

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



## ***October 2019 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 November 8, 2019.

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## October 2019 Operations Performance Highlights

- Peak load of 23,774 MW occurred on 10/02/2019 HB 15
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 0 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- A Major Emergency was declared on 10/13/2019 in HB16 for resources producing above schedule, causing the HQ Cedars flow to exceed 105% of its transient stability limit.
- A Major Emergency was declared on 10/13/2019 in HB23 for resources producing above schedule, causing the Northern Export interface flow to exceed 105% of its transient stability limit.
- The following table identifies the estimated production cost savings associated with the Broader Regional Market initiatives.

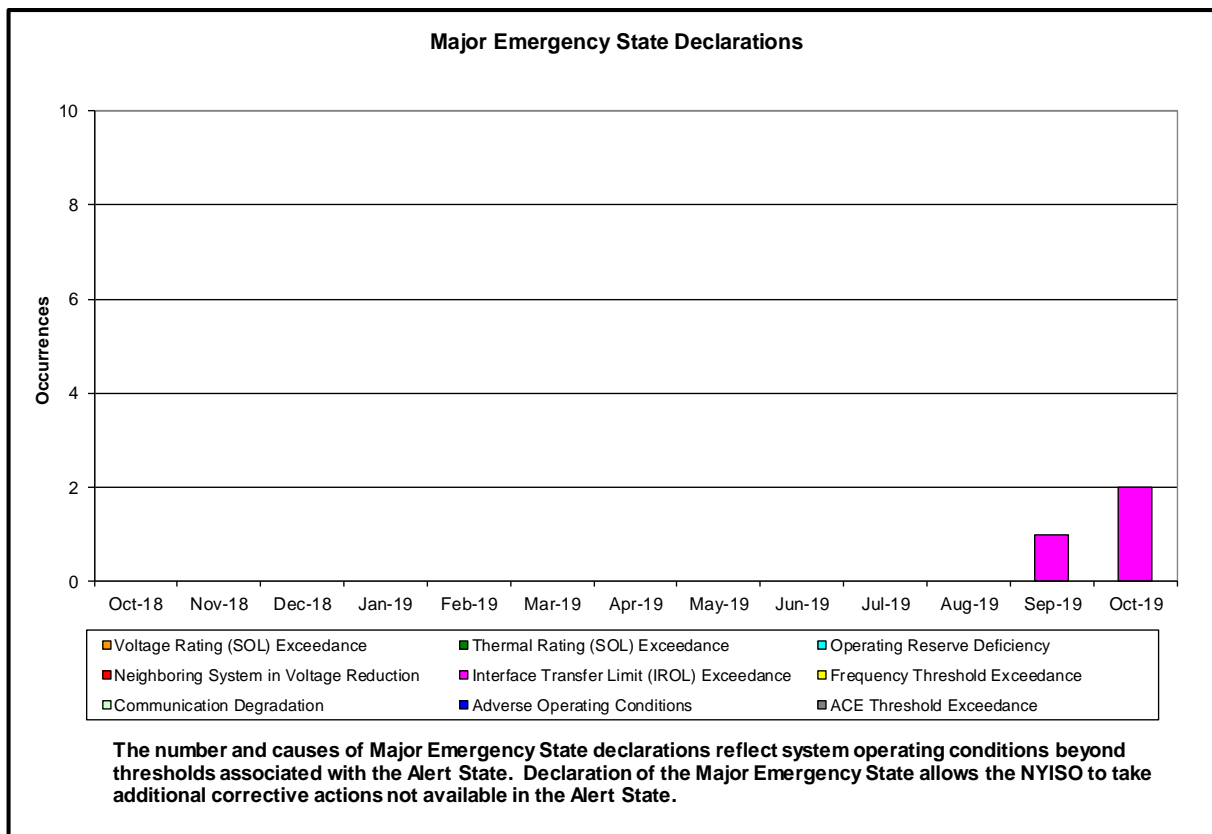
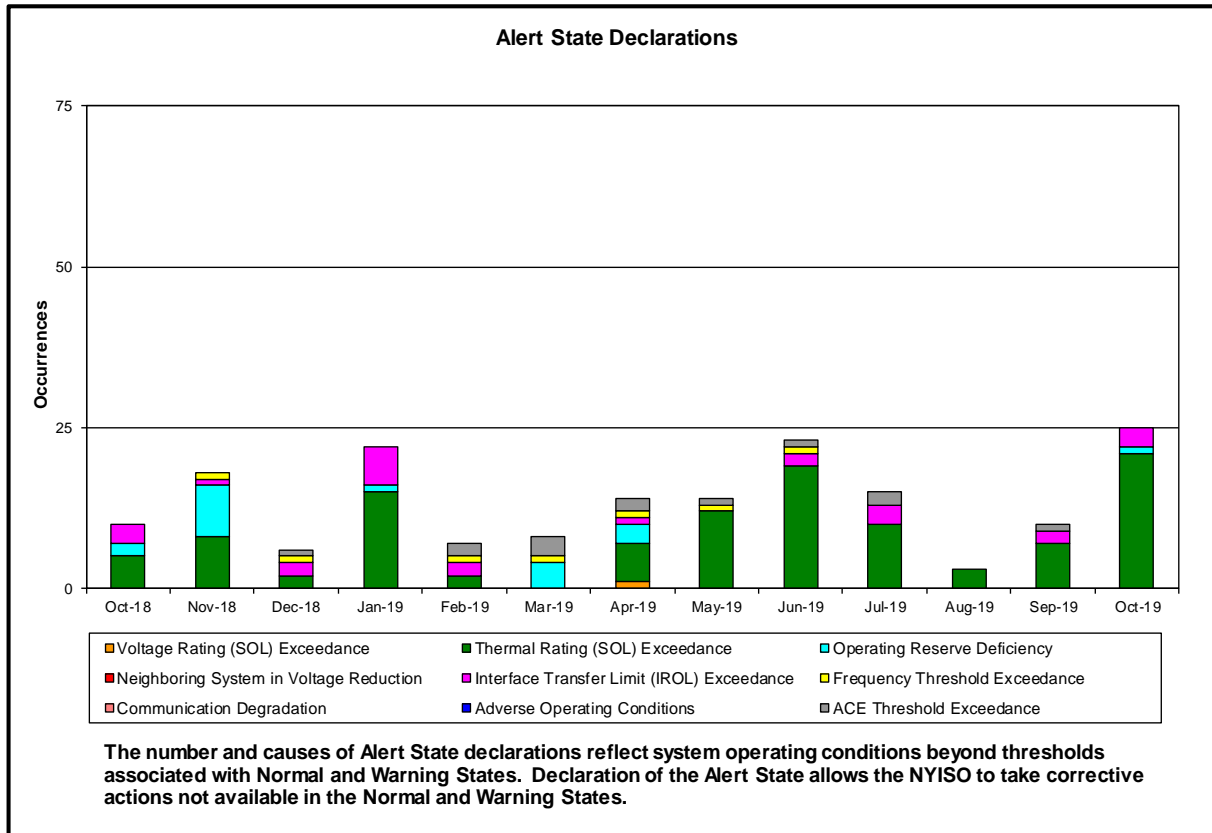
	Current Month Value (\$M)	Year-to-Date Value (\$M)
<b>NY Savings from PJM-NY Congestion Coordination</b>	\$0.53	\$7.26
<b>NY Savings from PJM-NY Coordinated Transaction Scheduling</b>	(\$0.43)	\$1.93
<b>NY Savings from NE-NY Coordinated Transaction Scheduling</b>	\$0.26	\$1.04
<b>Total NY Savings</b>	\$0.36	\$10.23
<b>Regional Savings from PJM-NY Coordinated Transaction Scheduling</b>	\$0.86	\$5.31
<b>Regional Savings from NE-NY Coordinated Transaction Scheduling</b>	\$0.05	\$0.56
<b>Total Regional Savings</b>	\$0.91	\$5.87

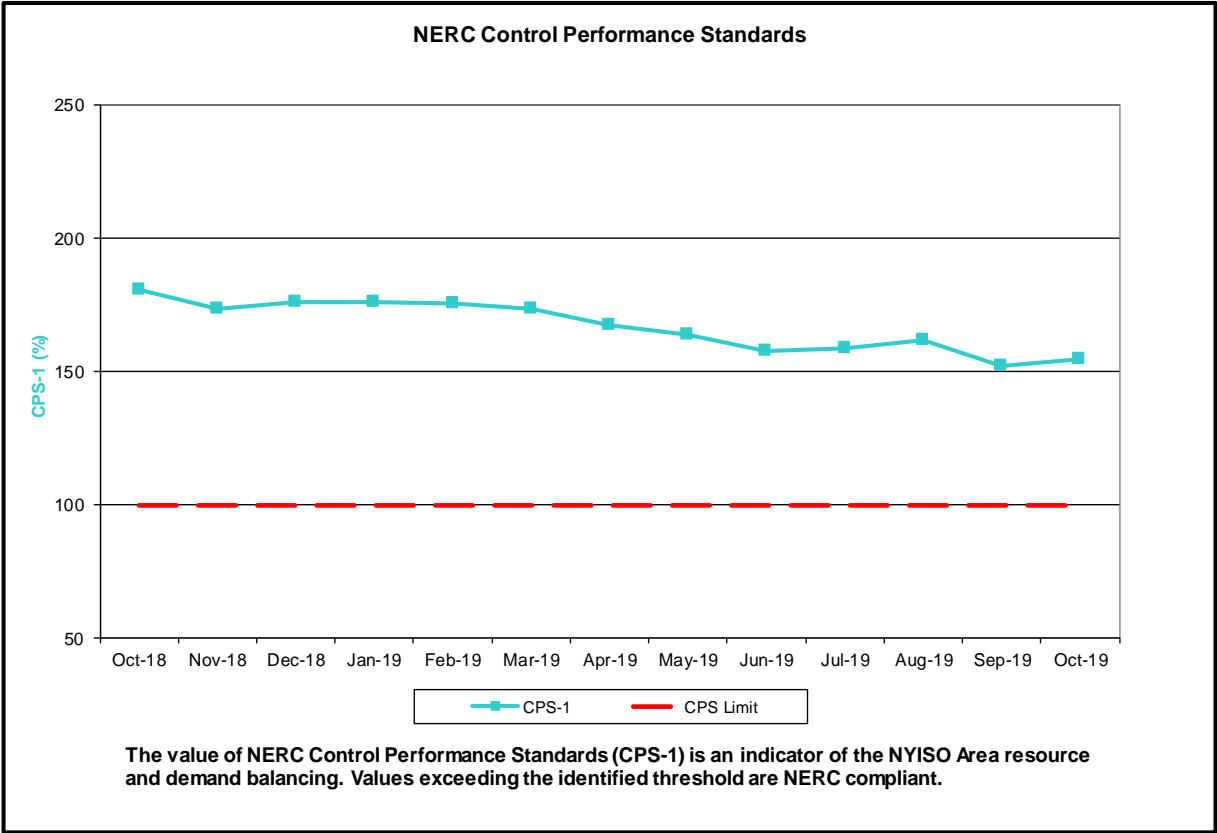
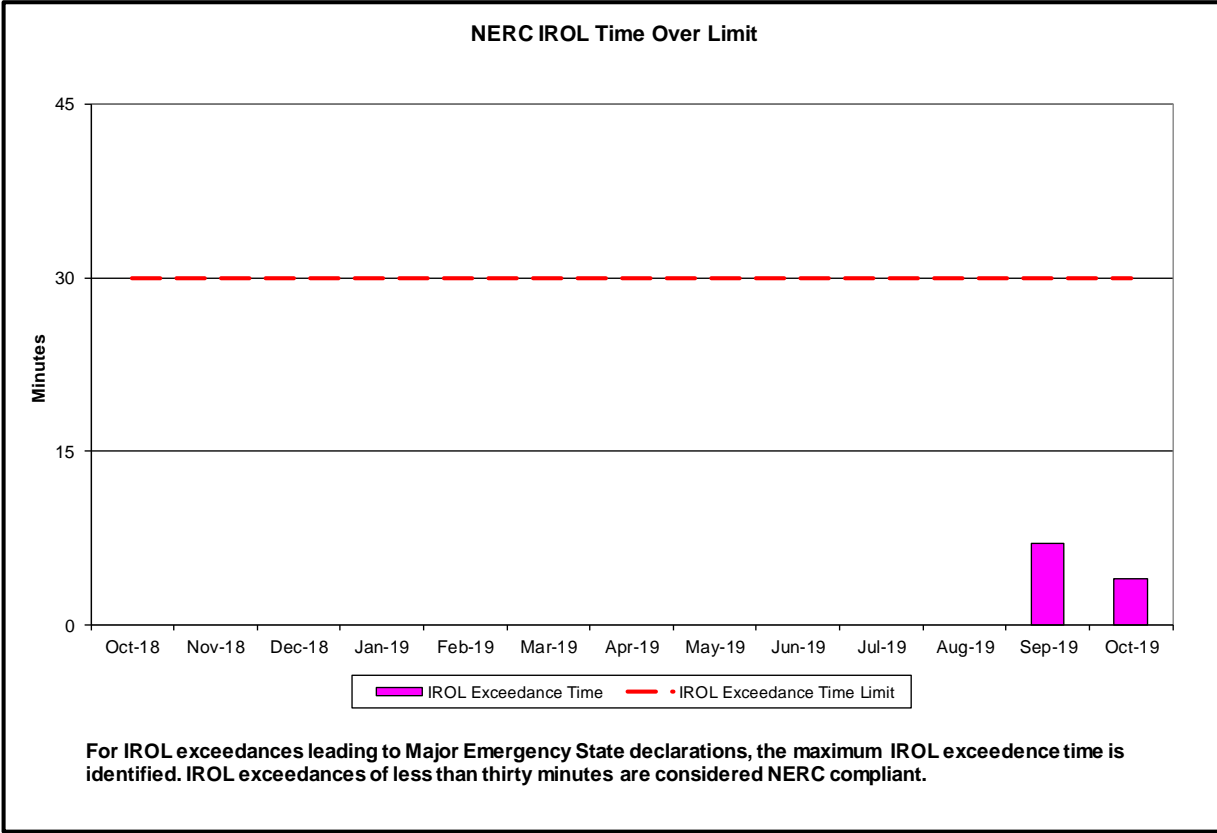
- Statewide uplift cost monthly average was (\$0.20)/MWh
- The following table identifies the Monthly ICAP spot market prices and the price delta.

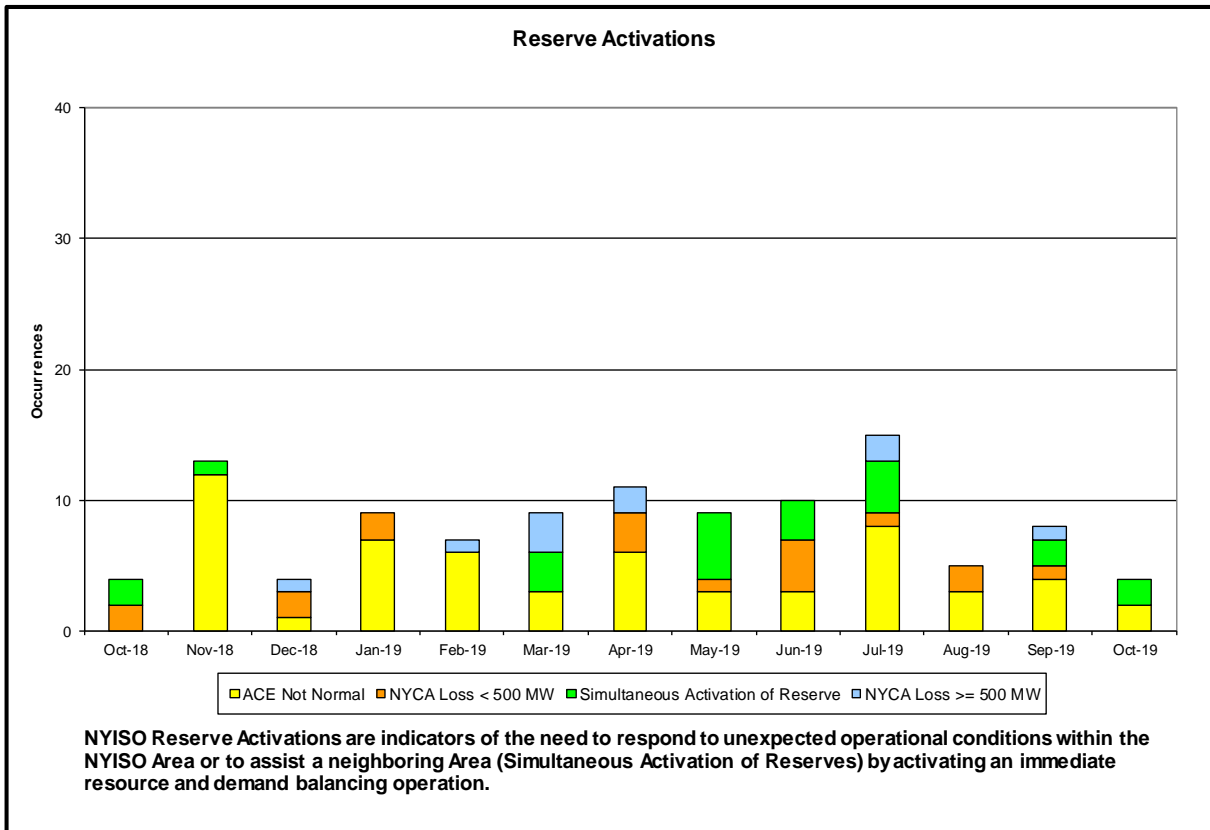
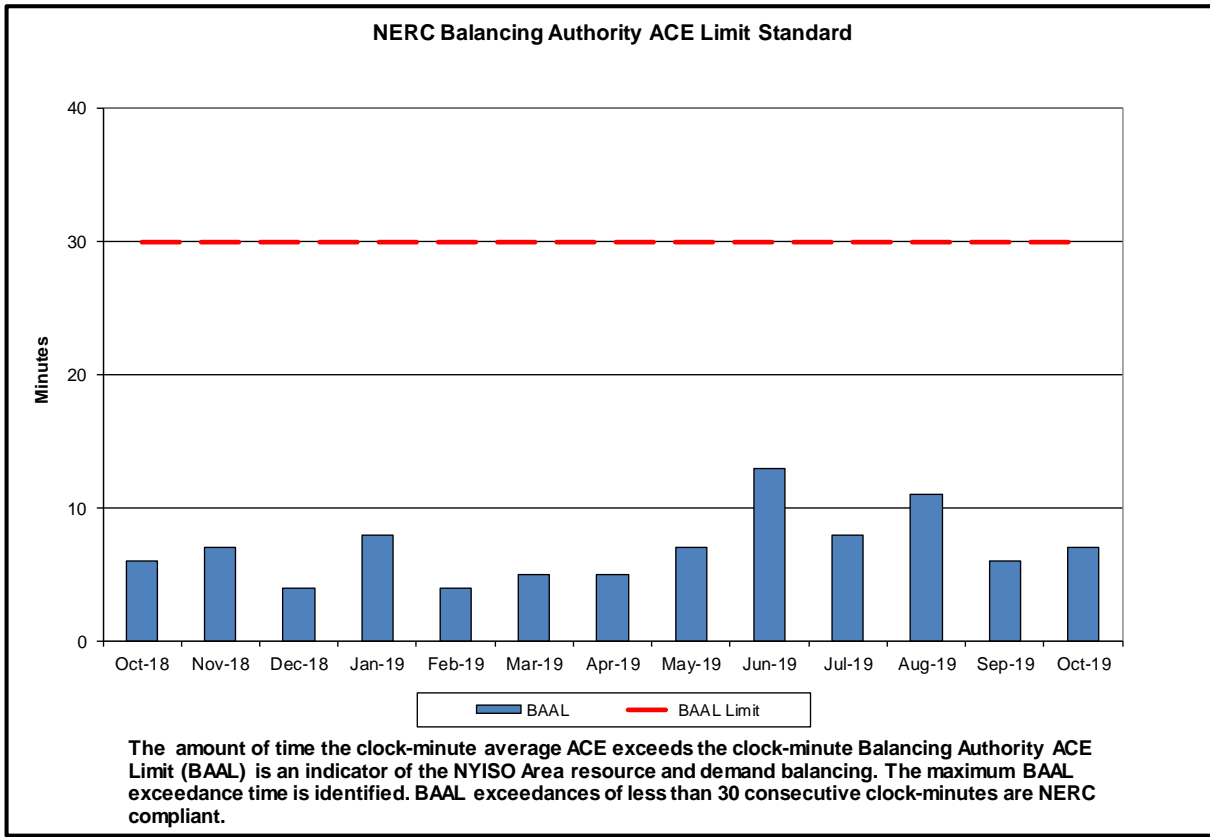
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
November 2019 Spot Price	\$0.10	\$0.10	\$4.01	\$0.10
April 2019 Spot Price	\$0.26	\$1.45	\$1.45	\$0.41
Delta	(\$0.16)	(\$1.35)	\$2.56	(\$0.31)

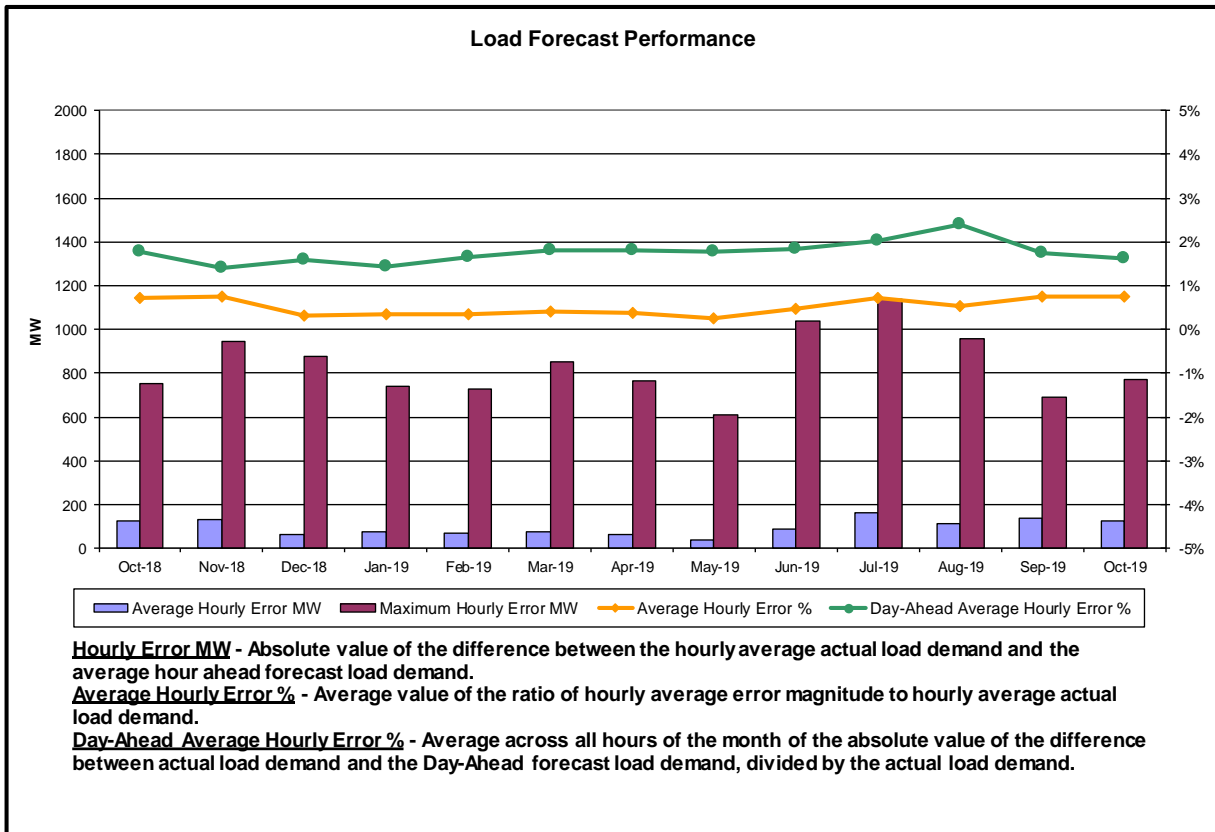
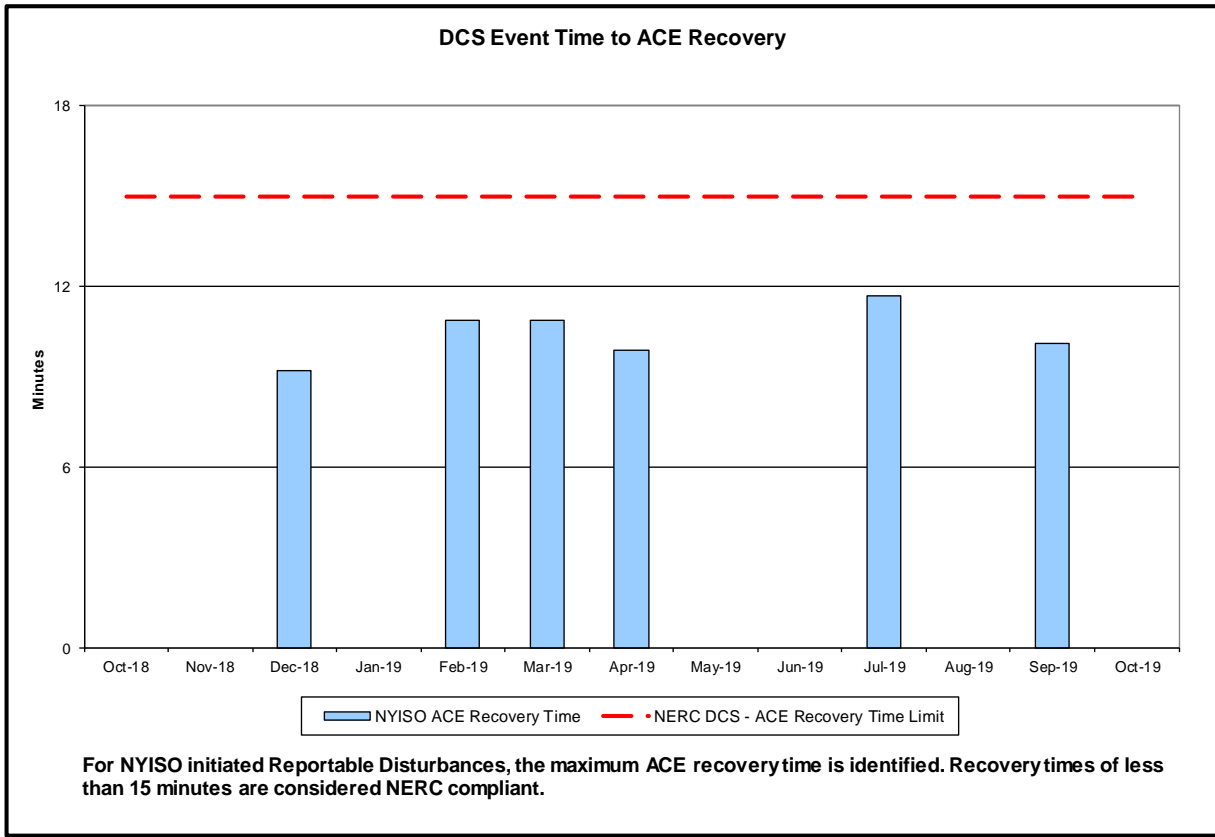
- Price changes from April 2019 to November 2019 are driven by changes in supply as well as Capability Year inputs such as demand curve parameters, Locational Capacity Requirements, the Installed Reserve Margin and the load forecast.

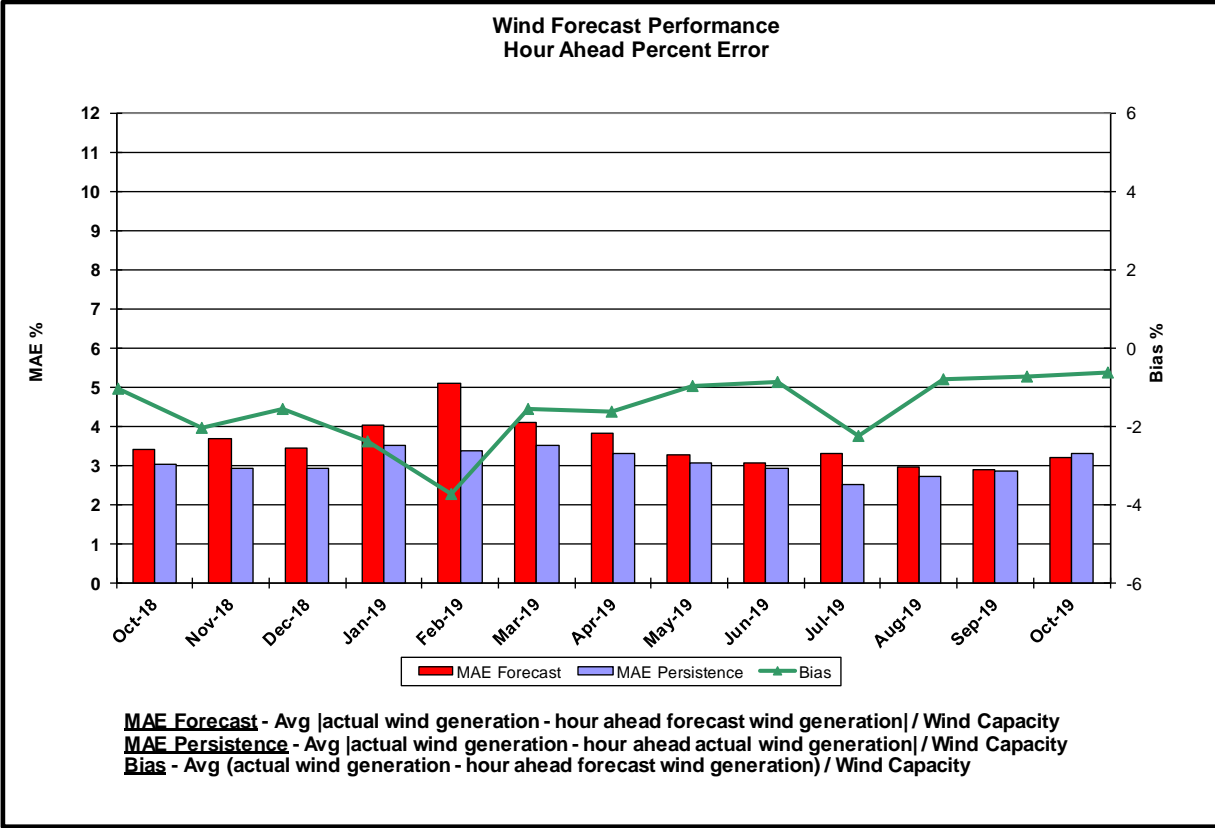
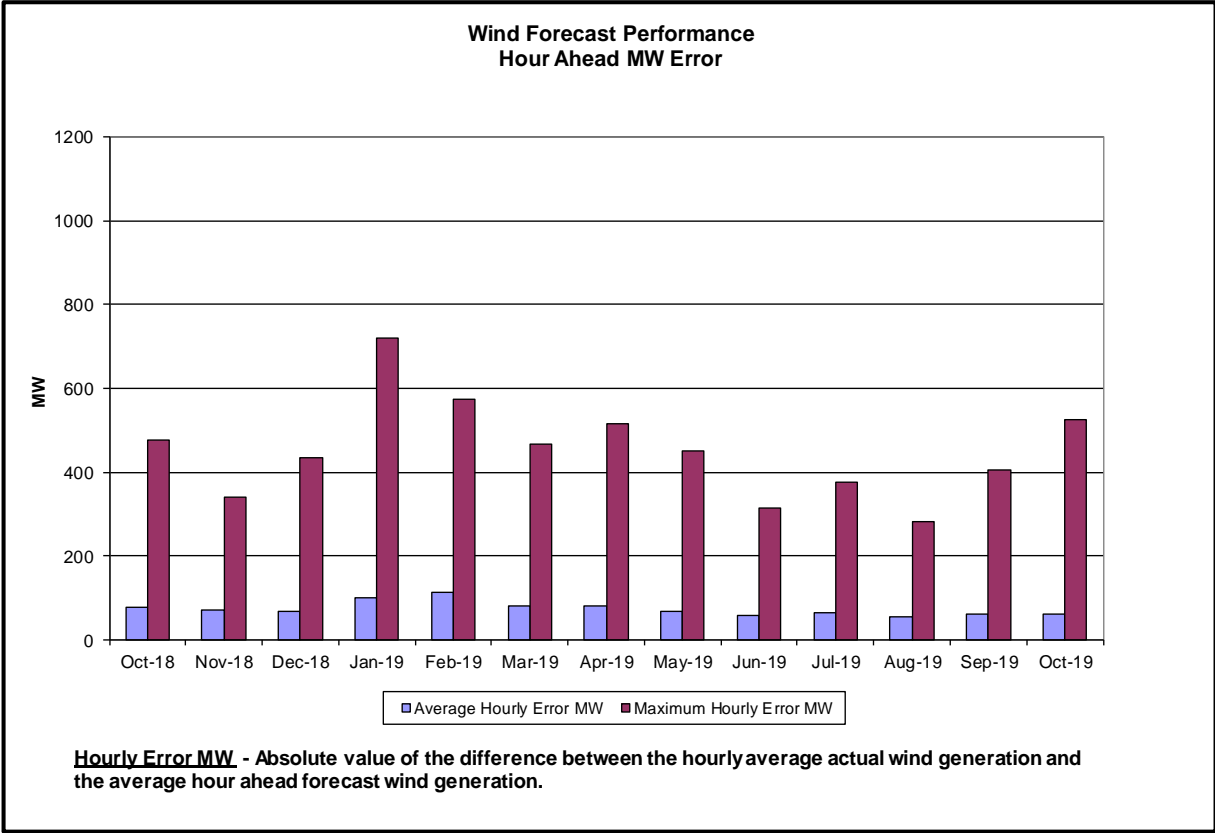
## Reliability Performance Metrics



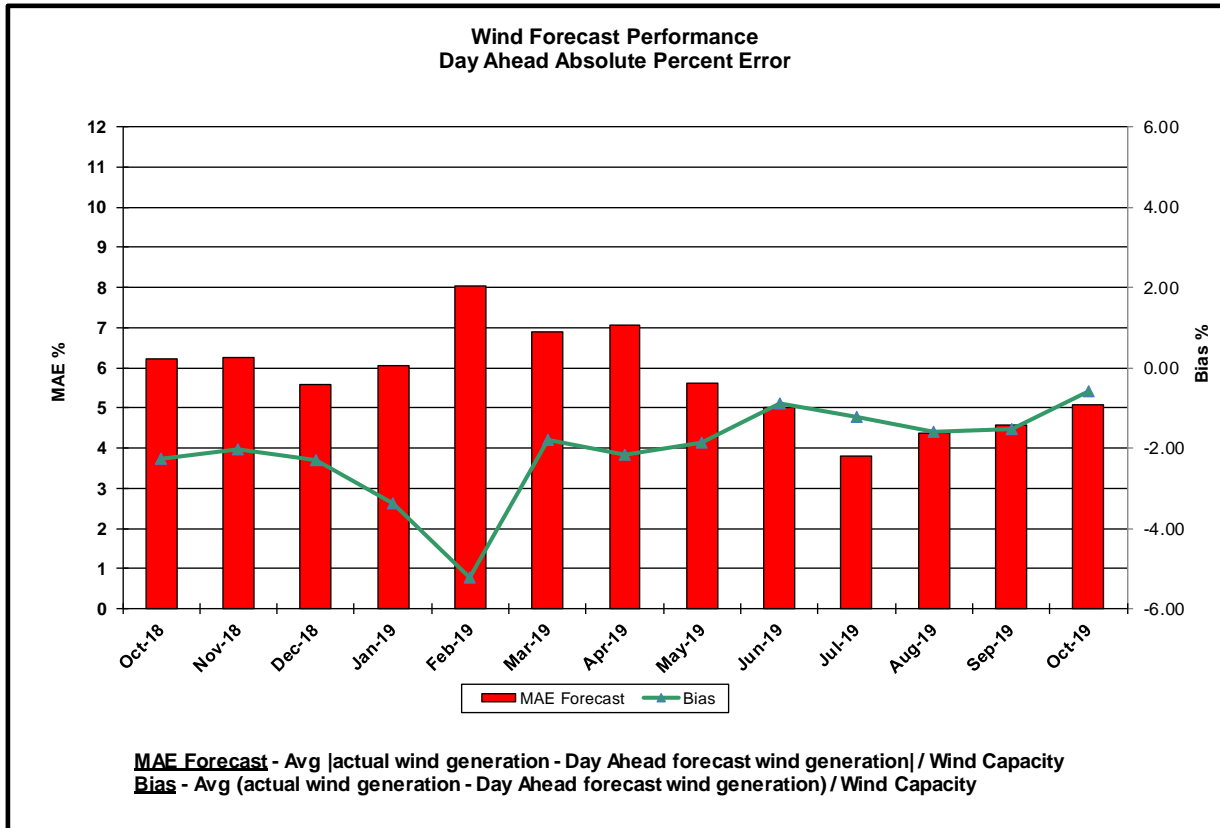
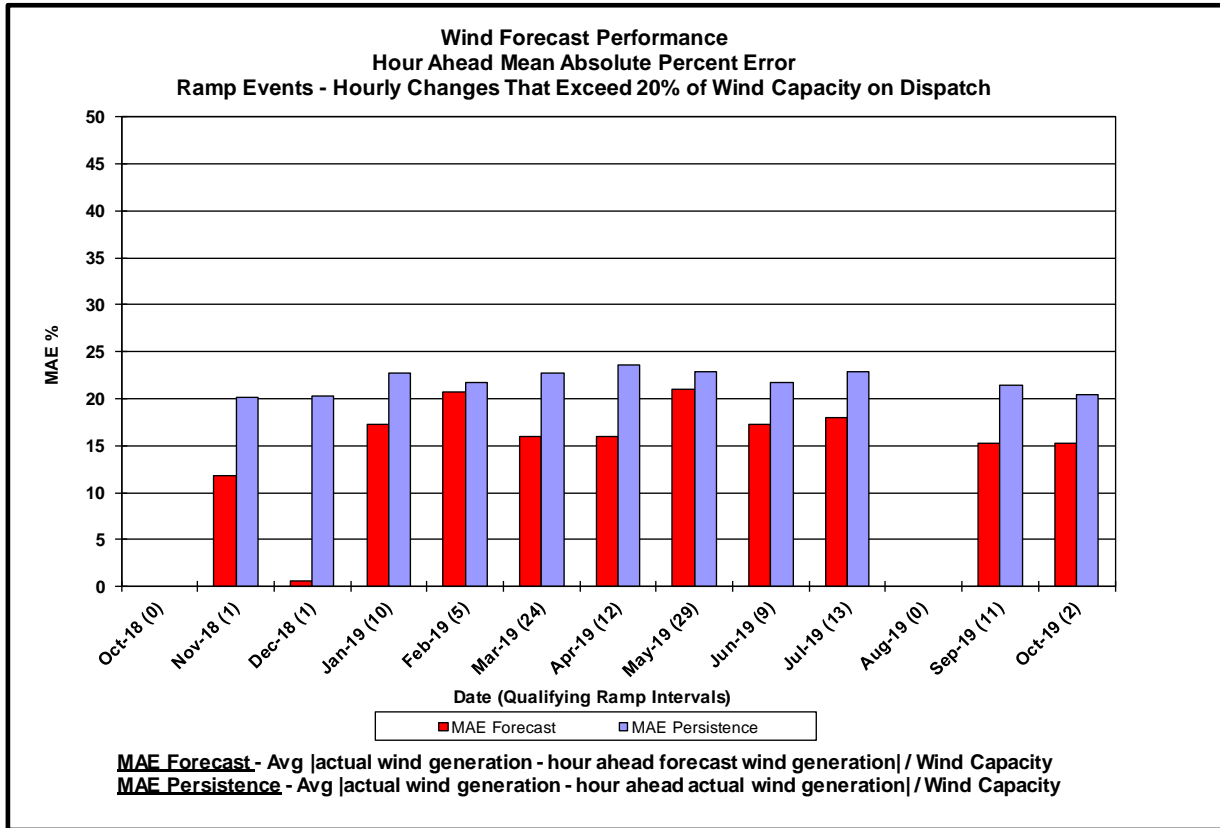


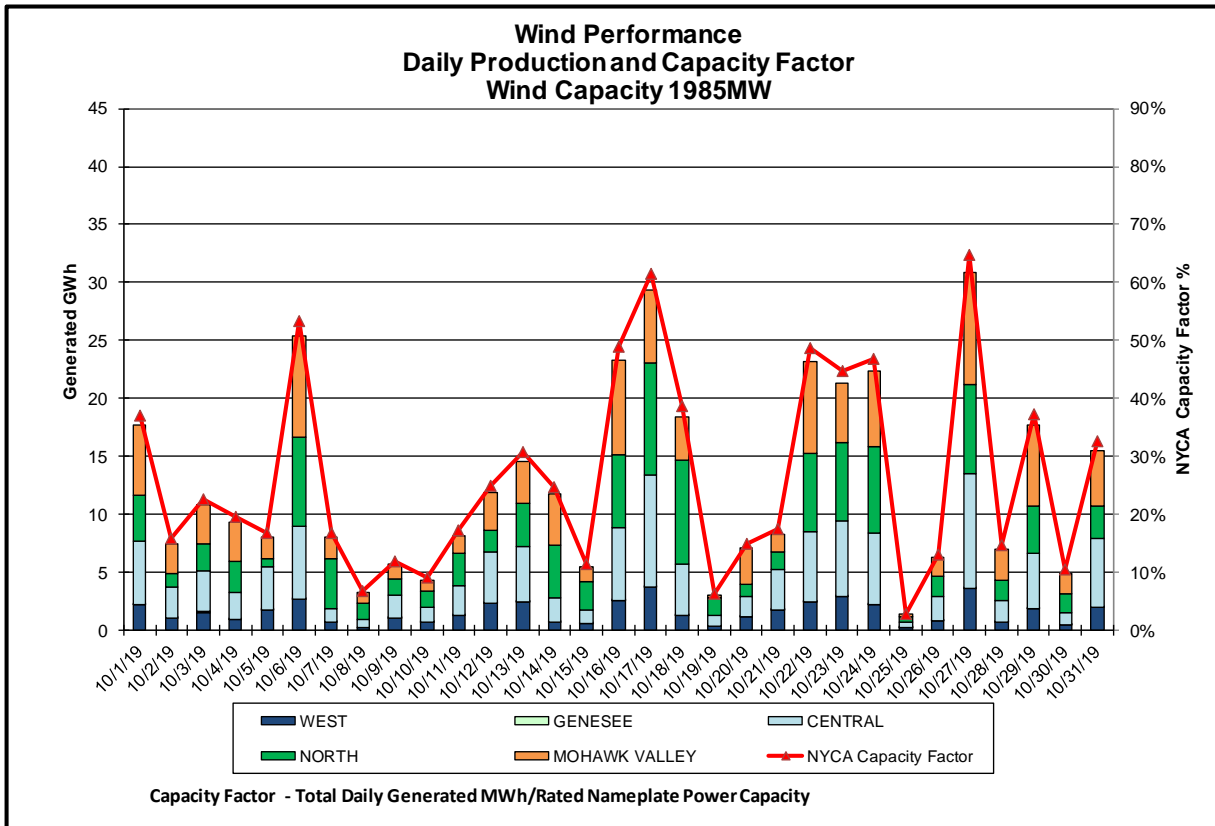
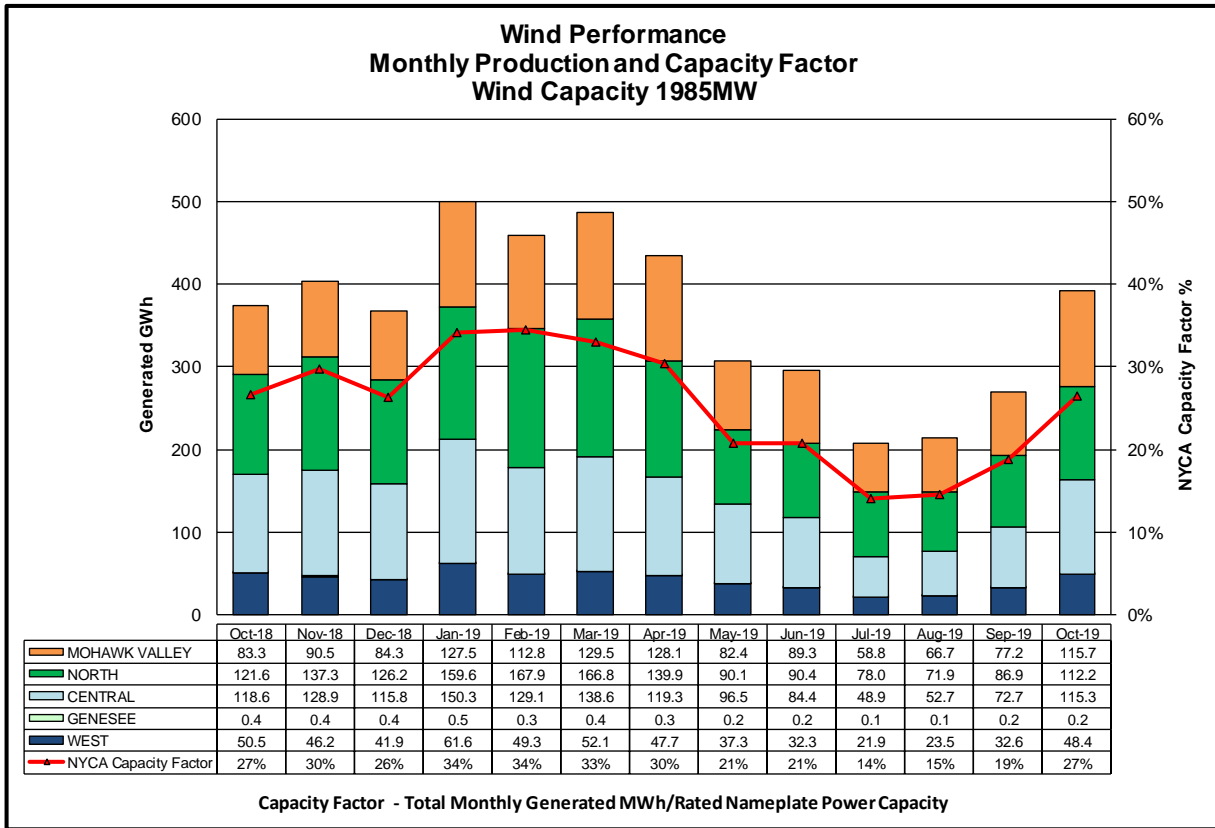


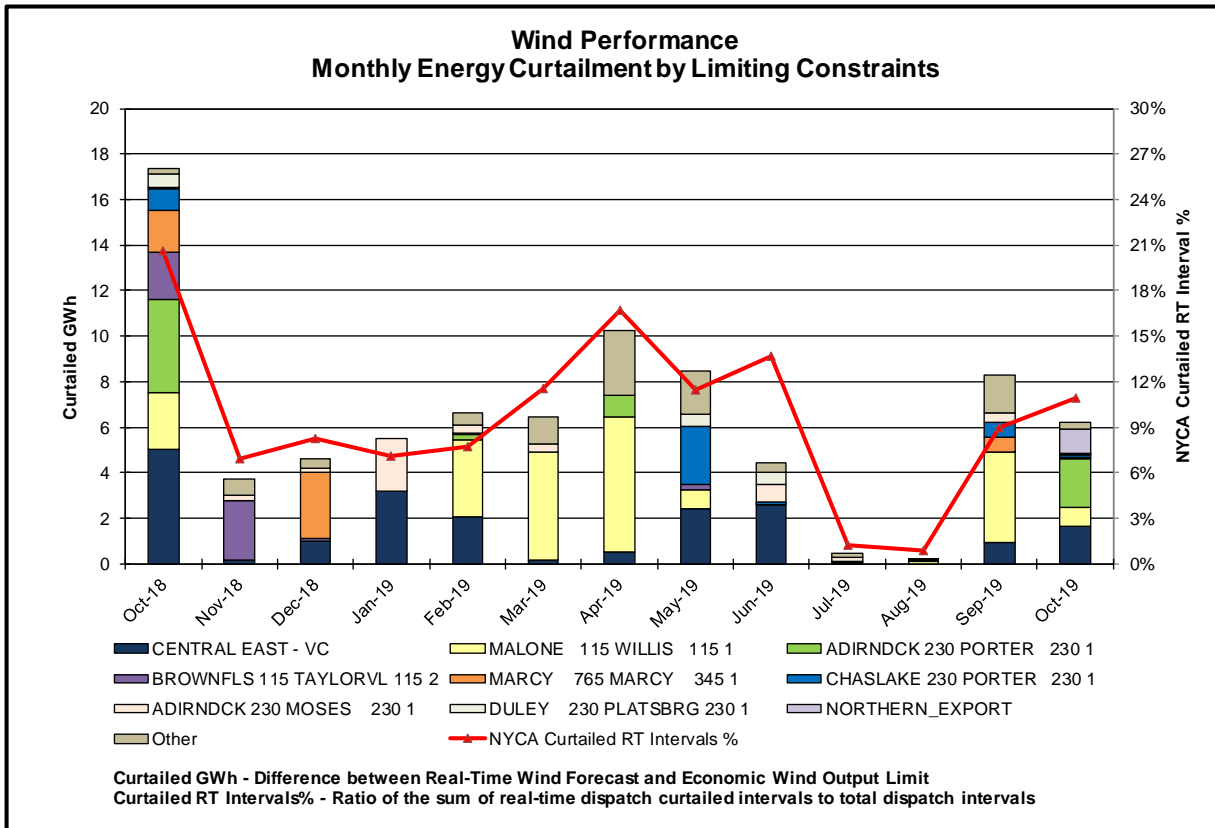
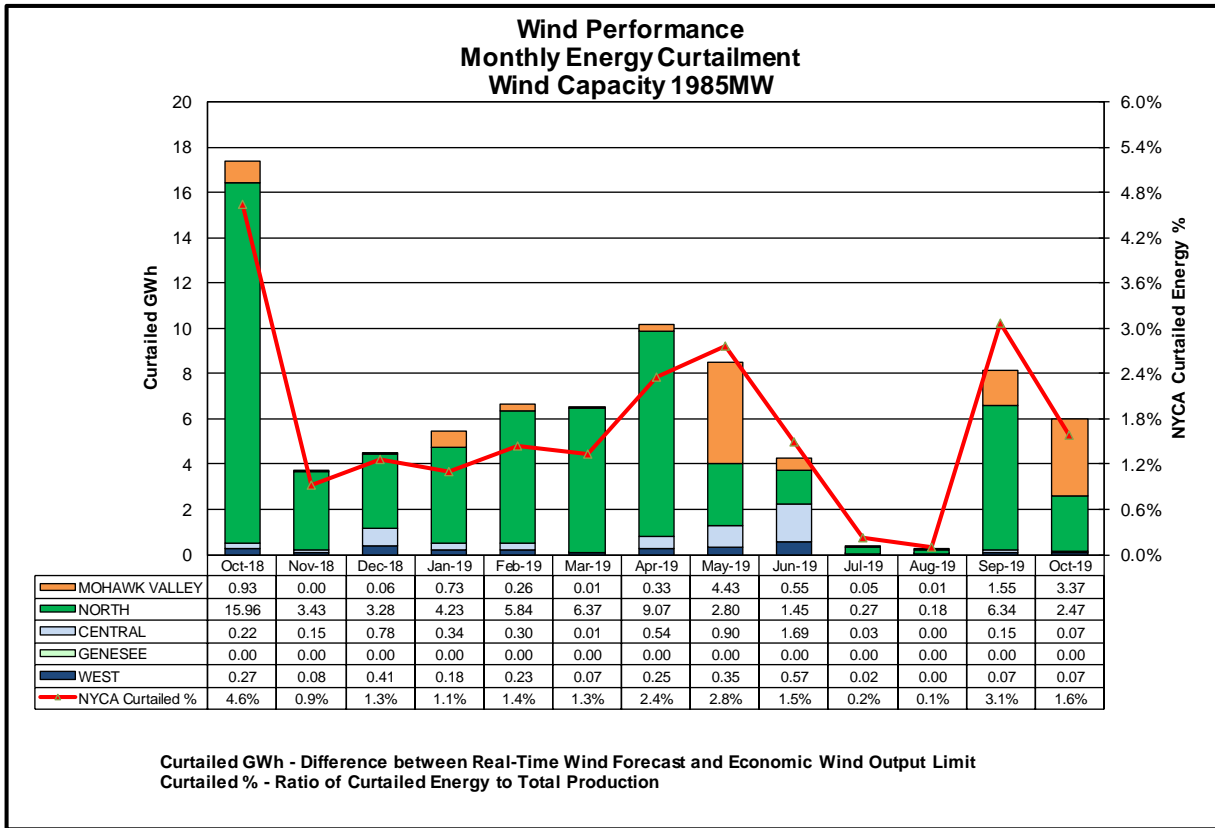


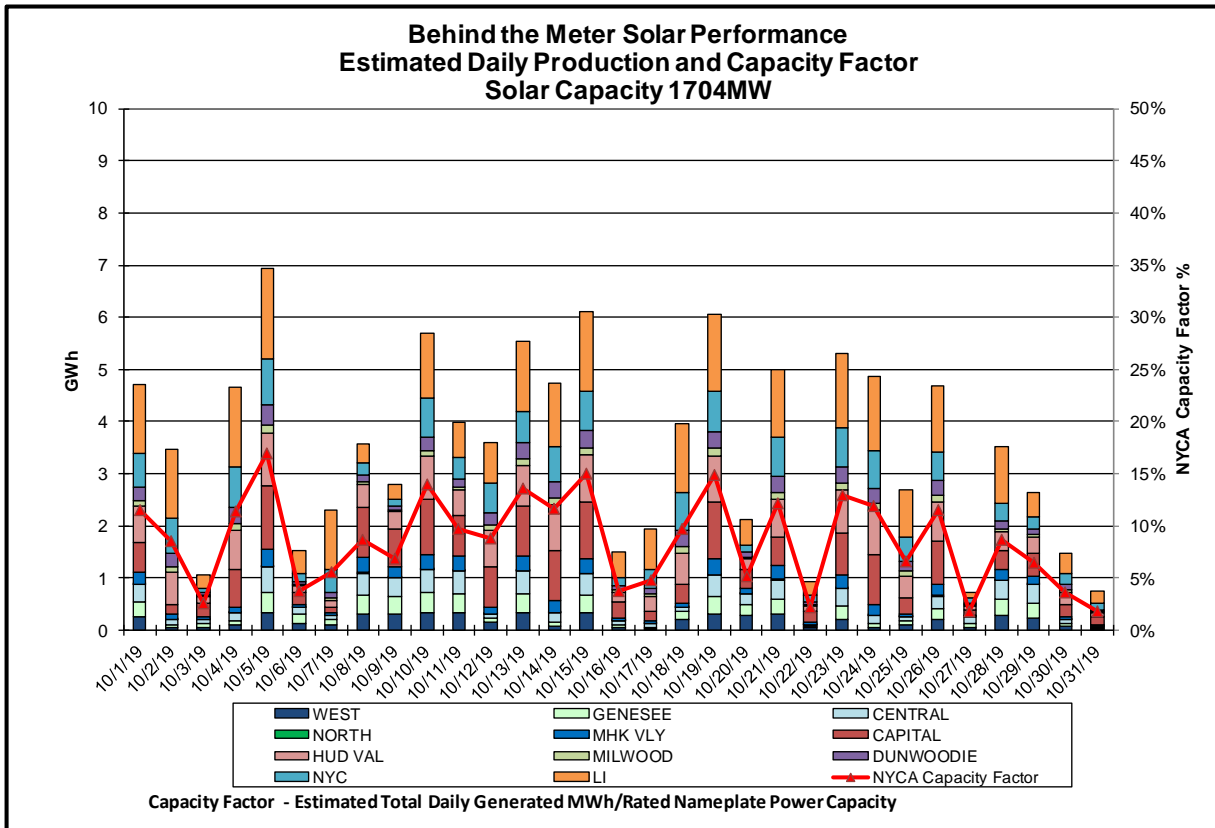
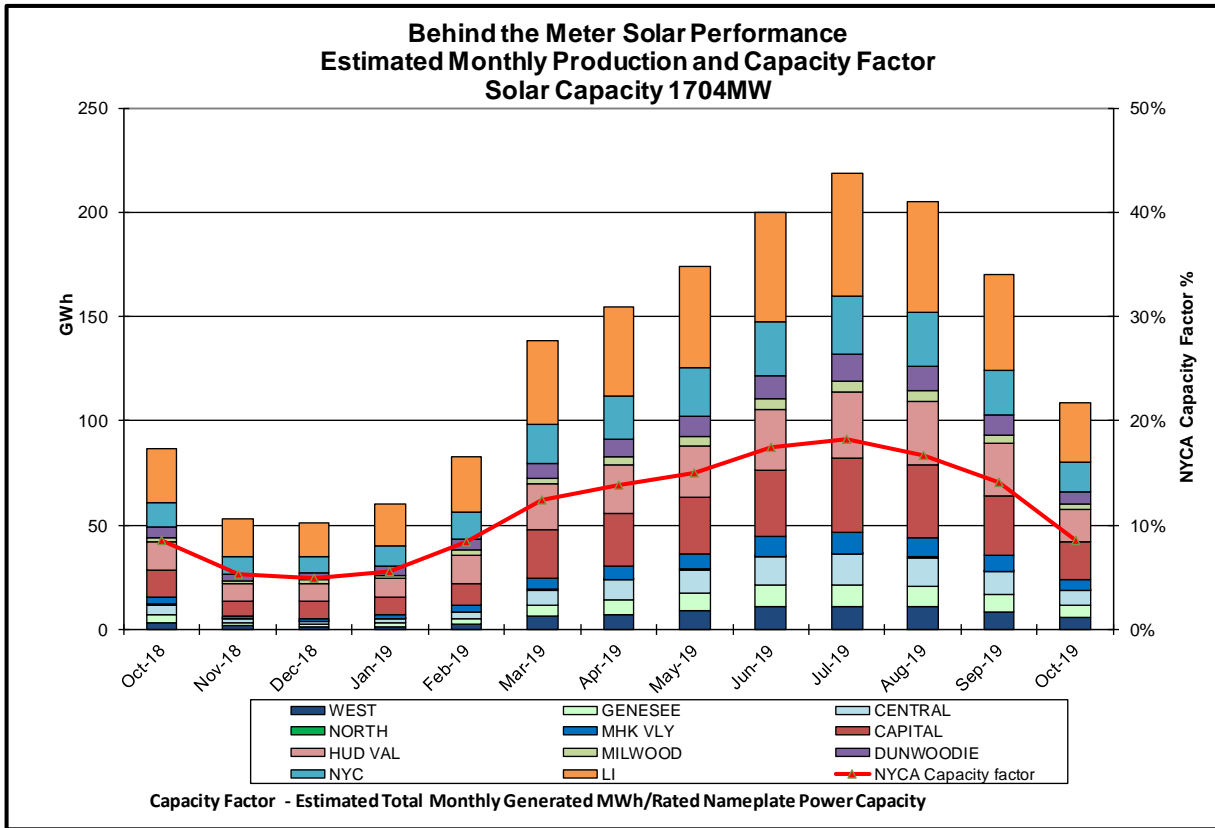


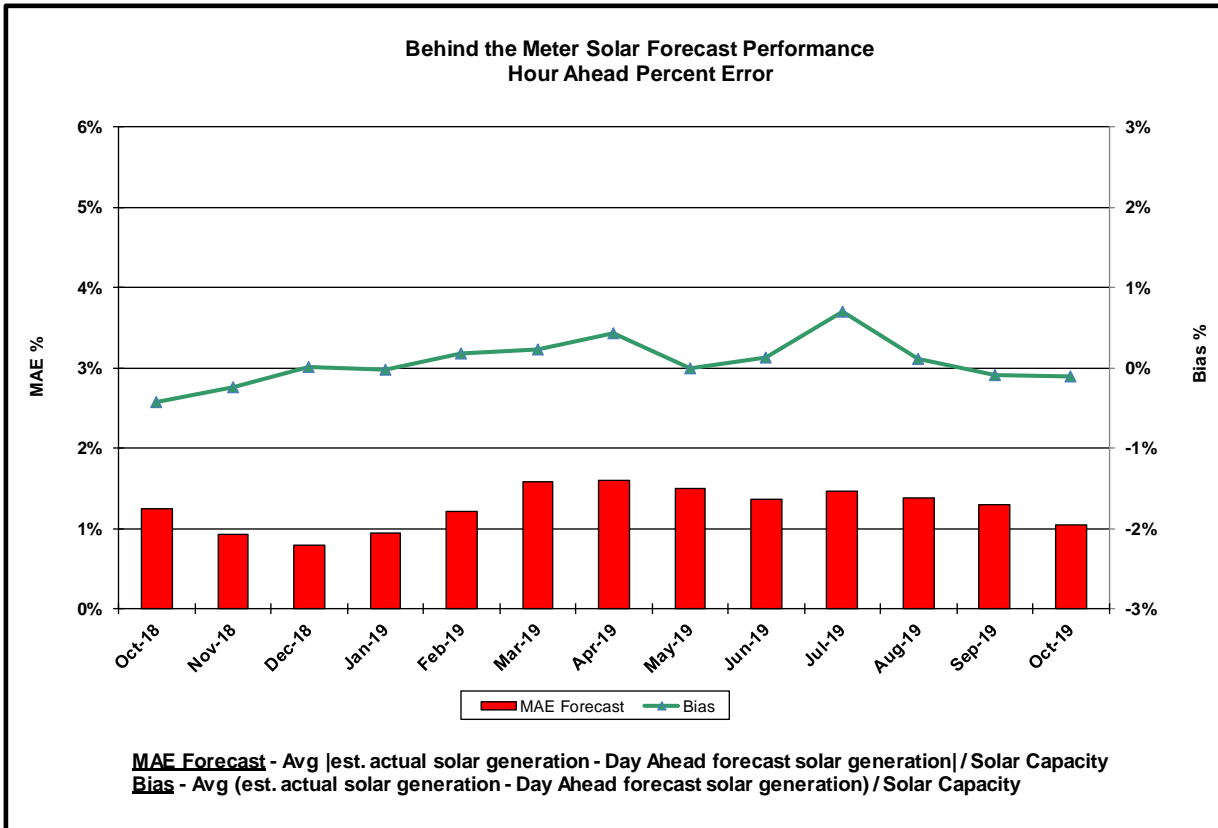
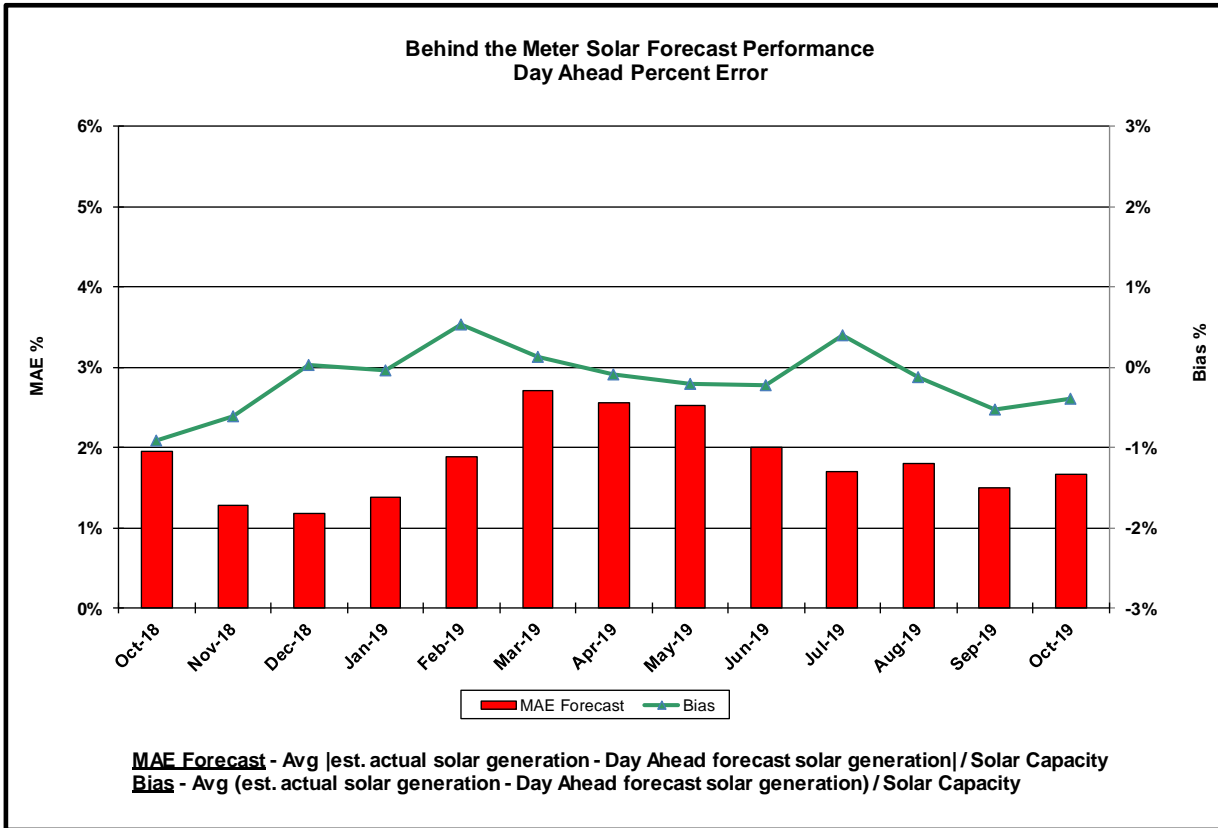


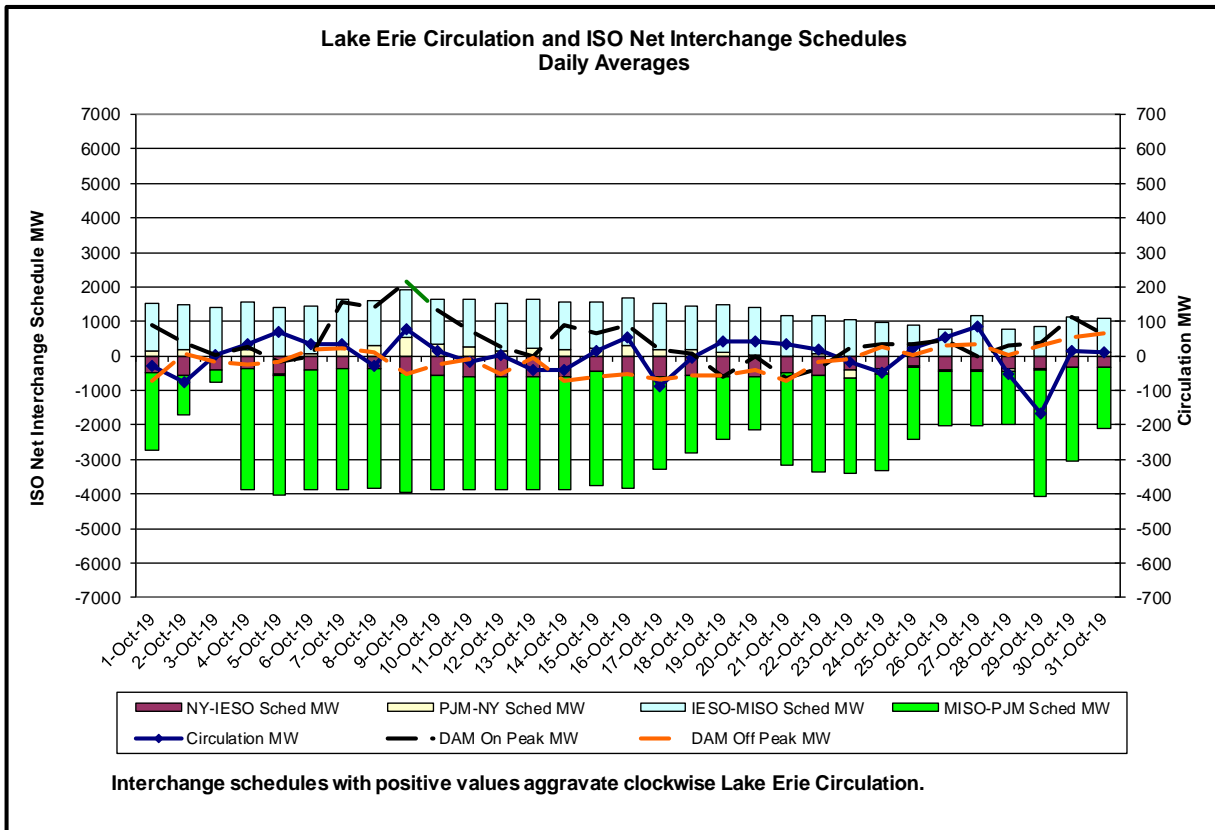
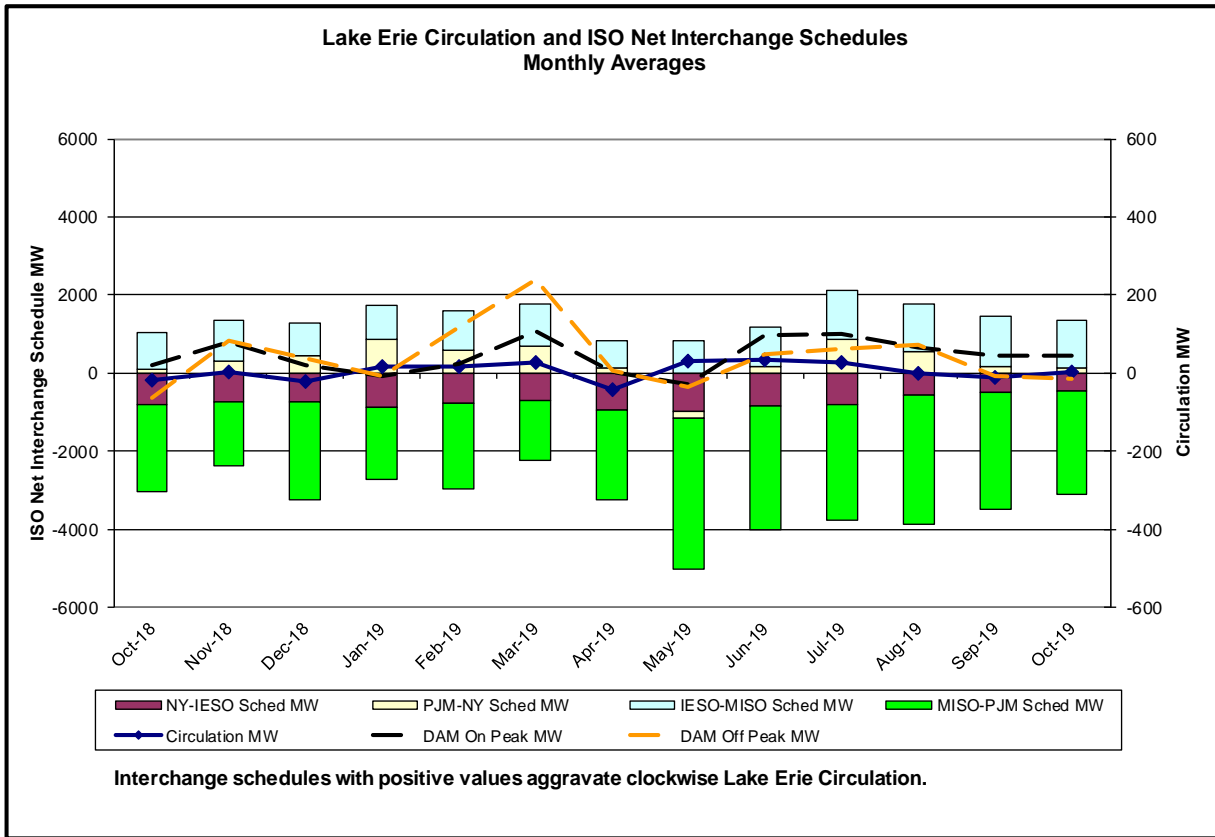




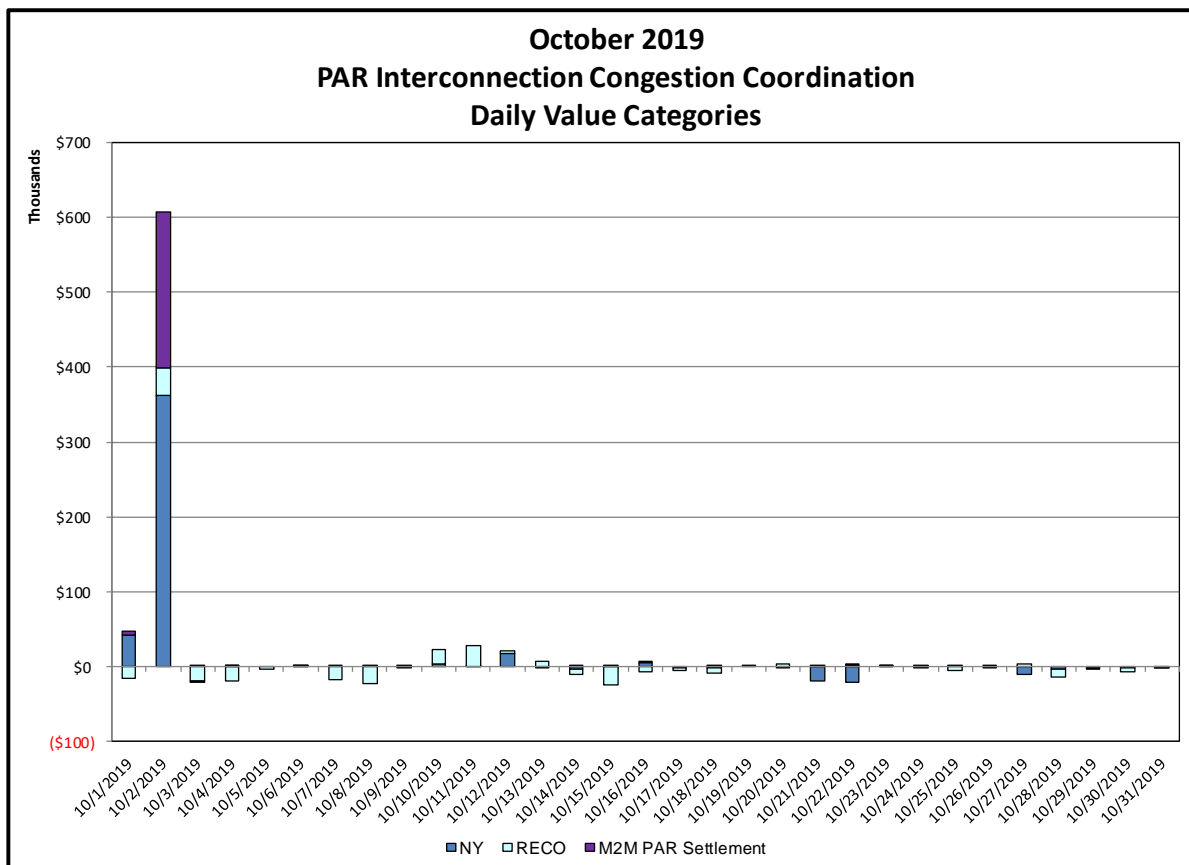
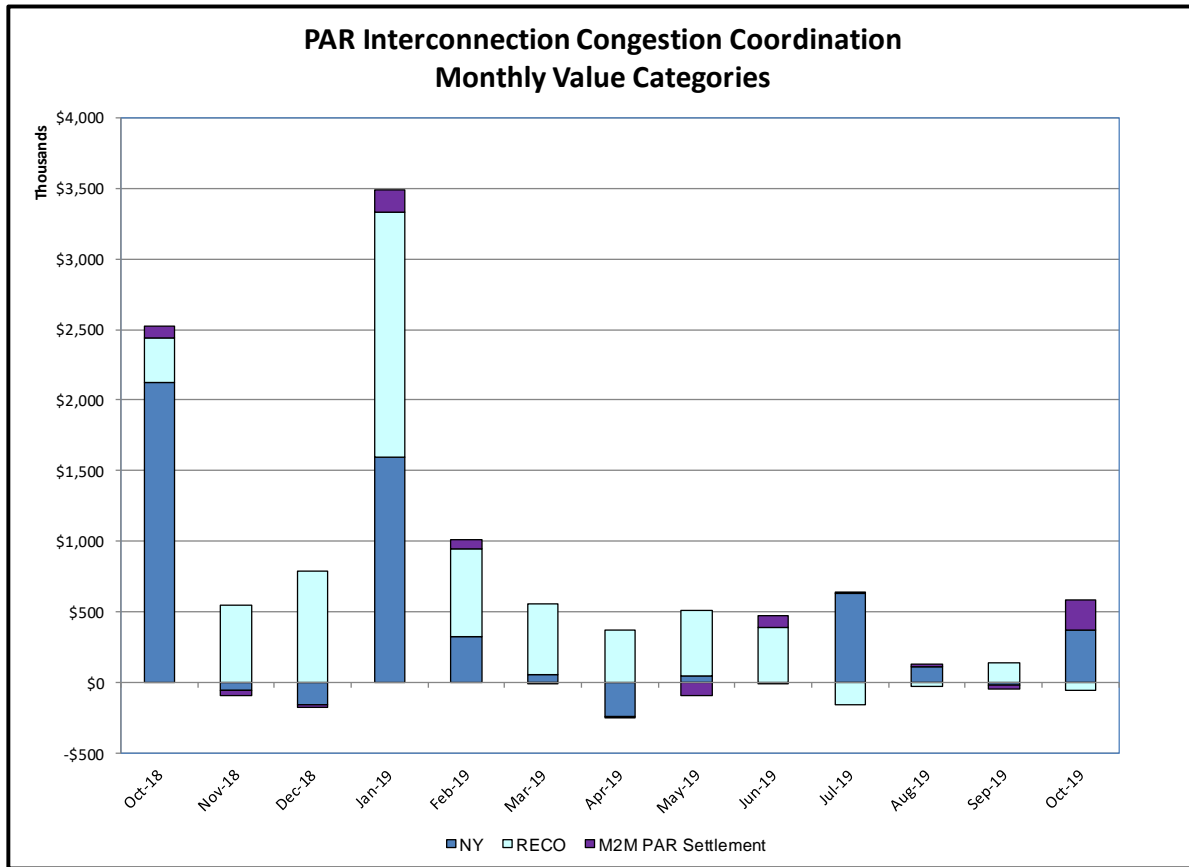








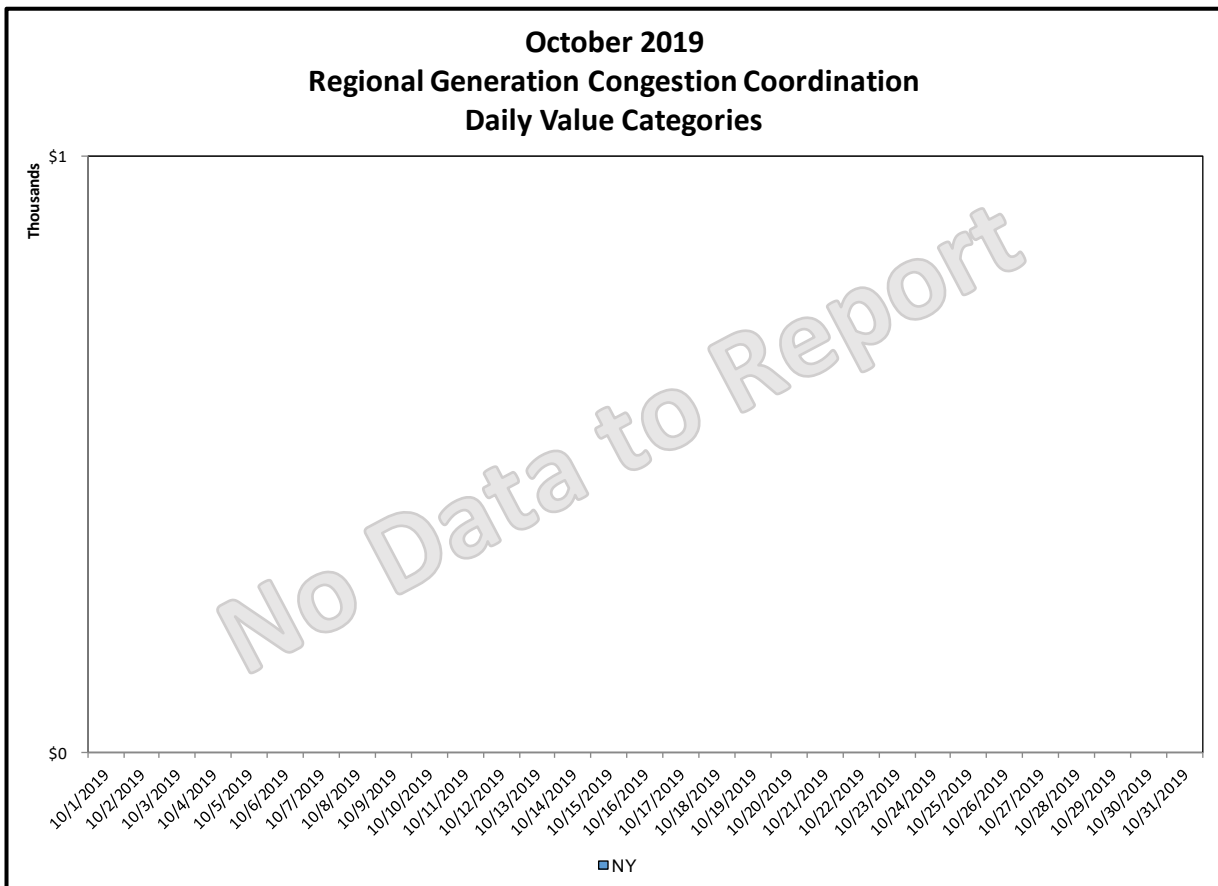
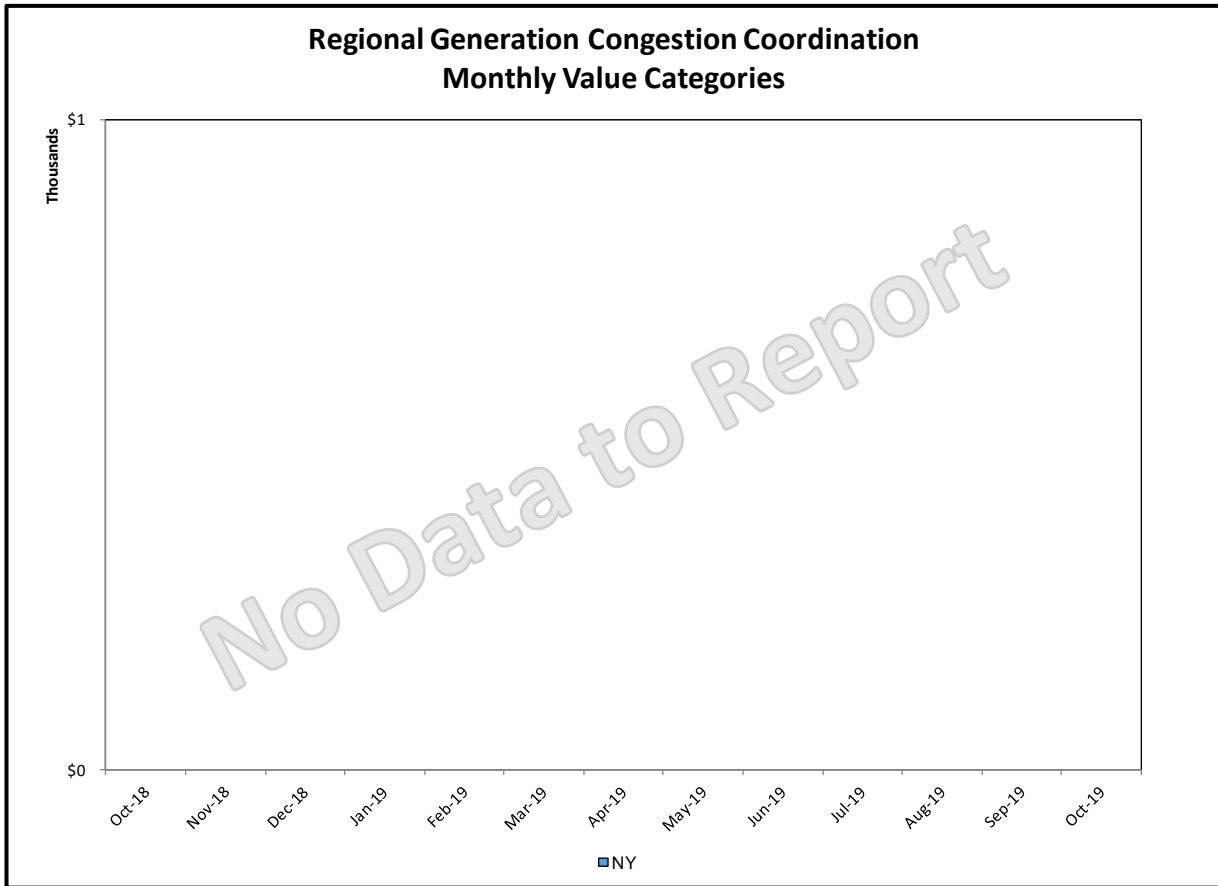
### Broader Regional Market Performance Metrics



**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.





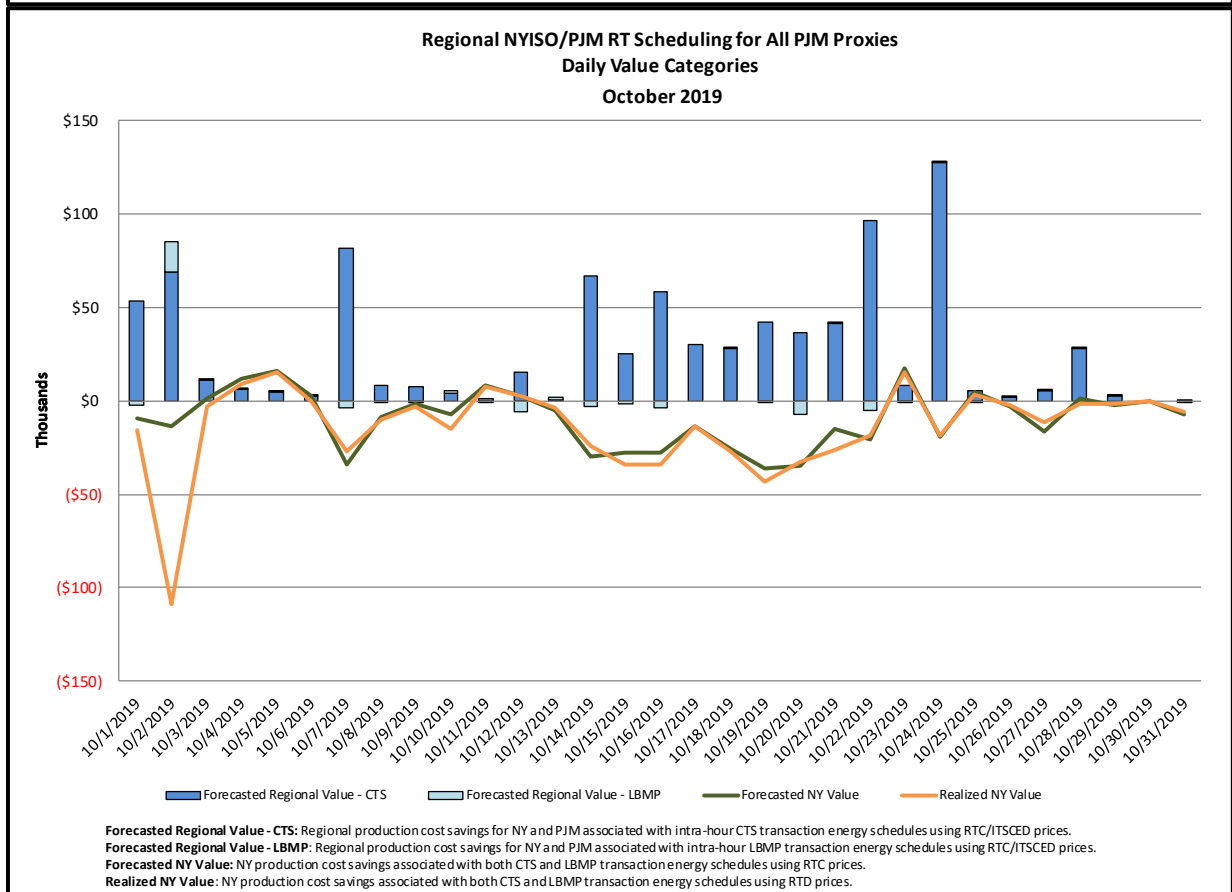
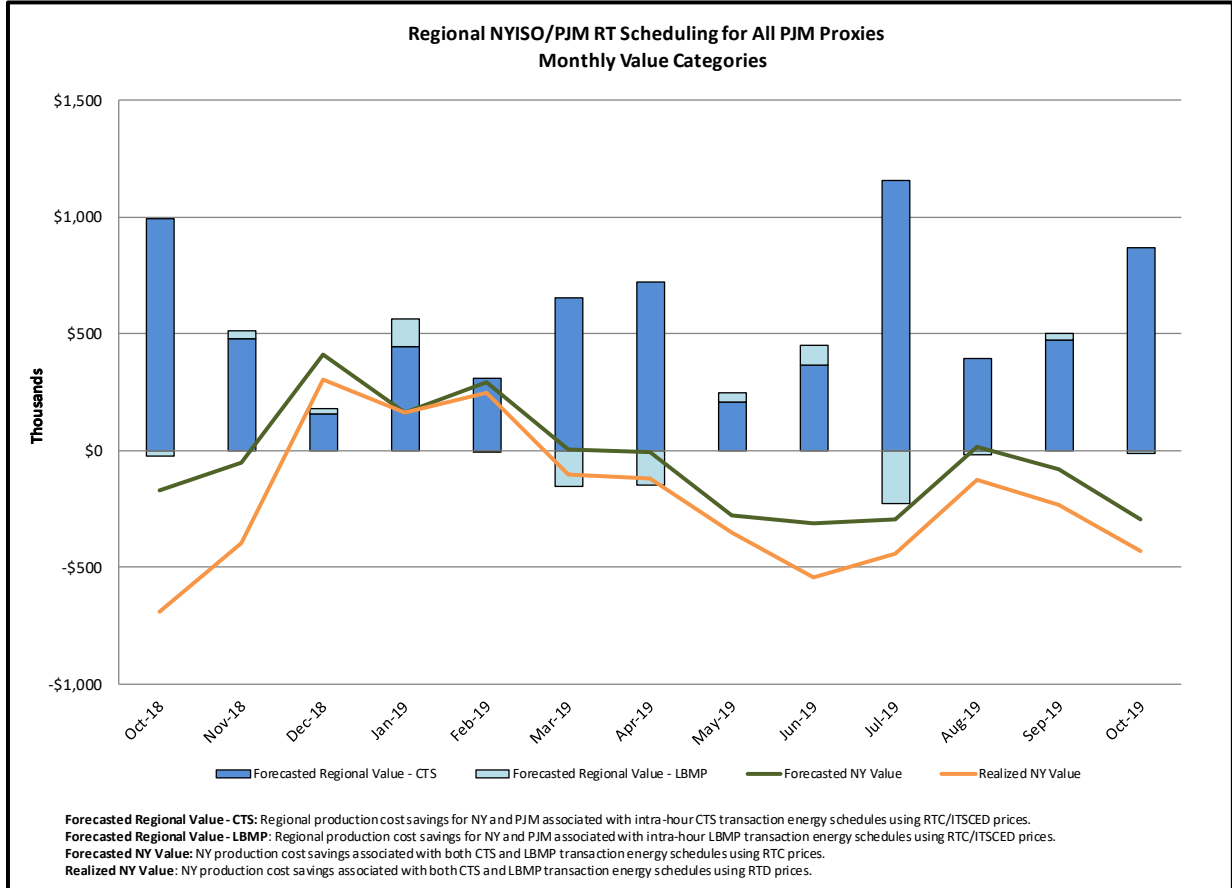
**Regional Generation Congestion Coordination**

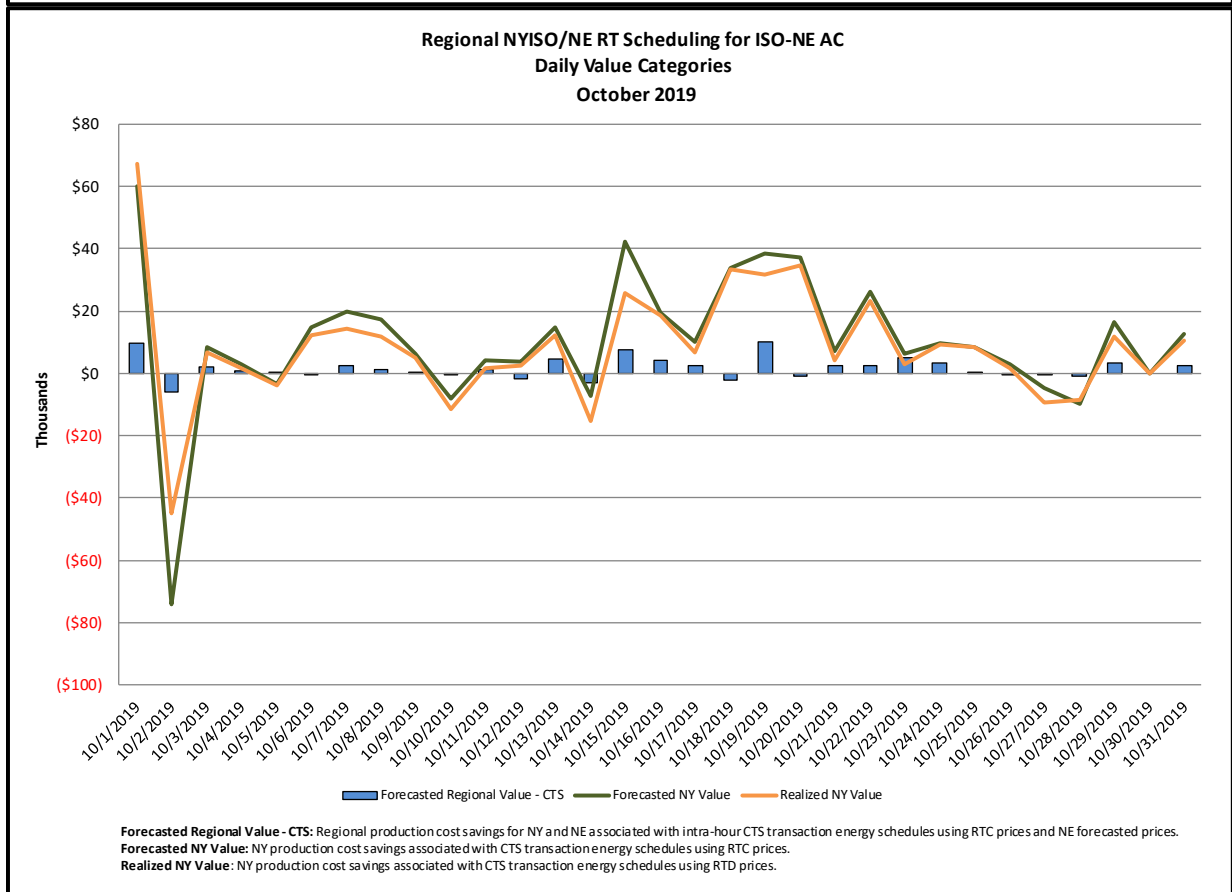
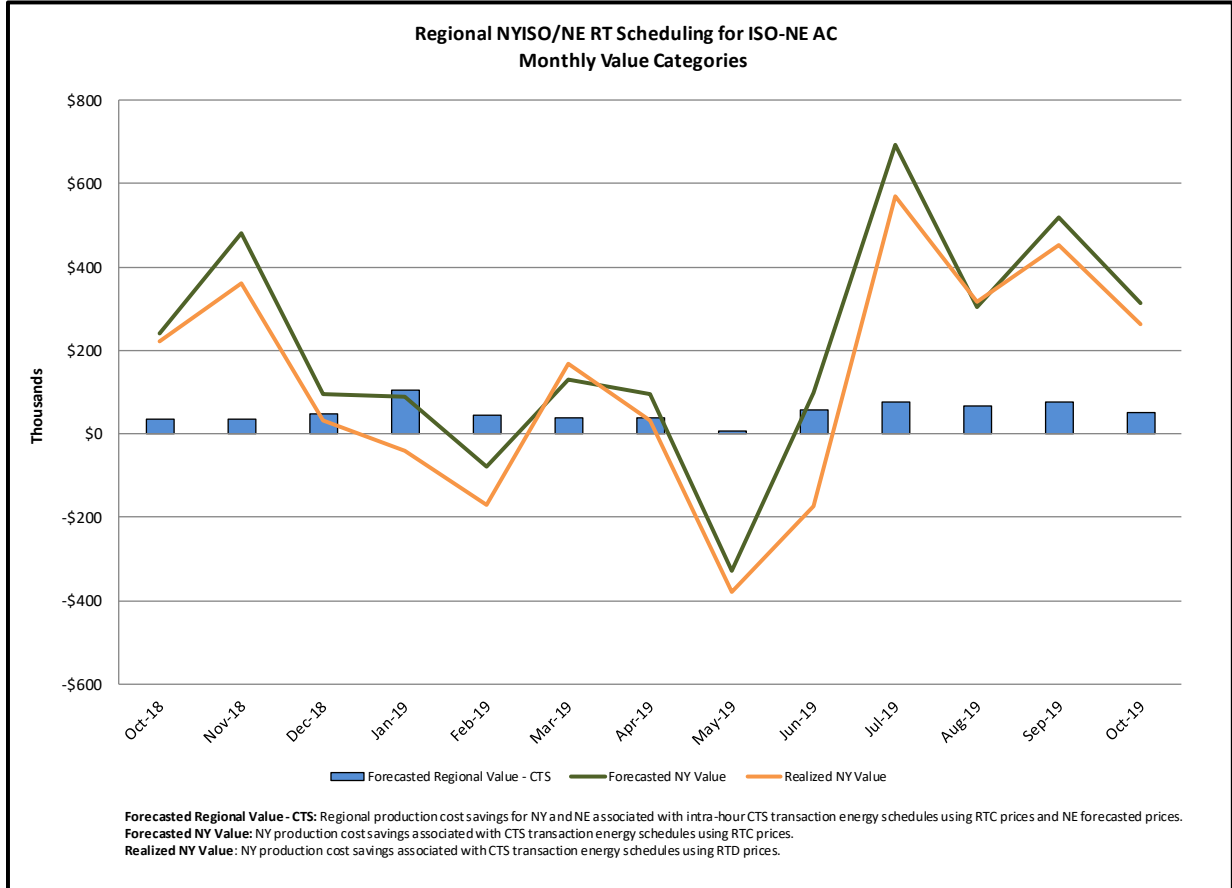
**Category**

NY

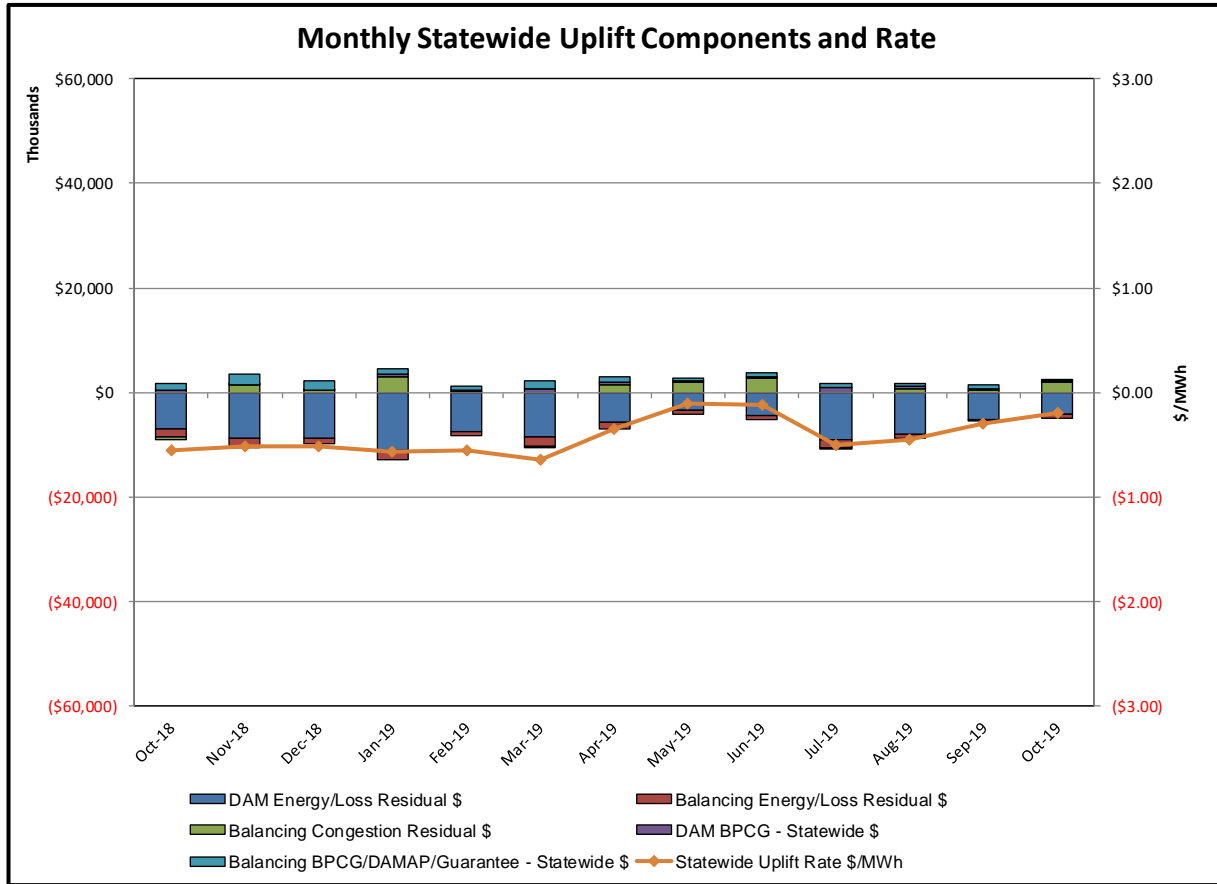
**Description**

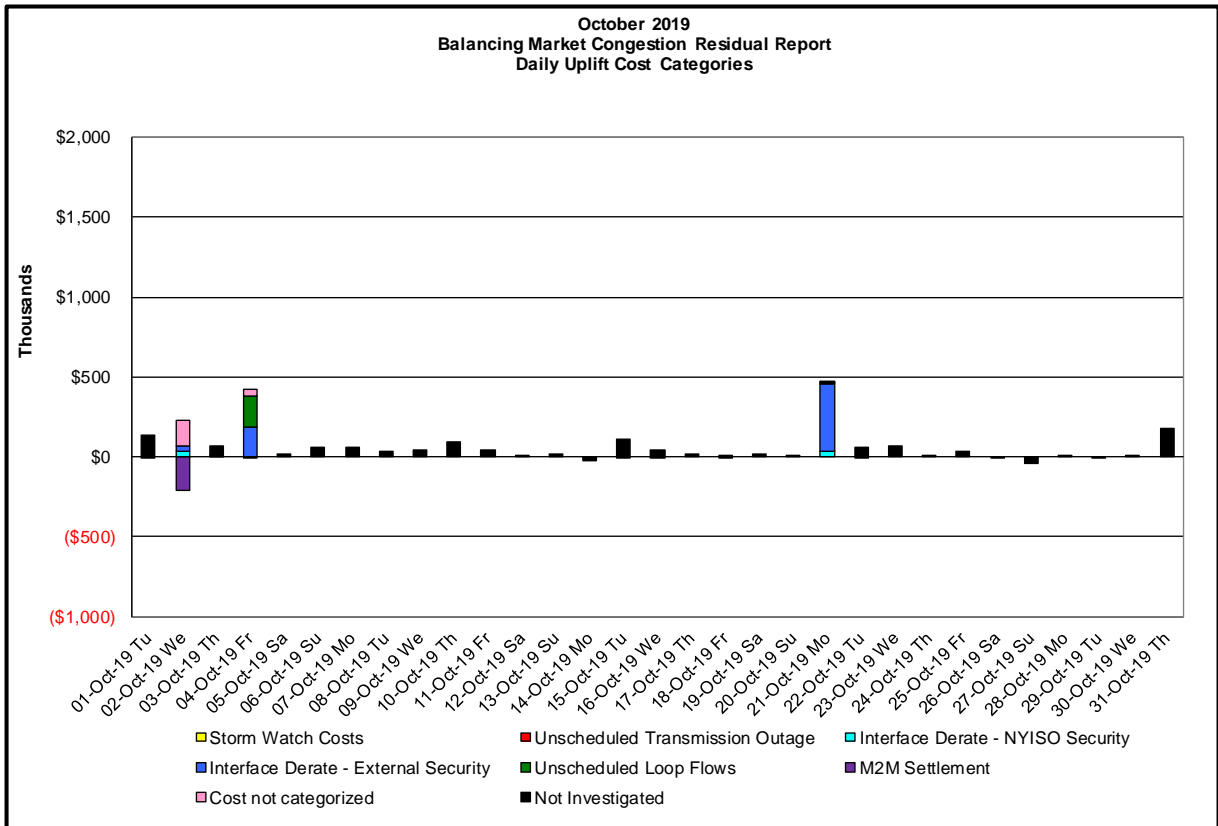
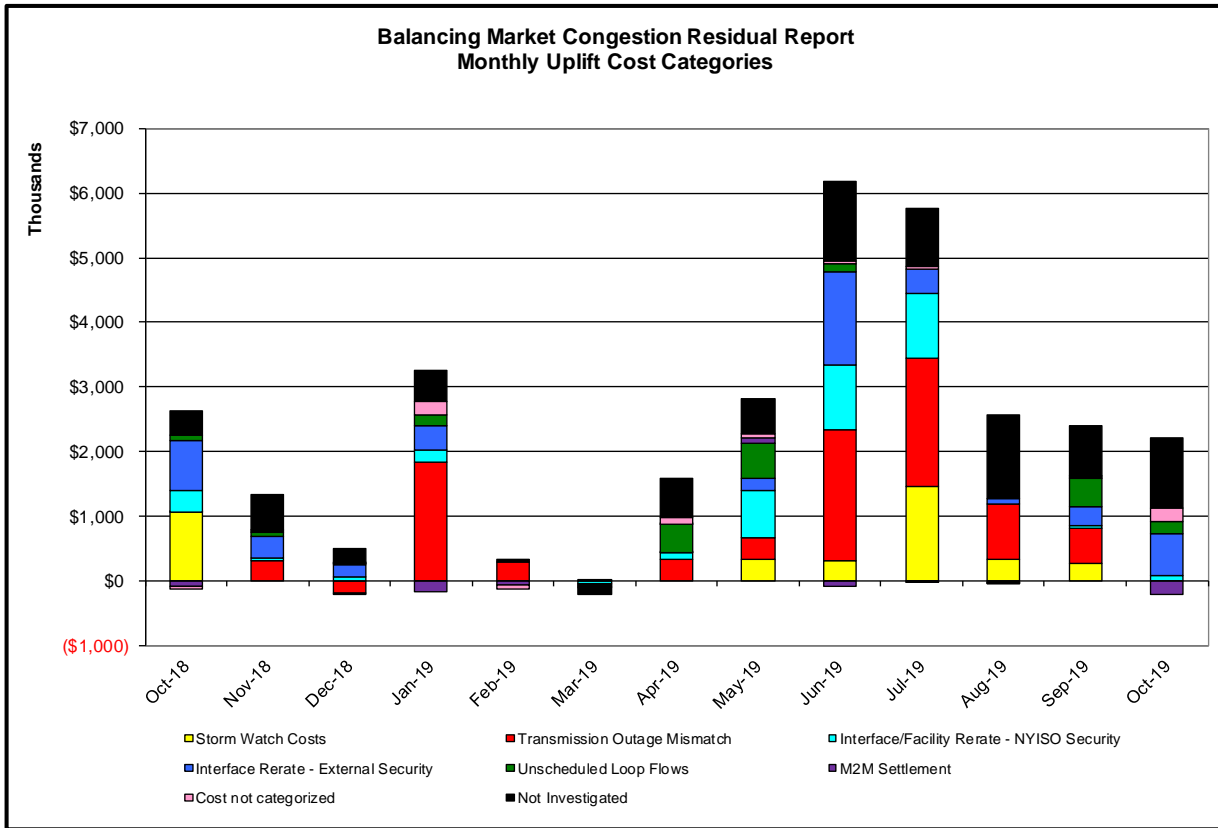
NYISO savings that result from PJM payments to NYISO when PJM's transmission use (PJM's market flow) is greater than PJM's entitlement of the NY transmission system and NYISO is incurring Western or Central NY congestion. Additionally, NYISO savings may result from the more efficient regional utilization of PJM's generation resources to directly address Western or Central NY transmission congestion.





### Market Performance Metrics





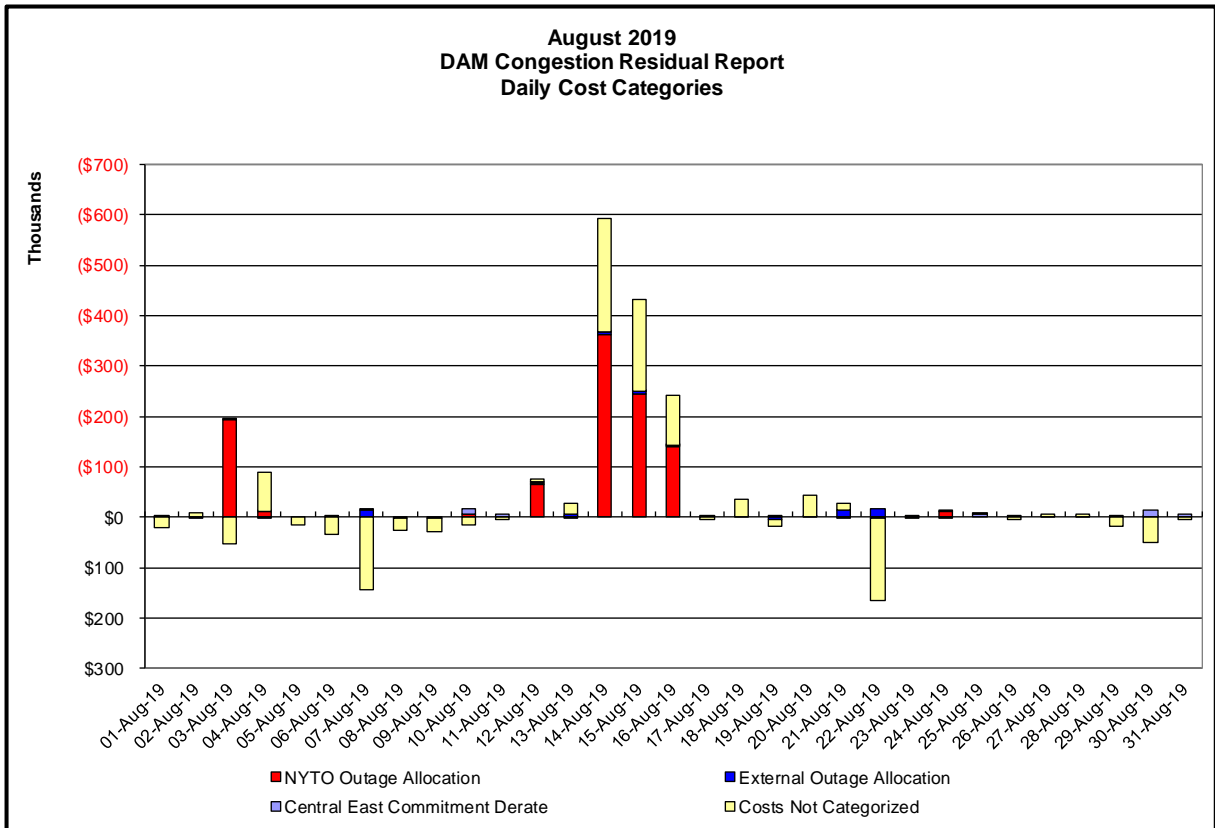
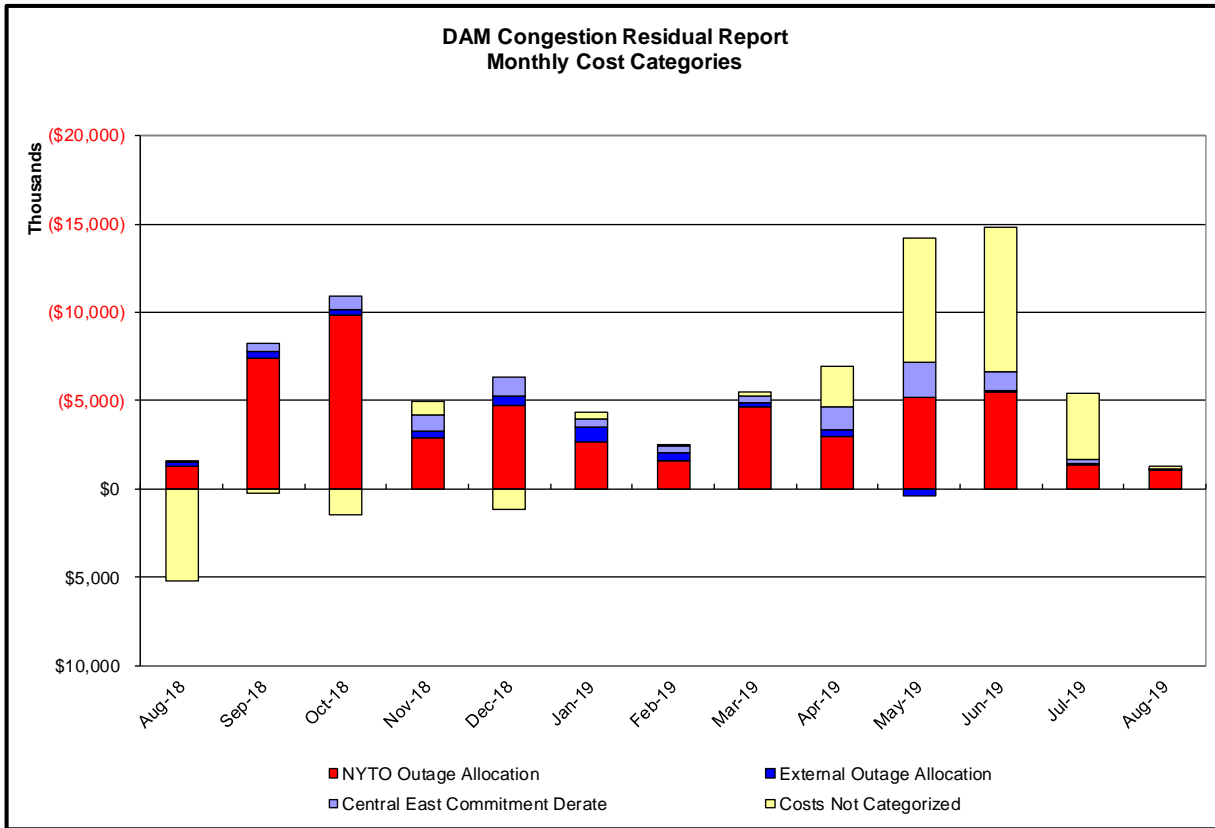
Day's investigated in October:2,4,21			
Event	Date (yyyymmdd)	Hours	Description
	10/2/2019	10	Derate Buchanan-Millwood 345kV (#W98) for I/o Buchanan-Millwood 345kV (#W97)
	10/2/2019	13,14	Derate Leeds-Pleasant Valley 345kV (#92) for I/o Athens-Leeds 345kV (#91)
	10/2/2019	17	HQ_CHAT-NY Scheduling Limit
	10/2/2019	1	IESO_AC-NY Scheduling limit
	10/2/2019	1,13	NE_AC-NY DNI Ramp Limit
	10/4/2019	9,14	IESO_AC-NY Scheduling limit
	10/4/2019	13,14	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV
	10/21/2019	9	Derate West 49th St. - Sprainbrook 345kV (#M51)
	10/21/2019	9	Derate Dunwoodie - Shore Rd. 345kV (#Y50) for SCB:SPBK(RNS2):Y49&M29&Y49_ST
	10/21/2019	7,9	Derate Dunwoodie - Shore Rd. 345kV (#Y50) for I/o SPRNBRK-EGRDNCTR 345kV (#Y49)
	10/21/2019	9	Derate Motthaven - Dunwoodie 345 kV (#72)
	10/21/2019	14	IESO_AC-NY Scheduling limit
	10/21/2019	7	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West 115kV

**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
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**

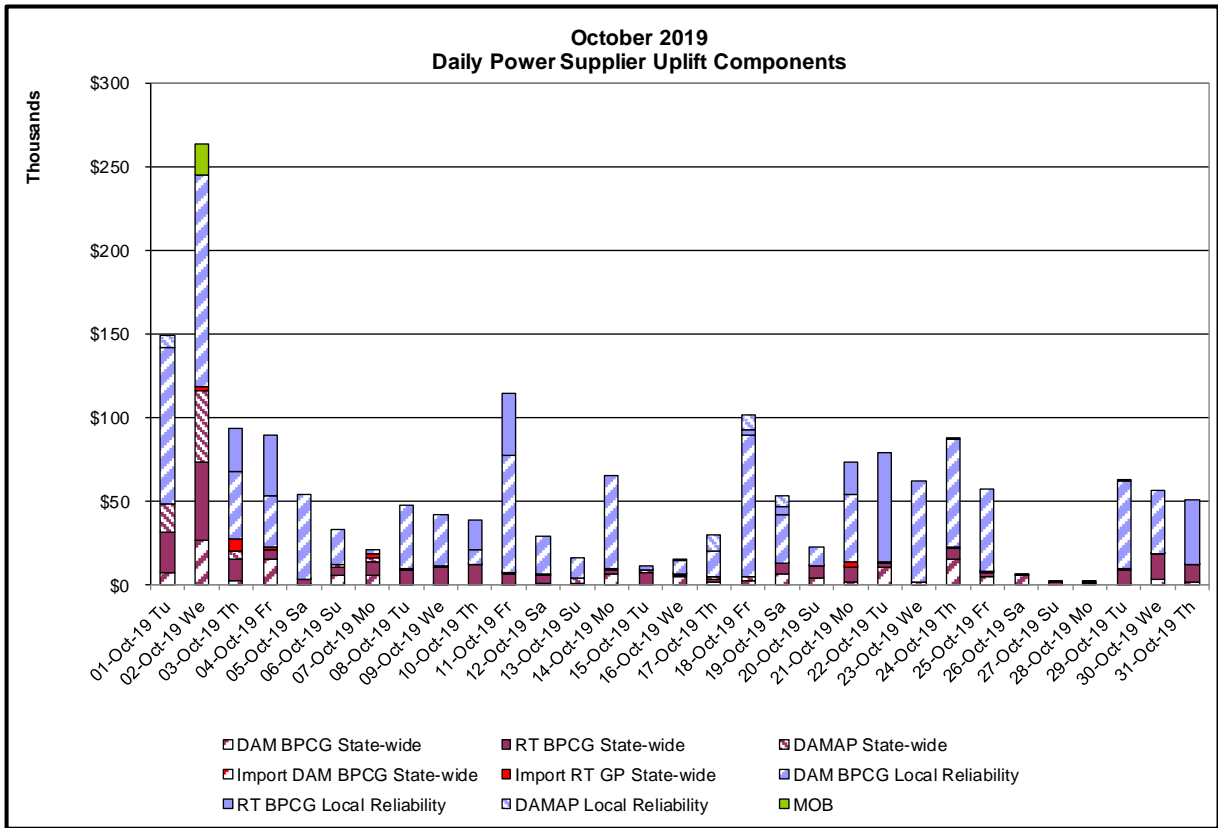
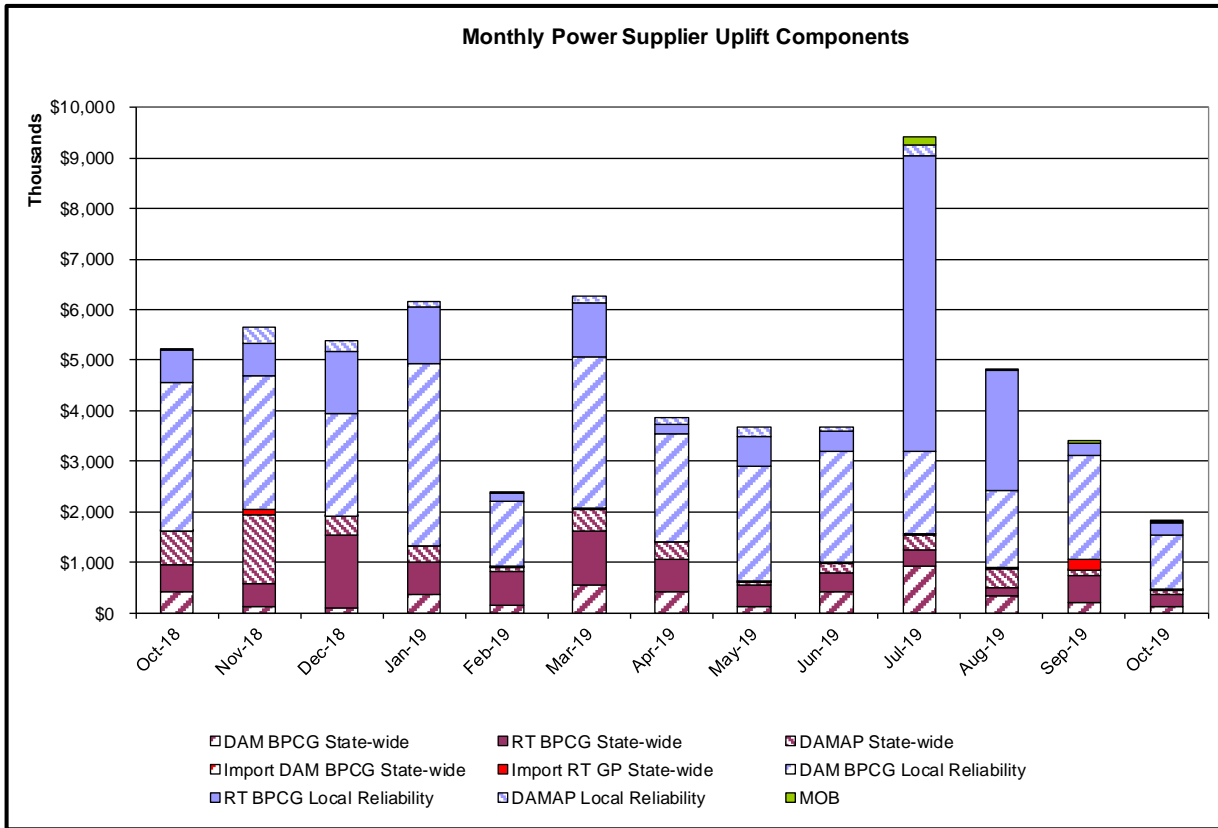
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

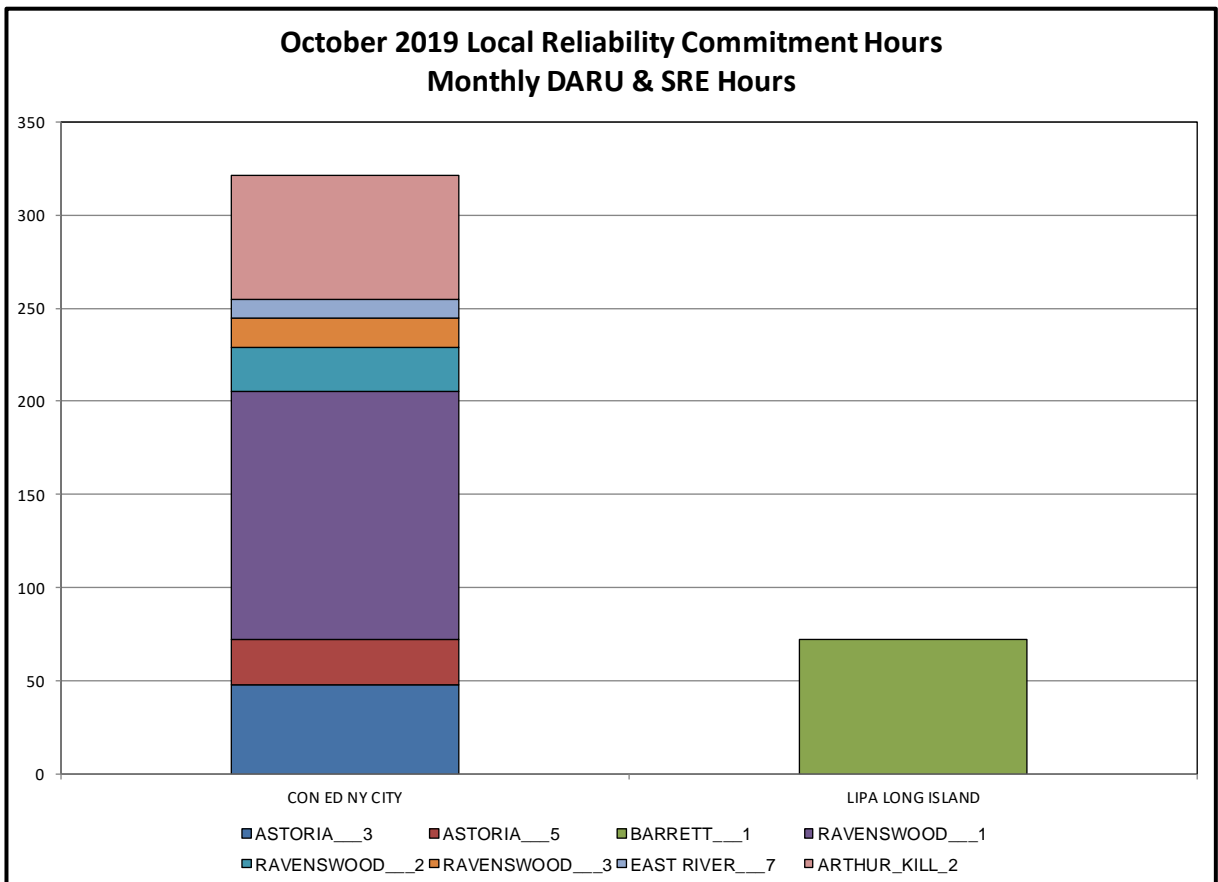
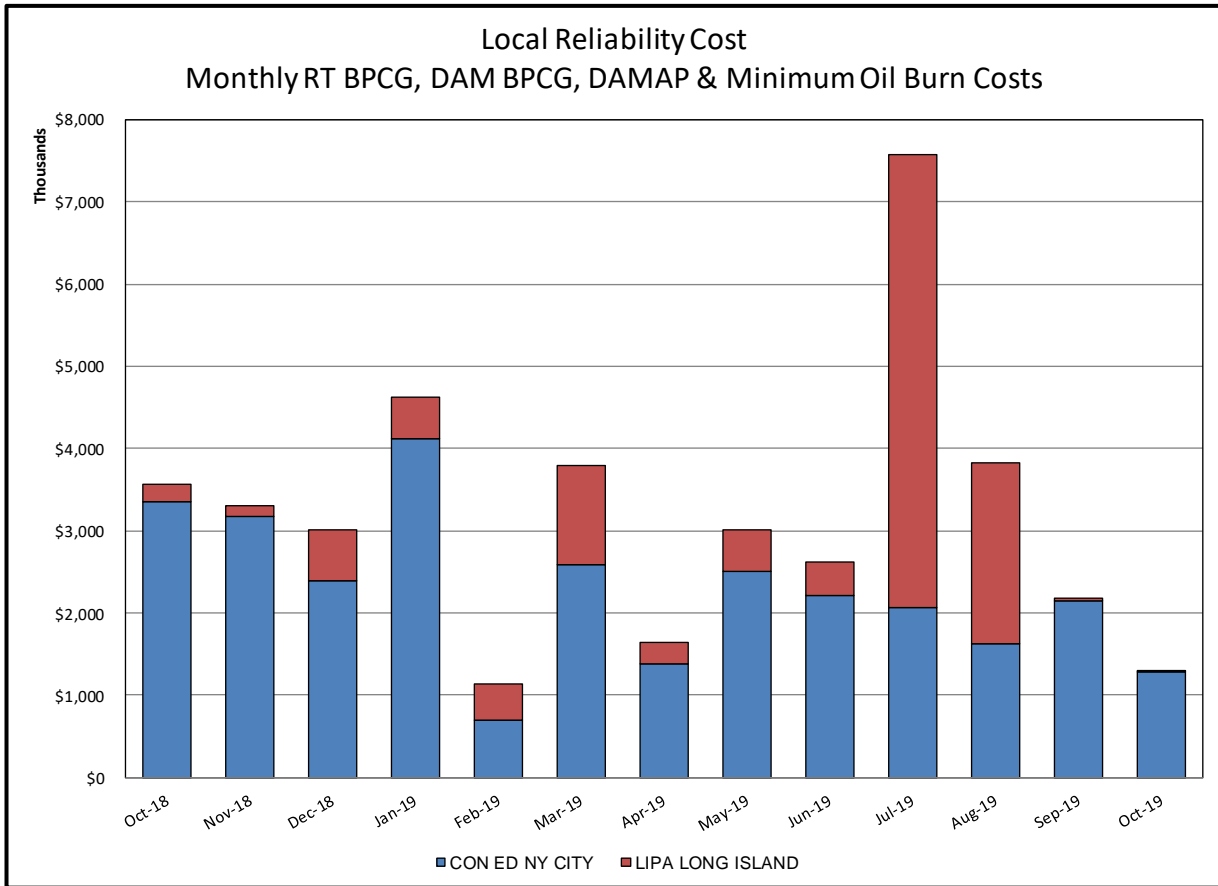


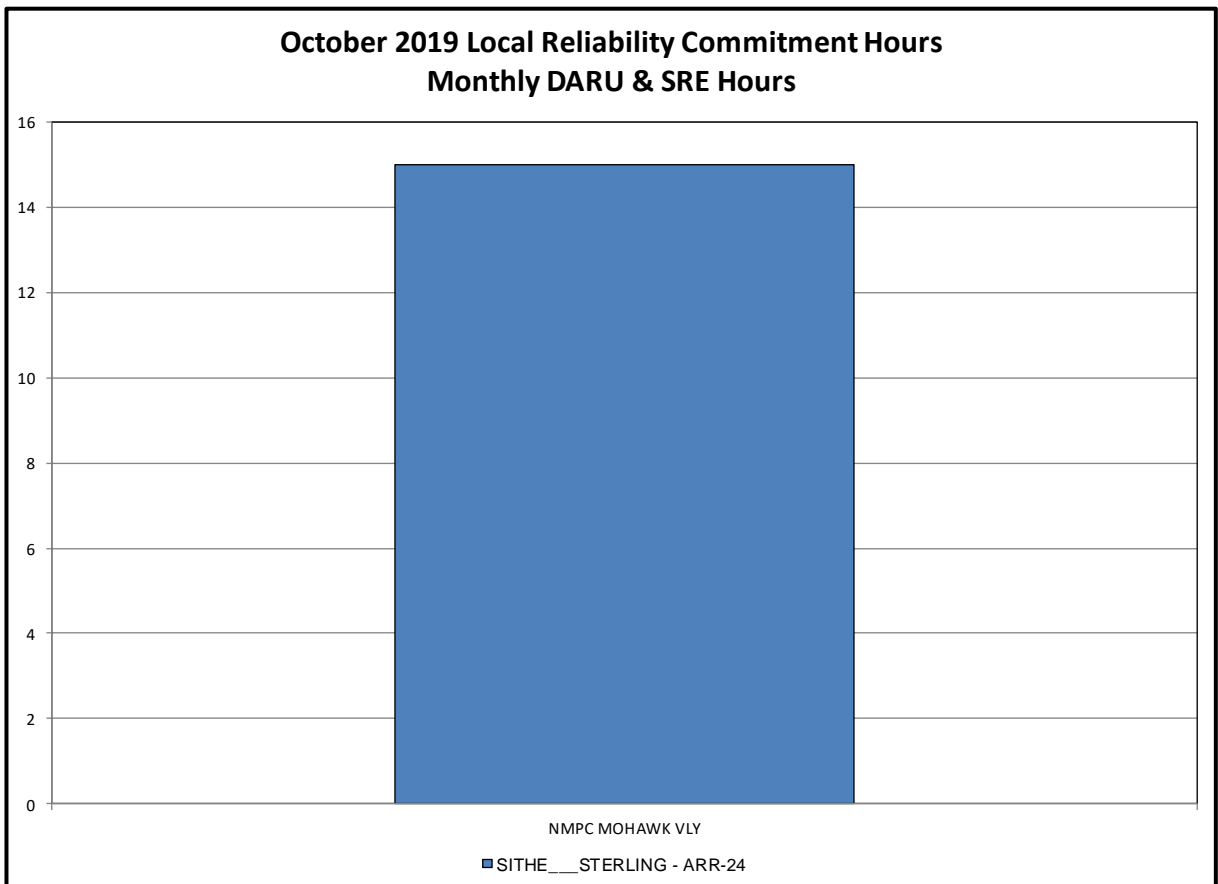
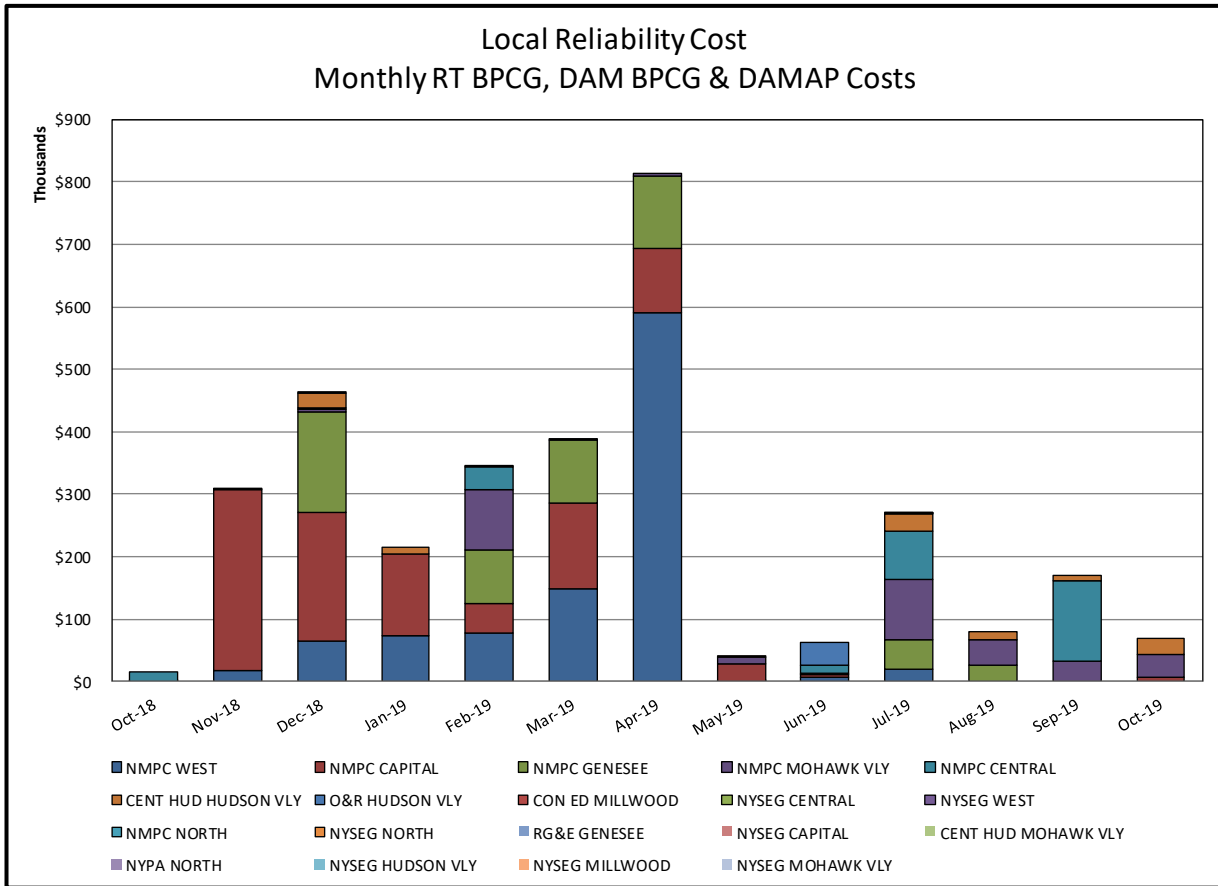


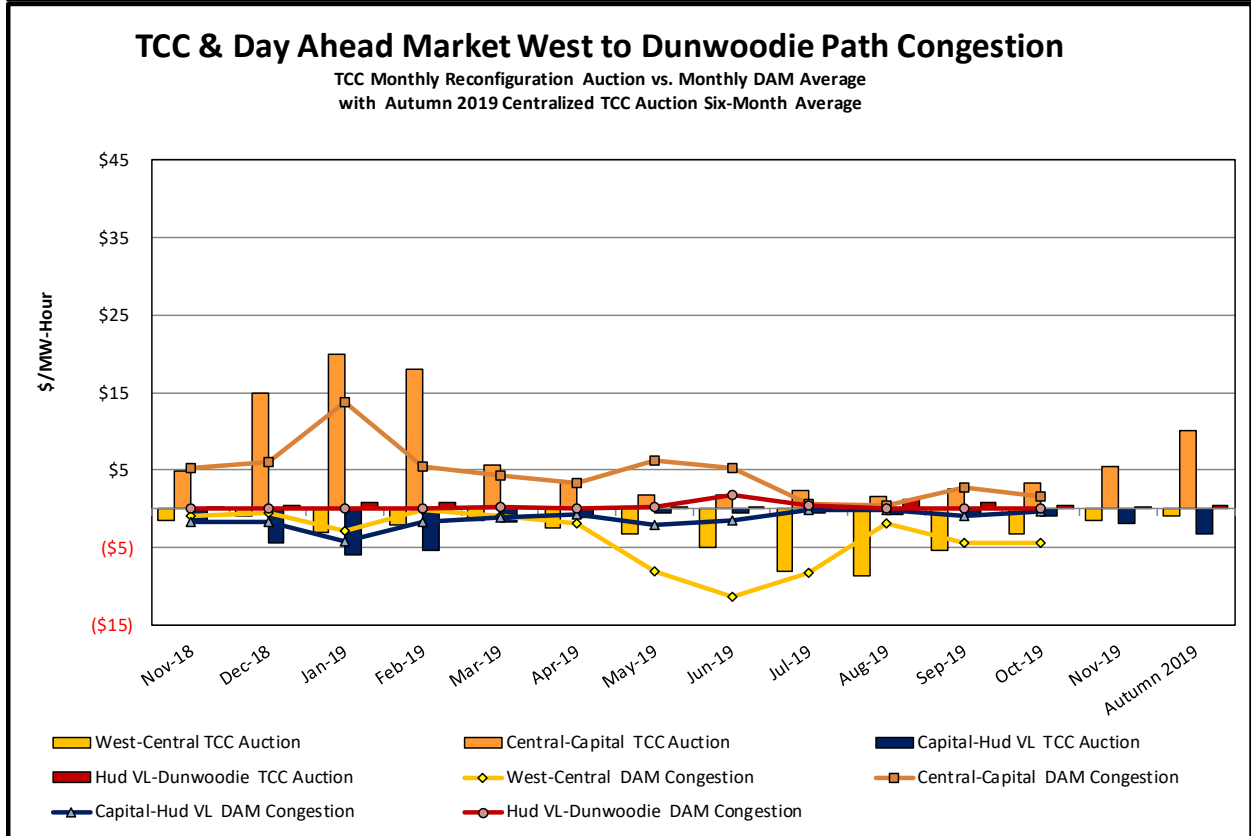
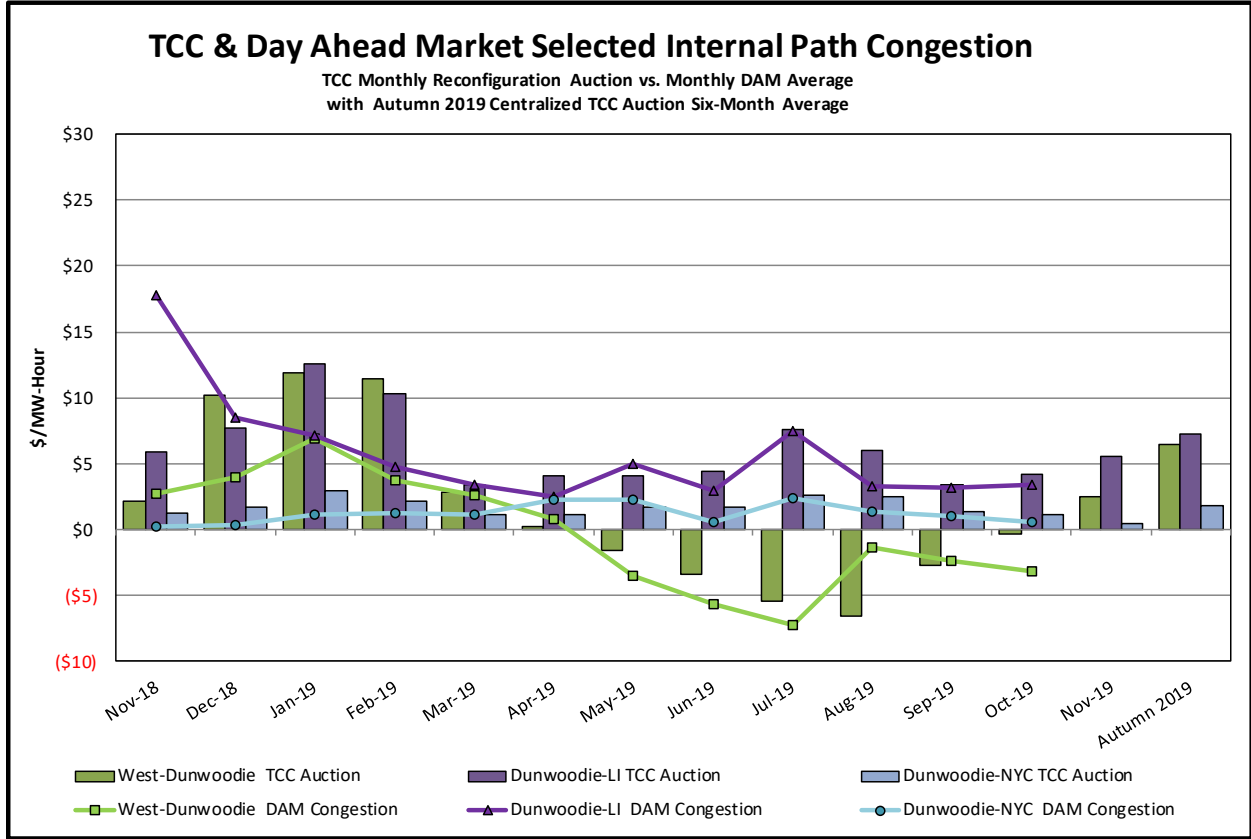
**Day-Ahead Market Congestion Residual Categories**

<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.
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.	



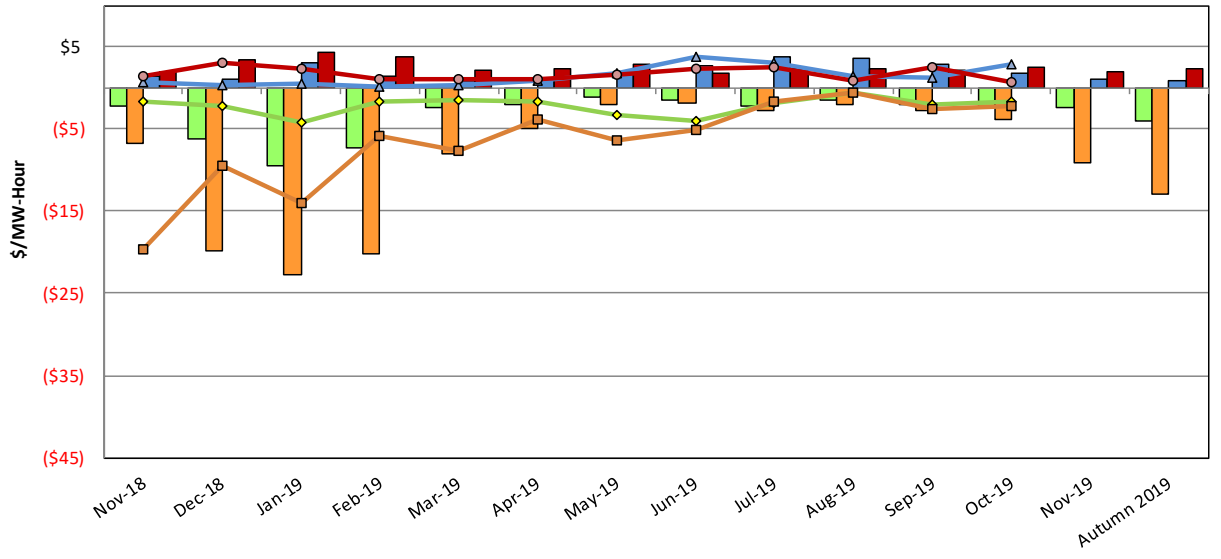






### TCC & Day Ahead Market Selected External Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average  
with Autumn 2019 Centralized TCC Auction Six-Month Average



■ PJM-Central TCC Auction    
 ■ NE-Central TCC Auction    
 ■ OH-Central TCC Auction    
 ■ HQ-Central TCC Auction  
◆ PJM-Central DAM Congestion    
 ■ NE-Central DAM Congestion    
 ▲ OH-Central DAM Congestion    
 ● HQ-Central DAM Congestion

