

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



## ***March 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 April 11.

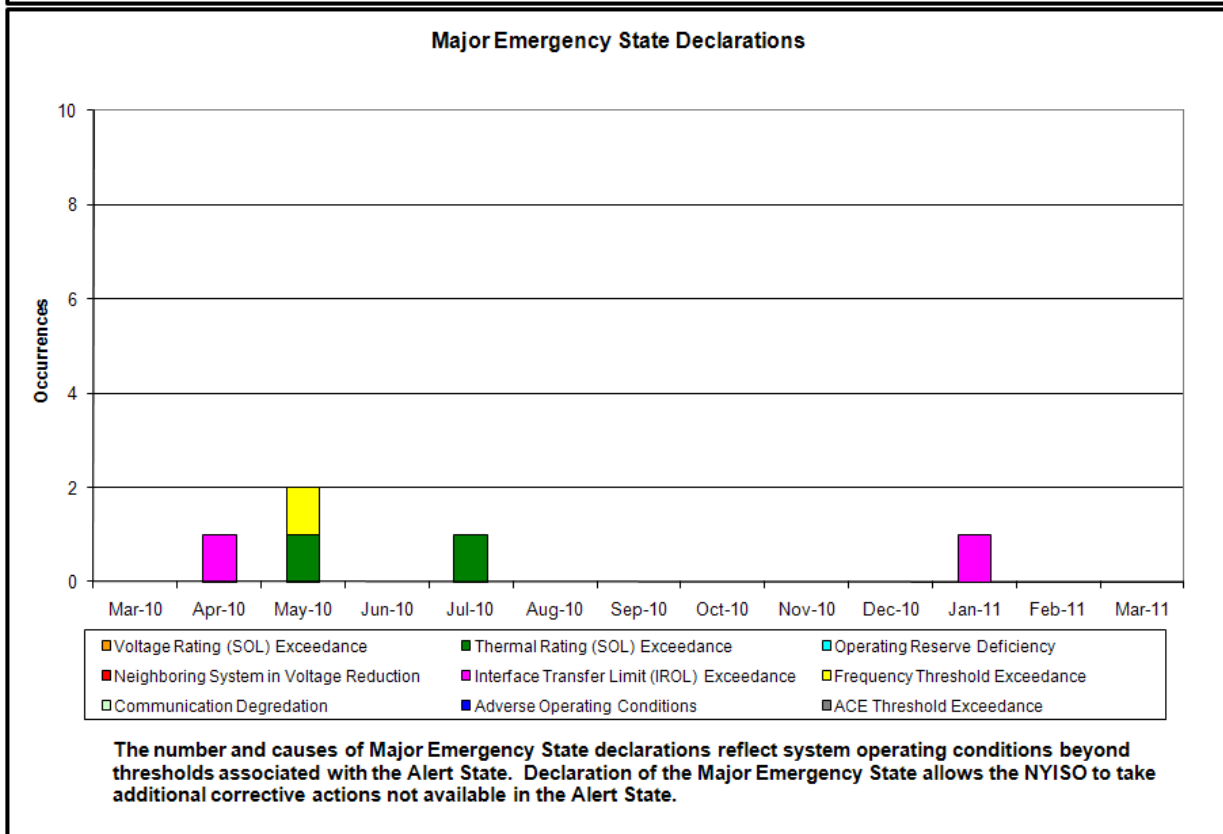
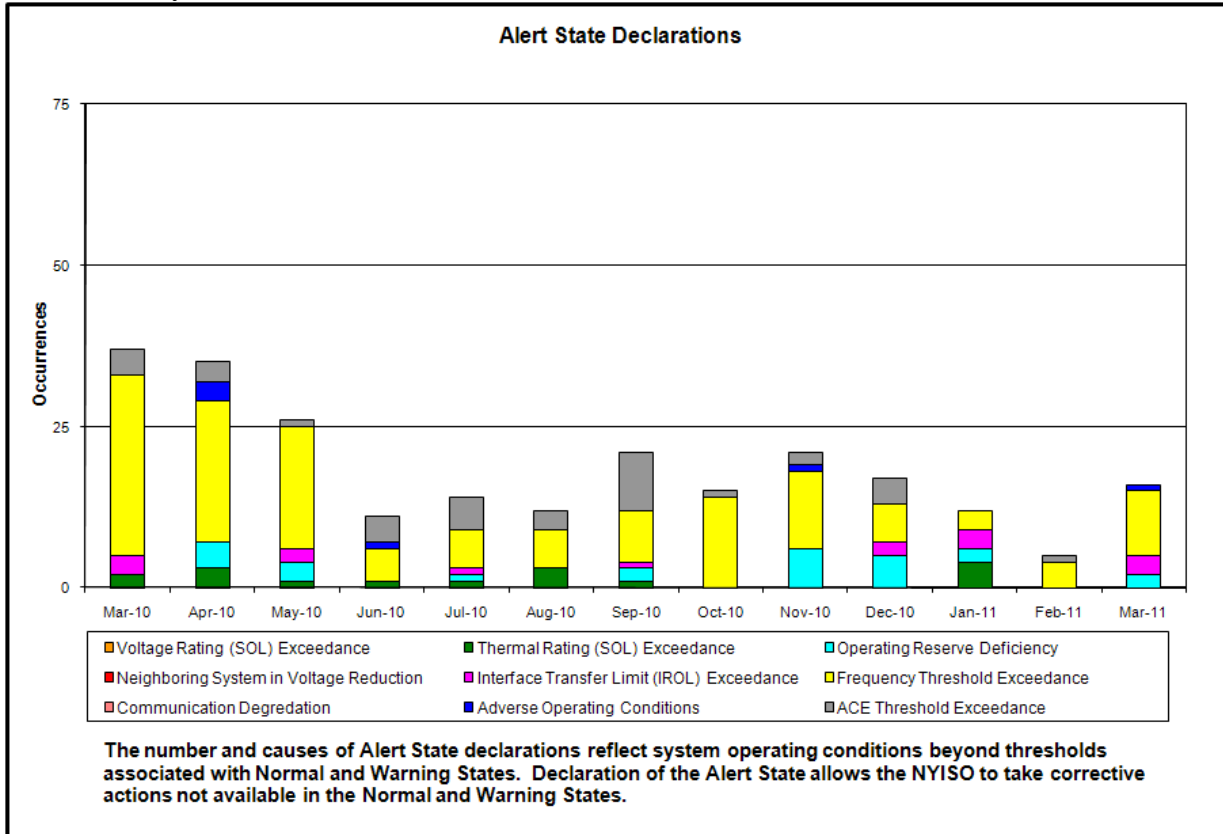
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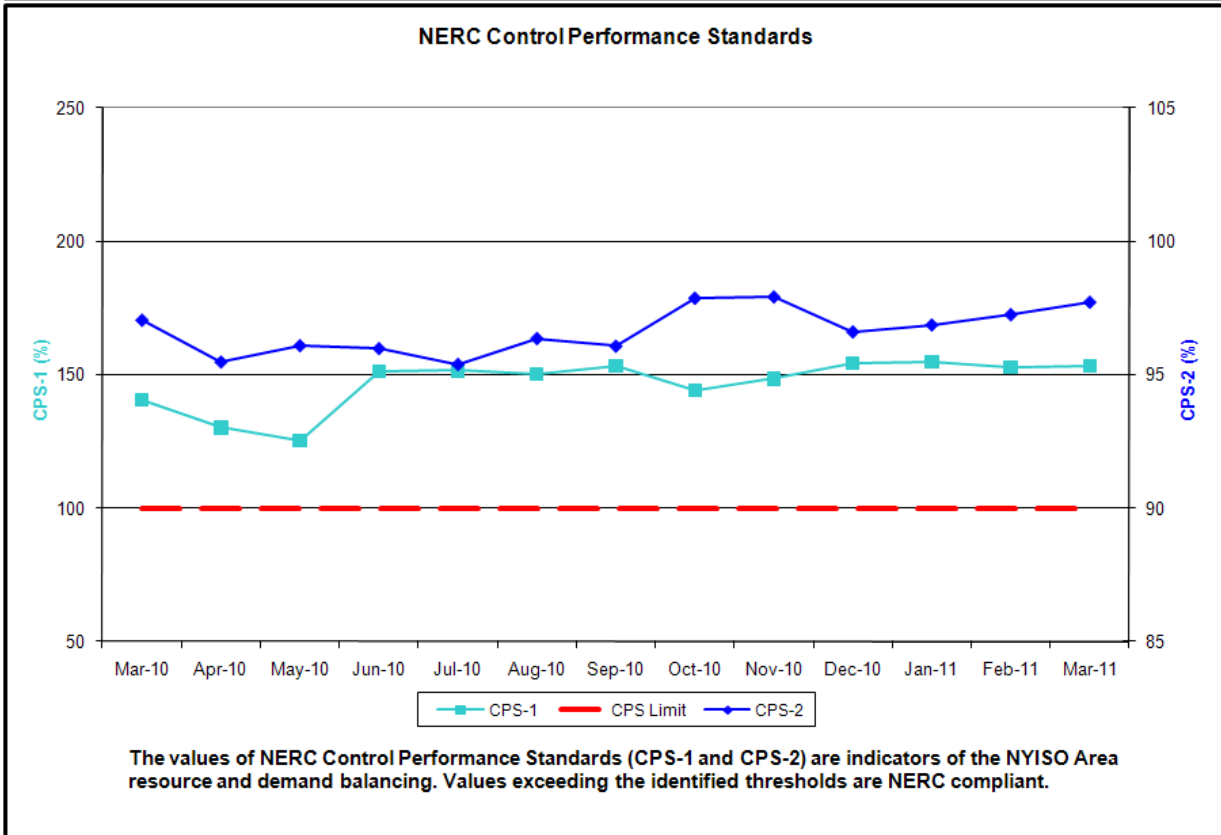
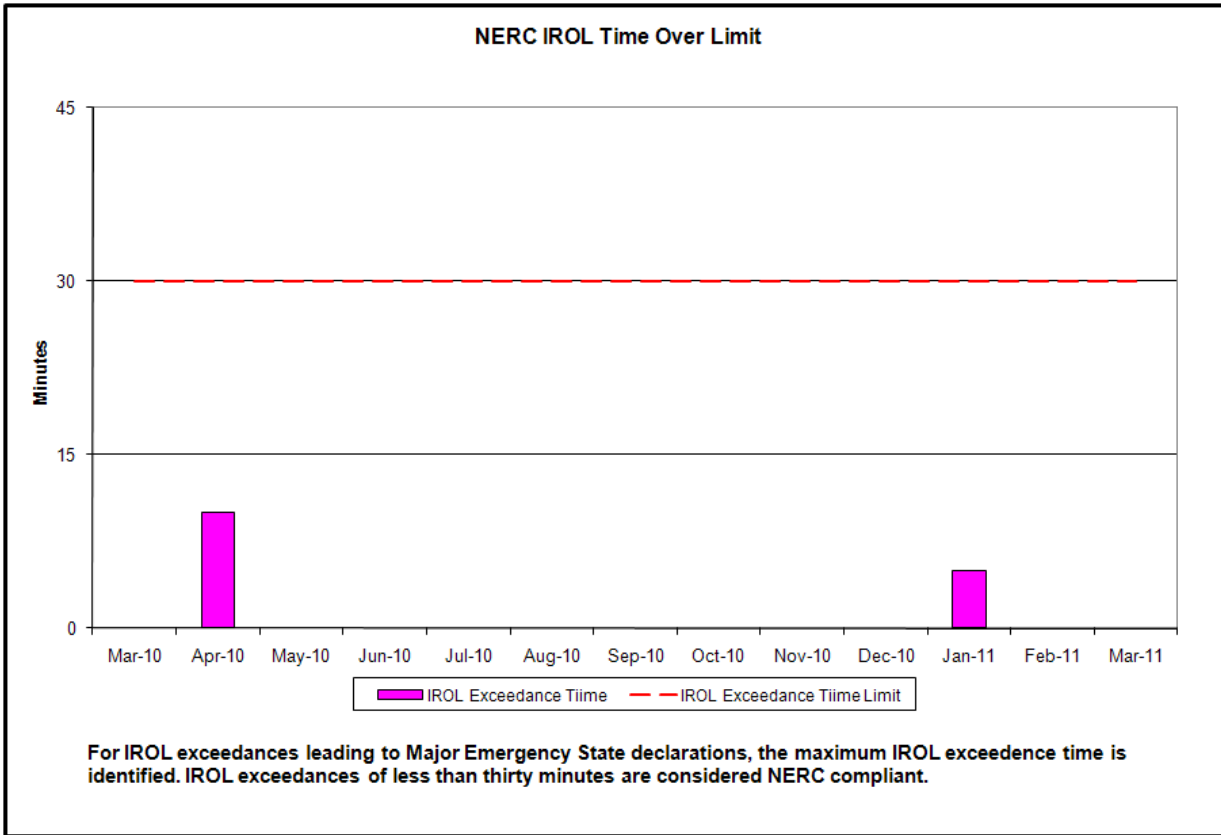
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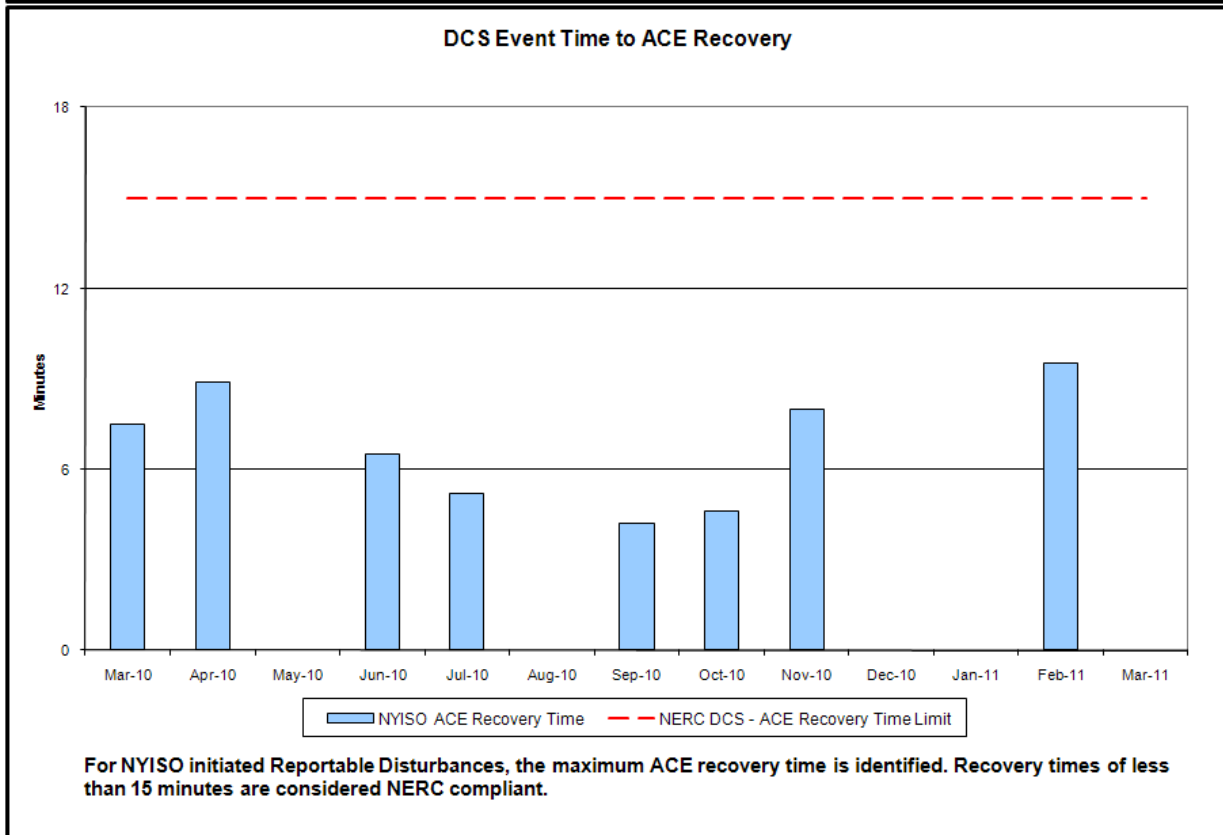
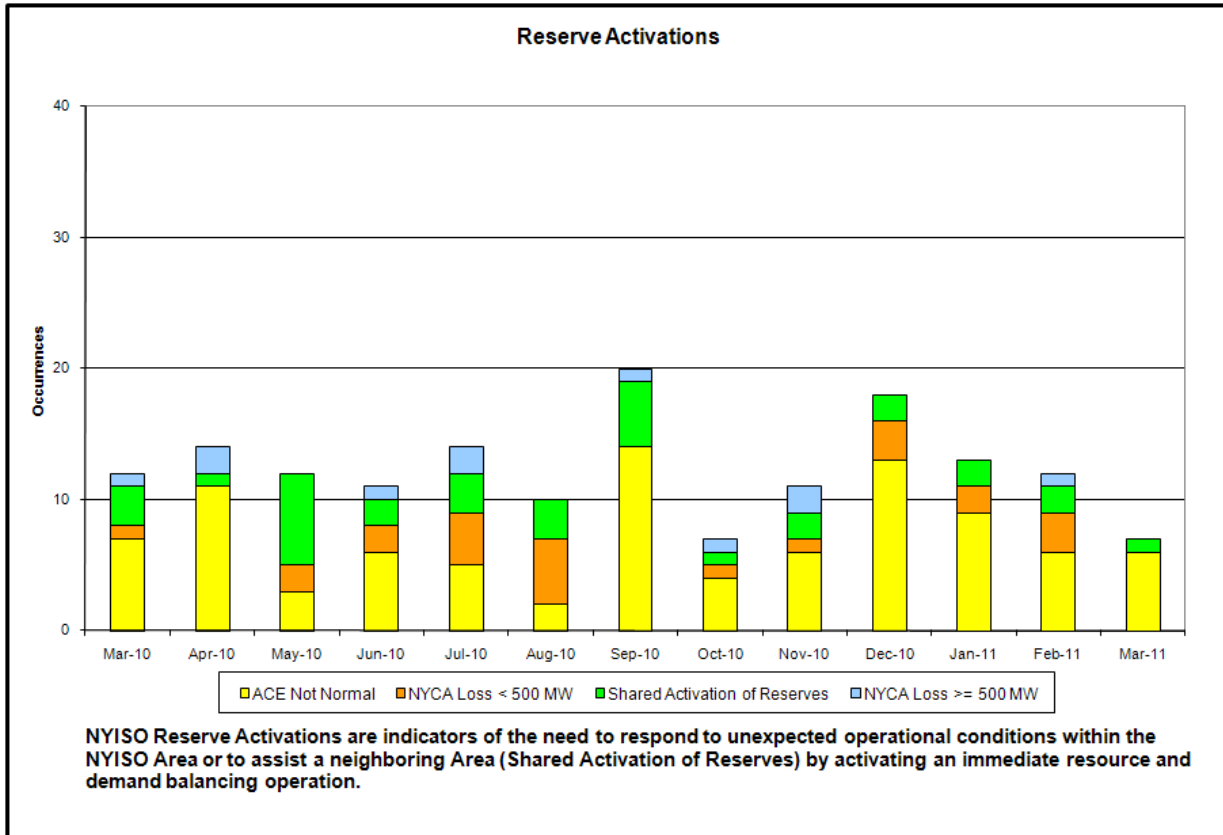
## March 2011 Operations Performance Highlights

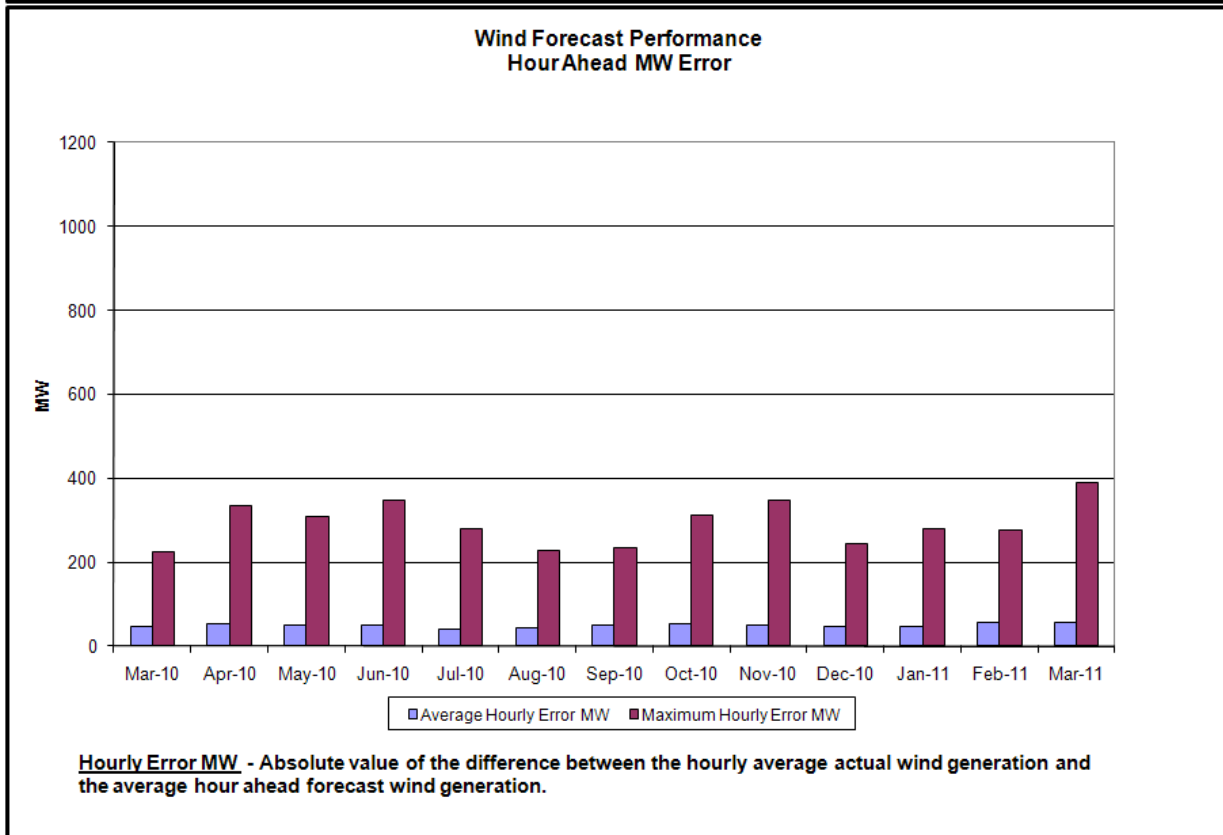
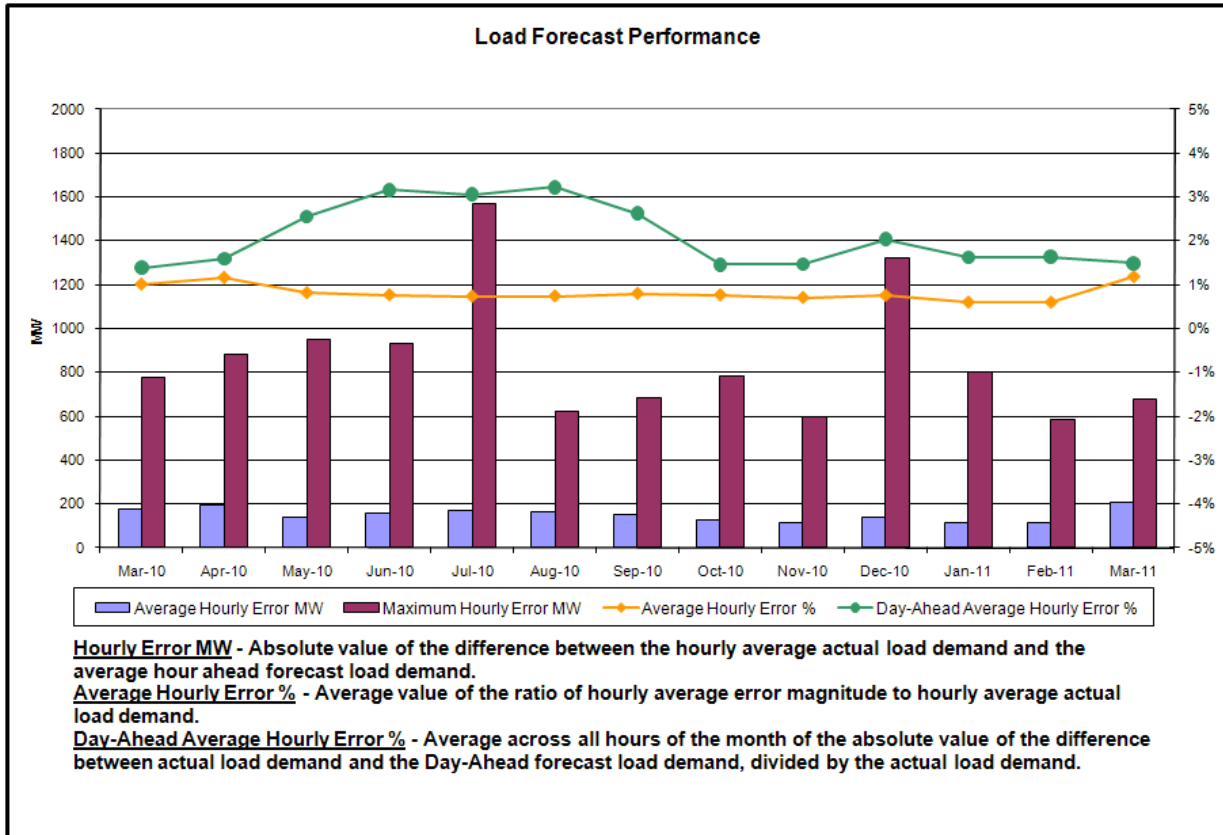
- Monthly peak load of 21,965 MW occurred on 3/3/2011 HB18
- All-time winter capability period peak load of 25,541 MW occurred on 12/20/2004 HB17
- **Increased Clockwise Lake Erie Loop Flows**
  - Increased IESO to MISO exports
  - 231 hours of NERC TLR level 3 curtailments
- **Daily Uplift Monitoring / Review Process**
  - Increased congestion related uplift costs (NYC 138kV cable forced outage)
- **Wind Forecast Performance**
  - Hour Ahead wind generation forecast errors, driven by meteorological changes, were observed by NYISO on March 1 HB19 to HB21. During this period a short duration, large-magnitude wind ramp event impacted nearly all of the wind generation in New York with the aggregate wind generation ramping from roughly 500MW to 1050MW.

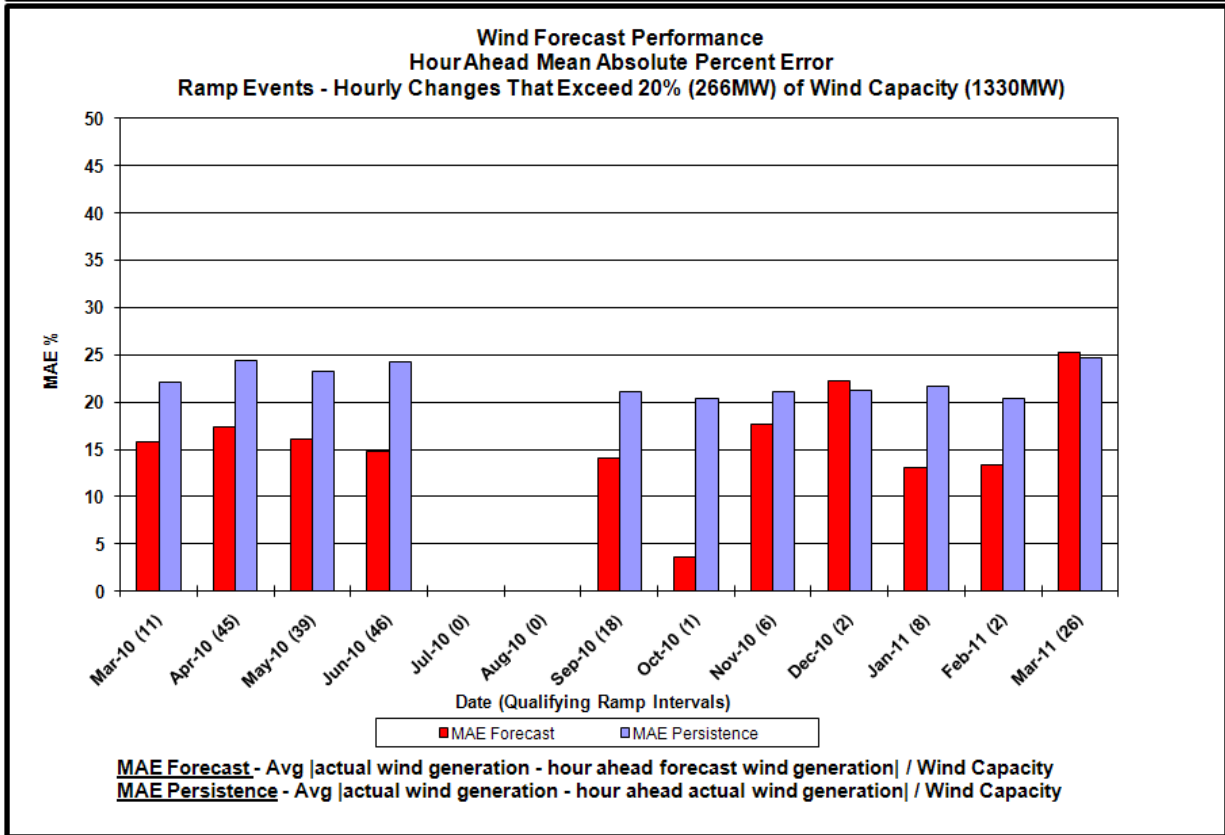
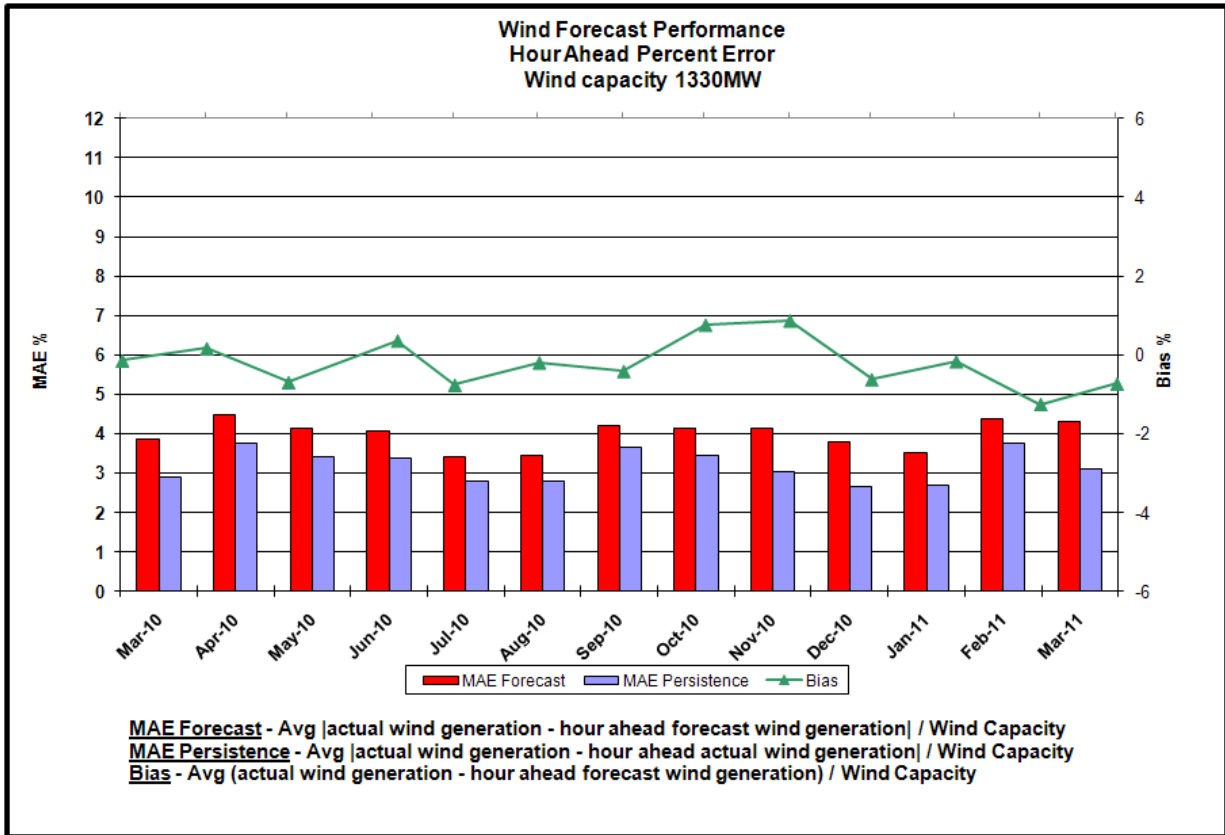
- Reliability Performance Metrics



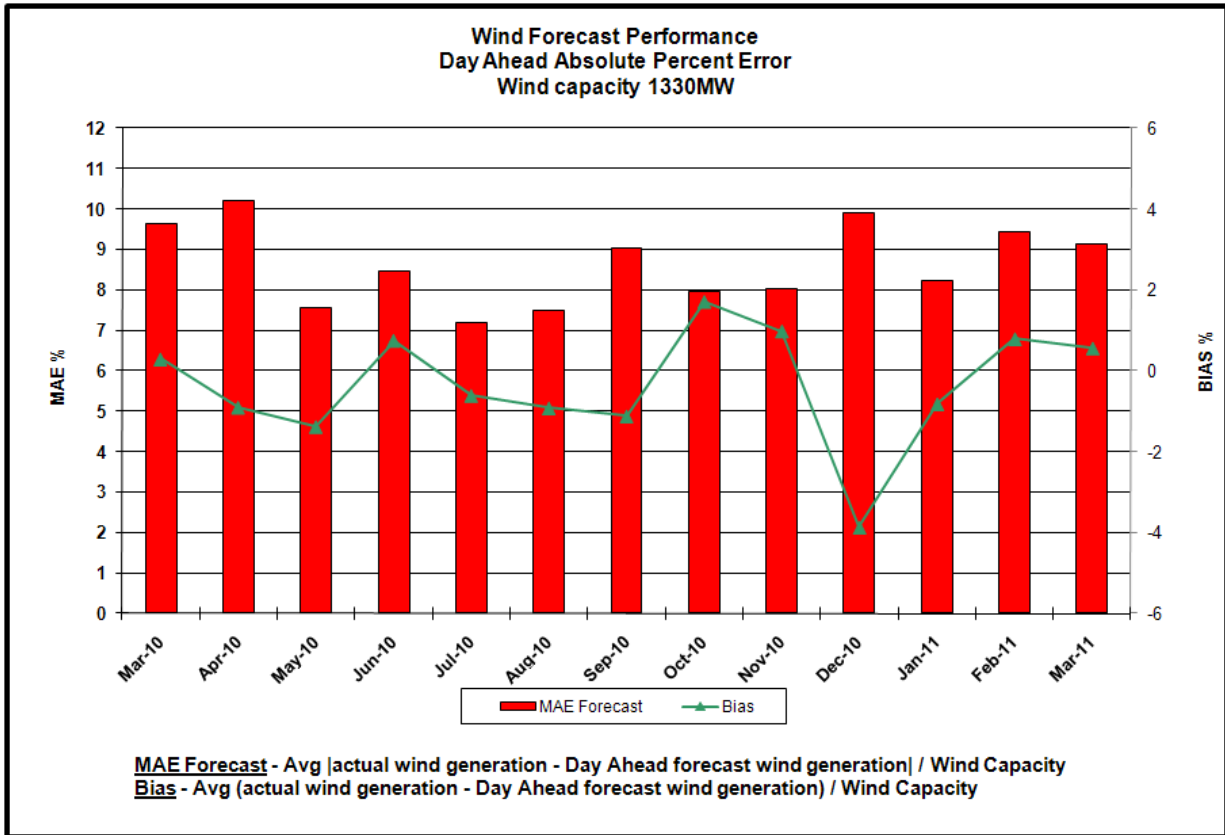


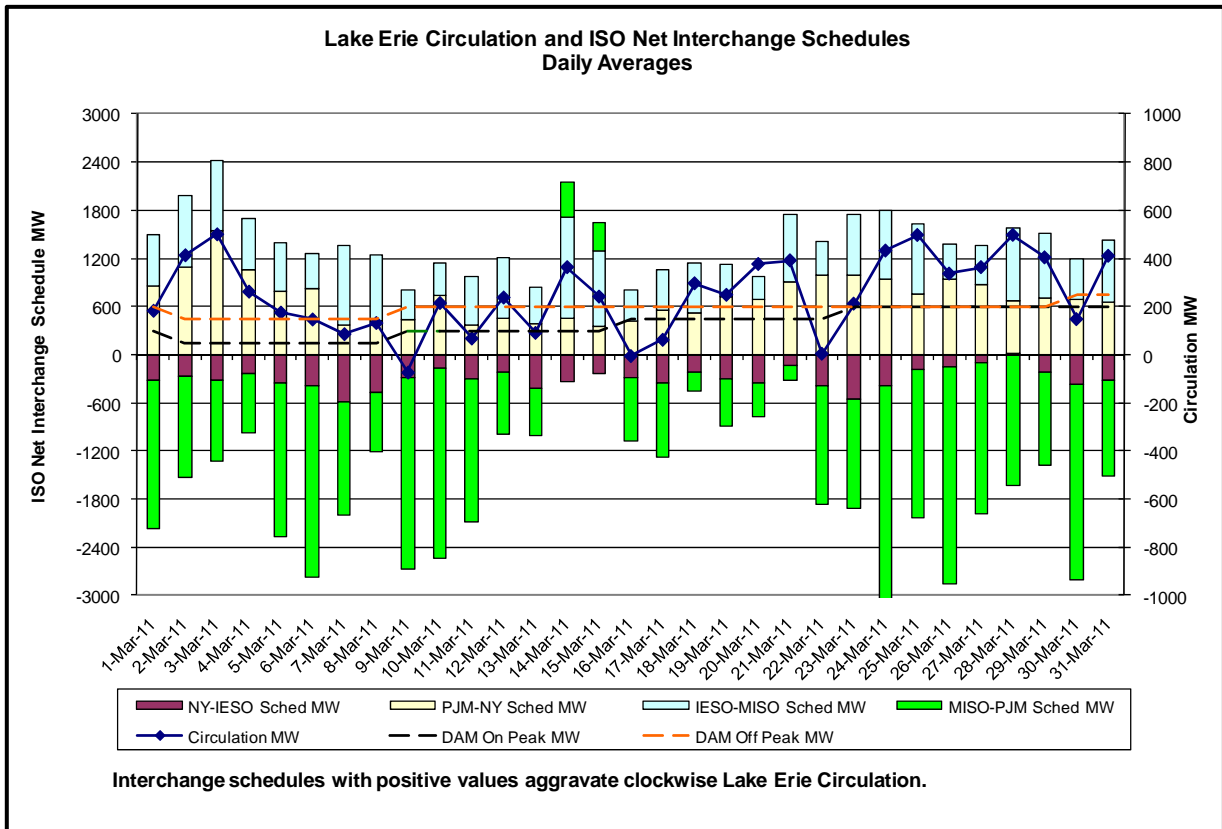
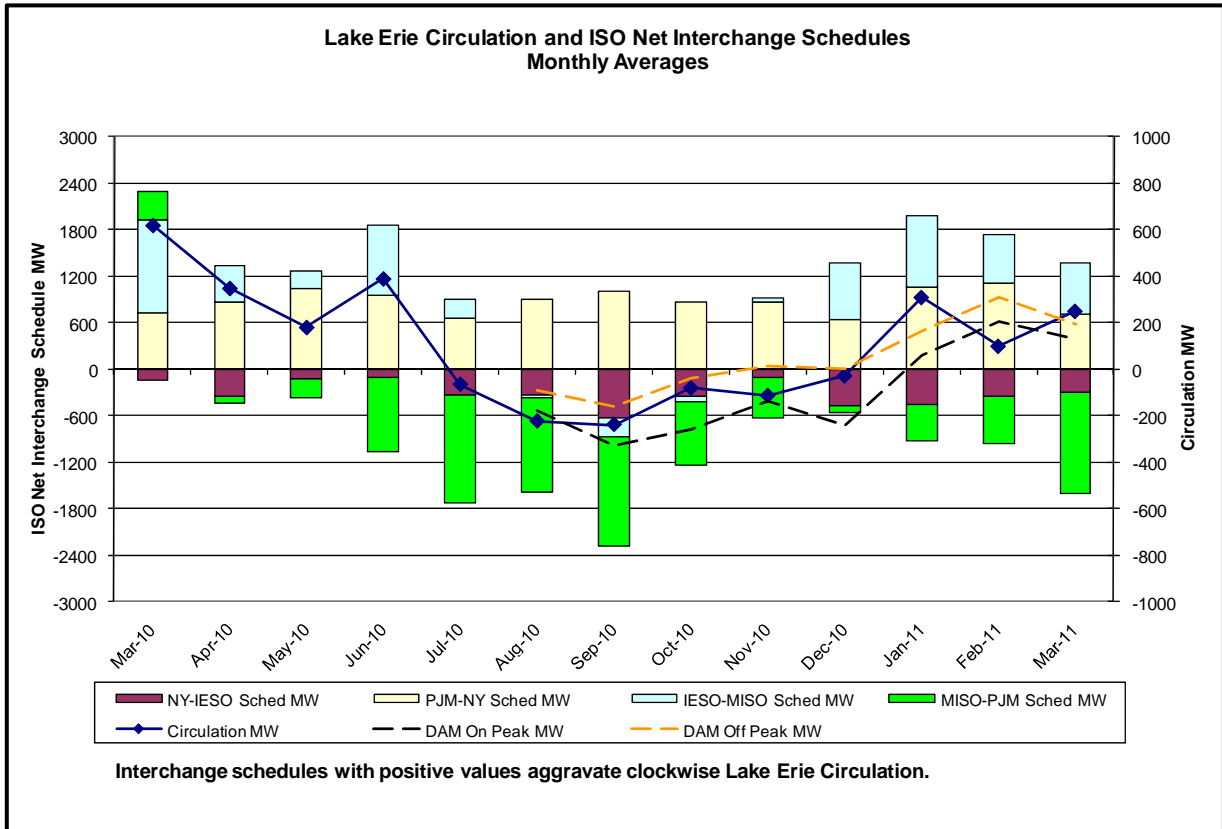




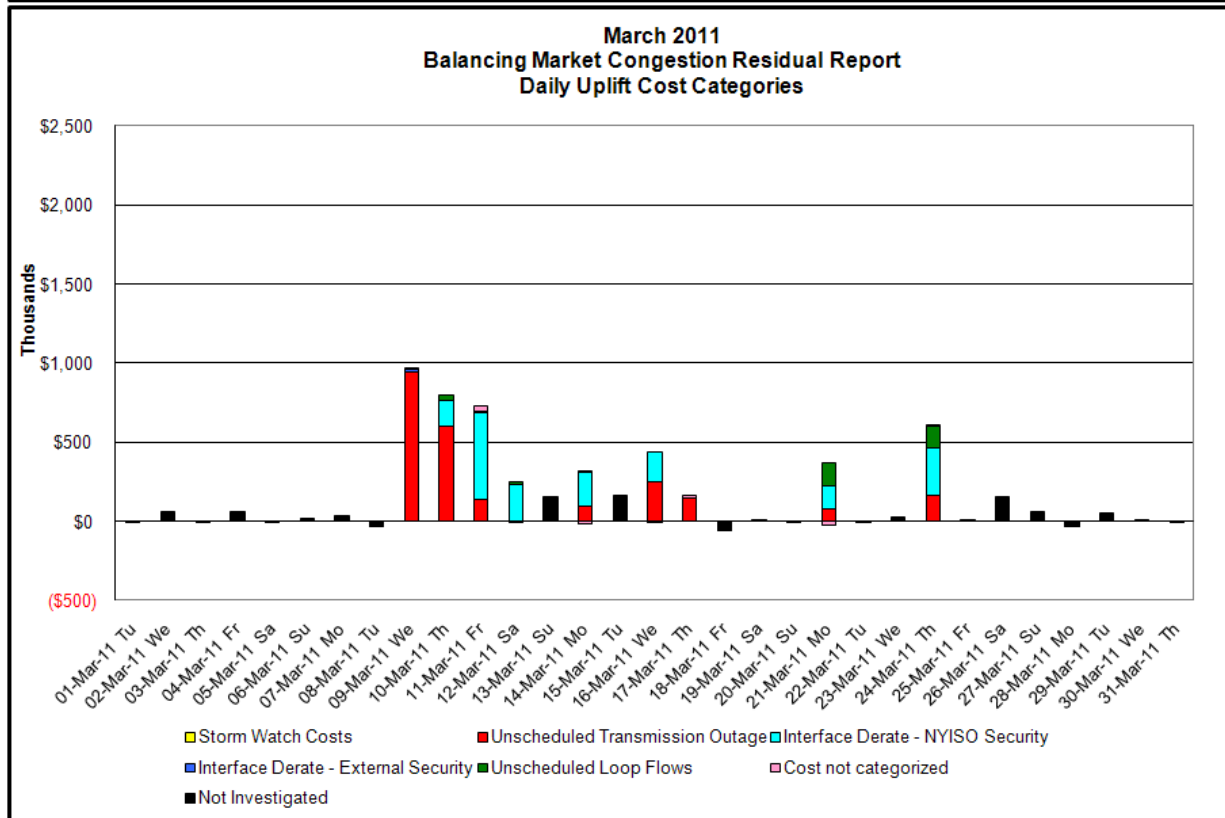
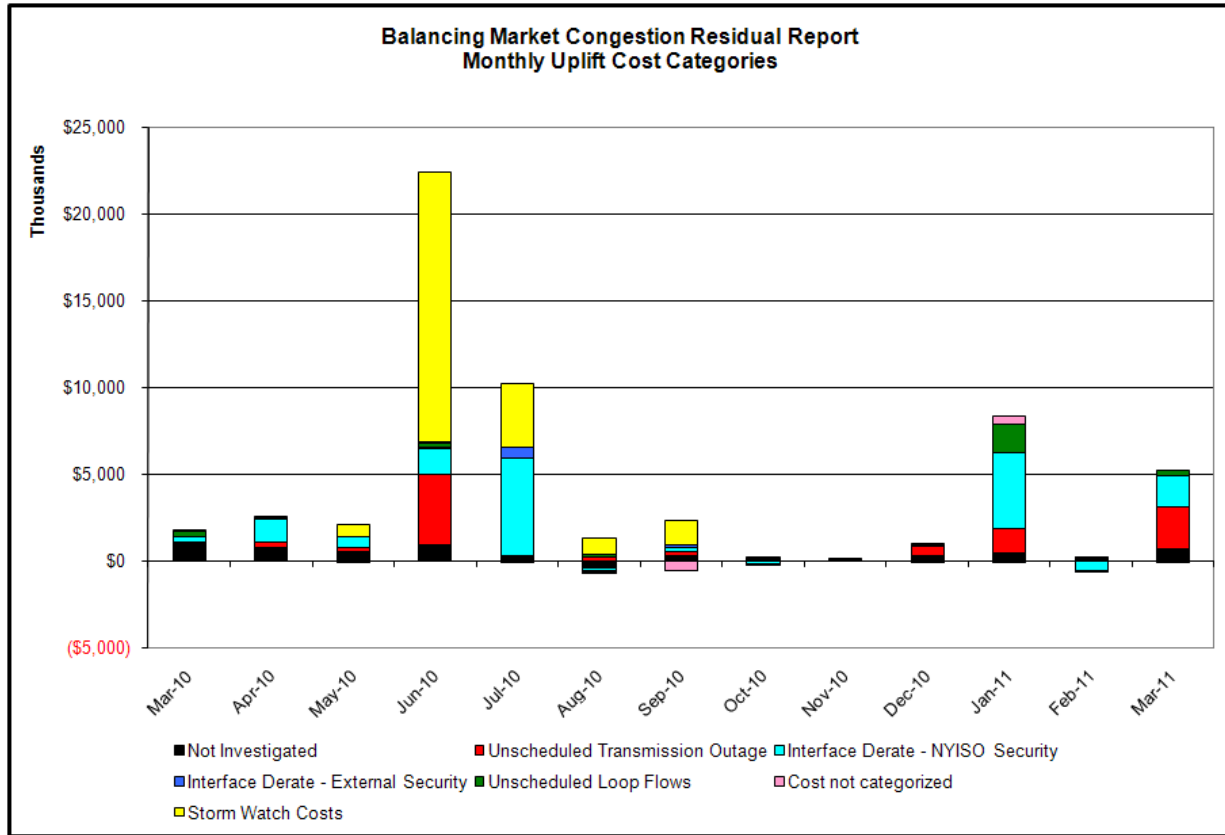








## Market Performance Metrics



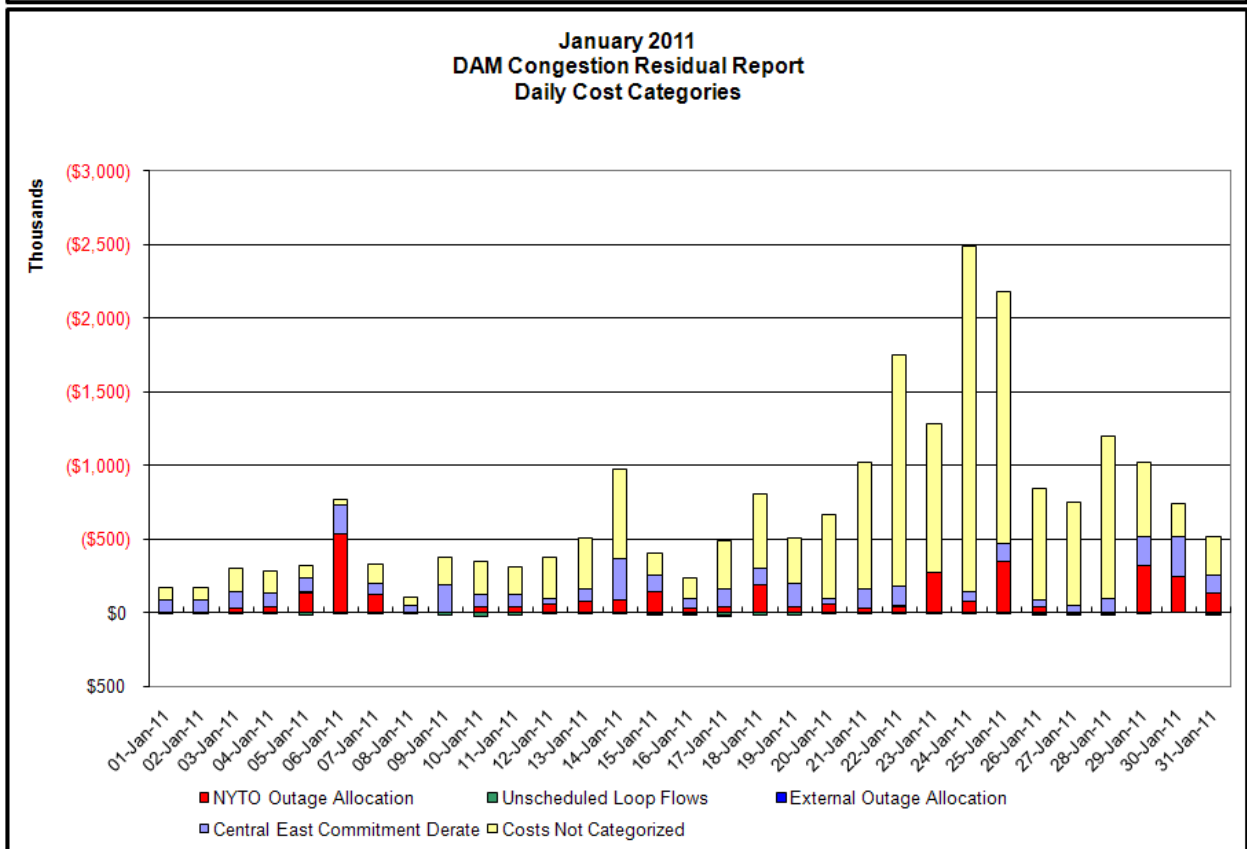
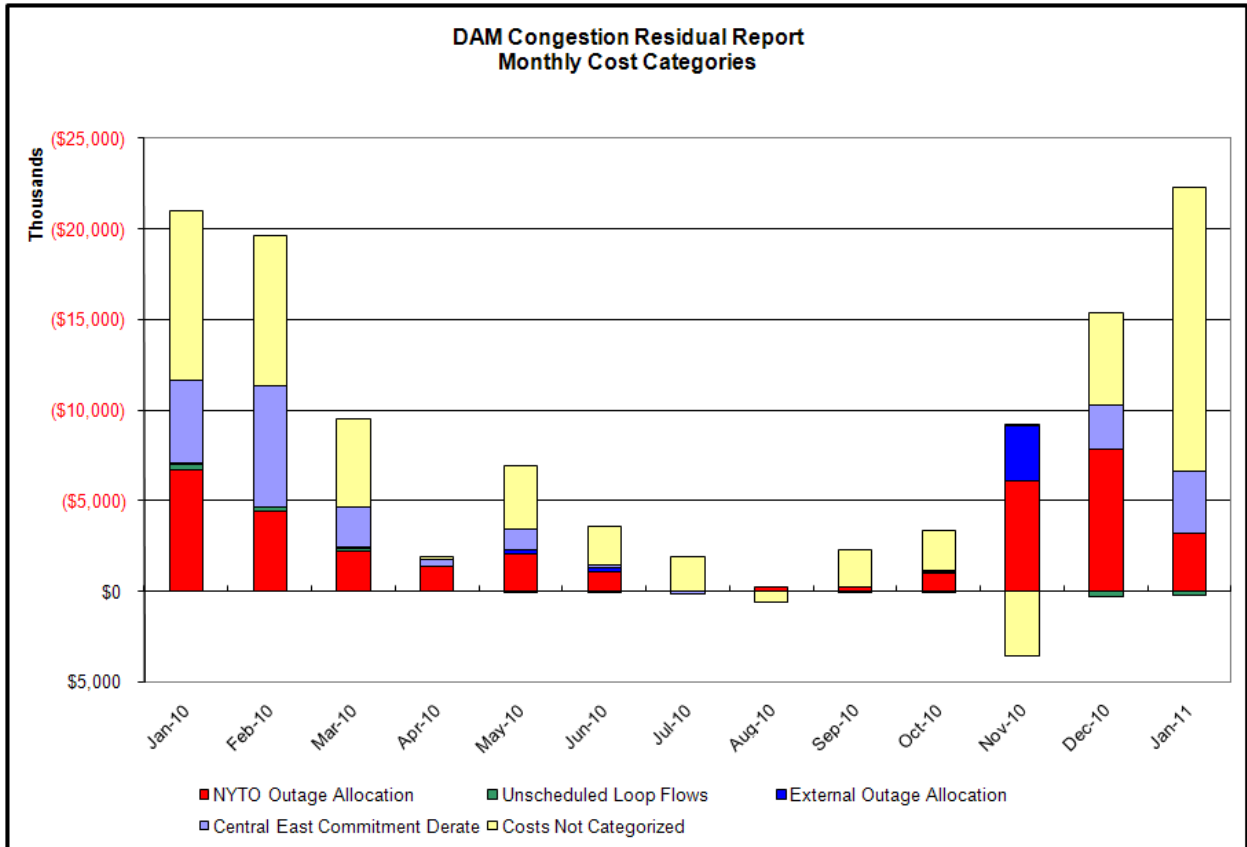
Day's investigated in March: 9, 10, 11, 12, 14, 16, 17, 21, 24			
Event	Date (yyyy)	Hours	Description
	3/9/2011	8-23	Forced outage GowanusS-Greenwood 138kV (#42232)
	3/9/2011	23	HQ DNI Ramp Limit
	3/10/2011	0-23	Forced outage GowanusS-Greenwood 138kV (#42232)
	3/10/2011	8-10,13,15-19	Derate Central East
	3/10/2011	10,13,15-17,19	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/11/2011	5-7	Forced outage Willowbrook-Freshkills 138kV (#29212-2)
	3/11/2011	8-11	Derate Central East
	3/11/2011	5-11,14-23	Derate Greenwood/Staten Island
	3/11/2011	1,9-10,15,17-21	Derate Dunwoodie-Shore Road 345kV (#Y50)
	3/11/2011	6-7	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o Sprainbrook-East Garden City 345kV (#Y49)
	3/11/2011	18	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/12/2011	10,18	Derate Central East
	3/12/2011	0-1,7-23	Derate Greenwood/Staten Island
	3/12/2011	11,17-21	Derate Dunwoodie-Shore Road 345kV (#Y50)
	3/12/2011	10,18-20	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/14/2011	8-17,19	Forced outage Chateaguay 765/120 Bank #11
	3/14/2011	0,6-17,19,21-23	Derate Greenwood/Staten Island
	3/14/2011	17	Derate Central East
	3/14/2011	15,16,19,21	Derate Dunwoodie-Shore Road 345kV (#Y50)
	3/14/2011	17	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/16/2011	14-18,20-23	Extended outage GowanusS-Greenwood 138kV (#42232)
	3/16/2011	0,4,6-13	Derate Greenwood/Staten Island
	3/16/2011	19	Uprate Central East
	3/17/2011	0,2	Extended outage GowanusS-Greenwood 138kV (#42232)
	3/21/2011	14,15	Extended outage Leeds Circuit Breaker #R94301
	3/21/2011	9-13	Derate Leeds-New Scotland 345kV (#93) for I/o SCB #R3 with #R94301 OOS
	3/21/2011	9-13,17-18	Derate Central East
	3/21/2011	7,20-21	Uprate Central East
	3/21/2011	6	Derate Dunwoodie-Shore Road 345kV (#Y50)
	3/21/2011	6,10	NYCA DNI Ramp Limit
	3/21/2011	6,9-13,17-18	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/24/2011	20-21	Extended outage GoethalsN-Freshkills 345kV (#22)
	3/24/2011	7-19	Derate Greenwood/Staten Island
	3/24/2011	8-14	Derate Leeds-New Scotland 345kV (#93) for I/o New Scotland-Leeds 345kV (#94)
	3/24/2011	9,12	Derate Foxhills-Willowbrook 138kV (#29211-1)
	3/24/2011	16,17	Derate East Garden City-Valley Stream 138kV (#262) for I/o TWR:W73,W74,W89,W90,Y50,BK2
	3/24/2011	19	Derate Central East
	3/24/2011	7,8,14-19	Derate Dunwoodie-Shore Road 345kV (#Y50)
	3/24/2011	19	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Central East
	3/24/2011	8-12	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Leeds-New Scotland (#93)

**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

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

- 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.



**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.	

