Operations Performance Metrics Monthly Report









May 2011 Report

Operations & Reliability Department New York Independent System Operator

Prepared by NYISO Operations Analysis and Services, based on settlements initial process data.



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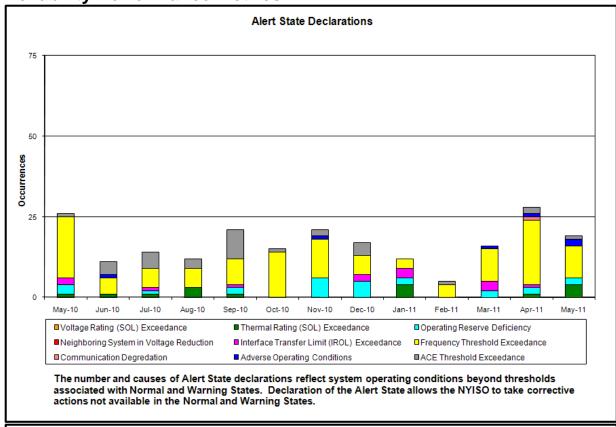


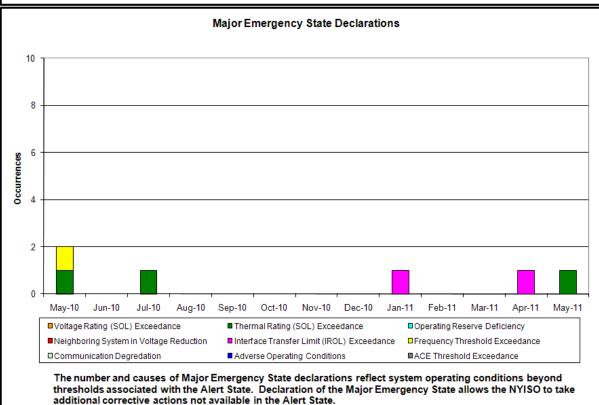
May 2011 Operations Performance Highlights

- Peak load of 27,738 MW occurred on 5/31/2011 HB16
- All-time summer capability period peak load of 33,939 MW occurred on 8/2/2006 HB13
- Continued levels of Clockwise Lake Erie Loop Flows
 - Increased IESO to MISO exports
 - Decreased PJM to MISO exports
 - 128 hours of NERC TLR level 3 curtailments
- Daily Uplift Monitoring / Review Process
 - Low levels of transmission congestion related uplift costs
 - Decreased supplier related uplift costs

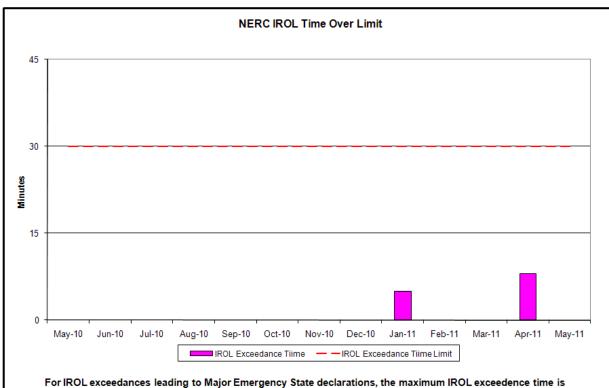


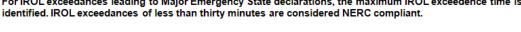
Reliability Performance Metrics

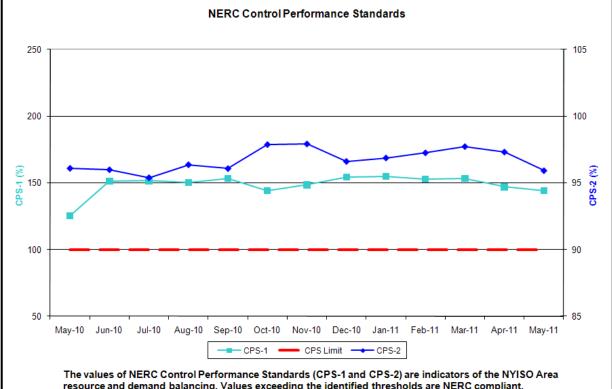




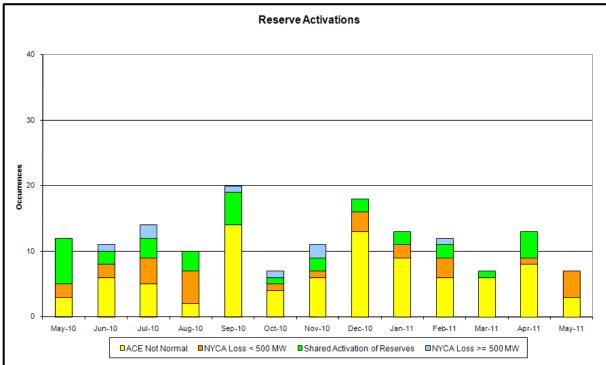




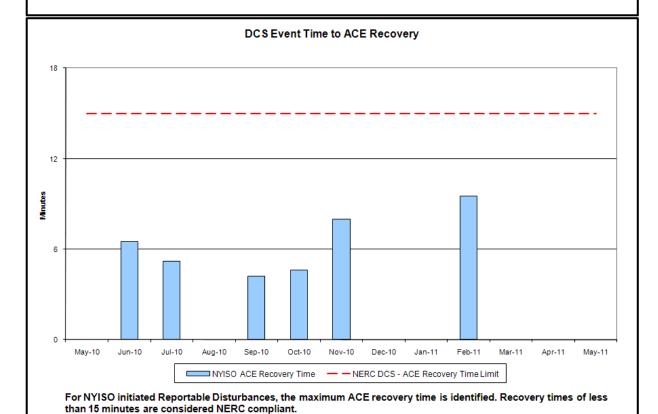




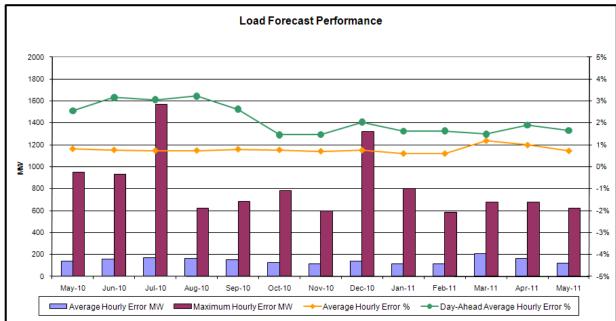




NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Shared Activation of Reserves) by activating an immediate resource and demand balancing operation.



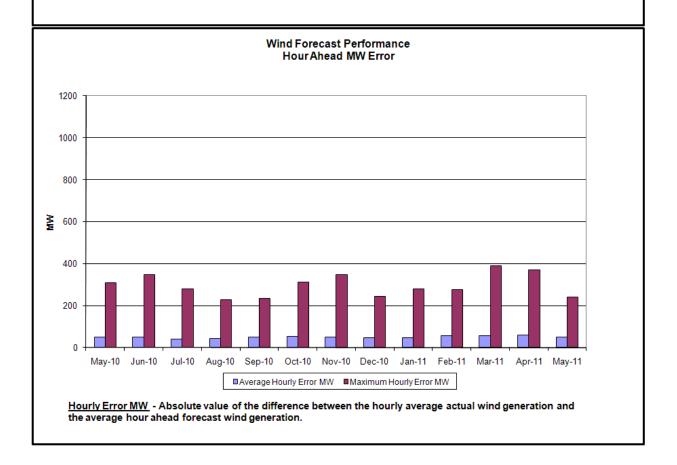




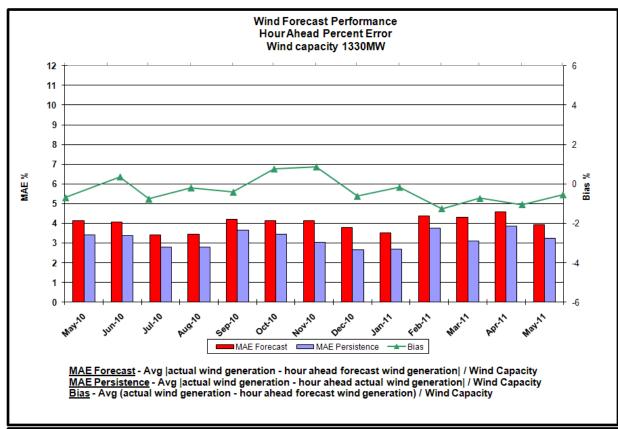
<u>Hourly Error MW</u> - Absolute value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.

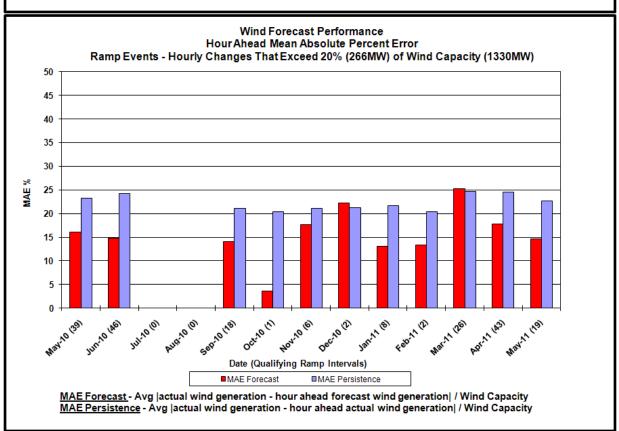
<u>Average Hourly Error %</u> - Average value of the ratio of hourly average error magnitude to hourly average actual load demand.

<u>Day-Ahead Average Hourly Error %</u> - 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.

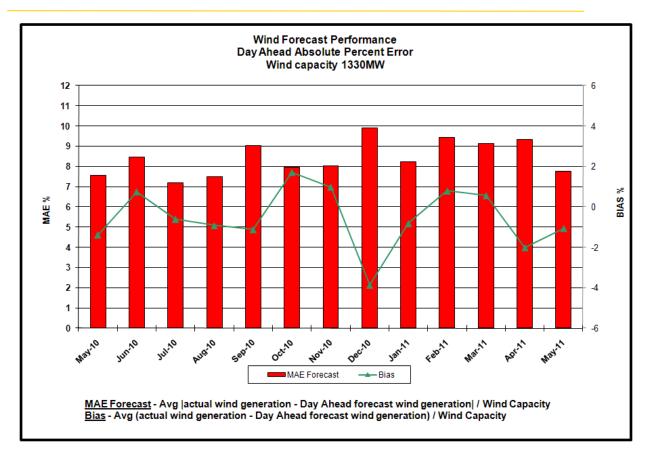




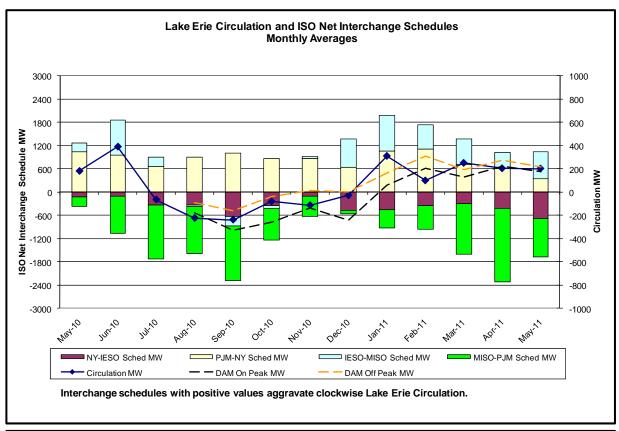


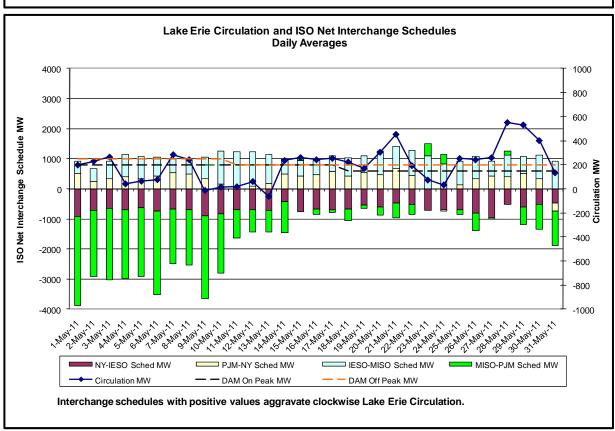






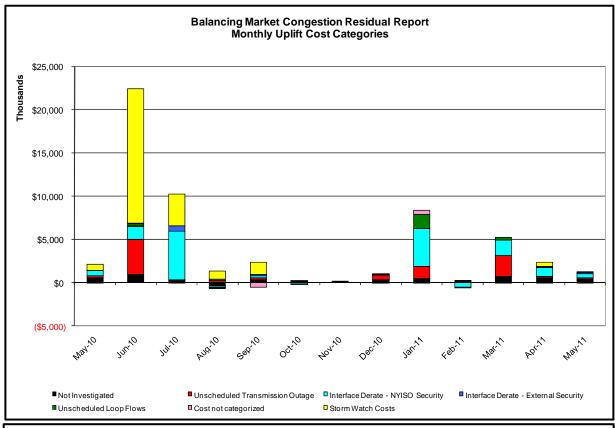


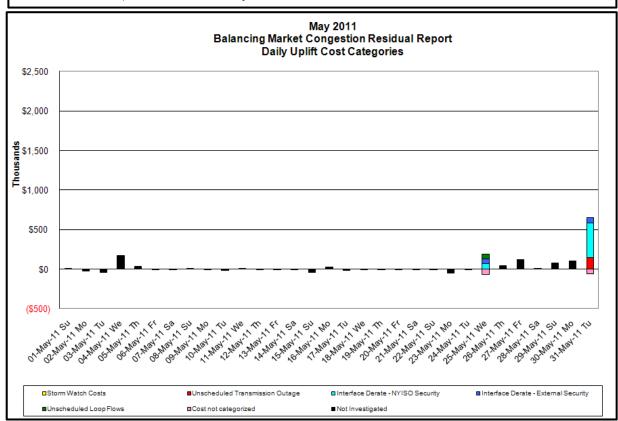






Market Performance Metrics



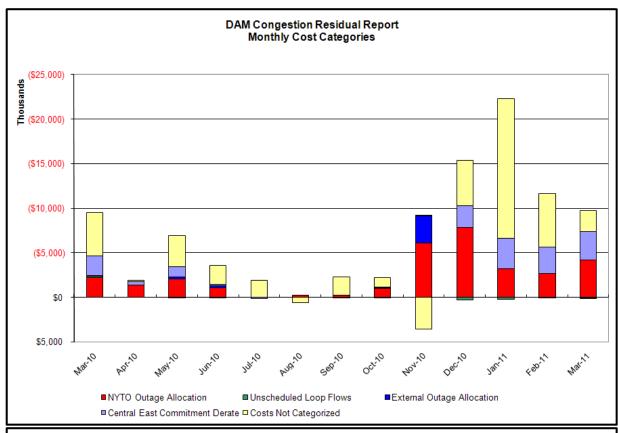


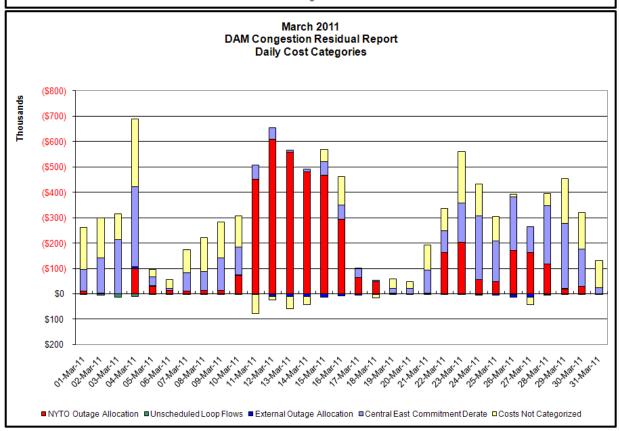


| Day's | investigated | in May:25,31 | |
|-------|-------------------|-------------------|--|
| Event | Date (yyyyr Hours | | Description |
| | 5/25/2011 | 12,13 | Derate Leeds-New Scotland 345kV (#93) for I/o Leeds-New Scotland 345kV (#94) |
| | 5/25/2011 | | IESO DNI Ramp Limit |
| | 5/25/2011 | 13 | Lake Erie Clockwise Circulation, DAM-RTM exceeds 125MW; Leeds-New Scotland (#93) |
| | 5/31/2011 | | Forced outage of Norwalk Harbor-Northport 138kV (#1385) |
| | 5/31/2011 | 10-12,14-16 | Derate Dunwoodie-Shore Road 345kV (#Y50) for I/o SCB Sprainbrook #RNS2 |
| | 5/31/2011 | 10-12,14-16,18-20 | Derate Leeds-New Scotland 345kV (#93) for I/o Leeds-New Scotland 345kV (#94) |
| | 5/31/2011 | | Uprate GoethalsS-GowanusS 345kV (#26) |
| | 5/31/2011 | 15 | NE_AC-NY Scheduling Limit |

| Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories | | | | | | | | |
|---|--|-----------------|--|--|--|--|--|--|
| | | | | | | | | |
| | | | | | | | | |
| | <u>Category</u> | Cost Assignment | Events Types | Event Examples | | | | |
| | Storm Watch | Zone J | Thunderstorm Alert (TSA) | TSA Activations | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Unscheduled Transmission Outage | Market-wide | Reduction in DAM to RTM transfers | Forced Line Outage, | | | | |
| | | | related to unscheduled transmission | Unit AVR Outages | | | | |
| | | | outage | | | | | |
| | Interface Derate - NYISO Security | Market-wide | Reduction in DAM to RTM transfers | Interface Derates due to | | | | |
| | interrace berate 141100 decarty | Warket Wide | not related to transmission outage | RTM voltages | | | | |
| | | | | 3 | | | | |
| | | | | | | | | |
| | Interface Derate - External Security | Market-wide | Reduction in DAM to RTM transfers | TLR Events, | | | | |
| | | | related to External Control Area | External Transaction | | | | |
| | | | Security Events | Curtailments | | | | |
| | | | 0 | D. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | | | | |
| | Unscheduled Loop Flows | Market-wide | Changes in DAM to RTM unscheduled loop flows impacting | DAM to RTM Clockwise Lake Erie Loop Flows | | | | |
| | | | NYISO Interface transmission | greater than 125 MW | | | | |
| | | | constraints | g. ca.cac | | | | |
| | Monthly Balancing Market Congestion Report Assumptions/Notes | | | | | | | |
| | | | | | | | | |
| | 1) Storm Watch Costs are identified as daily total uplift costs | | | | | | | |
| | 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 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. | | | | | | | |
| | / Construction of the cons | | | | | | | |









| | Day-Ahead Market Congestion Residual Categories | | | | | | | |
|-------------------------|---|--|--|---|--|--|--|--|
| Category NYTO Outage | Allocation | <u>Cost Assignment</u> Responsible TO | Events Types Direct allocation to NYTO's responsible for transmission equipment status change. | Event Examples DAM scheduled outage for equipment modeled inservice for the TCC Auction. | | | | |
| Unscheduled I | 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 Outa | ge 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 C | ommitment 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. | | | | | |



