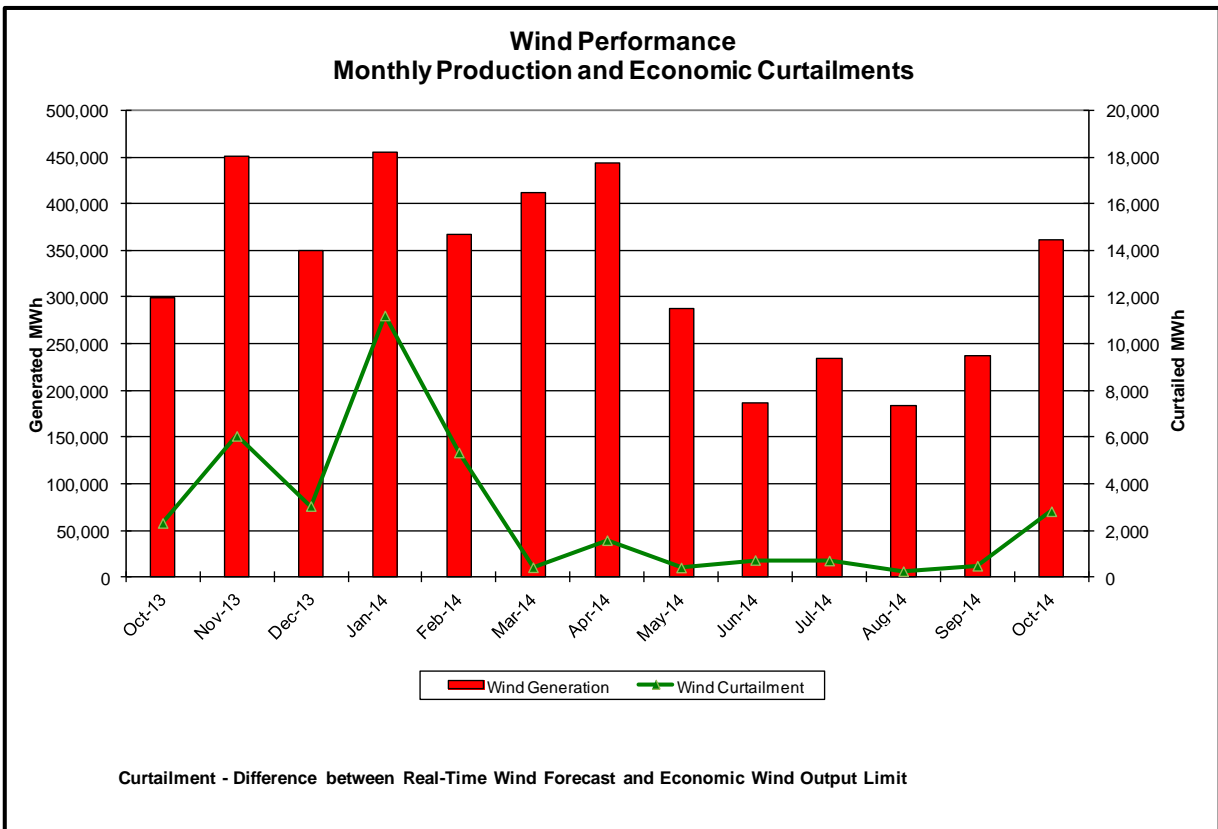
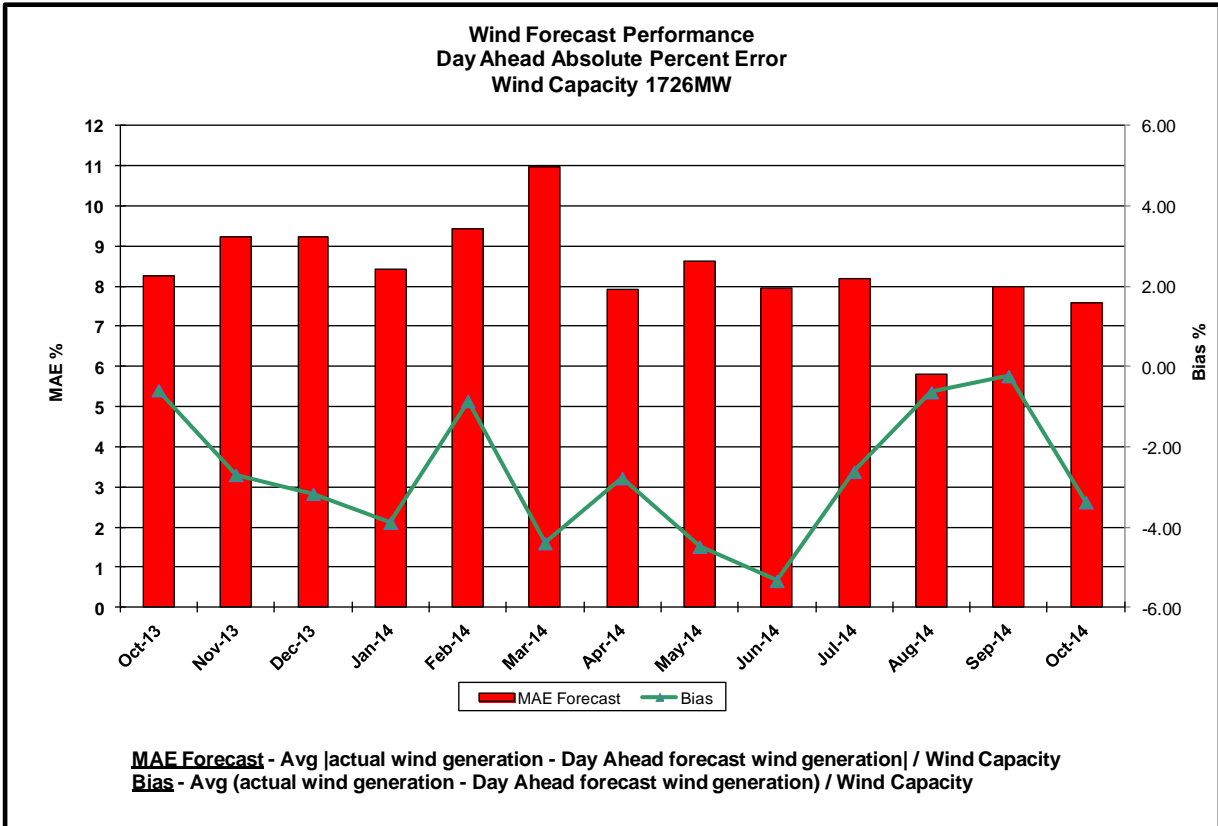


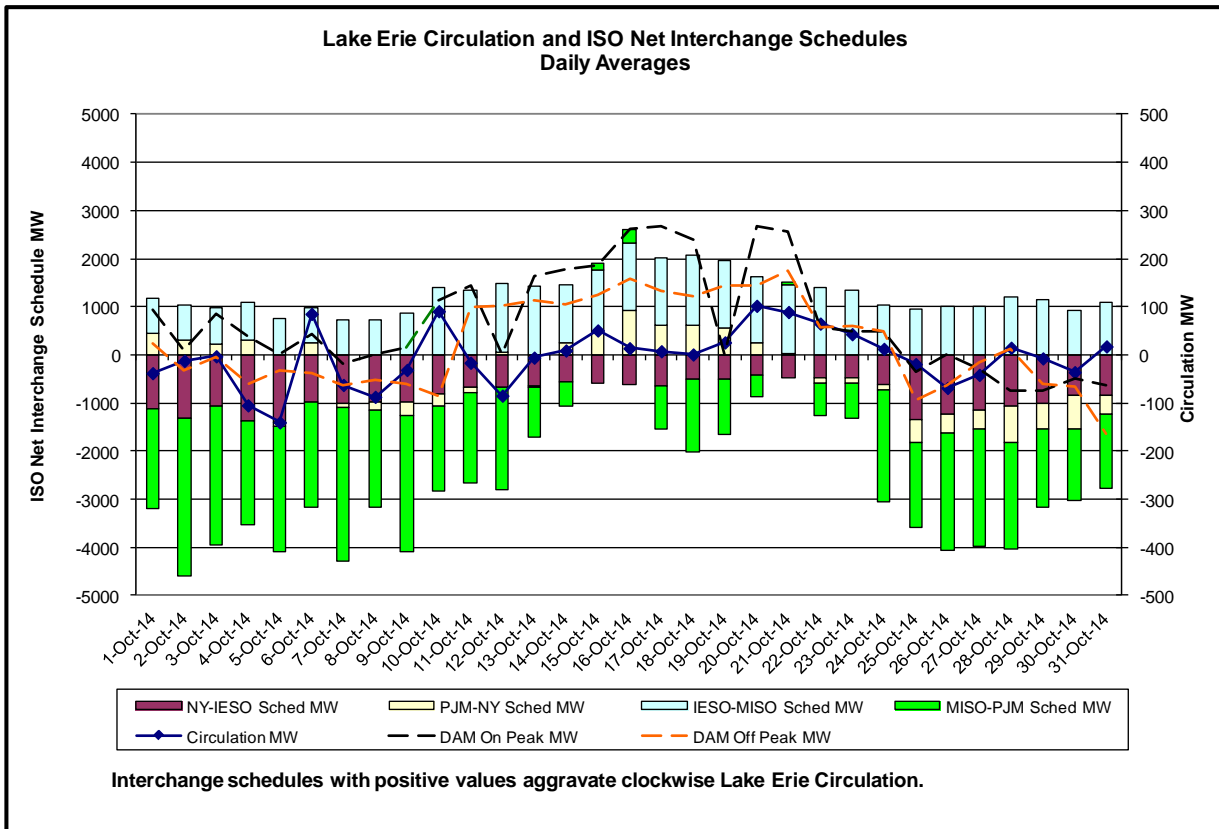
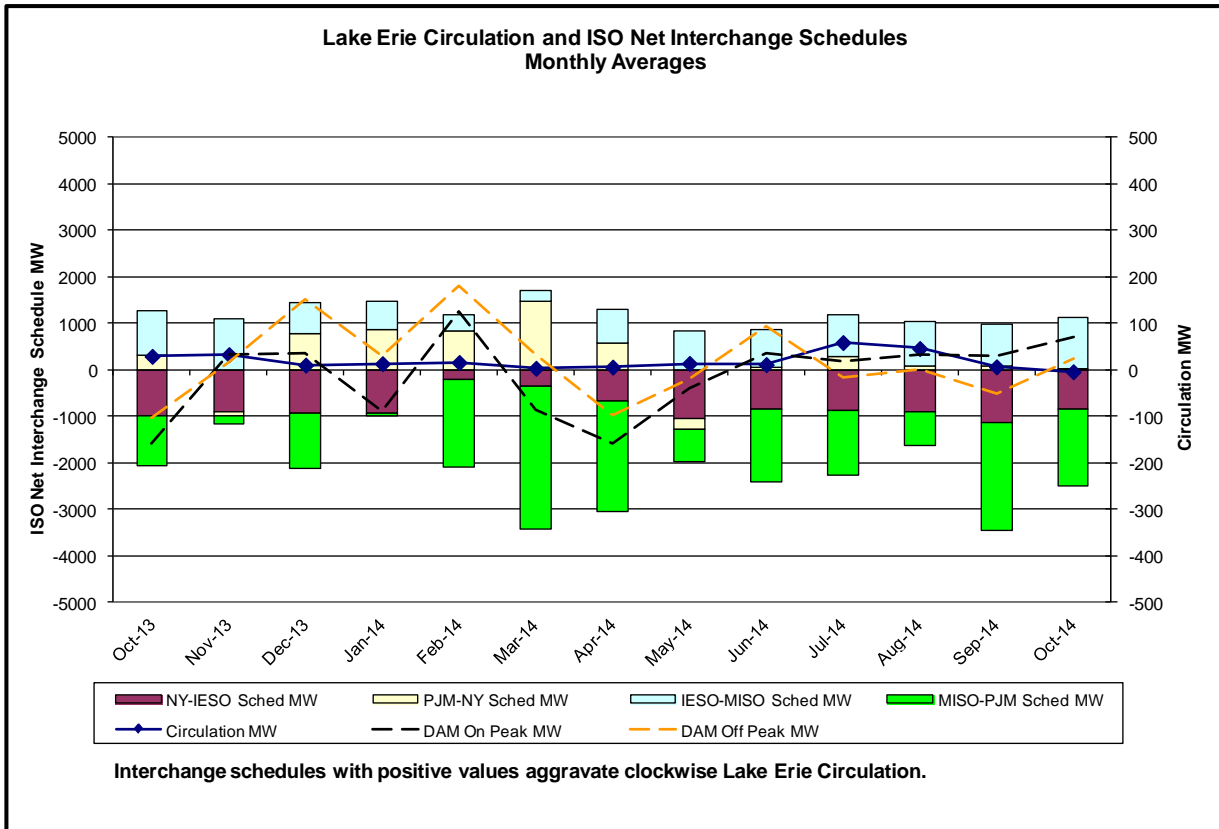




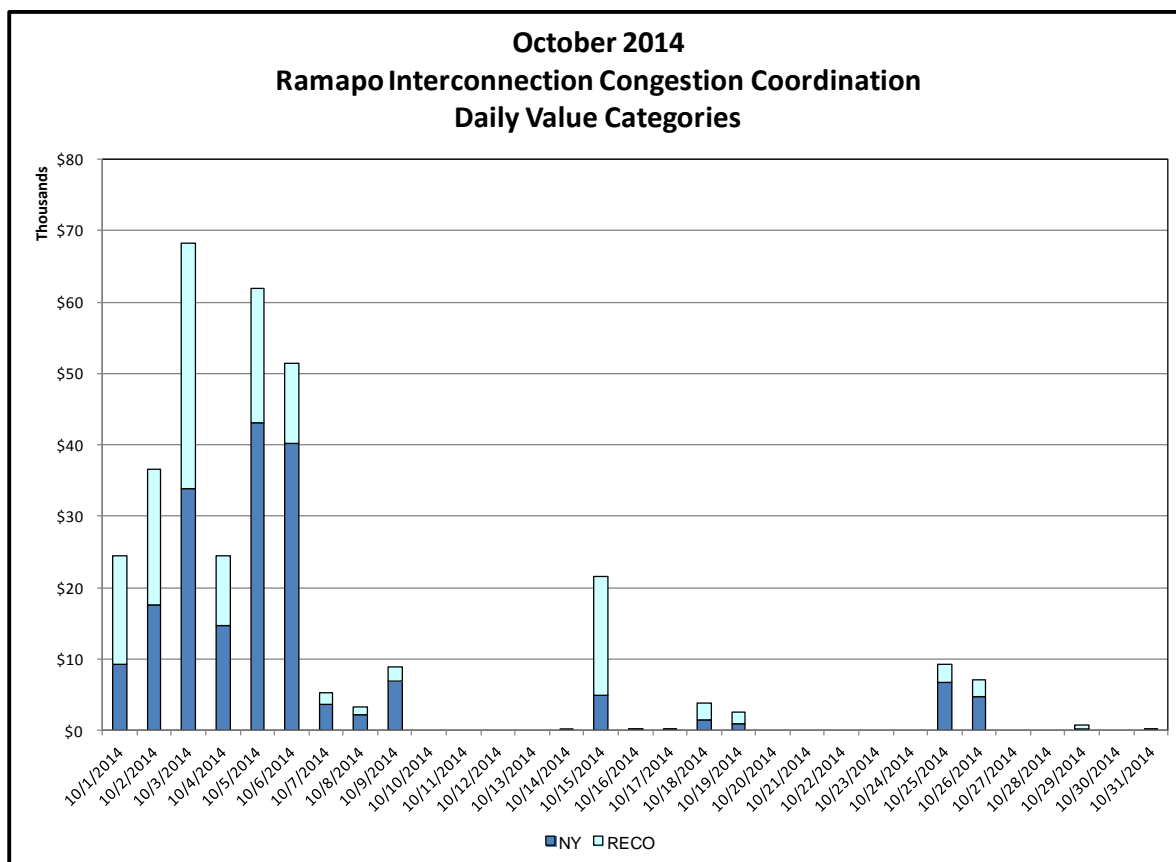
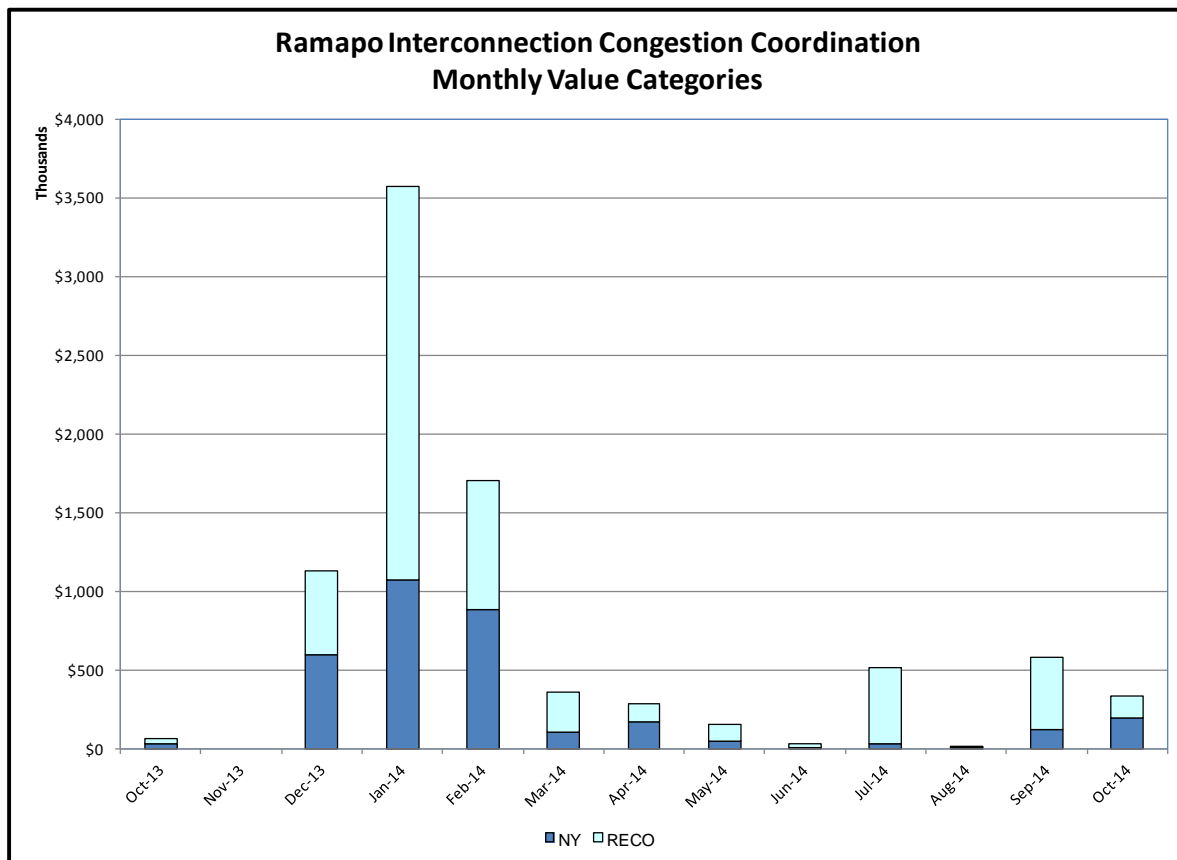






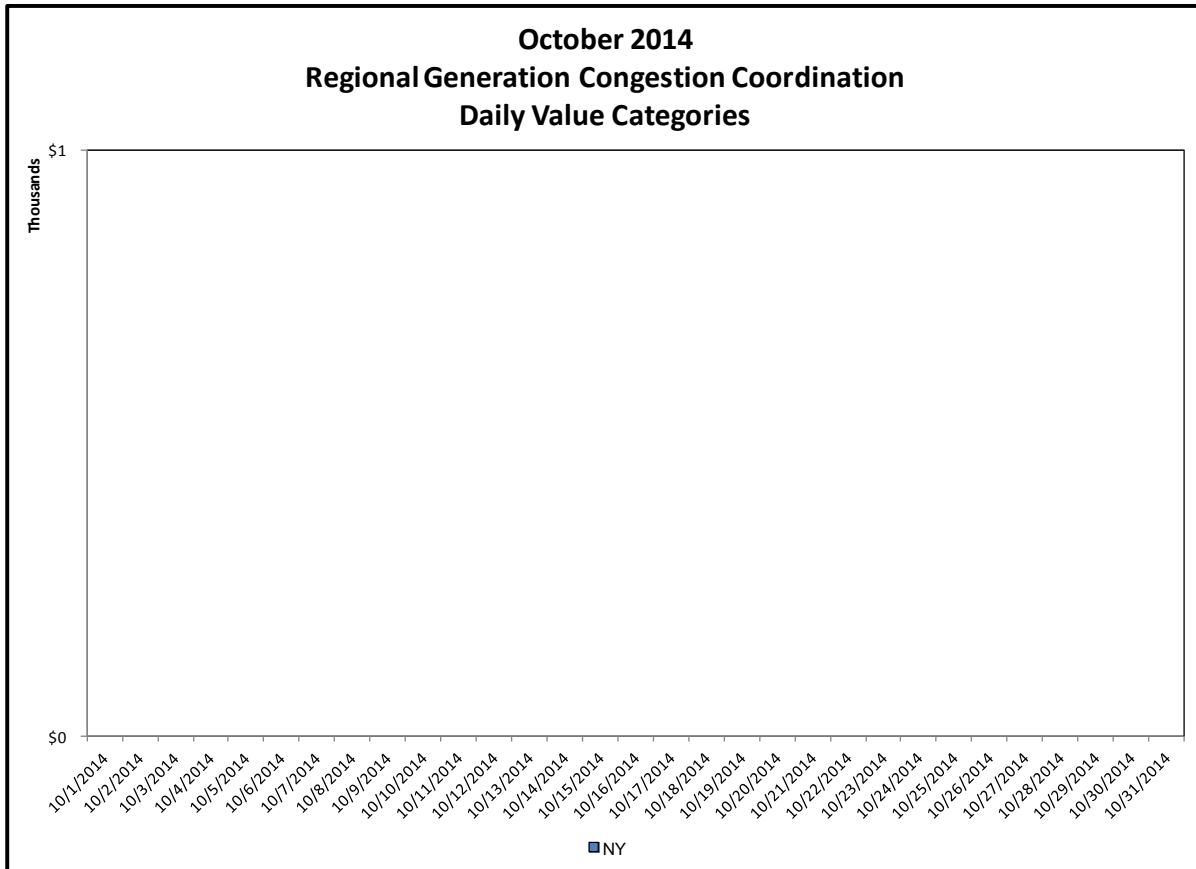
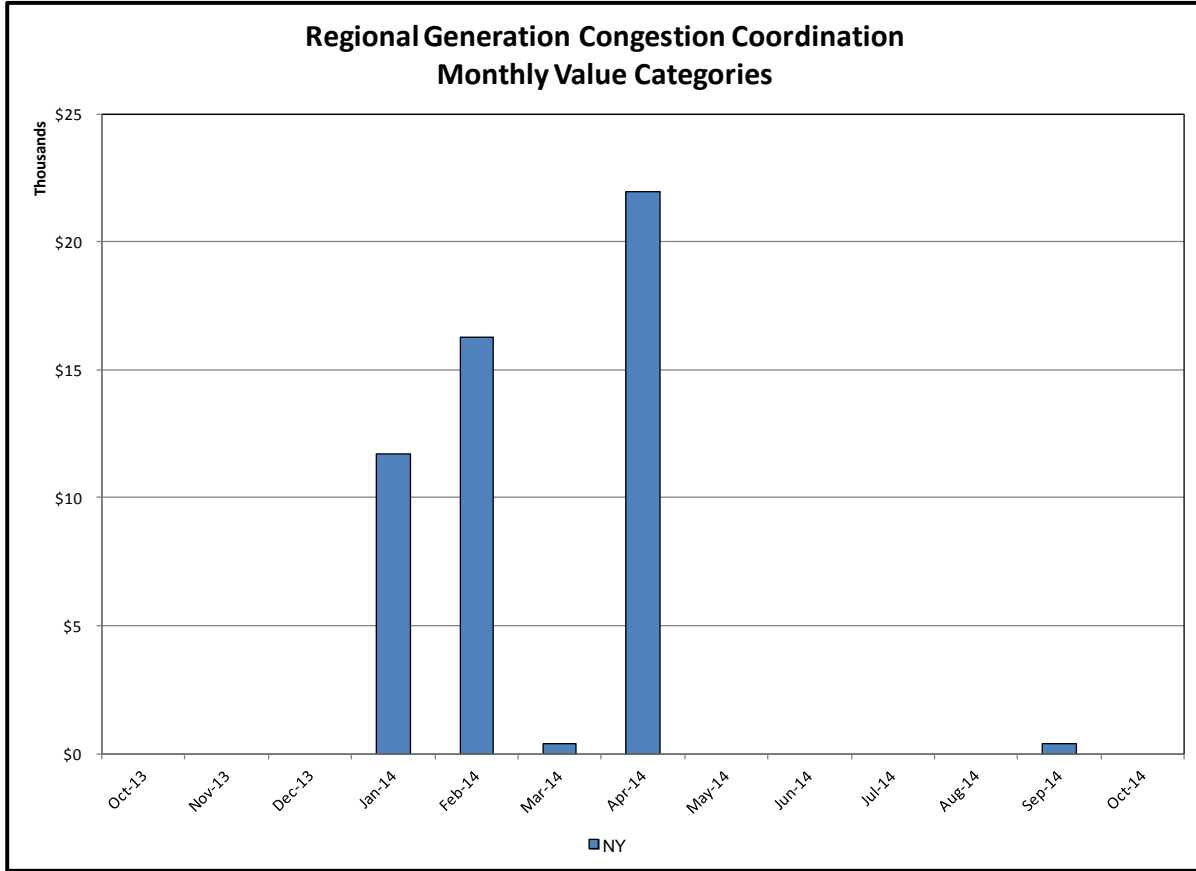


Broader Regional Market Performance Metrics



Ramapo Interconnection Congestion Coordination

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



Regional Generation Congestion Coordination

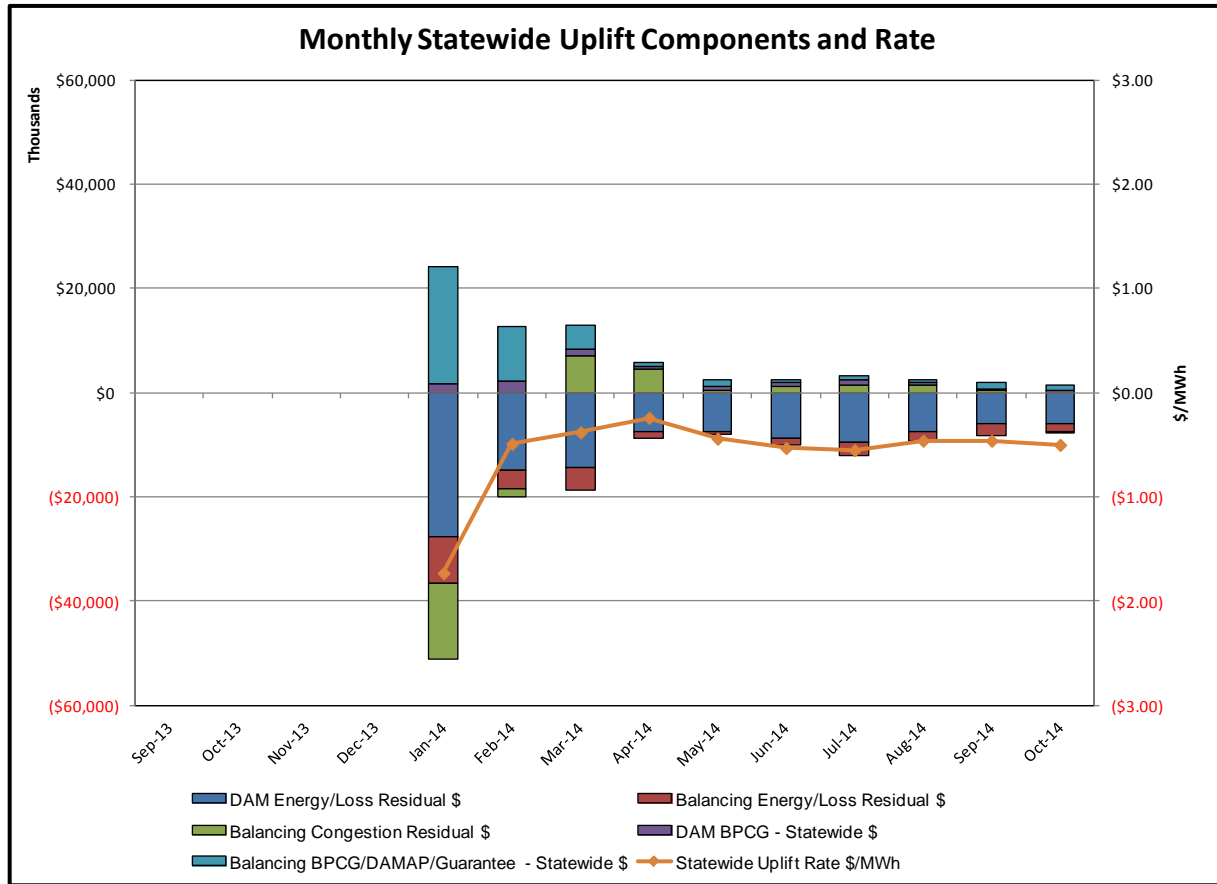
Category

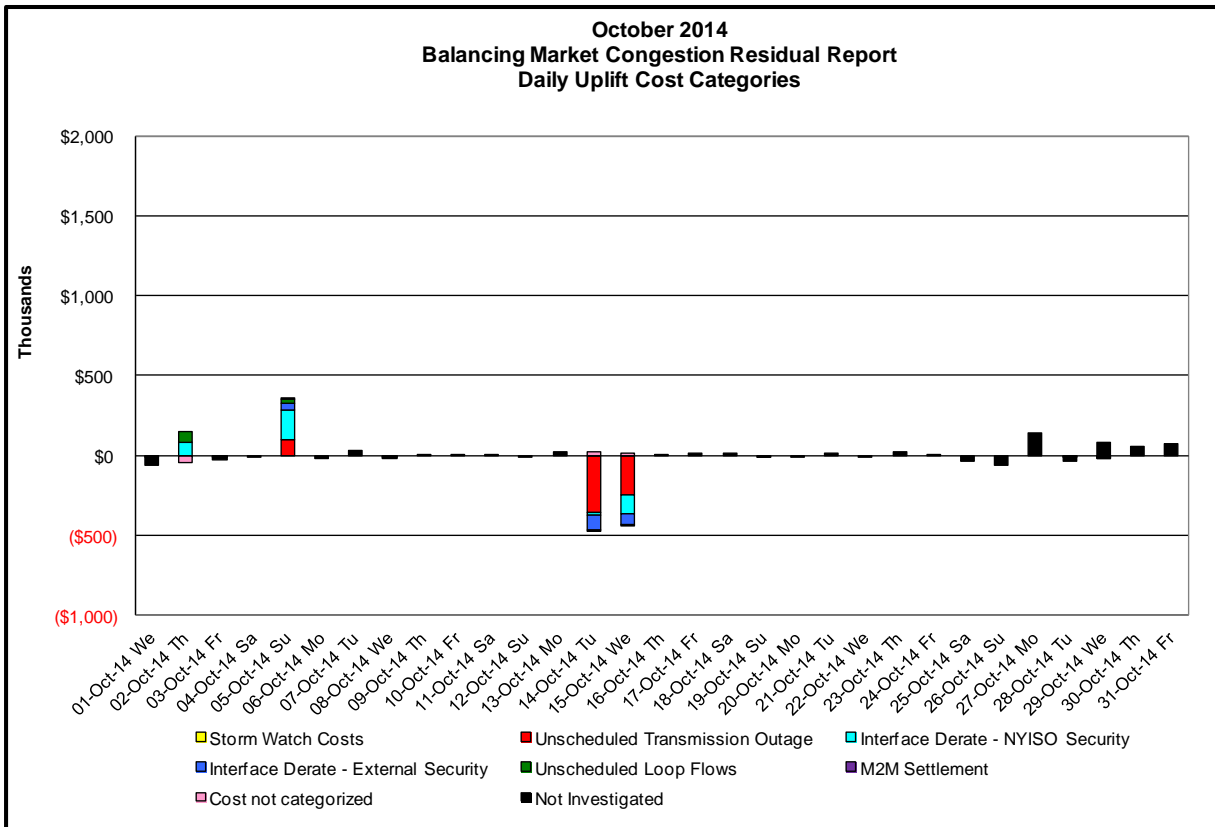
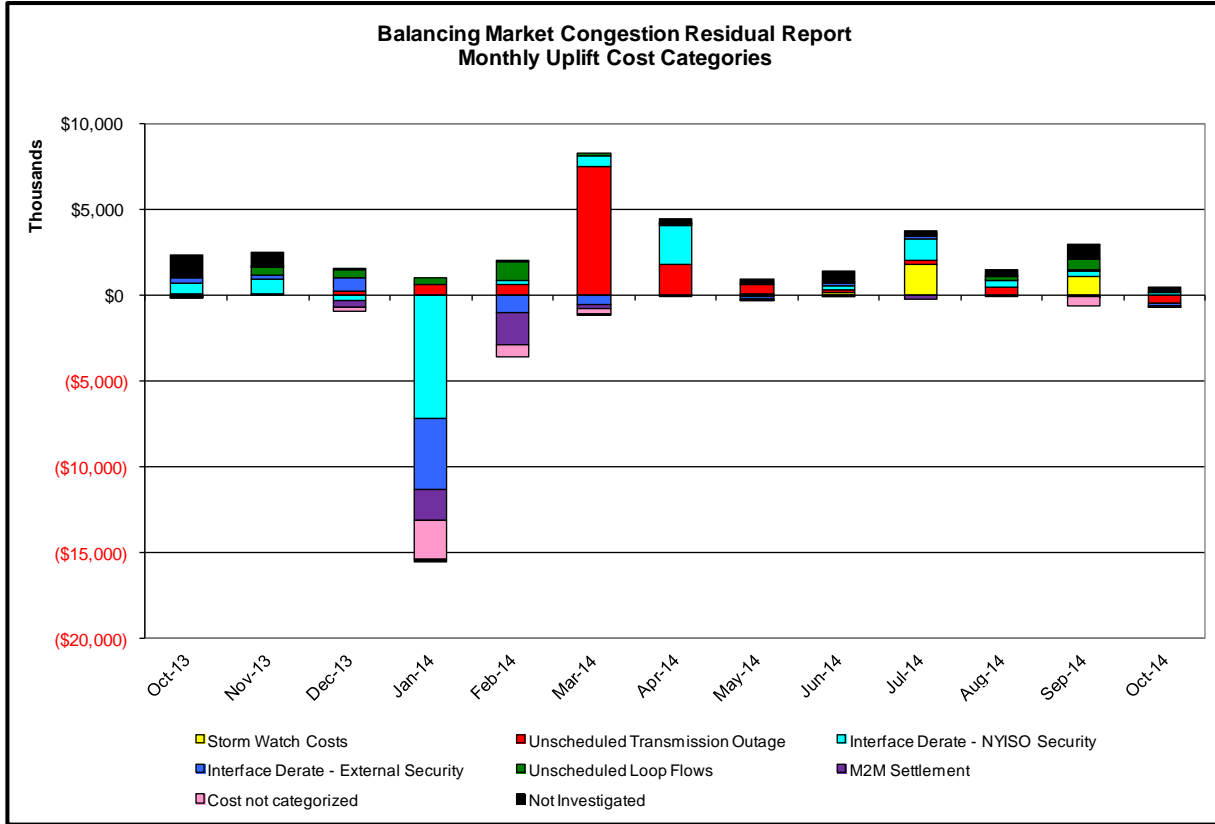
NY

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





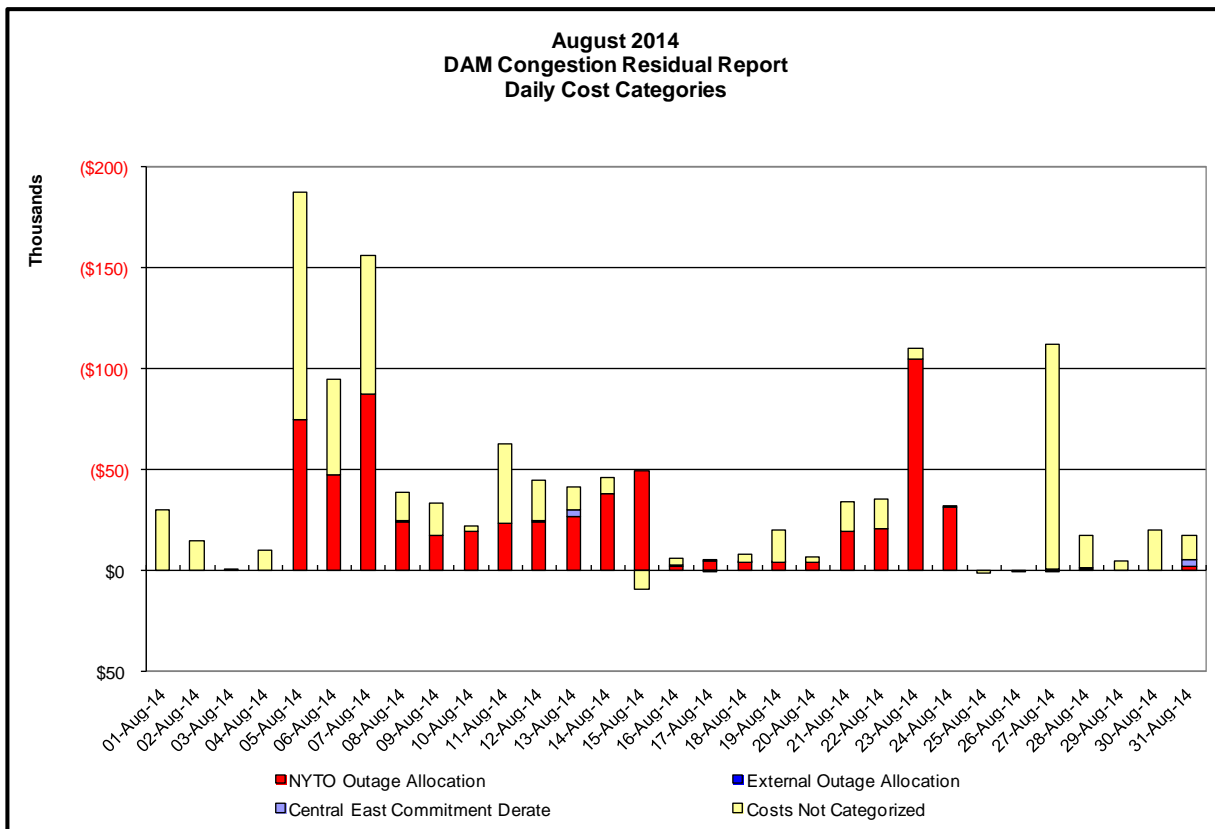
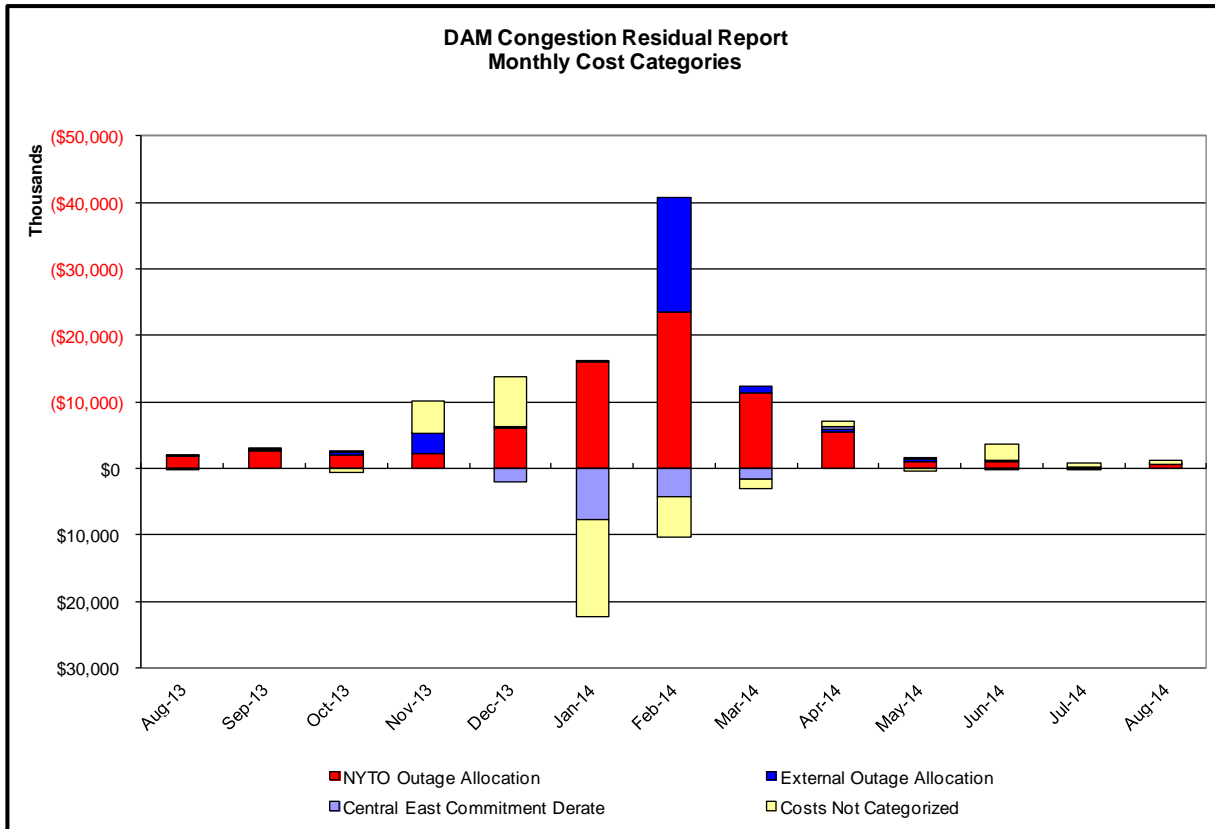
Event	Date (yyyymmdd)	Hours	Description
	10/2/2014	13-15	Derate Niagara-Packard 230kV (#61) for I/o TWR:PACKARD 62 & BP76
	10/2/2014	14-15	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Niagara-Packard 230kV (#61)
	10/5/2014	8-13,17-19	Forced outage Gilboa-Fraser 345kV (#GF5-35)
	10/5/2014	8-11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

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

<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
Storm Watch	Zone J	Thunderstorm Alert (TSA)	TSA Activations
Unscheduled Transmission Outage	Market-wide	Reduction in DAM to RTM transfers related to unscheduled transmission outage	Forced Line Outage, Unit AVR Outages
Interface Derate - NYISO Security	Market-wide	Reduction in DAM to RTM transfers not related to transmission outage	Interface Derates due to RTM voltages
Interface Derate - External Security	Market-wide	Reduction in DAM to RTM transfers related to External Control Area Security Events	TLR Events, External Transaction Curtailments
Unscheduled Loop Flows	Market-wide	Changes in DAM to RTM unscheduled loop flows impacting NYISO Interface transmission constraints	DAM to RTM Clockwise Lake Erie Loop Flows greater than 125 MW
M2M Settlement	Market-wide	Settlement result inclusive of coordinated redispatch and Ramapo flowgates	

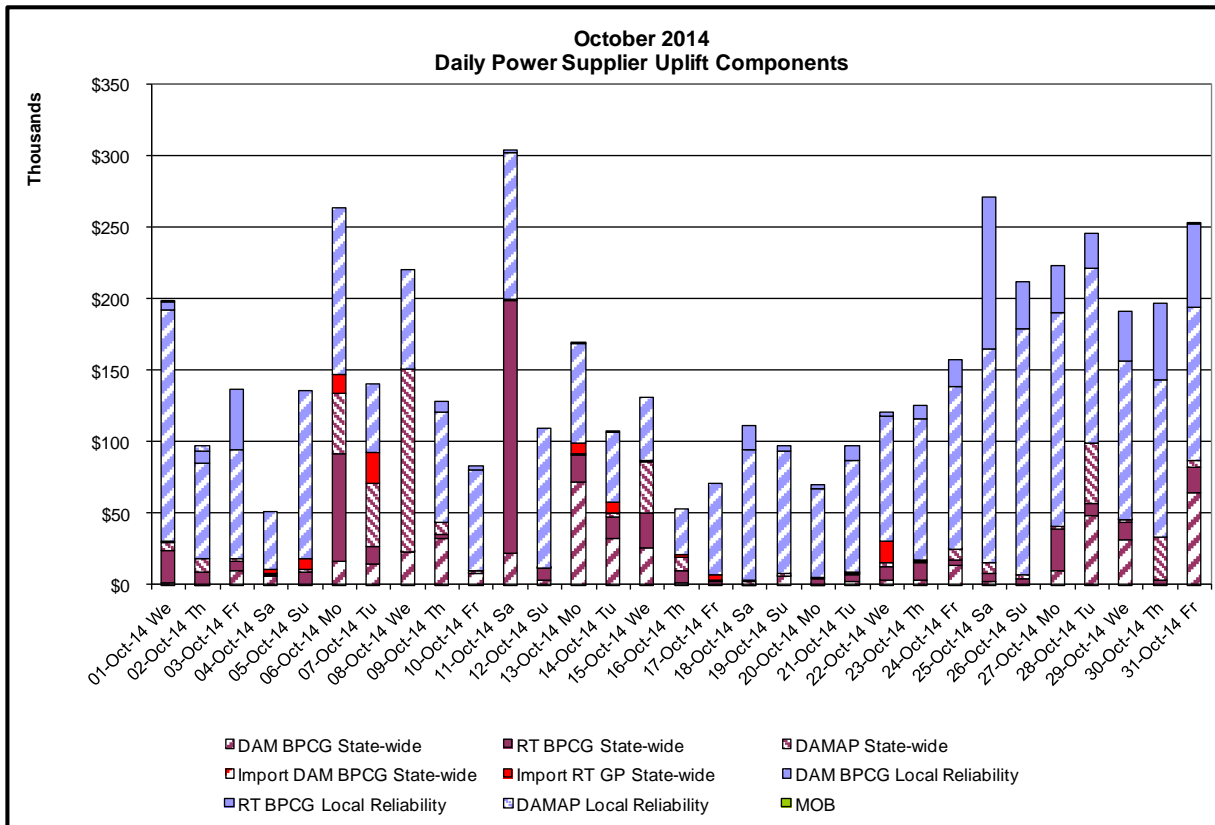
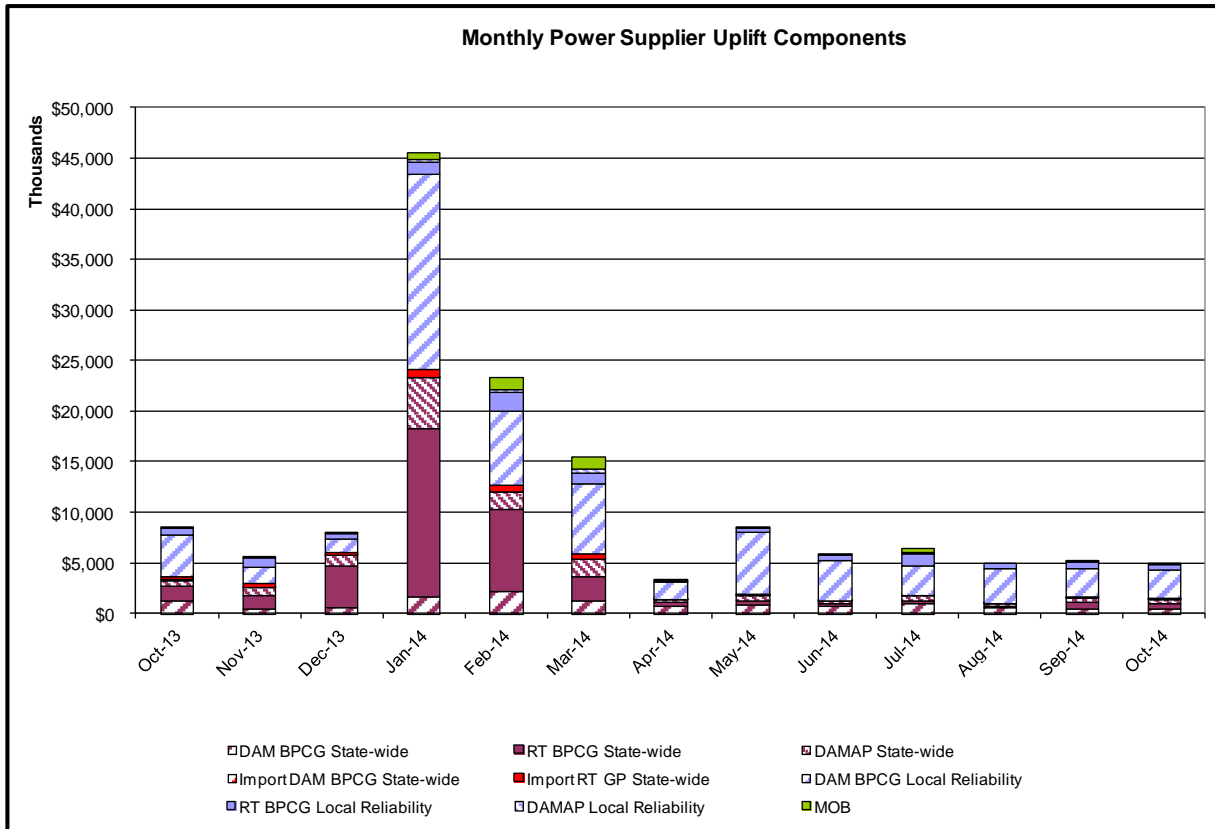
Monthly Balancing Market Congestion Report Assumptions/Notes

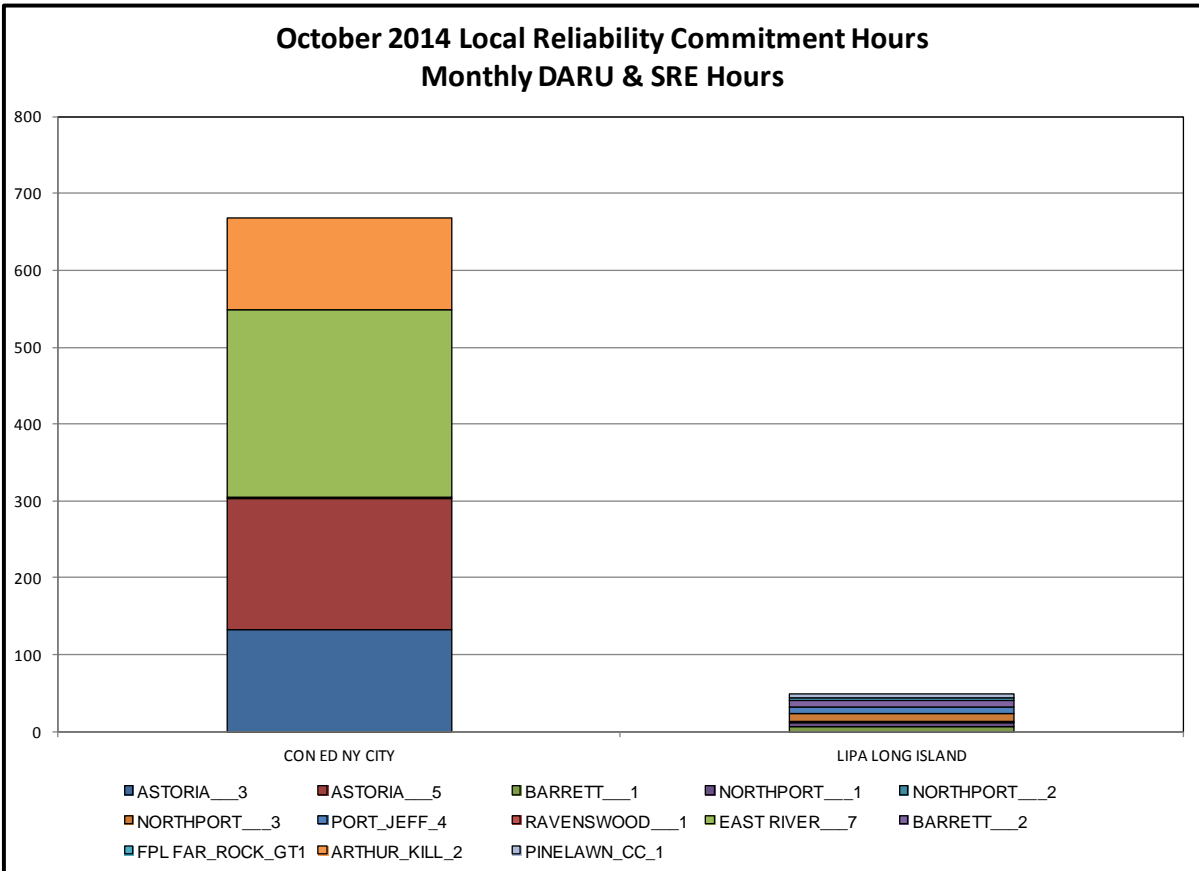
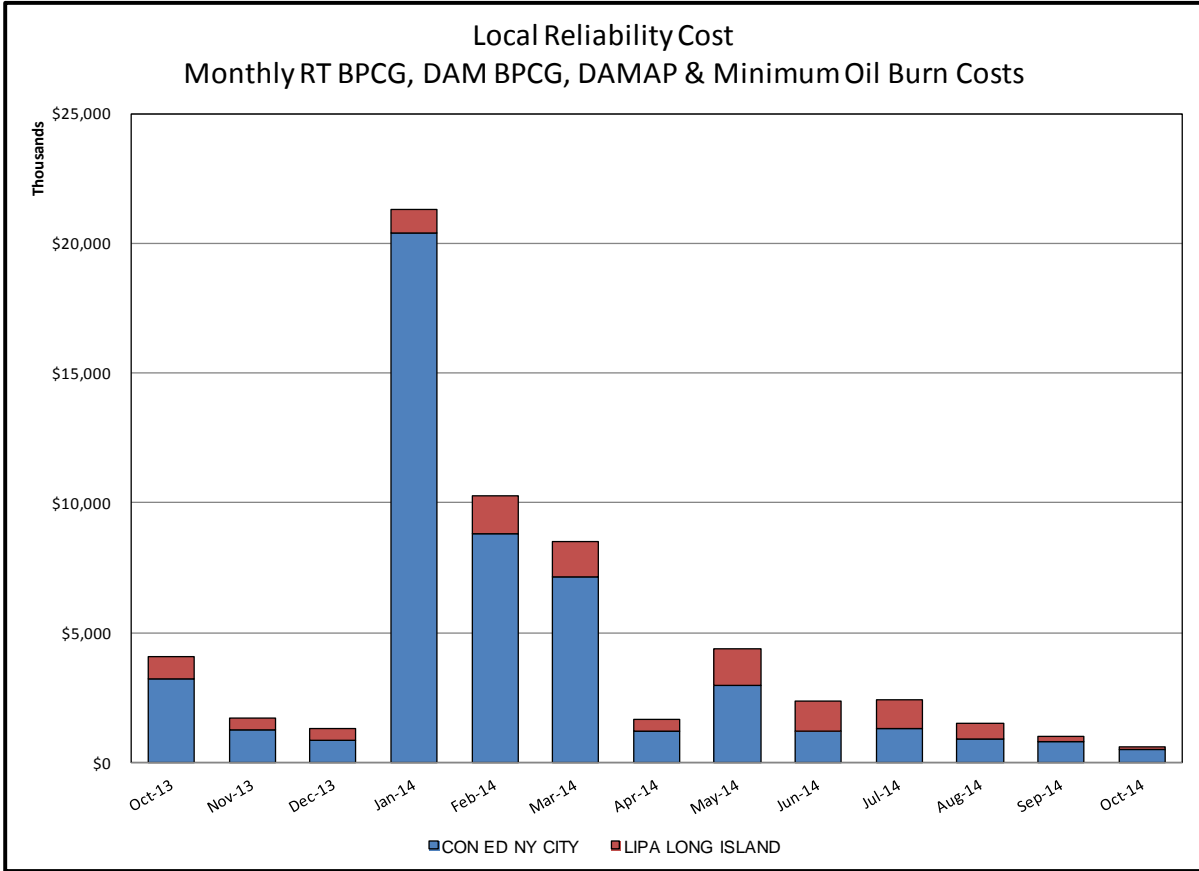
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

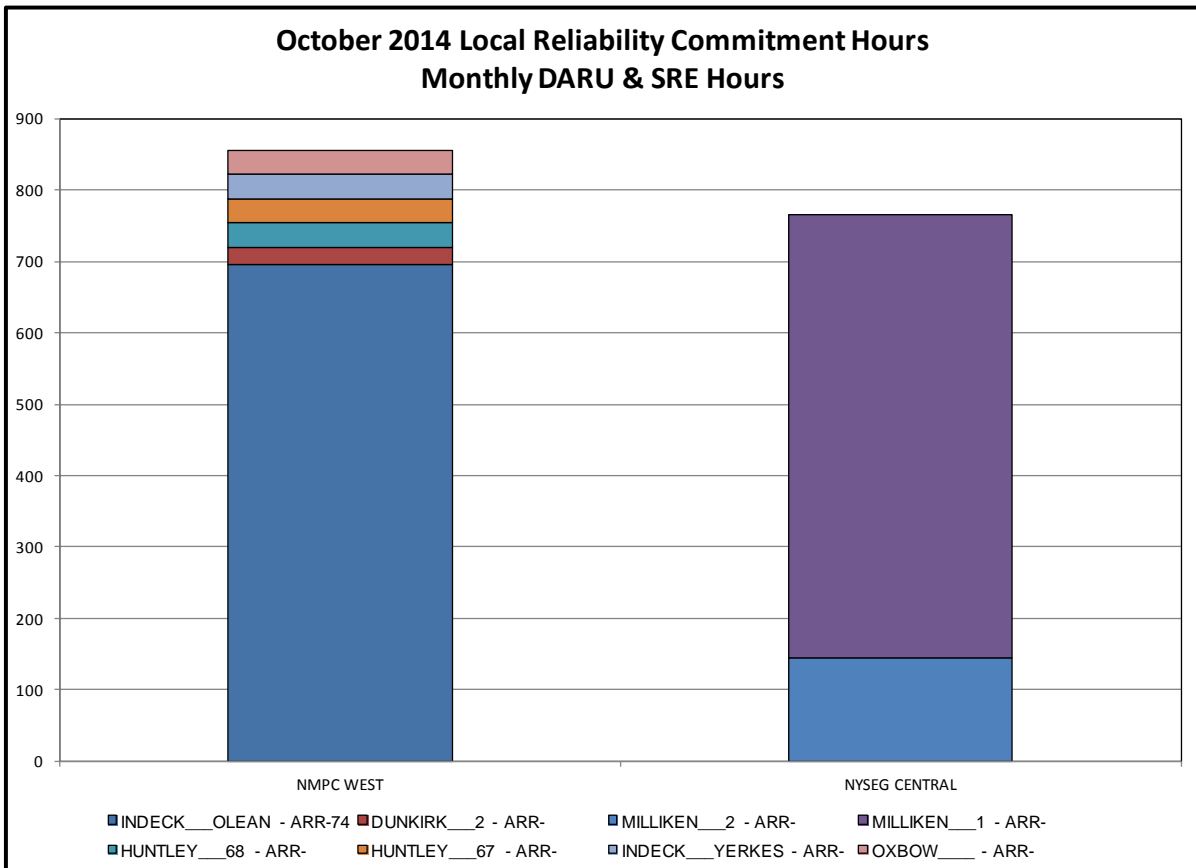
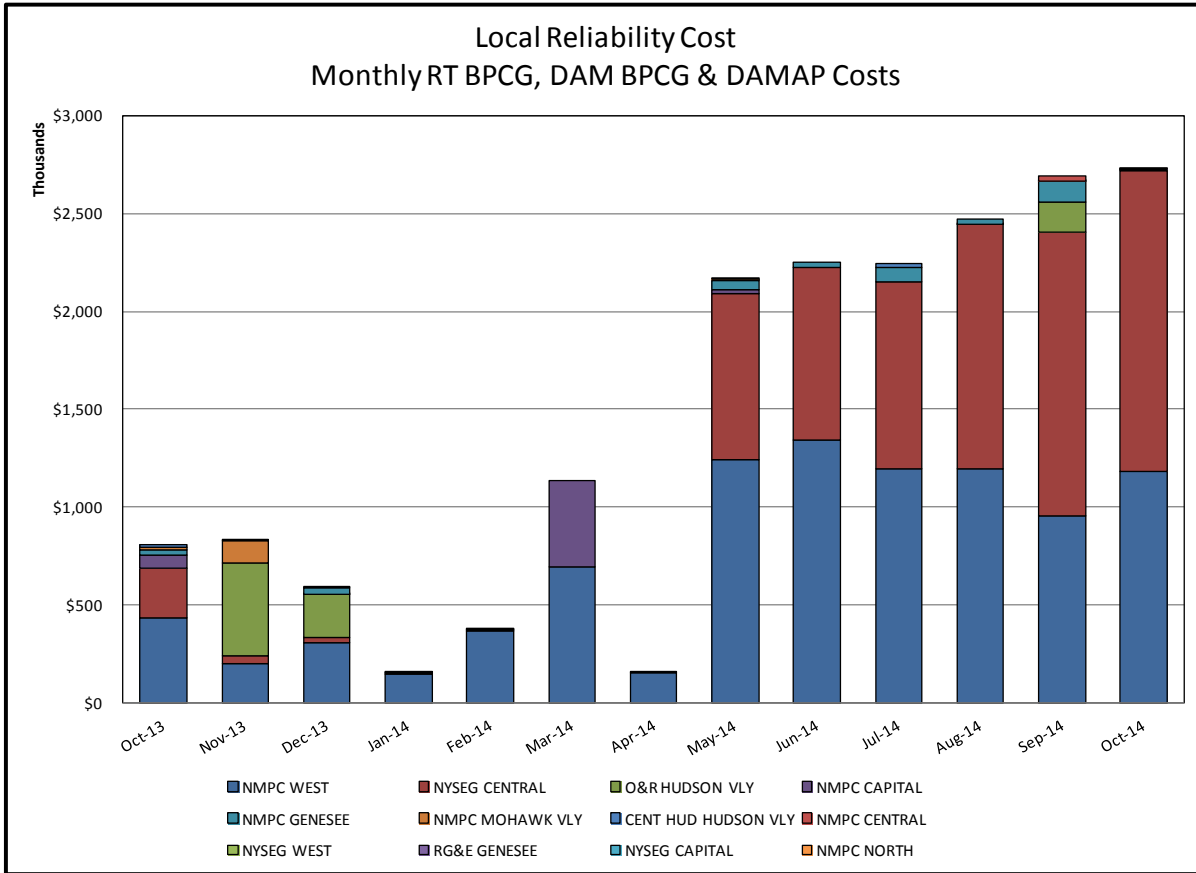


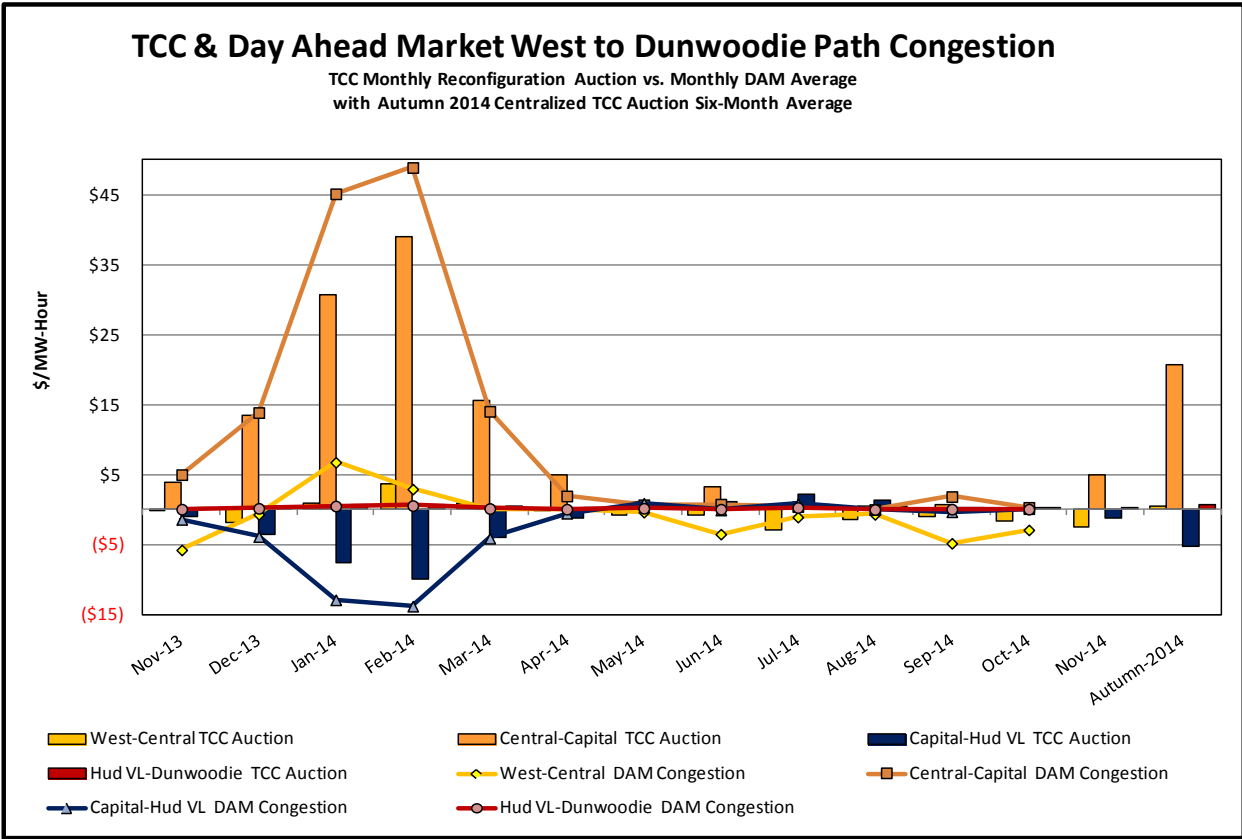
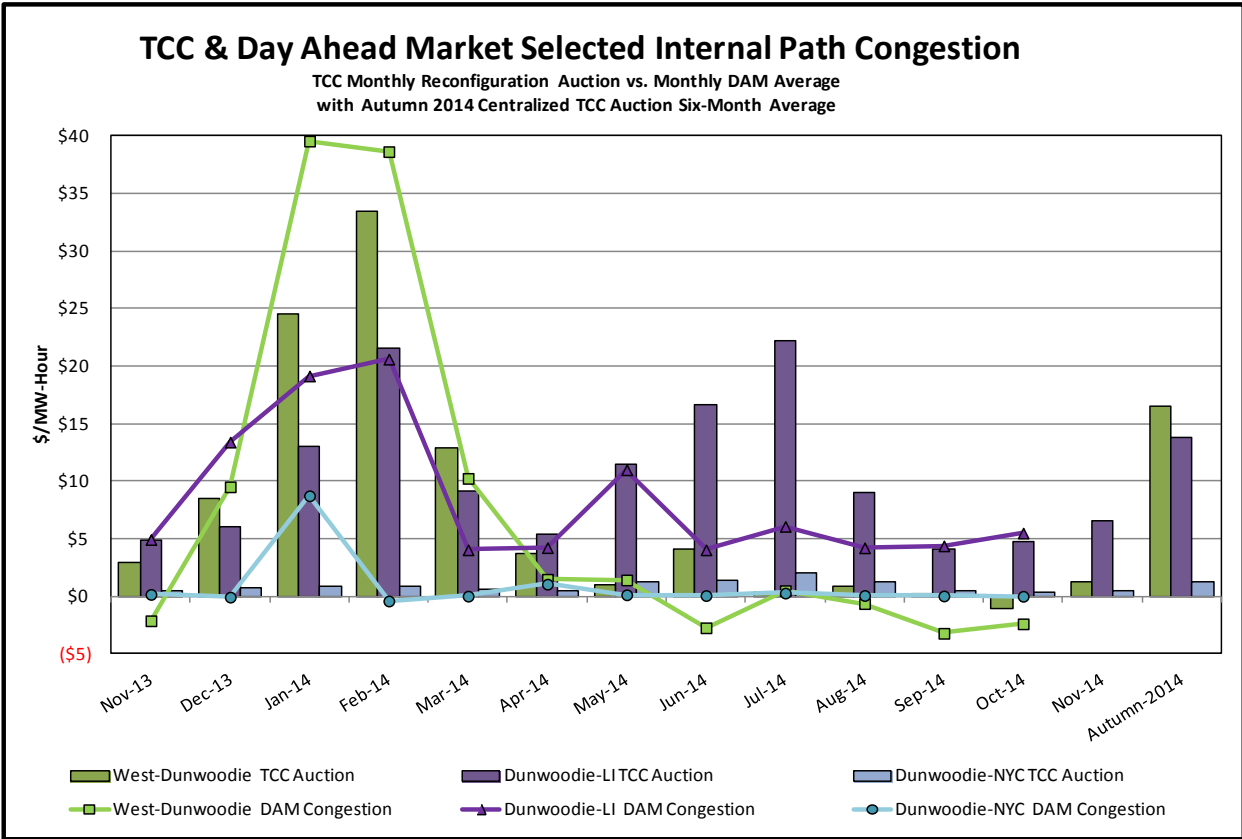
Day-Ahead Market Congestion Residual Categories

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









TCC & Day Ahead Market Selected External Path Congestion

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

