

Operations Performance Metrics Monthly Report



February 2011 Report

Operations & Reliability Department New York Independent System Operator

Prepared by NYISO Operations Analysis and Services, based on settlements initial invoice data obtained on or before March 9.

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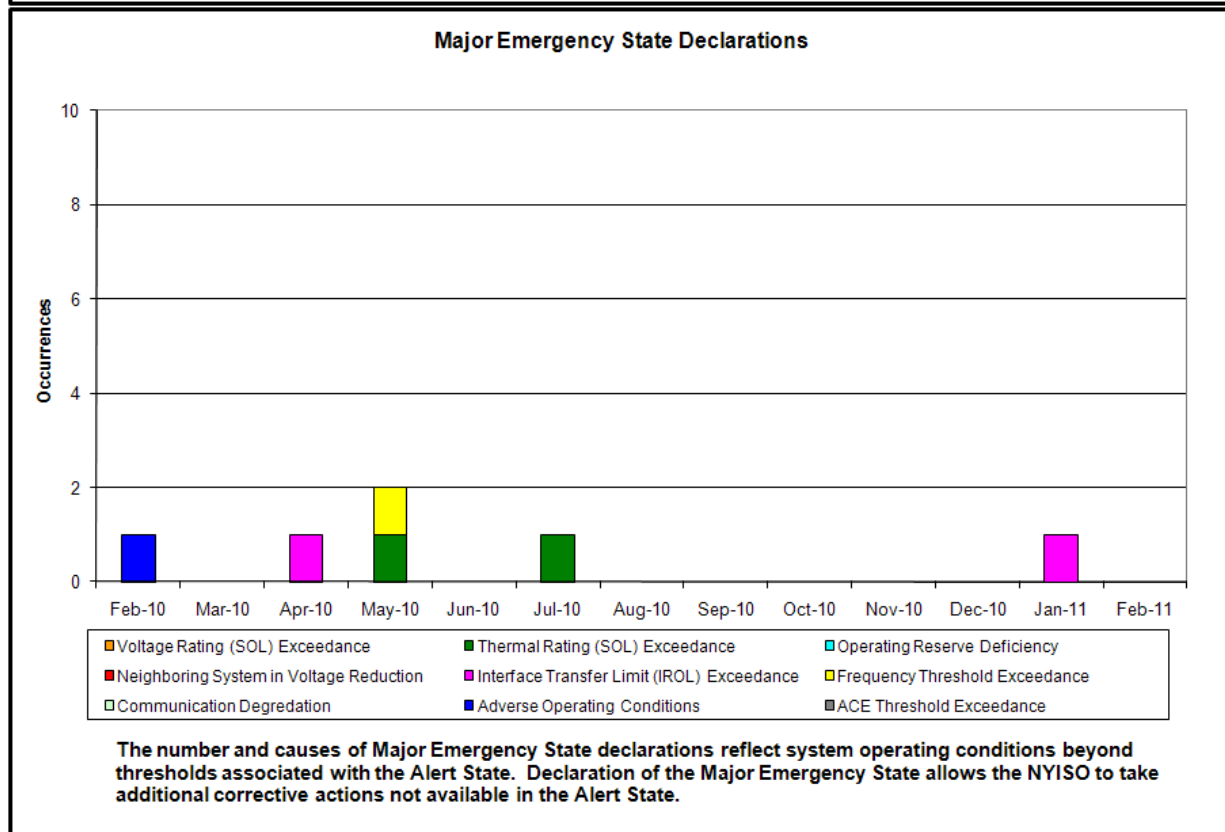
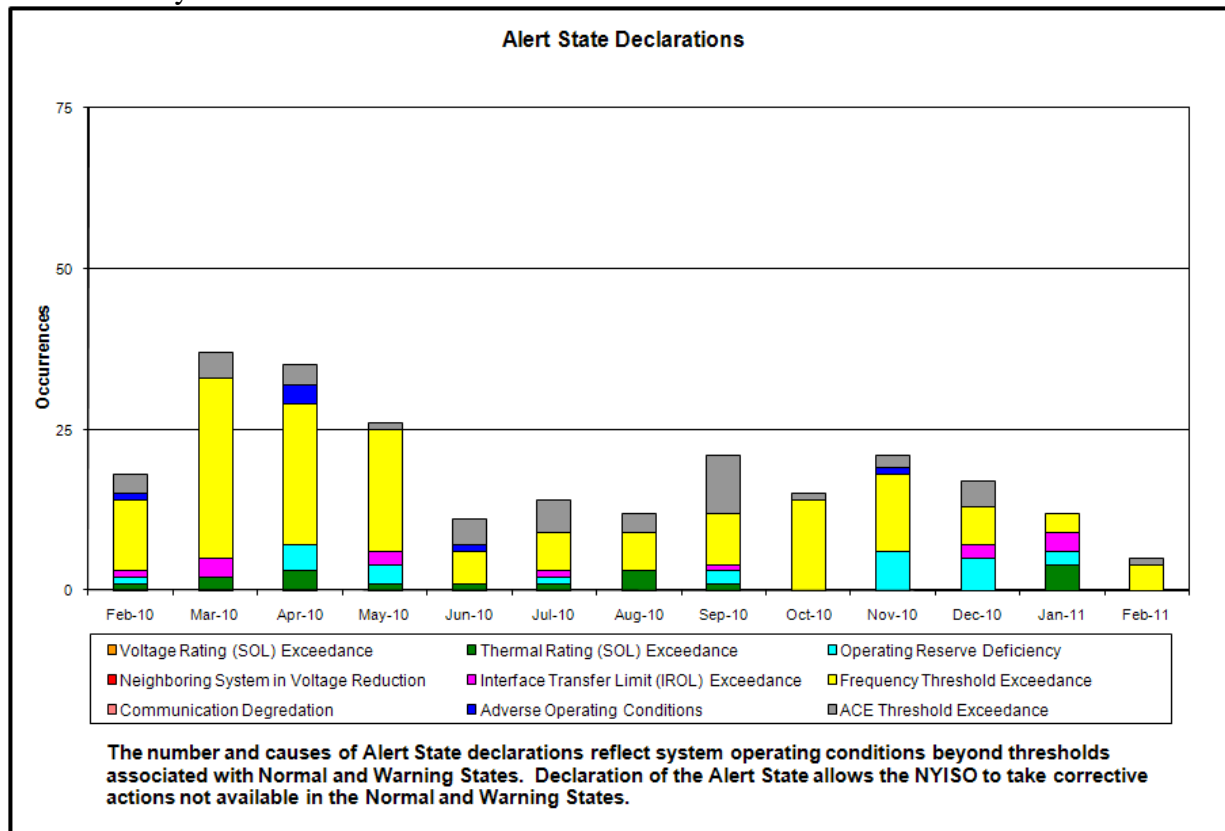
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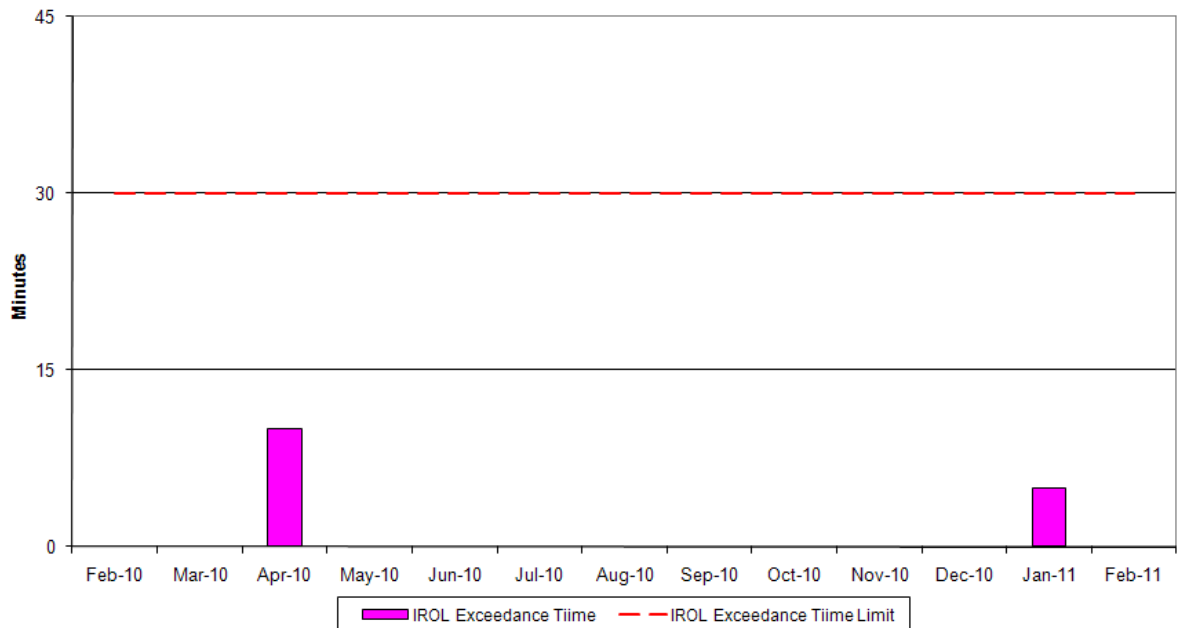
February 2011 Operations Performance Highlights

- Monthly Peak load of 23,443 MW occurred on February 1 HB 18
- All-time winter capability period peak load of 25,541 MW occurred on 12/20/2004 HB17
- **Decreased Clockwise Lake Erie Loop Flows**
 - Decreased IESO to MISO exports
 - Increased PJM to MISO exports
 - 128 hours of NERC TLR level 3 curtailments
- **Scheduled Outage of Rochester-Pannell Road 345kV circuit**
 - Minimal uplift/congestion impacts
 - ISO/RG&E actions to mitigate congestion

- Reliability Performance Metrics

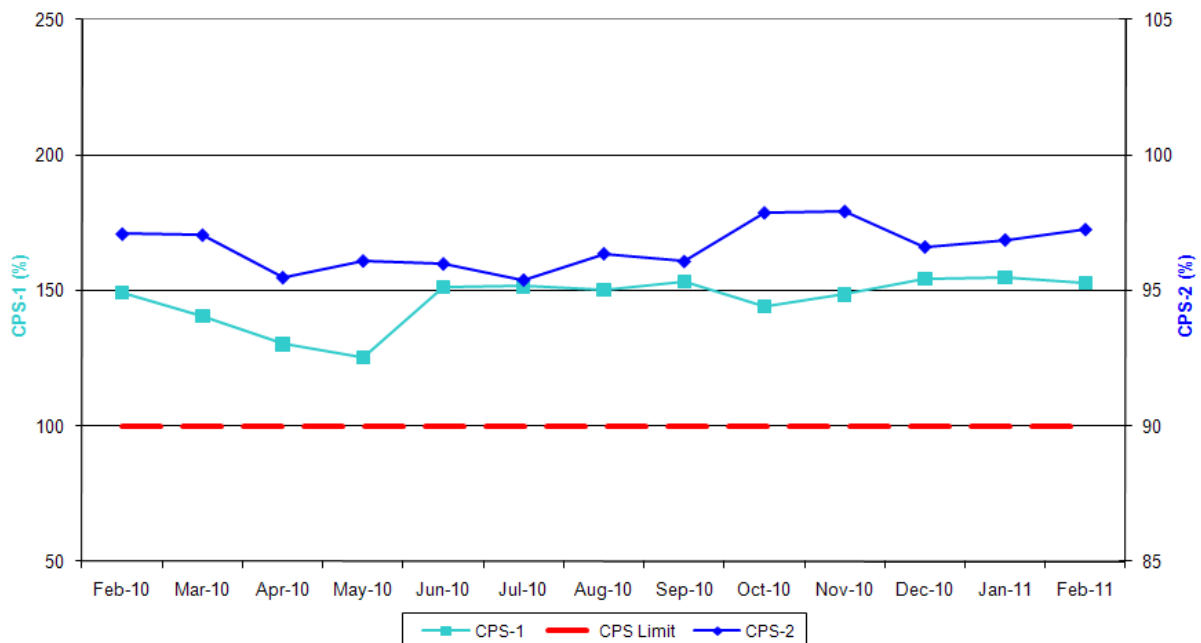


NERC IROL Time Over Limit



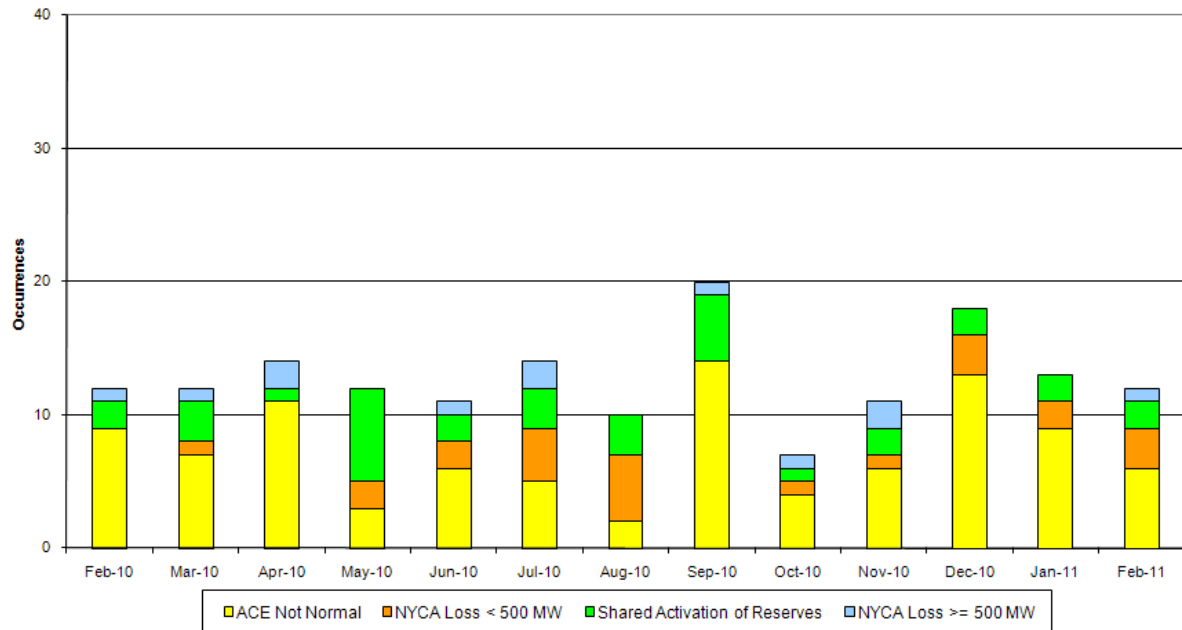
For IROL exceedances leading to Major Emergency State declarations, the maximum IROL exceedance time is identified. IROL exceedances of less than thirty minutes are considered NERC compliant.

NERC Control Performance Standards



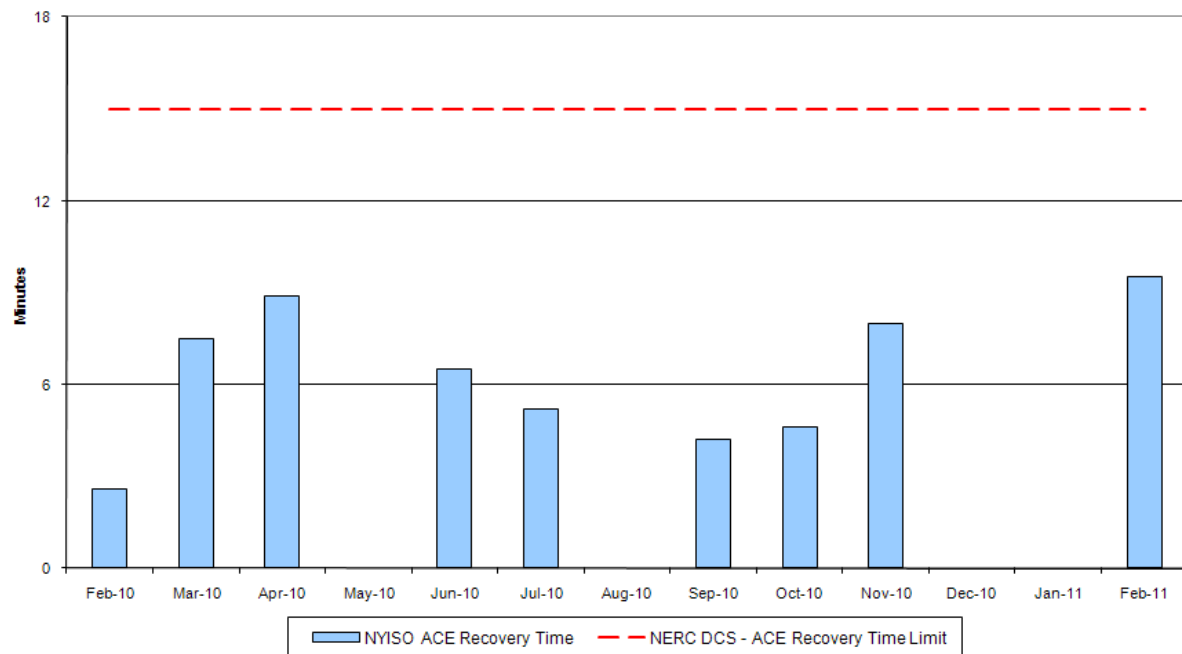
The values of NERC Control Performance Standards (CPS-1 and CPS-2) are indicators of the NYISO Area resource and demand balancing. Values exceeding the identified thresholds are NERC compliant.

Reserve Activations



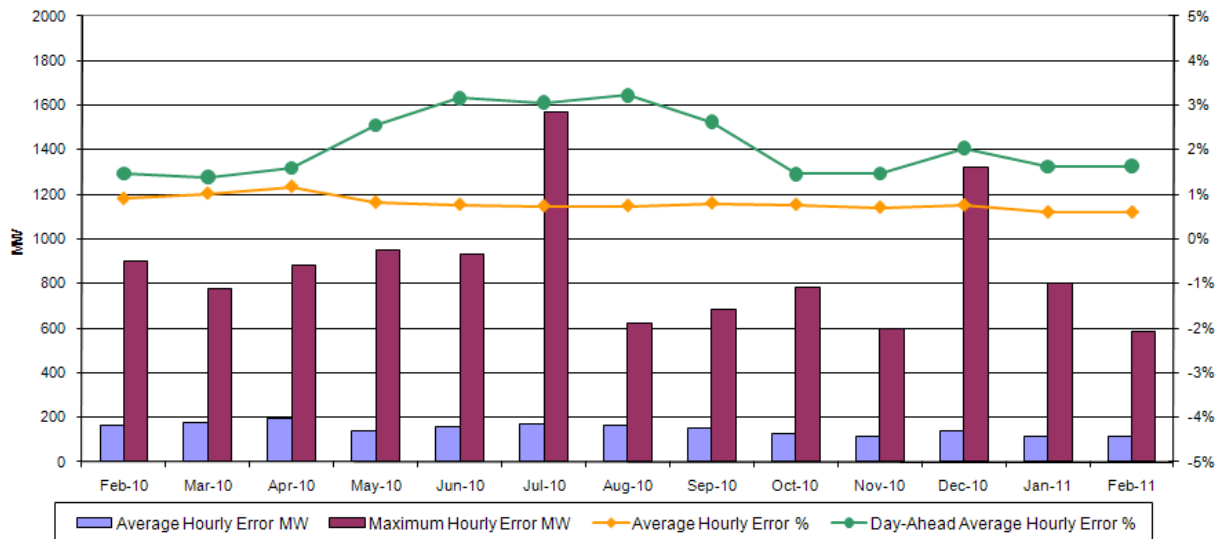
NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Shared Activation of Reserves) by activating an immediate resource and demand balancing operation.

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

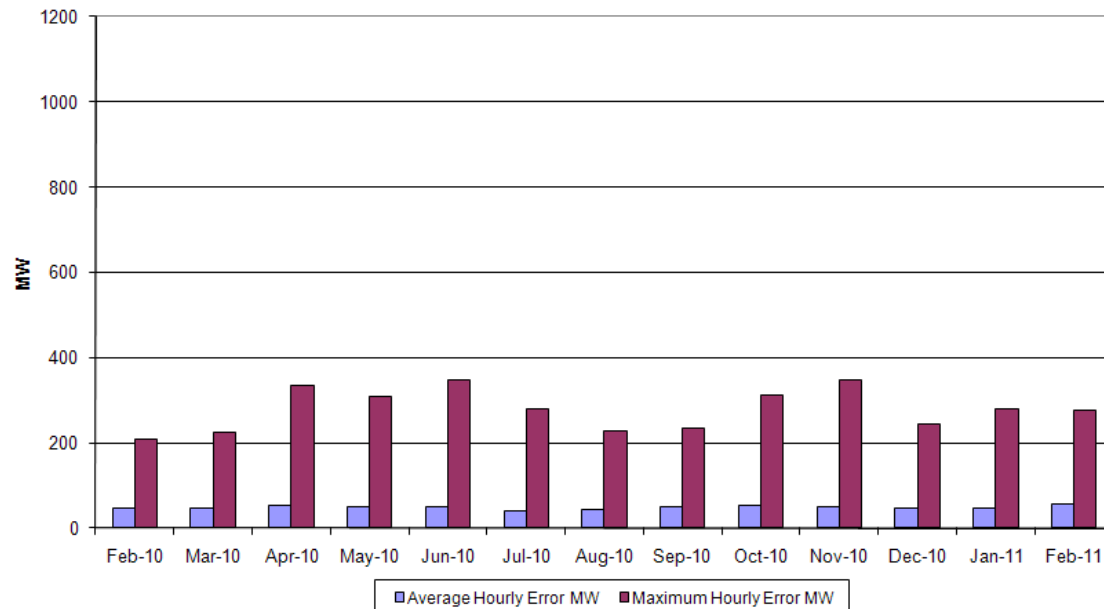


Hourly Error MW - Absolute value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.

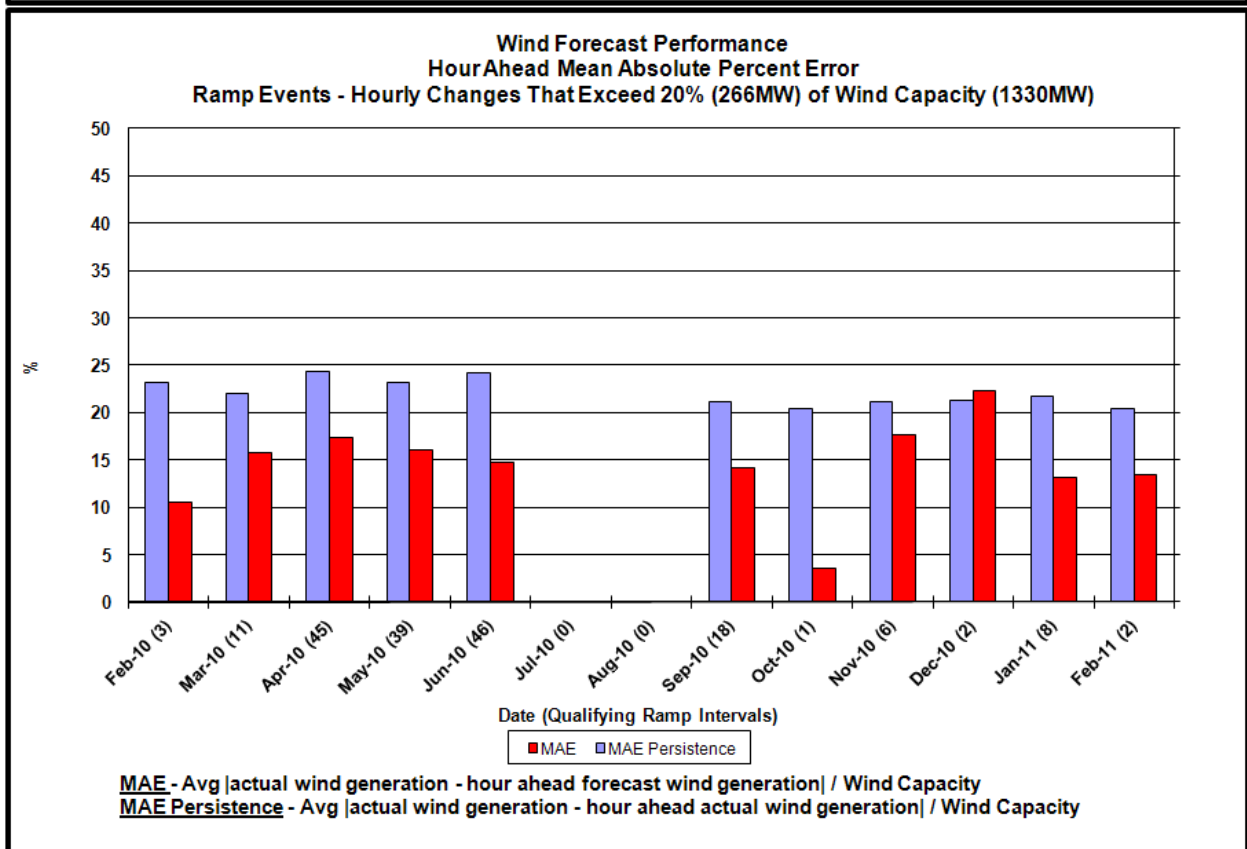
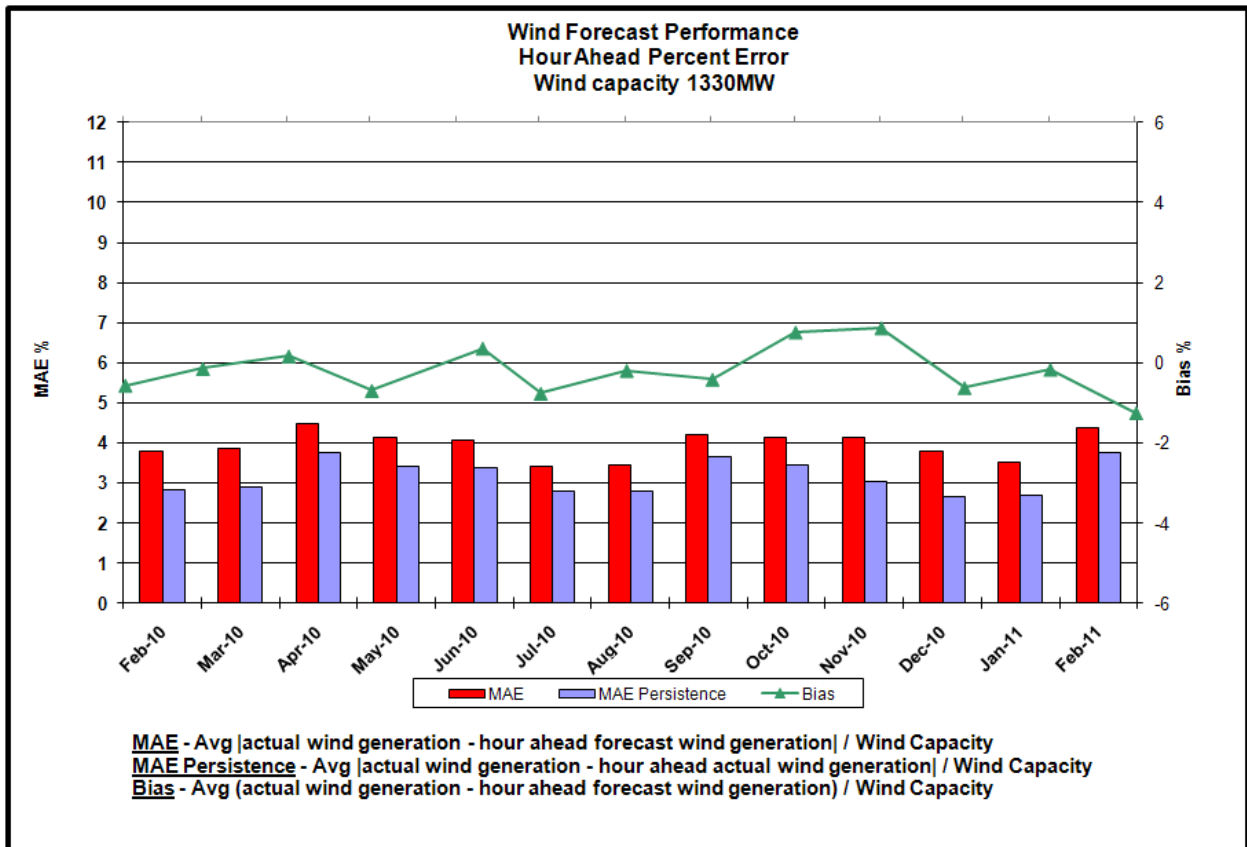
Average Hourly Error % - Average value of the ratio of hourly average error magnitude to hourly average actual load demand.

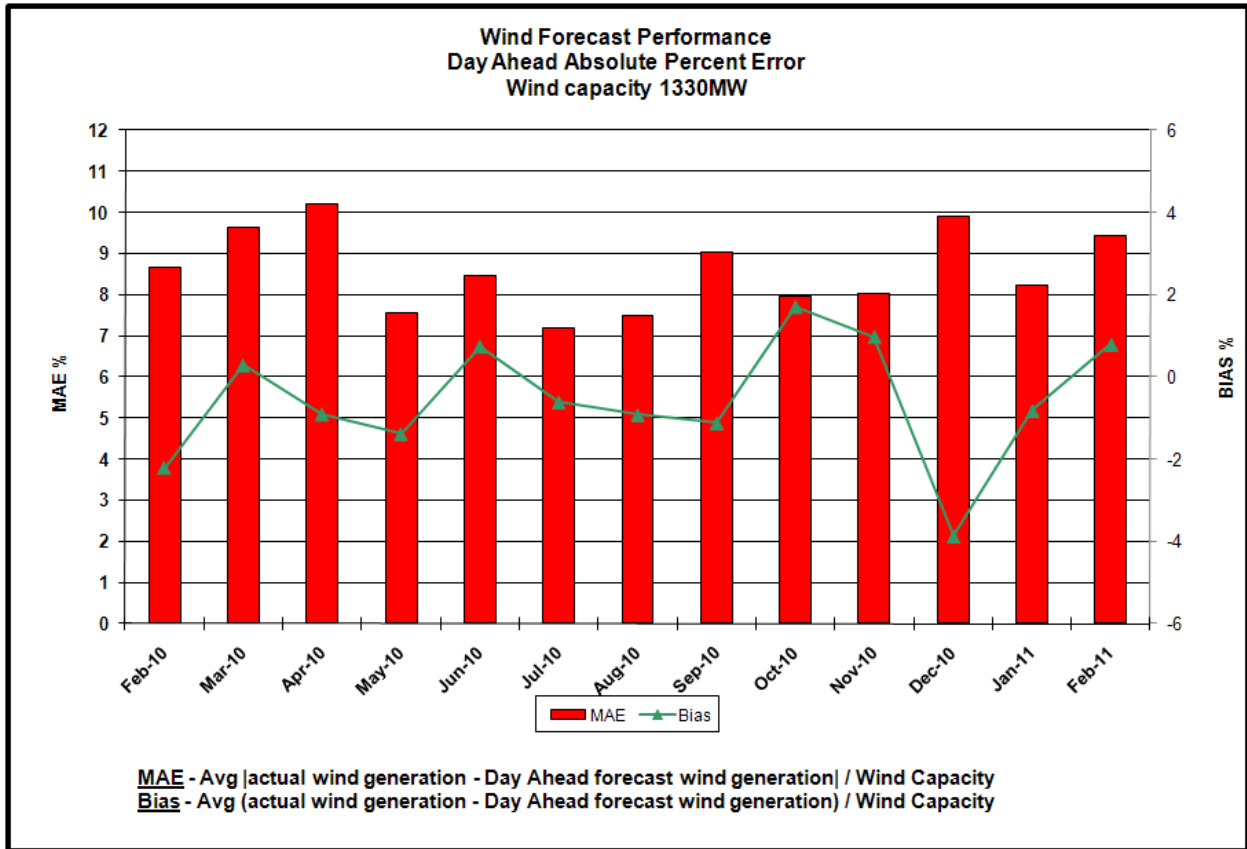
Day-Ahead Average Hourly Error % - Average across all hours of the month of the absolute value of the difference between actual load demand and the Day-Ahead forecast load demand, divided by the actual load demand.

Wind Forecast Performance HourAhead MW Error

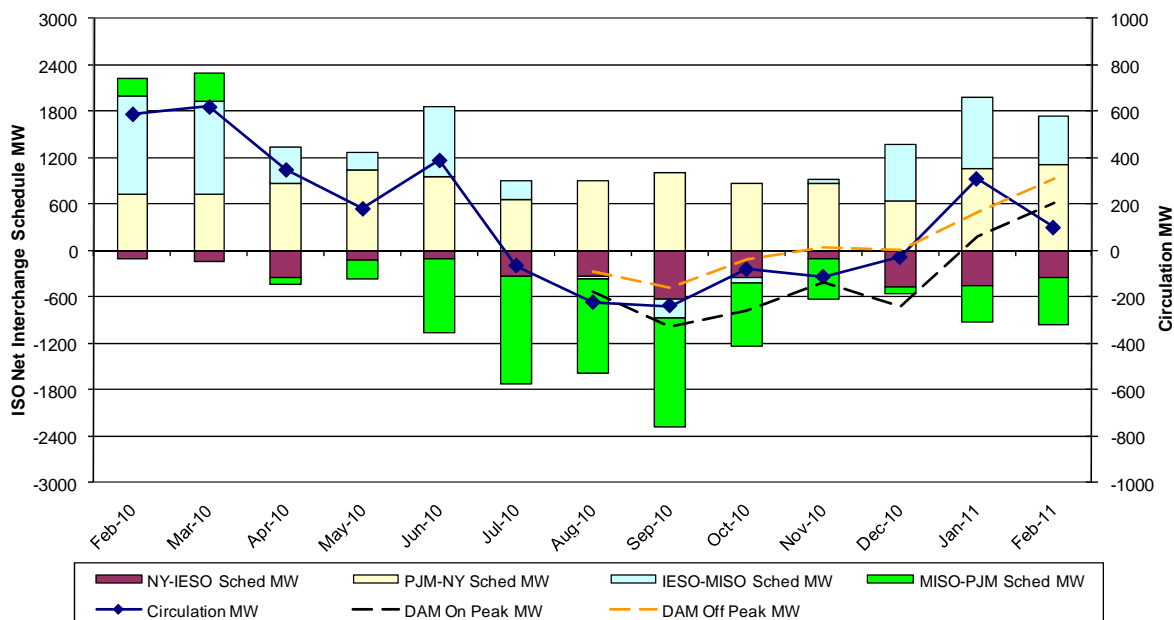


Hourly Error MW - Absolute value of the difference between the hourly average actual wind generation and the average hour ahead forecast wind generation.



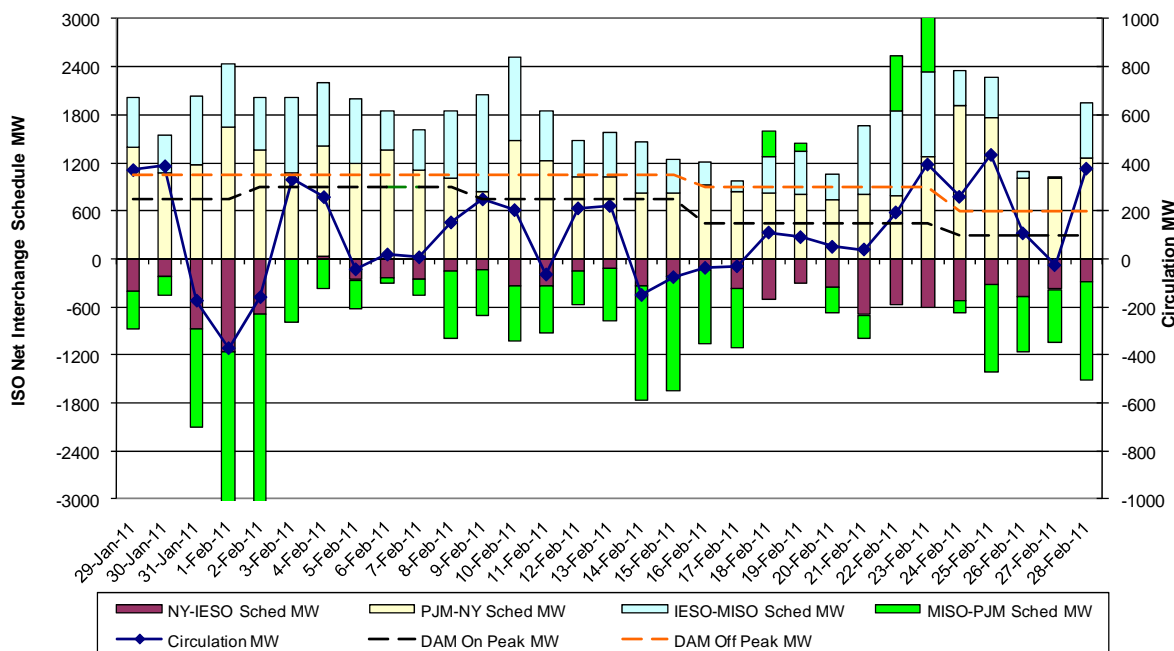


**Lake Erie Circulation and ISO Net Interchange Schedules
Monthly Averages**



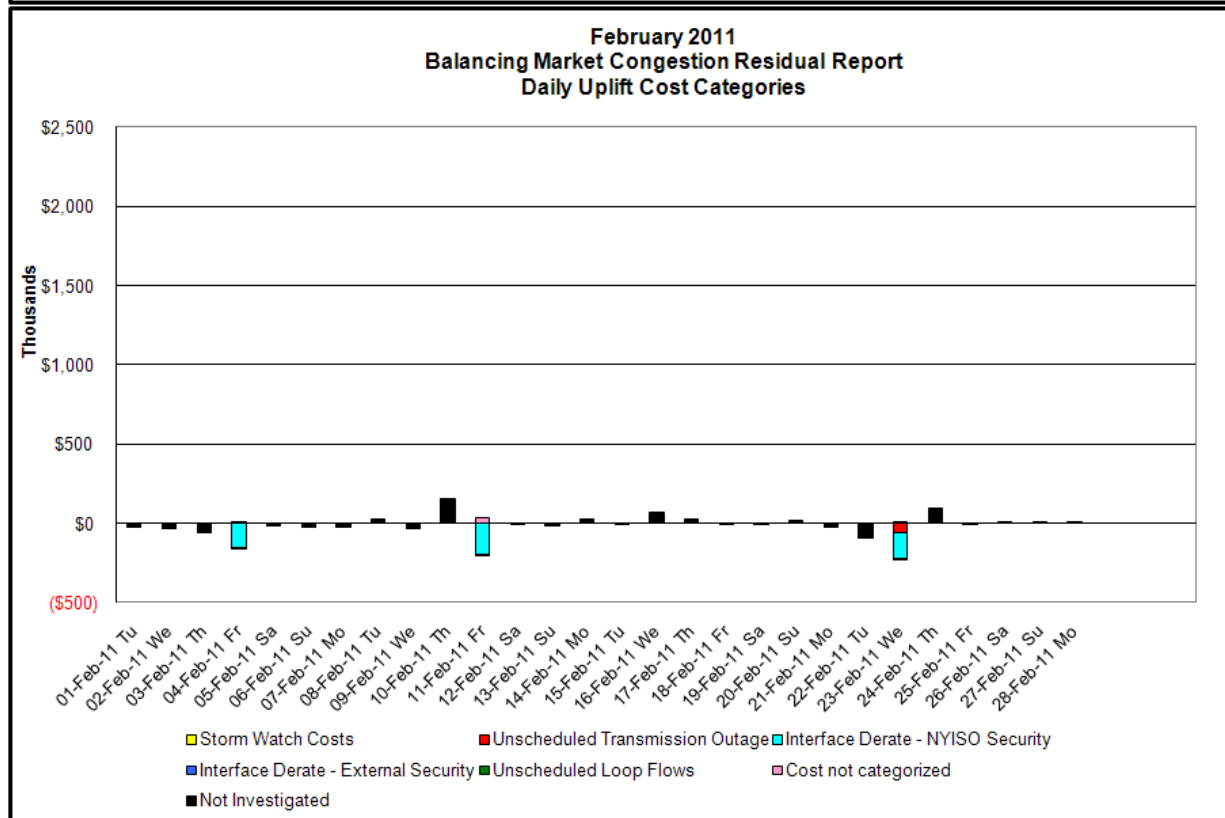
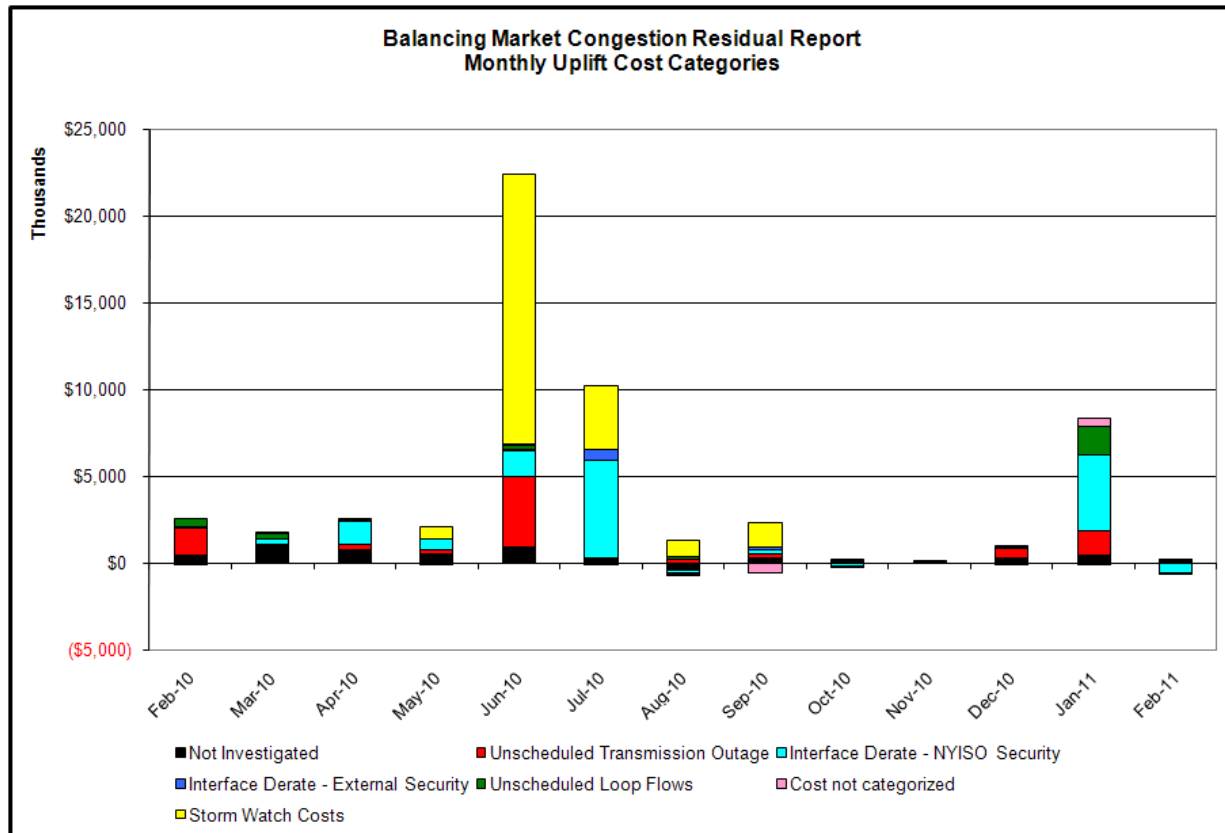
Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

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



Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

Market Performance Metrics



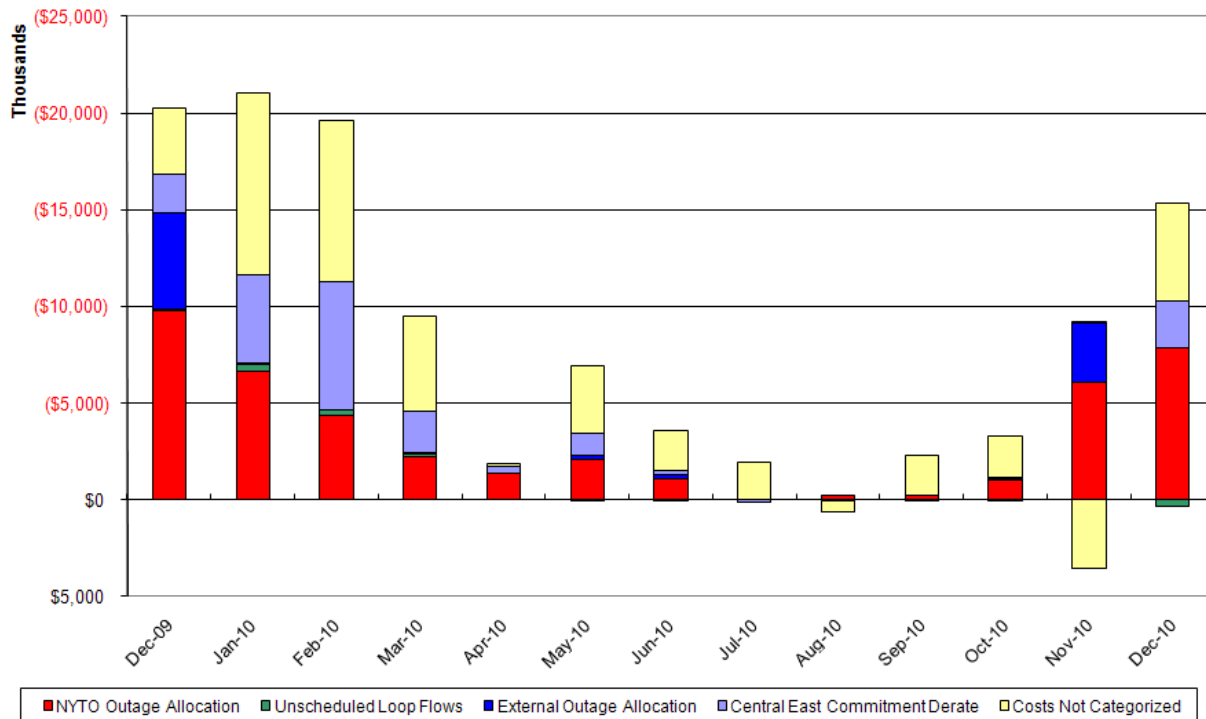
Day's investigated in February: 4,11,23

Event	Date (yyyymmdd)	Hours	Description
	2/4/2011	11-12,17	Uprate Mott Haven-Dunwoodie 345kV (#71) for I/o Mott Haven-Dunwoodie 345kV (#72)
	2/4/2011	6-11,17,22	Uprate Central East
	2/4/2011	13,14,16	Derate Central East
	2/4/2011	8	PJM DNI Ramp Limit
	2/11/2011	7	NYCA DNI Ramp Limit
	2/11/2011	7-9	Uprate Central East
	2/11/2011	0	PJM DNI Ramp Limit
	2/11/2011	0	HQ-NYISO Scheduling Limit
	2/23/2011	9,10,12	Extended outage Athens-Pleasant Valley 345kV (#91)
	2/23/2011	1-2,9-10	Early return to service New Scotland-Edic Porter 345kV (#14)
	2/23/2011	1,2	NYCA DNI Ramp Limit
	2/23/2011	16-18,20,21	Uprate Central East
	2/23/2011	22	Derate Fox Hills-Willow Brook 138kV (#29212)
	2/23/2011	9	Uprate GoethalsS-GowanusS (#26) 345kV
	2/23/2011	10	OH-NY Scheduling Limit
	2/23/2011	14	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East

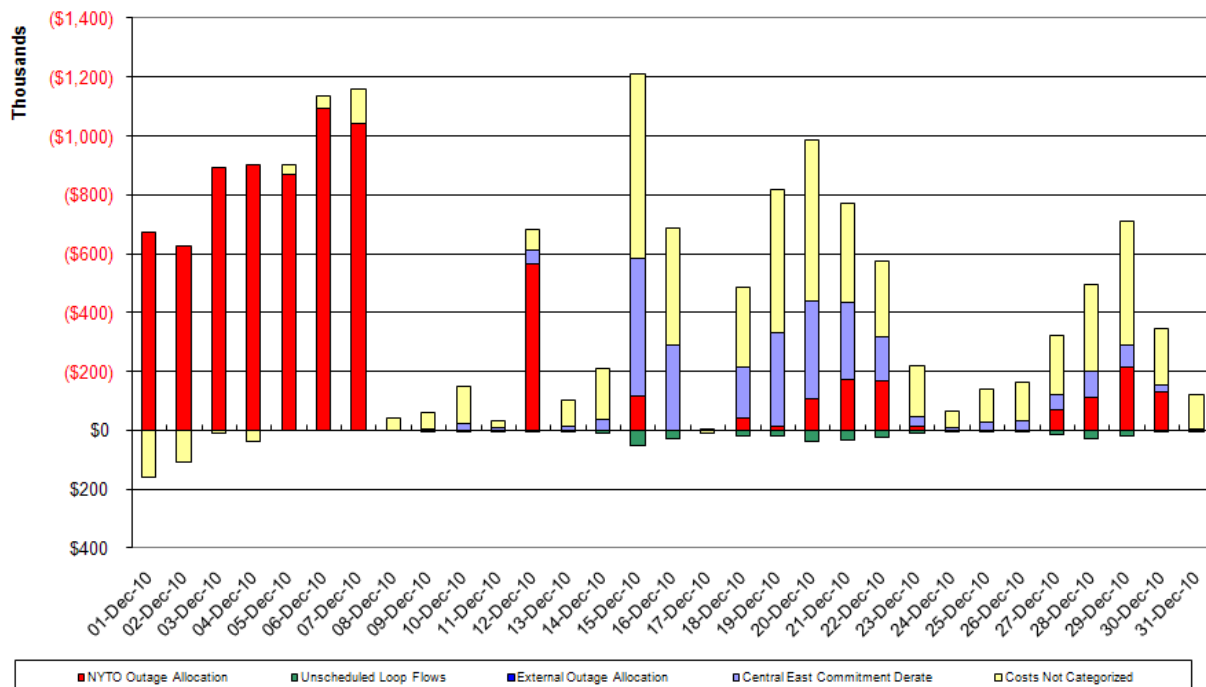
Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories

<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
<u>Monthly Balancing Market Congestion Report Assumptions/Notes</u>			
1) Storm Watch Costs are identified as daily total uplift costs			
2) At a minimum those days with \$ 100 K/HR, shortfall of \$200 K/Day or more, or surplus of \$ 100 K/Day or more are investigated			
3) Uplift costs associated with multiple event types are apportioned equally by hour			
4) Investigations began with Dec 2008. Prior months are reported as Not Investigated.			

DAM Congestion Residual Report Monthly Cost Categories



December 2010 DAM Congestion Residual Report Daily Cost Categories



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.	

