

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



## ***July 2012 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 August 8, 2012.

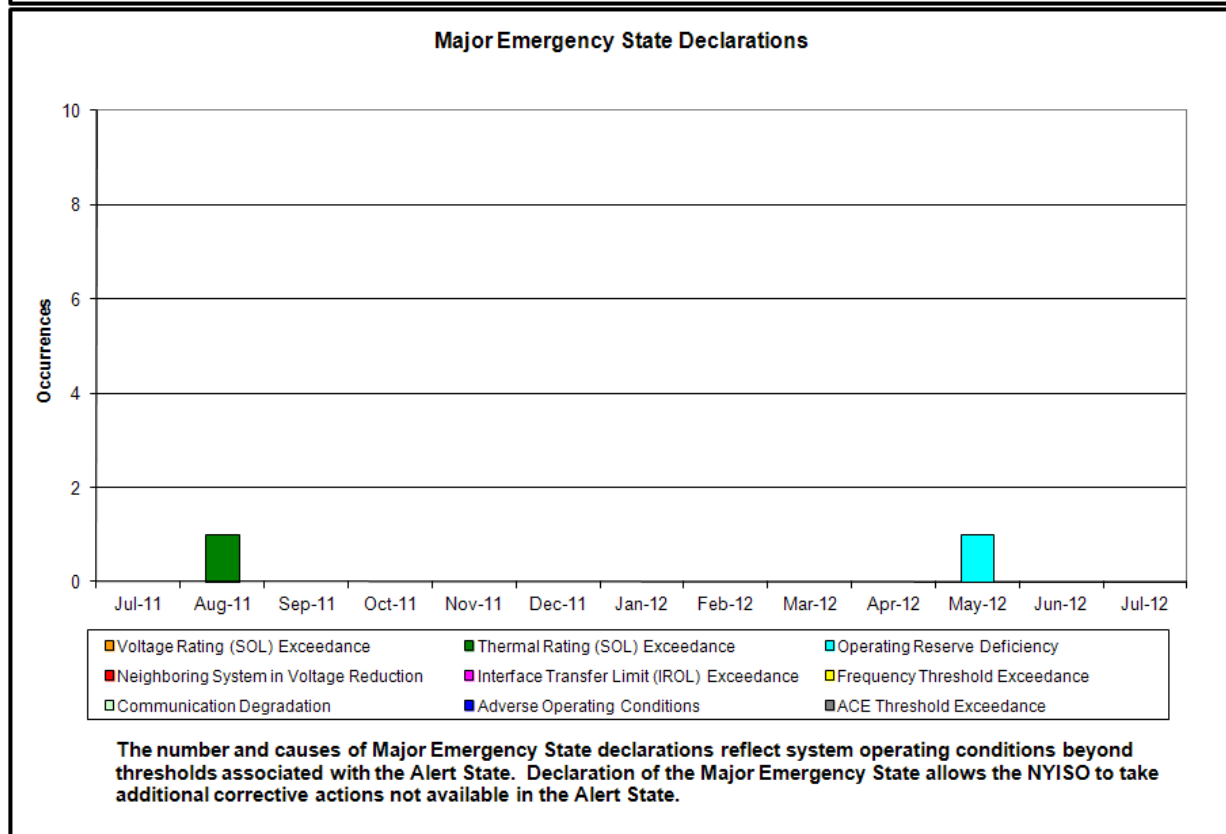
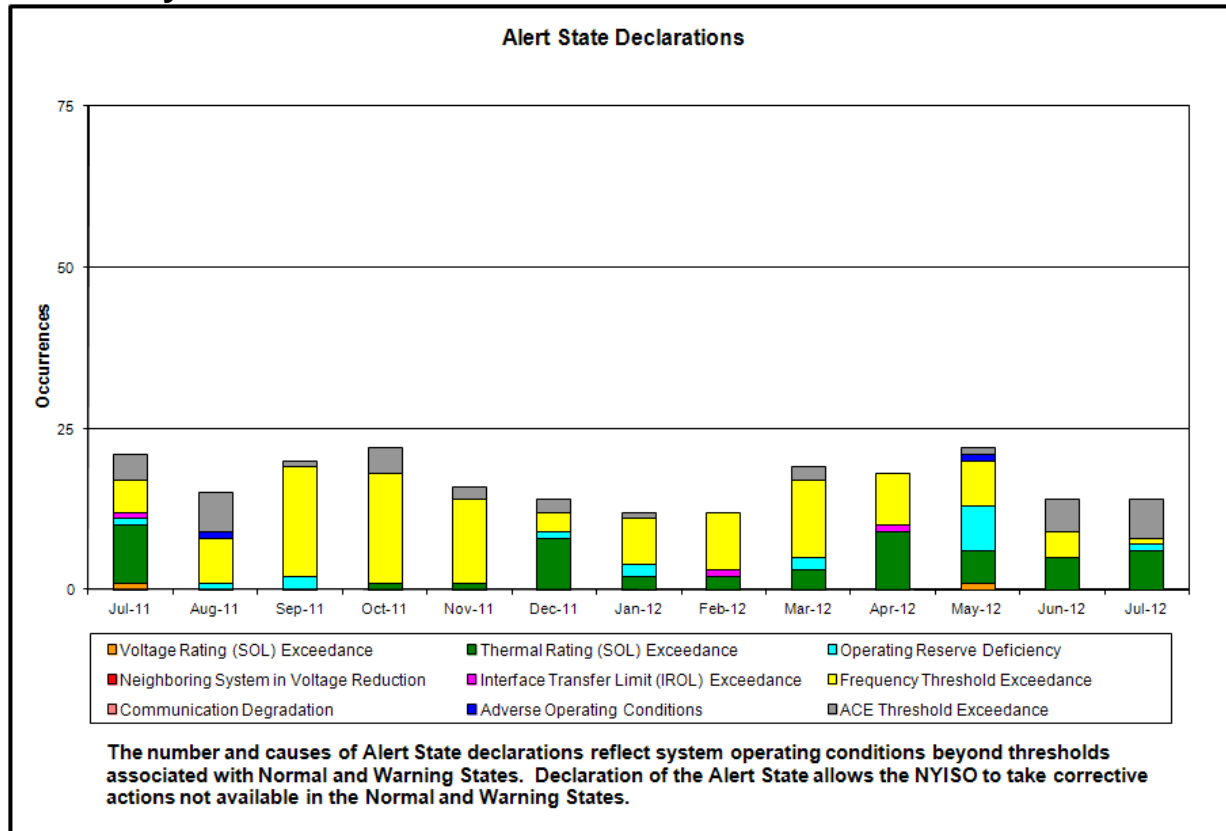
## **Table of Contents**

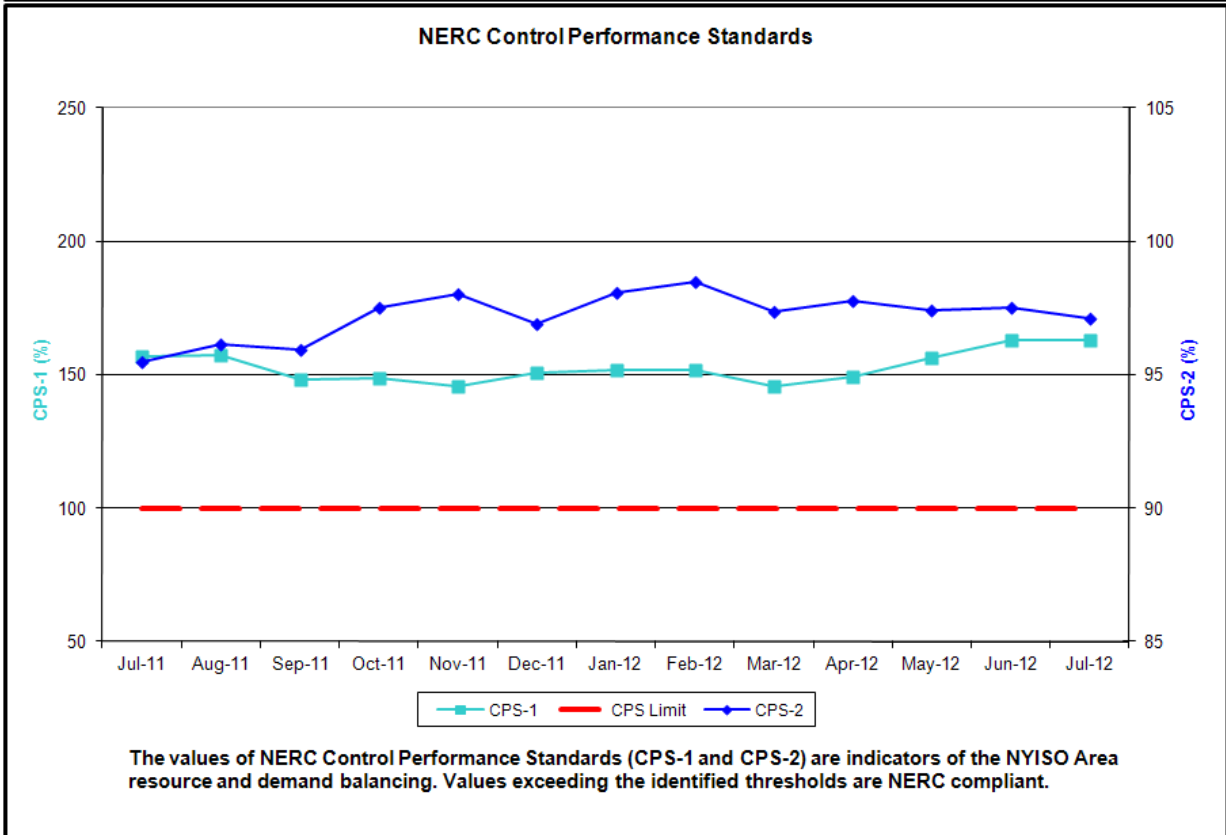
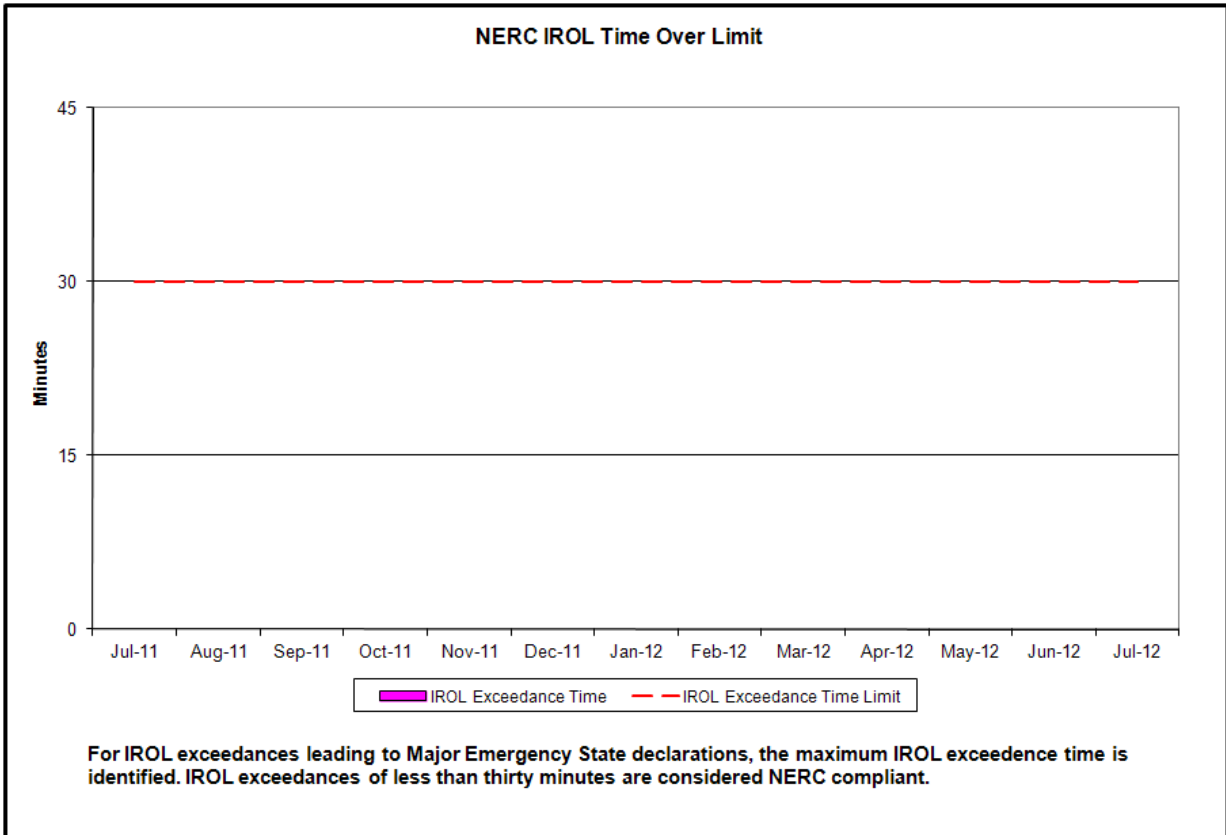
- ◆ **Highlights**
  - *Operations Performance*
  
- ◆ **Reliability Performance Metrics**
  - *Alert State Declarations*
  - *Major Emergency State Declarations*
  - *IROL Exceedance Times*
  - *Balancing Area Control Performance*
  - *Reserve Activations*
  - *Disturbance Recovery Times*
  - *Load Forecasting Performance*
  - *Wind Forecasting Performance*
  - *Lake Erie Circulation and ISO Schedules*
  
- ◆ **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*

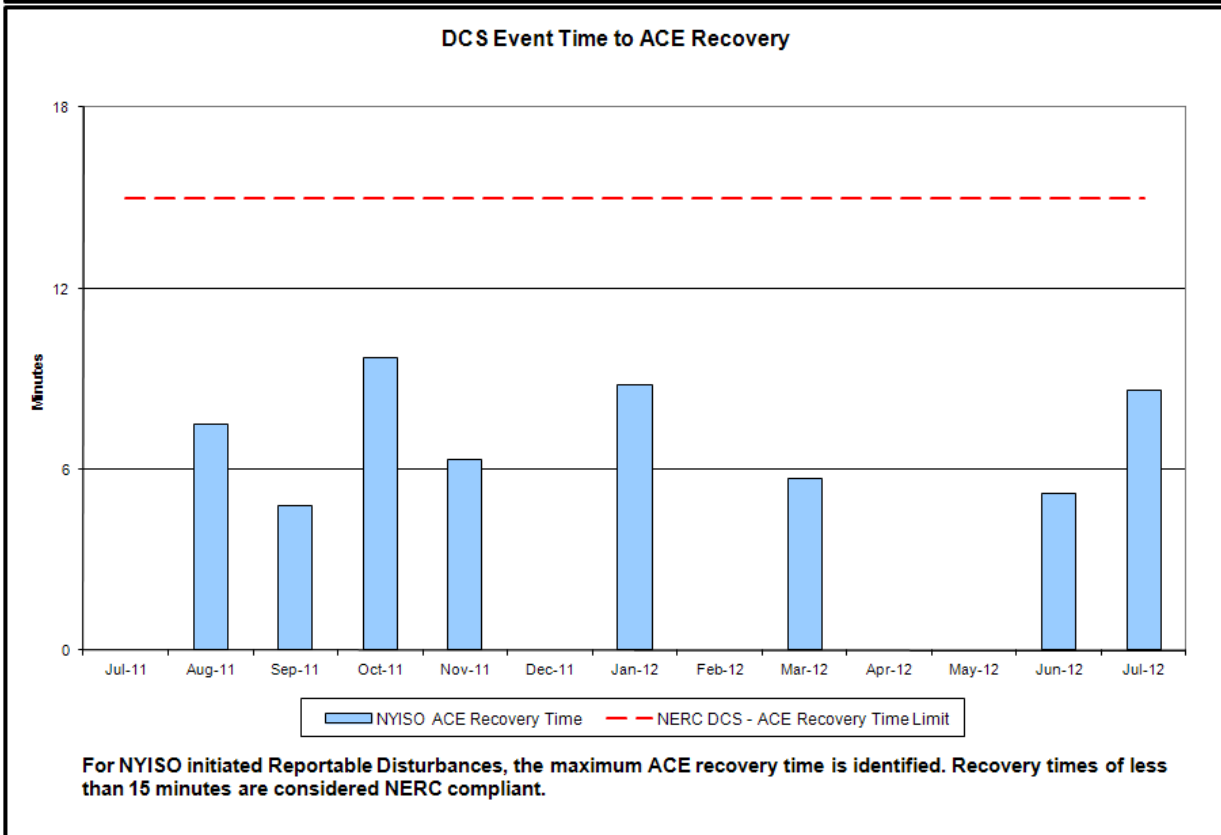
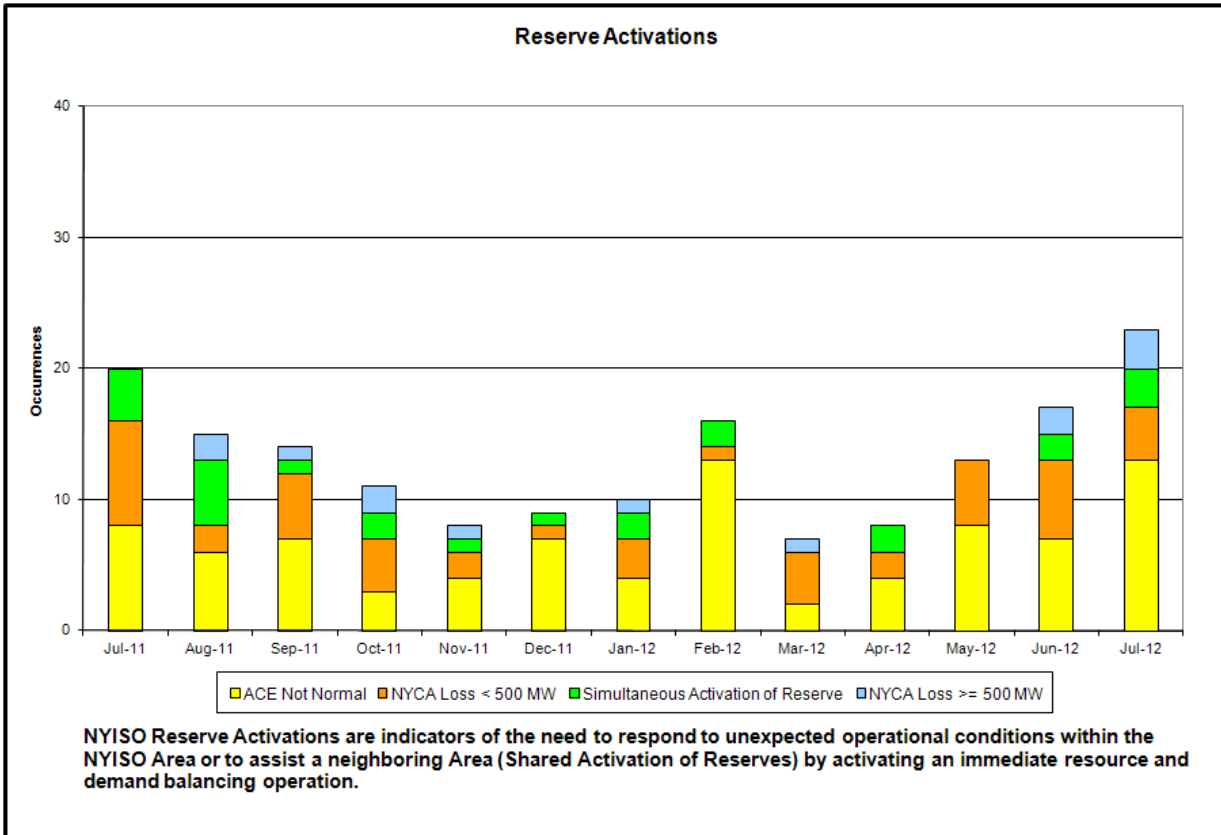
## July 2012 Operations Performance Highlights

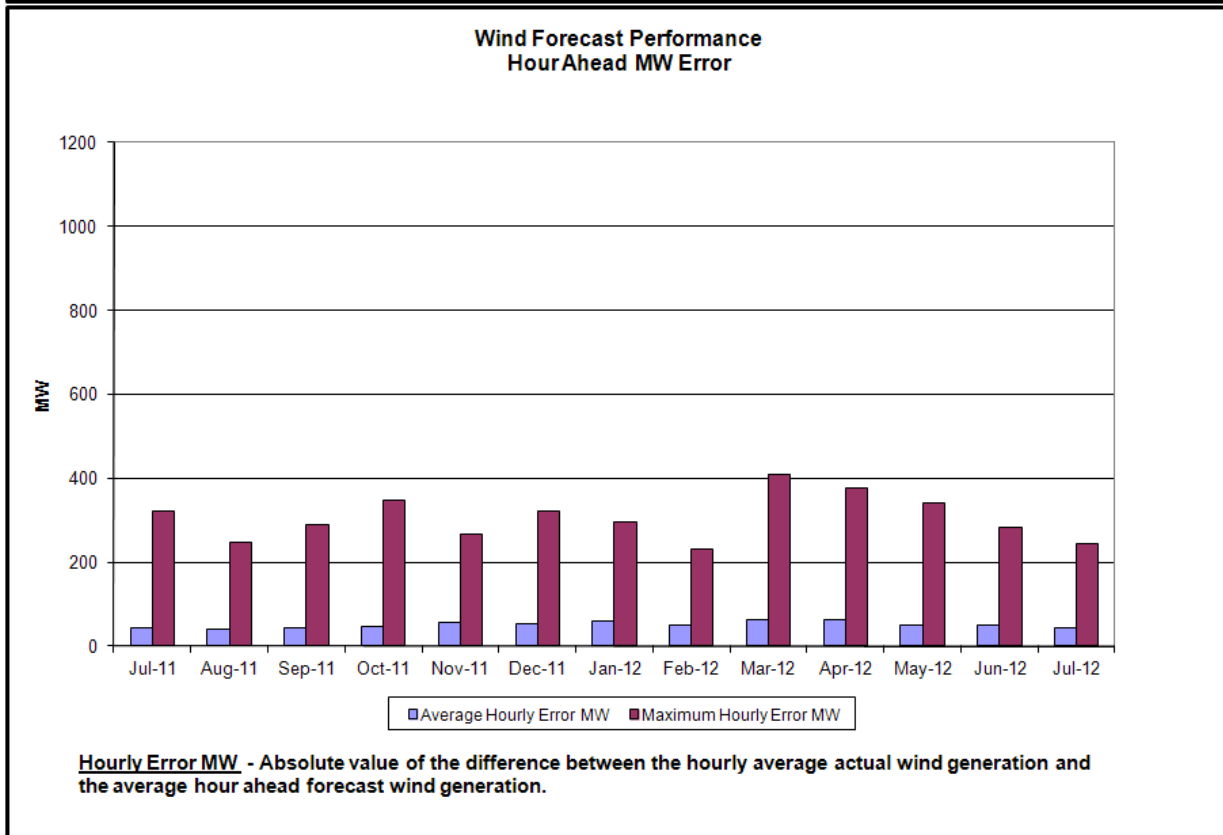
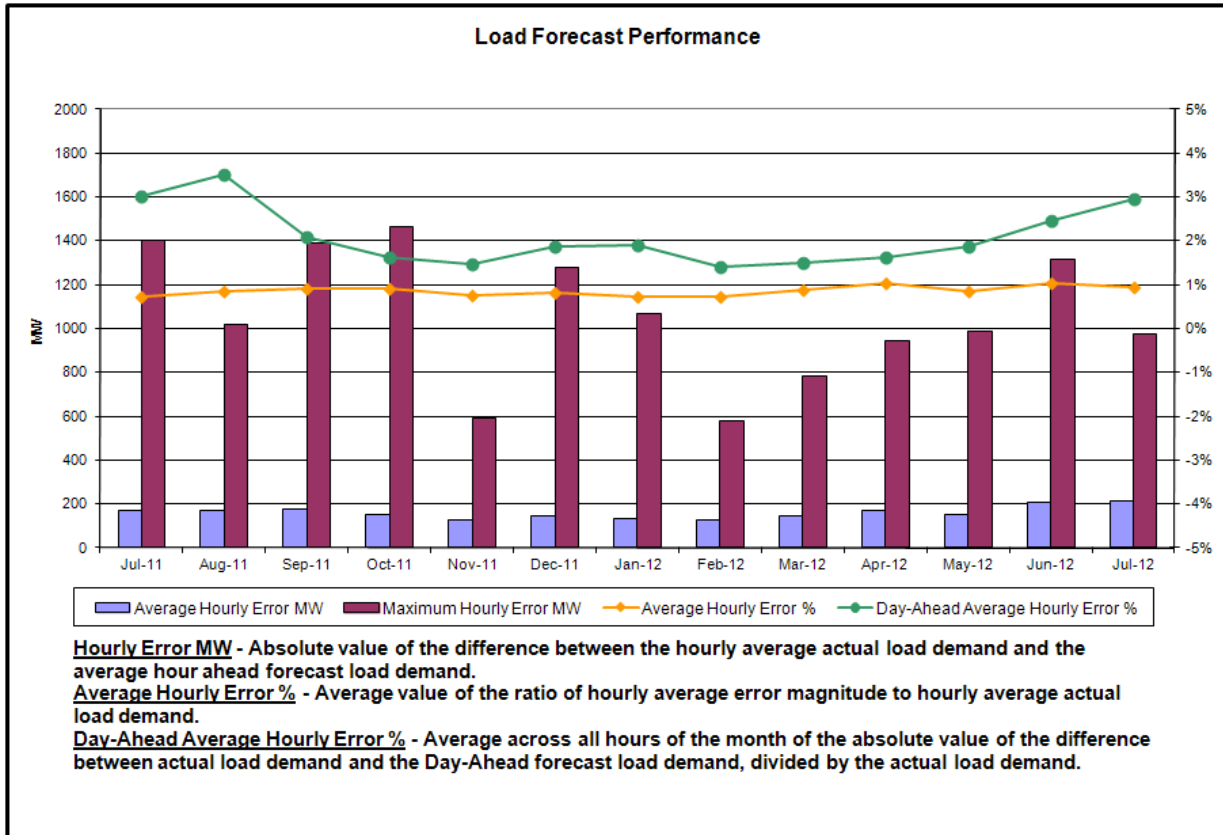
- Peak load of 32,439 MW occurred on 7/17/2012 HB 16
- All-time summer capability period peak load of 33,939 MW occurred on 8/2/2006 HB13
- 49 hours of Thunder Storm Alerts were declared
- 3 hours of NERC TLR level 3 curtailments
- EDRP/SCR resources were activated on 7/17/2012 and 7/18/2012

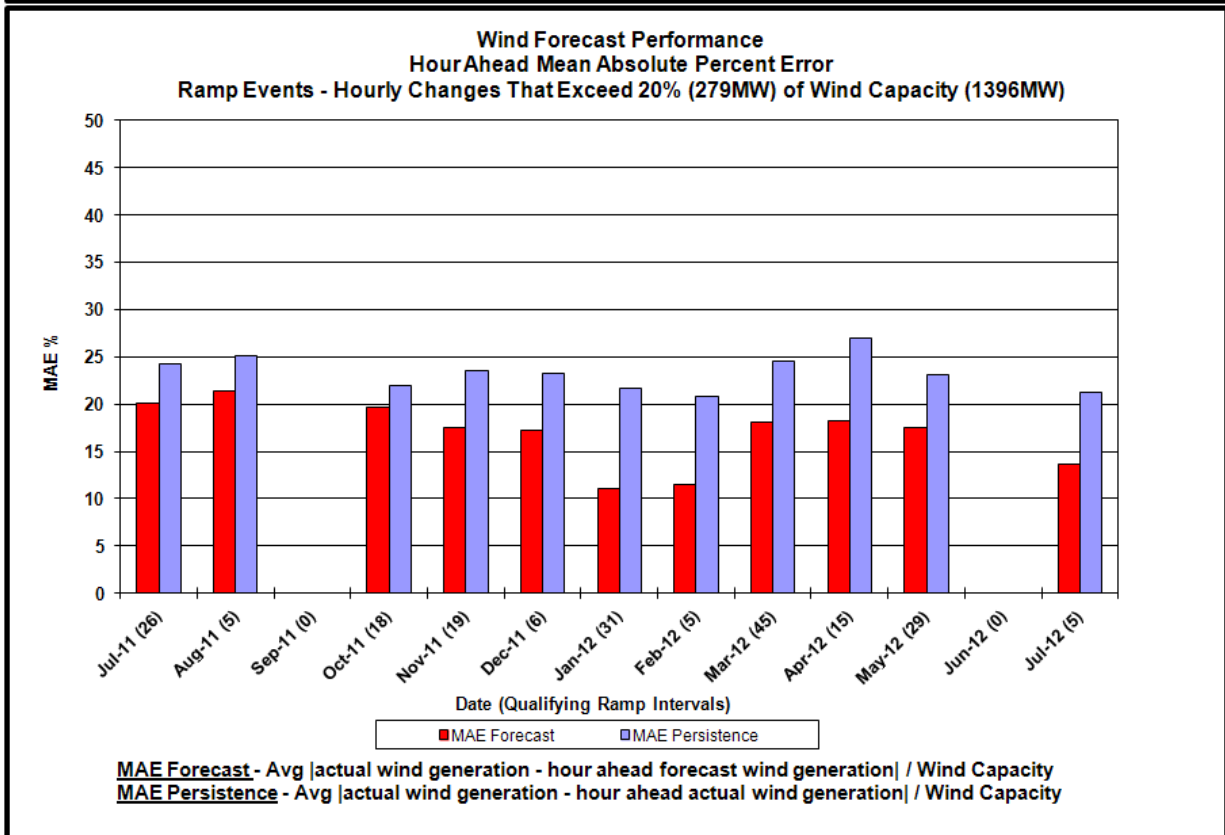
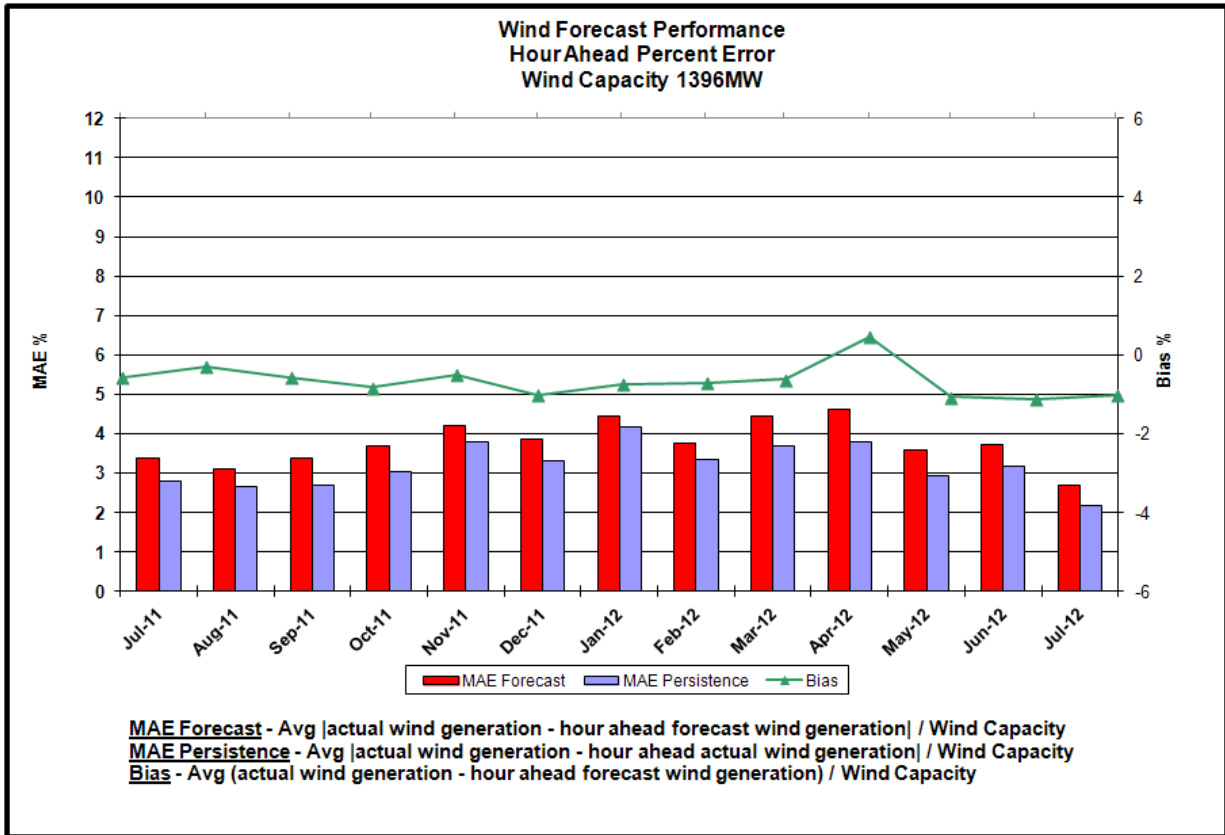
## Reliability Performance Metrics



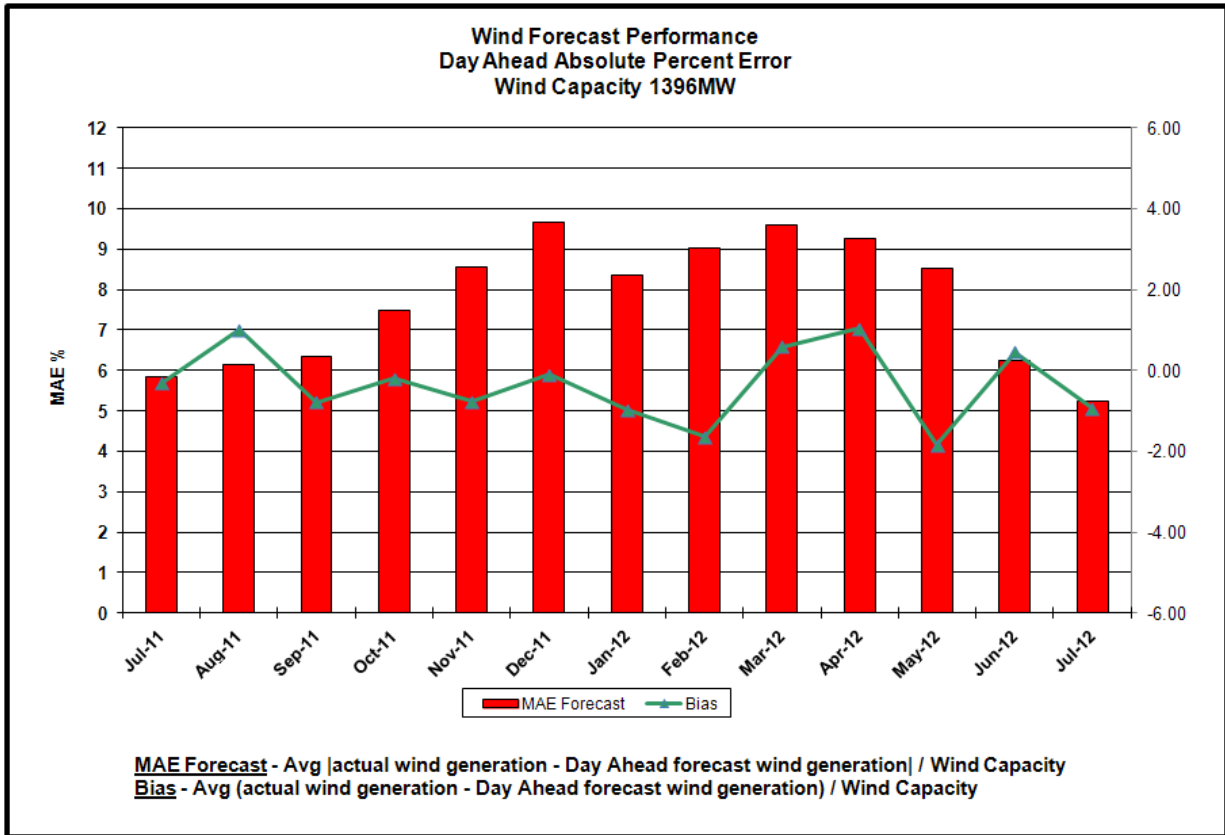


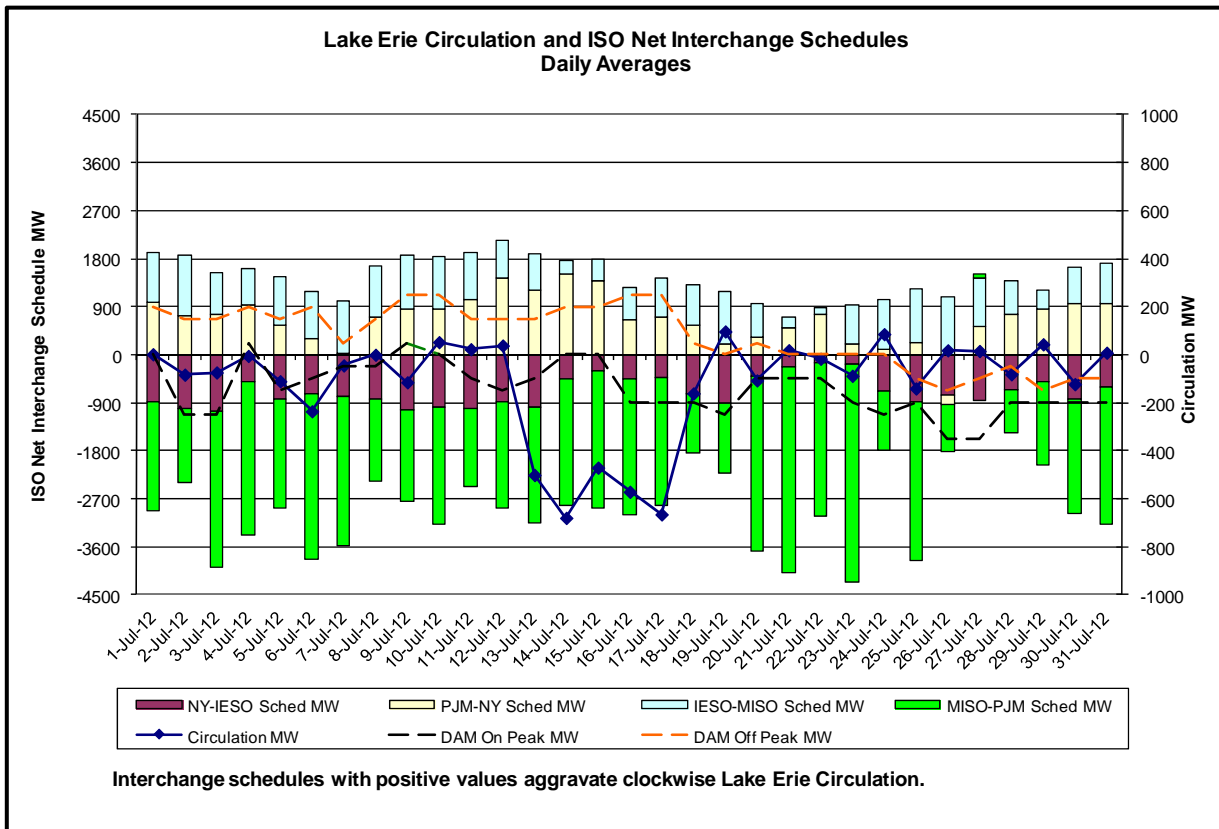
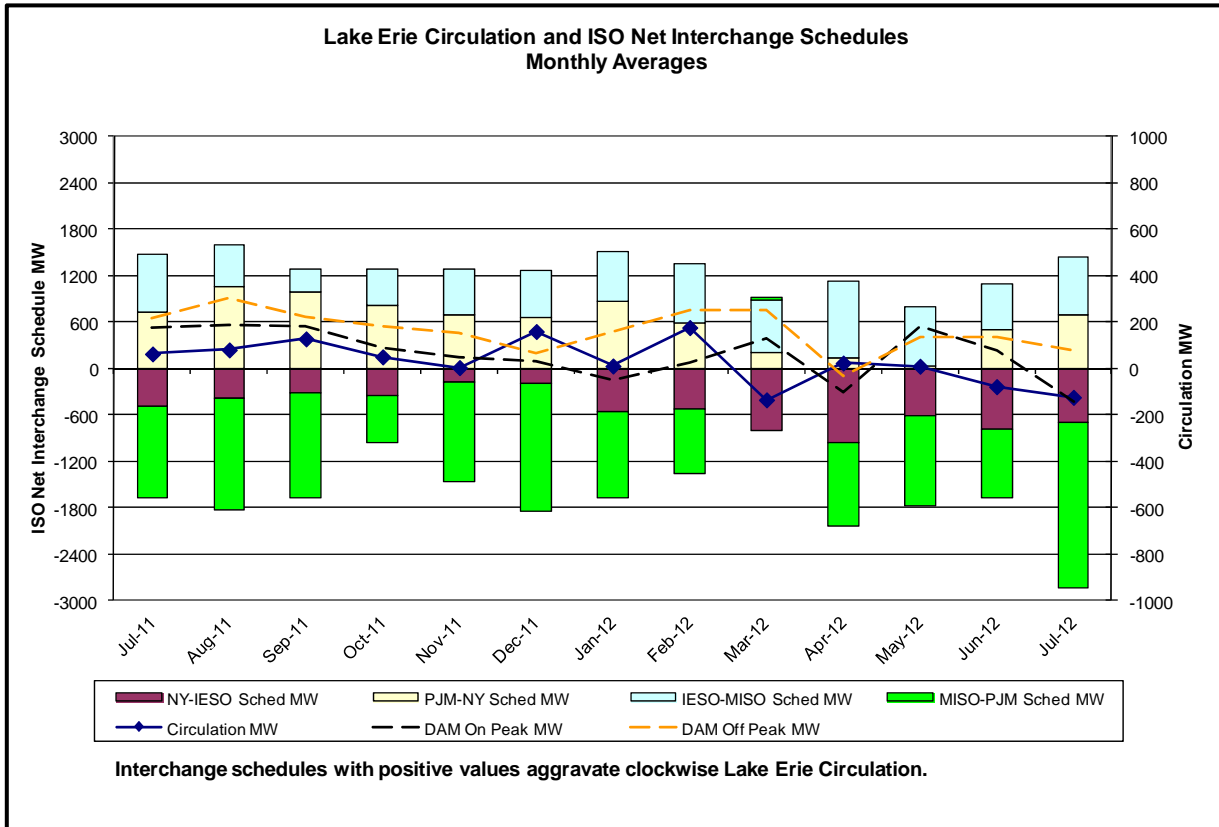




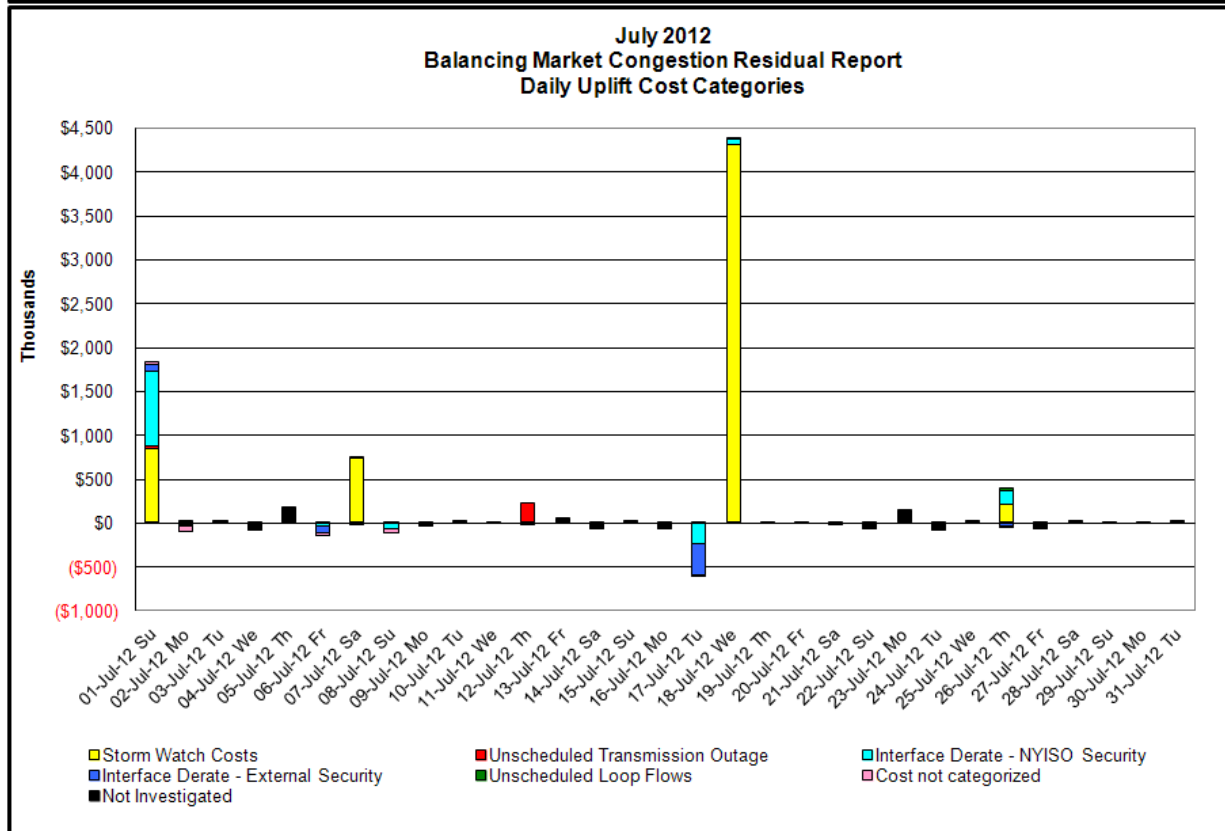
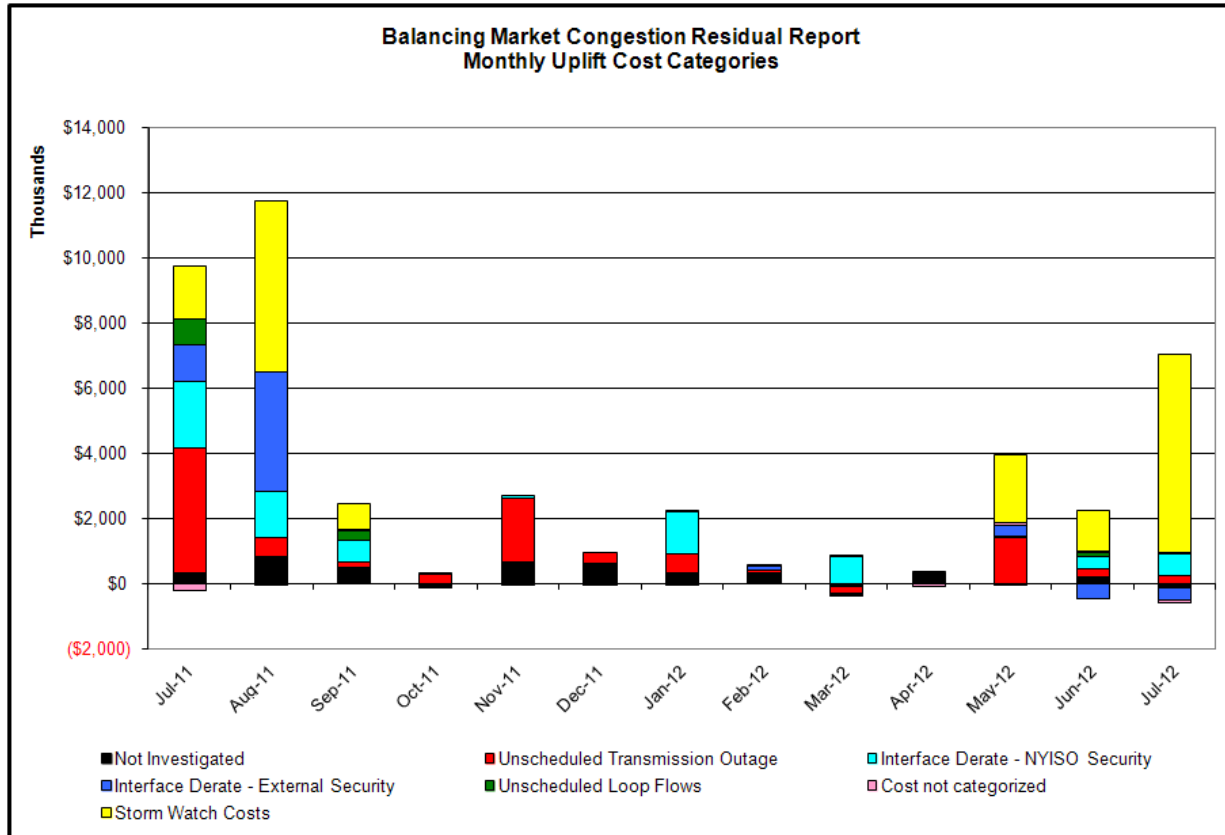








## Market Performance Metrics



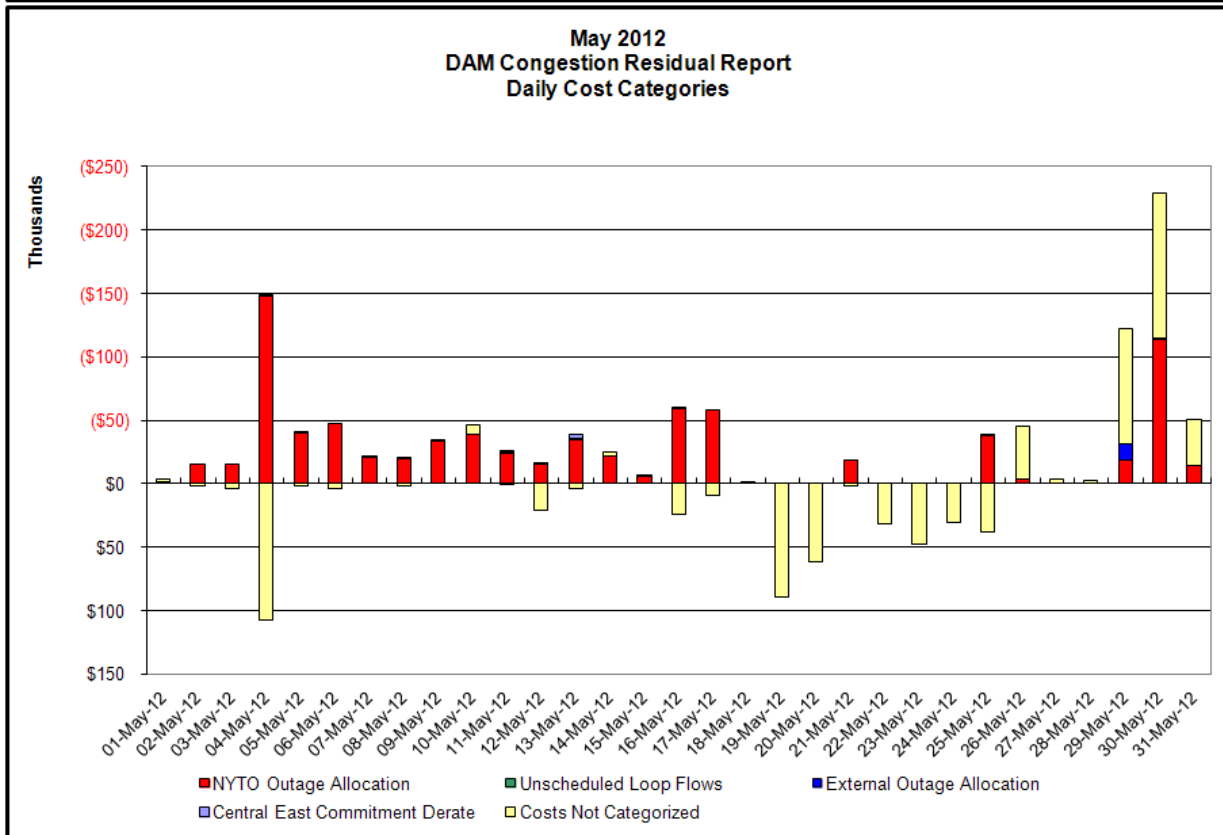
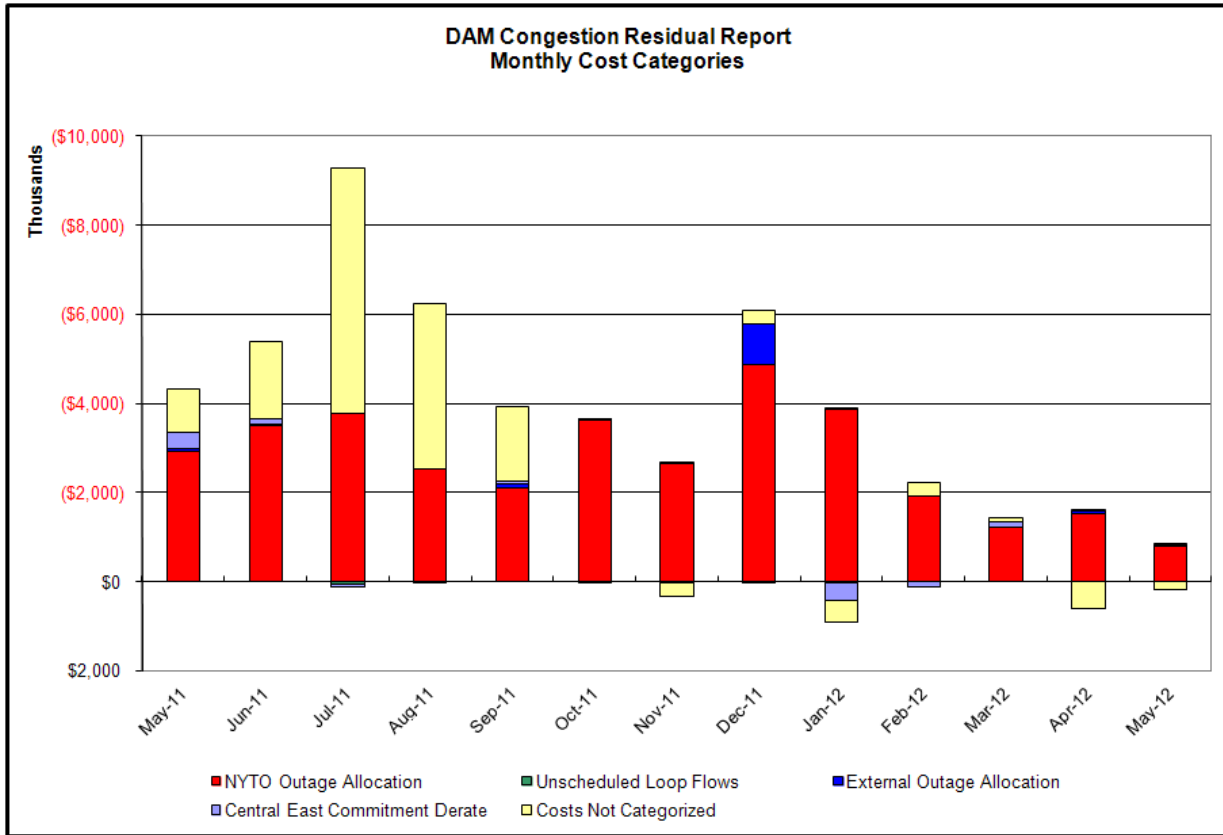
Day's investigated in July: 1,2,6,7,8,12,17,18,26			
Event	Date (yyyymm)	Hours	Description
	7/1/2012	13-18	Thunder Storm Alert
	7/1/2012	10, 11, 13	Extended outage Pleasant Valley-Long Mountain 345kV (#398)
	7/1/2012	11-13, 15-17	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB:RNS2
	7/1/2012	13, 14	Derate Farragut-Hudson Avenue 138kV (#32077)
	7/1/2012	0, 11-13, 22	Derate Gowanus-Greenwood 138kV (#42232)
	7/1/2012	16	PJM_AC DNI Ramp Limit
	7/1/2012	0	IESO_AC DNI Ramp Limit
	7/2/2012	16-18	Early return to service Pleasant Valley-Long Mountain 345kV (#398)
	7/2/2012	15	Derate Dunwoodie-Shore Road 345kV (#Y50)
	7/2/2012	1	Uprate FreshKills-WillowBrook 138kV (#29212)
	7/2/2012	16, 17	Uprate Niagara-Packard 230kV (#62) for I/o TWR:Niagara 61 & 64
	7/2/2012	15, 16	PJM_AC DNI Ramp Limit
	7/2/2012	18	IESO_AC DNI Ramp Limit
	7/2/2012	0	HQ_CHAT DNI Ramp Limit
	7/6/2012	19-22	NYCA DNI Ramp Limit
	7/6/2012	11, 21	Uprate FreshKills-WillowBrook 138kV (#29212)
	7/6/2012	21	Uprate Gowanus-GoethalsS 345kV (#26)
	7/6/2012	22	Derate Gowanus-Greenwood 138kV (#42232)
	7/6/2012	22	PJM_AC DNI Ramp Limit
	7/6/2012	15	NE_AC-NY Scheduling Limit
	7/6/2012	14, 21	IESO_AC DNI Ramp Limit
	7/7/2012	13, 14	Thunder Storm Alert [Leeds-Pleasant Valley 345kV
	7/7/2012	12, 16	NYCA DNI Ramp Limit
	7/8/2012	1	Derate Gowanus-Greenwood 138kV (#42232)
	7/8/2012	20-23	Uprate FreshKills-WillowBrook 138kV (#29212)
	7/12/2012	11-18	Forced outage Northport-Pilgrim 138kV (#672)
	7/17/2012	8, 11, 12, 18, 20, 21	NYCA DNI Ramp Limit
	7/17/2012	8, 9, 11, 20, 21	Uprate FreshKills-WillowBrook 138kV (#29212)
	7/17/2012	8	Uprate Gowanus-GoethalsS 345kV (#26)
	7/17/2012	10	Derate Sprainbrook-East Garden City 345kV (#Y49)
	7/17/2012	11-15	IESO_AC DNI Ramp Limit
	7/18/2012	12-19	Thunder Storm Alert
	7/18/2012	0, 1	Uprate FreshKills-WillowBrook 138kV (#29212)
	7/18/2012	0	Uprate Gowanus-GoethalsS 345kV (#26)
	7/18/2012	11	Uprate Niagara-Packard 230kV (#62) for I/o TWR:Niagara 61 & 64
	7/18/2012	18, 19	Derate Sprainbrook-East Garden City 345kV (#Y49)
	7/26/2012	8-10, 17-20	Thunder Storm Alert
	7/26/2012	17	Derate Dunwoodie-Shore Road 345kV (#Y50)
	7/26/2012	20	Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB:RNS2
	7/26/2012	17	Derate Leeds-Pleasant Valley 345kV (#92) for I/o Athens-Pleasant Valley 345kV (#91)
	7/26/2012	15-16	Uprate Scriba-Volney 345kV (#20) for I/o Scriba-Volney 345kV (#21)
	7/26/2012	13, 17-22	Derate Sprainbrook-East Garden City 345kV (#Y49)
	7/26/2012	15	IESO_AC DNI Ramp Limit
	7/26/2012	21, 22	HQ_CHAT-NY Scheduling Limit
	7/26/2012	17	Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Leeds-Pleasant Valley (#92), Dysinger 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

**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.	

