

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



## ***November 2022 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 December 8, 2022.

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## November 2022 Operations Performance Highlights

- November 2022 peak load of 20,358 MW occurred on 11/21/2022 HB 17
- Winter 2022-2023 capability period peak load to date of 20,358MW occurred on 11/21/2022 HB 17
- All-time winter capability period peak load of 25,738 MW occurred on 01/07/2014 HB 18
- 0.0 hours of Thunderstorm Alerts were declared
- 0.0 hours of NERC TLR level 3 curtailment

Installed Wind, Solar and Energy Storage Resource Nameplate Values:

Land-Based Wind	Behind-the-Meter Solar	Front-of-the-Meter Solar	Energy Storage Resource (ESR)
2,191 MW	4,184 MW	94 MW	20 MW

Estimated production cost savings associated with the Broader Regional Market initiatives:

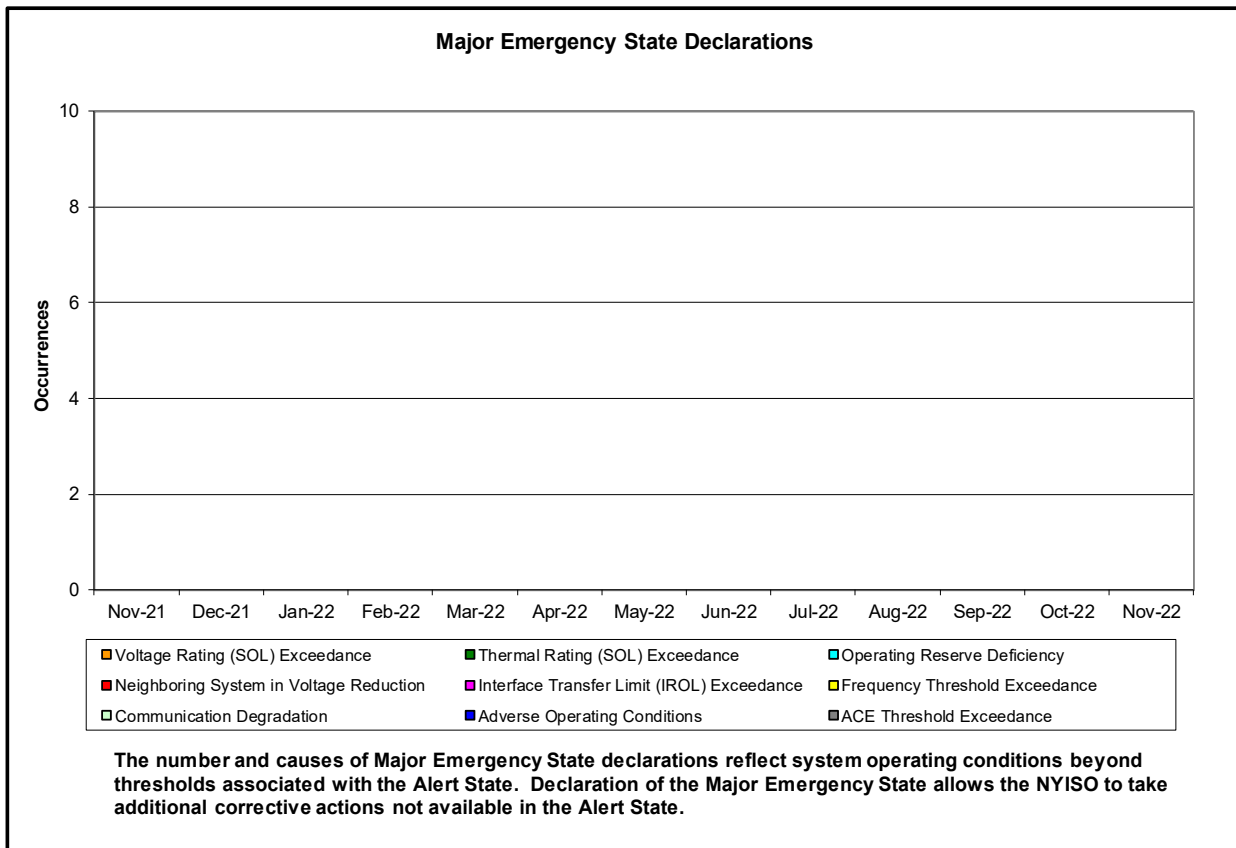
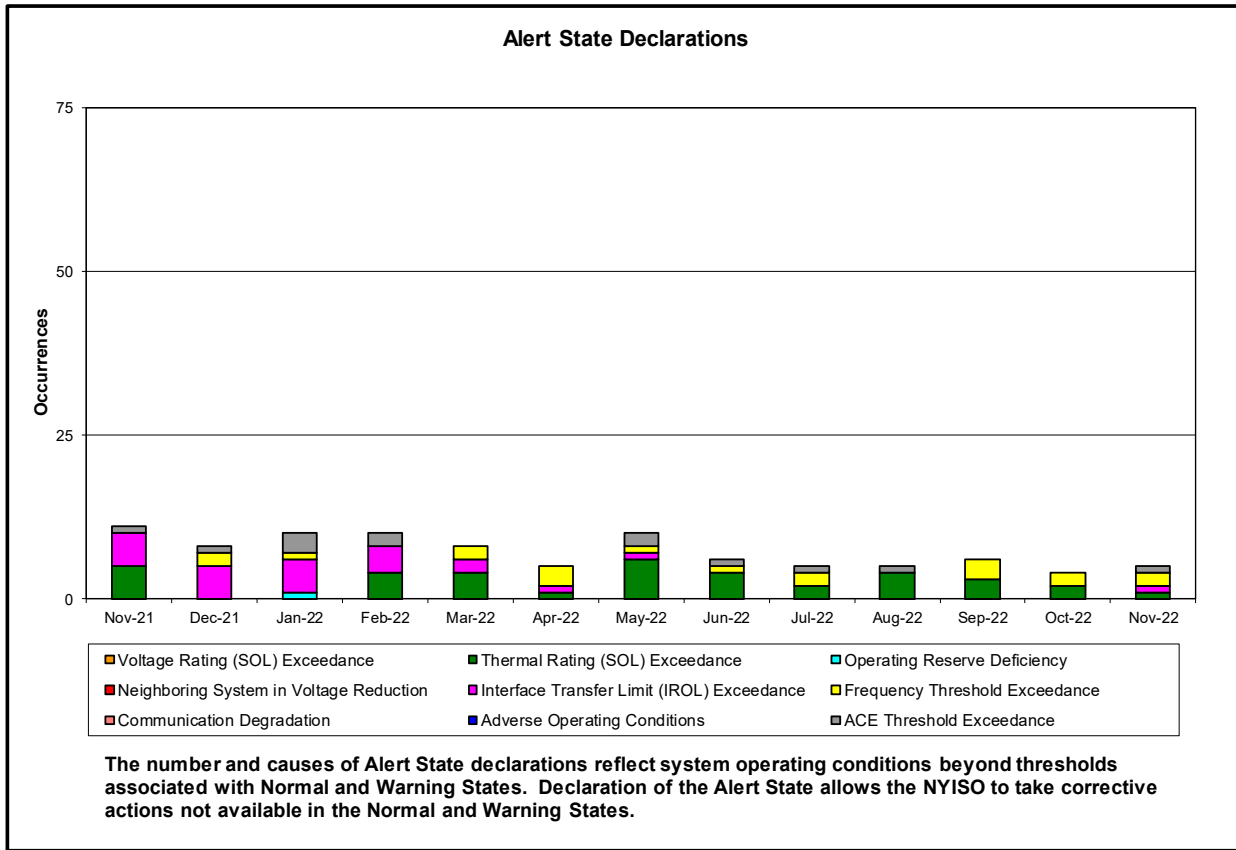
	Current Month Value (\$M)	Year-to-Date Value (\$M)
<b>NY Savings from PJM-NY Congestion Coordination</b>	\$11.36	\$40.76
<b>NY Savings from PJM-NY Coordinated Transaction Scheduling</b>	\$0.09	\$1.53
<b>NY Savings from NE-NY Coordinated Transaction Scheduling</b>	(\$0.35)	\$8.11
<b>Total NY Savings</b>	<b>\$11.10</b>	<b>\$50.40</b>
<b>Regional Savings from PJM-NY Coordinated Transaction Scheduling</b>	\$0.63	\$6.65
<b>Regional Savings from NE-NY Coordinated Transaction Scheduling</b>	\$0.09	\$3.35
<b>Total Regional Savings</b>	<b>\$0.72</b>	<b>\$10.00</b>

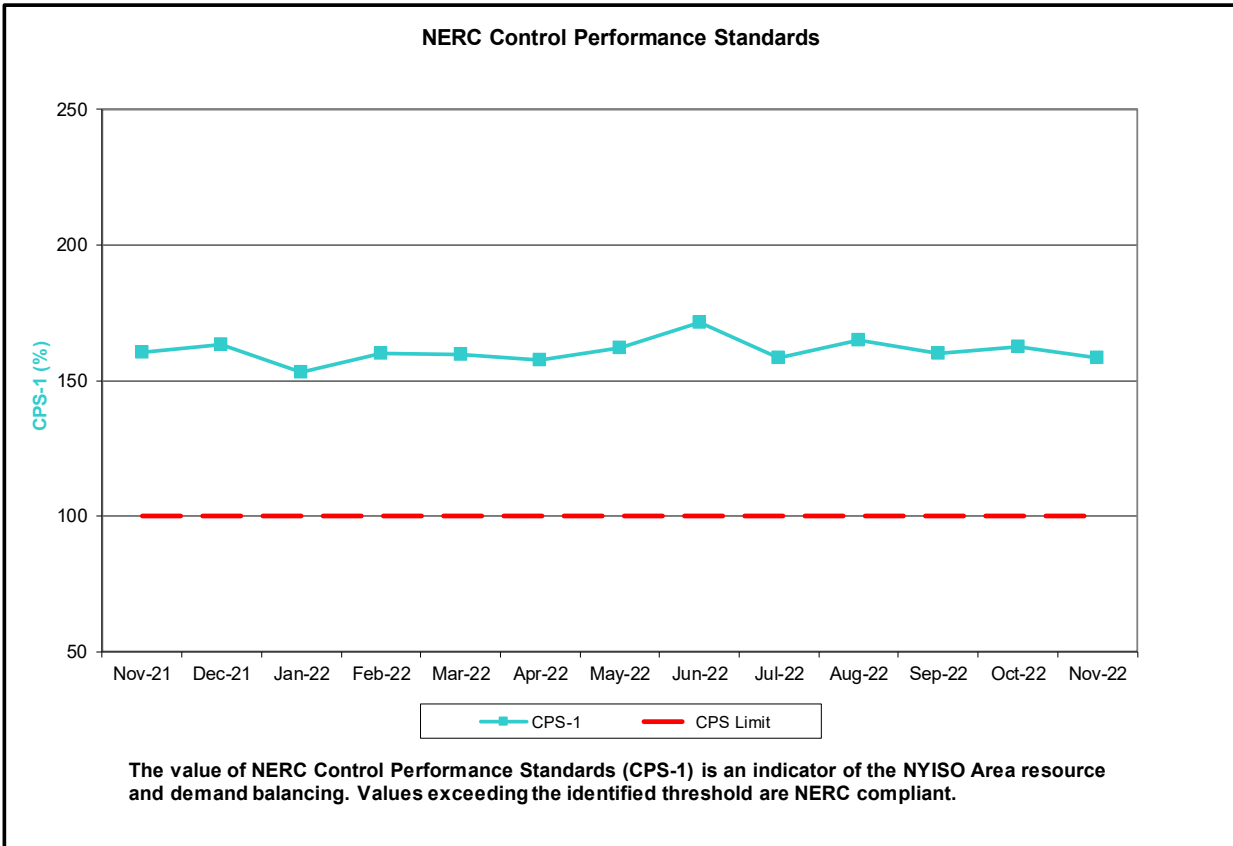
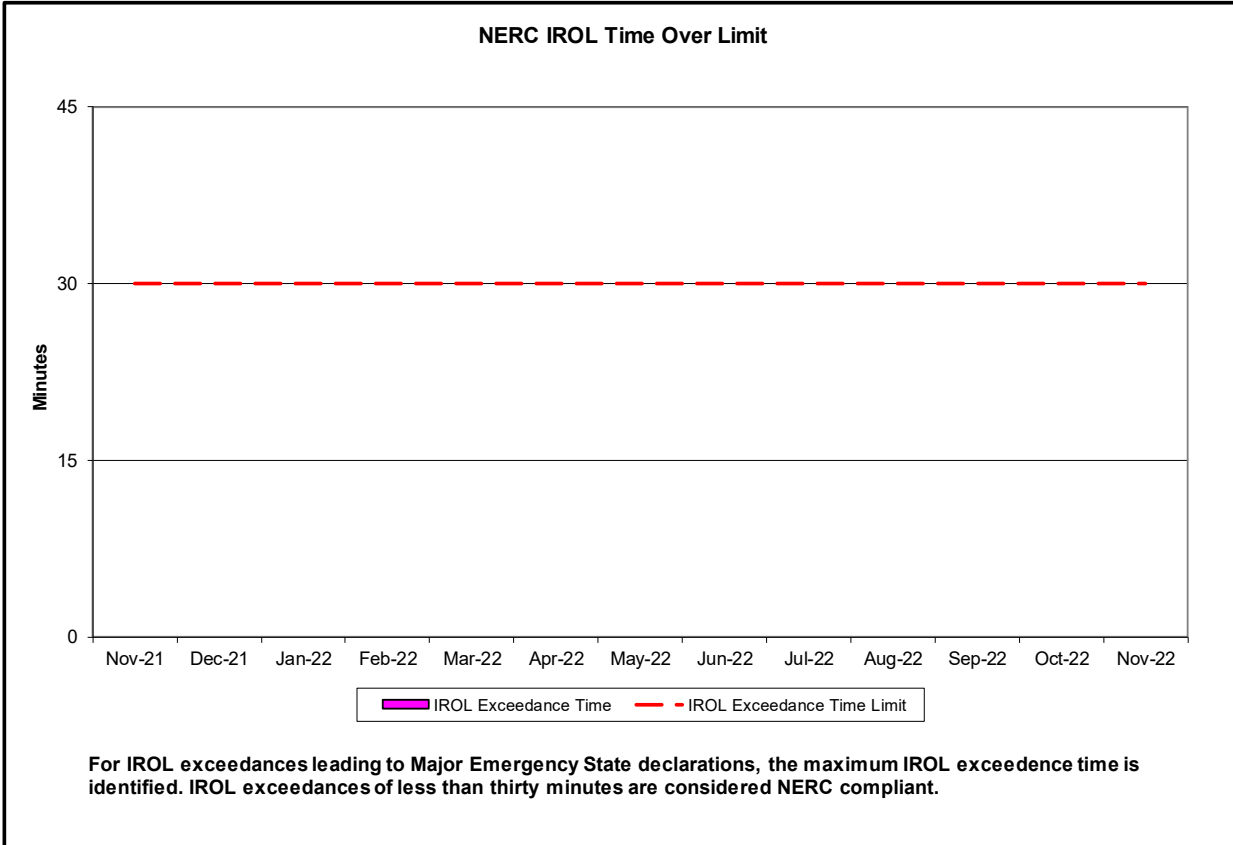
- Statewide uplift cost monthly average was (\$0.74)/MWh.
- The following table identifies the Monthly ICAP spot market prices and the price delta.

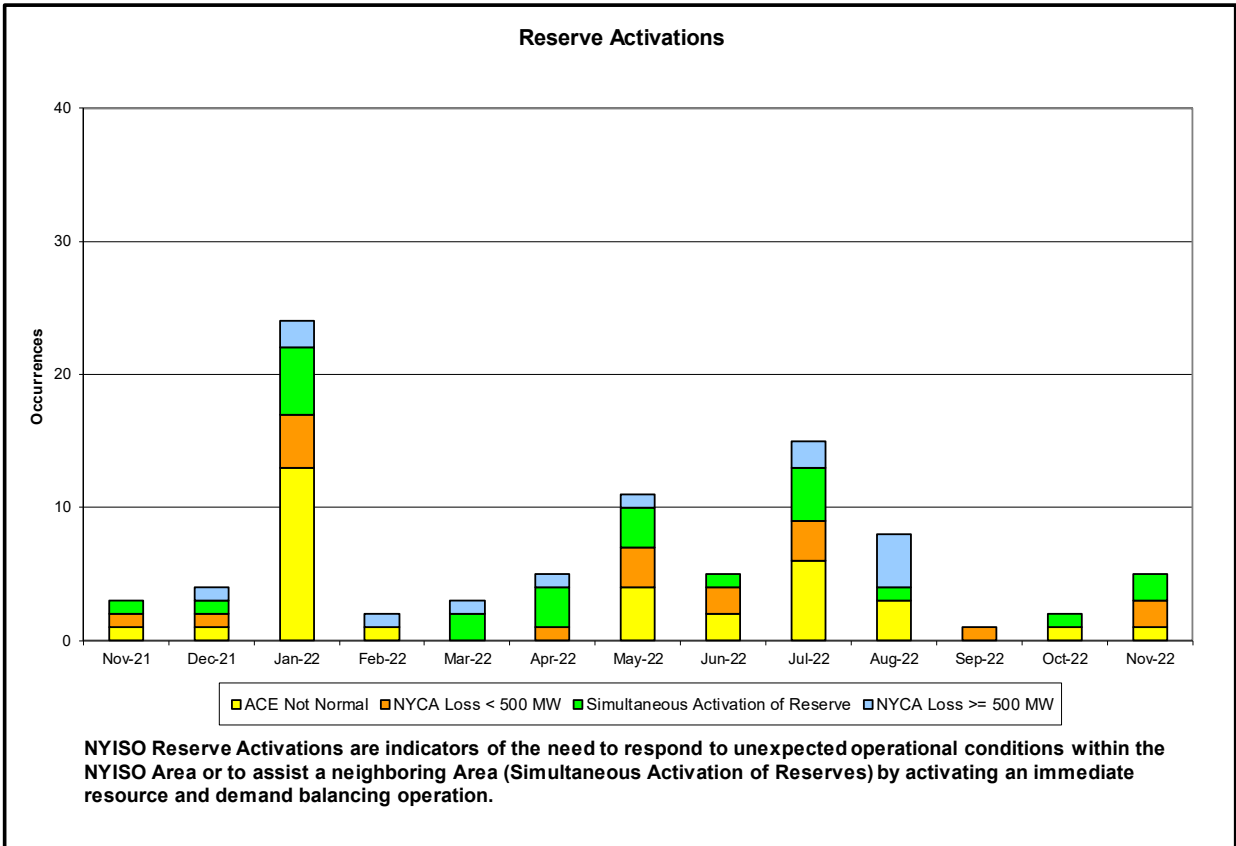
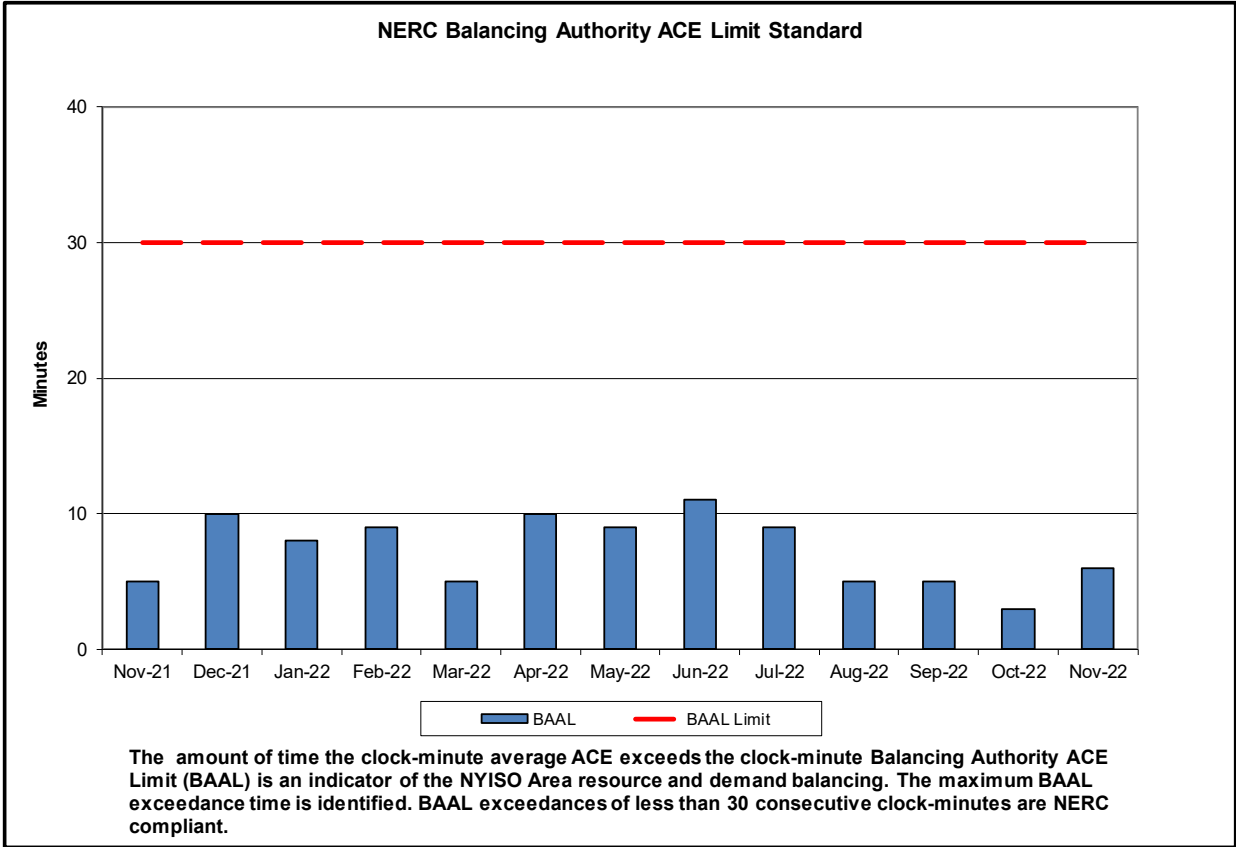
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
December 2022 Spot Price	\$2.06	\$2.06	\$2.06	\$2.06
November 2022 Spot Price	\$1.54	\$1.54	\$1.54	\$1.54
Delta	\$0.52	\$0.52	\$0.52	\$0.52

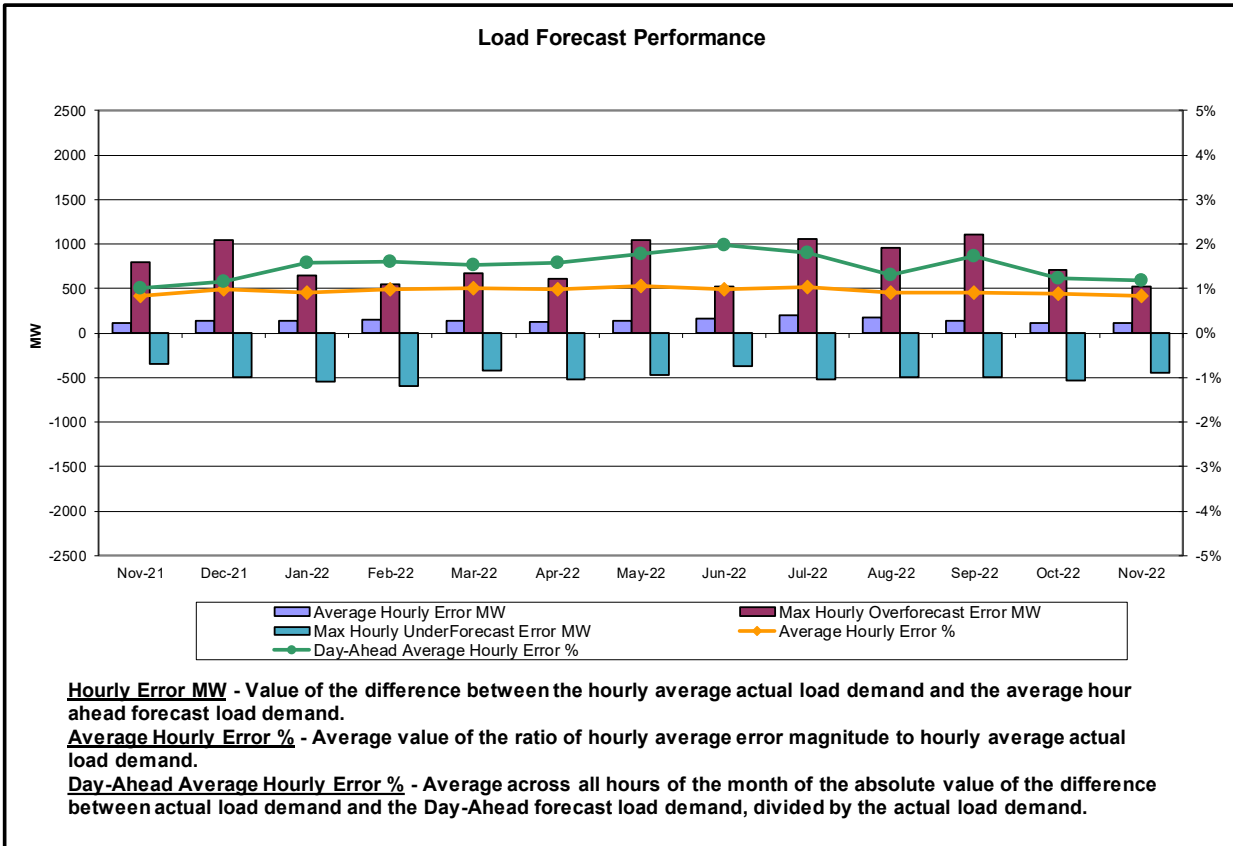
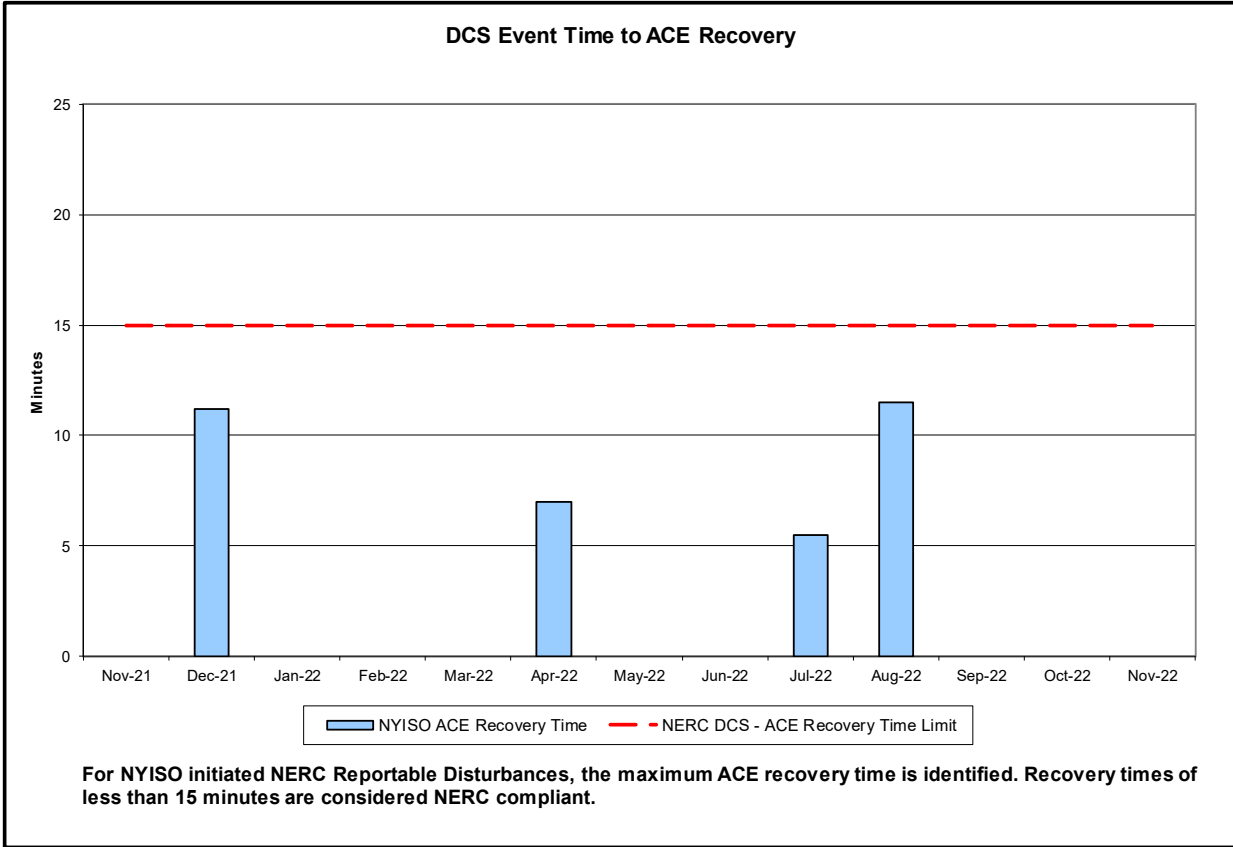
- Price increase from November to December 2022 is driven by an increase in Unoffered MW

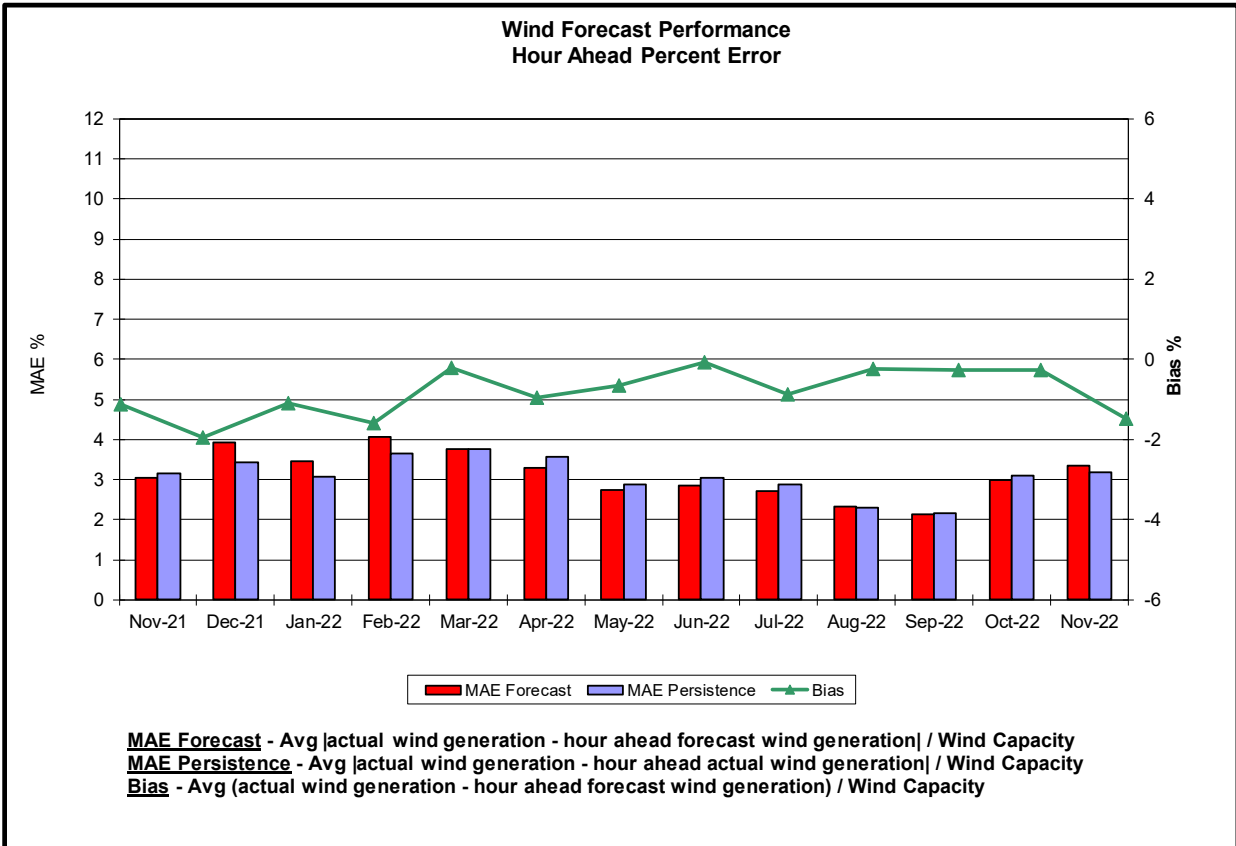
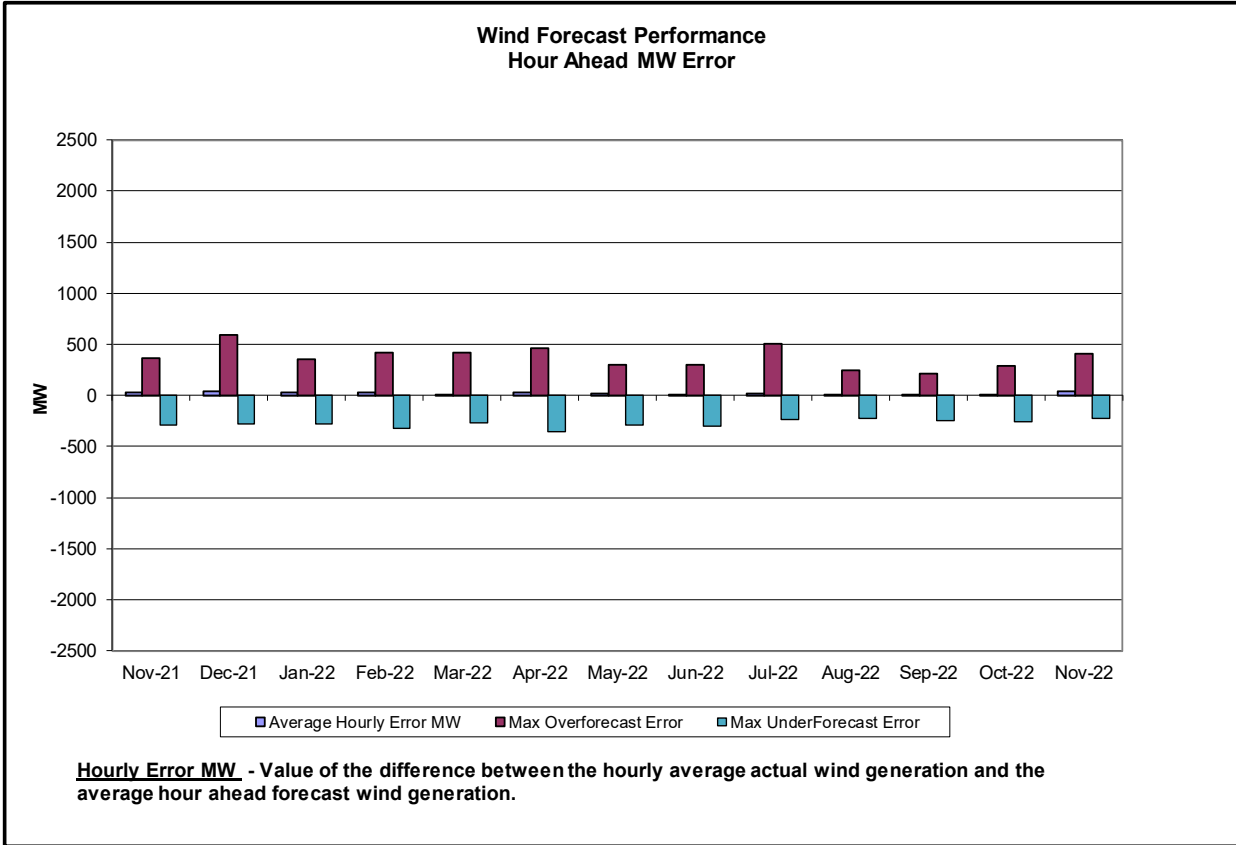
## Reliability Performance Metrics



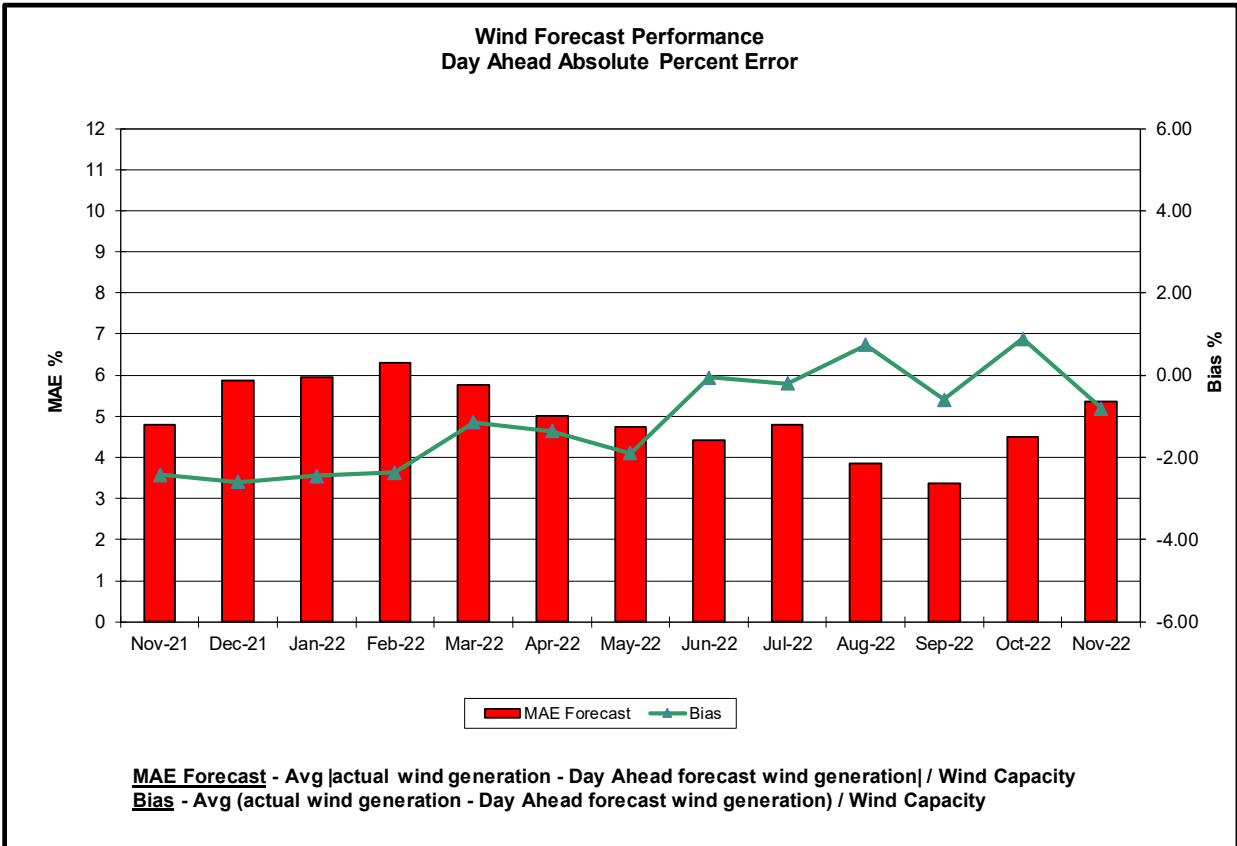
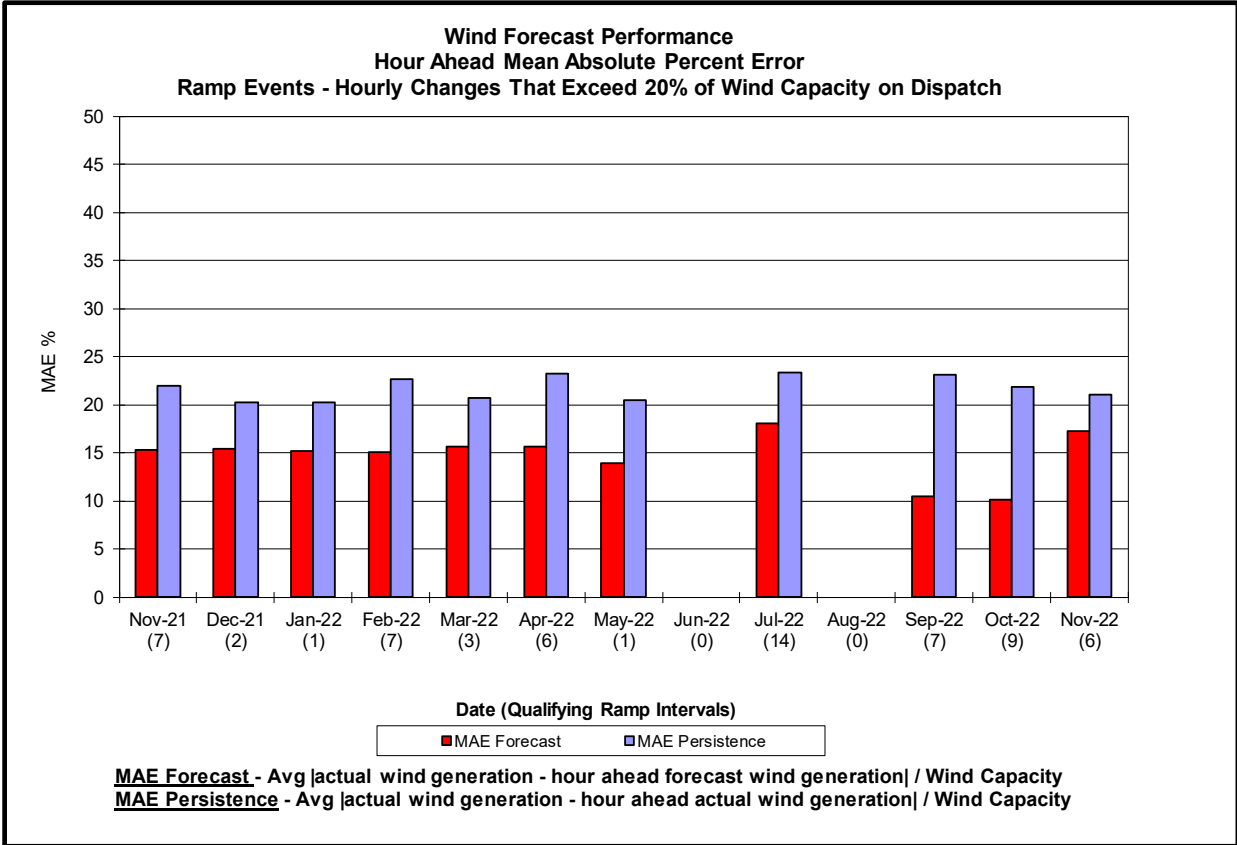


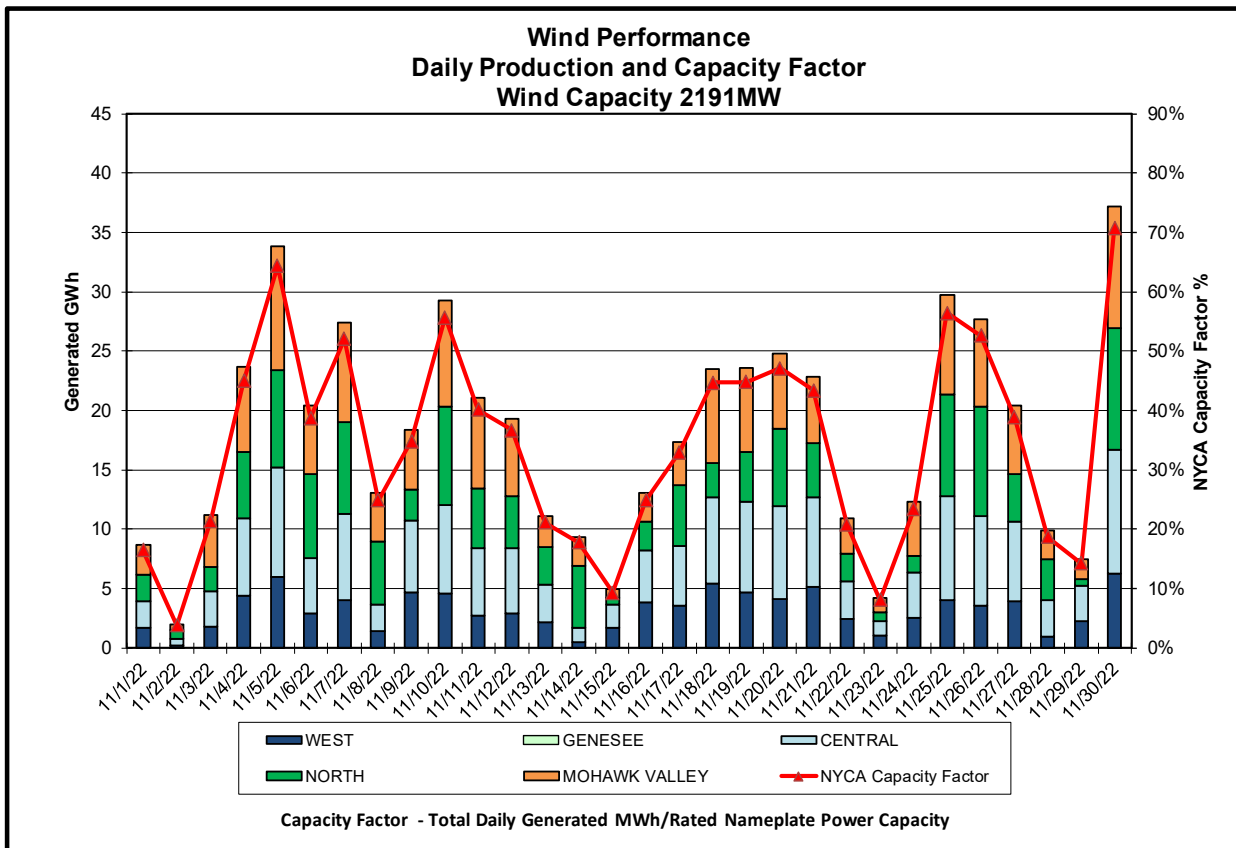
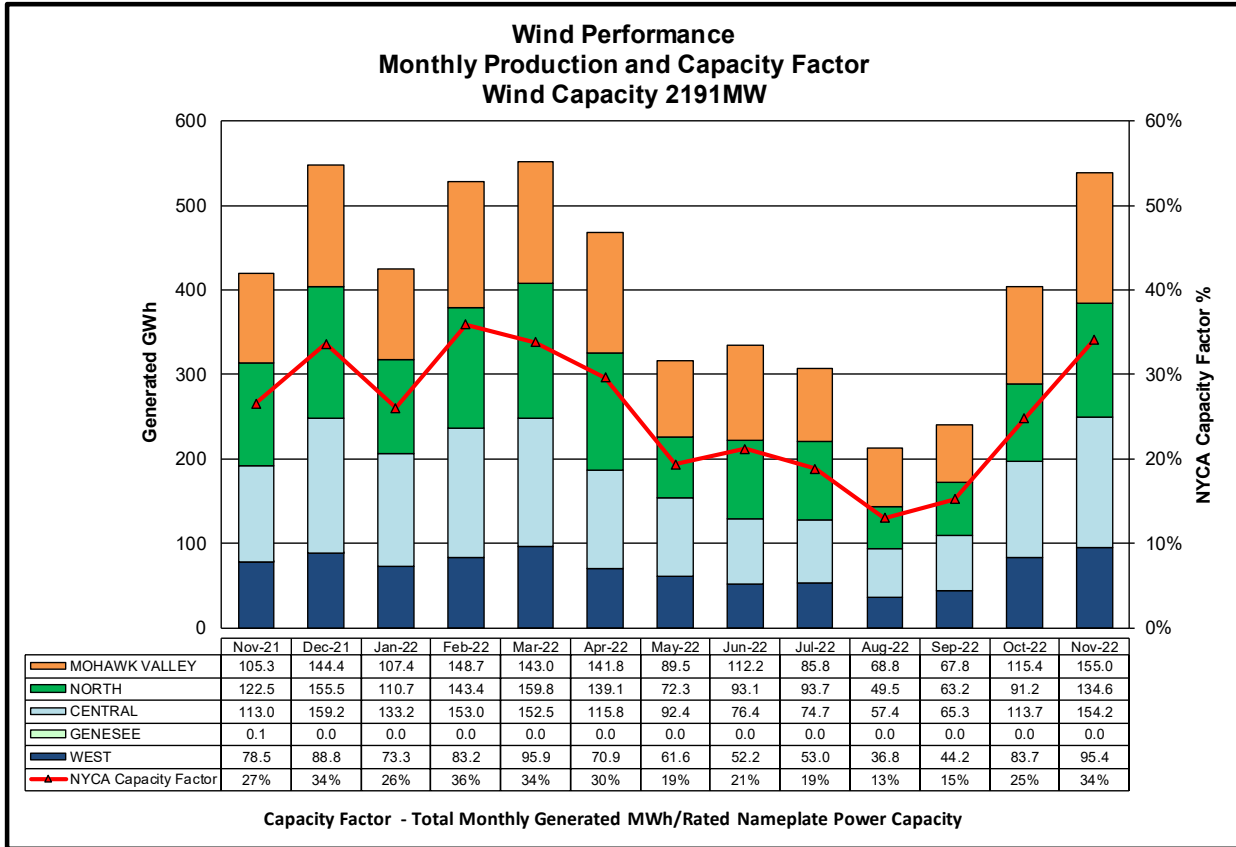


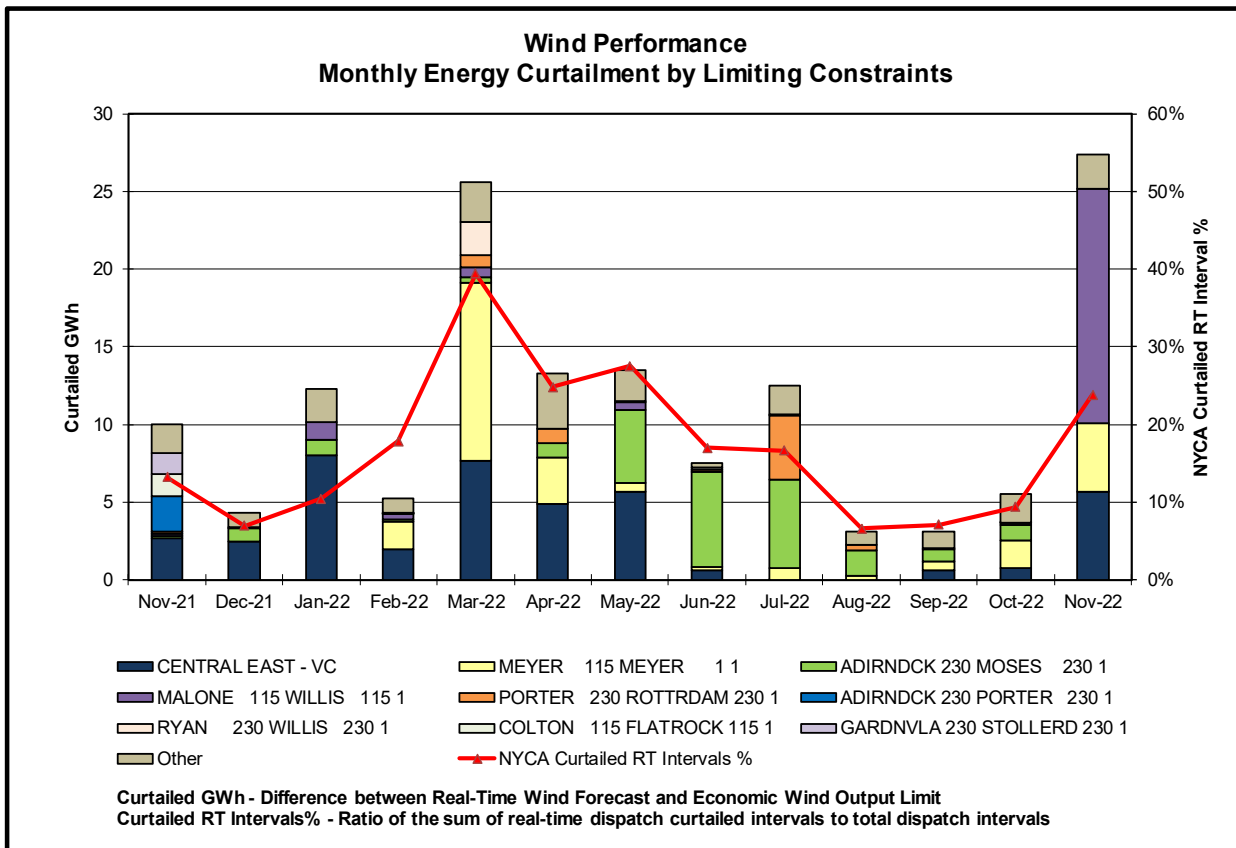
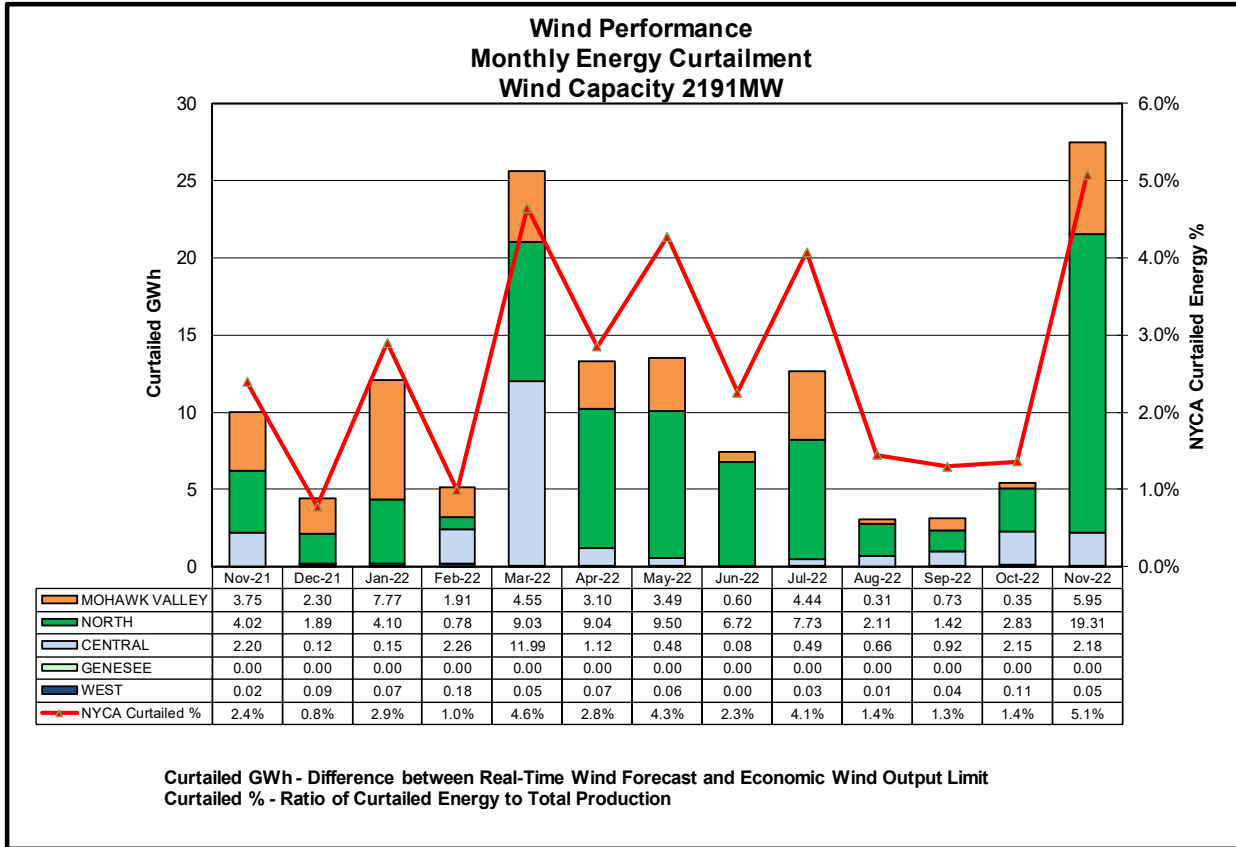


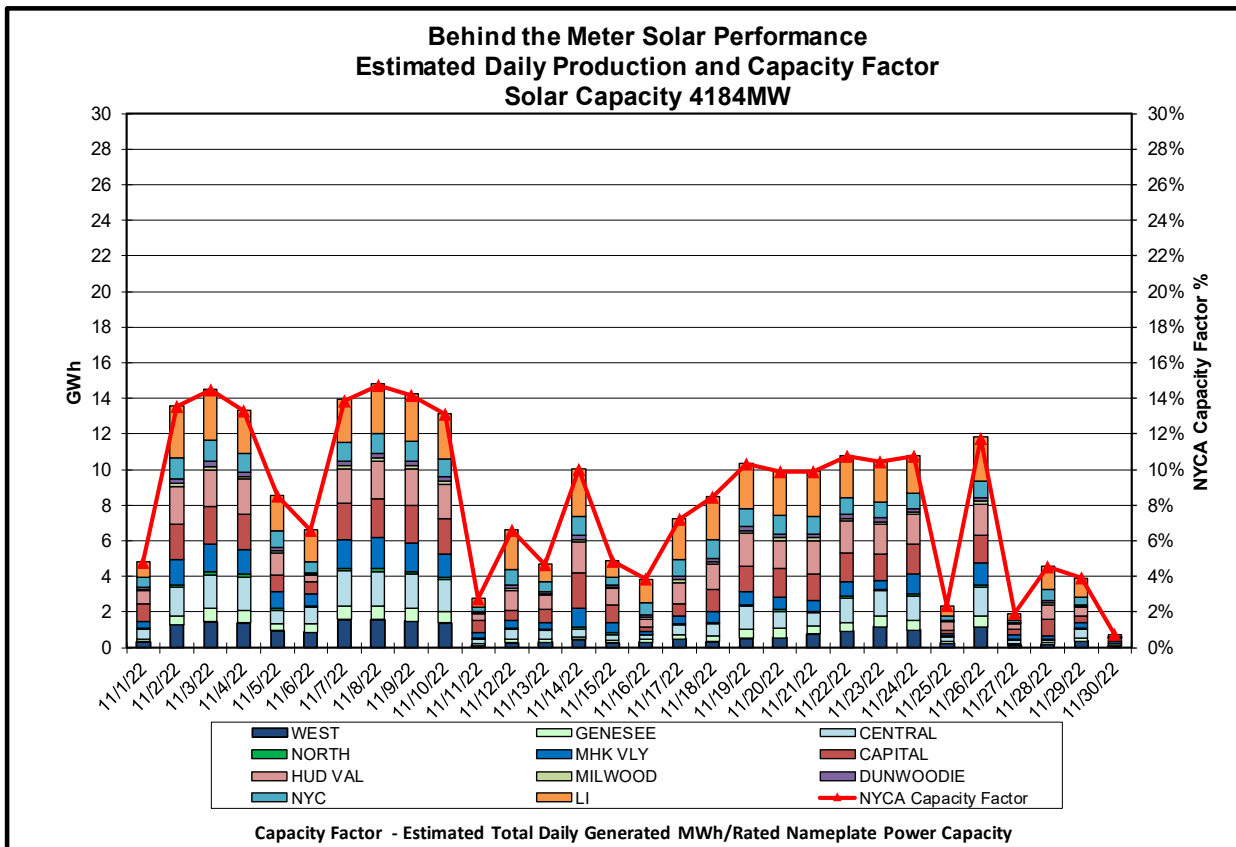
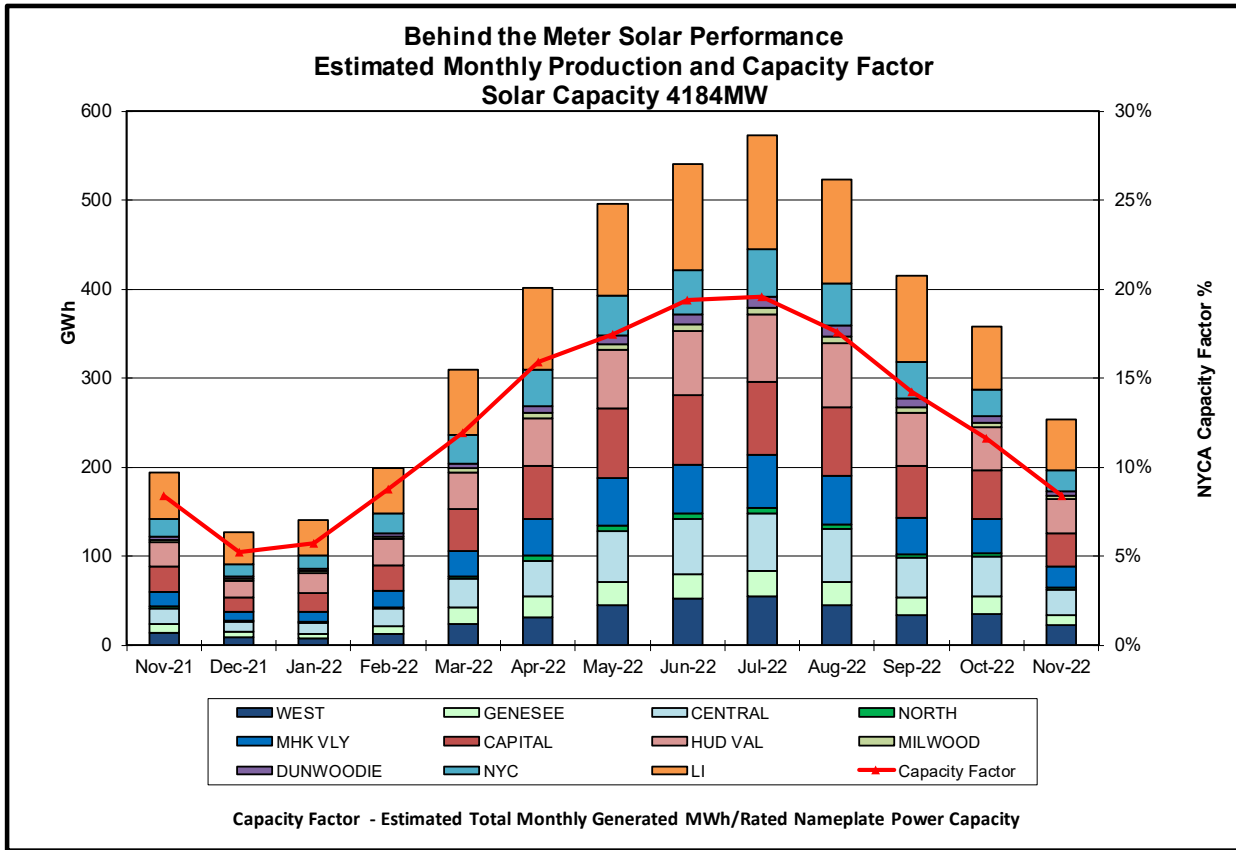


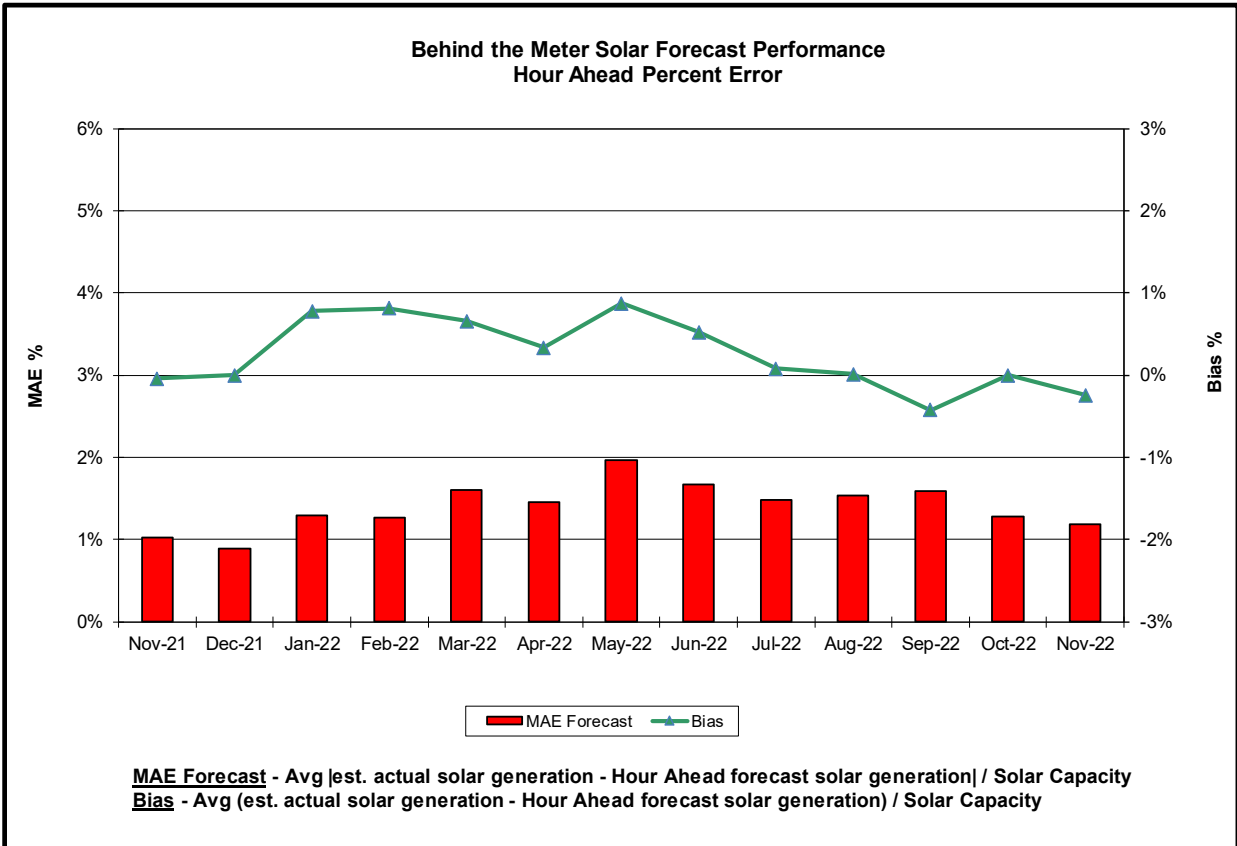
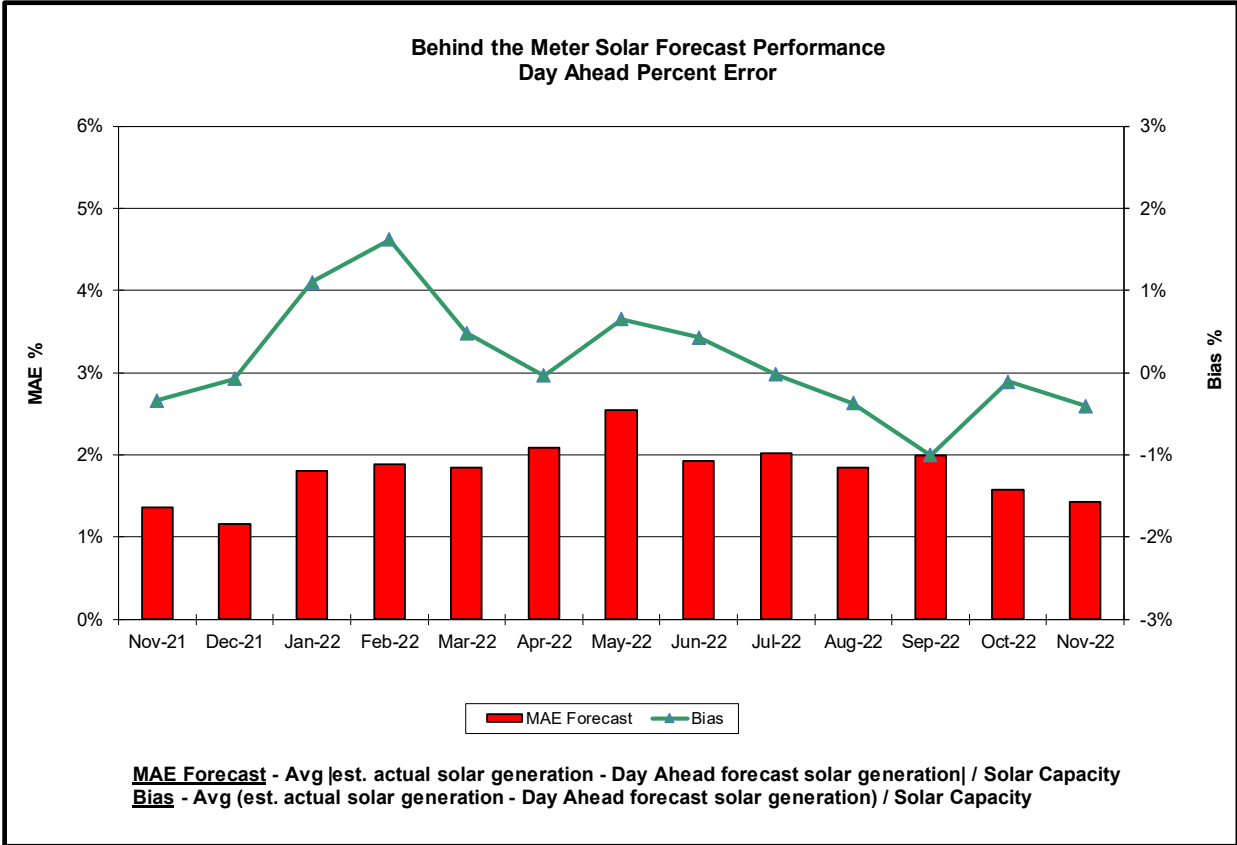


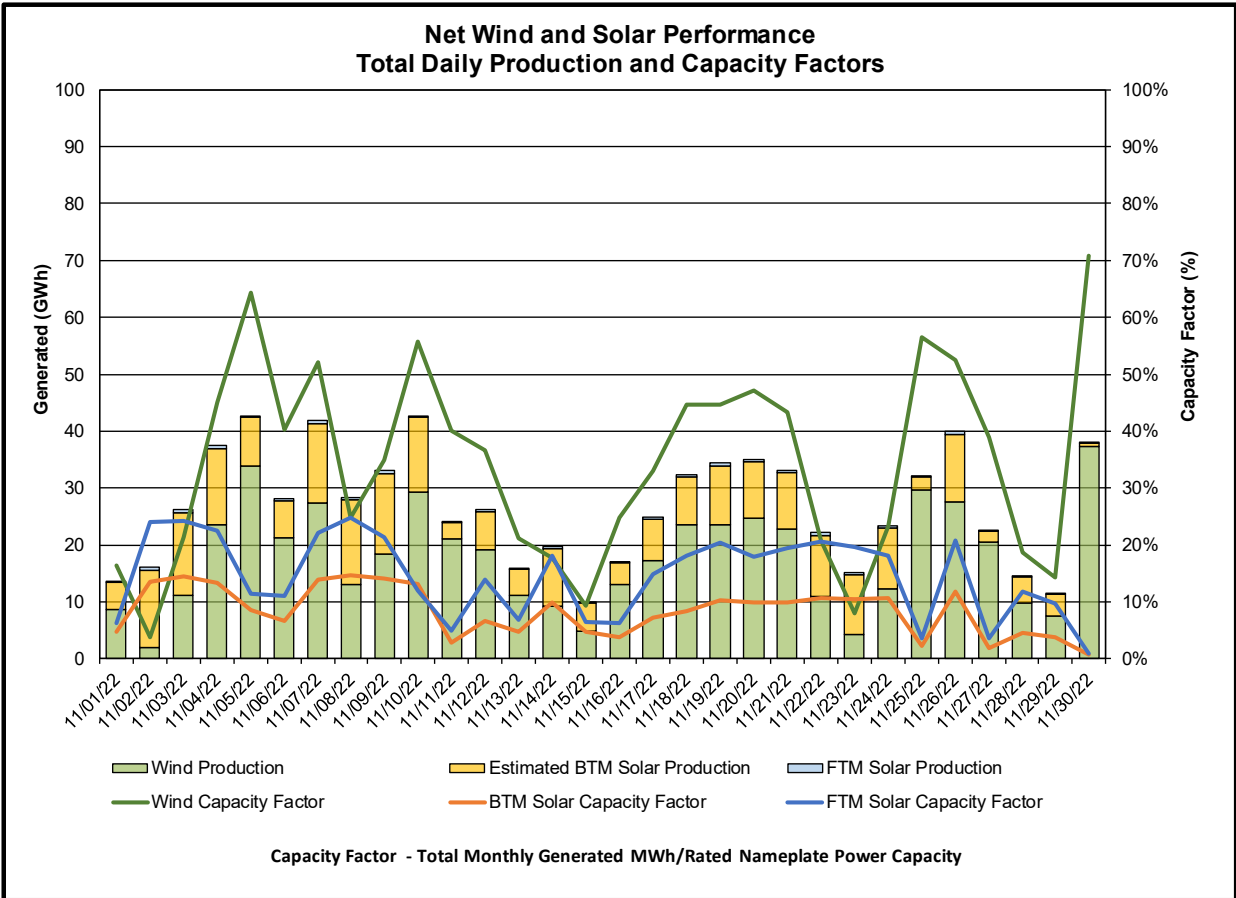
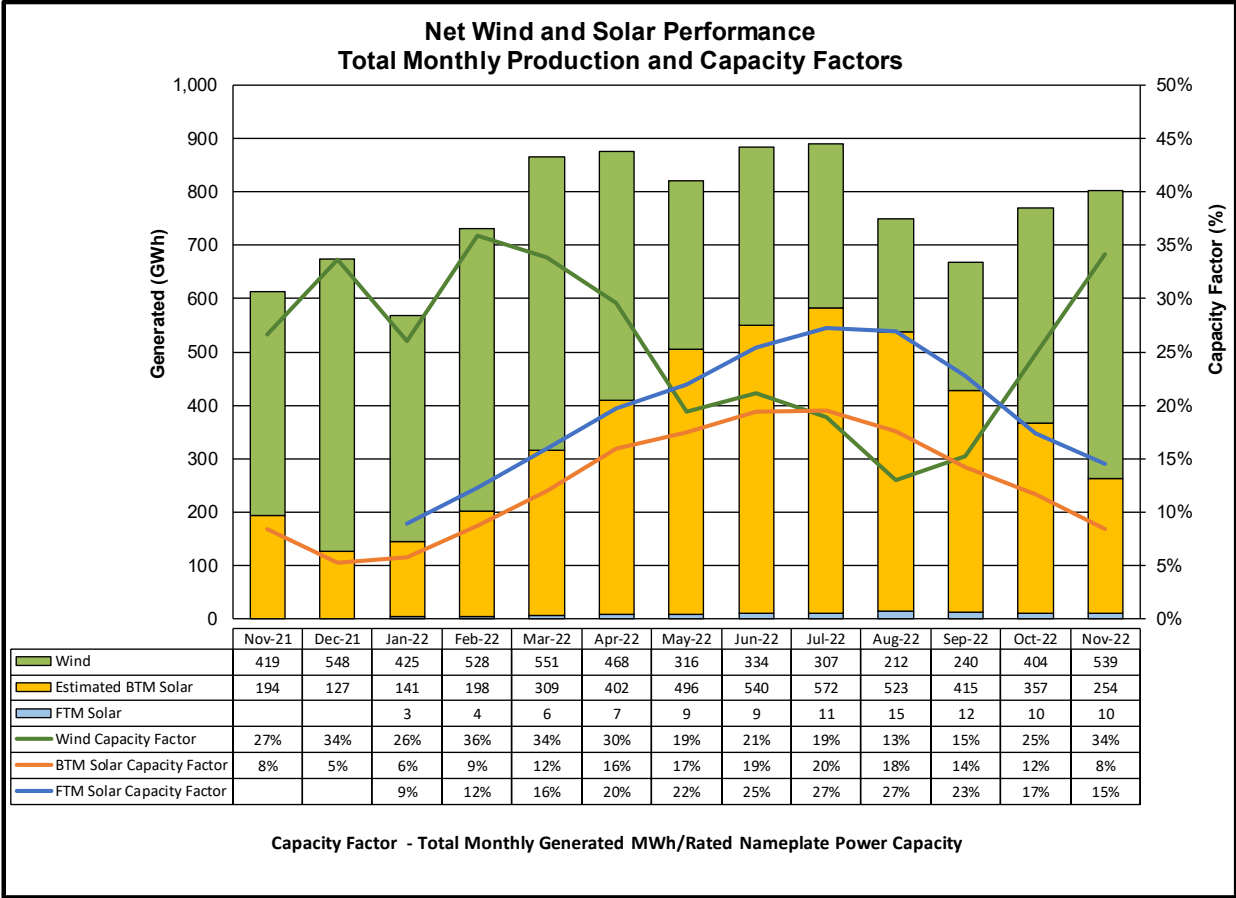


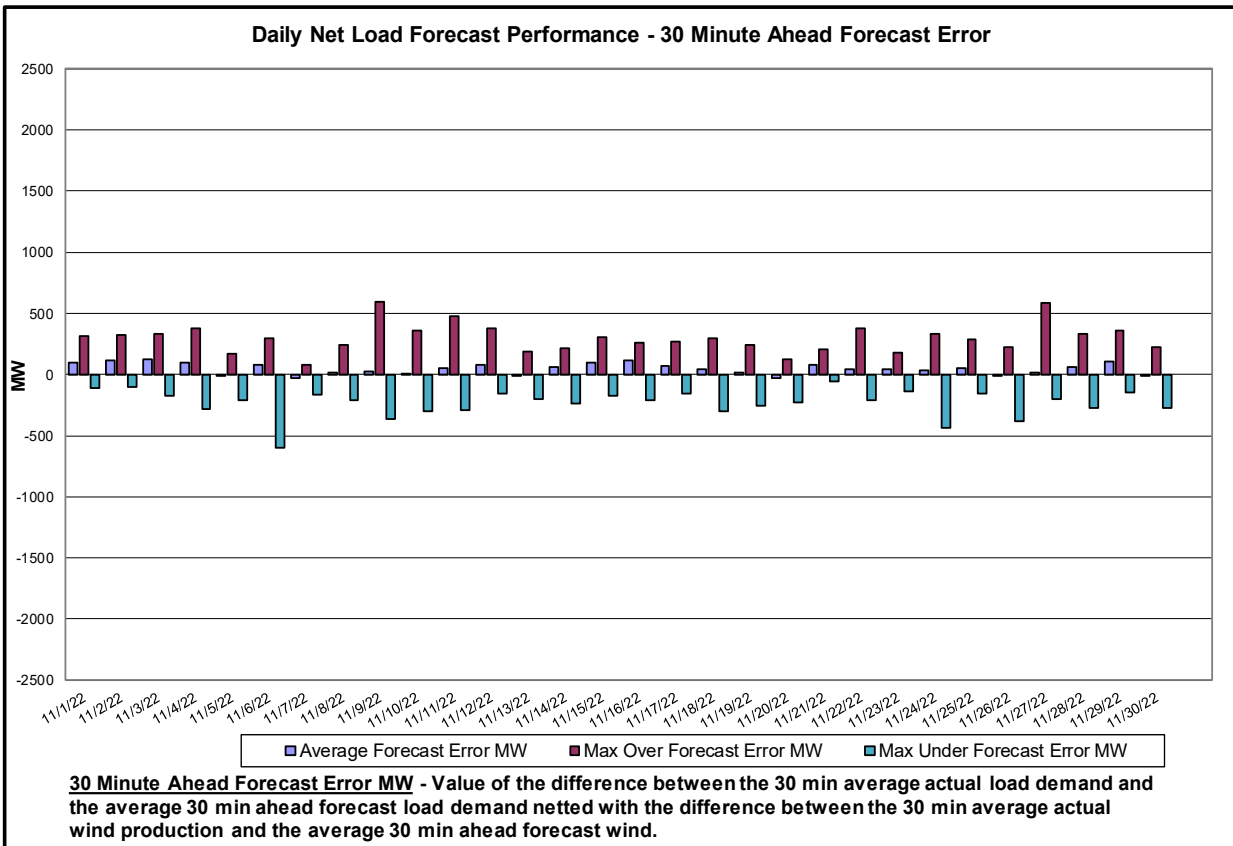
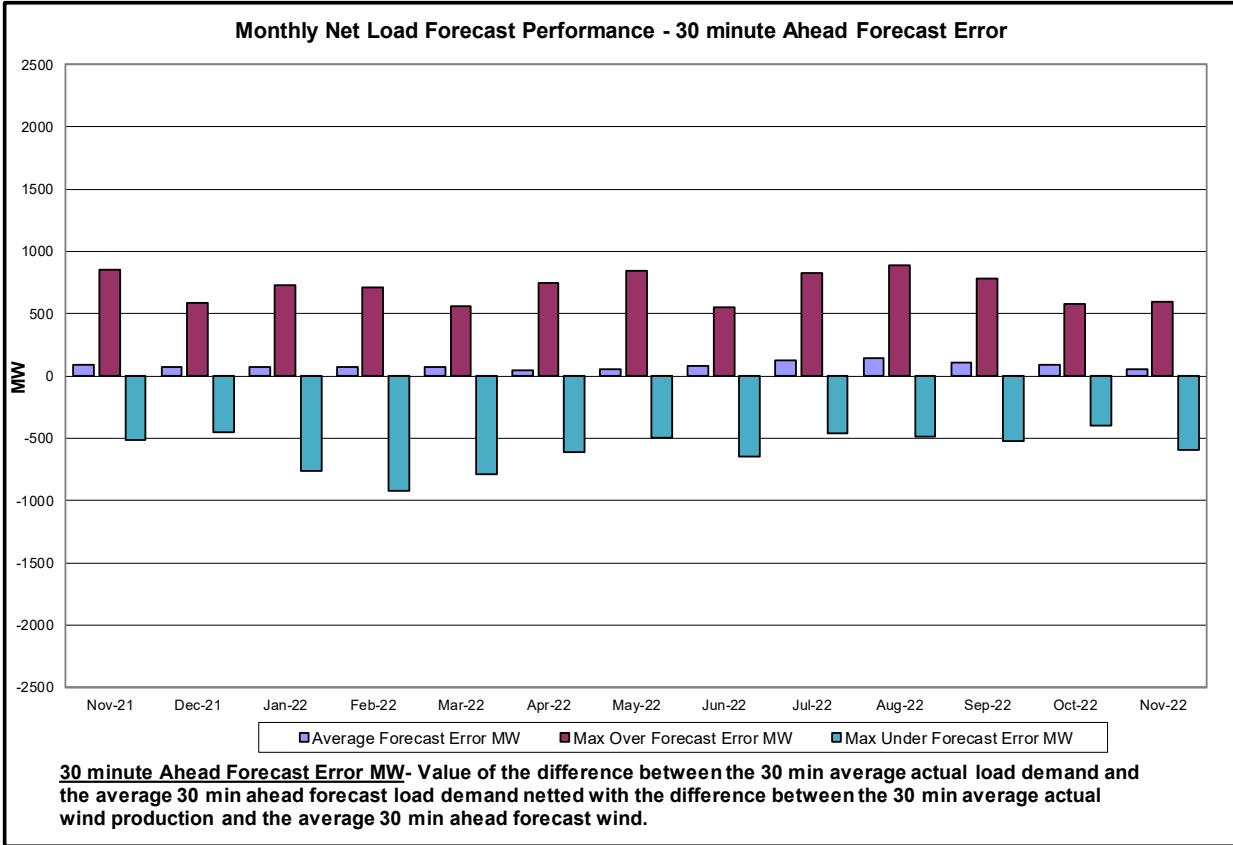


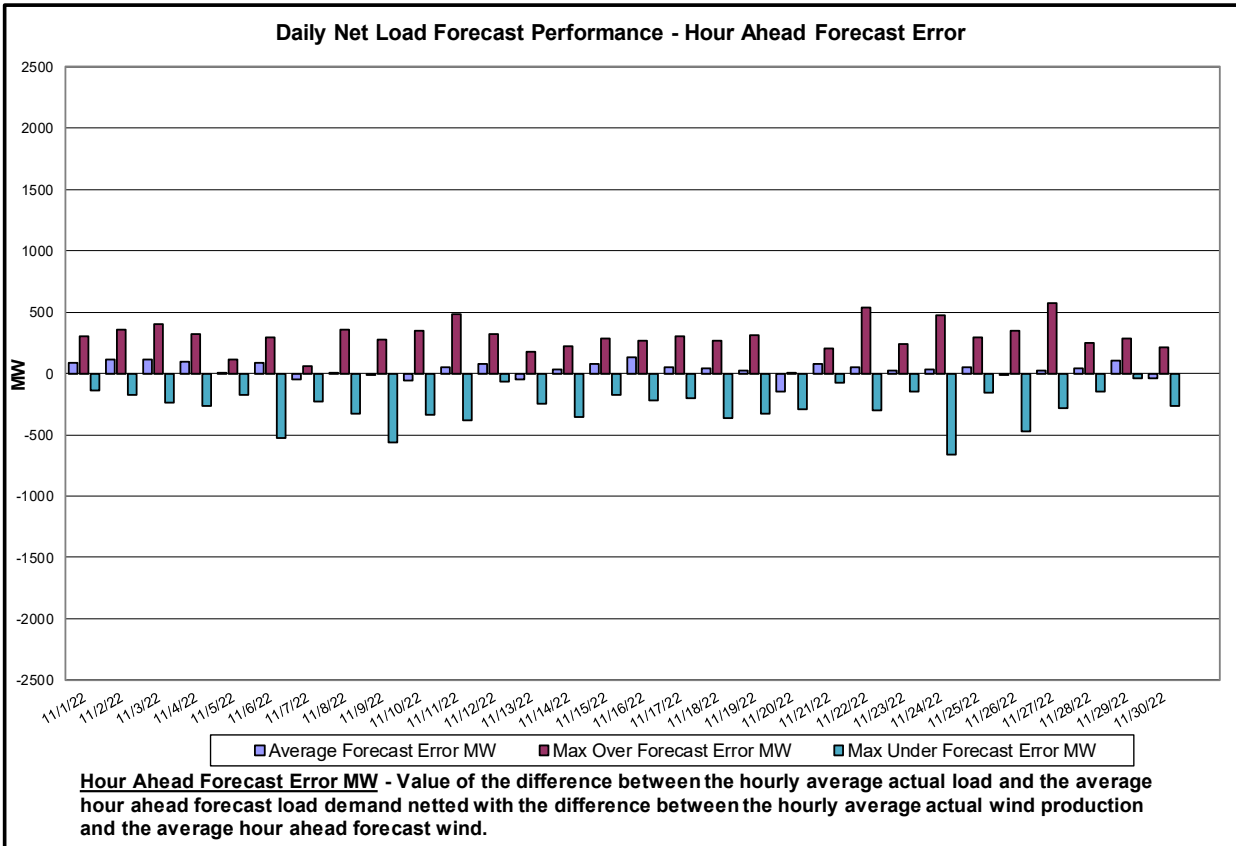
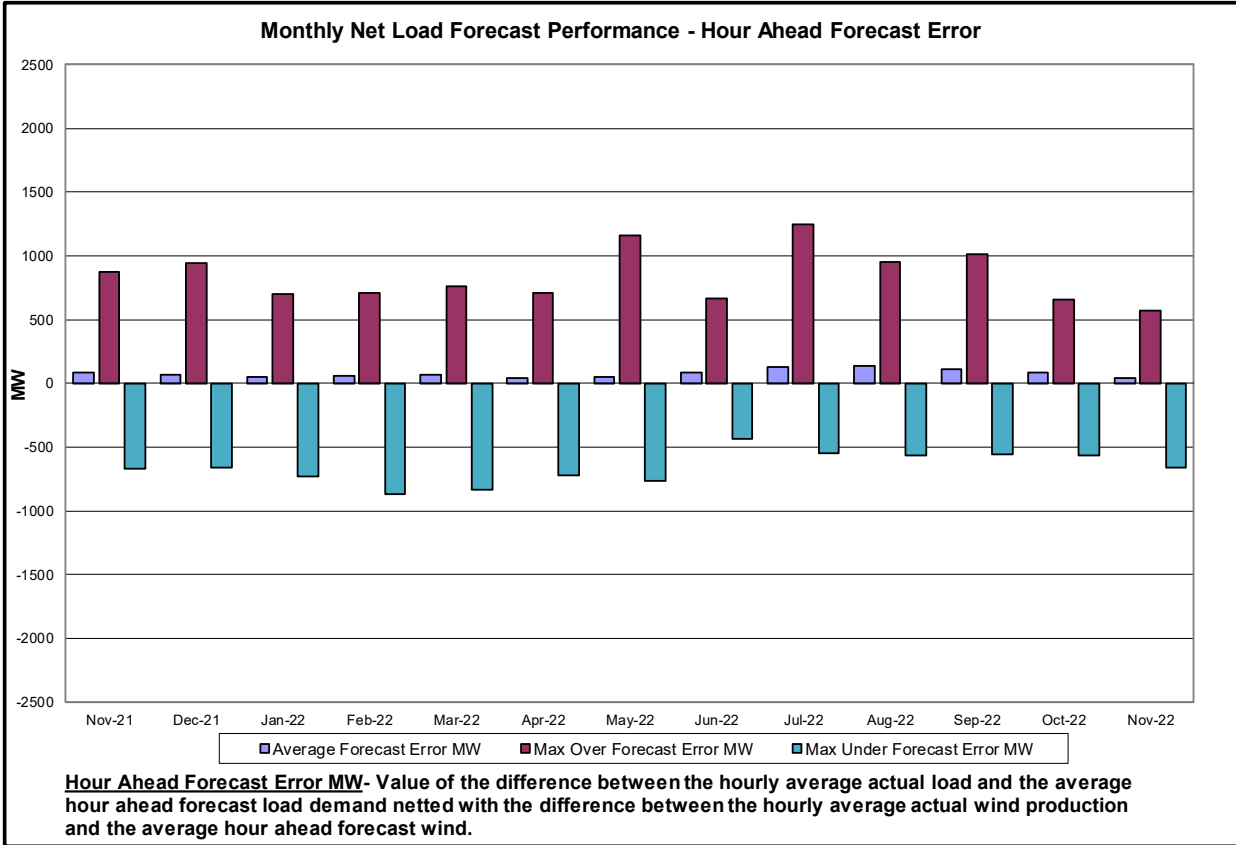




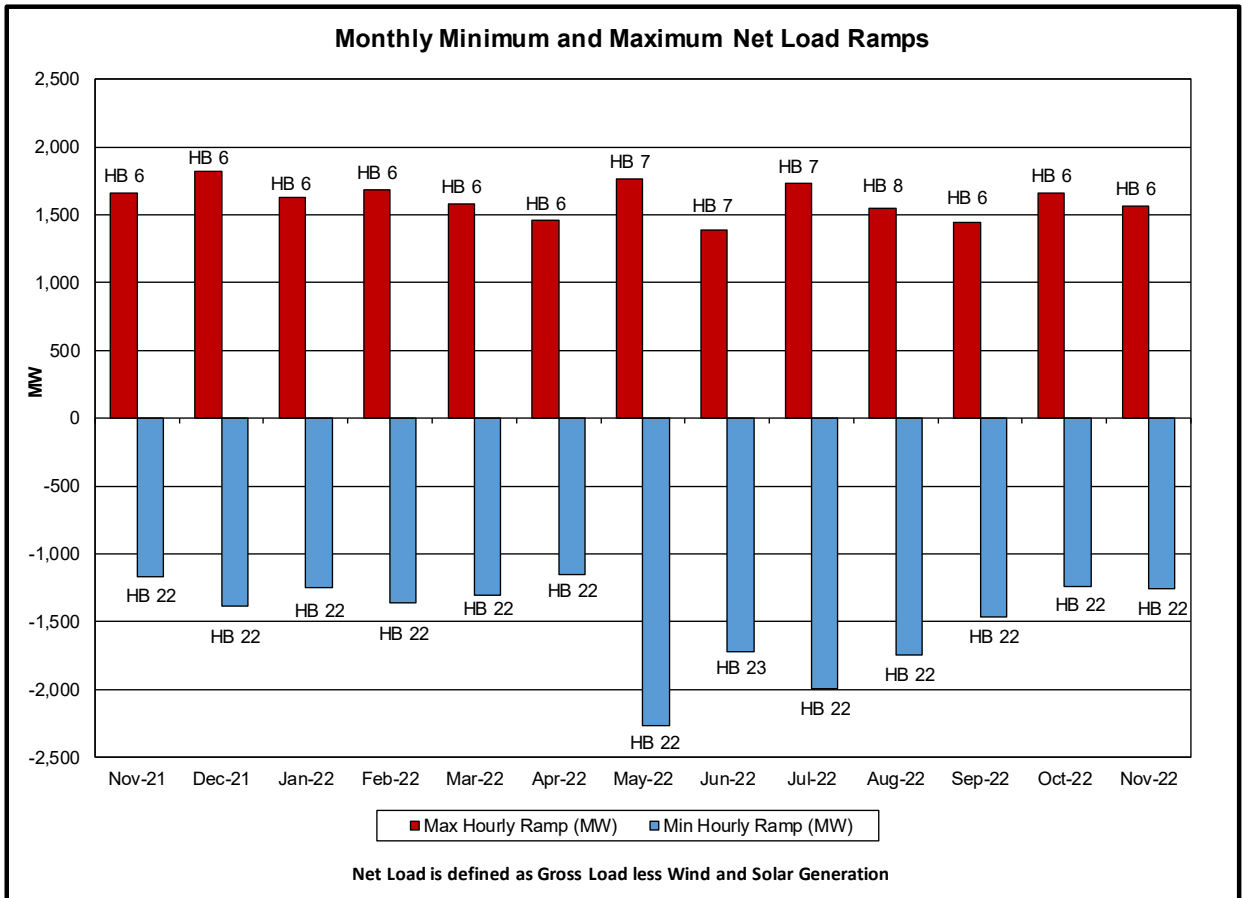
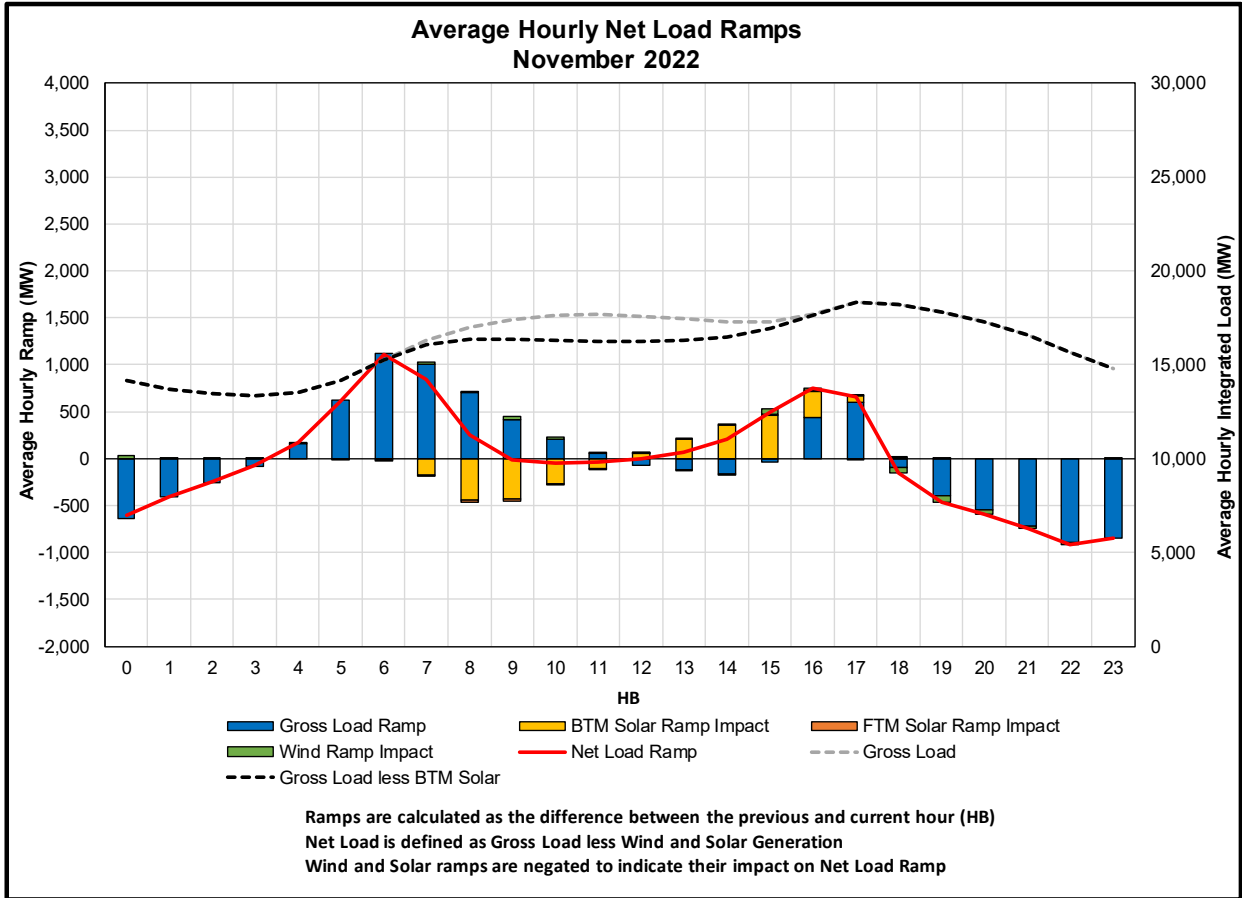


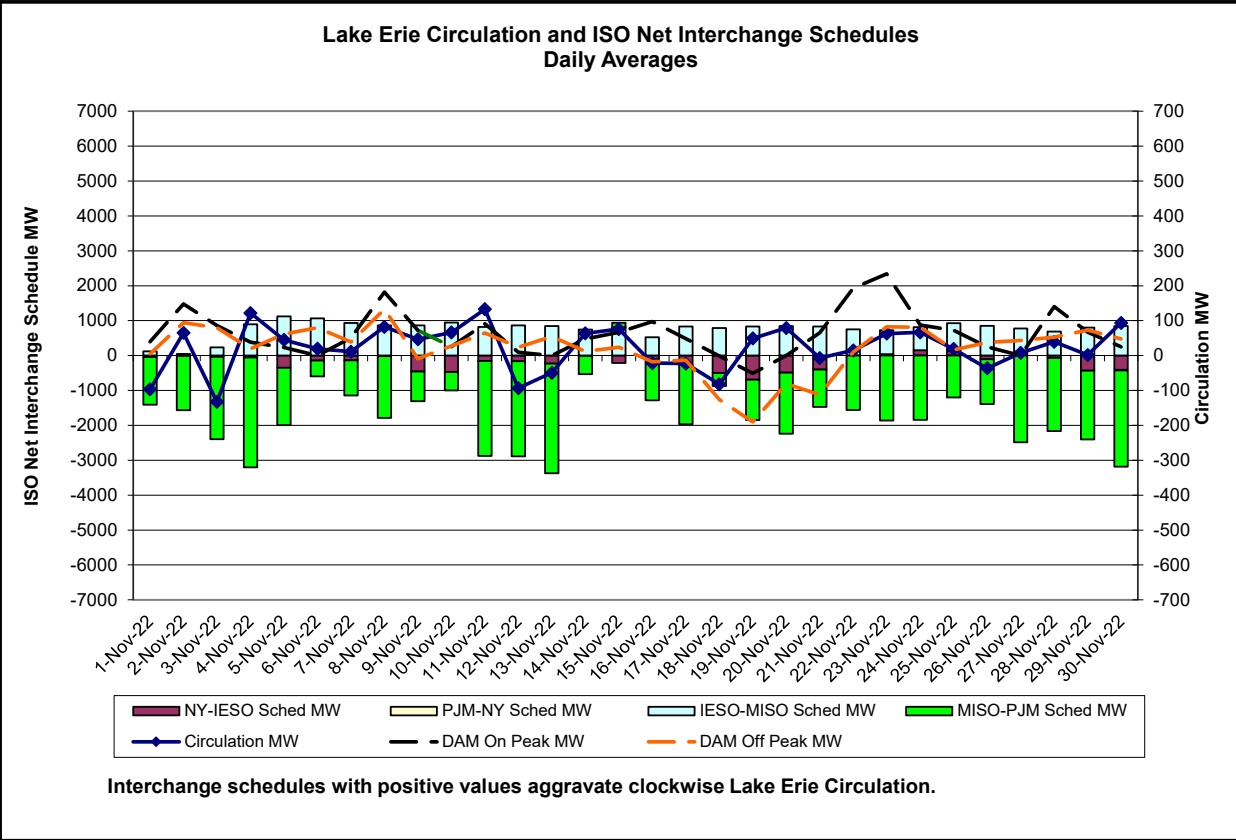
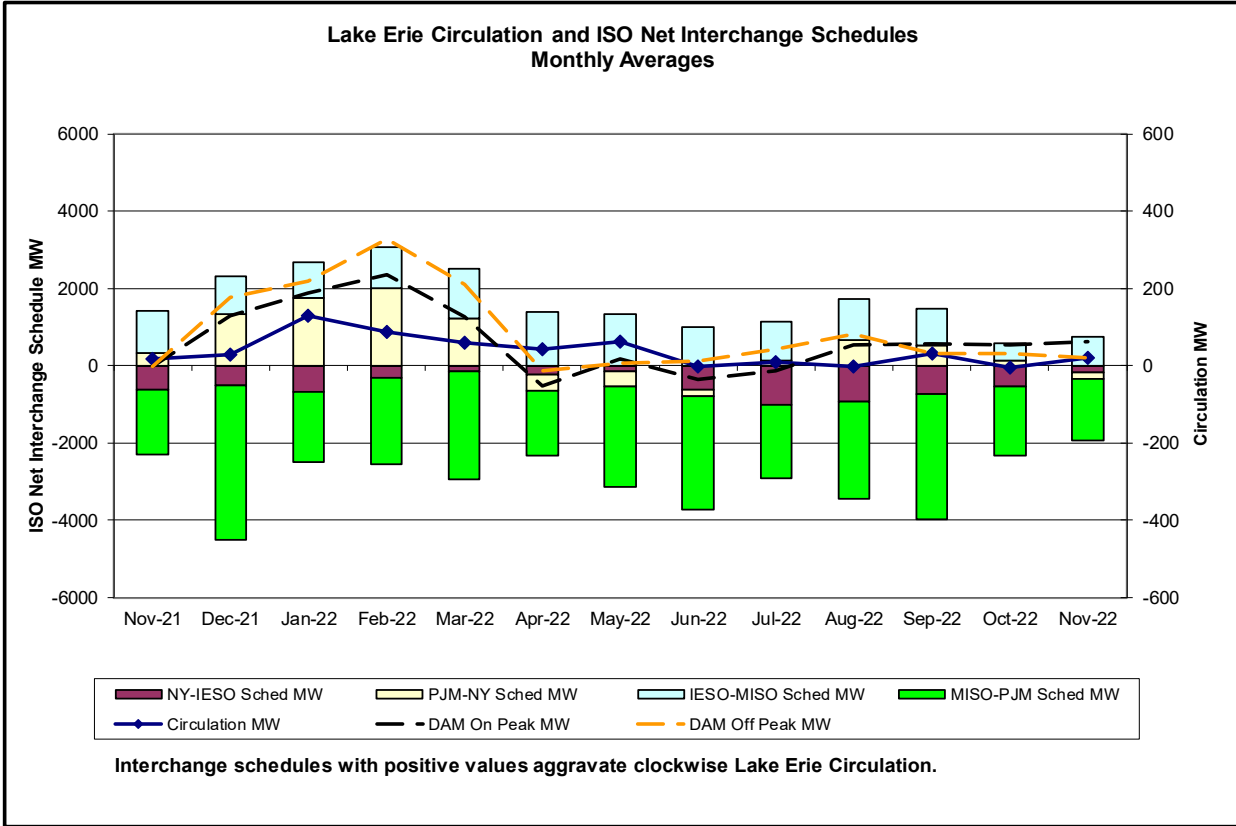




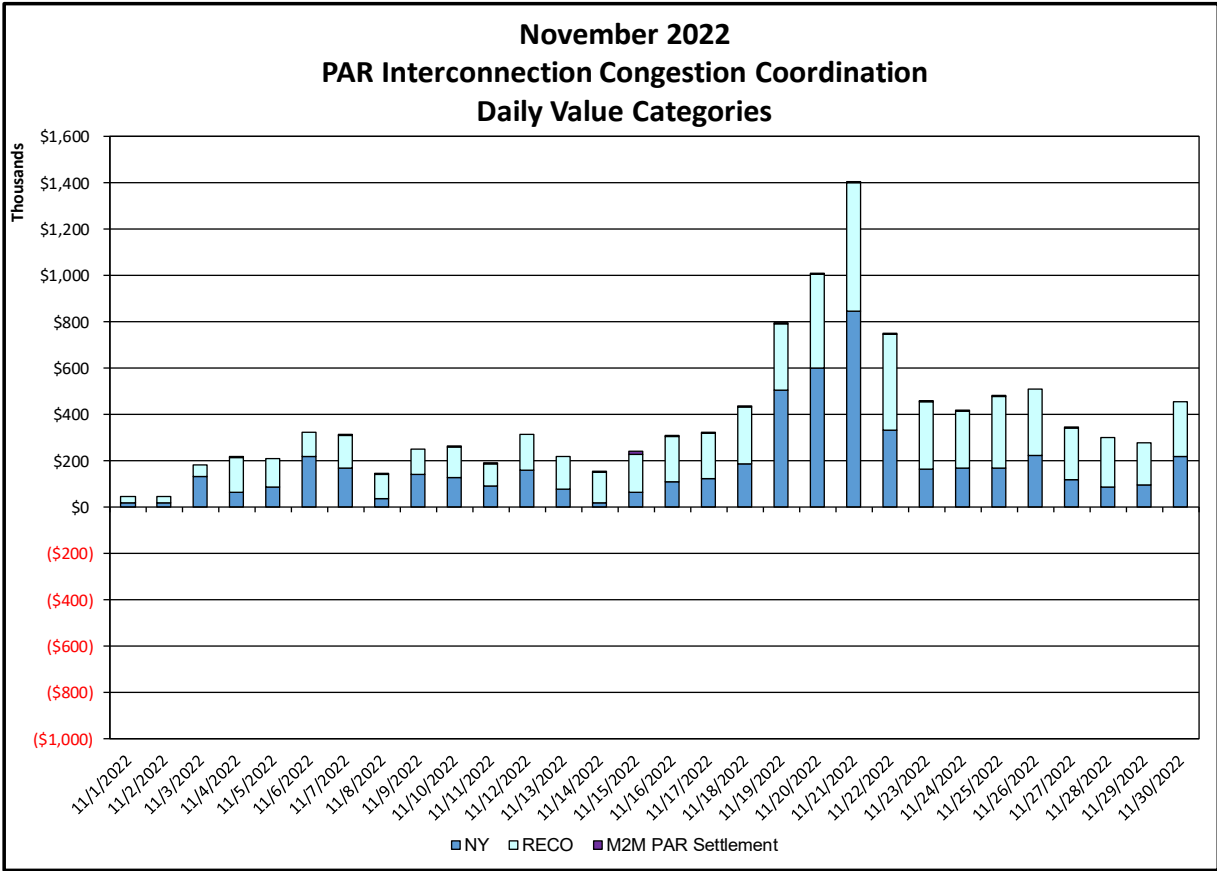
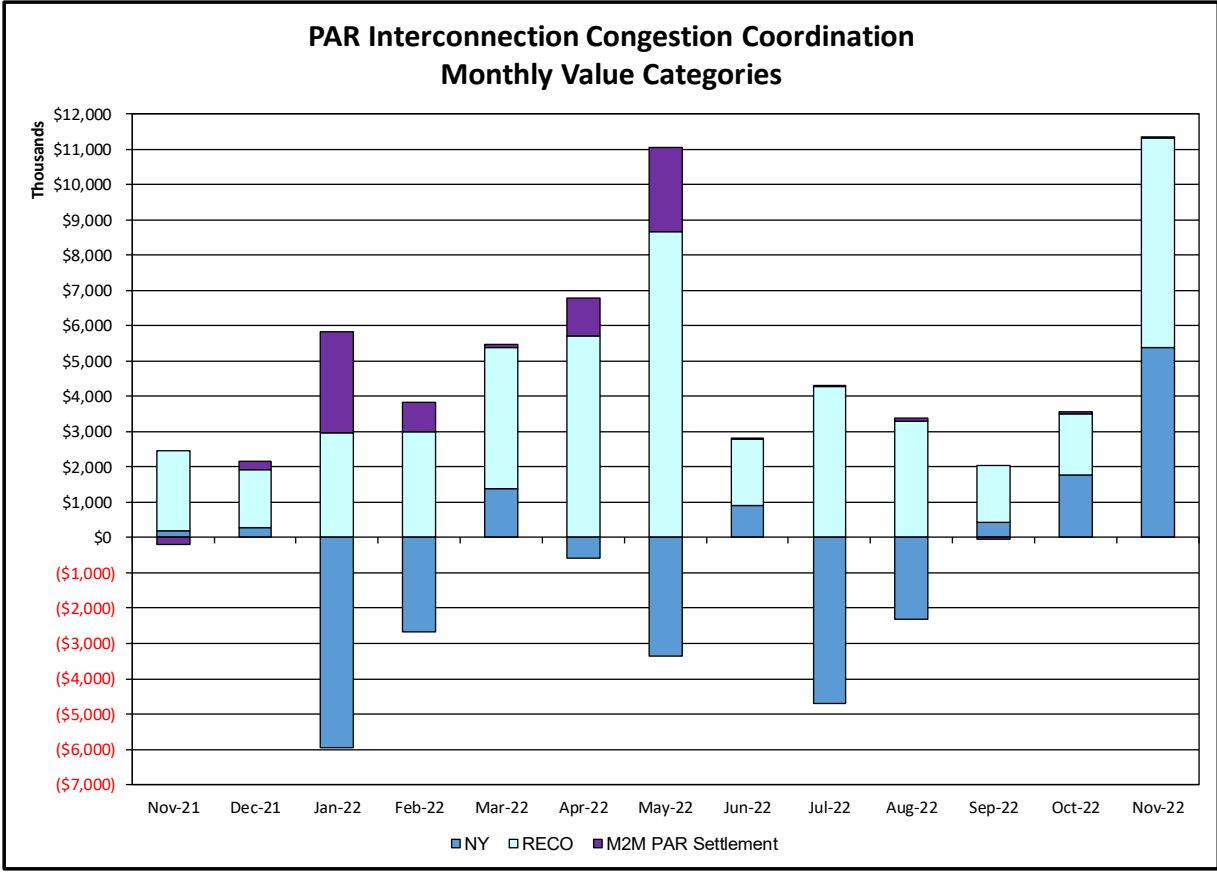






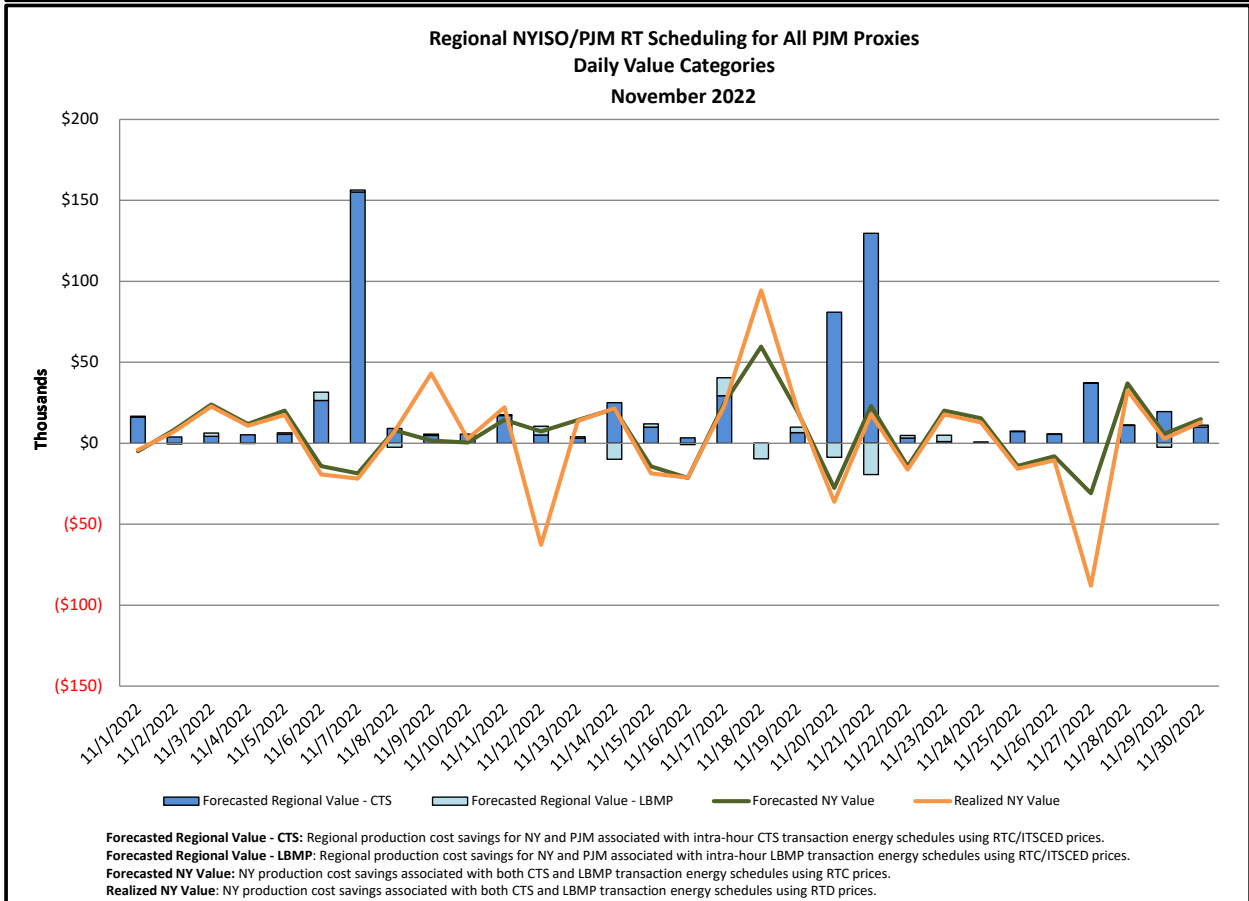
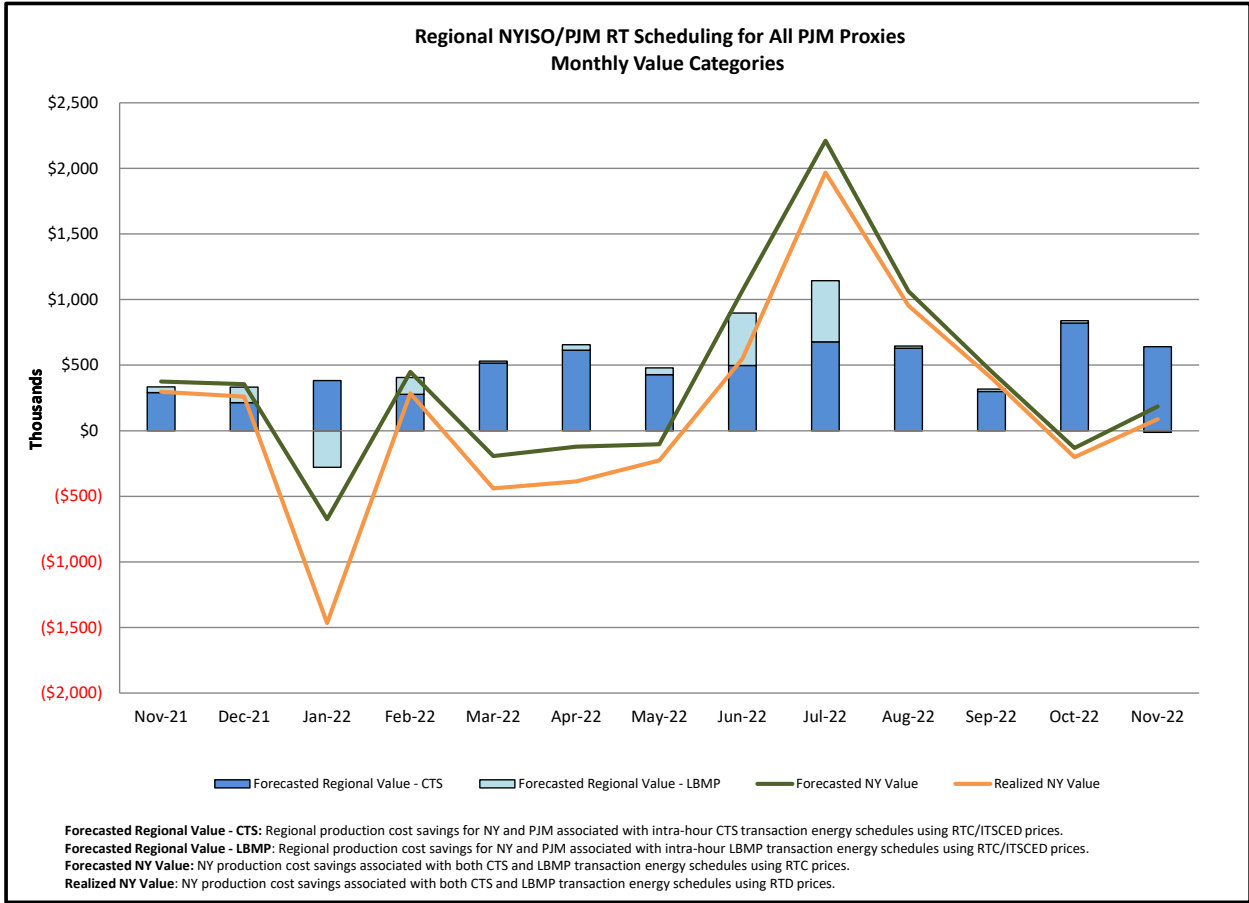


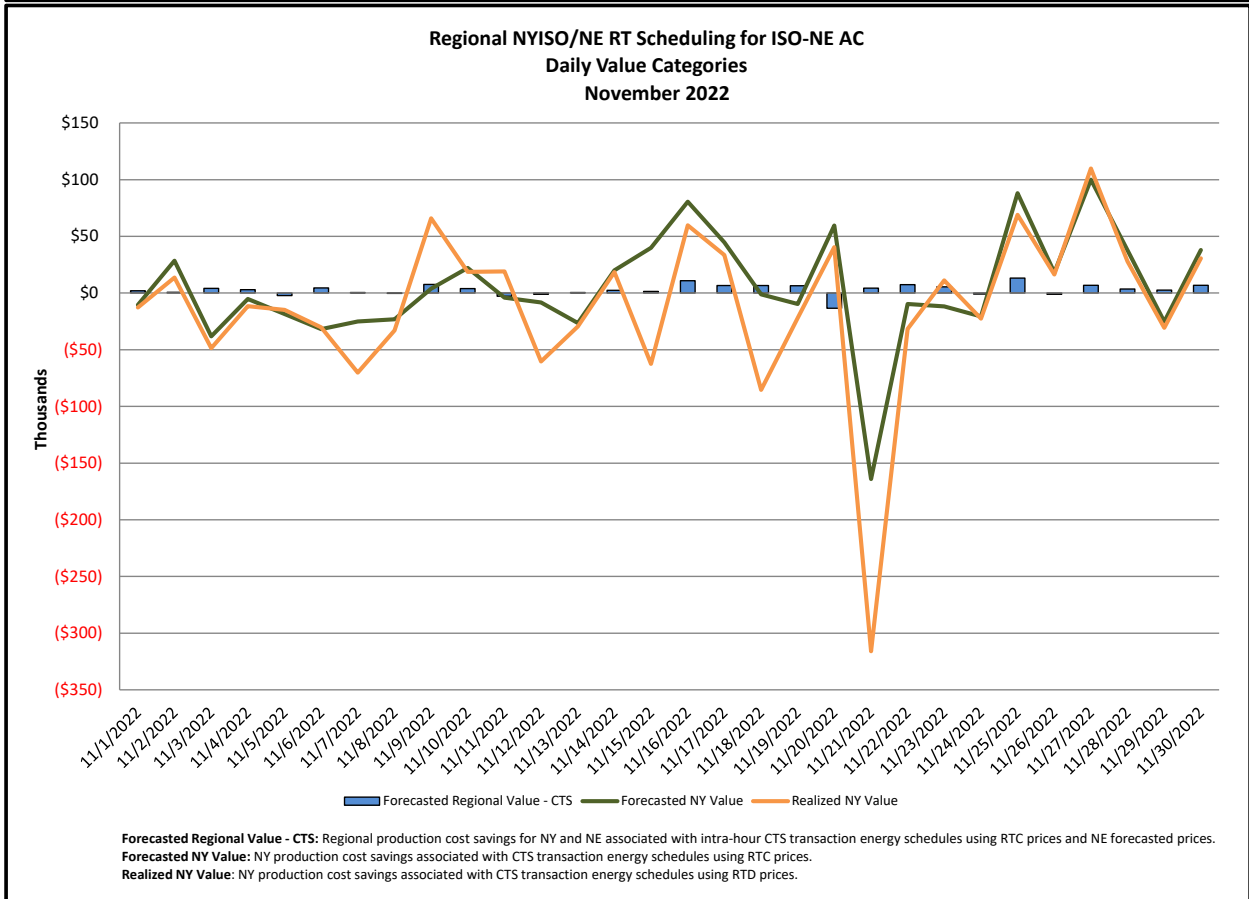
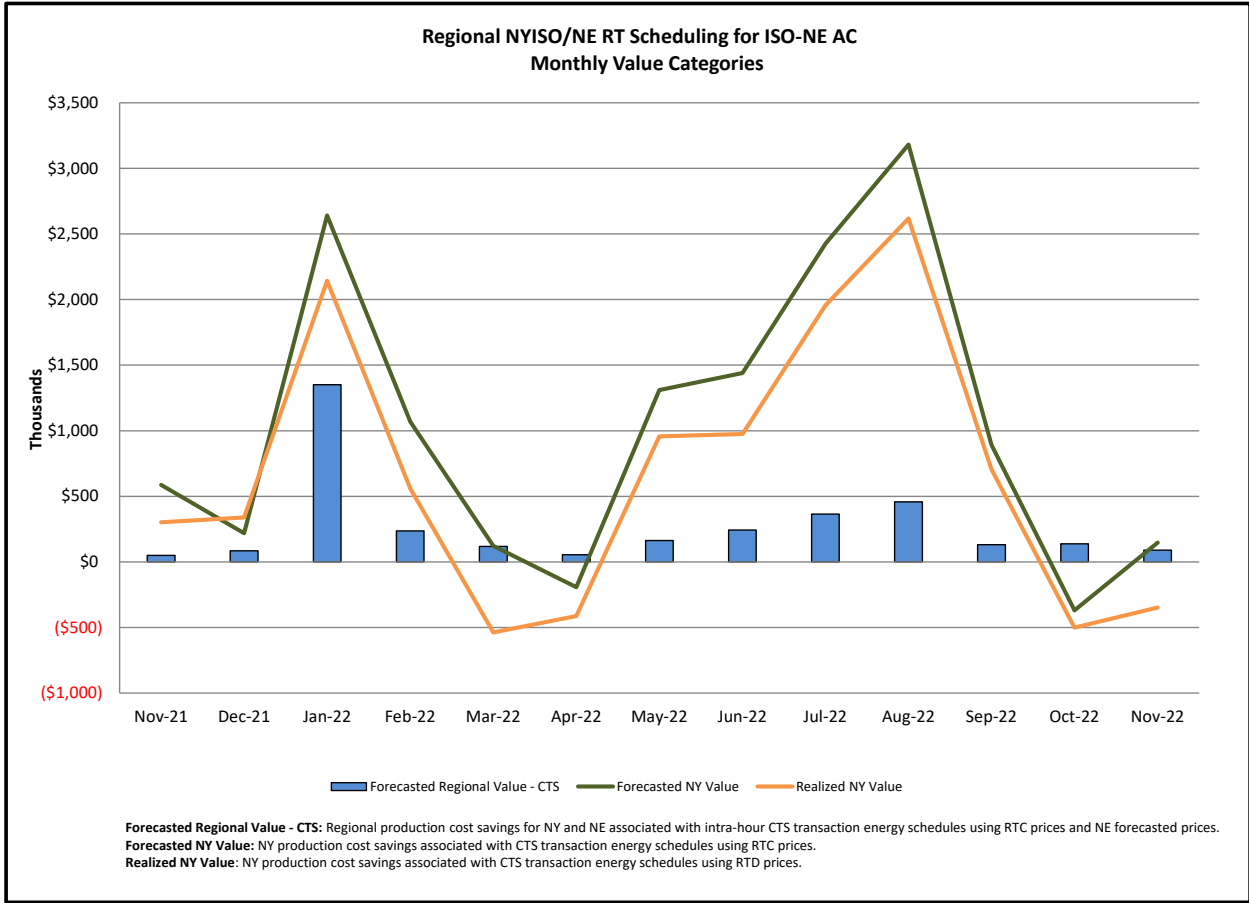
Broader Regional Market Performance Metrics



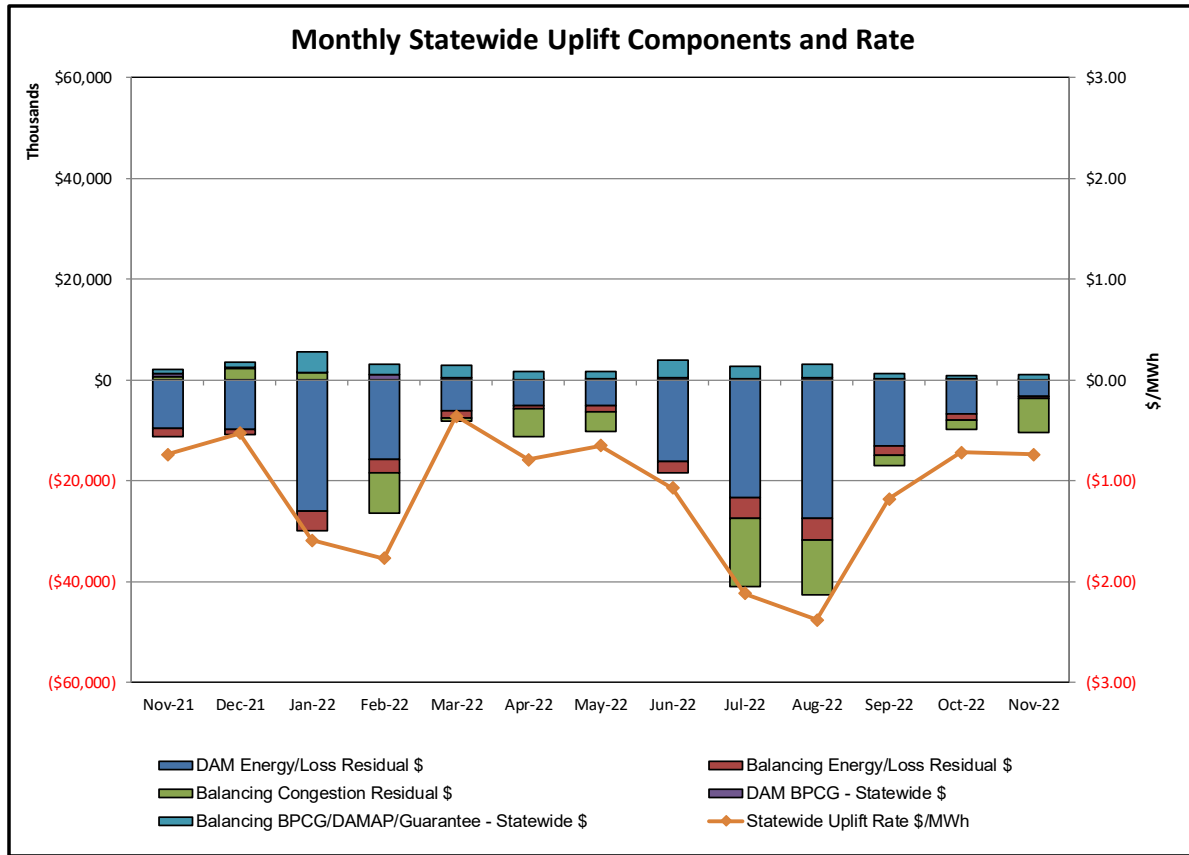
**PAR Interconnection Congestion Coordination**

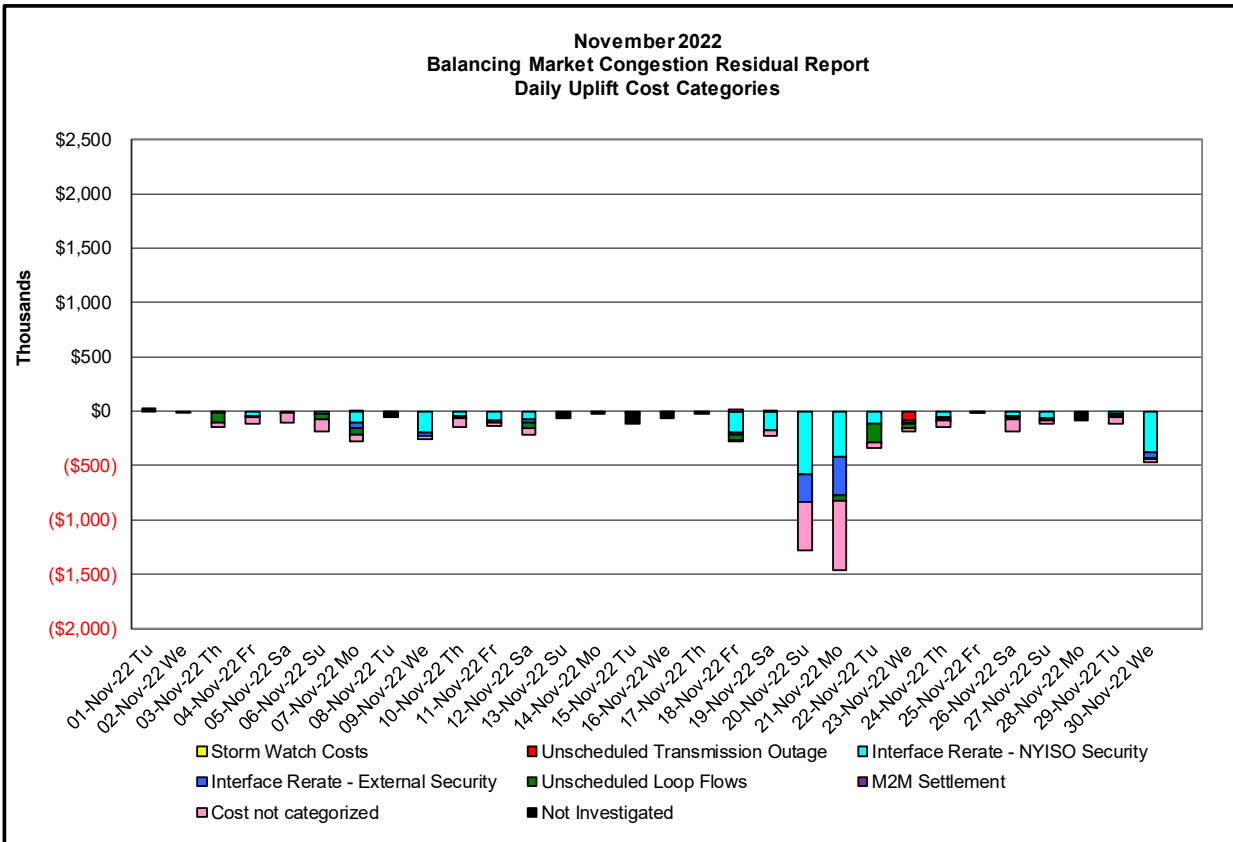
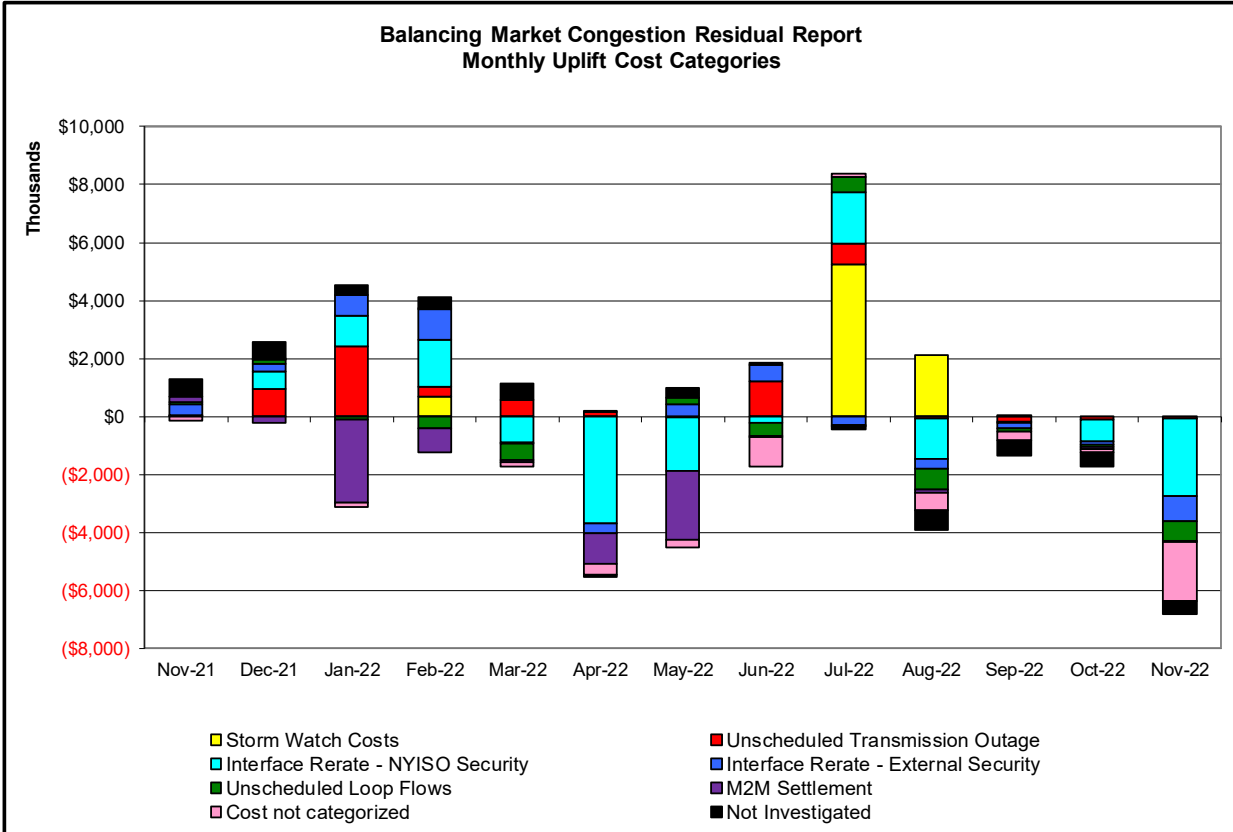
<b><u>Category</u></b>	<b><u>Description</u></b>
<b>NY</b>	Represents the value NY realizes from Market-to-Market PAR Coordination when experiencing congestion. This is the estimated savings to NY for additional deliveries into NY
<b>RECO</b>	Represents the value of PJM's obligation to deliver 80% of service to RECO load over Ramapo 5018. This is the estimated reduction in NYCA congestion due to the PJM delivery of RECO over Ramapo 5018.
<b>M2M PAR Settlement</b>	Market-to-Market PAR Coordination settlement on coordinated flowgates. Through April 2017 this value was included in the NY and RECO categories. The positive sign convention indicates settlement to NY while the negative indicates settlement to PJM.





Market Performance Metrics







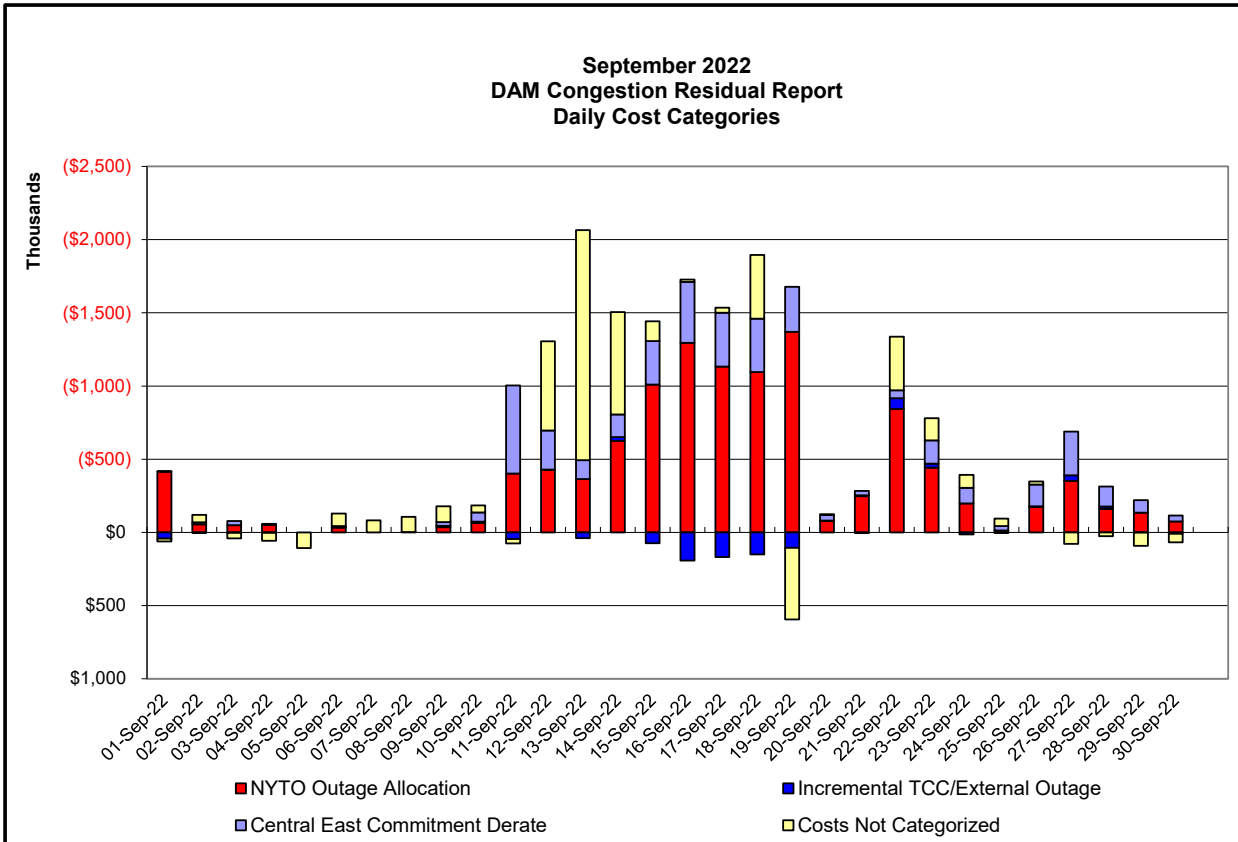
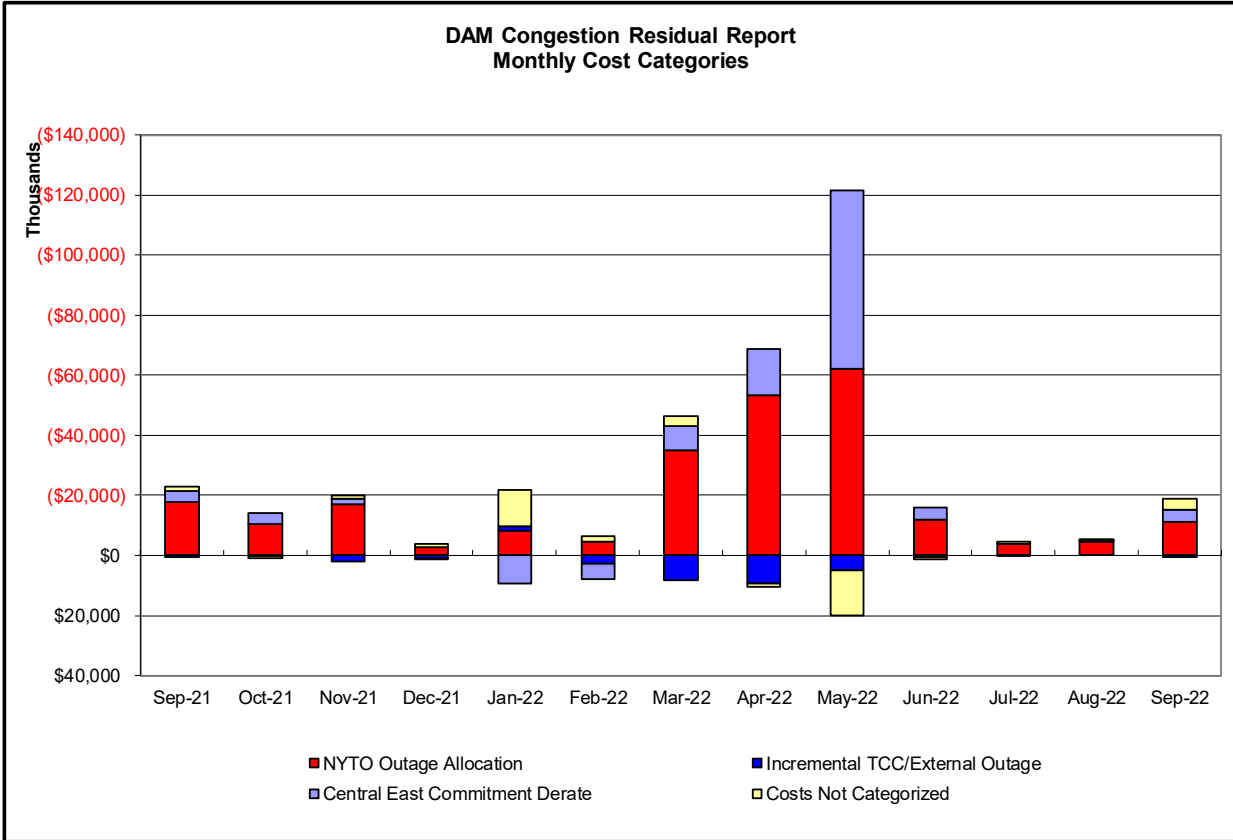
Day's investigated in November: 3,4,5,6,7,9,10,11,12,18,19,20,21,22,23,24,26,27,29,30		
Event	Description	November Dates
	Early return to service Ramapo-Buchanan 345kV (#Y94)	23
	Forced outage Gowanus-Greenwood 138KV (#42231)	7
	Derate Central East	7,19,21,24
	Derate Foxhills-Willowbrook 138kV (#29231) I/o FOXHILLS-WILLWBRK_138_29212&BK2	7
	Derate Lake Success-Shore Rd. 138kV (#368)	7
	Derate Malone-Willis 115kV (1-910) I/o MOSES -WILLIS 230_MW1	7
	NYCA DNI Ramp Limit	5,7,9,11,12,18-22,24,27,30
	Uprate Central East	3-7,9-12,18-24,26,27,29,30
	Uprate CricketValley-PleasantValley 345kV (#F83) I/o CricketValley-PleasantValley 345kV (#F84)	19
	Uprate Motthaven-Dunwoodie 345kV (#72) I/o \$SCB:W49TH_ST(6):M55&BK5&BK13	19
	Uprate Northport-Pilgrim 138kV (#672) I/o BUS:NRTHPRT 677 & PS2 & G2	9
	IESO_AC ACTIVE DNI Ramp Limit	4,9,18,21
	NE_AC - NY Scheduling Limit	9,12,18,20,21
	NE_AC ACTIVE DNI Ramp Limit	3,7,10,12,19-24,26,29,30
	NE_NNC1385 - NY Scheduling Limit	24
	PJM_AC ACTIVE DNI Ramp Limit	6,22,23,26
	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East	3,5-7,10-12,18-24,26,27,29,30
	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West	7,10,11,18,21,22,29,30

### Real-Time Balancing Market Congestion Residual (Uplift Cost) 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 Outage, 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 Flows exceeding +/- 125 MW
M2M Settlement	Market-wide	Settlement result inclusive of coordinated redispatch and Ramapo flowgates	

**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



**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.
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 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.	

