



Operations Performance Metrics Monthly Report

A Report by the
New York Independent System Operator

September 2025

*Prepared by NYISO Operations Analysis and Services, based on settlements
initial invoice data collected on or before October 8, 2025.*

Table of Contents

SEPTEMBER 2025 HIGHLIGHTS.....	3
NYCA GENERATION MIX	4
RELIABILITY PERFORMANCE METRICS	5
Alert State Declarations	
Major Emergency State Declarations	
Reserve Activiations	
IROL Exceedance Times	
Disturbance Recovery Times	
Balancing Area Control Performance	
Thunderstorm Alert Hours	
Transmission Loading Relief Hours	
Load Forecasting Performance	
Net Load Ramp Trends	
Wind Forecasting Performance	
FTM Solar Forecasting Performance	
BTM Solar Forecasting Performance	
Net Wind & Solar Performance	
DAM Capacity Unavailable	
Lake Erie Circulation and ISO Schedules	
MARKET PERFORMANCE METRICS.....	13
RTM Congestion Residuals Monthly Trend	
RTM Congestion Residuals Daily Costs	
RTM Congestion Residuals Cost Categories	
RTM Congestion Residuals Event Summary	
DAM Congestion Residuals Monthly Trend	
DAM Congestion Residuals Daily Costs	
DAM Congestion Residuals Cost Categories	
NYCA Power Supplier Uplift Monthly Trend	
NYCA Power Supplier Uplift Daily Costs	
Local Reliability Costs Monthly Trend	
Local Reliability Monthly DARU & SRE Hours	
TCC Monthly Clearing Price with DAM Congestion	
ICAP Spot Market Clearing Price & Price Change Summary	
APPENDIX	20
Appendix A – Metric Definitions	
Appendix B – NYISO Information Resources	

September 2025 Highlights



Monthly Metered Load

Peak Load

21,342 MW
09/05/2025 HB 17

Minimum Load

12,591 MW
09/21/2025 HB 04



Historical Metered Load Peaks

Summer 2025 Peak Load

31,857 MW
06/24/2025 HB 18

All-Time Summer Peak Load

33,956 MW
07/19/2013 HB 16

Monthly Intermittent Resource Peaks



Peak Wind

1,576 MW
09/05/2025 HB 16



Peak Solar (FTM+BTM)

4,616 MW
09/20/2025 HB 12



All-Time Peak Wind

2,309 MW
12/16/2024 HB 23



All-Time Peak Solar (FTM+BTM)

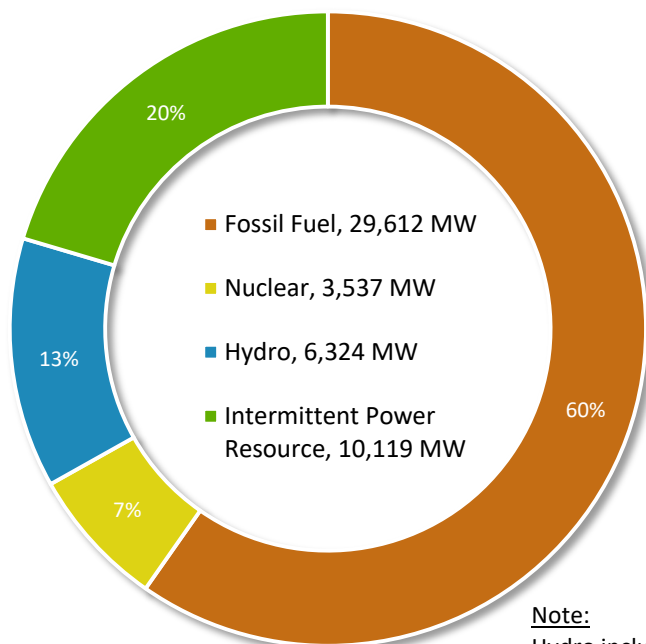
4,809 MW
04/17/2025 HB 12

Notable NYCA System Events

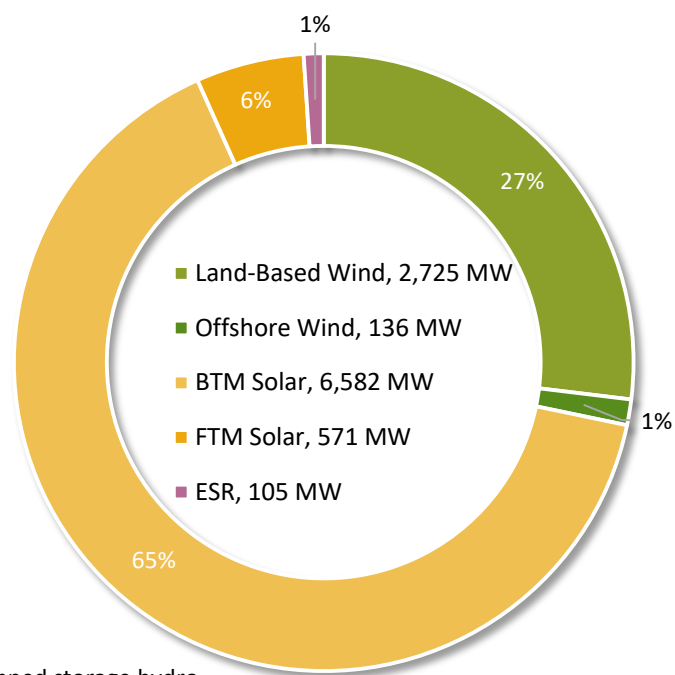
- No notable system events.

NYCA Generation Mix

Generation Nameplate
by Fuel Type

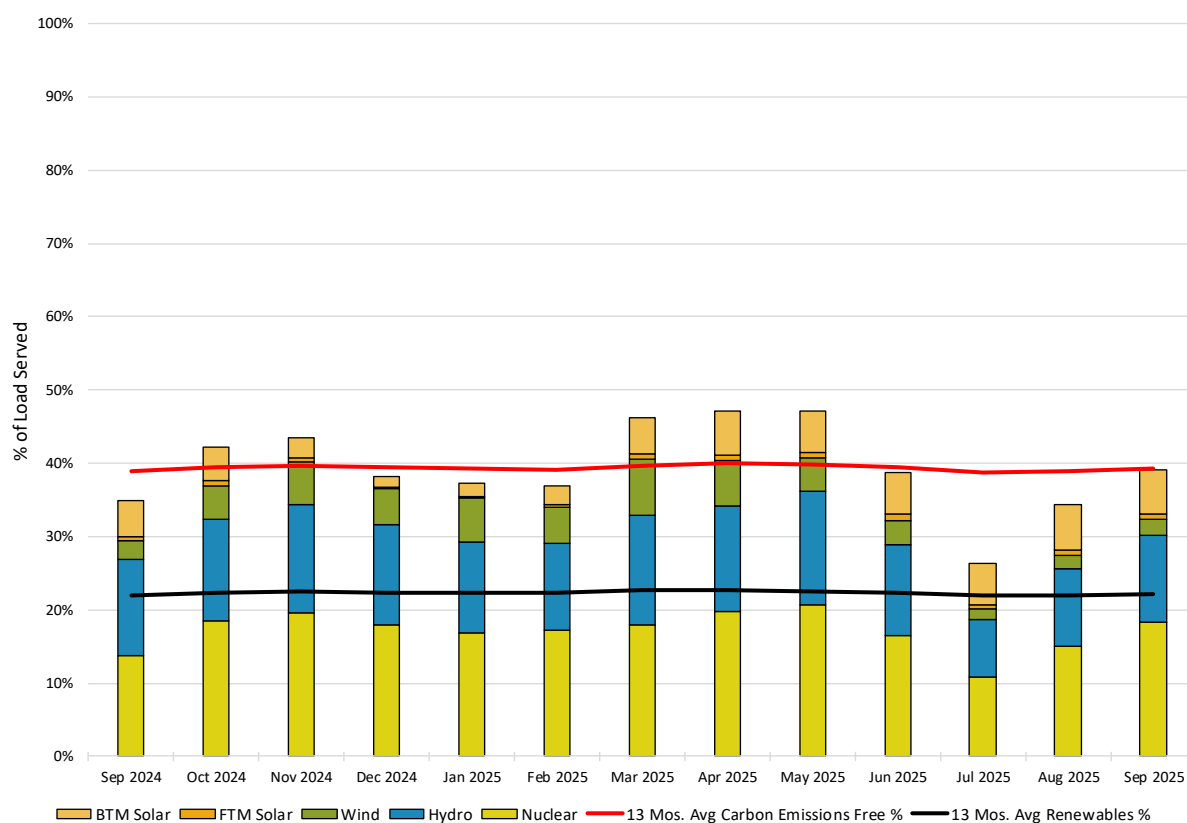


Intermittent Power
Resource Nameplate



Note:
Hydro includes pumped storage hydro
ESR includes LESR

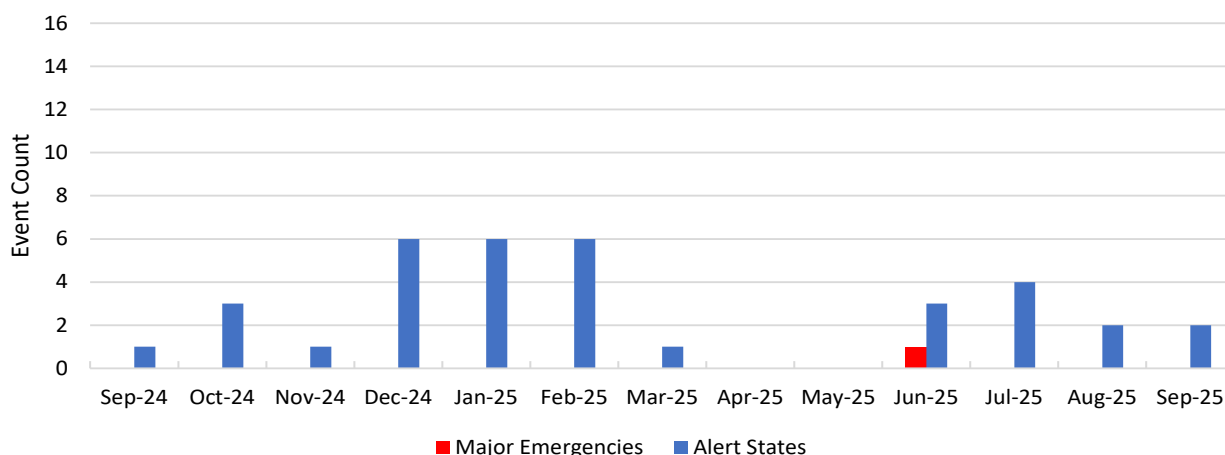
NYCA Load Served by Emissions-Free NYCA Generation



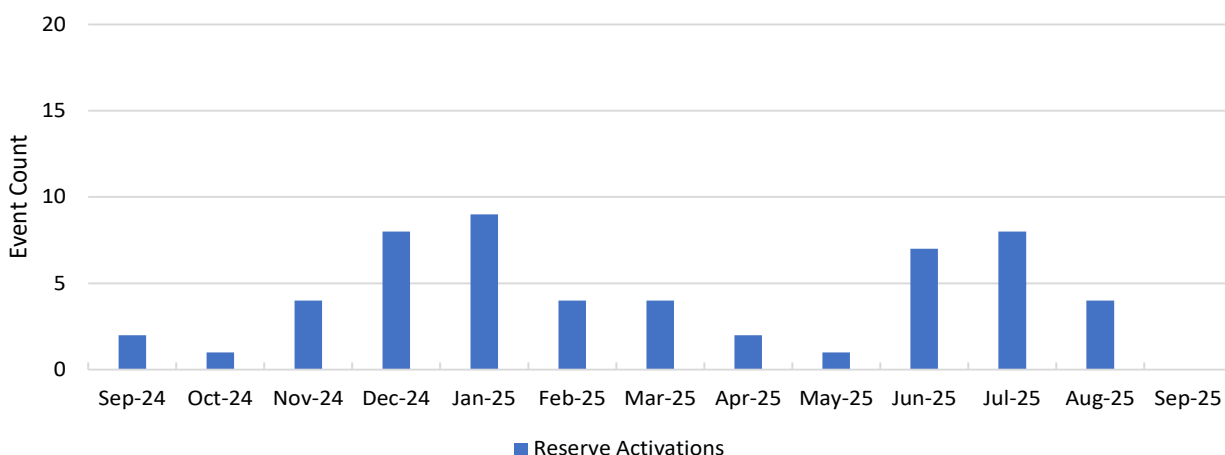
Reliability Performance Metrics

See [Appendix A](#) for metric definitions

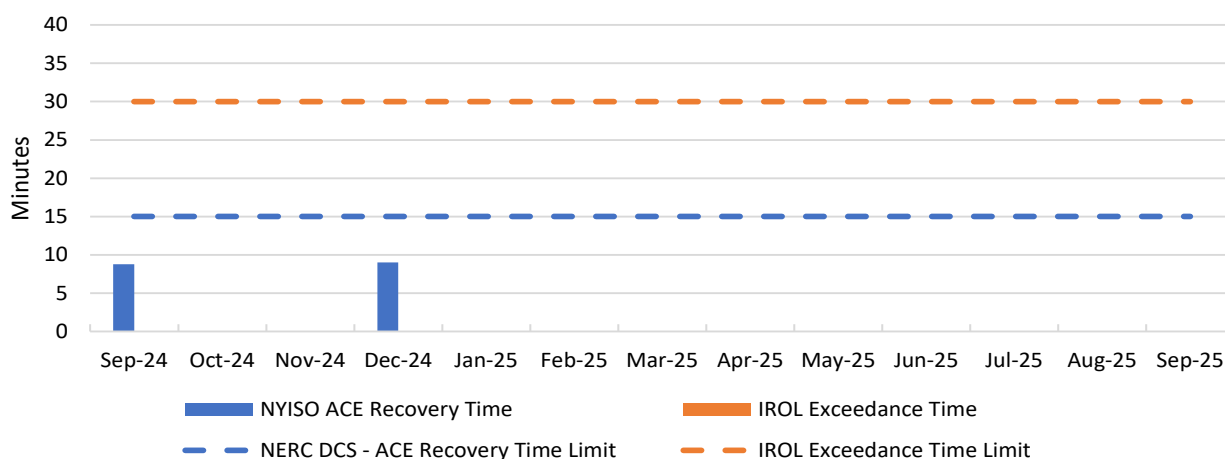
Major Emergency State & Alert State Declarations



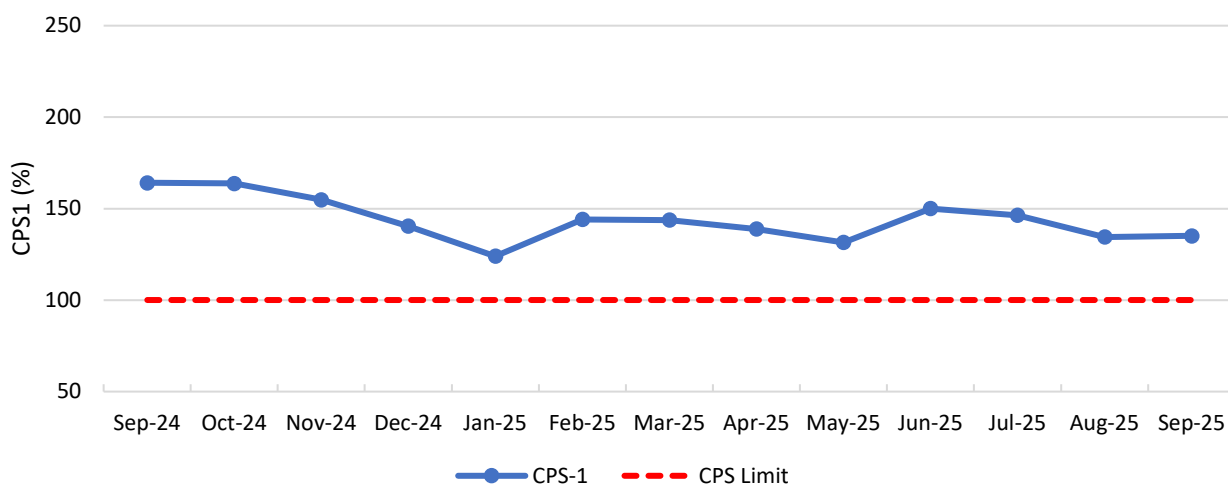
Reserve Activations



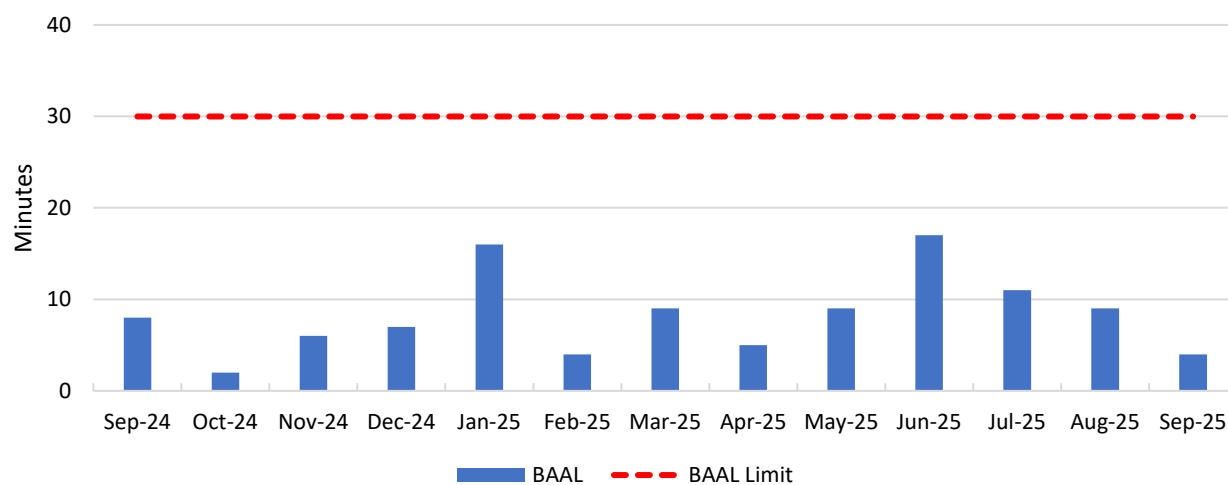
NERC IROL and DCS Reportable Violation Minutes



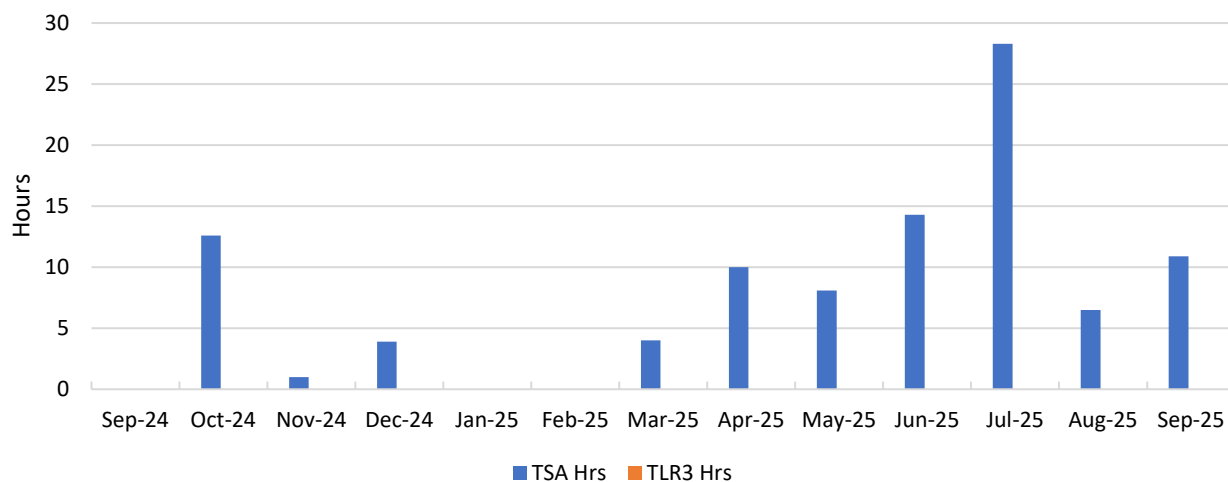
NERC Control Performance Standard

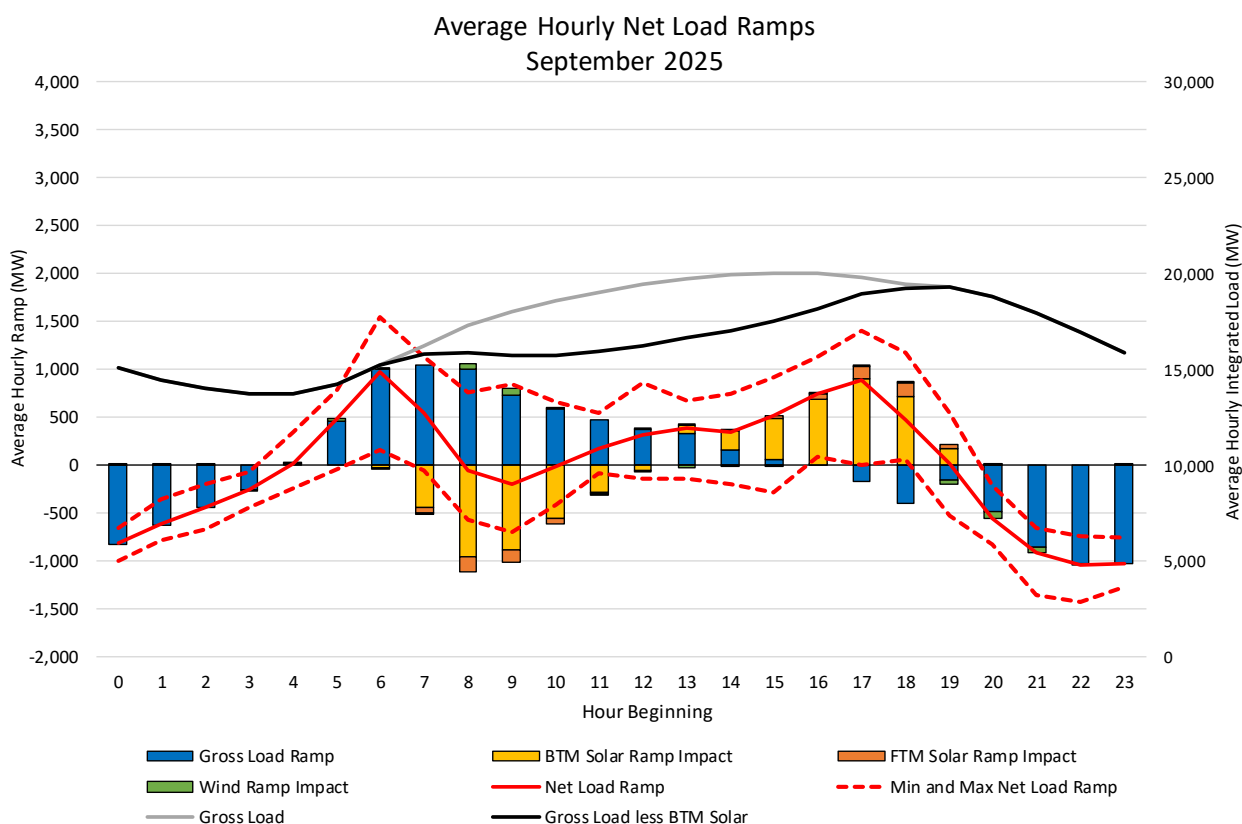
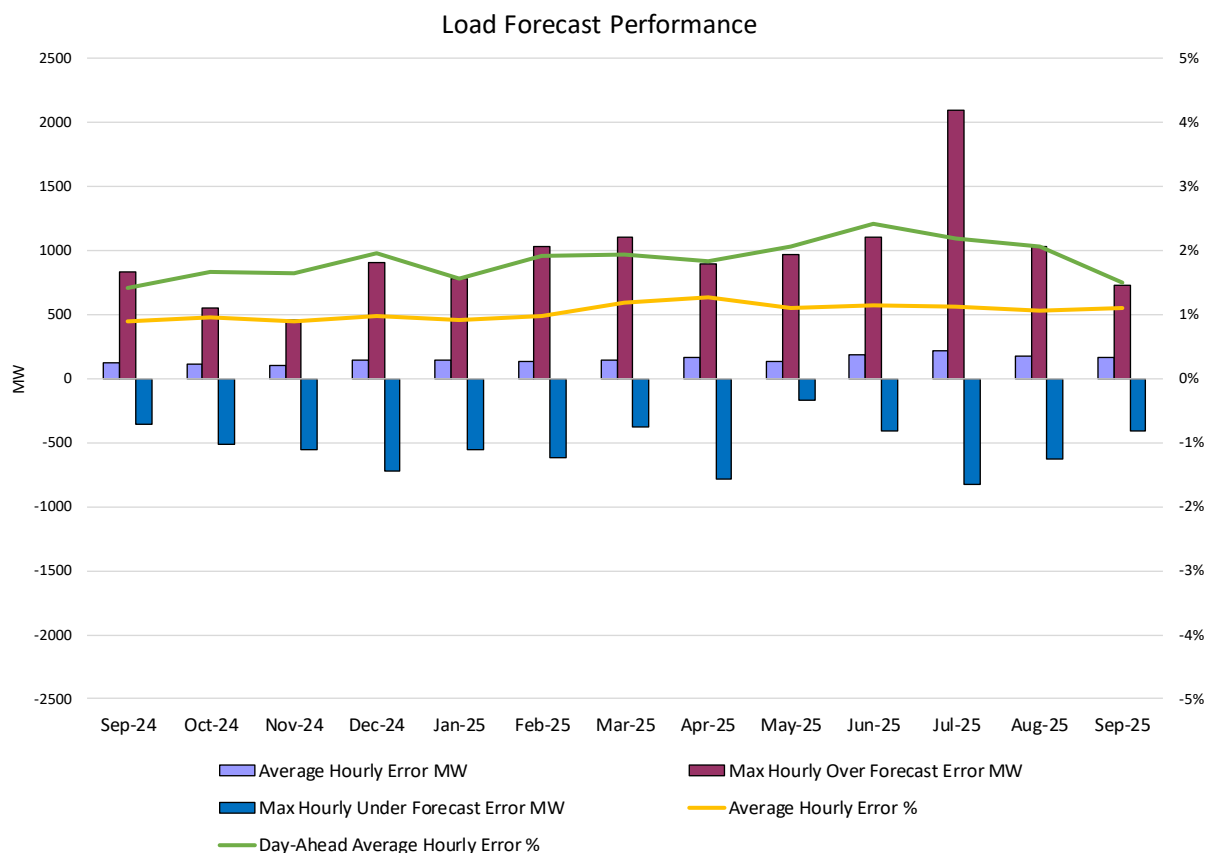


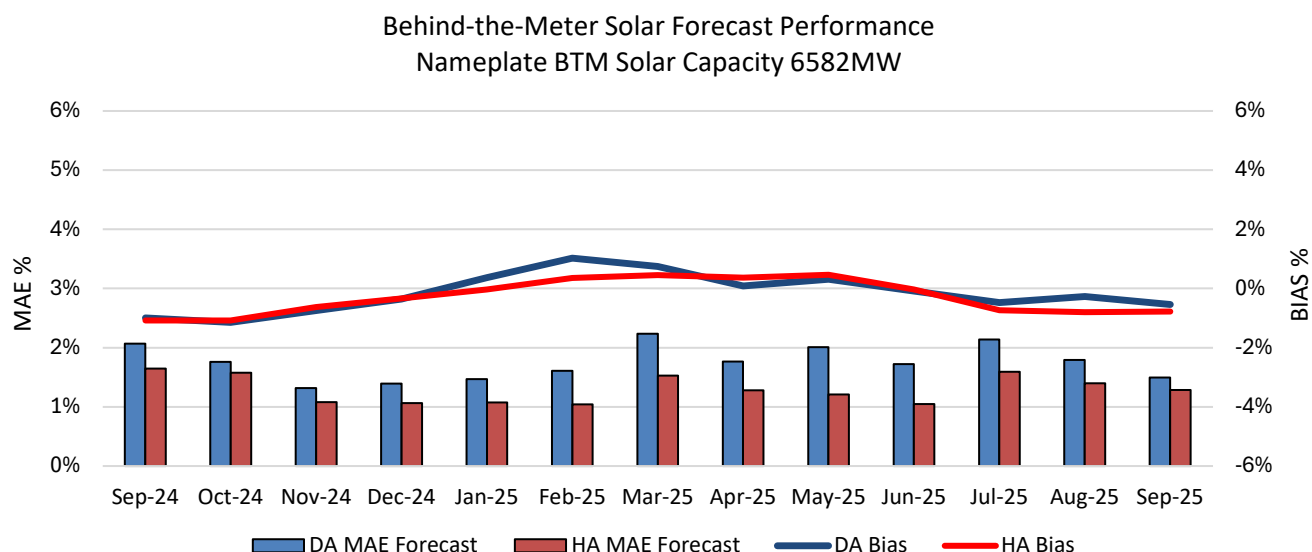
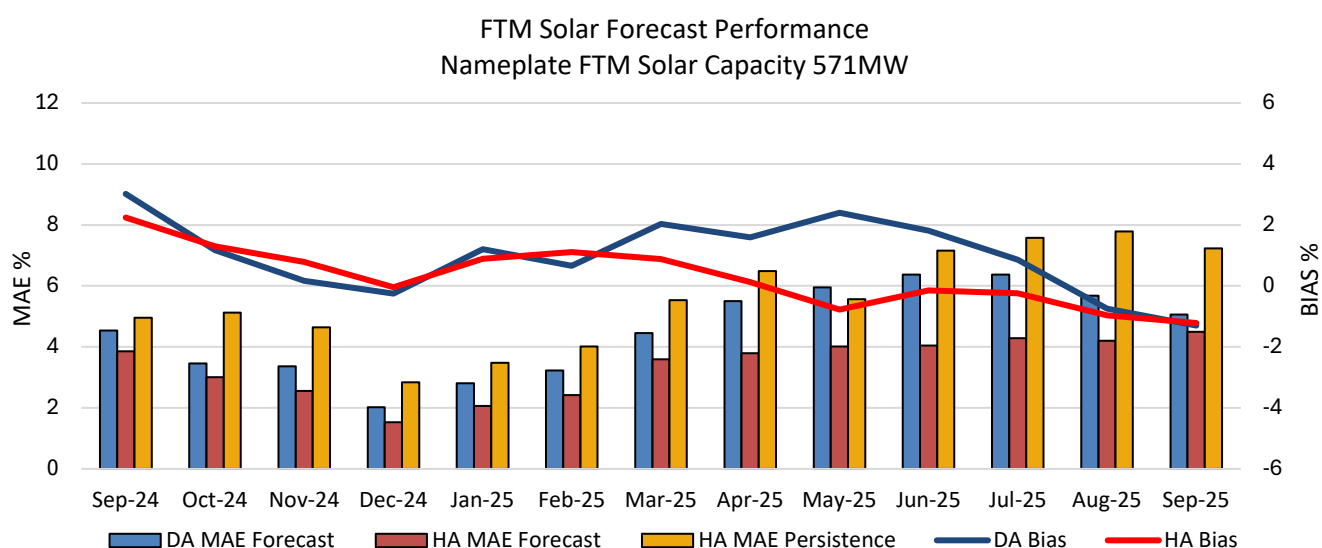
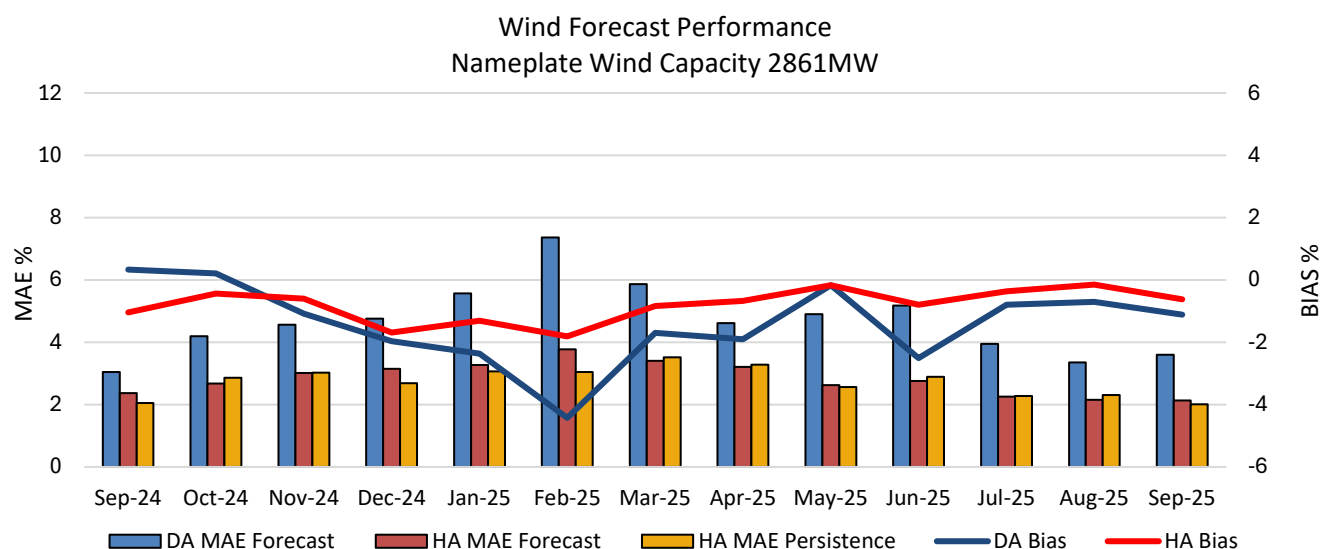
NERC Balancing Authority ACE Limit Standard



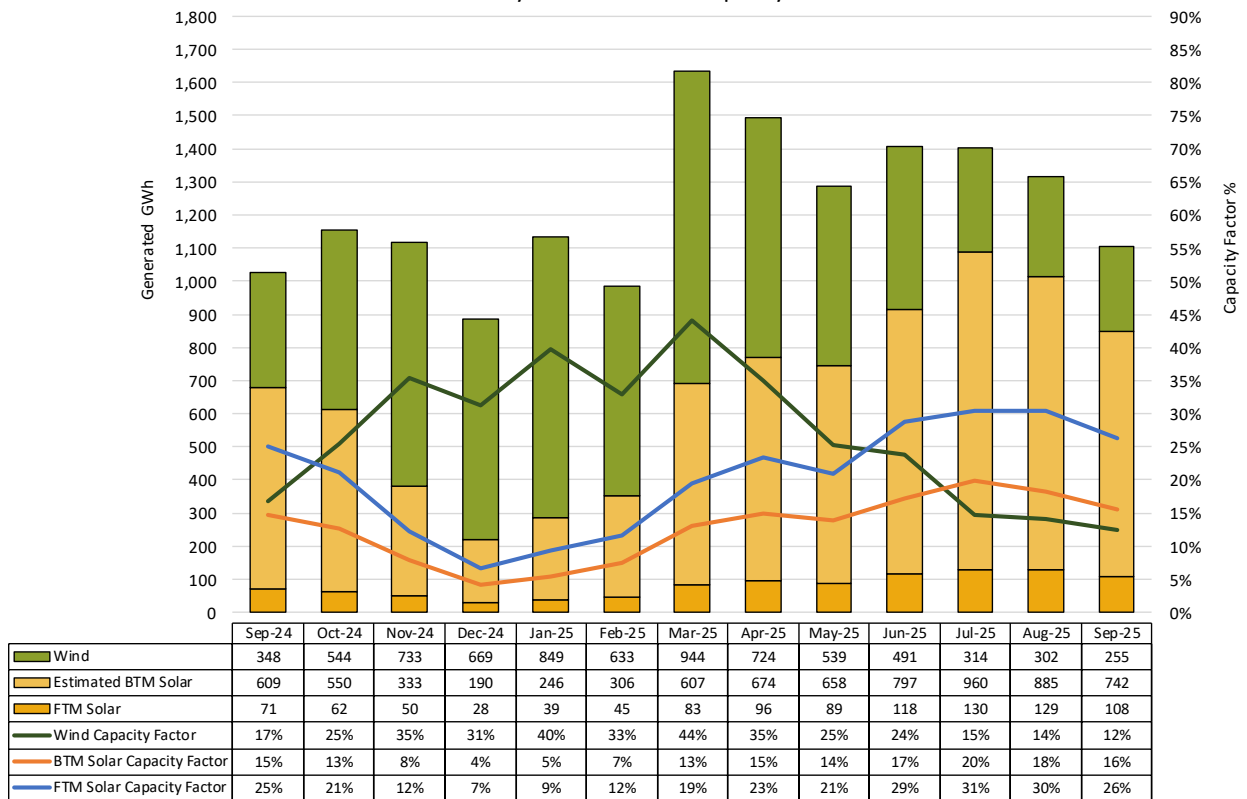
Thunderstorm Alert Hours and NERC TLR-3 Hours



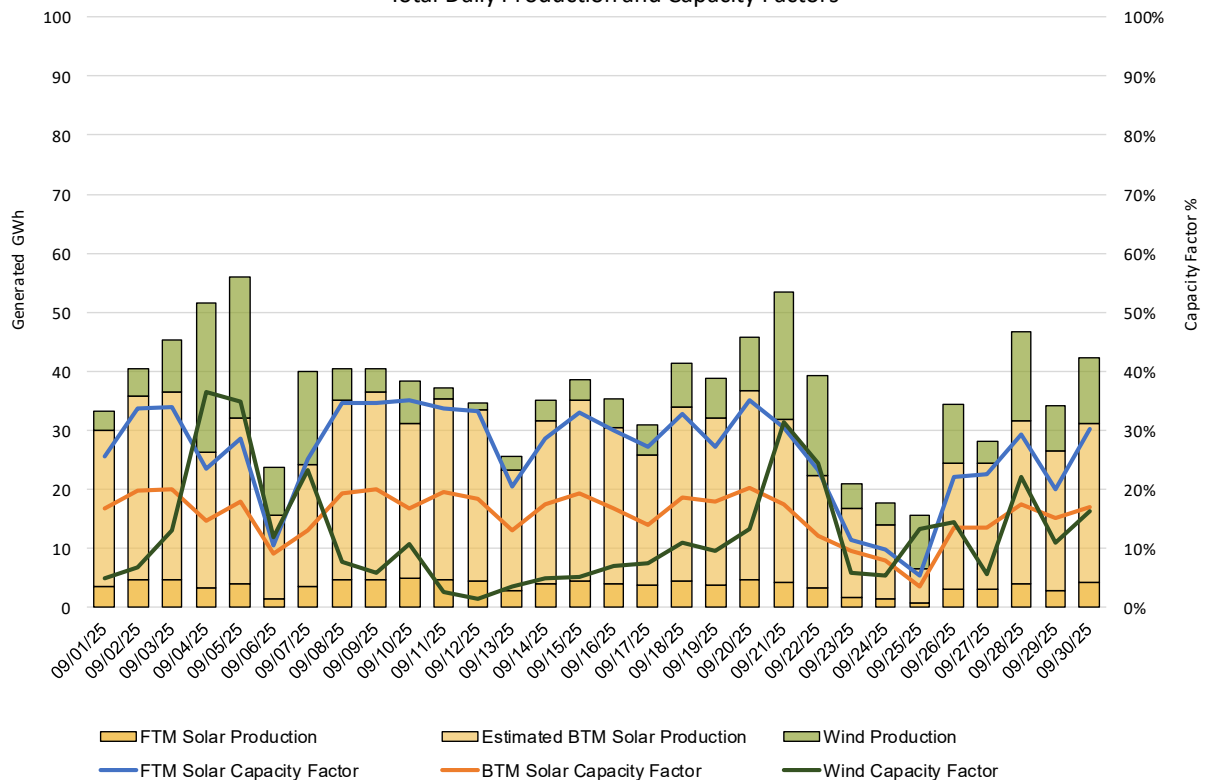




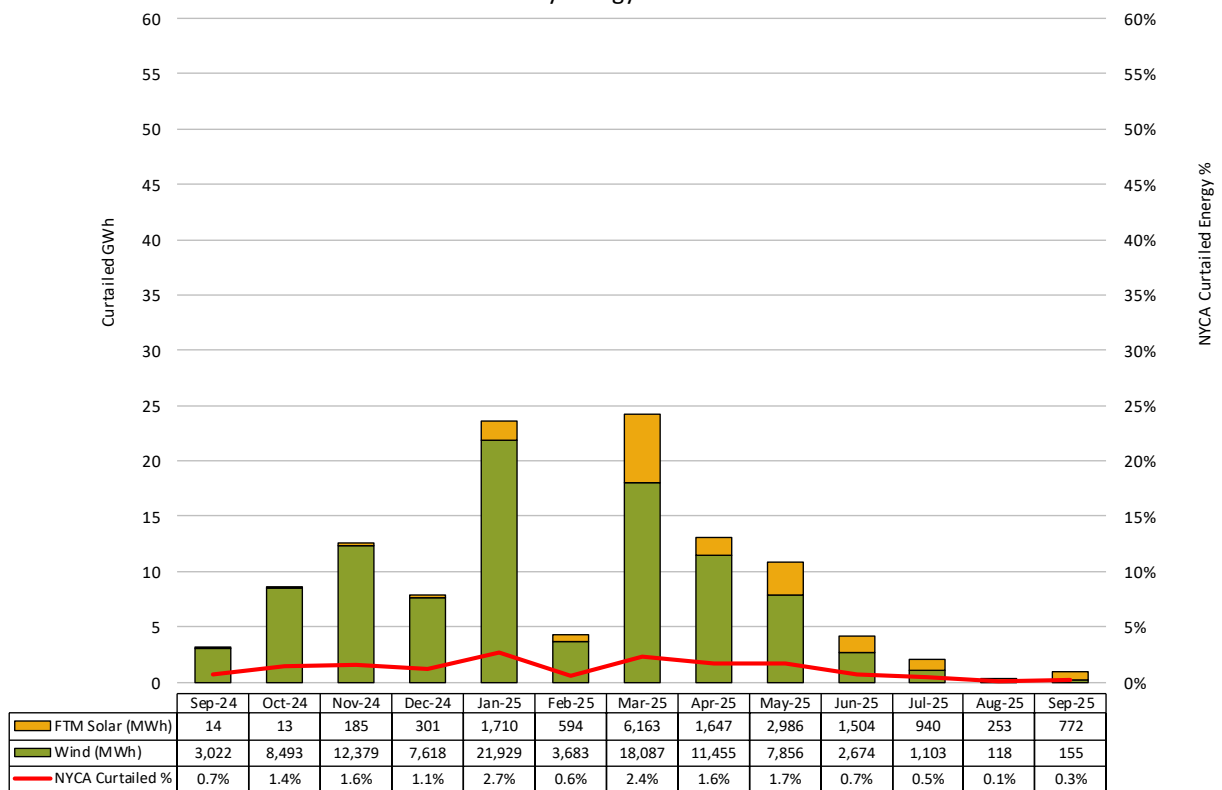
Net Wind and Solar Performance Total Monthly Production and Capacity Factors



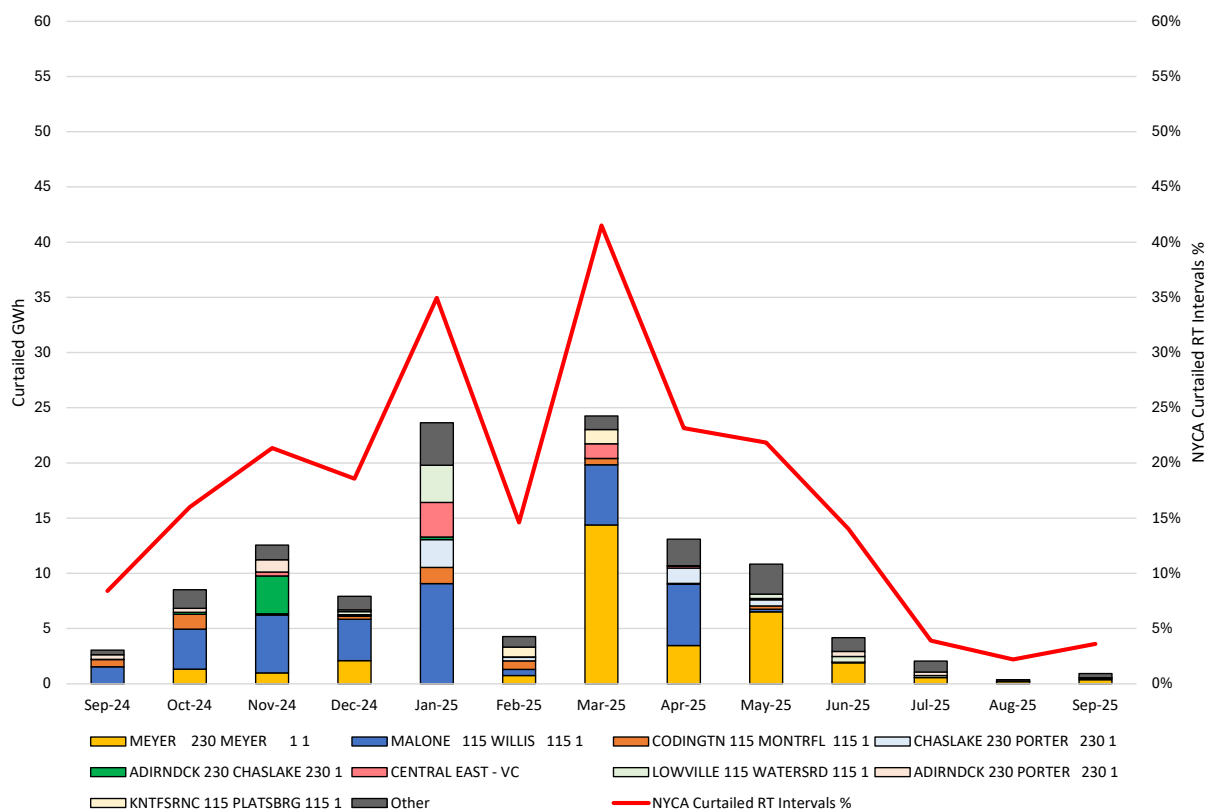
Net Wind and Solar Performance Total Daily Production and Capacity Factors

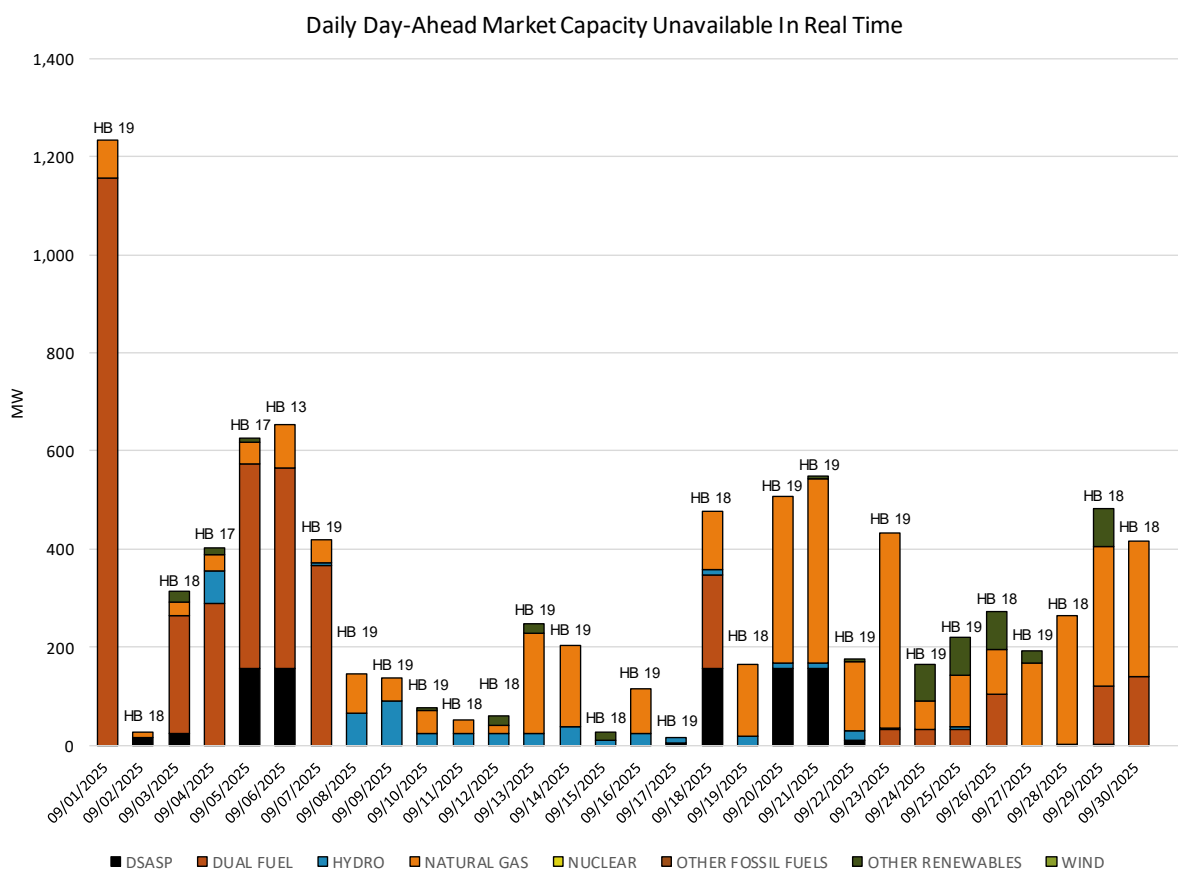
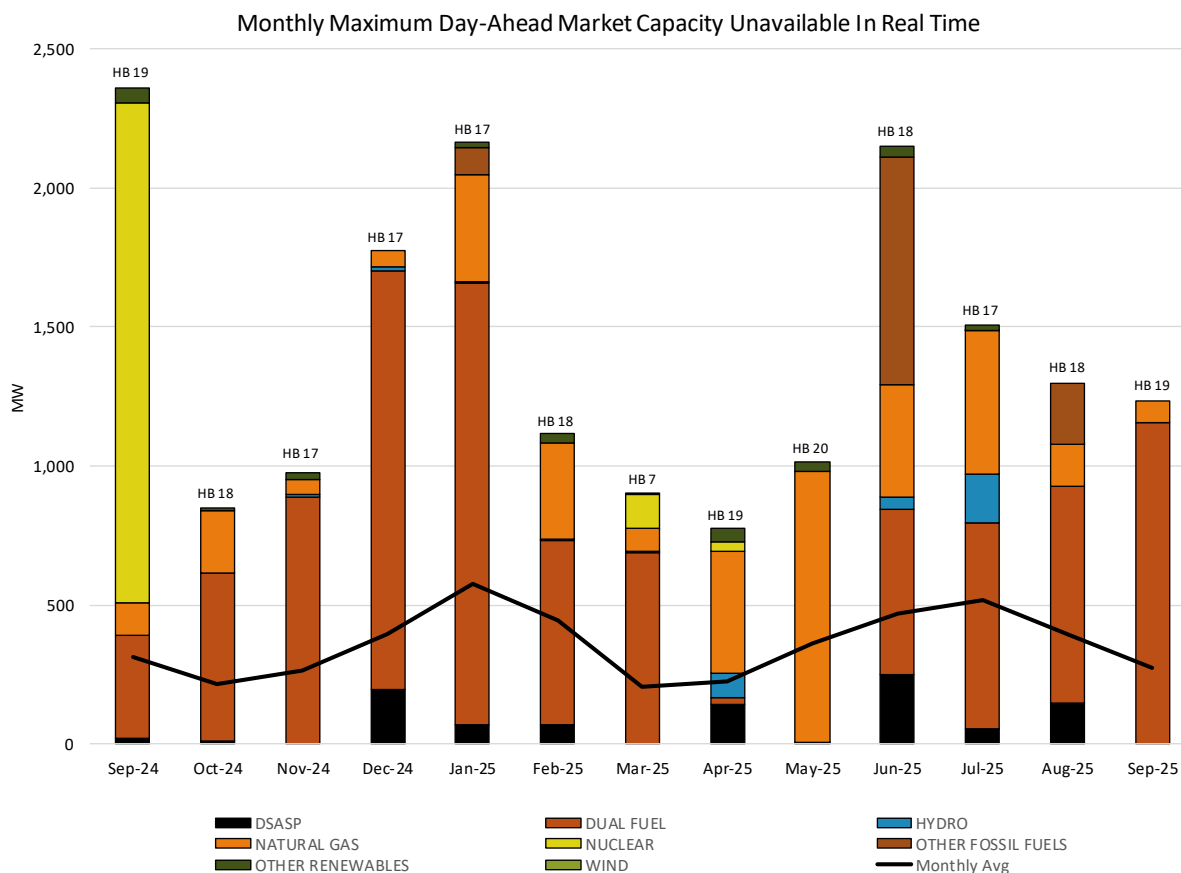


Net Wind and FTM Solar Performance Monthly Energy Curtailment

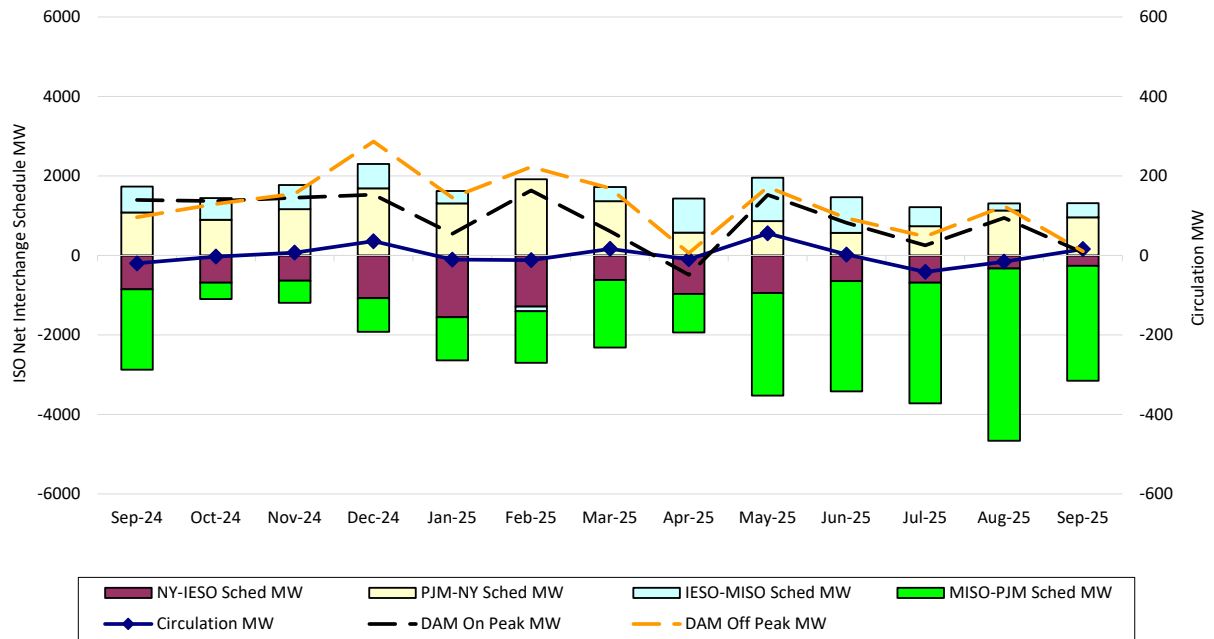


Net Wind and FTM Solar Performance Monthly Energy Curtailment by Limiting Constraint



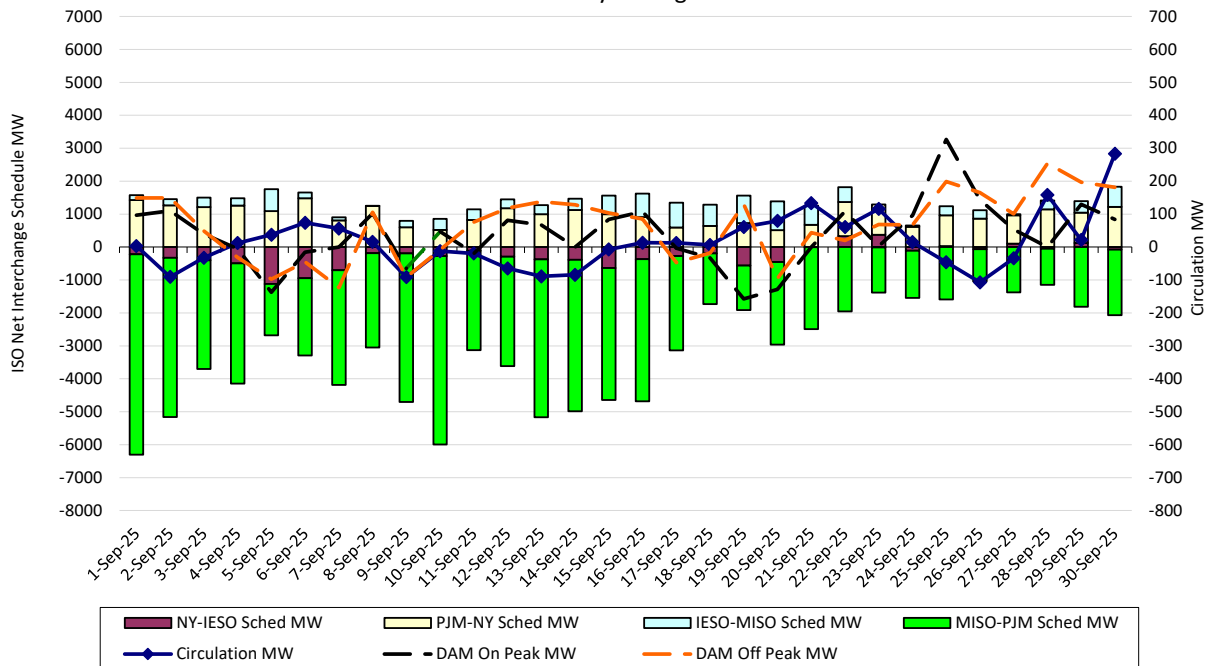


Lake Erie Circulation and ISO Net Interchange Schedules
Monthly Averages



Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

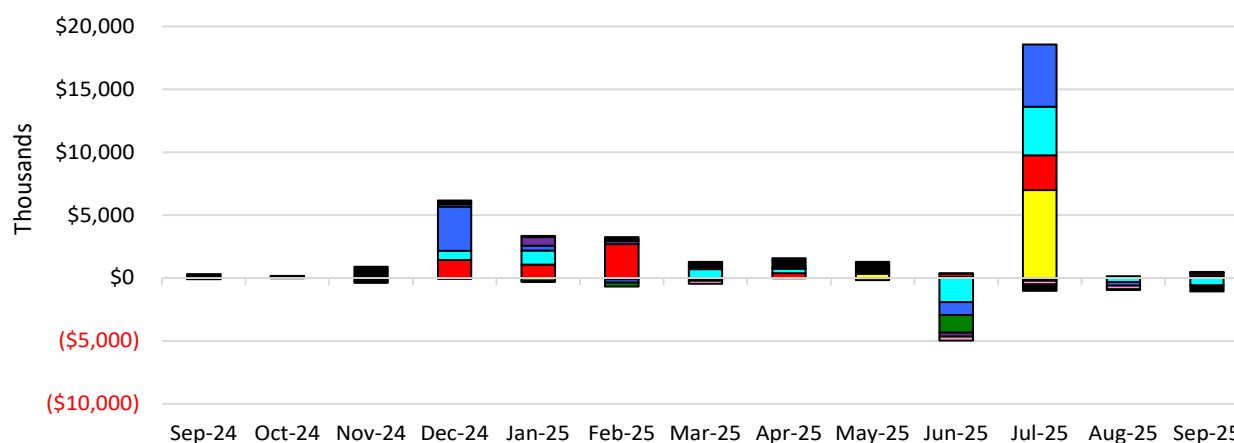
Lake Erie Circulation and ISO Net Interchange Schedules
Daily Averages



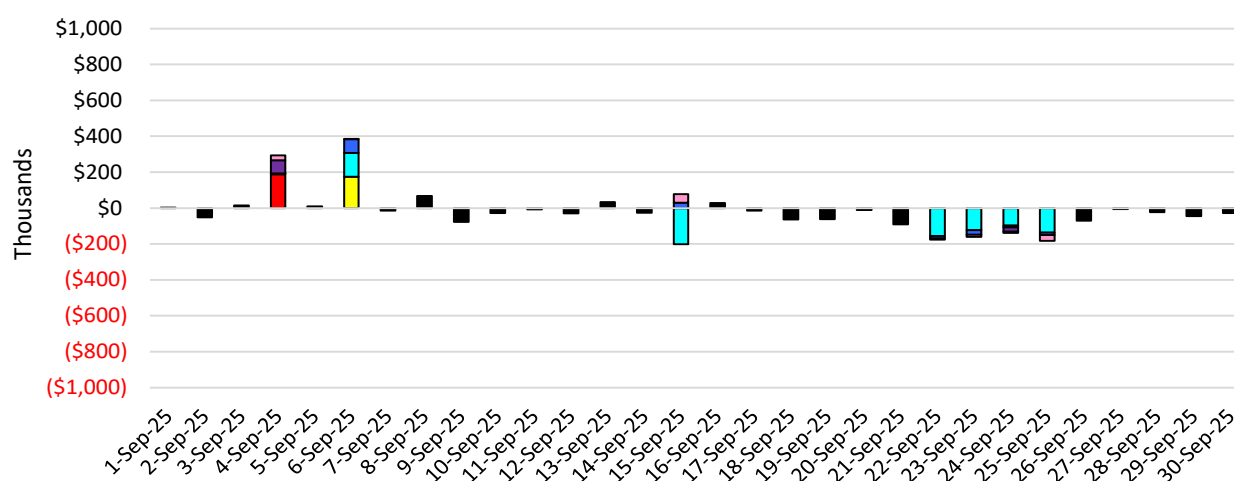
Interchange schedules with positive values aggravate clockwise Lake Erie Circulation.

Market Performance Metrics

Balancing Market Congestion Residual
Monthly Uplift Cost Categories



Daily Uplift Cost Categories



Real-Time Balancing Market Congestion Residual Categories

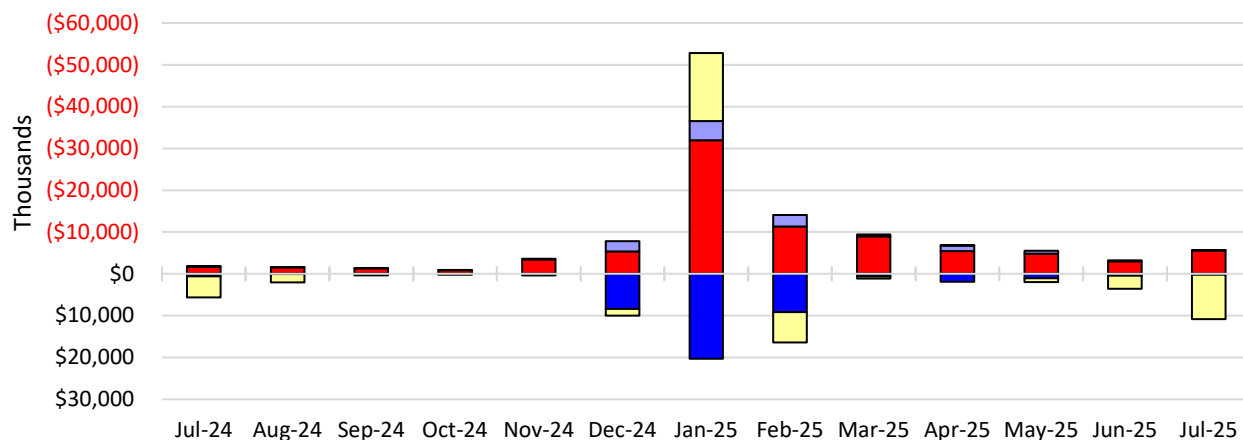
Category	Cost Assignment	Events Types	Event Examples
Storm Watch	Zone J	Thunderstorm Alert (TSA)	TSA Activations
Transmission Outage Mismatch	Market-wide	Changes in DAM to RTM transfers related to transmission outage mismatch	Forced Line Outages, Unit AVR Outages, Early Line Return from Outage
Interface/Facility Rerate - NYISO Security	Market-wide	Changes in DAM to RTM transfers not related to transmission outage	Interface/Facility Rerates due to RTM voltages
Interface Rerate - External Security	Market-wide	Changes 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 Lake Erie Loop Flow exceeding +/-125MW
M2M Settlement	Market-wide	Settlement result inclusive of coordinated redispatch and Ramapo flowgates	
Cost Not Categorized	Market-wide		
Not Investigated	Market-wide		

Monthly Balancing Market Congestion Report Assumptions/Notes

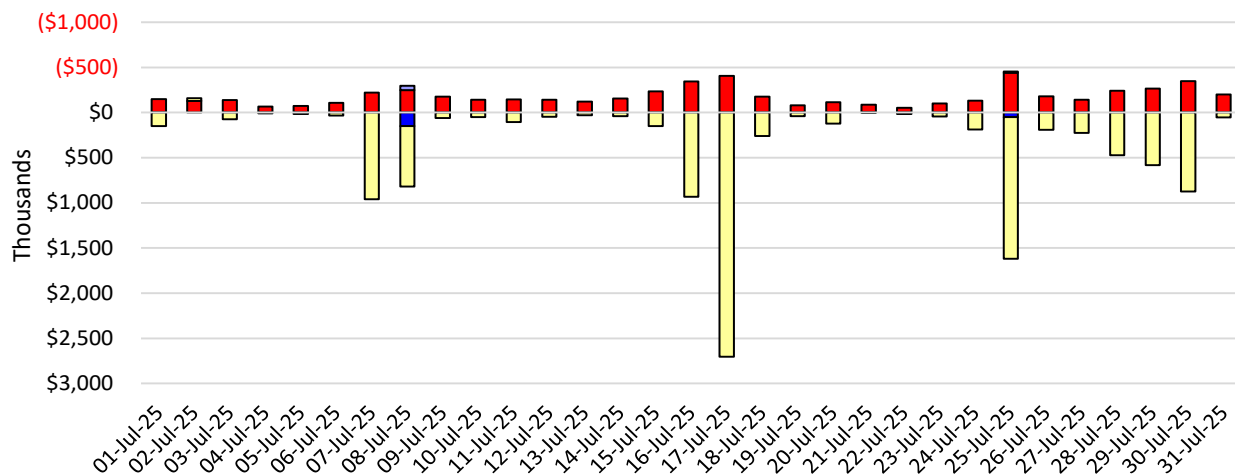
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

Days investigated in September: 4,6,15,22,23,24,25		
Event	Description	September Dates
	Thunder Storm Alert, Buchanan 345kV/138kV (#BK TA5)	6
	Thunder Storm Alert, Goethals - Linden 230kV (#A2253)	6
	Forced Outage Astoria Annex-East 13th Street 345kV (#Q35L)	4
	Forced Outage Stewart Ave-Valley Stream 138kV (#261)	4
	NYCA DNI Ramp Limit	4,6,15,22-24
	Uprate Astoria Annex-Astoria East 138kV (#34091)	15,22-25
	Uprate Goethals-Gowanus 345kV (#26)	22-25
	Uprate Grass River-Moses 115kV (#MAL5) I/o SIN:MOSES-ALCOA_PA_115_MAL6&C6	15,22,23,25
	Uprate Scriba-Volney 345kV (#20) I/o SCRIBA_-VOLNEY_345_21	22-25
	Derate Barrett-Freeport 138kV (#459)	24
	Derate Barrett-Valley Stream 138kV (#292) I/o VALLYSTR-BARRETT_138_291	6
	Derate Foxhills-Greenwood 138kV (#29232) I/o SCB:GOWANUS(16):42&26&R16	24
	Derate Malone-Willis 115kV (#1-910) I/o MOSES_-WILLIS_230_MW1	4
	Derate Newbridge-Stewart Ave 138kV (#463)	24
	Derate W49th St-Sprainbrook 345kV (#M52)	24
	HQ_CHAT - NY Scheduling Limit	15
	IESO_AC Active DNI Ramp Limit	24,25
	NE_AC - NY Scheduling Limit	4,22-24
	NE_AC Active DNI Ramp Limit	6
	PJM_AC - NY Scheduling Limit	4
	PJM_AC ACTIVE DNI Ramp Limit	4,6,23

DAM Congestion Residual Monthly Cost Categories



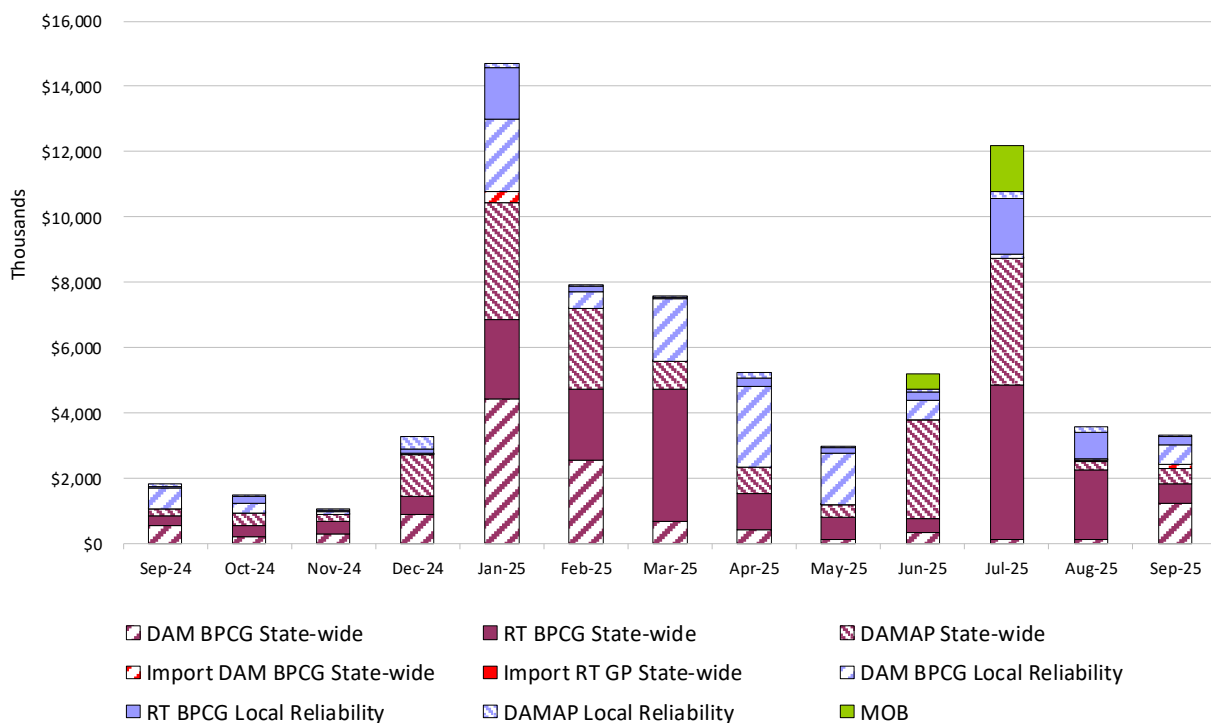
Daily Cost Categories



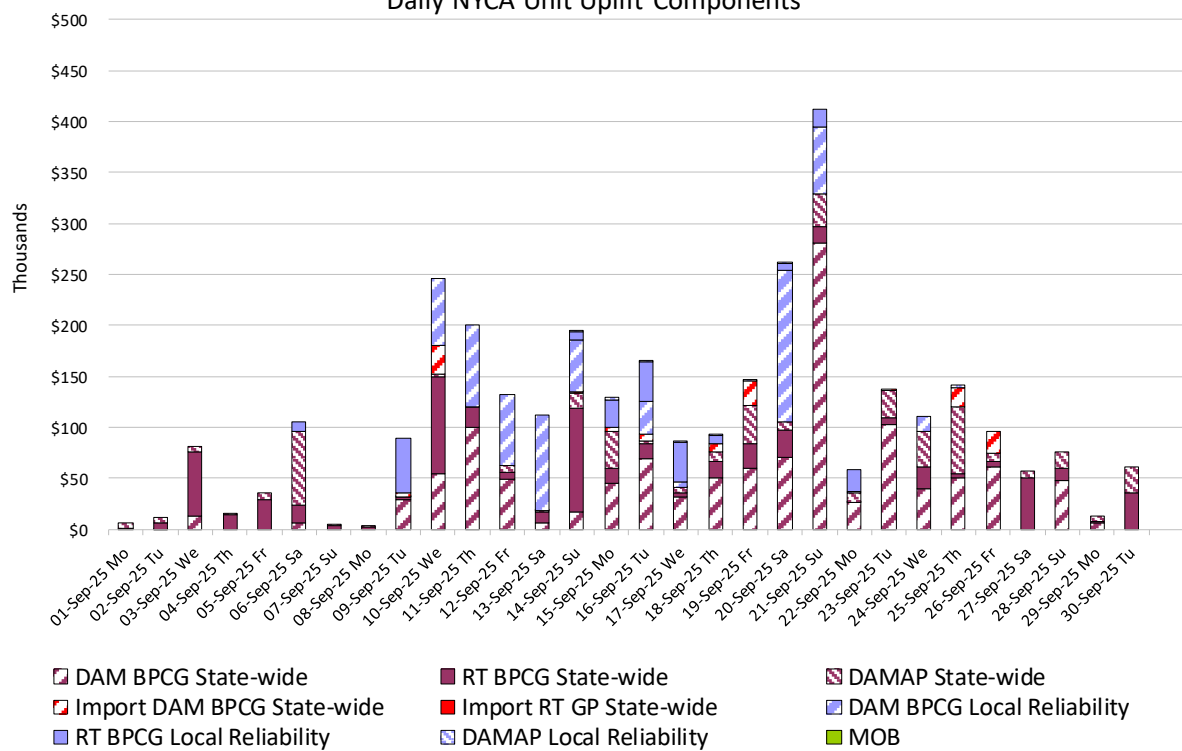
DAM Congestion Residual Categories

Category	Cost Assignment	Events Types	Event Examples
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.
Incremental TCC/External Outage Impacts	All TO by Monthly Allocation Factor	Allocation associated with transmission equipment status change caused by change in status of external equipment or change in status of equipment associated with Incremental TCC.	Tie line required out-of-service by TO of neighboring control area.
Central East Commitment Rerate	All TO by Monthly Allocation Factor	Changes in the DAM Central East_VC limit as compared to the TCC Auction limit, which are not associated with transmission line outages.	
Cost Not Categorized	All TO by Monthly Allocation Factor		

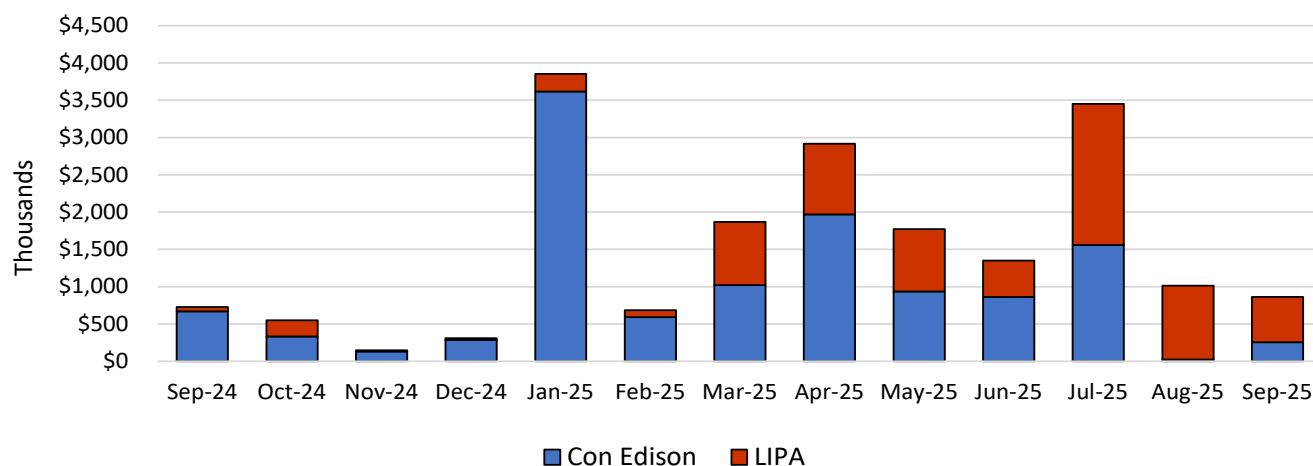
Monthly Power Supplier Uplift Components



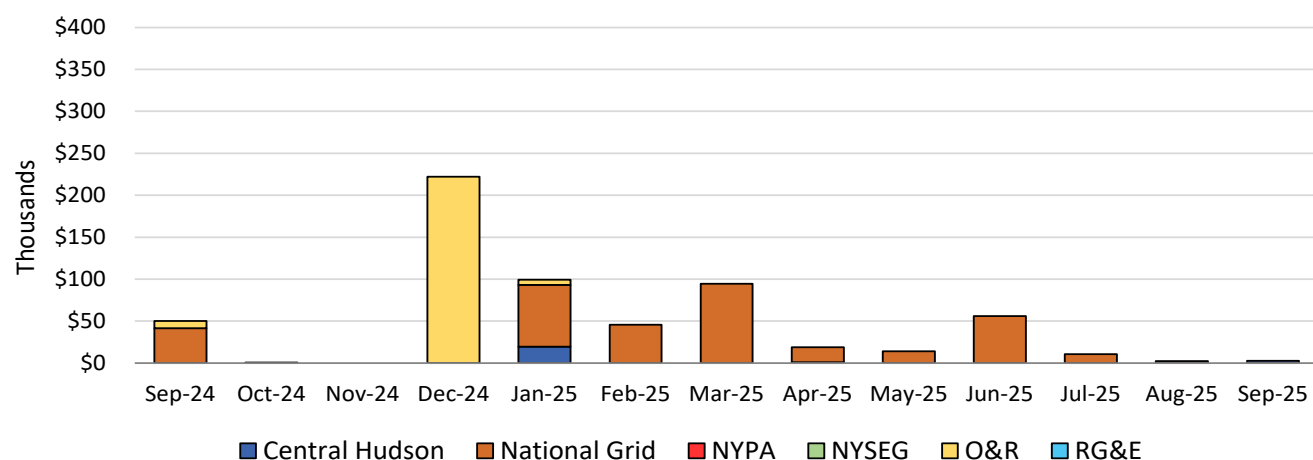
September 2025 Daily NYCA Unit Uplift Components



Local Reliability Cost - NYC & LONGIL Monthly RT BPCG, DAM BPCG, DAMAP & Minimum Oil Burn Costs



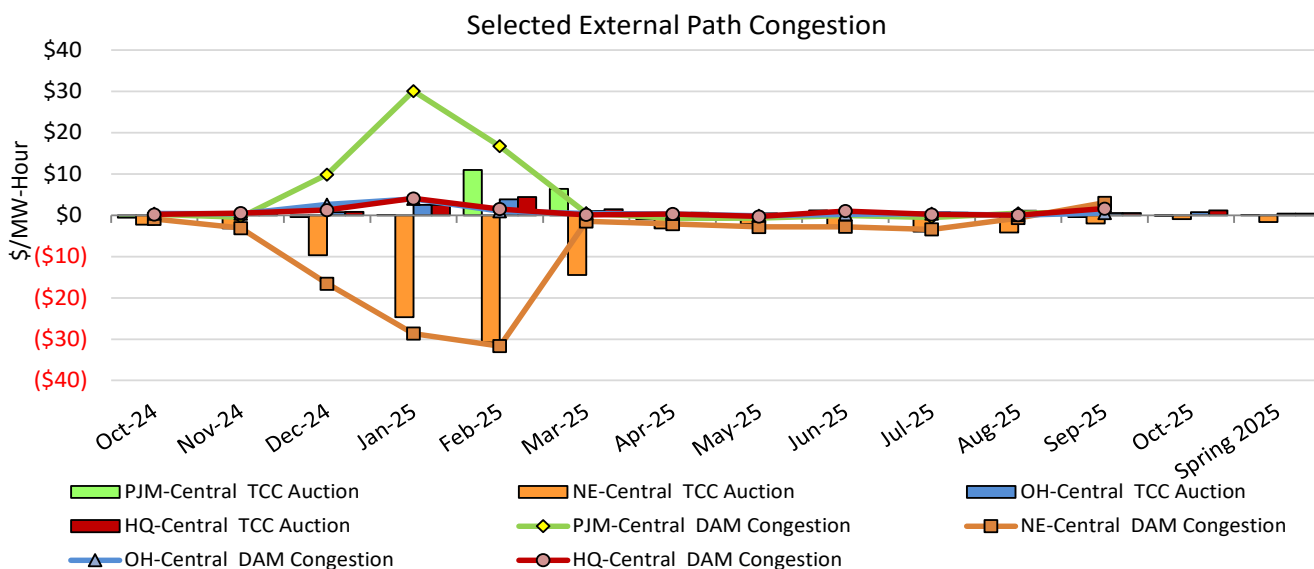
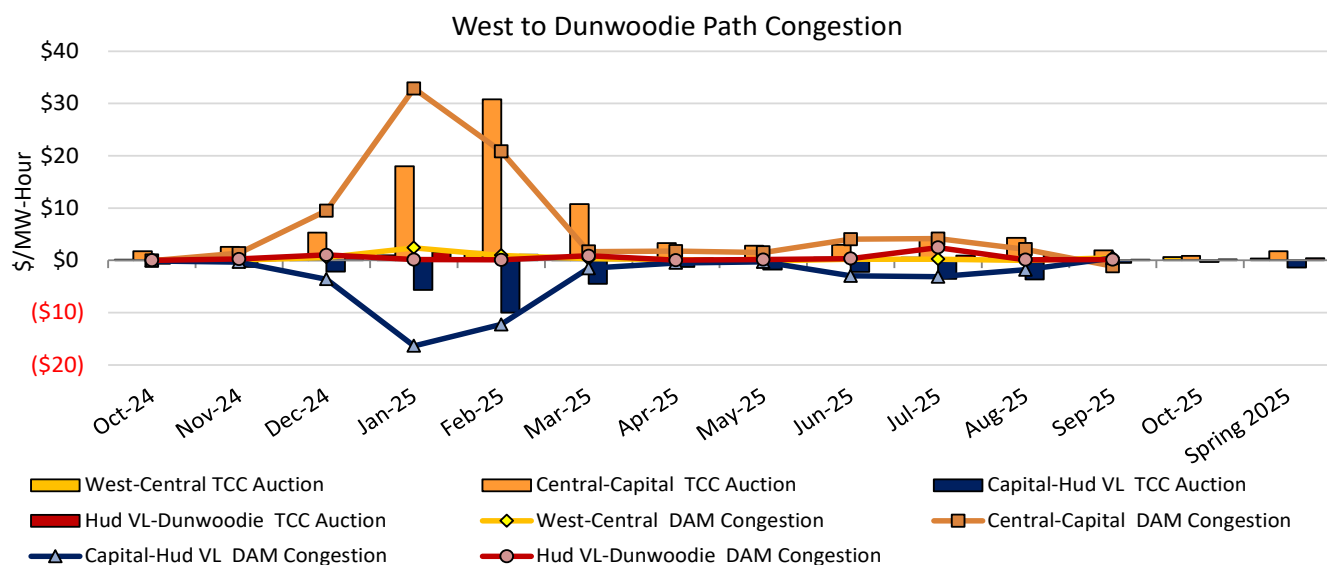
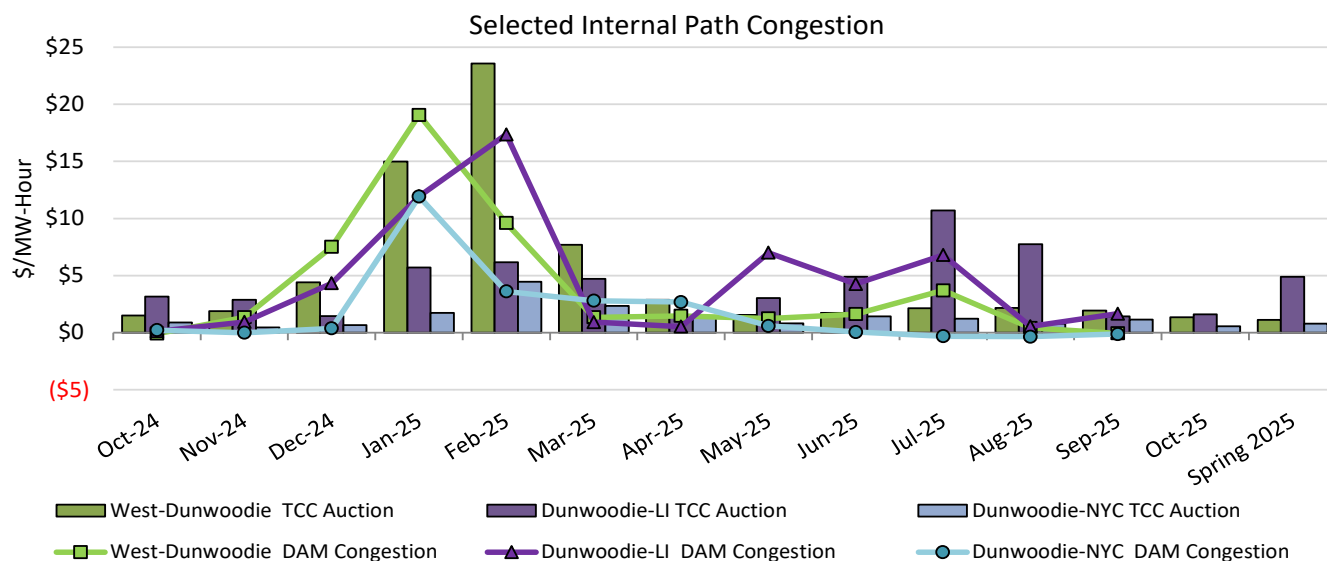
Local Reliability Cost - Rest of State Monthly RT BPCG, DAM BPCG & DAMAP Costs

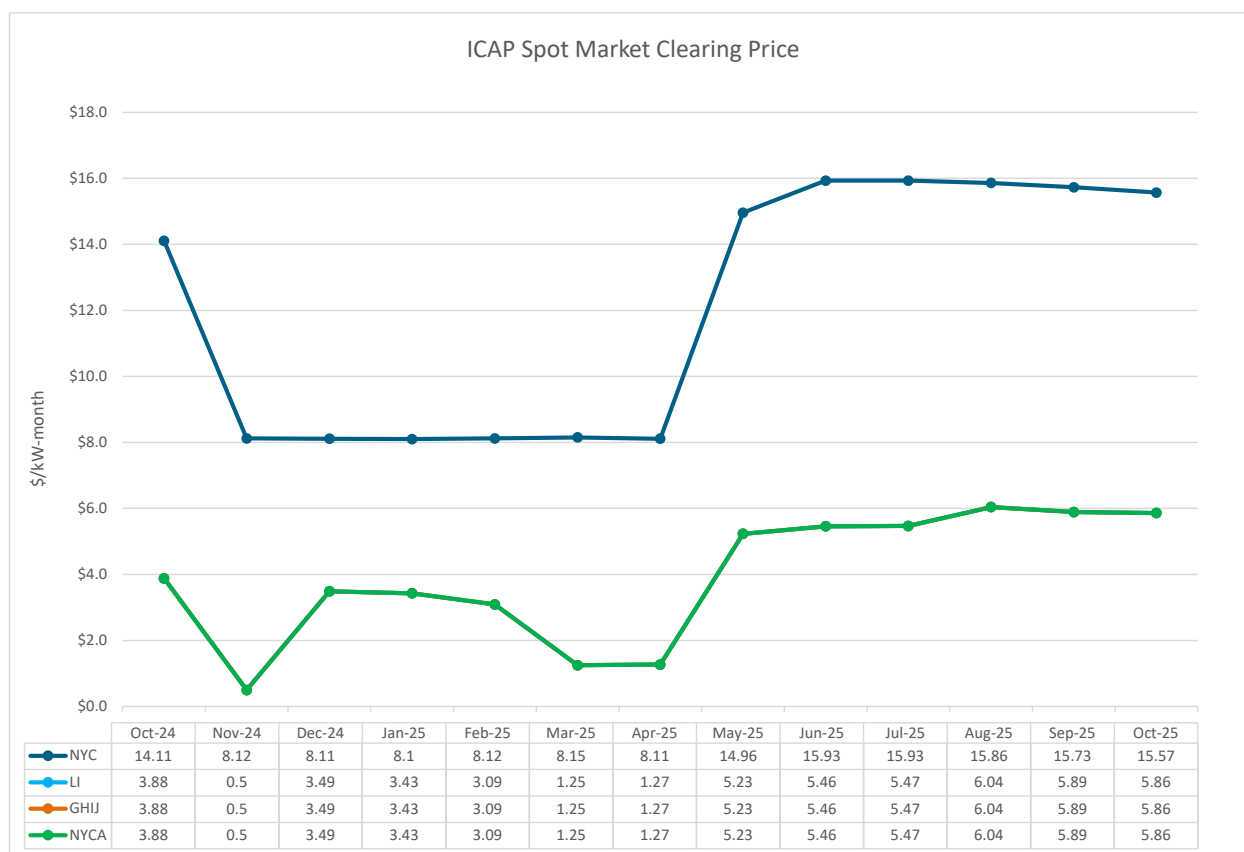


Local Reliability Commitments September 2025 DARU & SRE Hours



TCC Monthly Reconfiguration Auction vs. Monthly DAM Average
with Spring 2025 Centralized TCC Auction Six-Month Average





Price Change Summary:

An increase in SCR UCAP available and decrease in unoffered MWs led to the NYC market clearing price decrease.

Appendix A –Metric Definitions

- **Alert State:** The number of Alert State declarations reflect system operating conditions beyond thresholds associated with Normal and Warning States. Declaration of the Alert State allows the NYISO to take corrective actions not available in the Normal and Warning States.
- **Average Hourly Error %:** Average value of the ratio of hourly average error magnitude to hourly average actual load demand.
- **Capacity Factor:** The ratio of actual energy produced to the maximum energy that could have produced if operating at full capacity continuously during the same period.
- **Curtailed Energy:** Difference between real-time wind/FTM solar forecast and economic wind/FTM solar output limit.
- **Curtailed Energy %:** The ratio of curtailed energy to total energy production.
- **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.
- **Day-Ahead Bias:** Avg (actual generation – Day-Ahead forecast generation) / capacity
- **Day-Ahead MAE Forecast Error:** Avg |actual generation – Day-Ahead forecast generation| / Capacity
- **Day-Ahead Market Capacity Unavailable:** Unavailable capacity is calculated as the difference of Day-Ahead Market capacity including SRE relative to the real-time (RT) capacity during RT peak load hour.
- **Disturbance Control Standard Event Time:** For NYISO initiated NERC Reportable Disturbances, the maximum ACE recovery time is identified. Recovery times less than 15 minutes are considered NERC compliant.
- **Hour-Ahead Bias:** Avg (actual generation – Hour-Ahead forecast generation) / capacity
- **Hour-Ahead MAE Forecast Error:** Avg |actual generation – Hour-Ahead forecast generation| / Capacity
- **Hour-Ahead MAE Persistence Error:** Avg |actual generation – Hour-Ahead actual generation| / Capacity
- **Hourly Error MW:** Value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.
- **Major Emergency:** The number of Major Emergency State declarations reflect system operating conditions beyond thresholds associated with the Alert State. Declaration of the Major Emergency State allows the NYISO to take additional corrective actions not available in the Alert State.
- **NERC Balancing Authority ACE Limit Standard:** The amount of time the clock-minute average ACE exceeds the clock-minute Balancing Authority ACE Limit (BAAL) is an indicator of the NYISO Area resource and demand balancing. The maximum BAAL exceedance time is identified. BAAL exceedances of less than 30 consecutive clock-minutes are NERC compliant.
- **NERC Control Performance Standard:** The value of NERC Control Performance Standard 1 (CPS-1) is an indicator of the NYISO Area resource and demand balancing. CPS-1 values greater than 100% are considered NERC compliant.
- **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 Transmission Loading Relief (TLR):** Value represents the number of hours in which the NYISO requested TLR level 3 curtailments to provide transmission constraint relief.
- **Net Load:** Defined as Gross load less wind and solar generation.
- **Net Load Ramp:** Average value of the difference in load demand between the previous and current hour. Wind and solar ramps are negated to indicate their impact on Net load ramp.
- **Reserve Activation:** NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Simultaneous Activation of Reserves) by activating an immediate resource and demand balancing operation.
- **Thunderstorm Alert (TSA):** TSA is declared by NYISO when severe operating conditions are detected. A predetermined set of pre-and post-contingency constraints are passed to the RTC and RTD programs while TSA is in effect. Value represents number of hours TSA was active.
- **13 Month Trailing Avg Carbon Emissions Free %:** Sum of internal NYCA generation from Nuclear, Hydro, Wind, Solar resources divided by Gross Load. Gross load is defined as metered load plus BTM solar estimated actuals.
- **13 Month Trailing Avg Renewables %:** Sum of internal NYCA generation from Hydro, Wind, Solar resources divided by Gross Load. Gross load is defined as metered load plus BTM solar estimated actuals.

Appendix B –NYISO Information Resources

- [Annual Renewable Energy Performance Metrics](#)
- [Demand Response - NYISO](#)
- [Energy Market & Operational Data](#)
- [FERC Order 844 Zonal and Resource Specific Uplift Reports](#)
- [Installed Capacity Market Data](#)
- [Load & Capacity Data Report \(Gold Book\)](#)
- [Operating Committee - NYISO](#)
- [Systems Operations Advisory Subcommittee Report](#)
- [Transmission Congestion Contracts Market Data](#)