

Monthly Report

A Report by the
New York Independent System Operator

June 2021

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June 2021 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 July 9, 2021.

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June 2021 Operations Performance Highlights

- Peak load of 30,919 MW occurred on 06/29/2021 HB 17
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 19 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- To reduce risks from COVID-19, the NYISO continues to take several actions to maintain critical business operations and protect the health and well-being of our employees and stakeholders.

The following table identifies the estimated production cost savings associated with the Broader Regional Market initiatives.

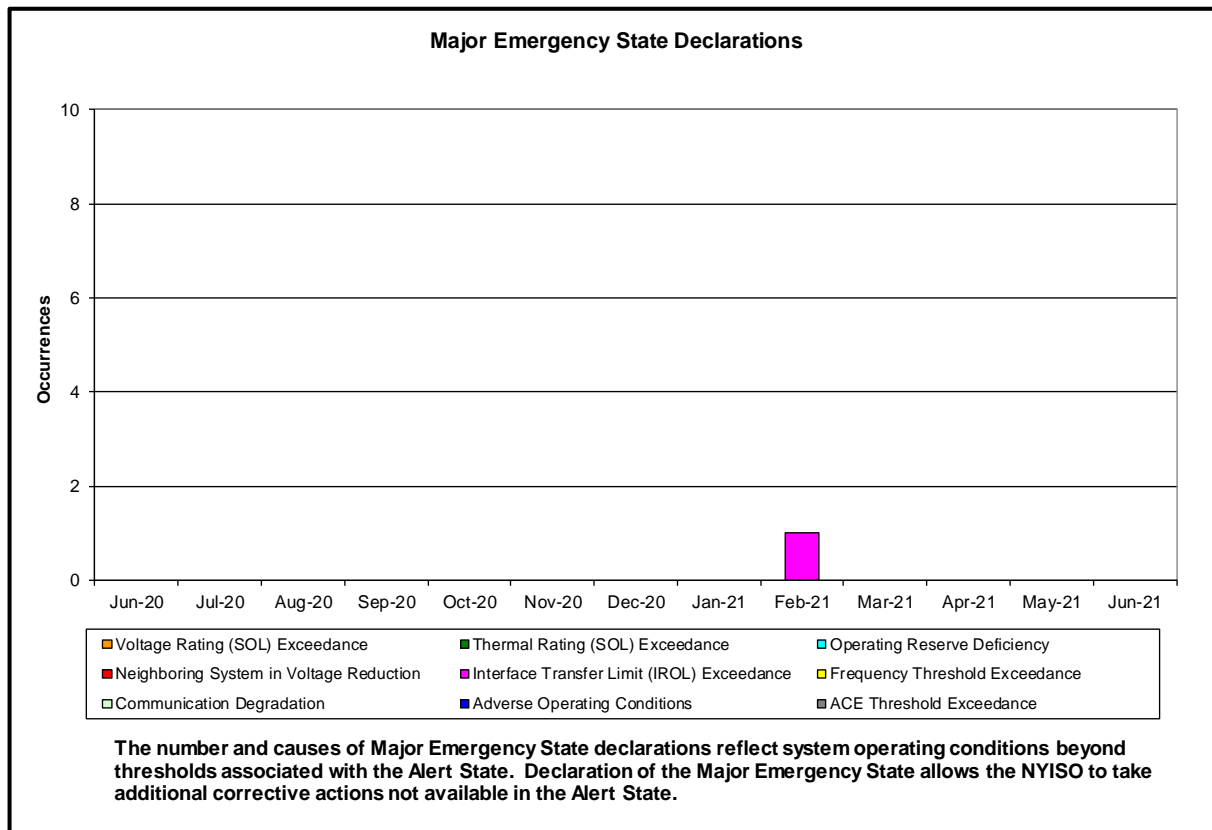
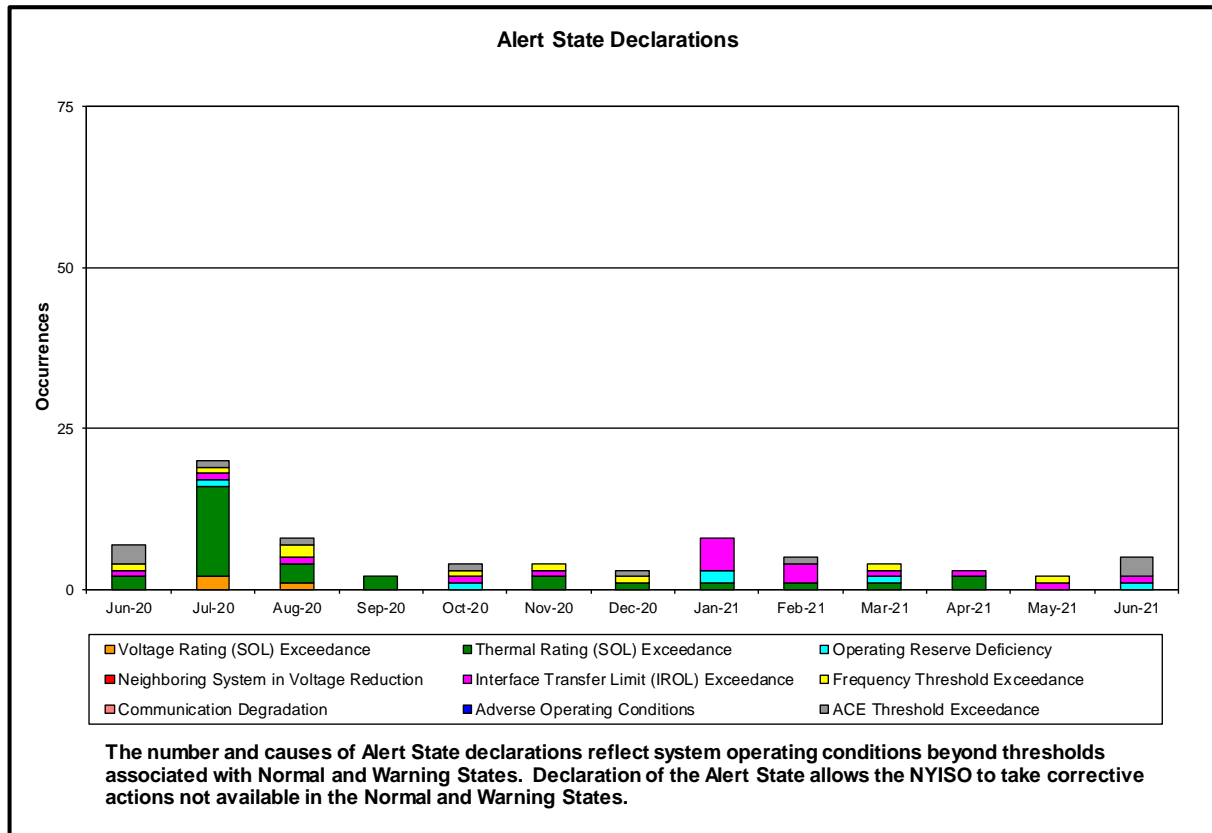
	Current Month Value (\$M)	Year-to-Date Value (\$M)
NY Savings from PJM-NY Congestion Coordination	\$0.04	\$11.20
NY Savings from PJM-NY Coordinated Transaction Scheduling	\$0.09	\$1.15
NY Savings from NE-NY Coordinated Transaction Scheduling	\$0.33	(\$2.30)
Total NY Savings	\$0.46	\$10.05
Regional Savings from PJM-NY Coordinated Transaction Scheduling	\$0.84	\$2.72
Regional Savings from NE-NY Coordinated Transaction Scheduling	\$0.16	(\$0.21)
Total Regional Savings	\$0.99	\$2.51

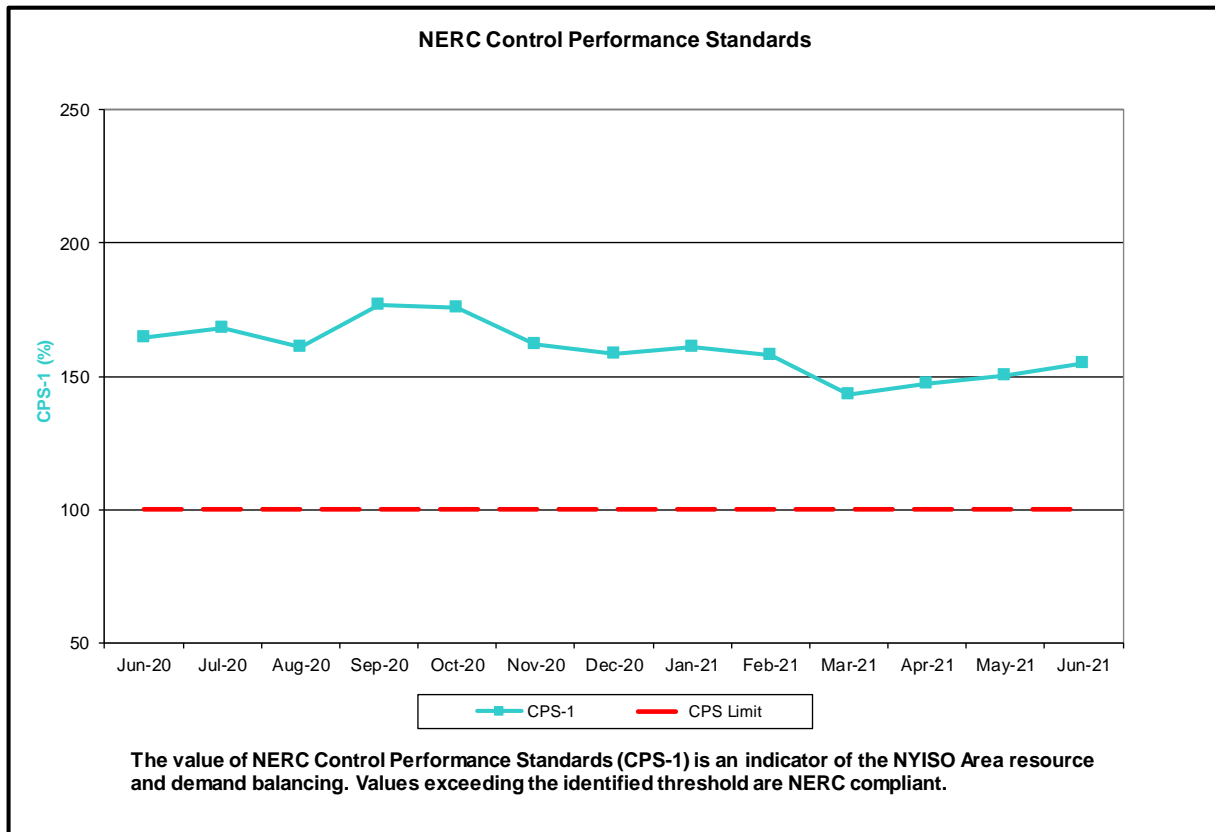
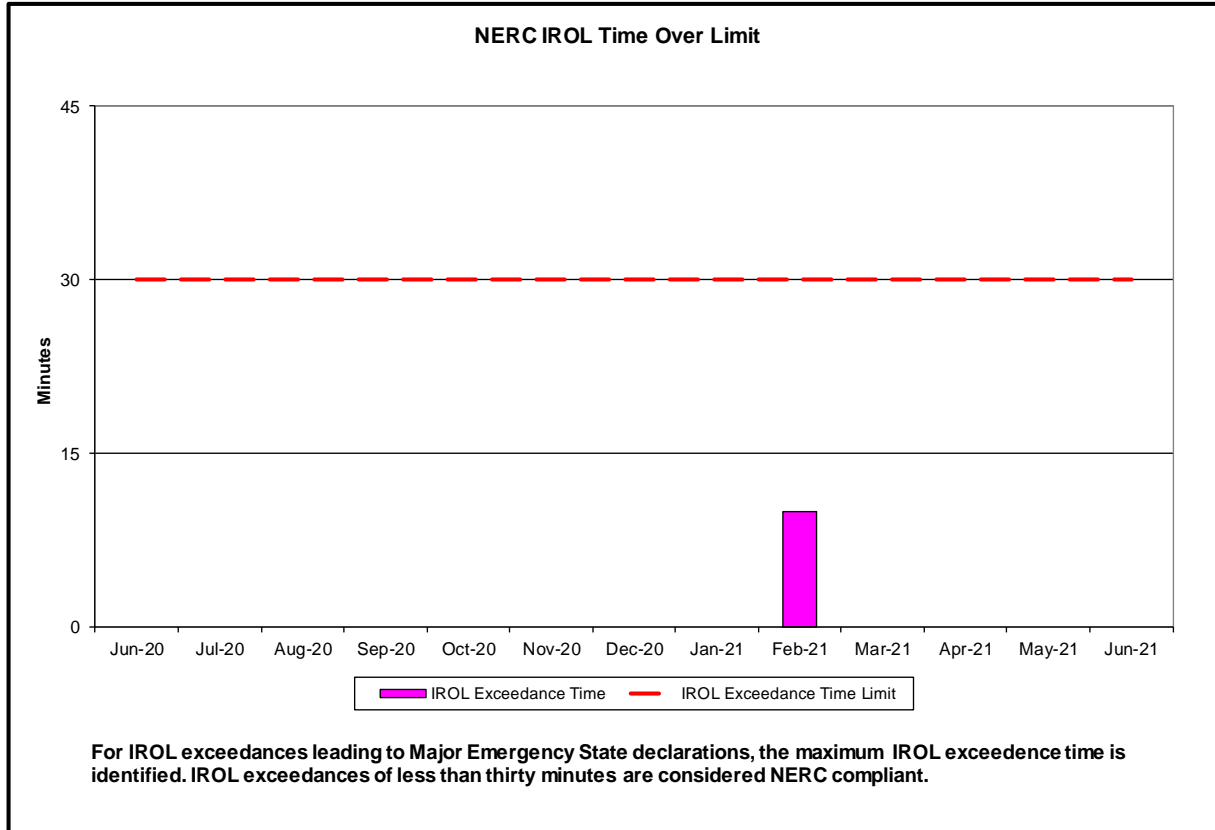
- Statewide uplift cost monthly average was (\$0.68)/MWh.
- The following table identifies the Monthly ICAP spot market prices and the price delta.

Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
July 2021 Spot Price	\$5.50	\$5.50	\$5.50	\$9.29
June 2021 Spot Price	\$5.32	\$5.32	\$5.32	\$9.34
Delta	\$0.18	\$0.18	\$0.18	(\$0.05)

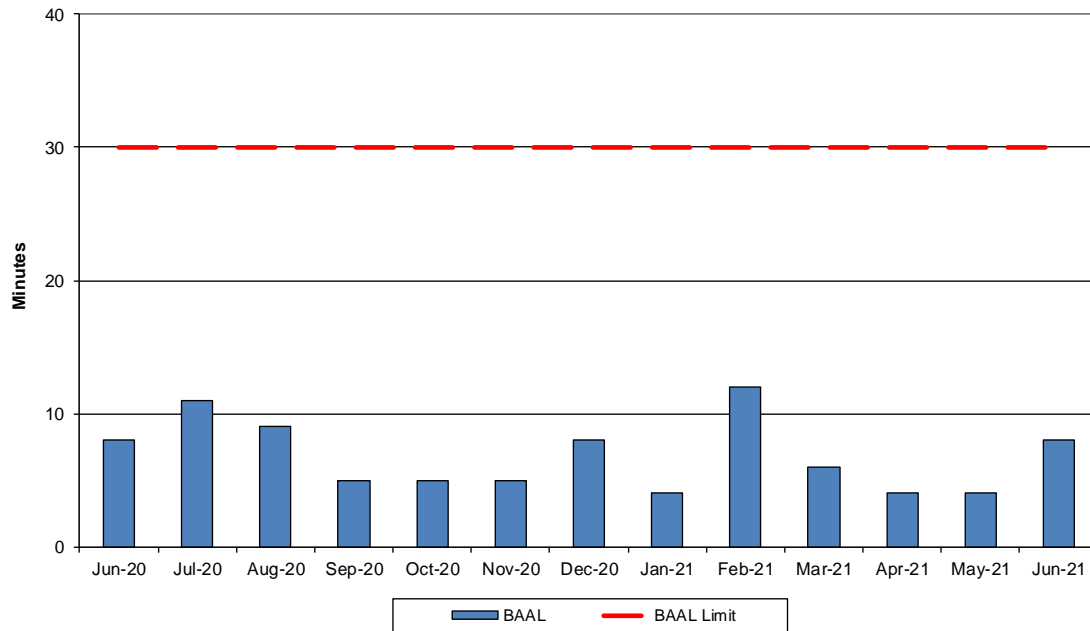
- NYCA, Lower Hudson Valley (GHJ), and New York City (NYC) localities experienced a \$0.18 clearing price increase due to an increase in unsold MWs in Rest-of-State (ROS).

Reliability Performance Metrics



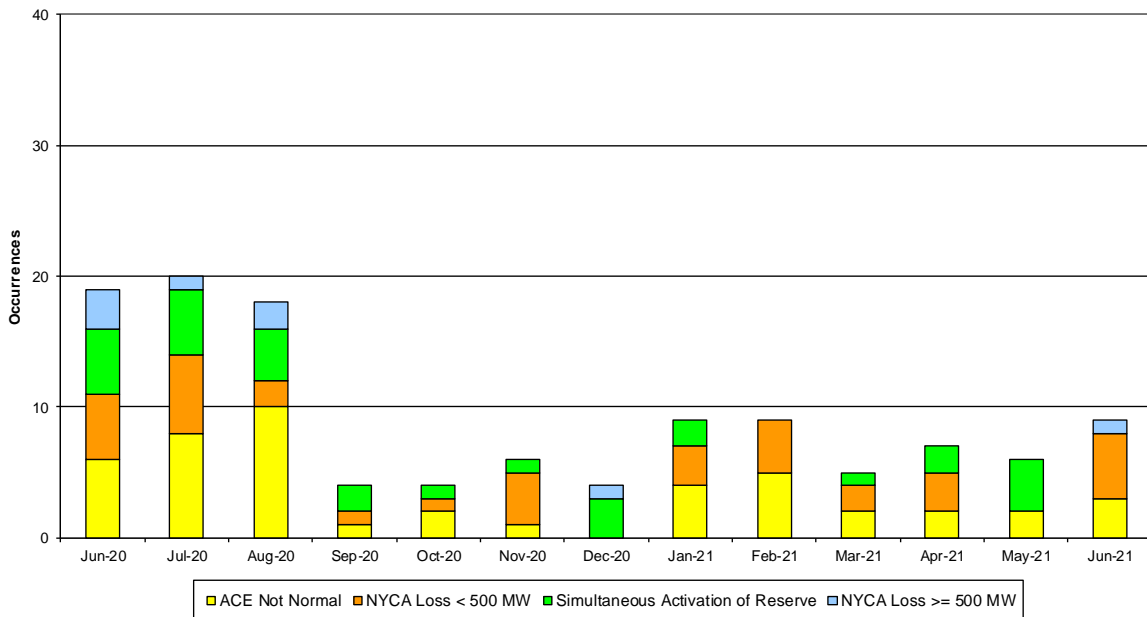


NERC Balancing Authority ACE Limit Standard



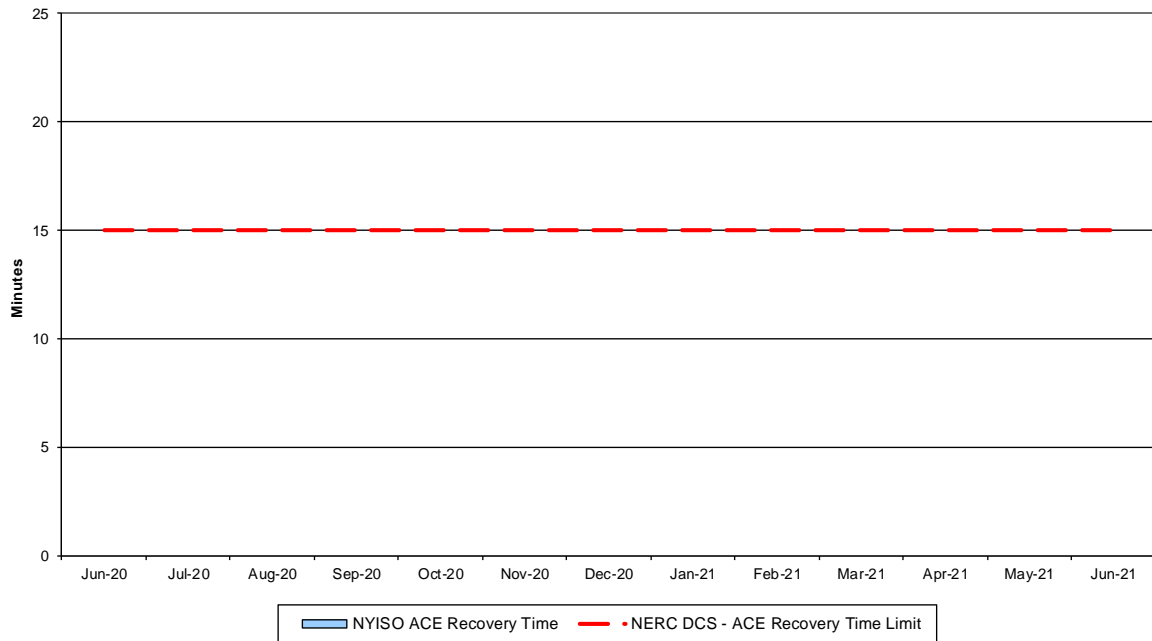
The amount of time the clock-minute average ACE exceeds the clock-minute Balancing Authority ACE Limit (BAAL) is an indicator of the NYISO Area resource and demand balancing. The maximum BAAL exceedance time is identified. BAAL exceedances of less than 30 consecutive clock-minutes are NERC compliant.

Reserve Activations



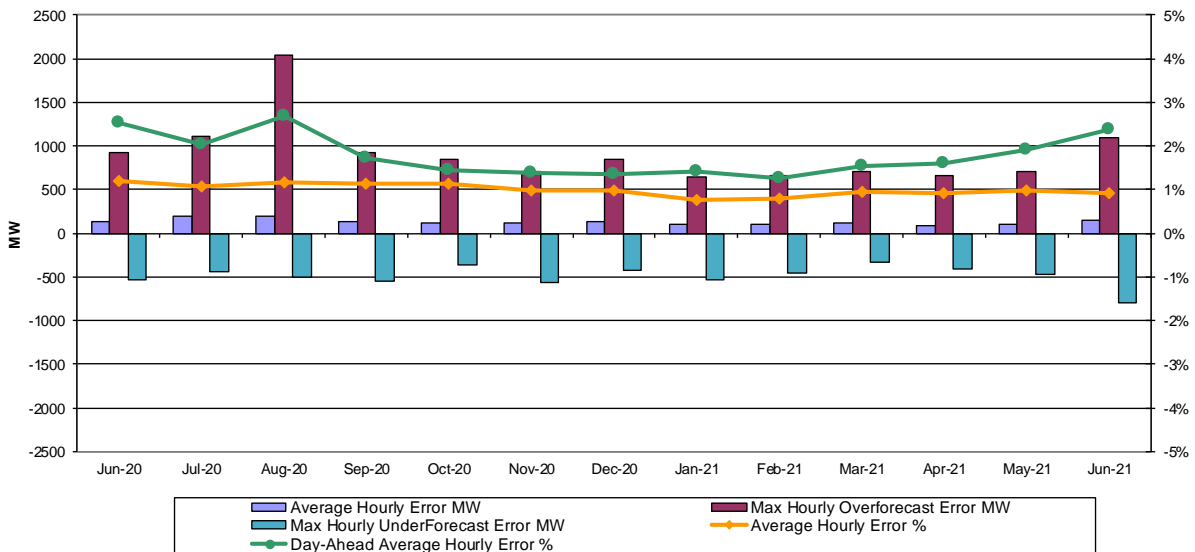
NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Simultaneous Activation of Reserves) by activating an immediate resource and demand balancing operation.

DCS Event Time to ACE Recovery



For NYISO initiated NERC Reportable Disturbances, the maximum ACE recovery time is identified. Recovery times of less than 15 minutes are considered NERC compliant.

Load Forecast Performance

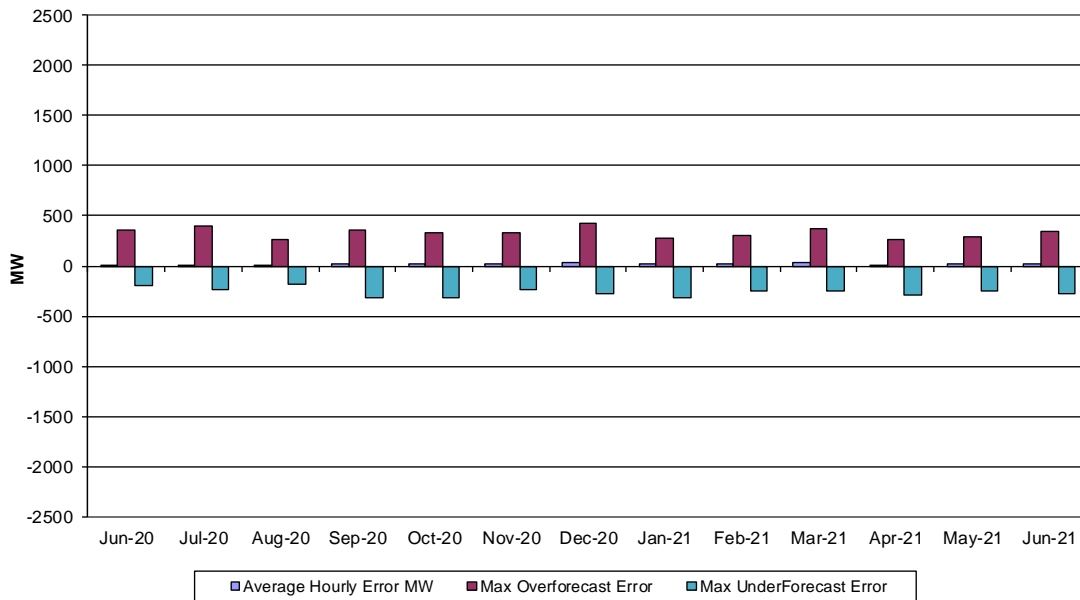


Hourly Error MW - Value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.

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

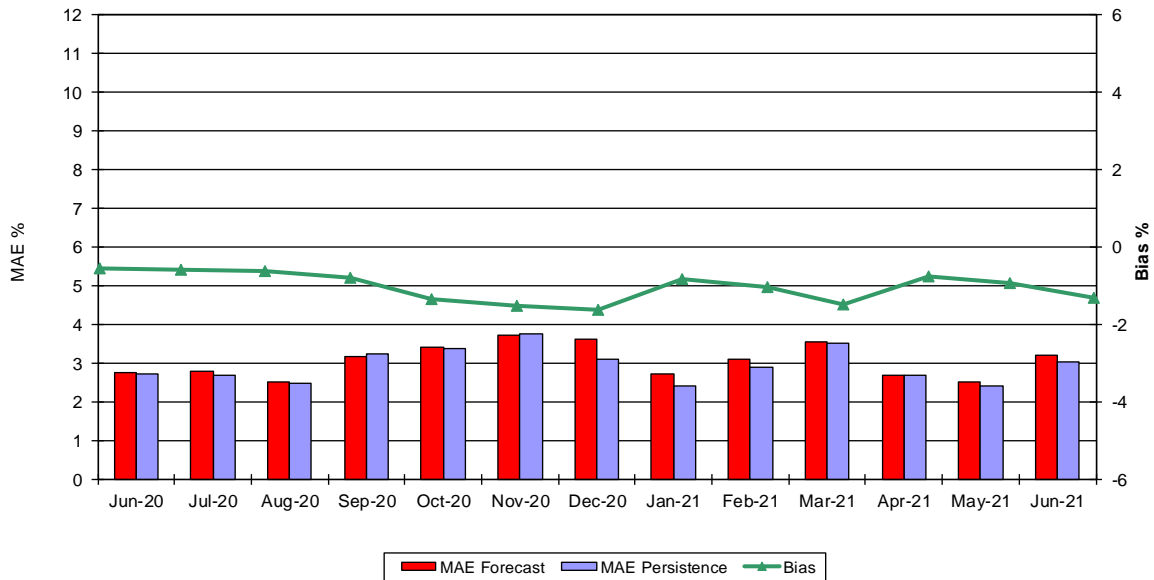
Day-Ahead Average Hourly Error % - Average across all hours of the month of the absolute value of the difference between actual load demand and the Day-Ahead forecast load demand, divided by the actual load demand.

Wind Forecast Performance Hour Ahead MW Error



Hourly Error MW - Value of the difference between the hourly average actual wind generation and the average hour ahead forecast wind generation.

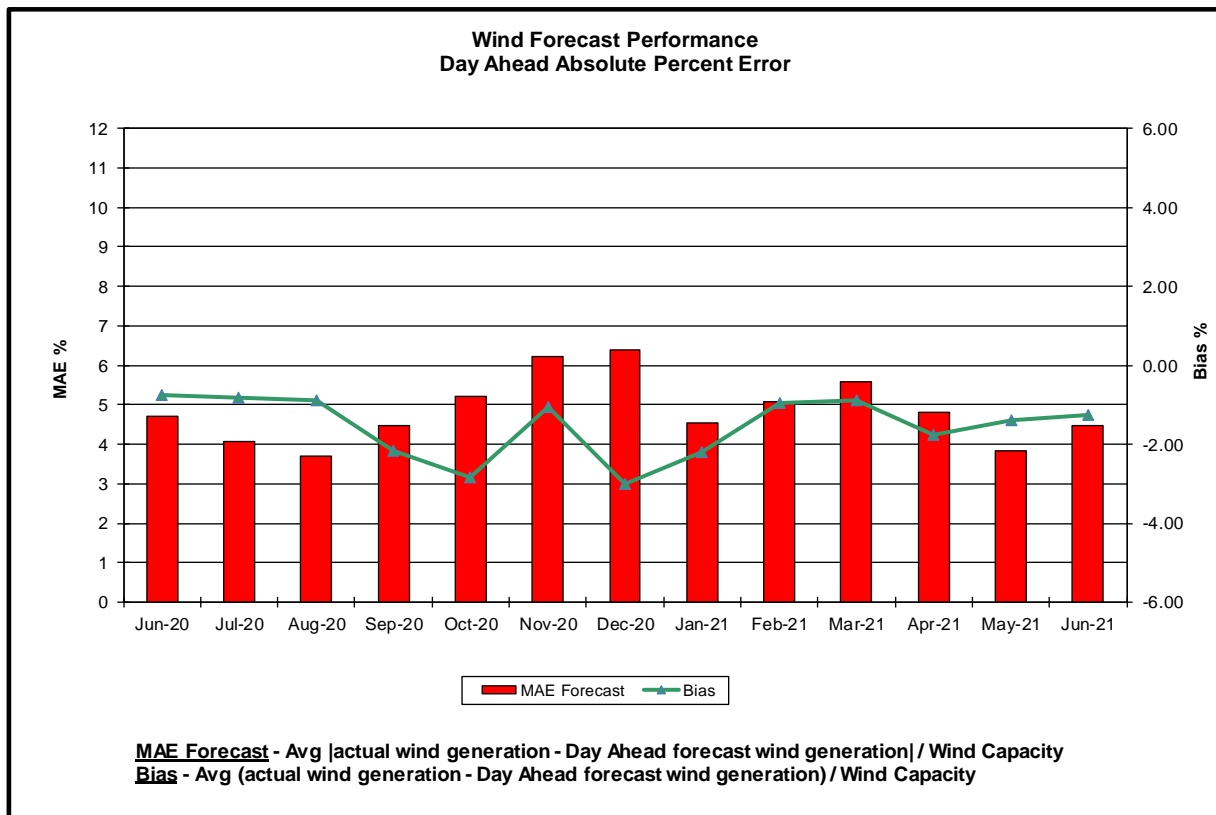
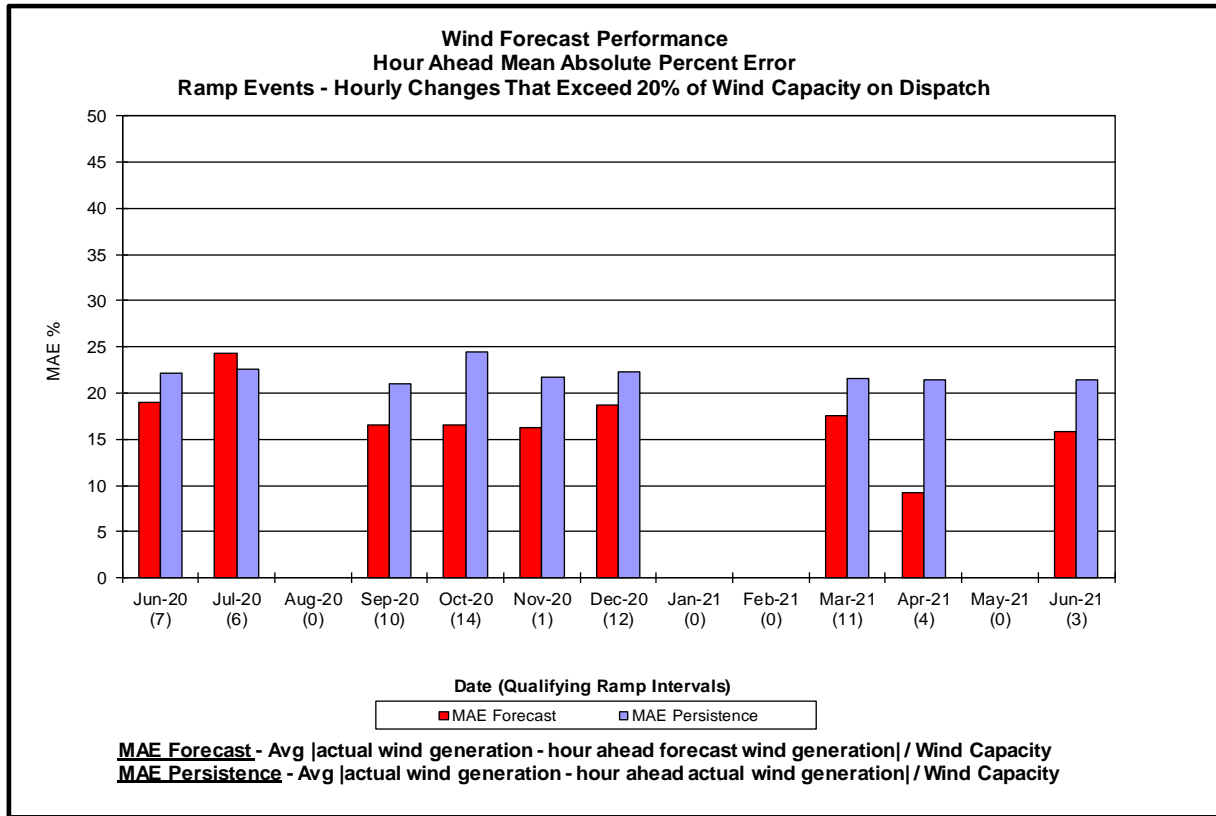
Wind Forecast Performance Hour Ahead Percent Error

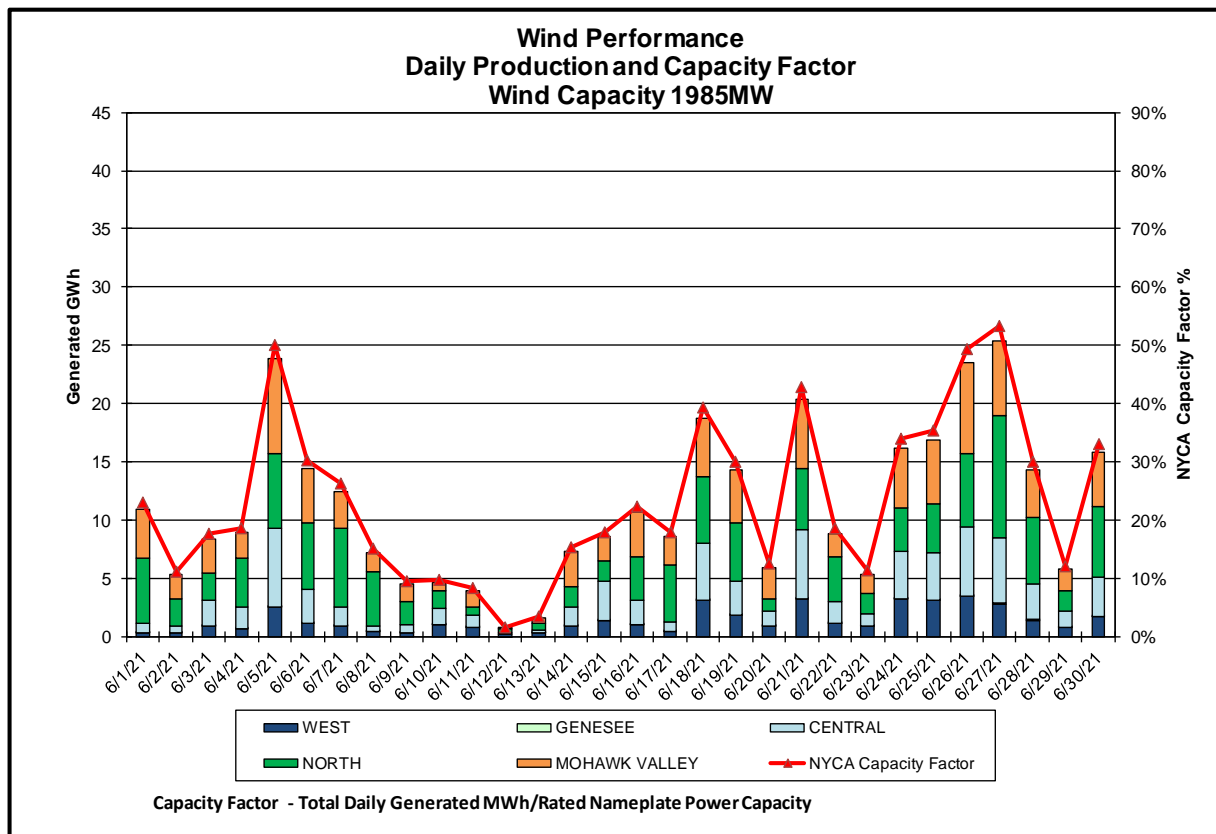
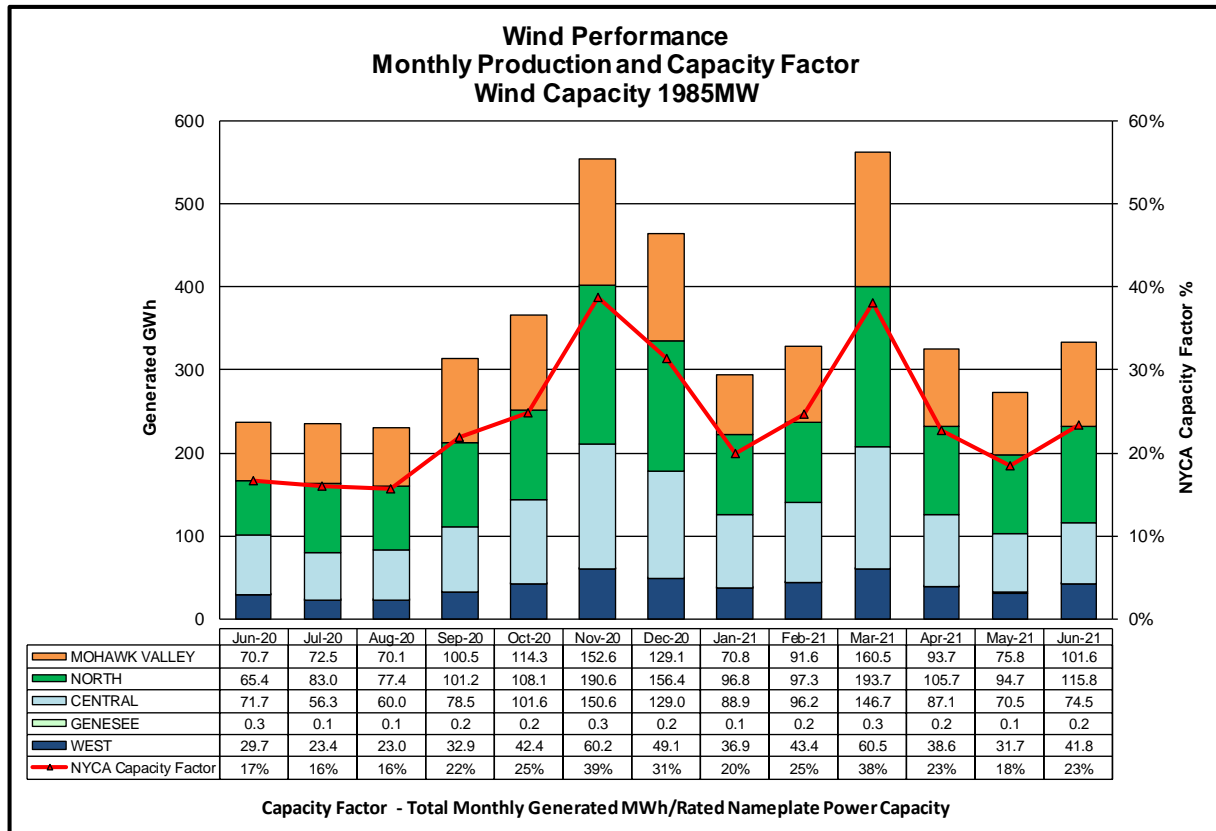


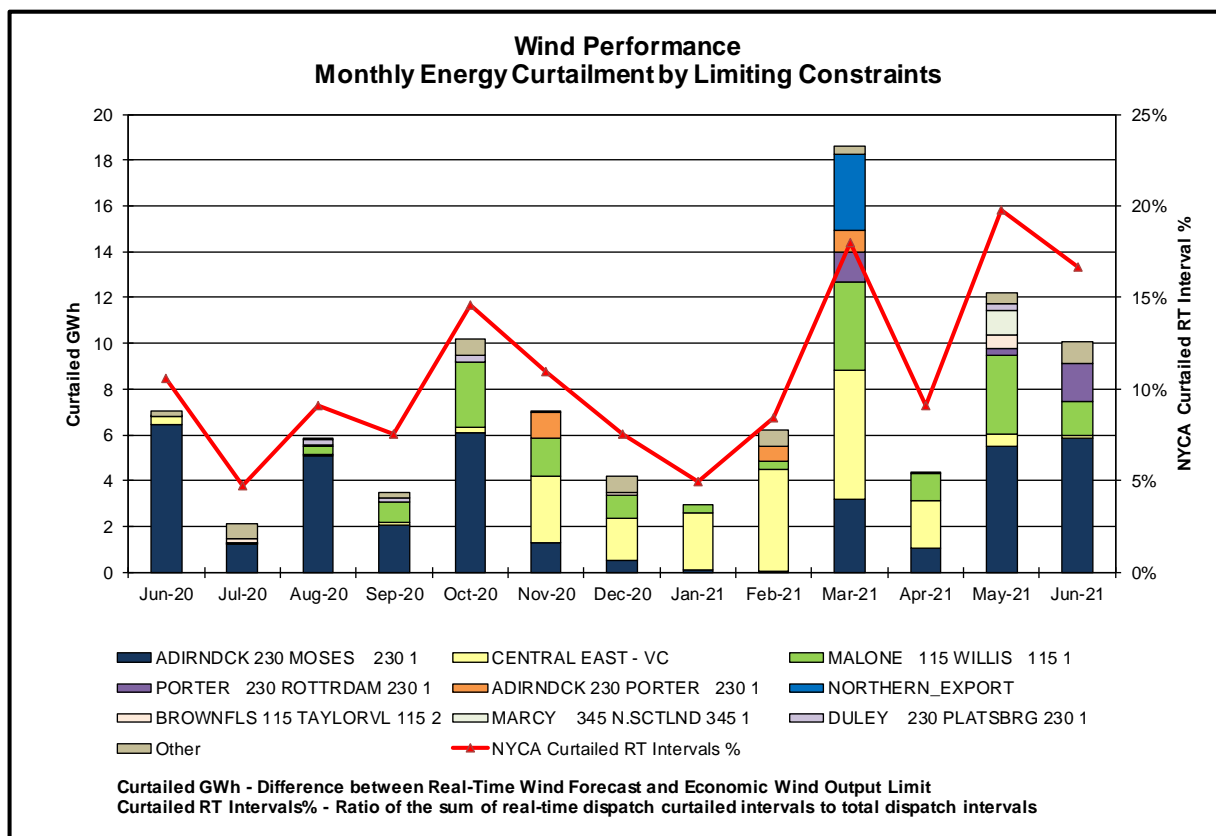
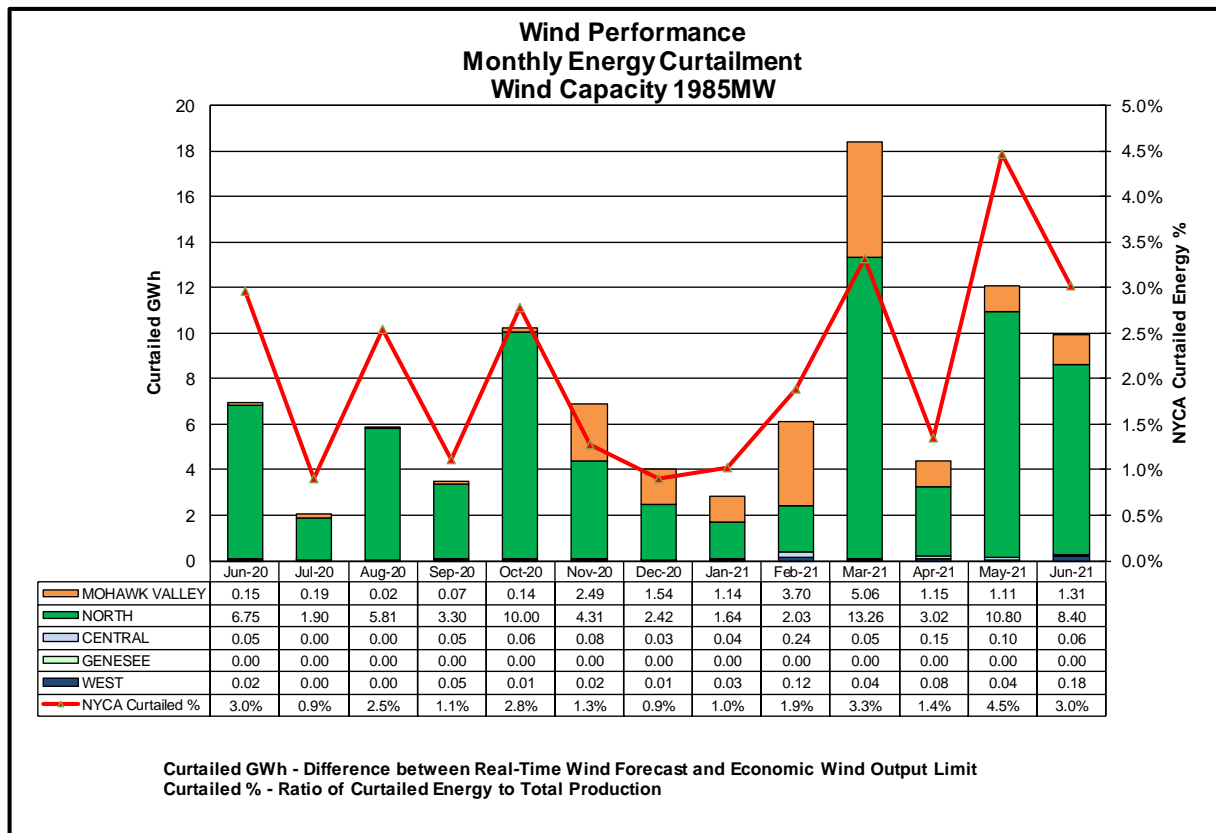
MAE Forecast - Avg [actual wind generation - hour ahead forecast wind generation] / Wind Capacity

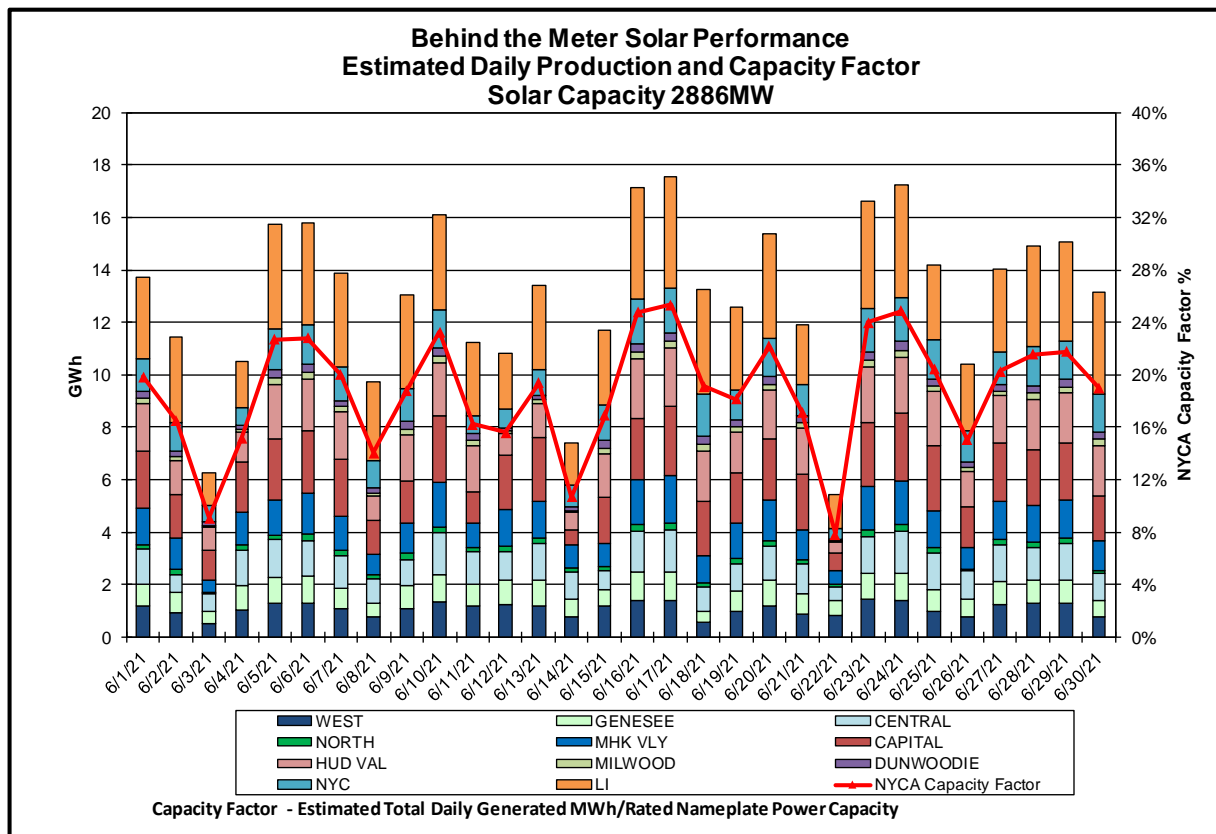
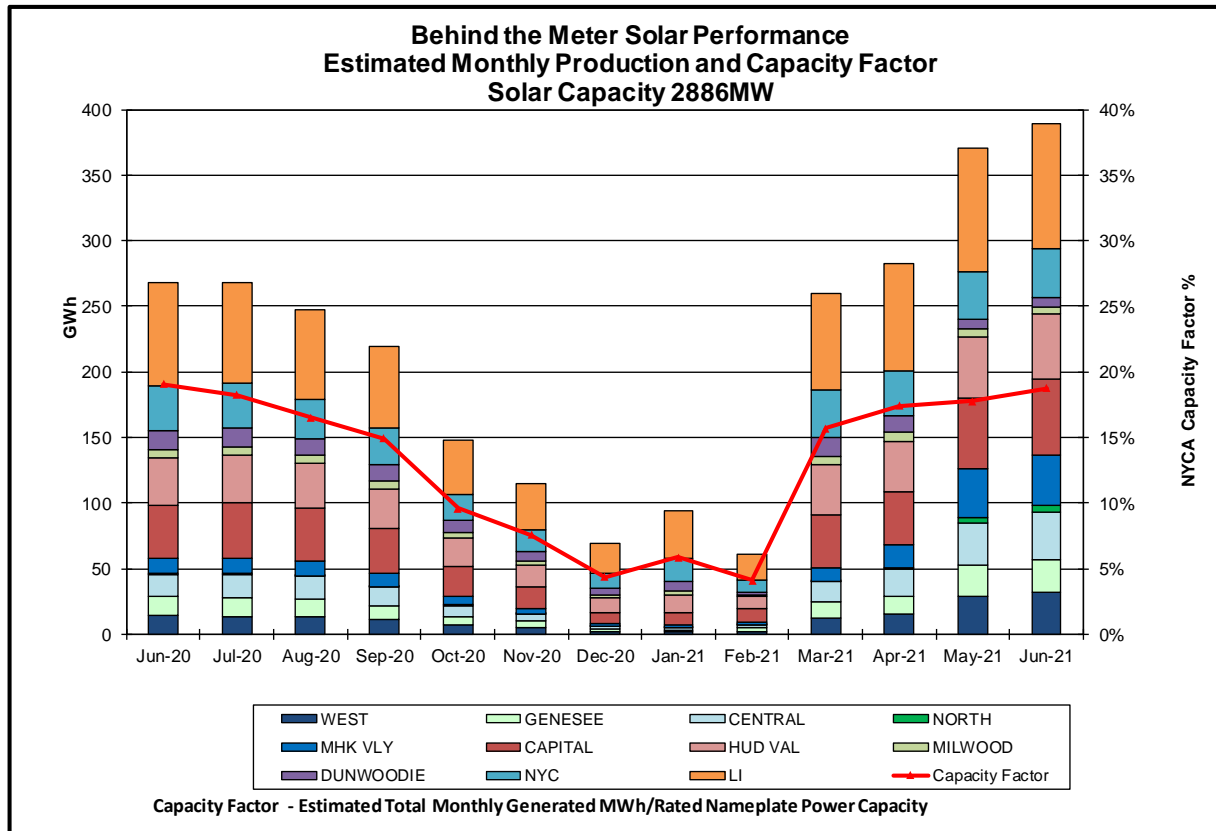
MAE Persistence - Avg [actual wind generation - hour ahead actual wind generation] / Wind Capacity

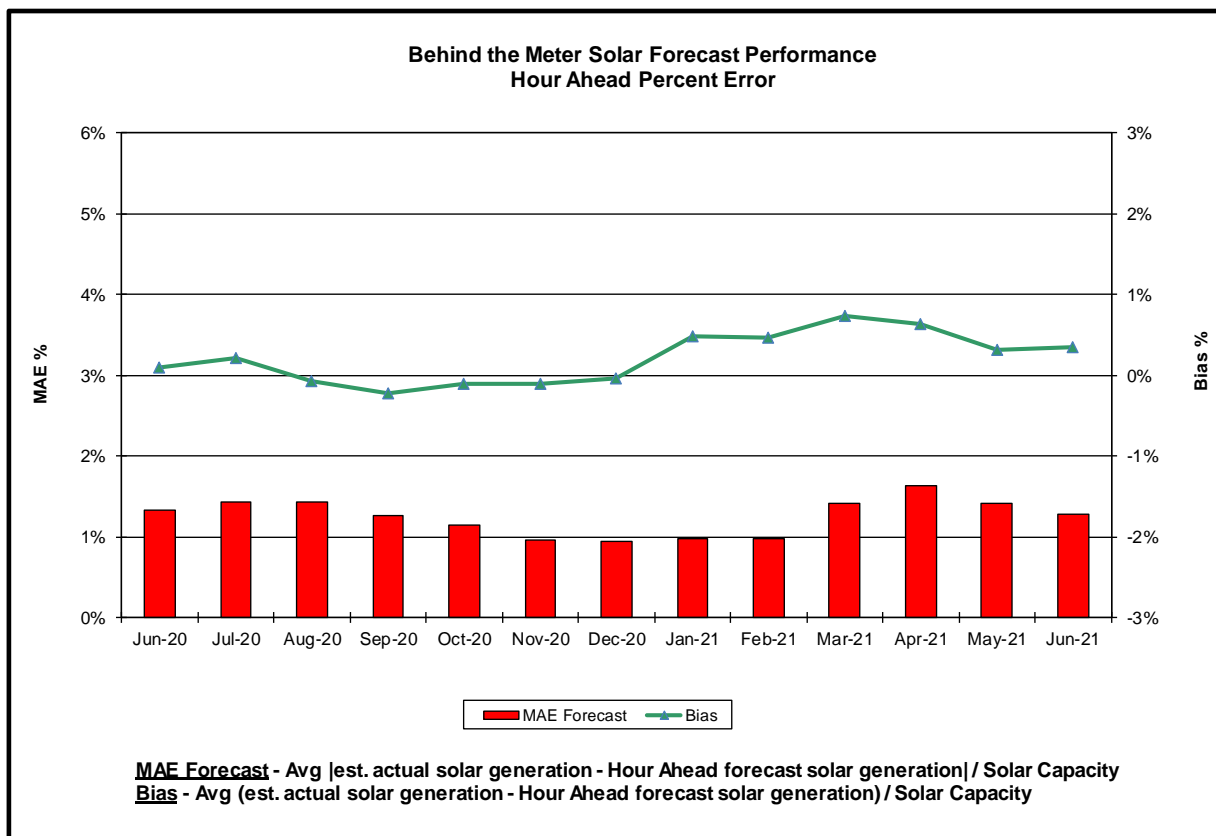
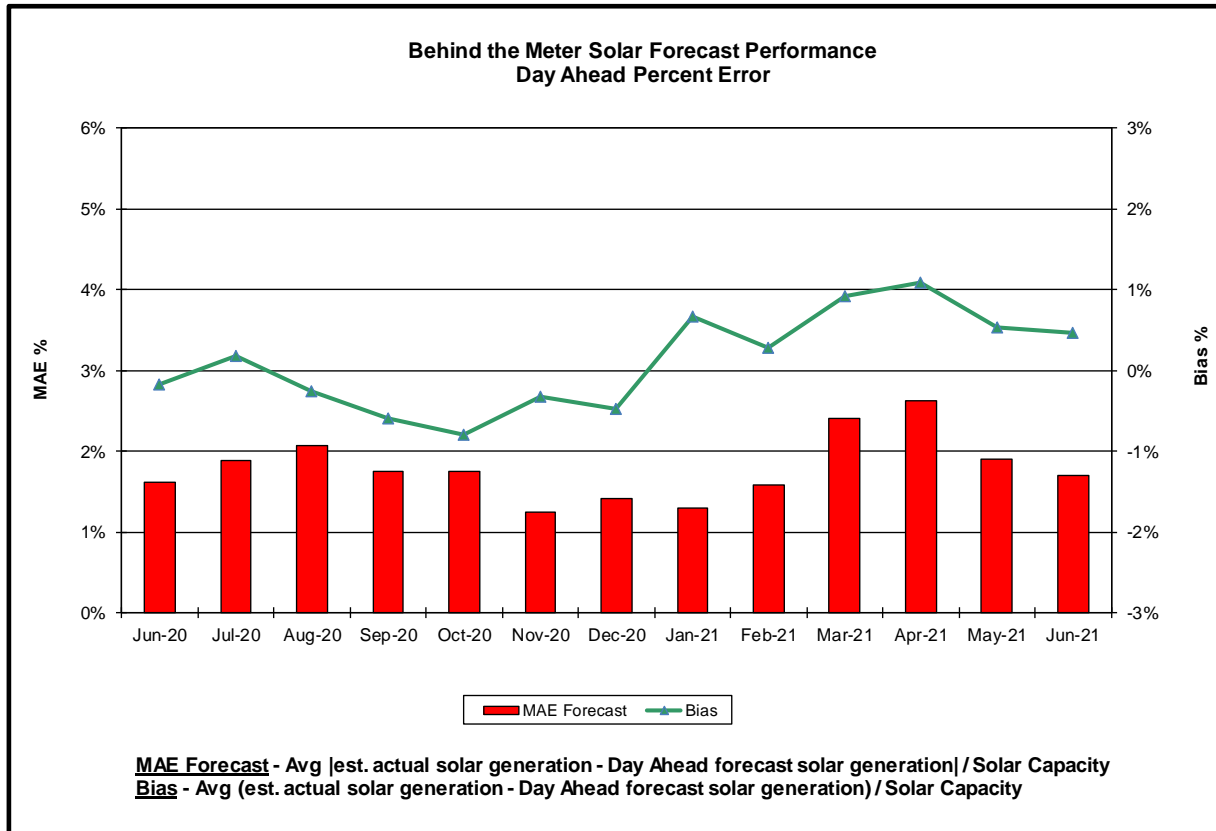
Bias - Avg (actual wind generation - hour ahead forecast wind generation) / Wind Capacity

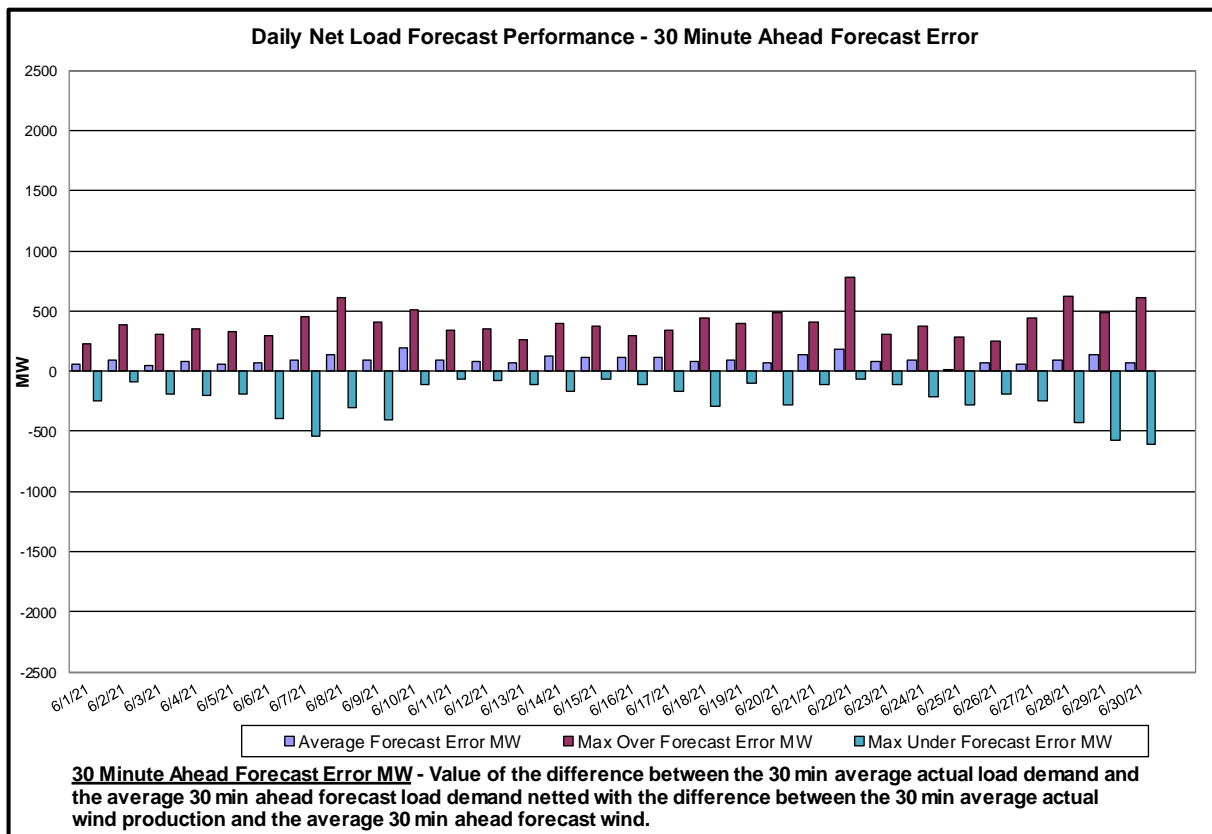
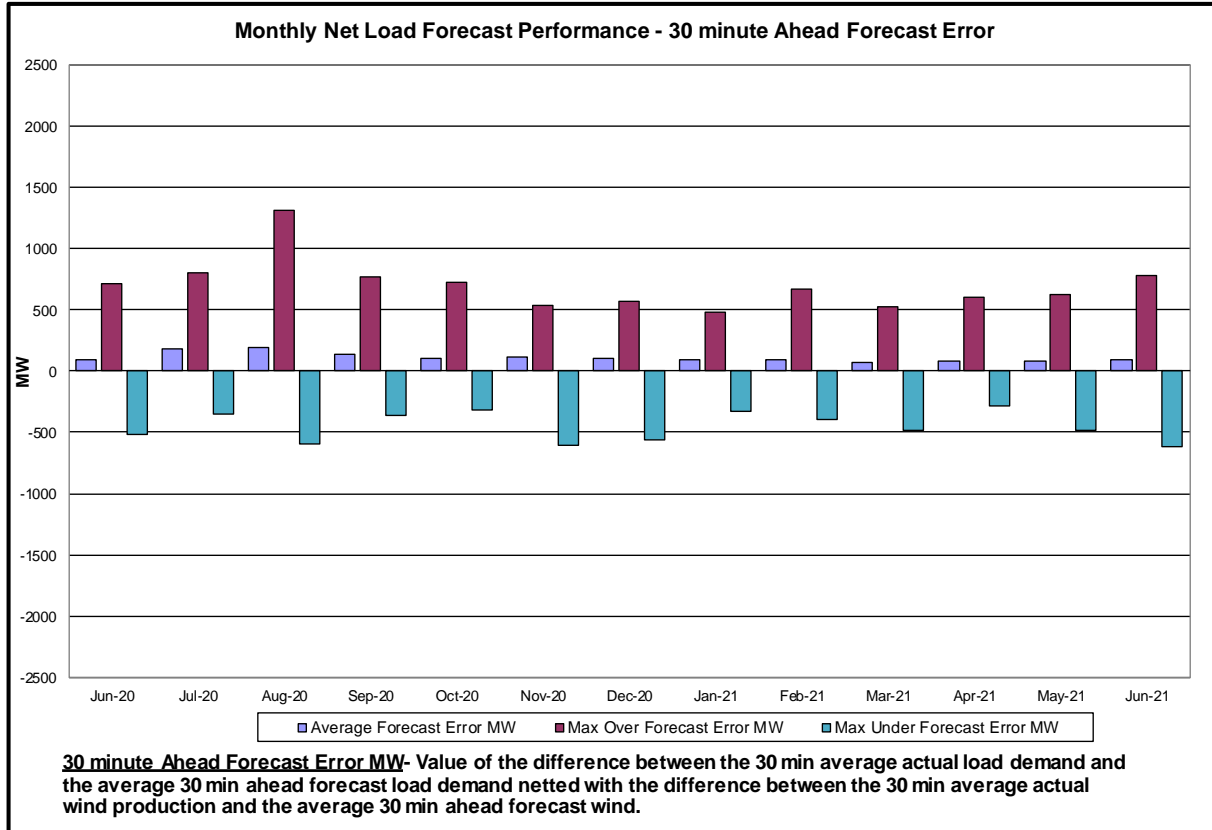


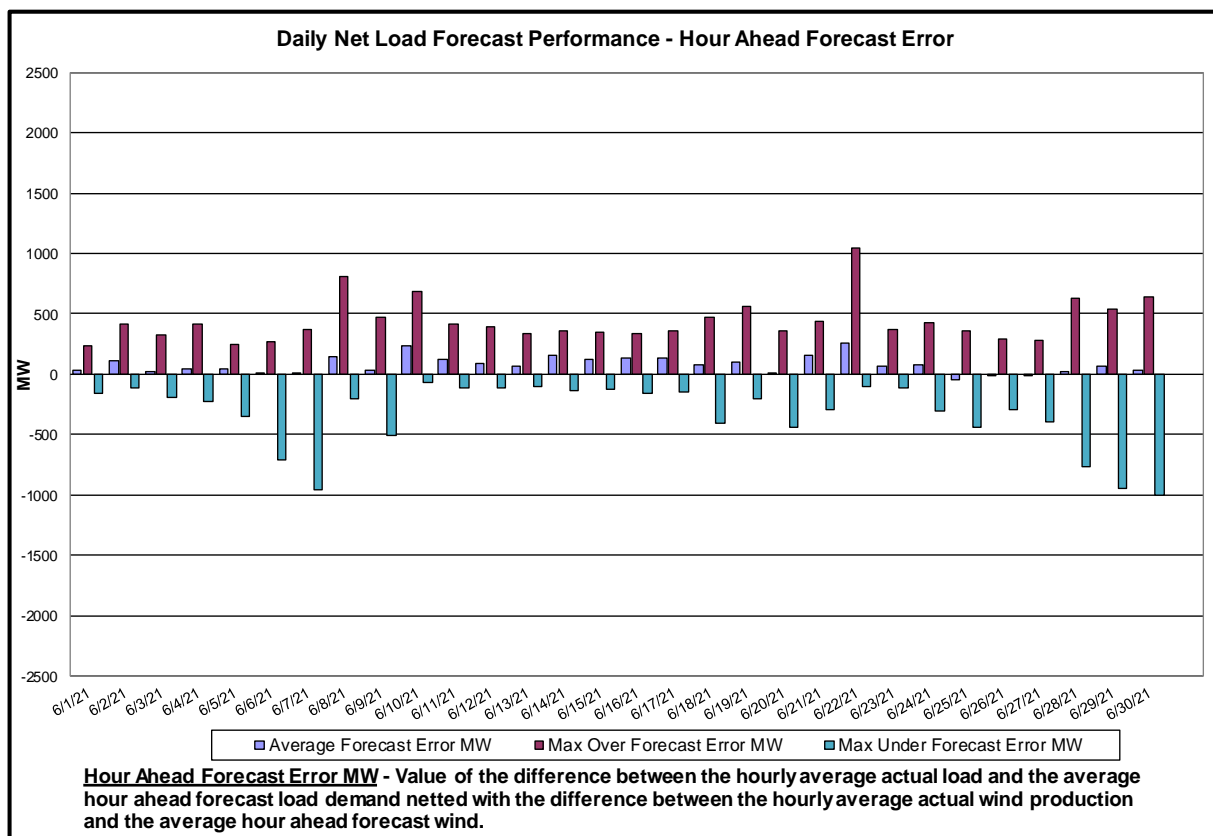
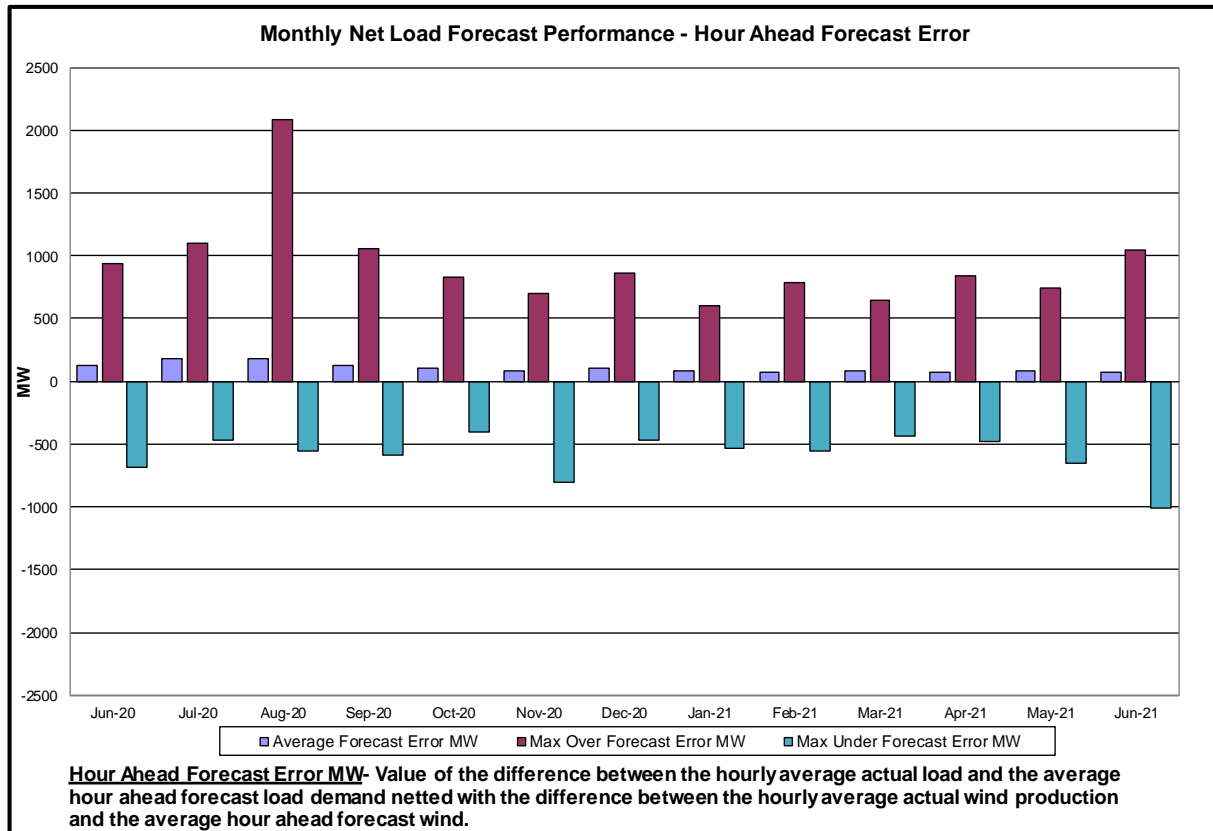


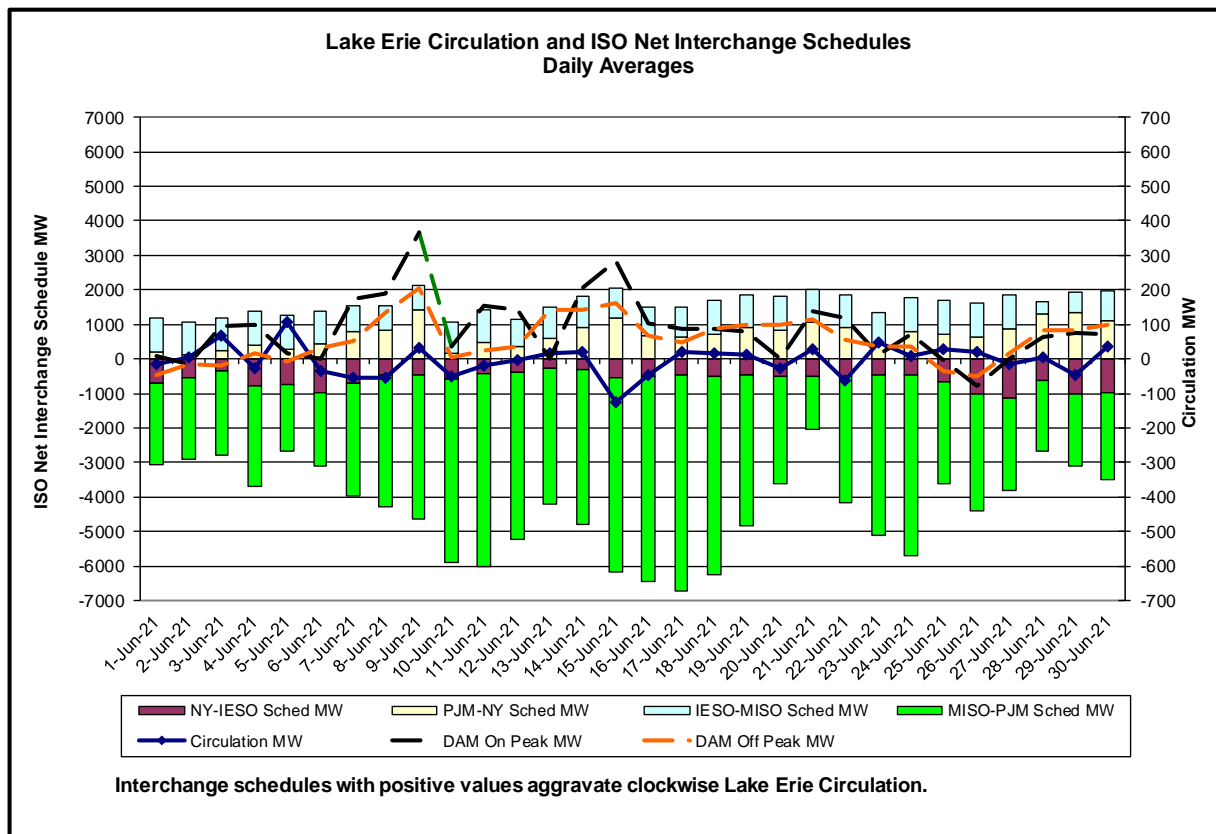
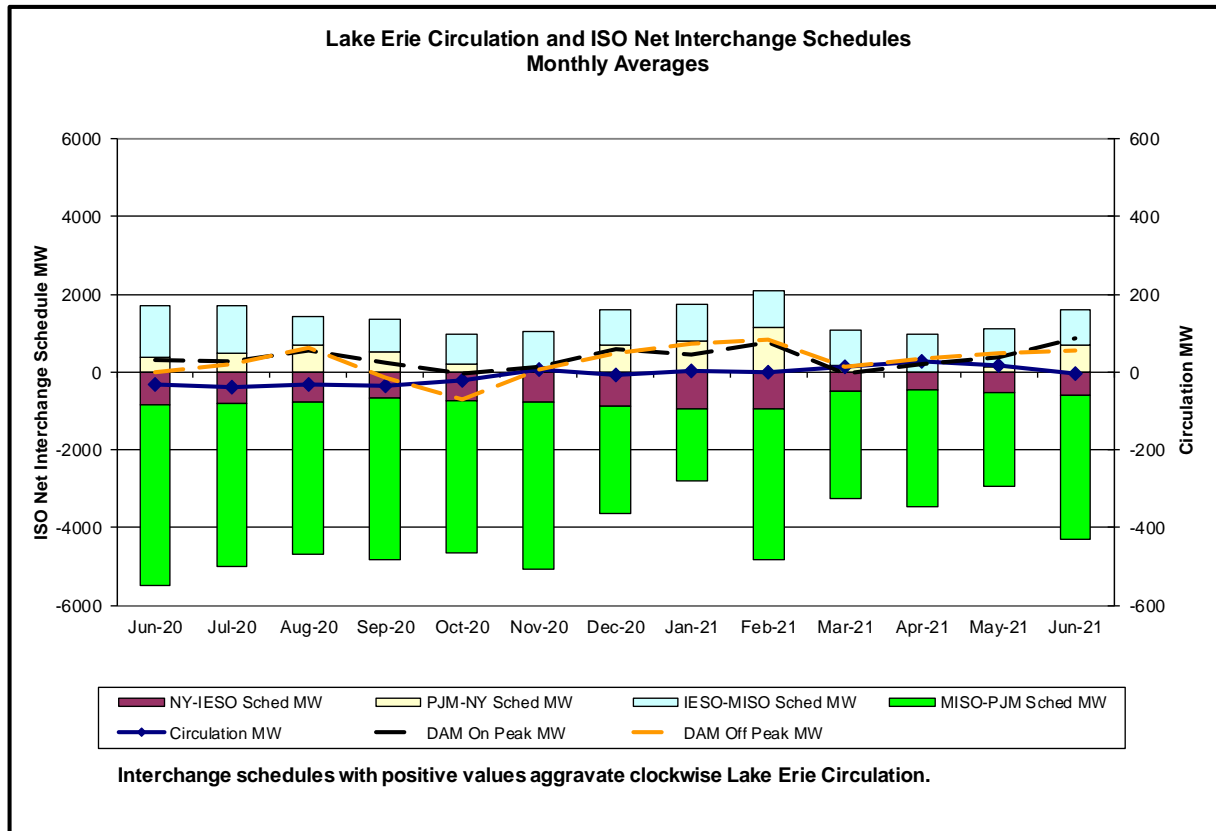




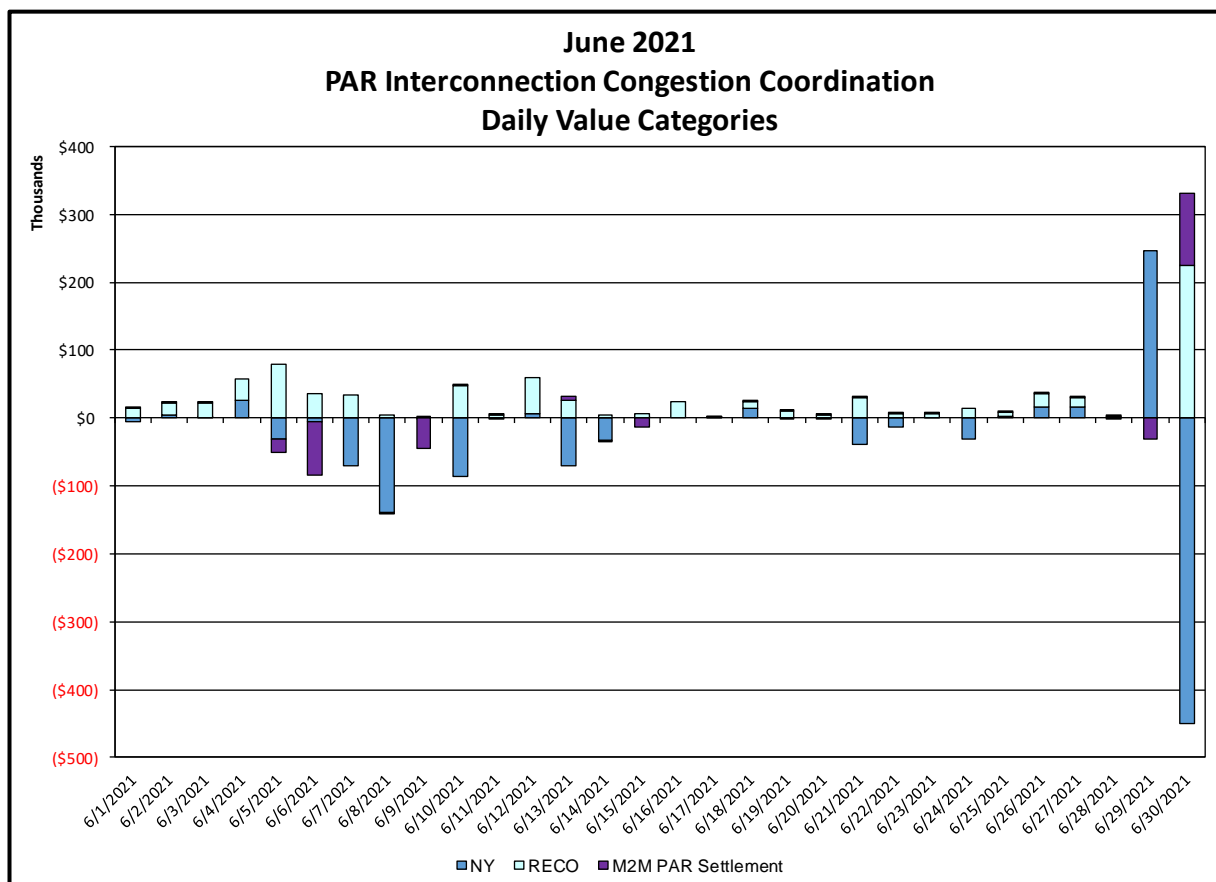
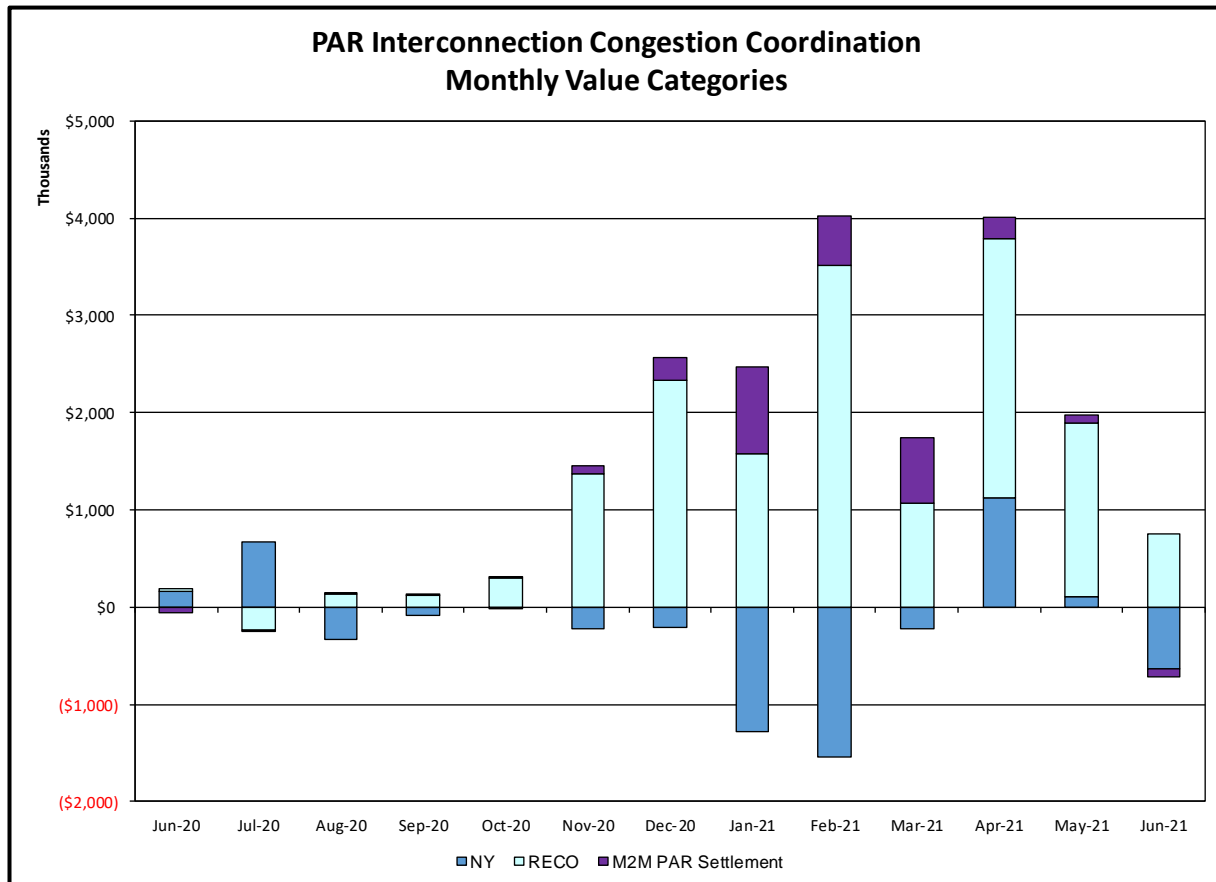






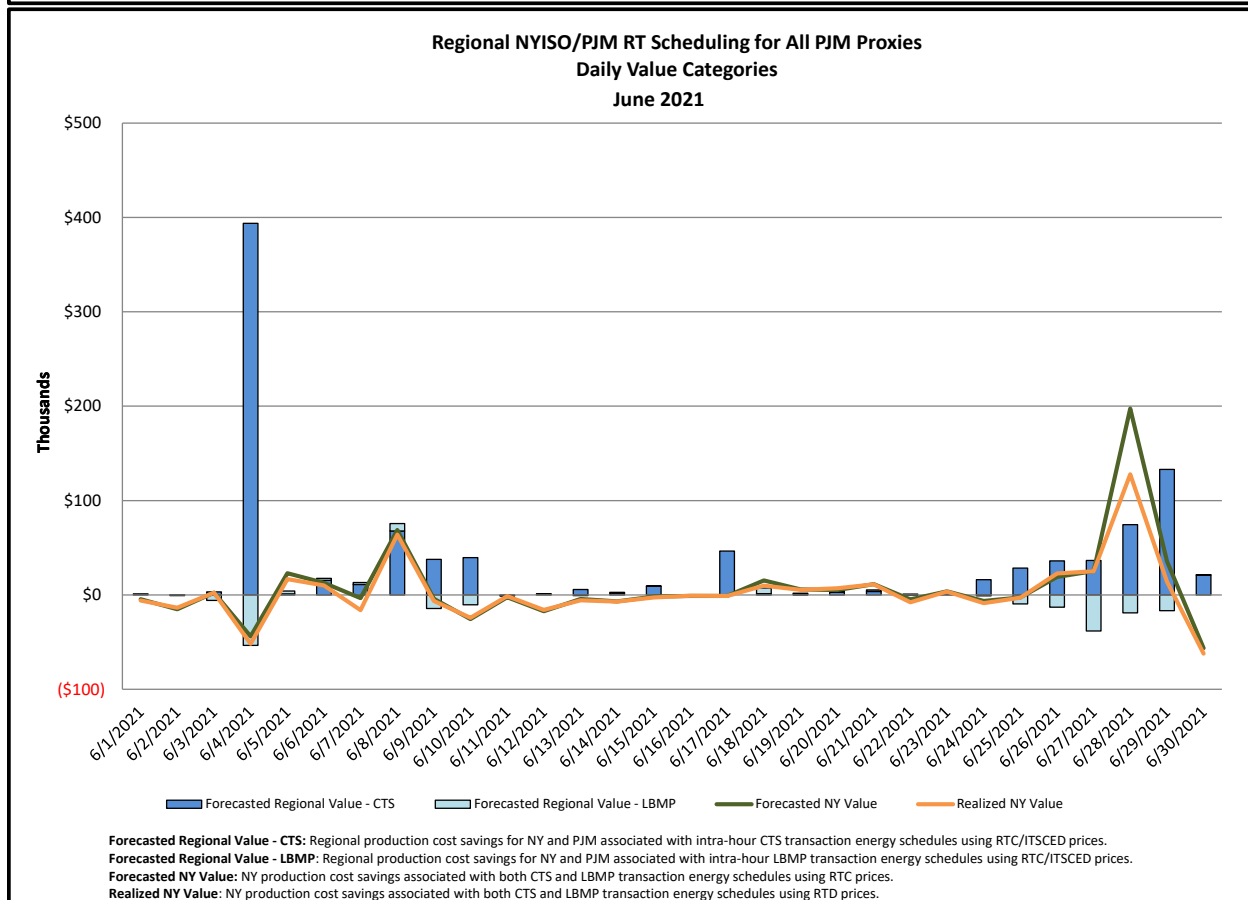
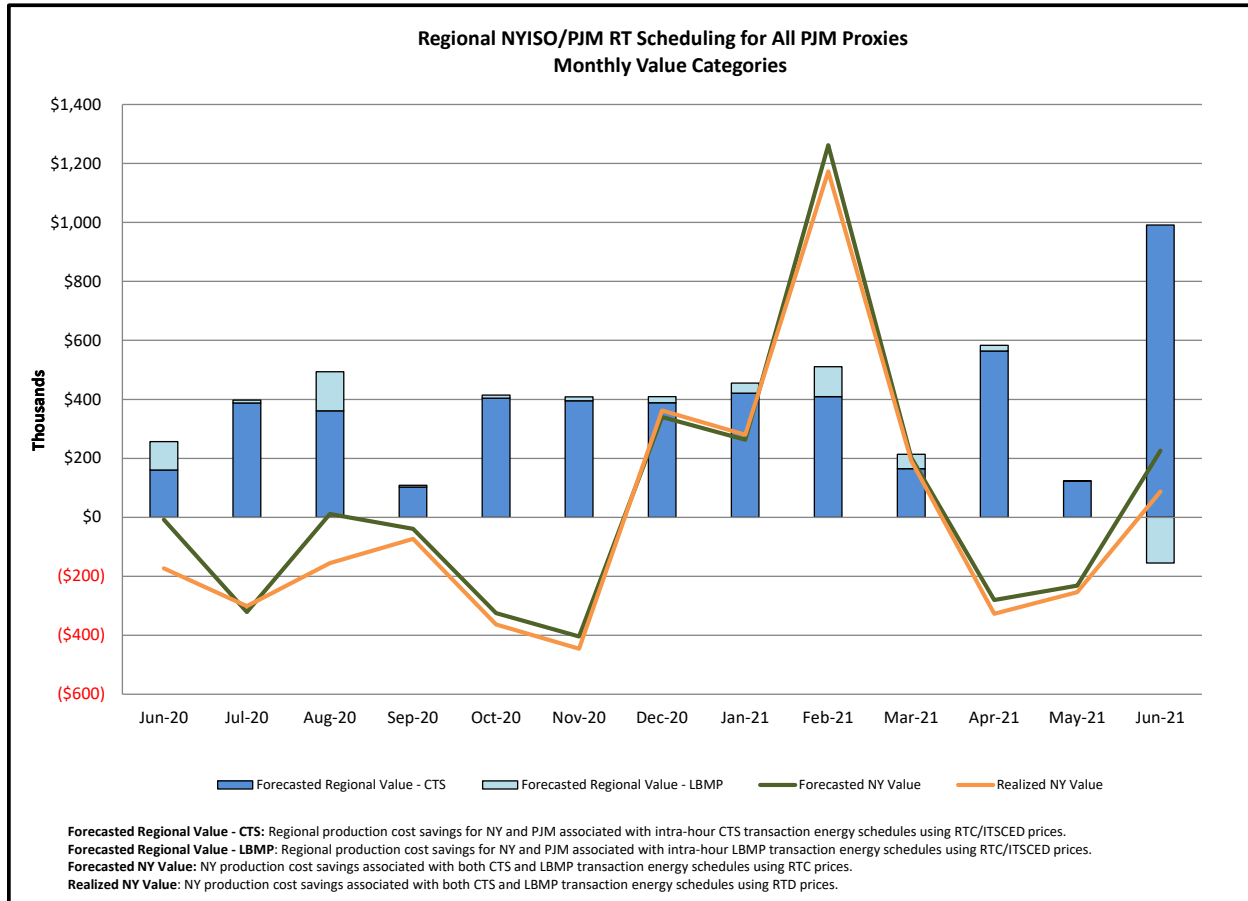


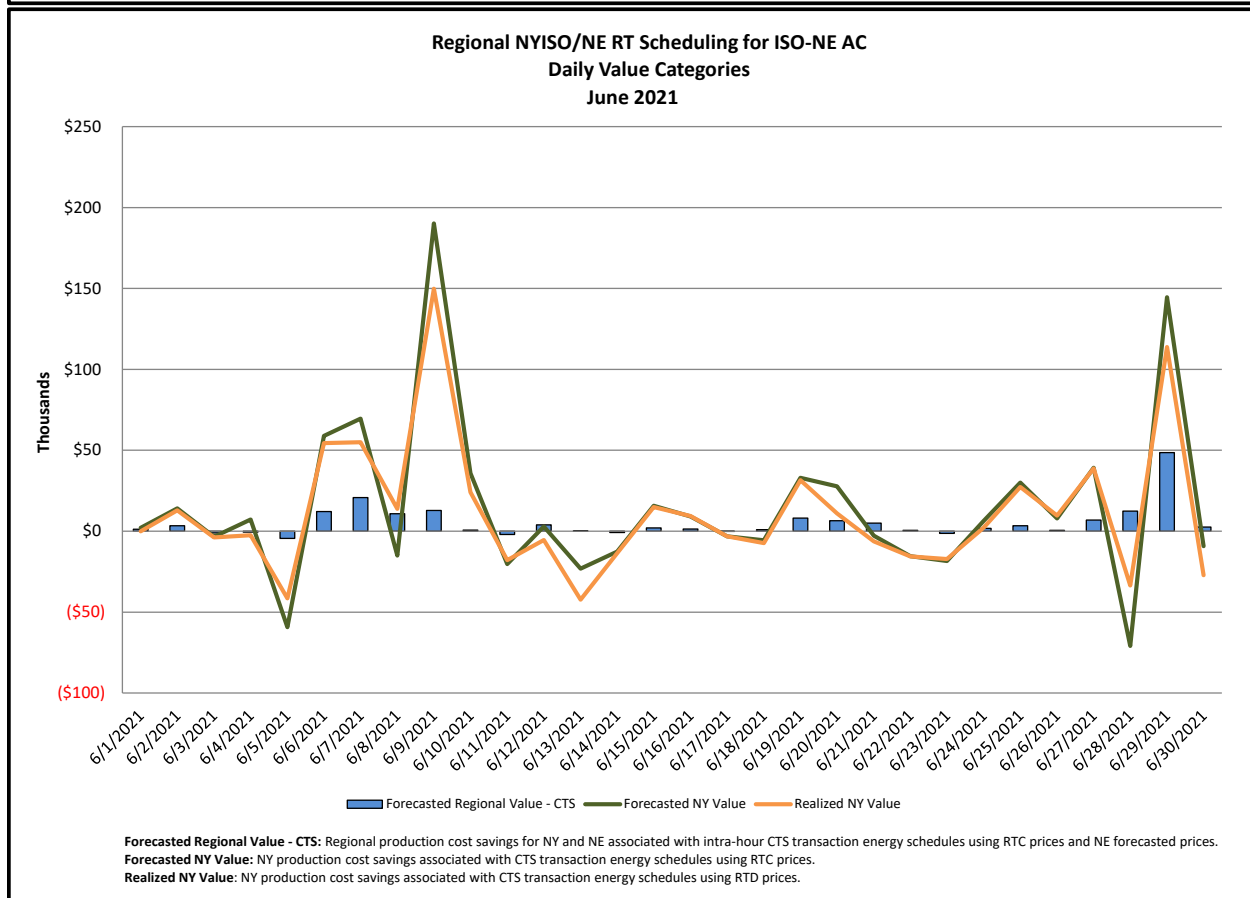
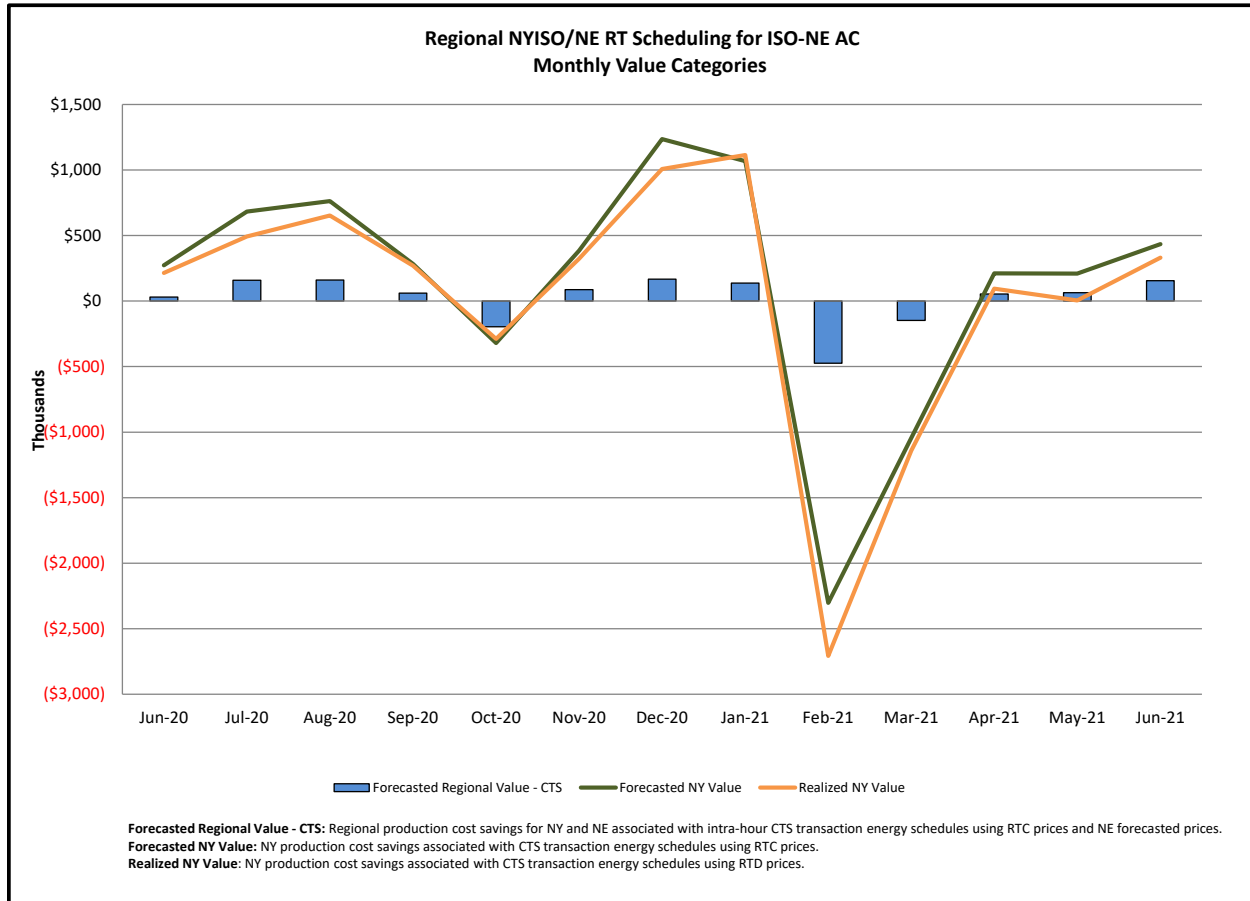
Broader Regional Market Performance Metrics



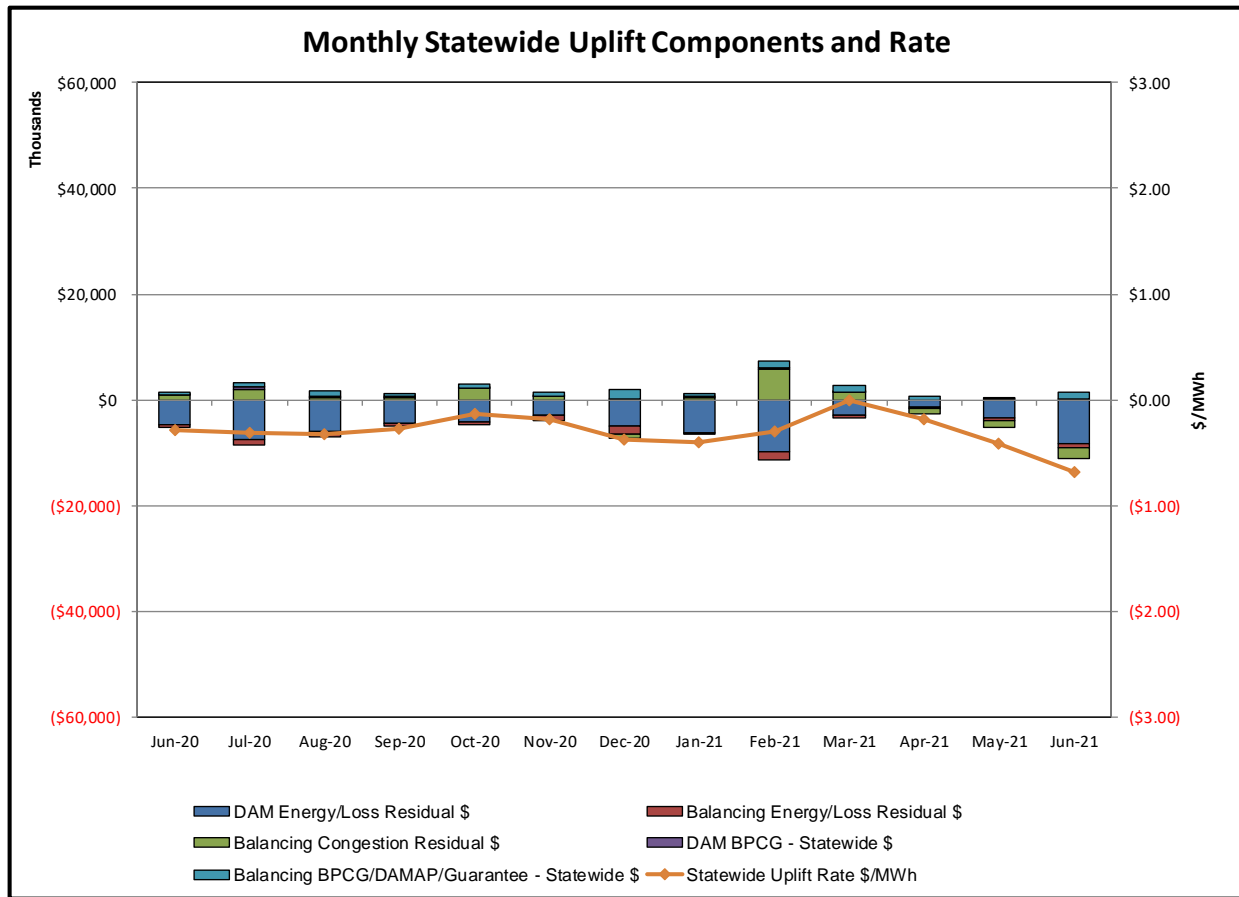
PAR Interconnection Congestion Coordination

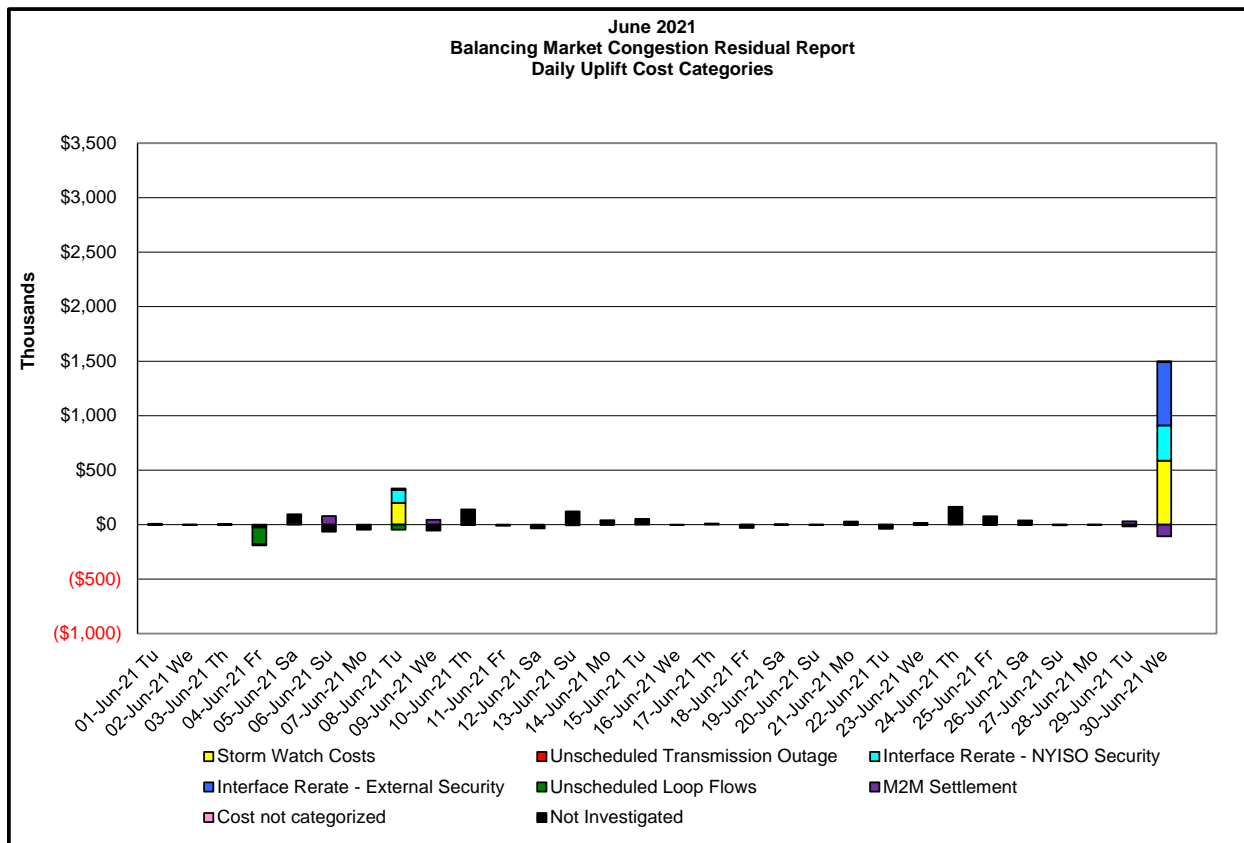
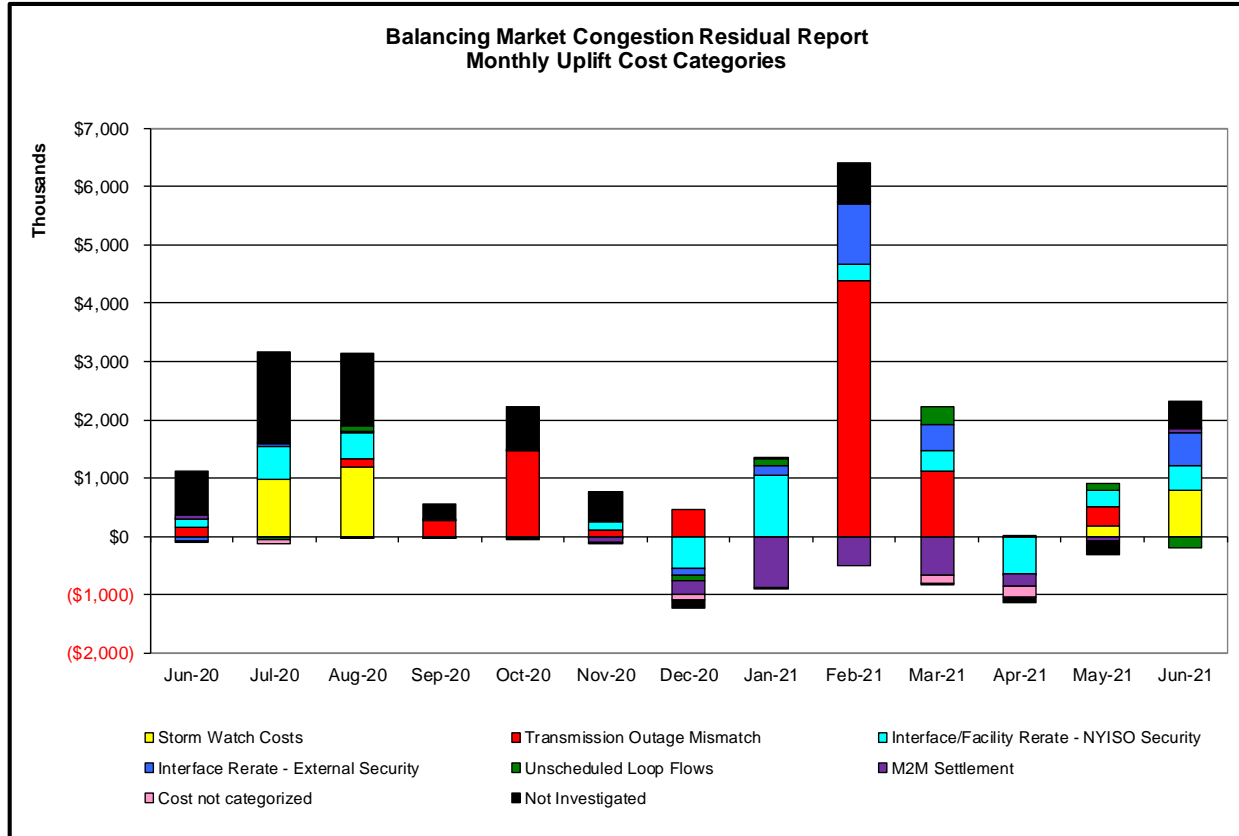
<u>Category</u>	<u>Description</u>
NY	Represents the value NY realizes from Market-to-Market PAR Coordination when experiencing congestion. This is the estimated savings to NY for additional deliveries into NY
RECO	Represents the value of PJM's obligation to deliver 80% of service to RECO load over Ramapo 5018. This is the estimated reduction in NYCA congestion due to the PJM delivery of RECO over Ramapo 5018.
M2M PAR Settlement	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

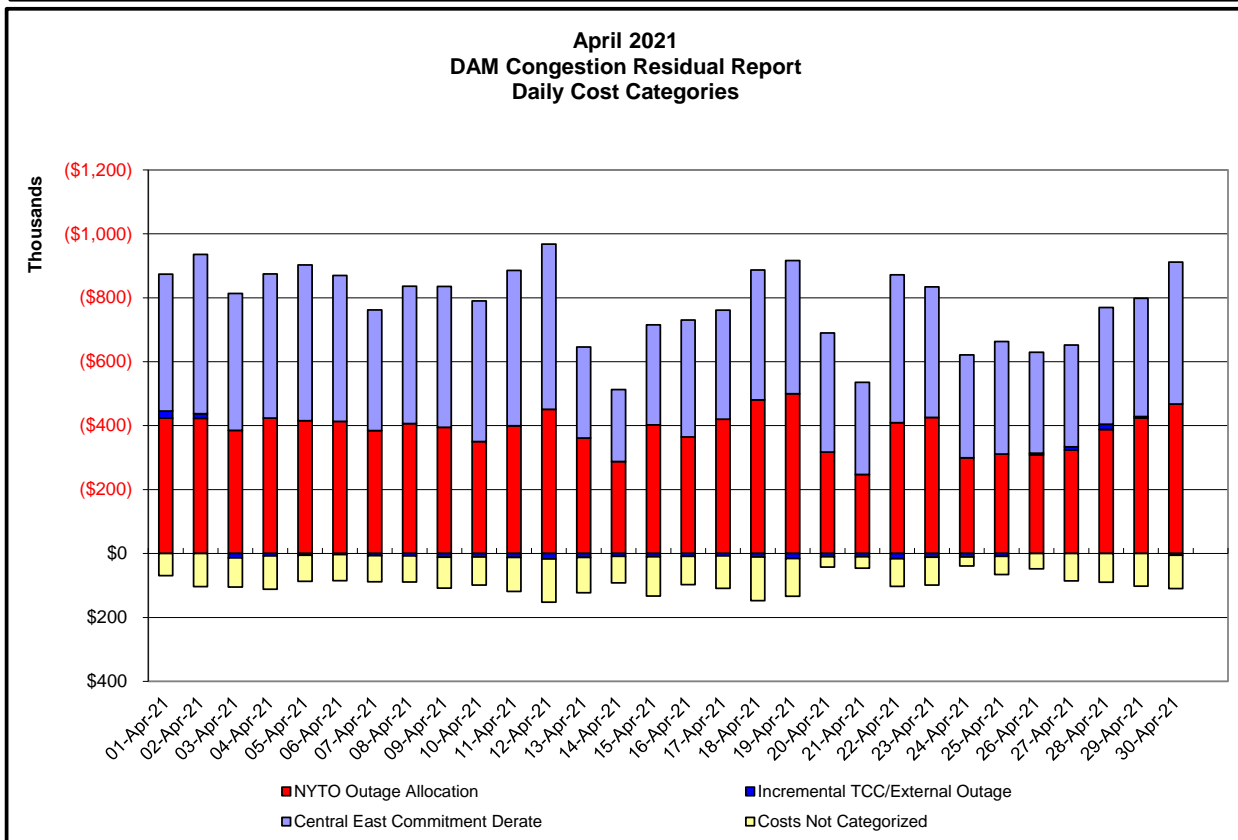
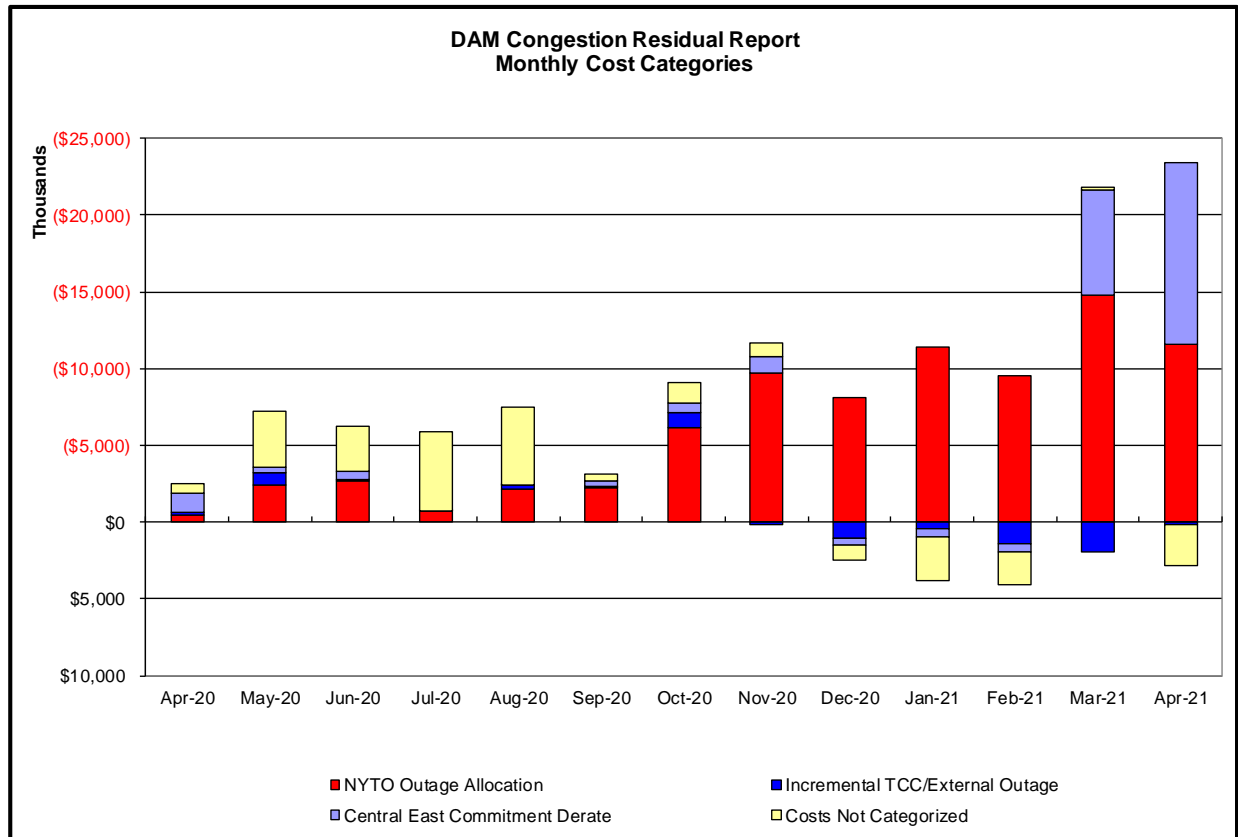




Day's investigated in June: 4, 8, 30			
Event	Date (yyyymmdd)	Hours	Description
	6/4/2021	23	Uprate Central East
	6/4/2021	16	PJM_AC DNI Ramp Limit
	6/4/2021	14-16	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	6/8/2021	14-18	Thunder Storm Alert, Buchanan North 345/138kV (Bank TA5)
	6/8/2021	14-17	Thunder Storm Alert, Chester-Shoemaker 138kV (#27)
	6/8/2021	17	NYCA DNI Ramp Limit
	6/8/2021	1, 16	Derate Adirondack-Moses 230kV (#MA1) for I/o SIN:MSU1&7040& HQ GN&LD PROXY
	6/8/2021	1, 14, 15, 18	Derate Porter-Rotterdam 230kV (#31) for I/o BUS:NSCTLD#77 14&2&93&BK2&C1&3
	6/8/2021	14-18, 22, 23	Derate Scriba-Volney 345kV (#20) I/o Scriba-Volney 345kV (#21)
	6/8/2021	9-11	Uprate East 179th Street-Hellgate 138kV (#15055)
	6/8/2021	7, 9, 10	Uprate Freshkills-Willowbrook 138kV (#29211)
	6/8/2021	11-13, 19	Uprate Freshkills-Willowbrook 138kV (#29212)
	6/8/2021	13, 19	Uprate Goethals-Gowanus 345kV (#25/#26)
	6/8/2021	9	Uprate Malone-Willis 115kV (#1-910) I/o ALCOA_PA-ALCOA 115 R8105
	6/8/2021	13, 20-23	HQ_CHAT-NY Scheduling Limit
	6/8/2021	14	NE_AC DNI Ramp Limit
	6/8/2021	11	IESO_AC DNI Ramp Limit
	6/8/2021	7-9	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	6/8/2021	13	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	6/30/2021	17-21	Thunder Storm Alert, Buchanan North 345/138kV (Bank TA5)
	6/30/2021	17-20	Thunder Storm Alert, Chester-Shoemaker 138kV (#27)
	6/30/2021	17-19	Thunder Storm Alert, Pleasant Valley-Leeds 345kV (#92)
	6/30/2021	16-22	Thunder Storm Alert, HQ Scheduling Limits, curtailment for North Zone TSA
	6/30/2021	13, 14, 16	Derate Dunwoodie-Dunwoodie South 345kV (#W73) I/o Sprainbrook-Dunwoodie South 138kV (#99942)
	6/30/2021	10-16	Derate Roseton-East Fishkill 345kV (#RFK305) I/o TWR: Y88 & Y94 & TA5
	6/30/2021	23	Derate Greenwood-Vernon 138kV (#31231) I/o TWR:GOETHALS 22 & 21
	6/30/2021	16	Derate Pleasant Valley-Leeds 345kV (#92) I/o Athens-Pleasant Valley 345kV (#91)
	6/30/2021	2, 4, 5, 6, 12-16	Derate Porter-Rotterdam 230kV (#31) for I/o TWR:EDIC EF24-40& 30
	6/30/2021	9	Uprate Freshkills-Willowbrook 138kV (#29211) Base Case
	6/30/2021	8, 9	Uprate Gowanus-Greenwood 138kV (#42231/#42232) Base Case
	6/30/2021	8	Uprate Gowanus-Greenwood 138kV (#42232) I/o TWR:GOETHALS 22 & 21
	6/30/2021	17, 20, 23	NYCA DNI Ramp Limit
	6/30/2021	23	HQ_CHAT DNI Ramp Limit
	6/30/2021	9, 16-18	NE_AC-NY Scheduling Limit

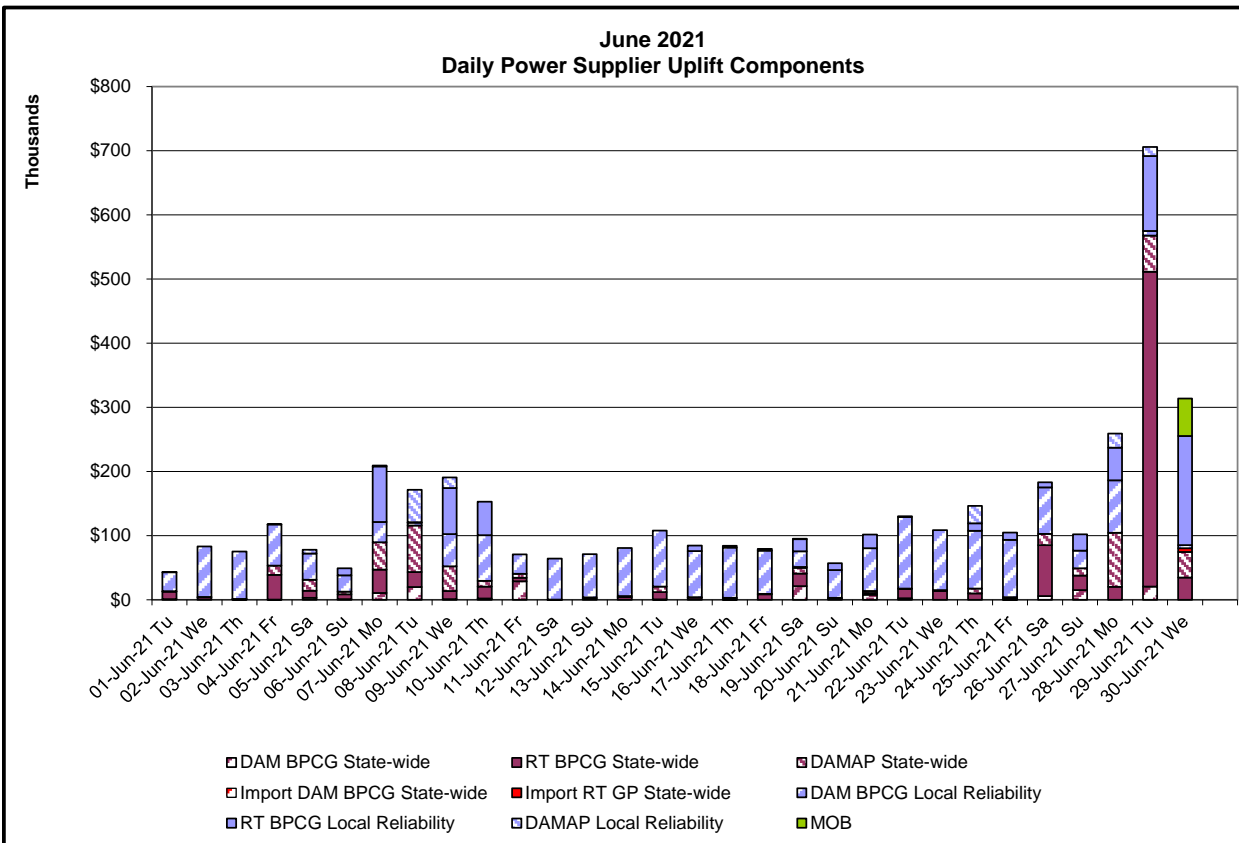
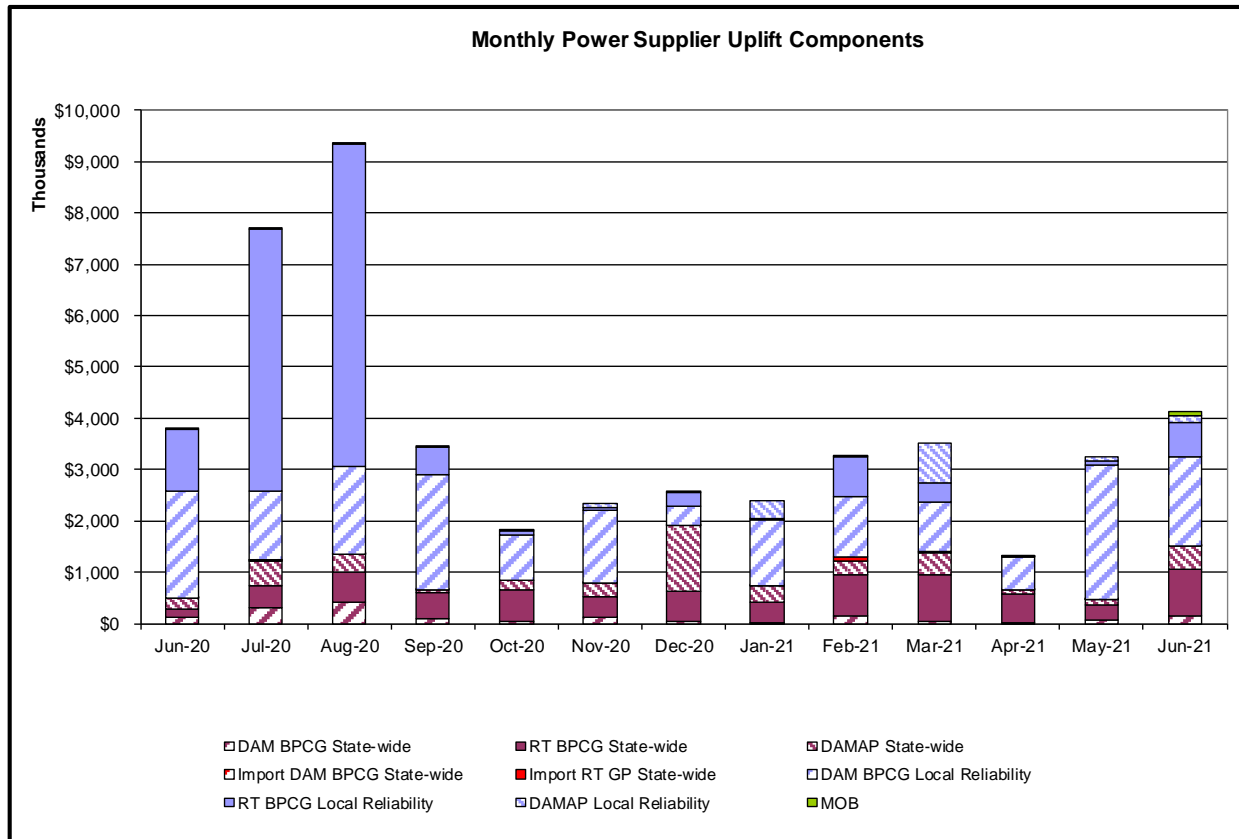
Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories

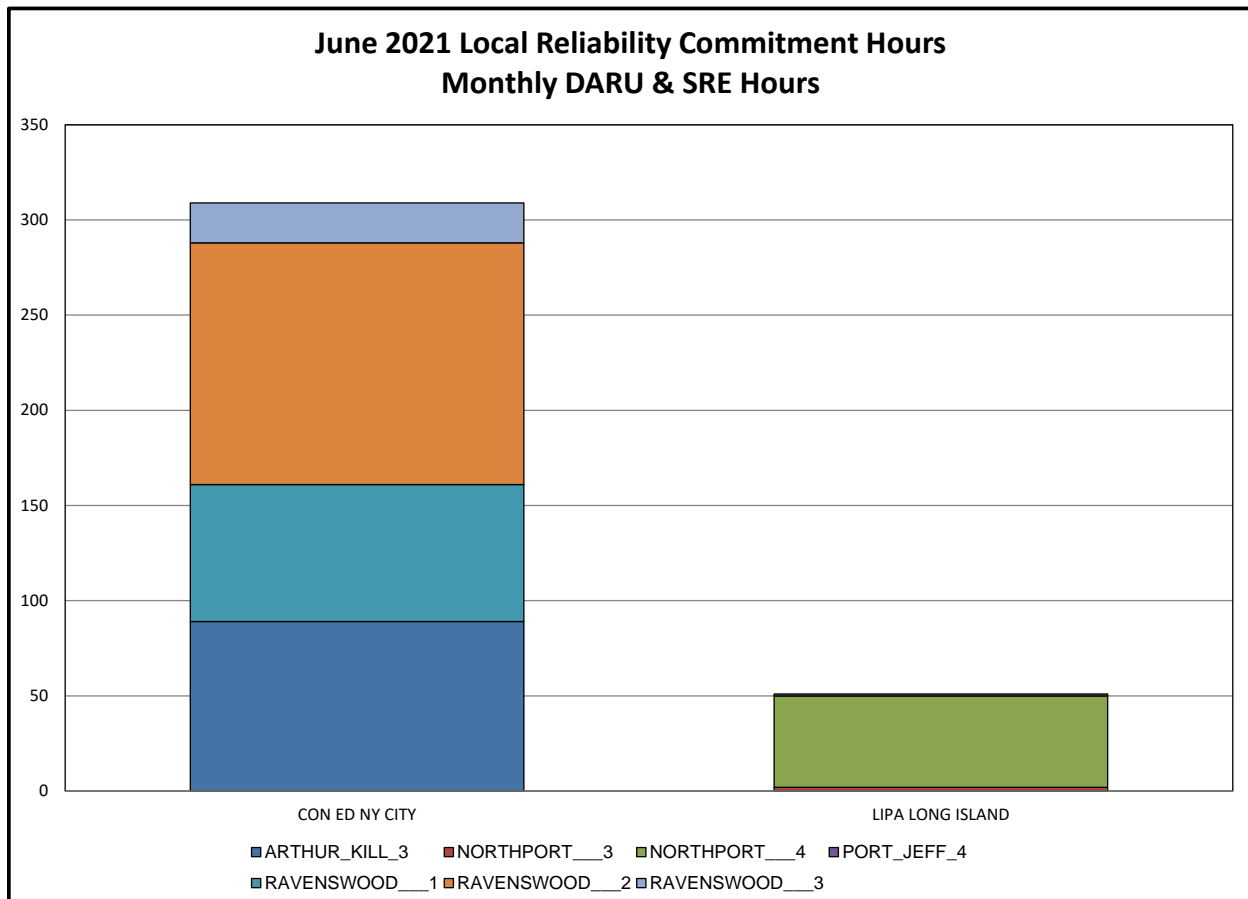
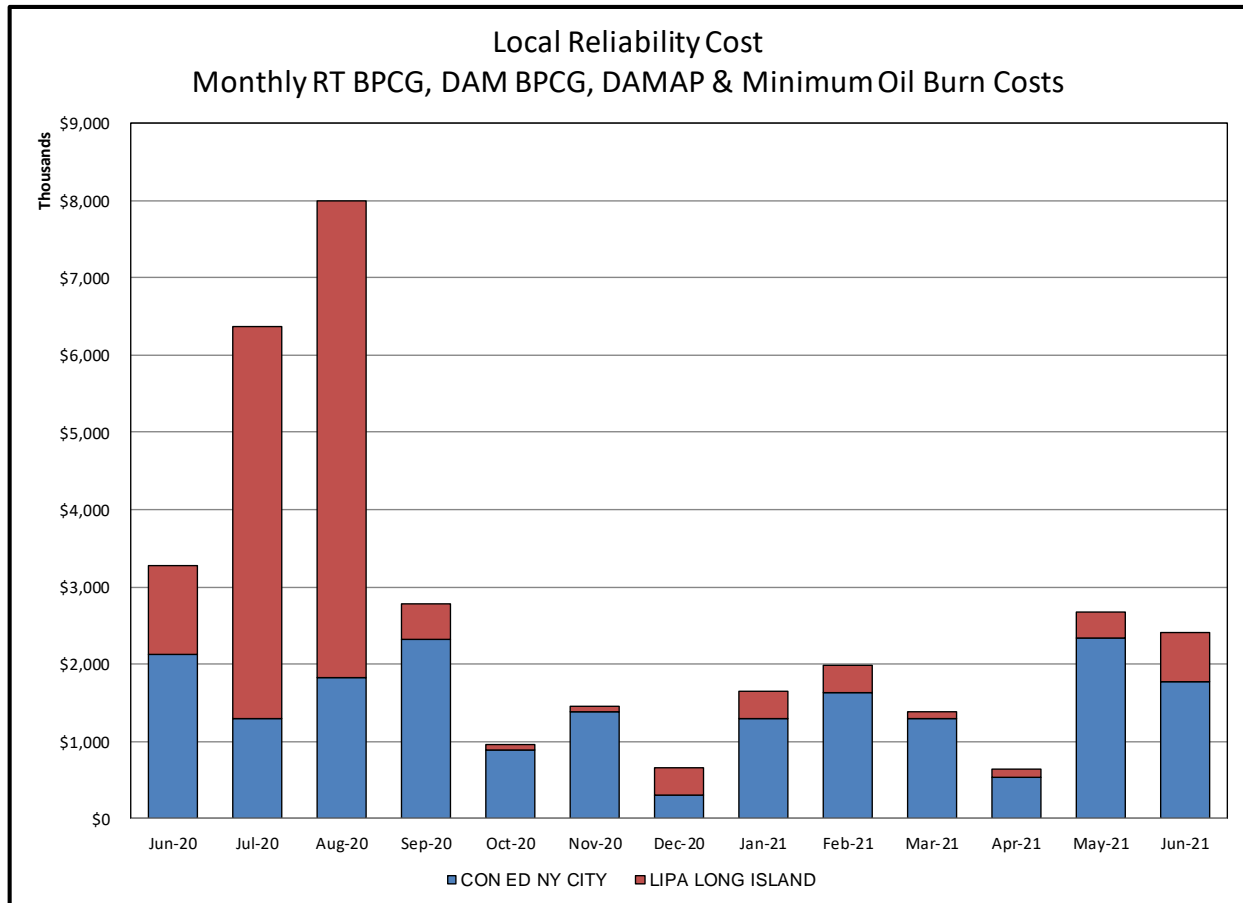
Category	Cost Assignment	Events Types	Event Examples
Storm Watch	Zone J	Thunderstorm Alert (TSA)	TSA Activations
Transmission Outage Mismatch	Market-wide	Changes in DAM to RTM transfers related to transmission outage mismatch	Forced Line Outage, Unit AVR Outages, Early Line Return from Outage
Interface/Facility 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			

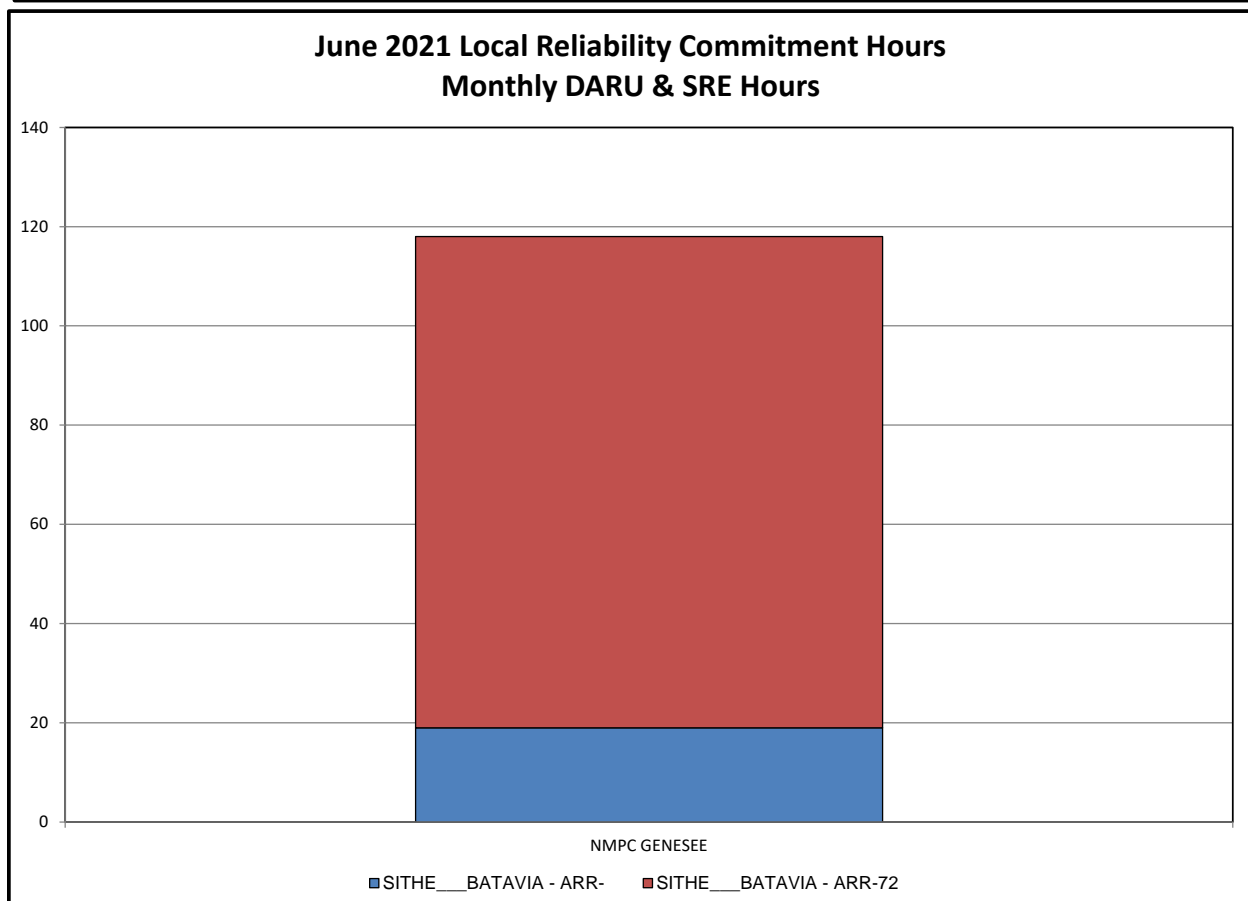
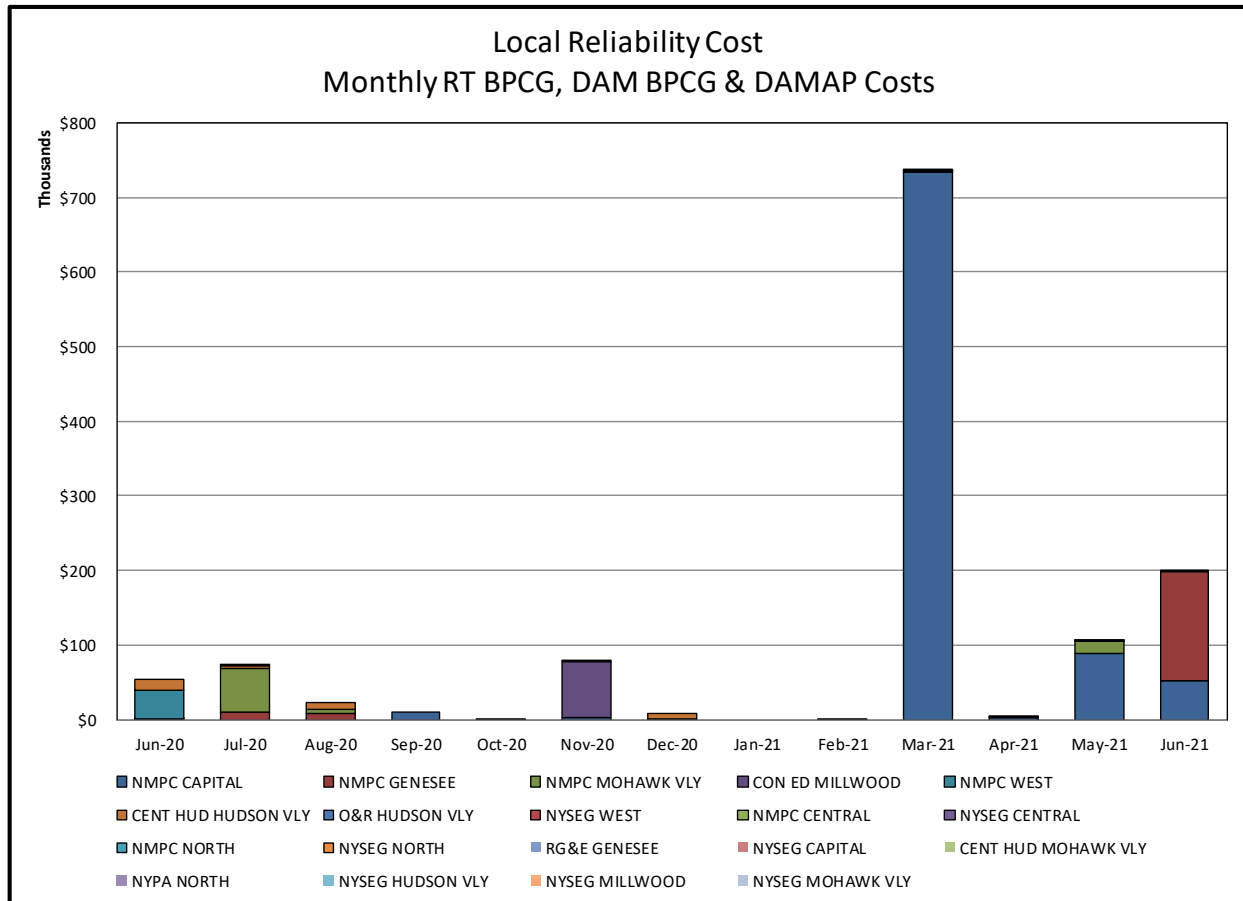


Day-Ahead Market Congestion Residual Categories

<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.	

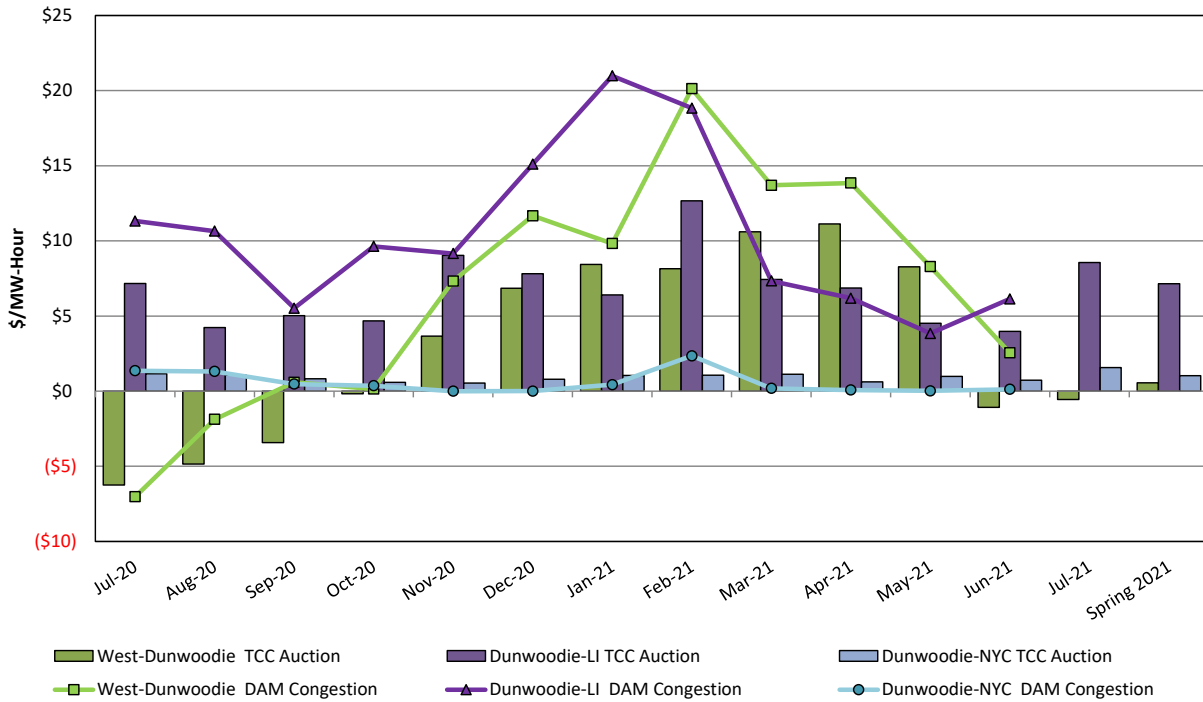






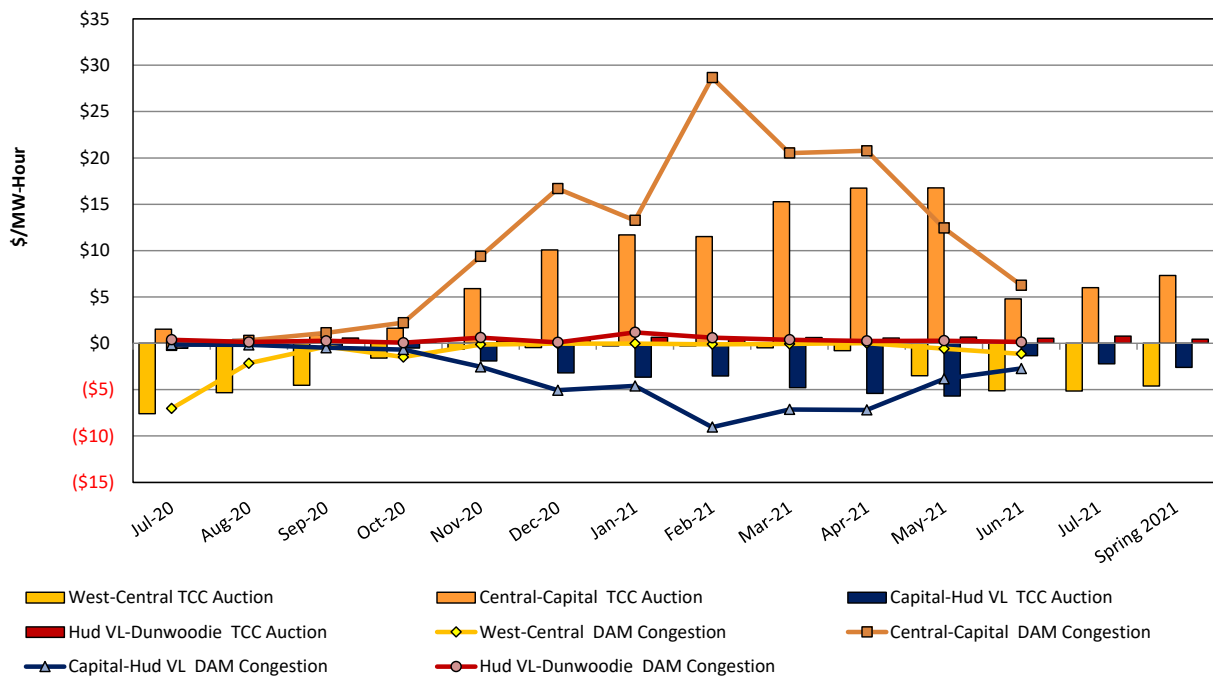
TCC & Day Ahead Market Selected Internal Path Congestion

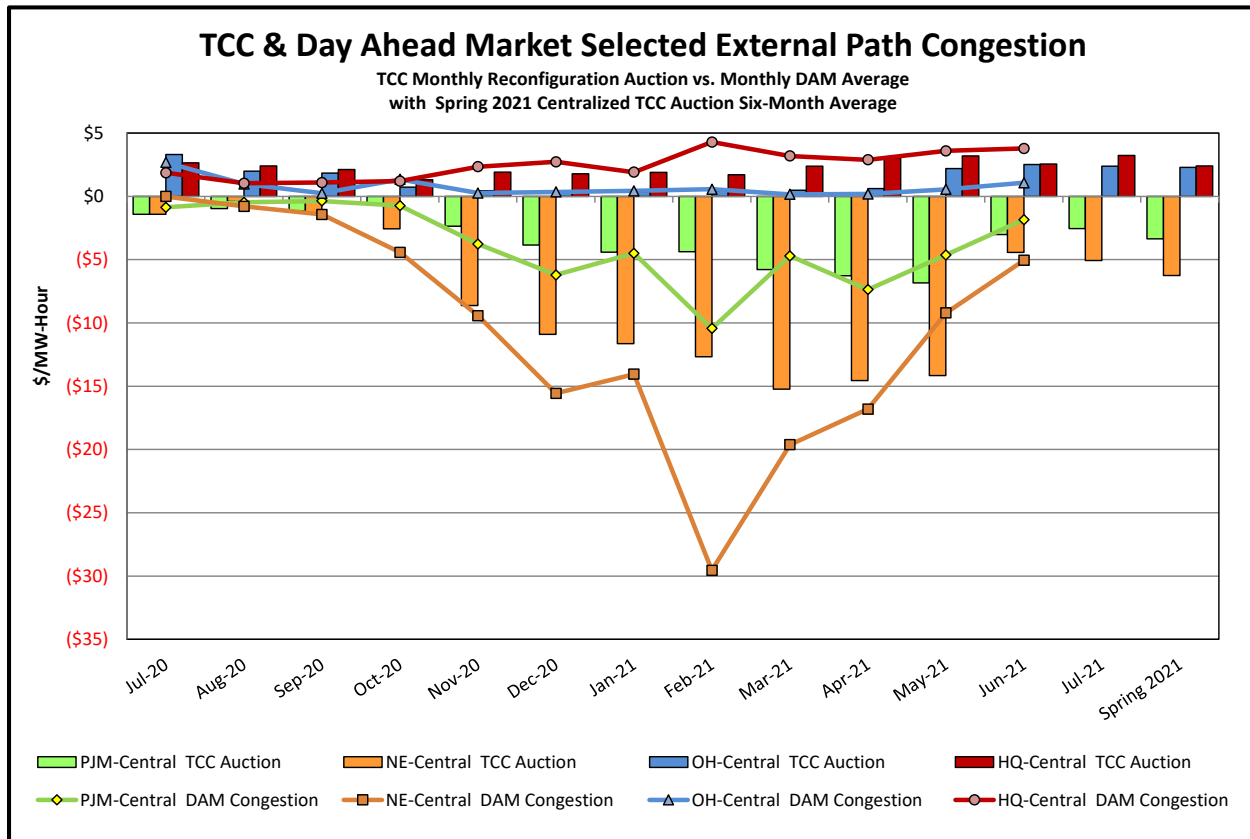
TCC Monthly Reconfiguration Auction vs. Monthly DAM Average
with Spring 2021 Centralized TCC Auction Six-Month Average



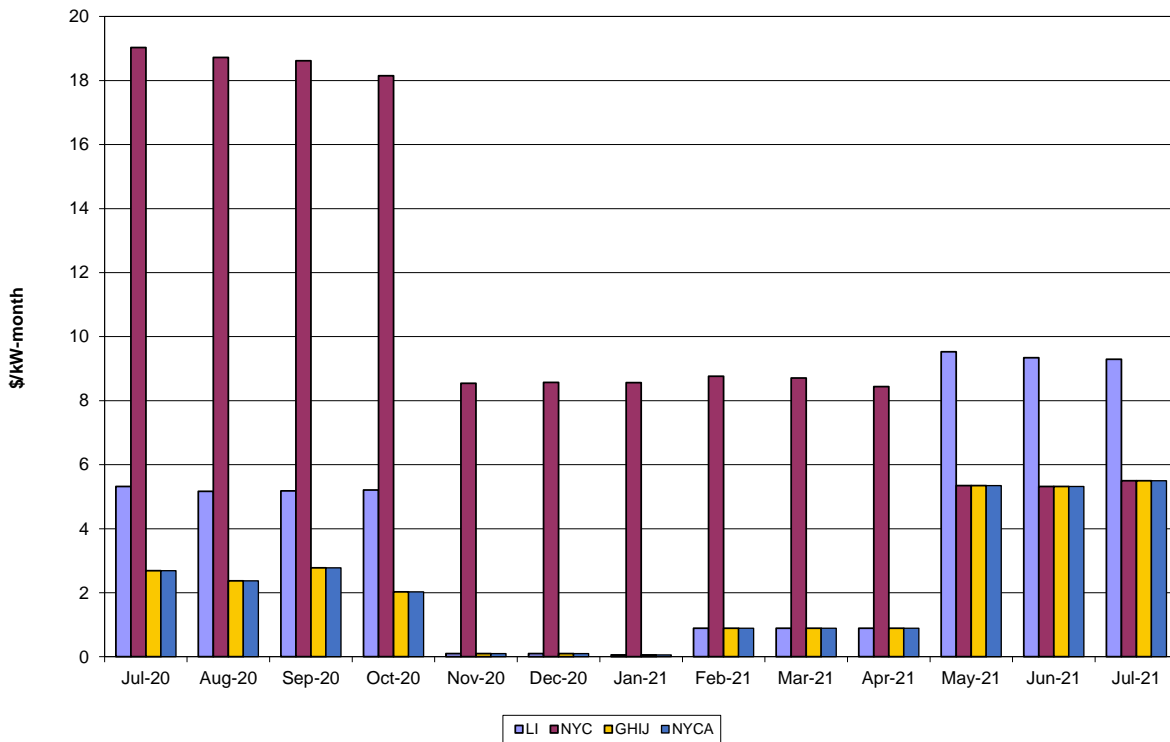
TCC & Day Ahead Market West to Dunwoodie Path Congestion

TCC Monthly Reconfiguration Auction vs. Monthly DAM Average
with Spring 2021 Centralized TCC Auction Six-Month Average

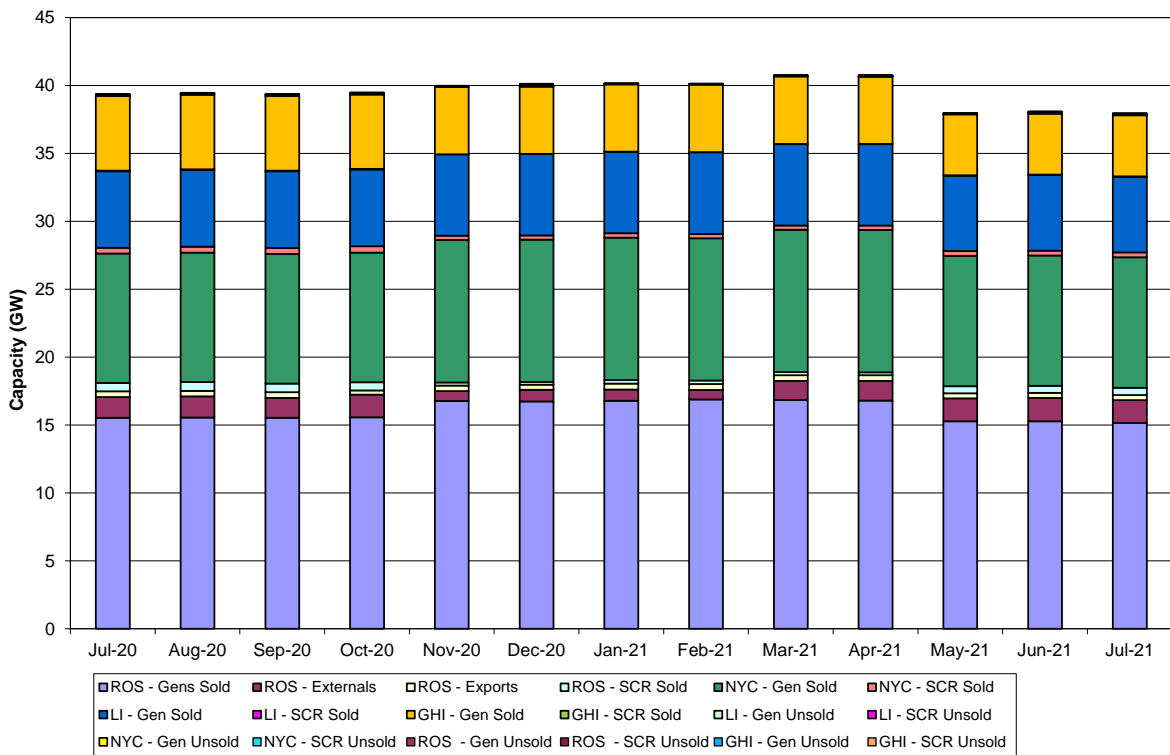




ICAP Spot Market Clearing Price



UCAP Sales

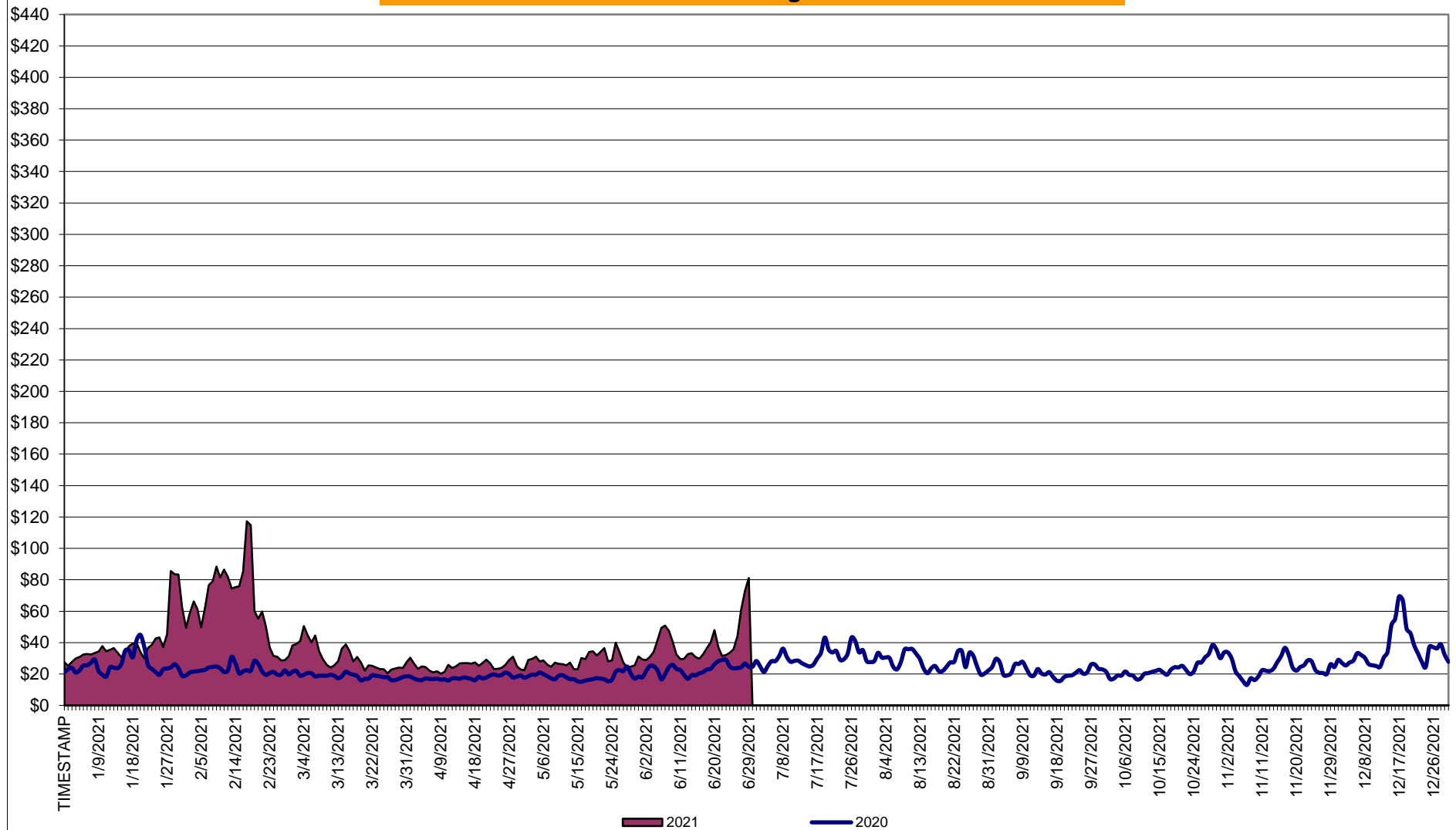


Market Performance Highlights

June 2021

- LBMP for June is \$39.37/MWh; higher than \$25.72/MWh in May 2021 and \$21.36/MWh in June 2020.
 - Day Ahead Load Weighted LBMPs and Real Time Load Weighted LBMPs are higher compared to May.
- June 2021 average year-to-date monthly cost of \$40.59/MWh is an 83% increase from \$22.21/MWh in June 2020.
- Average daily sendout is 458 GWh/day in June; higher than 365 GWh/day in May 2021 and 430 GWh/day in June 2020.
- Natural gas prices and distillate prices are higher compared to the previous month.
 - Natural Gas (Transco Z6 NY) was \$2.61/MMBtu, up from \$2.37/MMBtu in May.
 - Natural gas prices are up 81.2% year-over-year.
 - Jet Kerosene Gulf Coast was \$13.71/MMBtu, up from \$12.92/MMBtu in May.
 - Ultra Low Sulfur No.2 Diesel NY Harbor was \$15.12/MMBtu, up from \$14.39/MMBtu in May.
 - Distillate prices are up 87.9% year-over-year.
- Uplift per MWh is lower compared to the previous month.
 - Uplift (not including NYISO cost of operations) is (\$0.50)/MWh; lower than (\$0.19)/MWh in May.
 - Local Reliability Share is \$0.17/MWh, lower than \$0.22/MWh in May.
 - Statewide Share is (\$0.68)/MWh, lower than (\$0.41)/MWh in May.
 - TSA \$ per NYC MWh is \$0.90/MWh.
 - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are lower than May.

Daily NYISO Average Cost/MWh (Energy & Ancillary Services)*
2020 Annual Average \$25.70/MWh
June 2020 YTD Average \$22.21/MWh
June 2021 YTD Average \$40.59/MWh



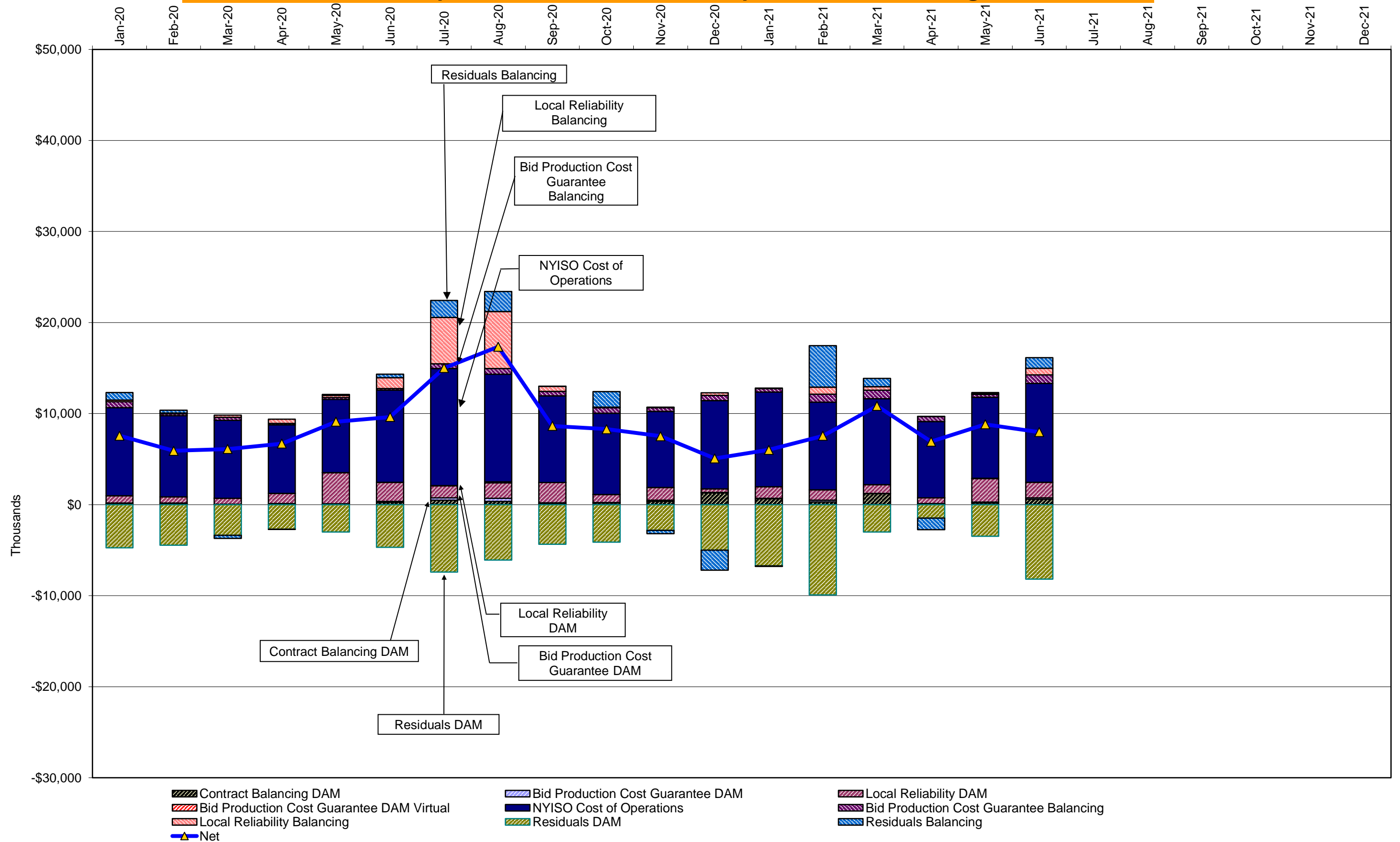
* Excludes ICAP payments.

NYISO Average Cost/MWh (Energy and Ancillary Services) *
from the LBMP Customer point of view

2021	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	37.83	63.70	28.59	22.79	25.72	39.37						
NTAC	1.35	1.20	1.26	1.54	2.09	2.05						
Reserve	0.49	0.81	0.57	0.56	0.54	0.45						
Regulation	0.07	0.13	0.09	0.10	0.08	0.07						
NYISO Cost of Operations	0.74	0.74	0.74	0.74	0.76	0.76						
FERC Fee Recovery	0.08	0.09	0.09	0.11	0.10	0.08						
Uplift	(0.31)	(0.15)	0.11	(0.12)	(0.19)	(0.50)						
Uplift: Local Reliability Share	0.09	0.15	0.11	0.06	0.22	0.17						
Uplift: Statewide Share	(0.40)	(0.30)	0.00	(0.18)	(0.41)	(0.68)						
Voltage Support and Black Start	0.43	0.43	0.43	0.44	0.44	0.44						
Avg Monthly Cost	40.61	66.87	31.81	26.06	29.45	42.65						
 Avg YTD Cost	40.69	52.99	46.57	42.41	40.10	40.59						
 TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.52	0.90						
 2020	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
LBMP	24.77	21.11	17.11	15.77	16.14	21.36	28.86	26.13	20.52	20.90	22.57	33.70
NTAC	0.91	0.70	0.86	0.91	1.05	0.95	1.24	1.03	0.78	0.84	1.05	1.35
Reserve	0.46	0.43	0.47	0.50	0.53	0.45	0.39	0.39	0.42	0.61	0.51	0.49
Regulation	0.09	0.08	0.09	0.08	0.10	0.08	0.06	0.07	0.09	0.11	0.09	0.08
NYISO Cost of Operations	0.68	0.69	0.68	0.66	0.71	0.74	0.76	0.75	0.74	0.73	0.69	0.70
FERC Fee Recovery	0.08	0.09	0.09	0.10	0.11	0.09	0.06	0.07	0.09	0.10	0.10	0.08
Uplift	(0.15)	(0.23)	(0.19)	(0.08)	0.09	(0.05)	0.07	0.17	(0.07)	(0.05)	(0.07)	(0.33)
Uplift: Local Reliability Share	0.07	0.06	0.07	0.14	0.32	0.24	0.38	0.50	0.22	0.08	0.12	0.05
Uplift: Statewide Share	(0.22)	(0.29)	(0.26)	(0.21)	(0.23)	(0.29)	(0.31)	(0.33)	(0.28)	(0.13)	(0.19)	(0.38)
Voltage Support and Black Start	0.44	0.44	0.44	0.43	0.45	0.45	0.46	0.46	0.45	0.45	0.44	0.45
Avg Monthly Cost	27.29	23.32	19.55	18.38	19.16	24.09	31.91	29.07	23.03	23.70	25.40	36.52
 Avg YTD Cost	27.29	25.40	23.48	22.38	21.82	22.21	24.11	24.88	24.69	24.62	24.68	25.70
 TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00	0.04	0.18	0.54	0.00	0.00	0.00	0.00

* Excludes ICAP payments.
Market Mitigation and Analysis
Prepared: 7/9/2021 4:14 PM

NYISO Dollar Flows - Uplift - OATT Schedule 1 components - Data through June 30, 2021



DAM Contract Balancing amounts are for payments made to generating units to make them whole for being dispatched below their Day-Ahead schedule, as a result of out-of-merit dispatches.

DAM Bid Production Cost Guarantees for Virtual Transactions are included in the chart and are shown from the inception of Virtual Transactions. These values are small and cannot be identified on the chart.

DAM residuals consist of both energy and loss revenue collections and payments. By design, there is a net over collection of revenues due to the difference between the marginal losses paid to generation and the average losses charged to loads.

NYISO Markets Transactions

<u>2021</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Day Ahead Market MWh</u>	14,108,848	13,325,329	12,843,278	11,204,262	11,854,214	14,120,662						
DAM LSE Internal LBMP Energy Sales	60%	59%	56%	55%	56%	61%						
DAM External TC LBMP Energy Sales	5%	4%	3%	2%	2%	3%						
DAM Bilateral - Internal Bilaterals	31%	30%	32%	35%	35%	29%						
DAM Bilateral - Import/Non-LBMP Market Bilaterals	1%	4%	4%	5%	4%	4%						
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%	1%						
DAM Bilateral - Wheel Through Bilaterals	2%	2%	3%	2%	2%	2%						
<u>Balancing Energy Market MWh</u>	29,179	-308,157	-70,279	30,603	-36,350	247,874						
Balancing Energy LSE Internal LBMP Energy Sales	-215%	-151%	-367%	-456%	-398%	53%						
Balancing Energy External TC LBMP Energy Sales	374%	59%	365%	578%	440%	60%						
Balancing Energy Bilateral - Internal Bilaterals	49%	4%	27%	34%	0%	-1%						
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%						
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	50%	5%	32%	34%	21%	5%						
Balancing Energy Bilateral - Wheel Through Bilaterals	-158%	-17%	-158%	-90%	-163%	-17%						
<u>Transactions Summary</u>												
LBMP	65%	62%	59%	57%	58%	65%						
Internal Bilaterals	31%	31%	33%	35%	35%	29%						
Import Bilaterals	1%	4%	4%	5%	4%	3%						
Export Bilaterals	2%	2%	2%	2%	2%	2%						
Wheels Through	2%	2%	2%	2%	2%	1%						
<u>Market Share of Total Load</u>												
Day Ahead Market	99.8%	102.4%	100.6%	99.7%	100.3%	98.3%						
Balancing Energy +	0.2%	-2.4%	-0.6%	0.3%	-0.3%	1.7%						
Total MWH	14,138,027	13,017,172	12,772,999	11,234,865	11,817,864	14,368,536						
Average Daily Energy Sendout/Month GWh	427	434	381	354	365	458						

<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Day Ahead Market MWh</u>	14,194,609	13,172,669	12,495,999	11,372,390	11,462,320	13,825,178	16,629,337	15,671,629	13,122,542	12,338,638	12,157,281	13,748,181
DAM LSE Internal LBMP Energy Sales	56%	56%	59%	54%	55%	58%	65%	63%	60%	56%	57%	59%
DAM External TC LBMP Energy Sales	6%	5%	5%	7%	4%	3%	2%	4%	4%	5%	5%	5%
DAM Bilateral - Internal Bilaterals	30%	30%	27%	30%	31%	29%	26%	27%	30%	32%	33%	31%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	6%	6%	6%	5%	3%	3%	2%	3%	3%	2%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	0%	2%
<u>Balancing Energy Market MWh</u>	-26,753	-142,168	144,076	22,599	-137,565	-180,149	403,914	212,307	-173,115	-89,451	-54,598	156,891
Balancing Energy LSE Internal LBMP Energy Sales	-1080%	-221%	-85%	-884%	-187%	-134%	85%	99%	-95%	-220%	-459%	-12%
Balancing Energy External TC LBMP Energy Sales	1156%	181%	240%	1233%	137%	99%	35%	43%	104%	187%	382%	107%
Balancing Energy Bilateral - Internal Bilaterals	62%	5%	12%	55%	12%	7%	2%	1%	0%	4%	3%	7%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	9%	6%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	127%	16%	18%	92%	12%	5%	2%	4%	7%	17%	33%	11%
Balancing Energy Bilateral - Wheel Through Bilaterals	-365%	-81%	-85%	-396%	-74%	-77%	-24%	-46%	-116%	-107%	-69%	-19%
<u>Transactions Summary</u>												
LBMP	62%	62%	65%	61%	59%	62%	68%	67%	64%	61%	62%	64%
Internal Bilaterals	31%	31%	27%	30%	32%	30%	26%	27%	31%	32%	33%	31%
Import Bilaterals	5%	5%	6%	6%	6%	5%	3%	3%	2%	3%	3%	2%
Export Bilaterals	2%	2%	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%
Wheels Through	0%	1%	0%	0%	0%	1%	1%	1%	1%	2%	0%	2%
<u>Market Share of Total Load</u>												
Day Ahead Market	100.2%	101.1%	98.9%	99.8%	101.2%	101.3%	97.6%	98.7%	101.3%	100.7%	100.5%	98.9%
Balancing Energy +	-0.2%	-1.1%	1.1%	0.2%	-1.2%	-1.3%	2.4%	1.3%	-1.3%	-0.7%	-0.5%	1.1%
Total MWH	14,167,856	13,030,501	12,640,075	11,394,989	11,324,755	13,645,029	17,033,251	15,883,935	12,949,426	12,249,187	12,102,682	13,905,071
Average Daily Energy Sendout/Month GWh	423	417	375	344	345	430	530	489	408	367	377	417

+ Balancing Energy: Load(MW) purchased at Real Time LBMP.

* The signs for the detail section intuitively reflect the direction of power flow eliminating the use of double negatives when Balancing Energy is negative.

Notes: Percent totals may not equal 100% due to rounding.

Virtual Transactions are not reflected in this chart.

NYISO Markets 2021 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>DAY AHEAD LBMP</u>												
Price *	\$34.37	\$57.30	\$27.47	\$20.46	\$22.95	\$33.36						
Standard Deviation	\$14.58	\$24.48	\$8.23	\$4.58	\$6.28	\$15.88						
Load Weighted Price **	\$35.31	\$58.67	\$28.12	\$20.81	\$23.75	\$36.28						
<u>RTC LBMP</u>												
Price *	\$34.32	\$49.25	\$25.59	\$21.30	\$25.36	\$39.69						
Standard Deviation	\$20.93	\$23.34	\$12.67	\$7.91	\$11.17	\$34.08						
Load Weighted Price **	\$35.40	\$50.48	\$26.37	\$21.67	\$26.50	\$44.41						
<u>REAL TIME LBMP</u>												
Price *	\$34.59	\$48.22	\$28.06	\$21.10	\$24.62	\$36.58						
Standard Deviation	\$29.47	\$26.46	\$26.13	\$10.07	\$10.91	\$25.43						
Load Weighted Price **	\$35.89	\$49.57	\$29.33	\$21.55	\$25.78	\$40.76						
Average Daily Energy Sendout/Month GWh	427	434	381	354	365	458						

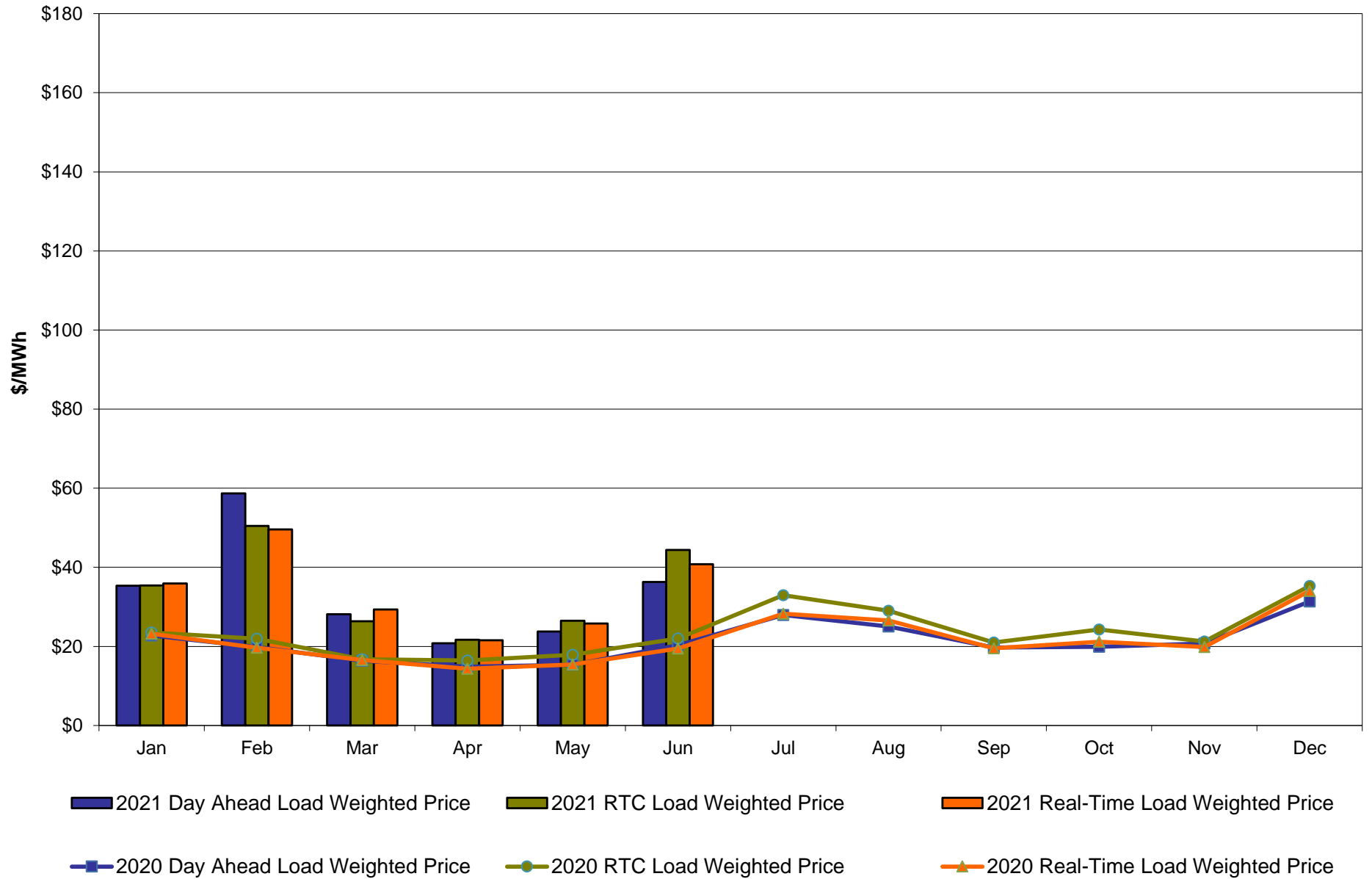
NYISO Markets 2020 Energy Statistics

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>DAY AHEAD LBMP</u>												
Price *	\$22.11	\$19.48	\$16.07	\$14.67	\$14.97	\$19.15	\$26.30	\$23.61	\$18.88	\$19.40	\$20.07	\$30.45
Standard Deviation	\$7.43	\$4.45	\$3.21	\$2.71	\$3.55	\$6.40	\$10.45	\$8.56	\$5.41	\$6.36	\$7.15	\$12.35
Load Weighted Price **	\$22.77	\$19.84	\$16.36	\$14.86	\$15.37	\$20.28	\$27.94	\$25.01	\$19.72	\$19.91	\$20.75	\$31.36
<u>RTC LBMP</u>												
Price *	\$22.86	\$21.48	\$16.48	\$16.23	\$17.46	\$20.84	\$30.70	\$26.86	\$19.90	\$23.35	\$20.39	\$34.01
Standard Deviation	\$9.33	\$53.30	\$4.84	\$5.17	\$8.61	\$11.26	\$17.92	\$17.17	\$11.37	\$14.44	\$14.19	\$25.41
Load Weighted Price **	\$23.50	\$21.94	\$16.74	\$16.44	\$17.89	\$22.01	\$32.92	\$29.01	\$20.99	\$24.25	\$21.23	\$35.28
<u>REAL TIME LBMP</u>												
Price *	\$22.53	\$19.29	\$16.24	\$14.14	\$14.90	\$18.35	\$26.56	\$24.68	\$18.63	\$20.44	\$18.96	\$32.72
Standard Deviation	\$11.90	\$8.68	\$7.48	\$6.98	\$8.35	\$9.33	\$16.45	\$13.95	\$7.15	\$12.01	\$12.66	\$24.29
Load Weighted Price **	\$23.20	\$19.68	\$16.58	\$14.35	\$15.42	\$19.46	\$28.27	\$26.53	\$19.54	\$21.15	\$19.84	\$34.04
Average Daily Energy Sendout/Month GWh	423	417	375	344	345	430	530	489	408	367	377	417

* Average zonal load weighted prices.

** Average zonal load weighted prices, load weighted in each hour.

NYISO Monthly Average Internal LBMPs 2020 - 2021

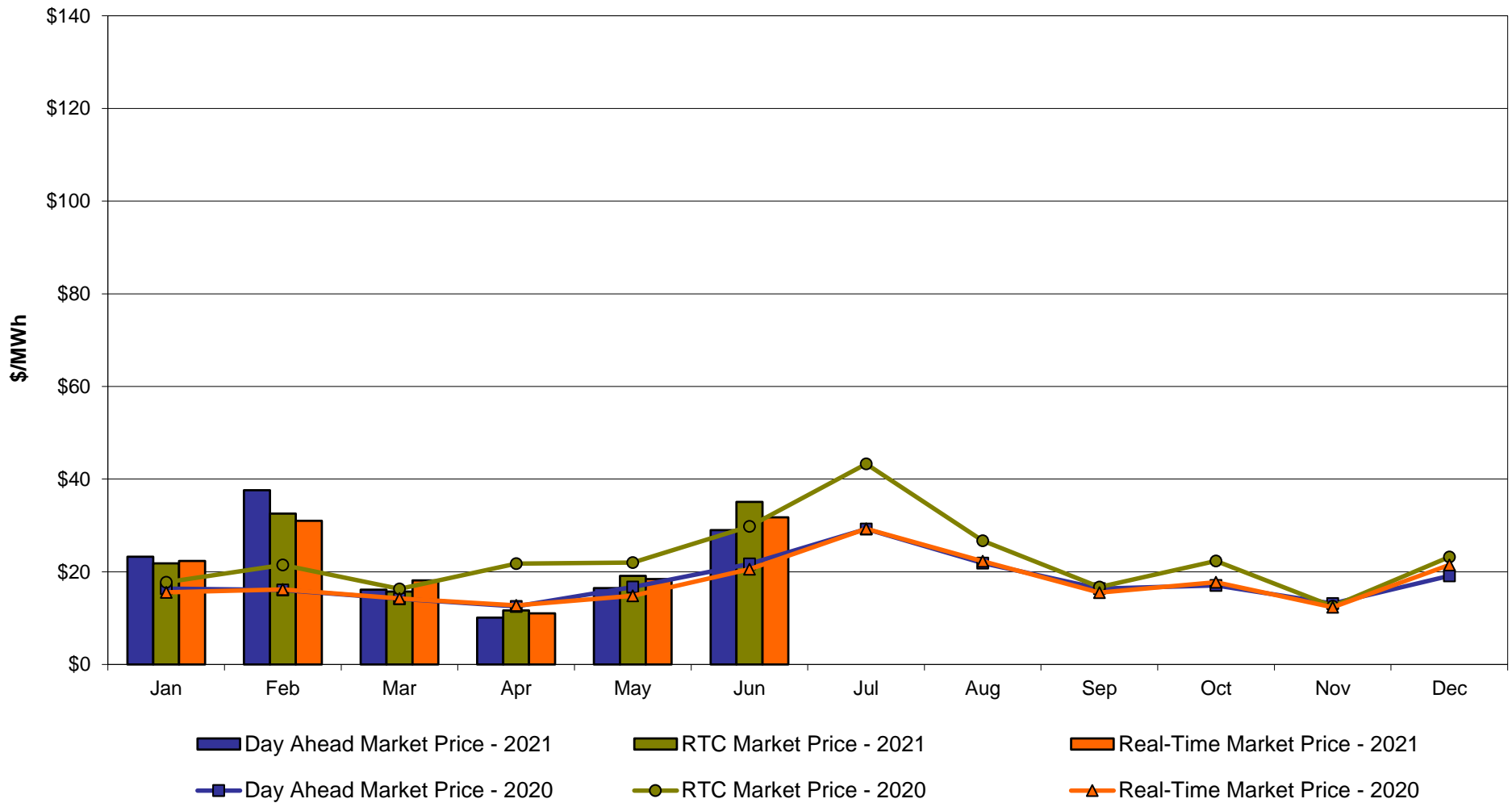


June 2021 Zonal LBMP Statistics for NYISO (\$/MWh)

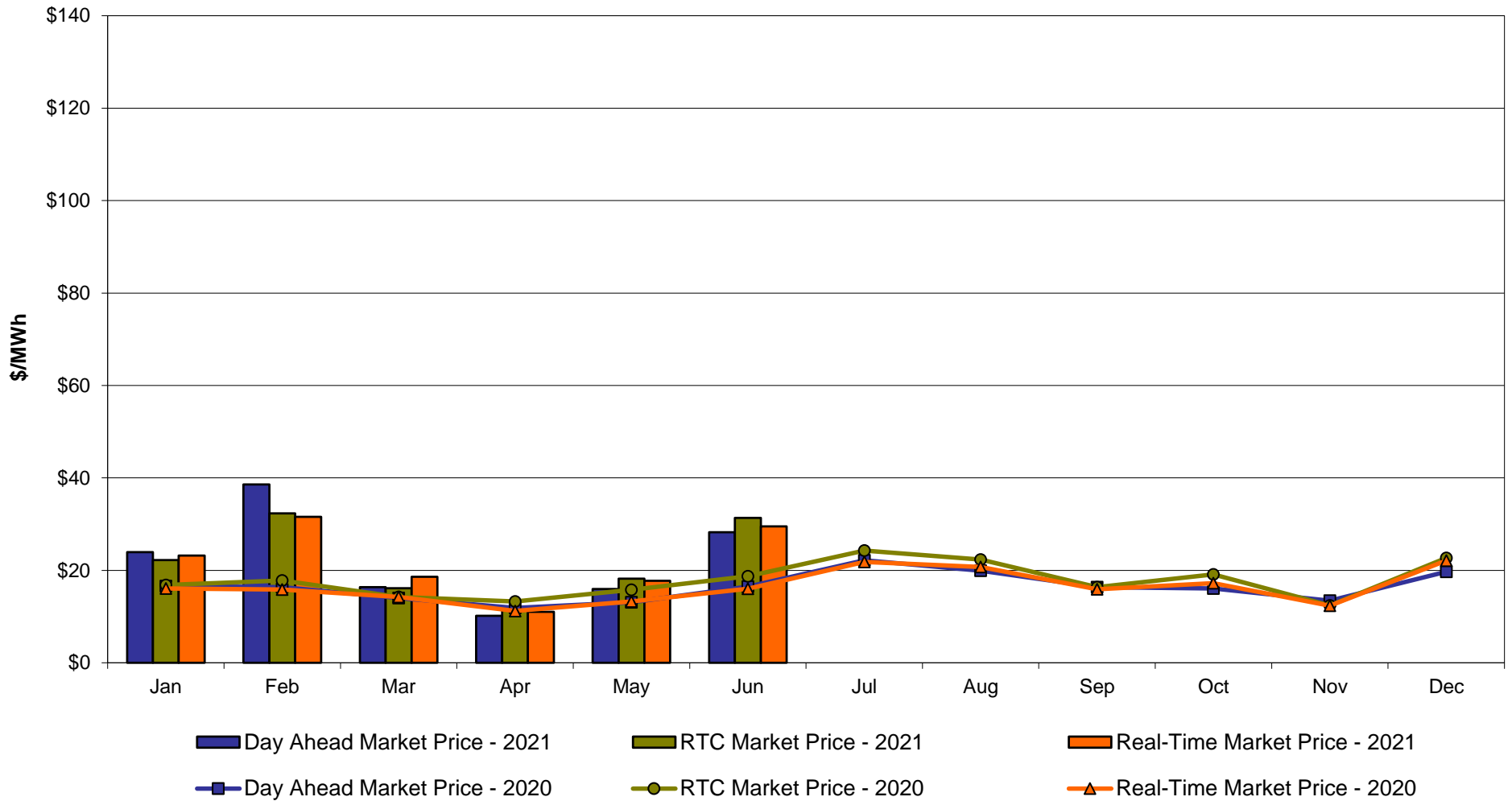
	<u>WEST Zone A</u>	<u>GENESEE Zone B</u>	<u>NORTH Zone D</u>	<u>CENTRAL Zone C</u>	<u>MOHAWK VALLEY Zone E</u>	<u>CAPITAL Zone F</u>	<u>HUDSON VALLEY Zone G</u>	<u>MILLWOOD Zone H</u>	<u>DUNWOODIE Zone I</u>	<u>NEW YORK CITY Zone J</u>	<u>LONG ISLAND Zone K</u>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	28.97	27.47	15.65	28.27	27.88	36.38	34.04	34.47	34.58	34.84	41.23
Standard Deviation	14.54	12.68	12.02	13.28	13.71	15.97	14.58	15.05	15.09	15.16	25.54
<u>RTC LBMP</u>											
Unweighted Price *	35.11	30.22	23.23	31.34	31.44	41.17	37.03	40.72	39.84	40.03	56.47
Standard Deviation	46.80	25.88	29.21	27.17	27.03	31.42	26.84	41.86	33.50	32.91	95.40
<u>REAL TIME LBMP</u>											
Unweighted Price *	31.74	28.79	20.60	29.52	29.79	39.74	35.93	39.20	38.35	38.71	45.30
Standard Deviation	32.15	20.18	32.67	20.76	21.29	28.26	22.46	36.58	29.09	29.12	37.37
	<u>ONTARIO IESO Zone O</u>	<u>HYDRO QUEBEC (Wheel) Zone M</u>	<u>HYDRO QUEBEC (Import/Export) Zone M</u>	<u>PJM Zone P</u>	<u>NEW ENGLAND Zone N</u>	<u>CROSS SOUND CABLE Controllable Line</u>	<u>NORTHPORT- NORWALK Controllable Line</u>	<u>NEPTUNE Controllable Line</u>	<u>LINDEN VFT Controllable Line</u>	<u>HUDSON Controllable Line</u>	<u>Dennison Controllable Line</u>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	25.94	23.29	23.29	30.99	34.93	42.48	35.85	37.78	33.14	34.53	15.96
Standard Deviation	11.85	11.86	11.86	13.29	16.19	29.52	14.12	15.94	11.27	15.00	11.44
<u>RTC LBMP</u>											
Unweighted Price *	27.85	24.92	24.92	34.09	38.44	56.65	53.15	53.79	38.52	39.28	25.81
Standard Deviation	21.51	26.08	26.08	25.96	29.74	95.86	93.61	94.01	30.78	31.98	32.72
<u>REAL TIME LBMP</u>											
Unweighted Price *	27.24	23.11	23.11	32.71	36.93	45.50	36.92	43.15	37.59	38.08	22.77
Standard Deviation	17.77	27.68	27.68	20.44	24.54	38.15	54.82	34.75	27.51	28.49	36.61

* Straight LBMP averages

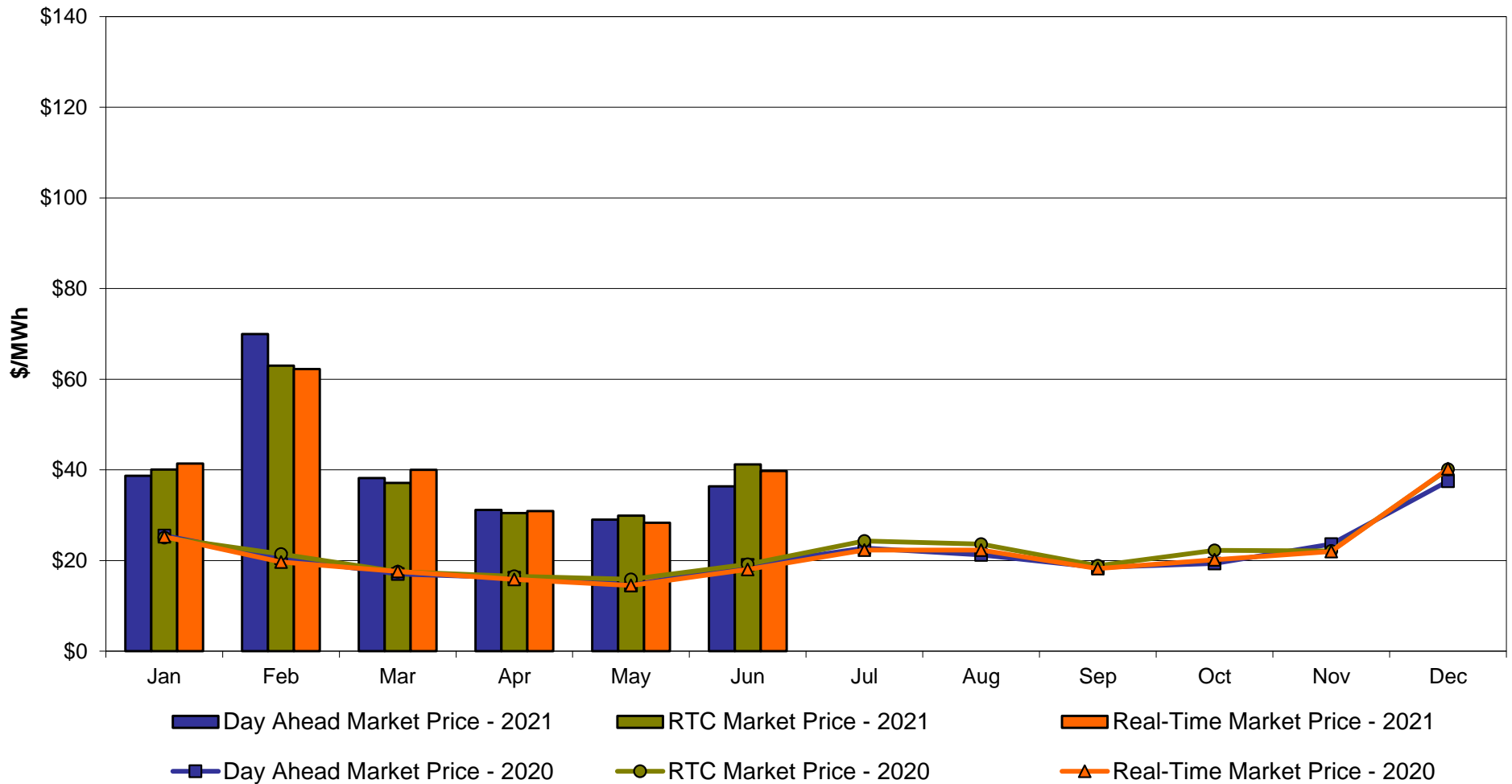
West Zone A **Monthly Average LBMP Prices 2020 - 2021**



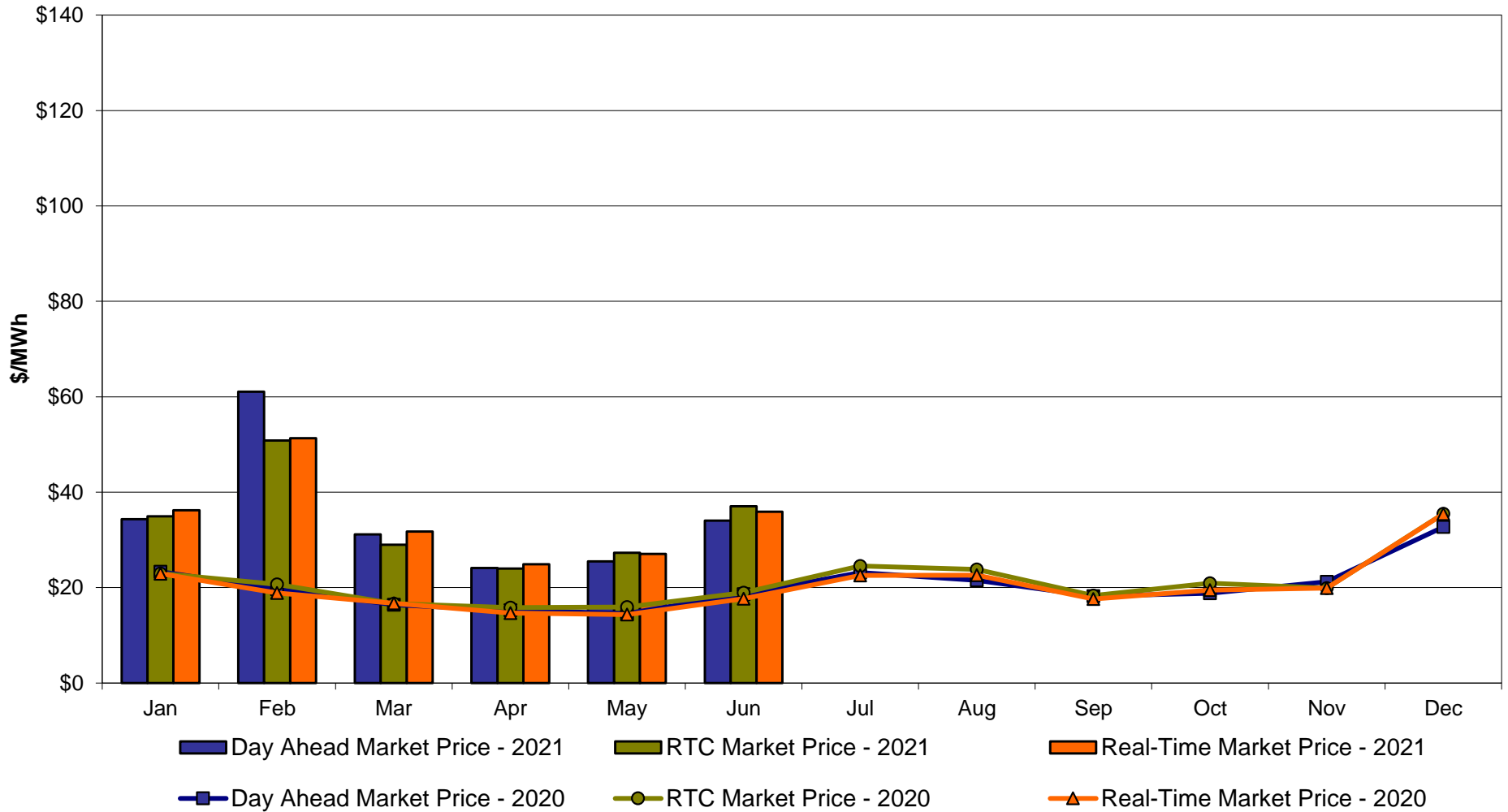
Central Zone C Monthly Average LBMP Prices 2020 - 2021



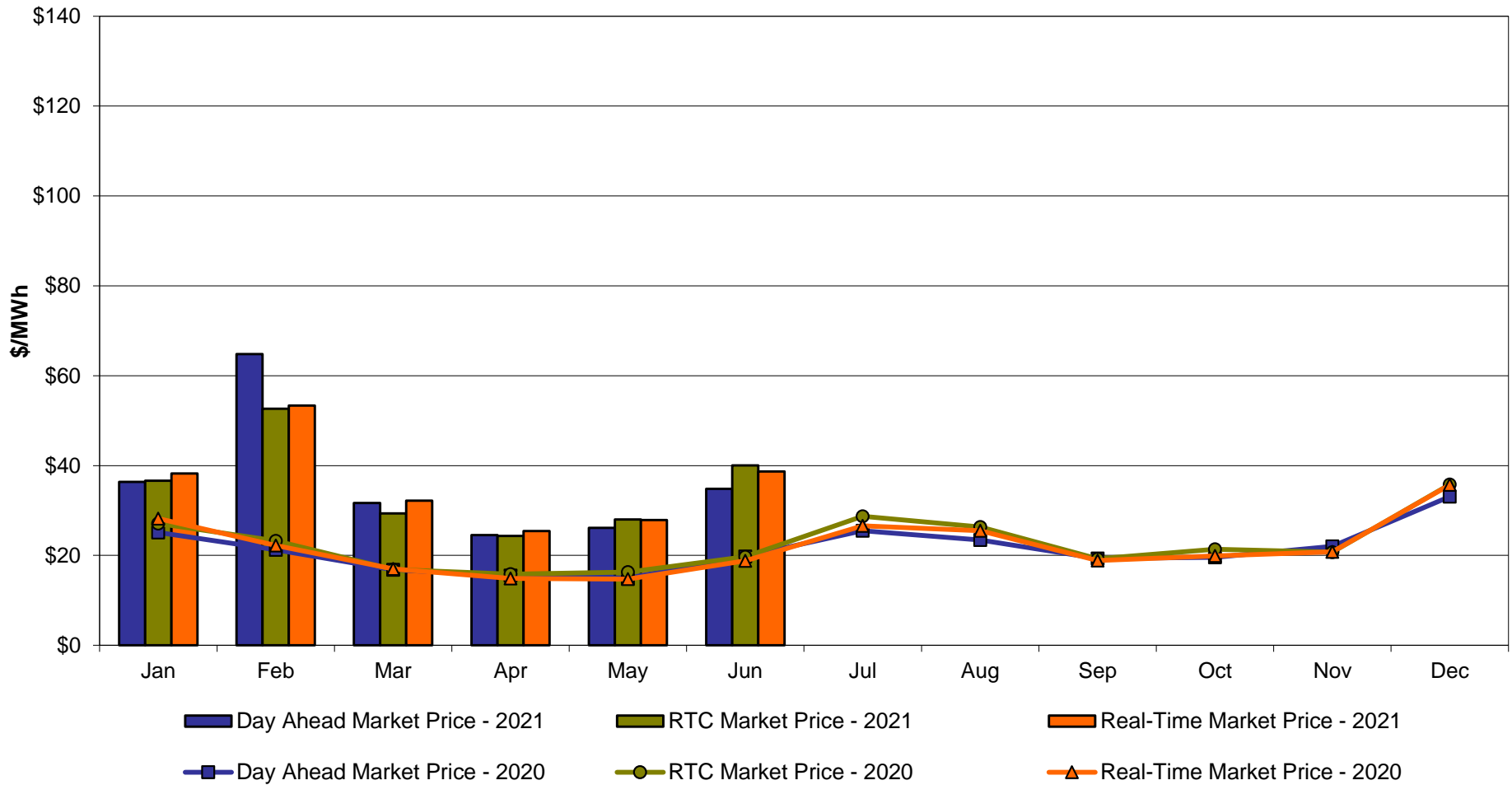
Capital Zone F **Monthly Average LBMP Prices 2020 - 2021**



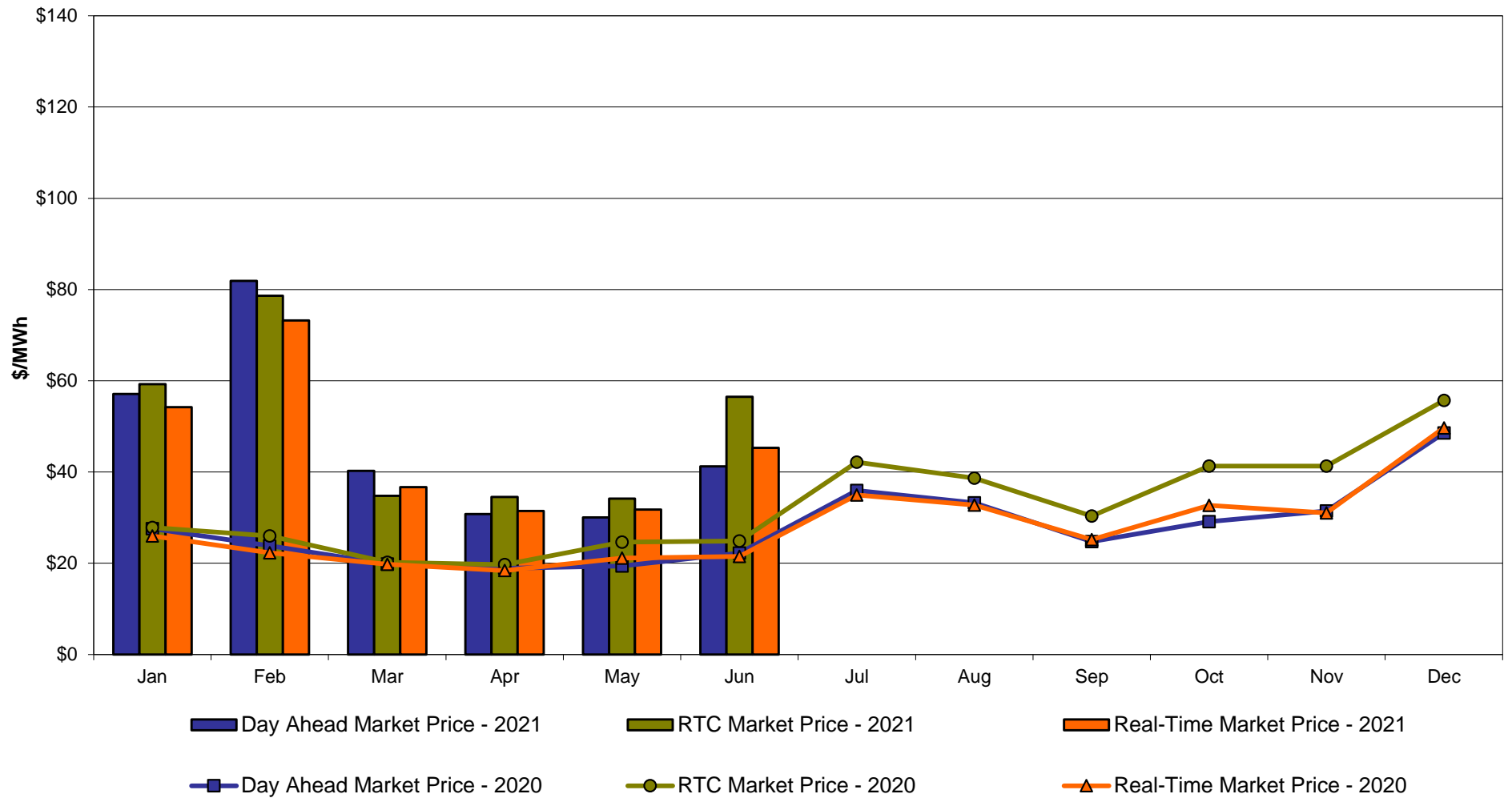
Hudson Valley Zone G Monthly Average LBMP Prices 2020 - 2021



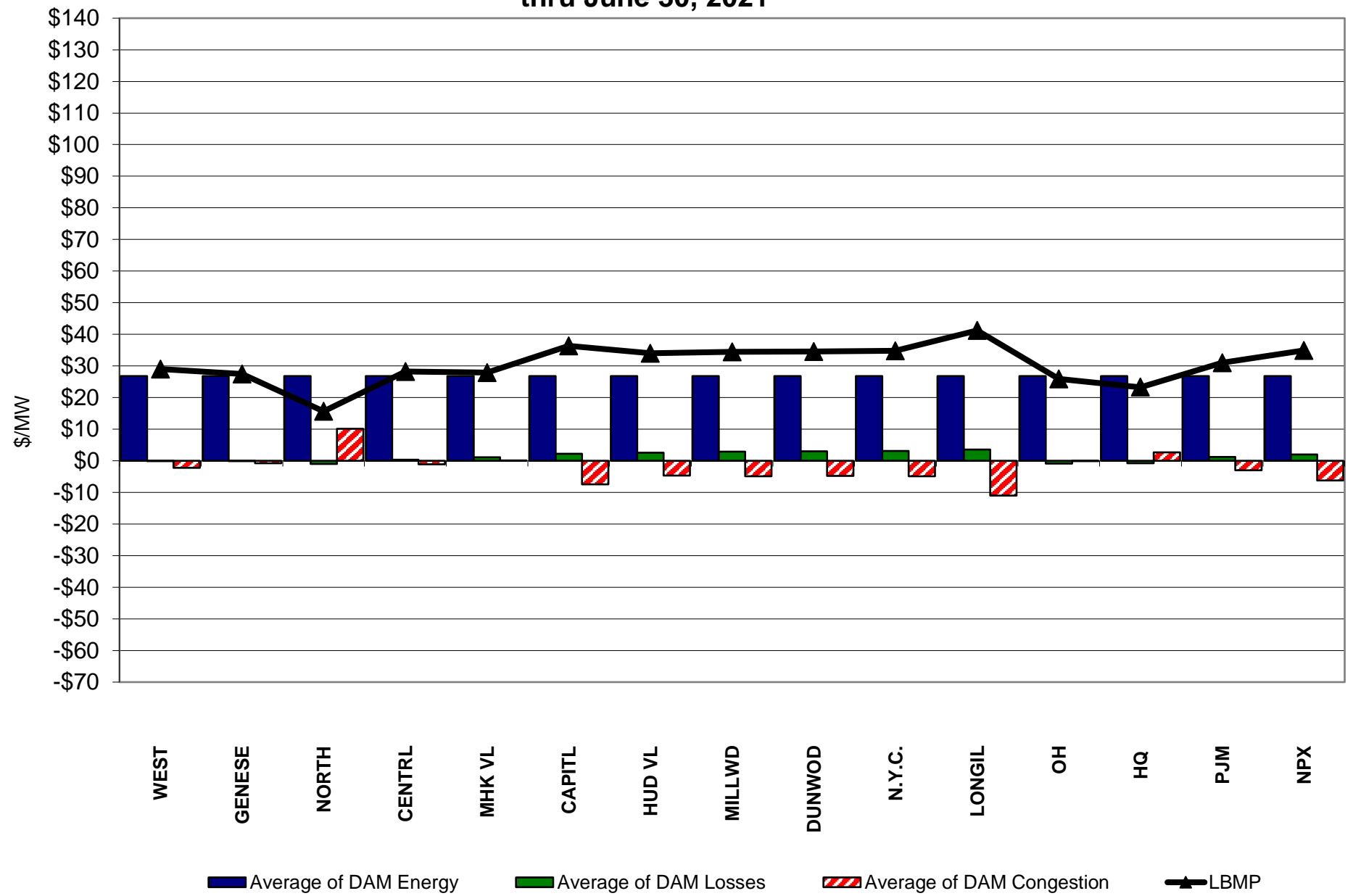
NYC Zone J **Monthly Average LBMP Prices 2020 - 2021**



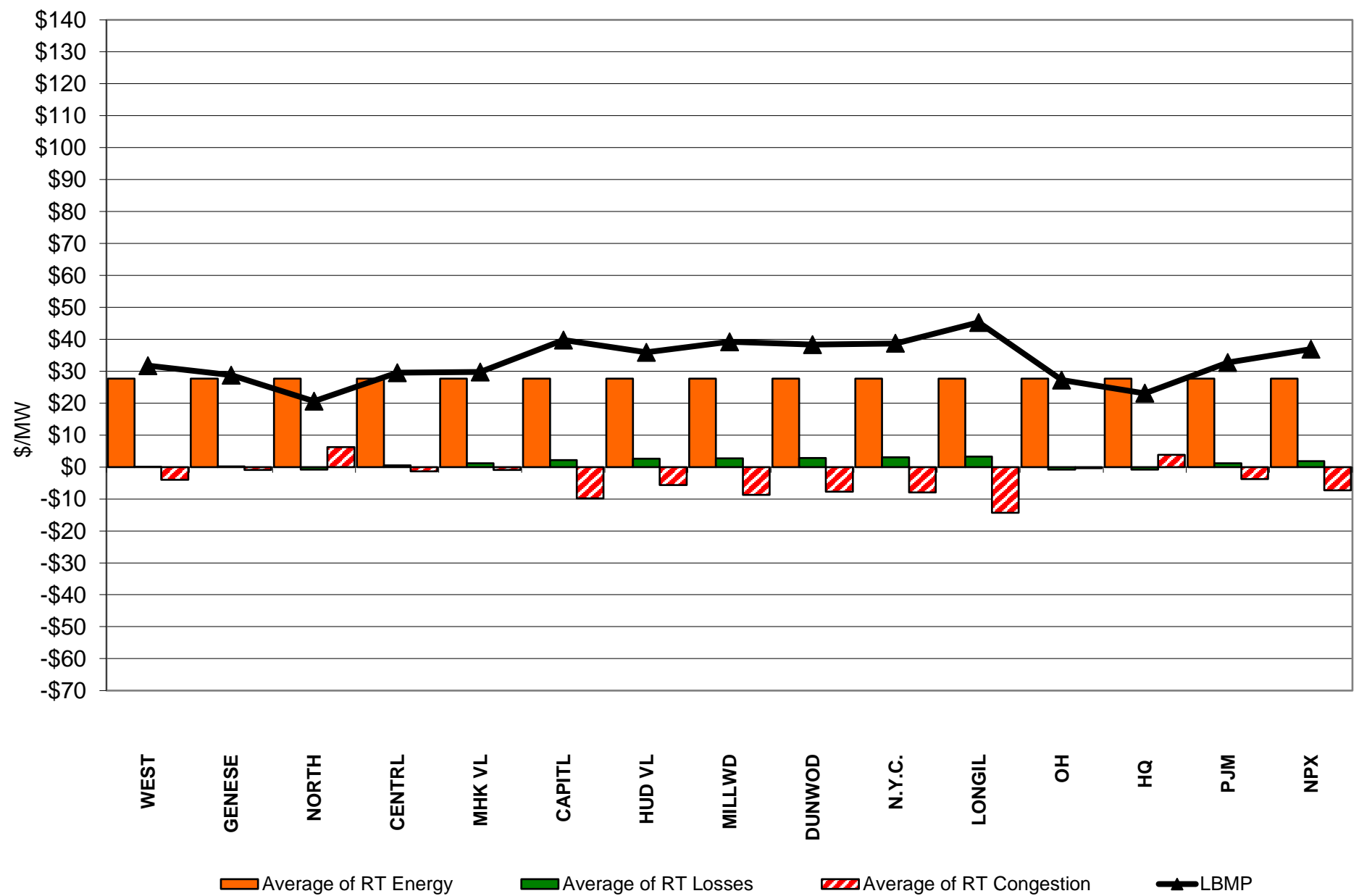
Long Island Zone K Monthly Average LBMP Prices 2020 - 2021



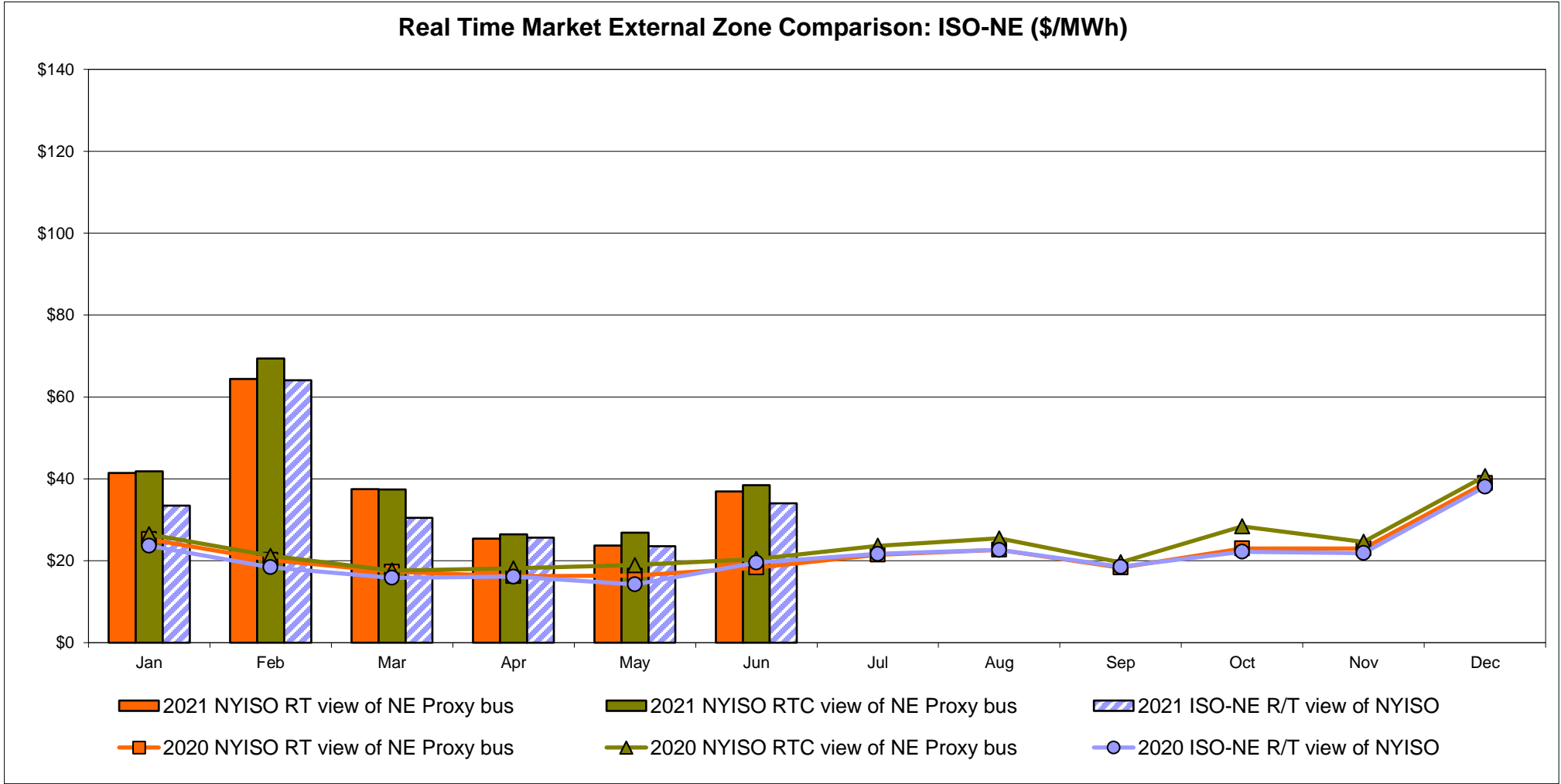
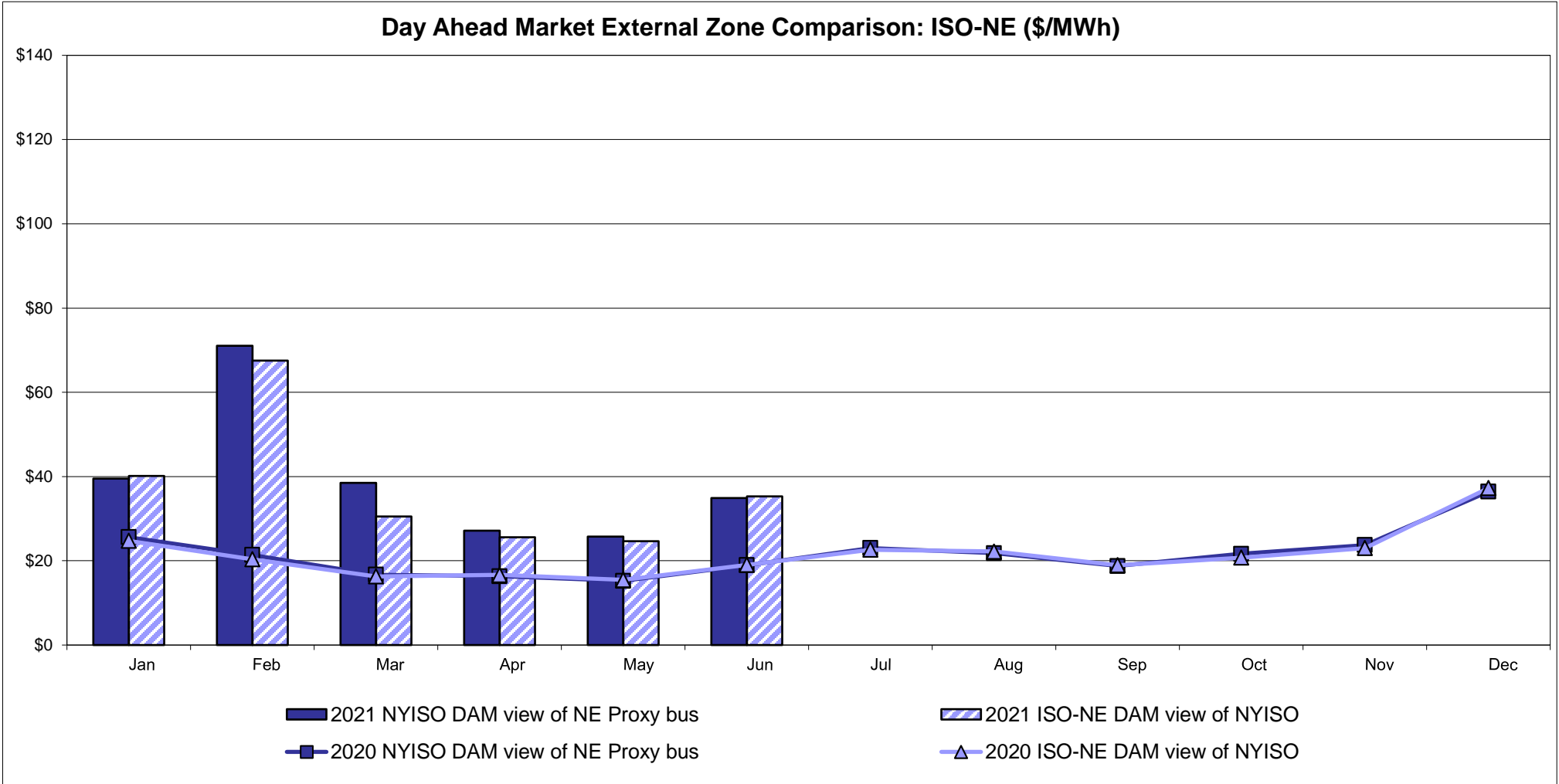
**DAM Zonal Unweighted Monthly Average LBMP Components
thru June 30, 2021**



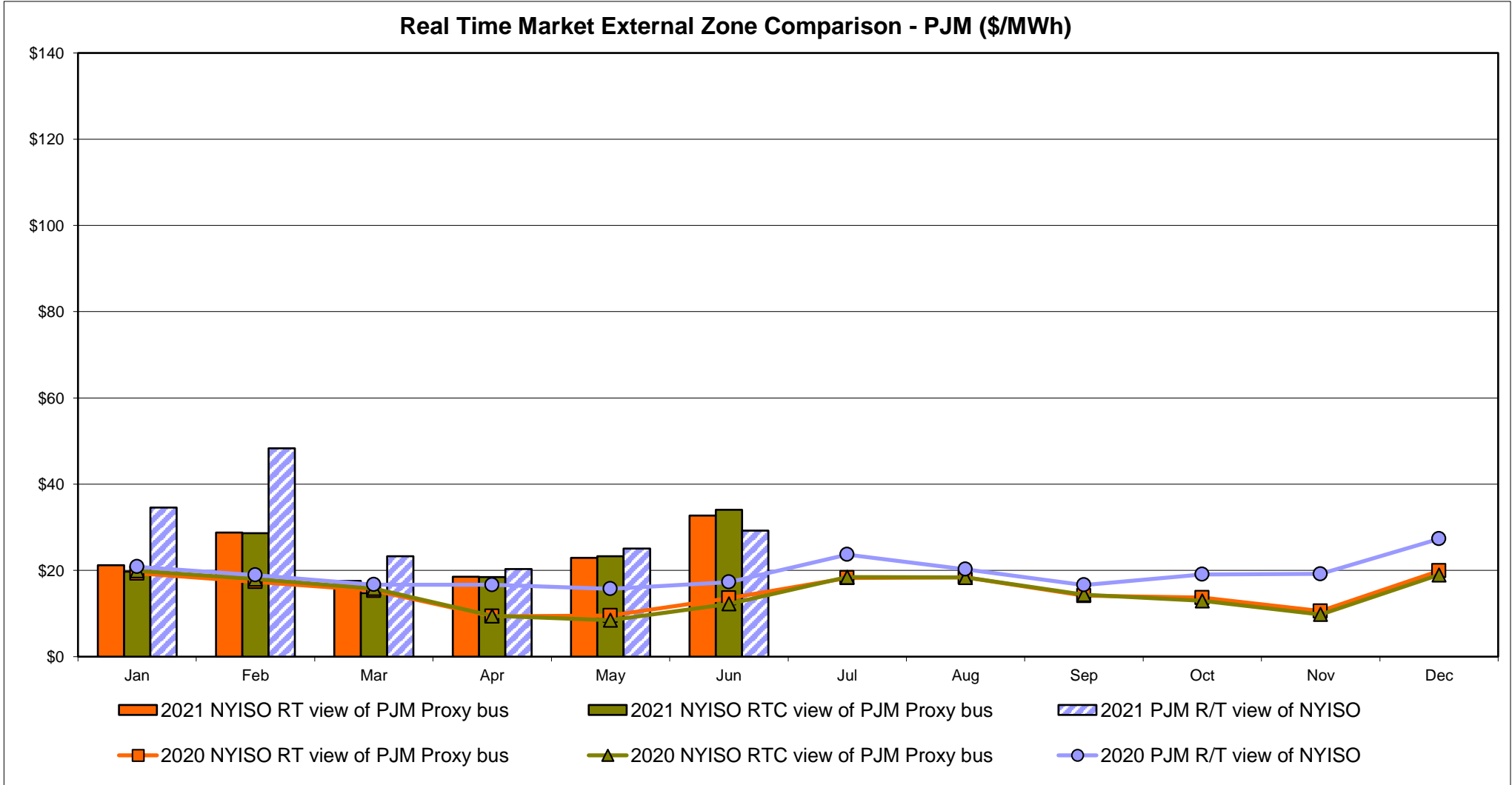
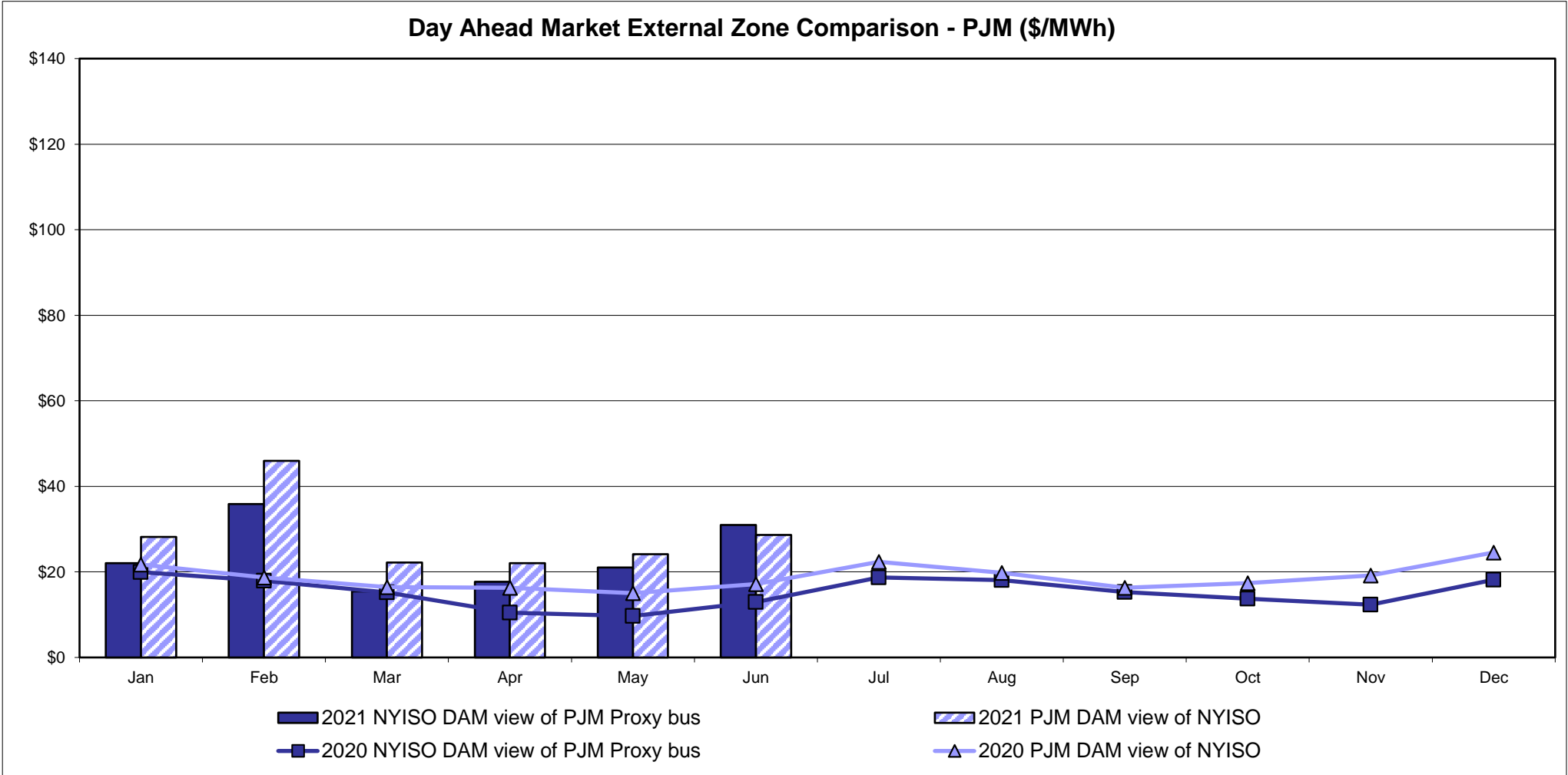
**RT Zonal Unweighted Monthly Average LBMP Components
thru June 30, 2021**



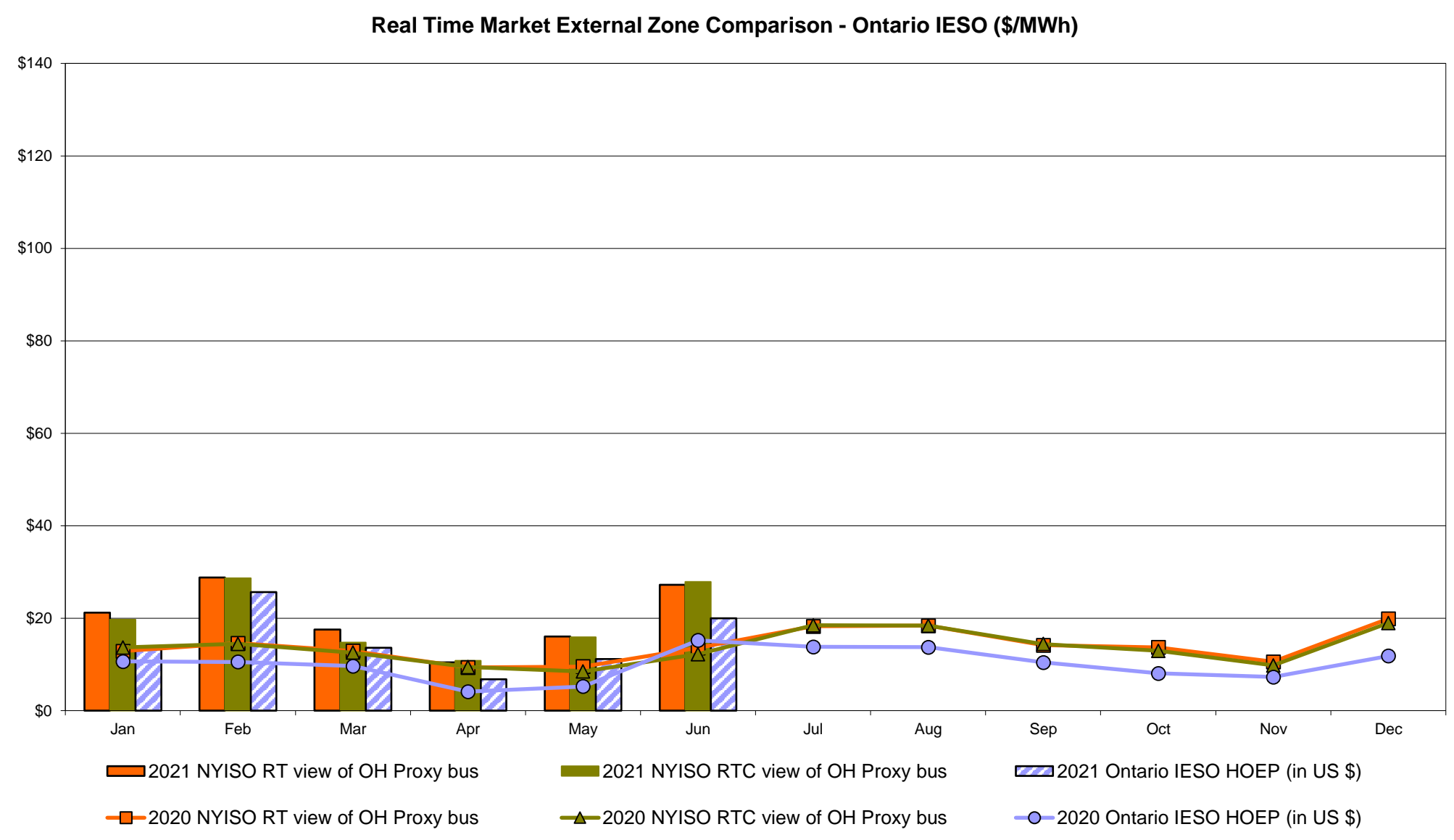
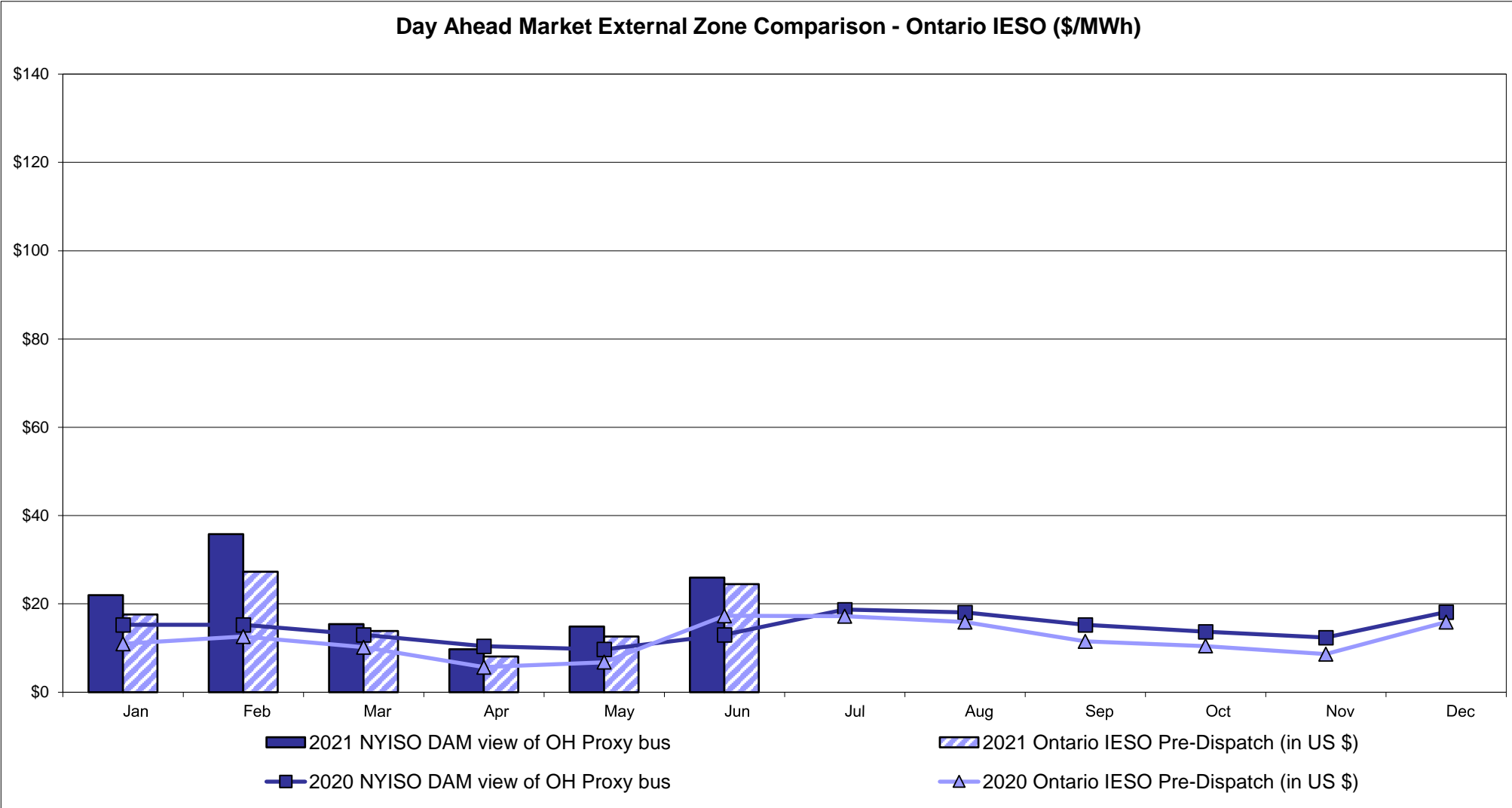
External Comparison ISO-New England



External Comparison PJM

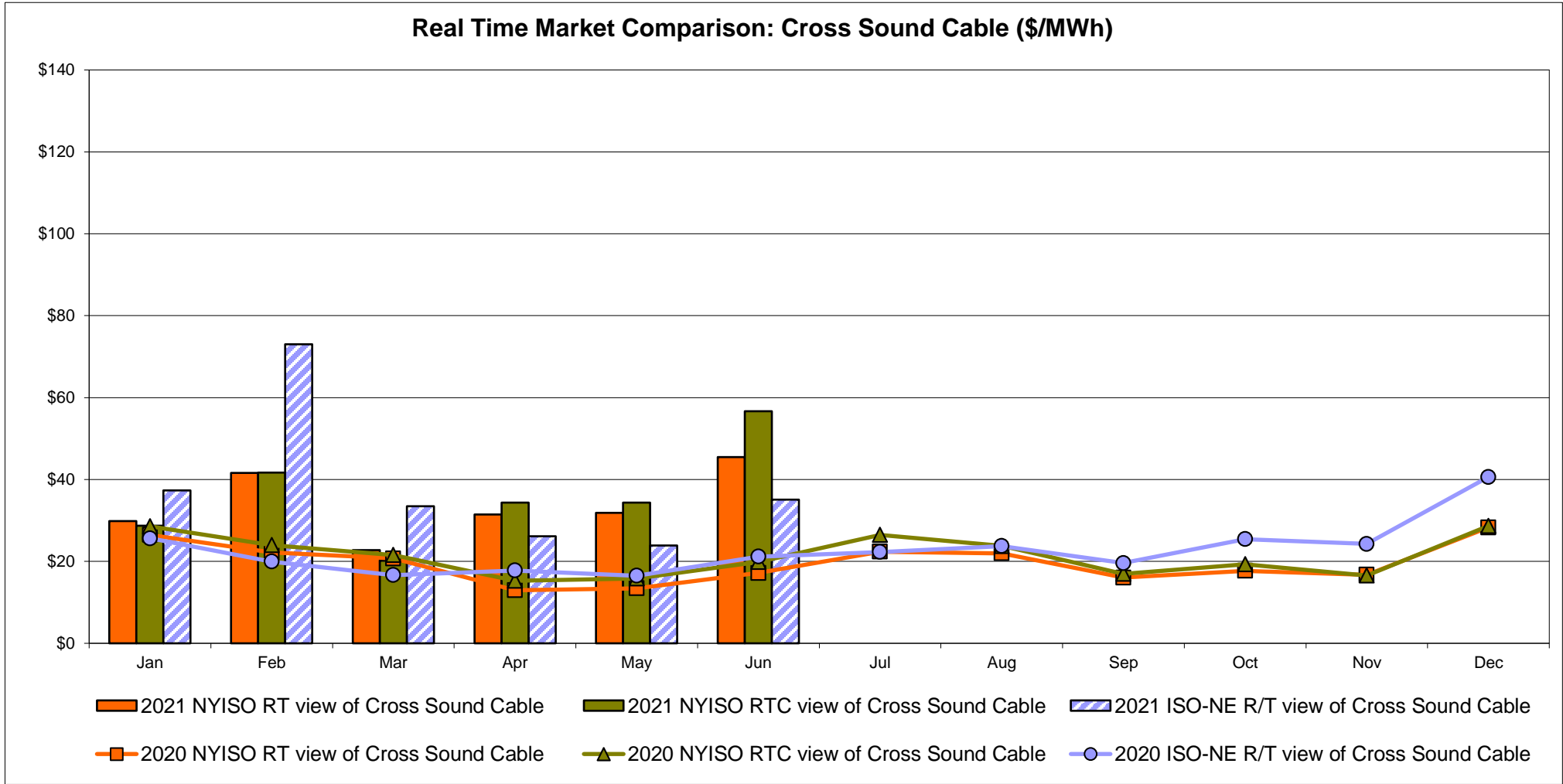
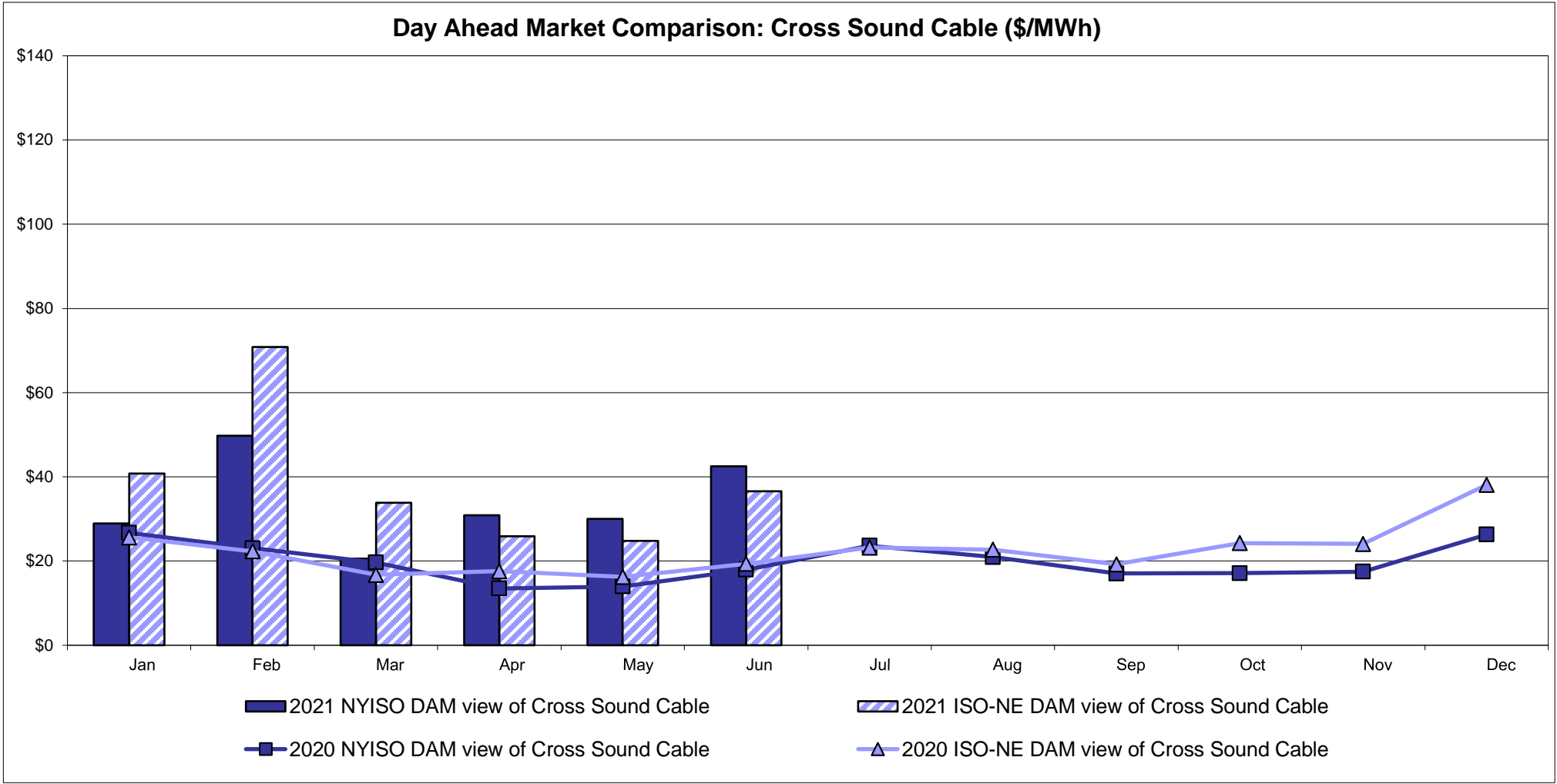


External Comparison Ontario IESO



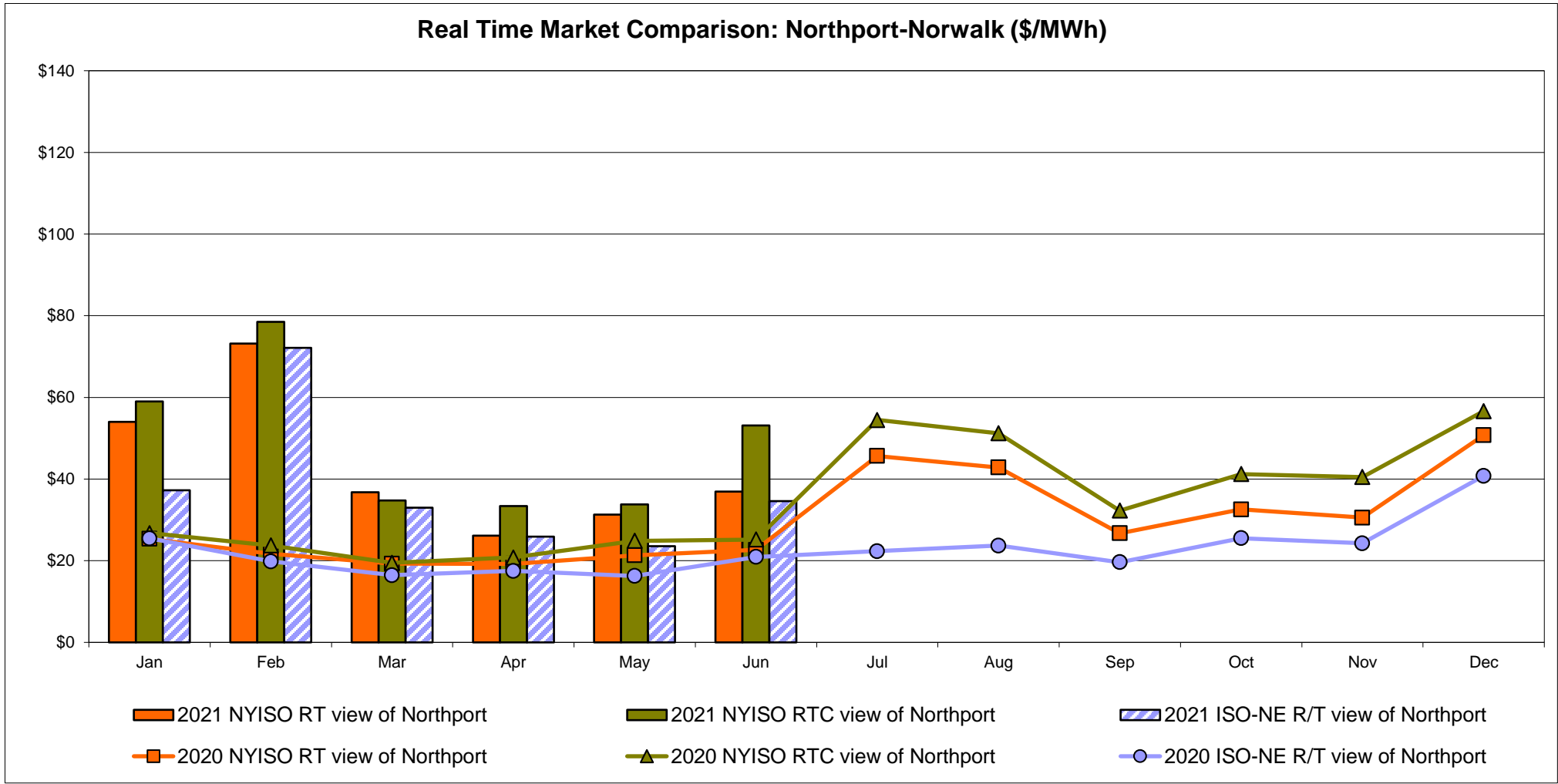
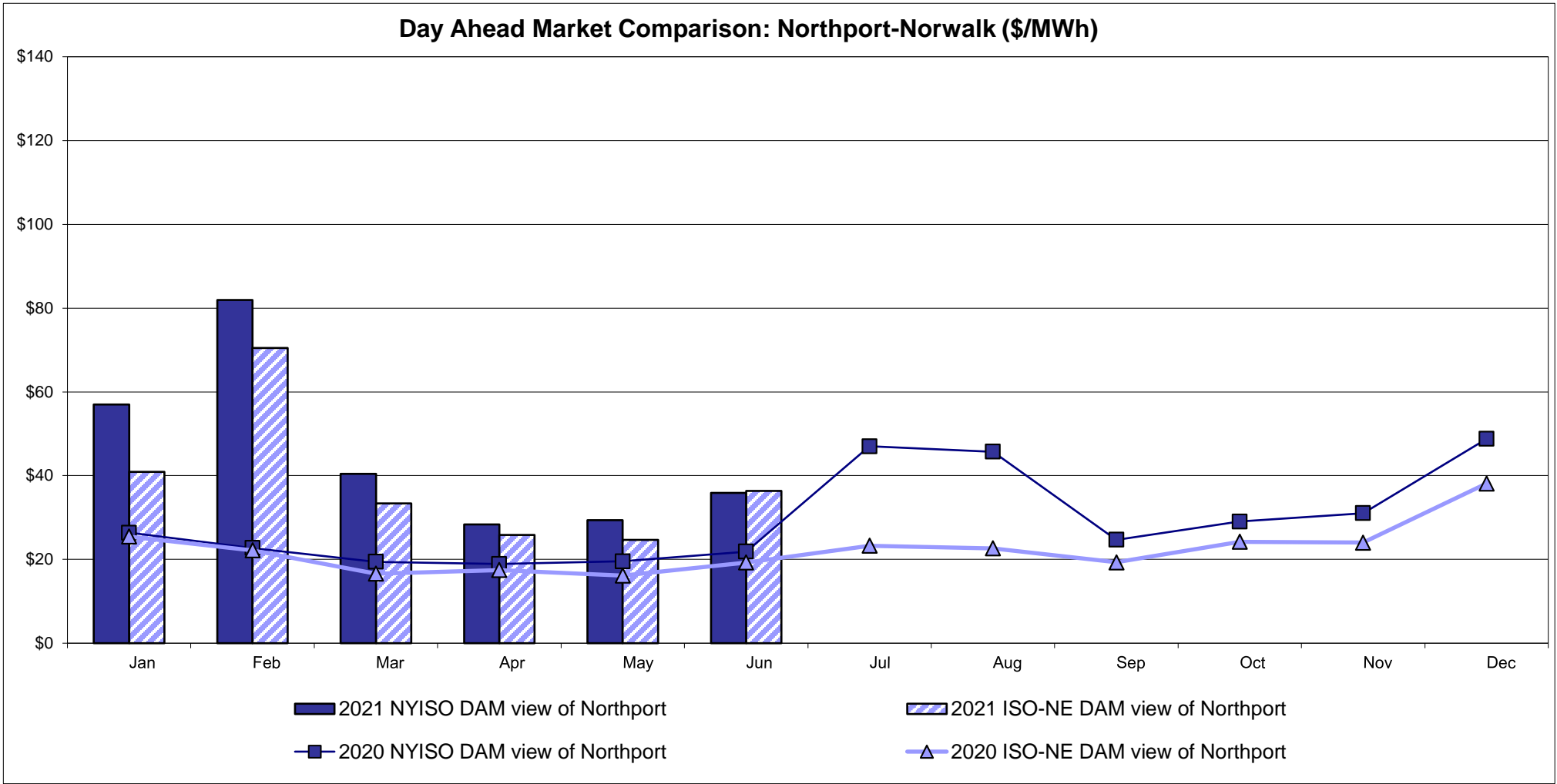
Notes: Exchange factor used for June 2021 was 0.818330605564648 to US
HOEP: Hourly Ontario Energy Price
Pre-Dispatch: Projected Energy Price

External Controllable Line: Cross Sound Cable (New England)



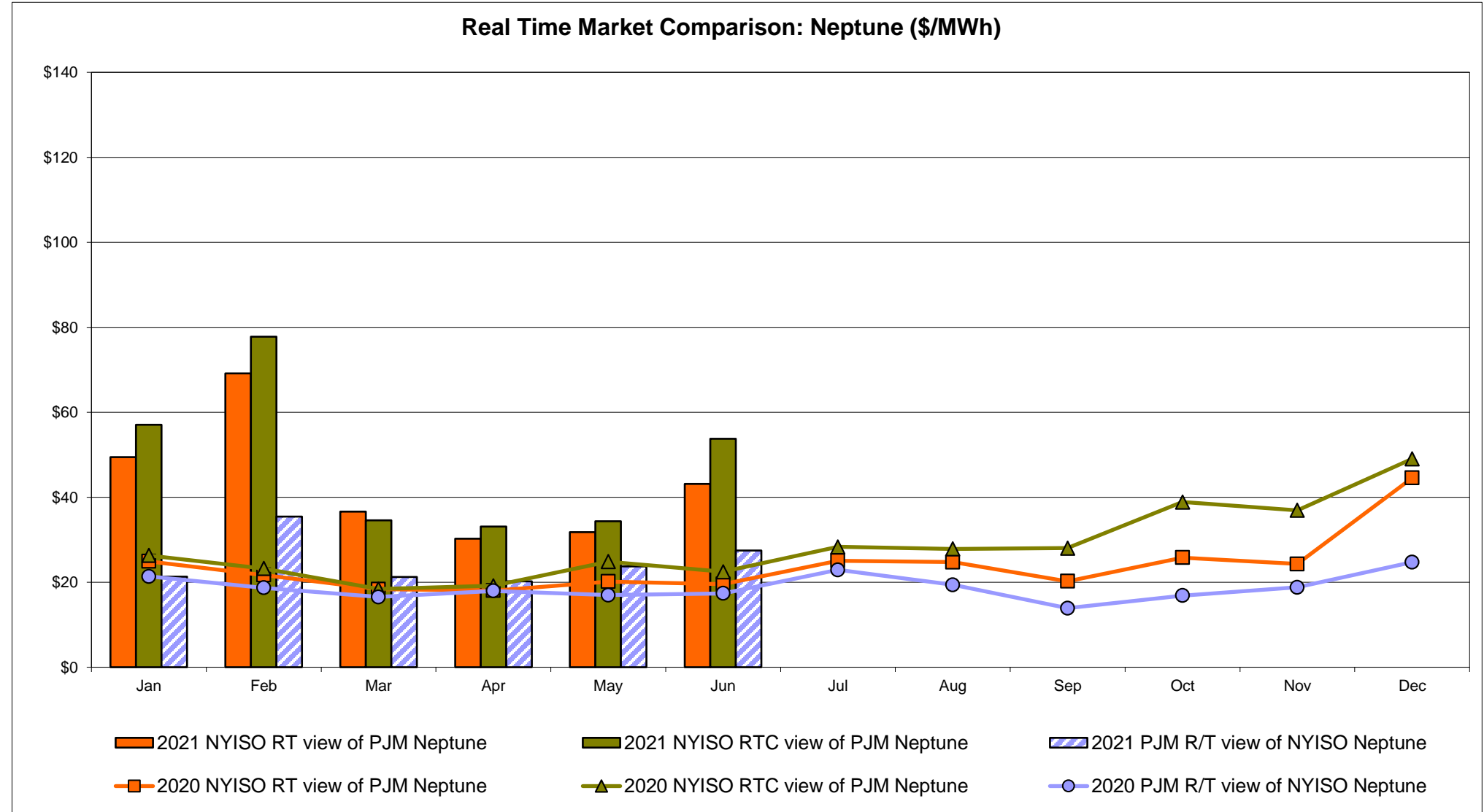
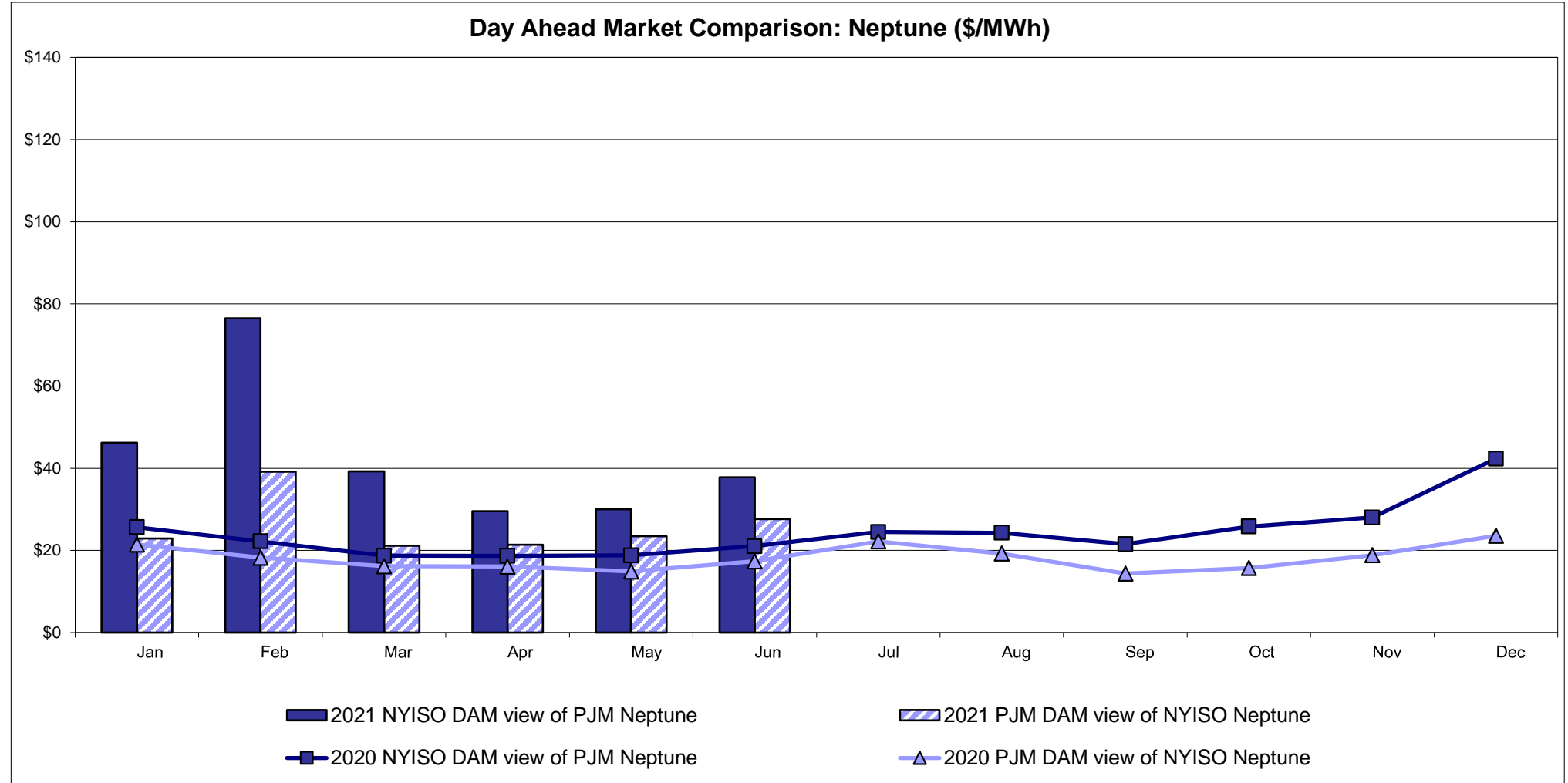
Note:
ISO-NE Forecast is an advisory posting @ 18:00 day before.
The DAM and R/T prices at the Shorham 13899 interface are used for ISO-NE.
The DAM and R/T prices at the CSC interface are used for NYISO.

External Controllable Line: Northport - Norwalk (New England)

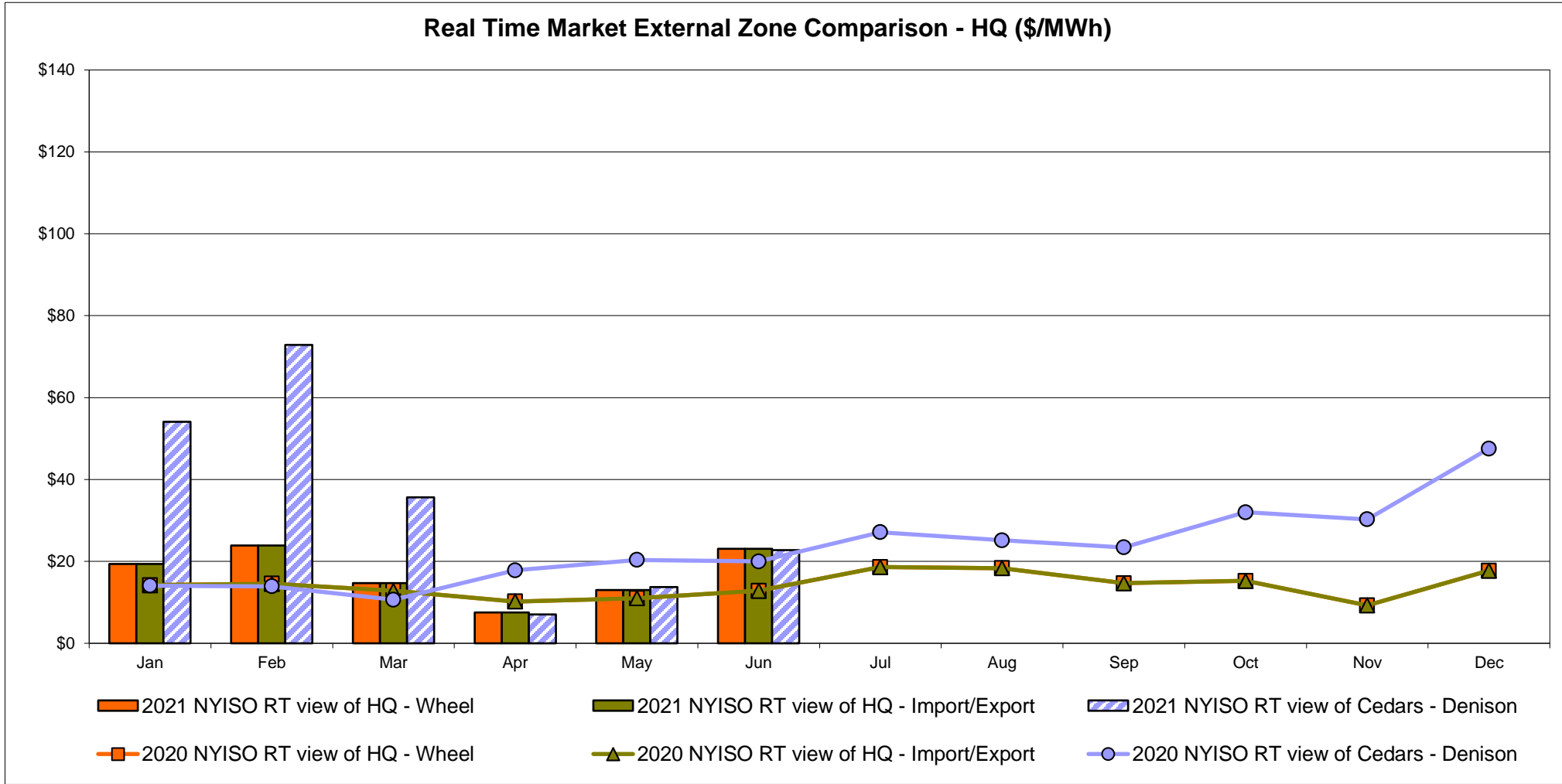
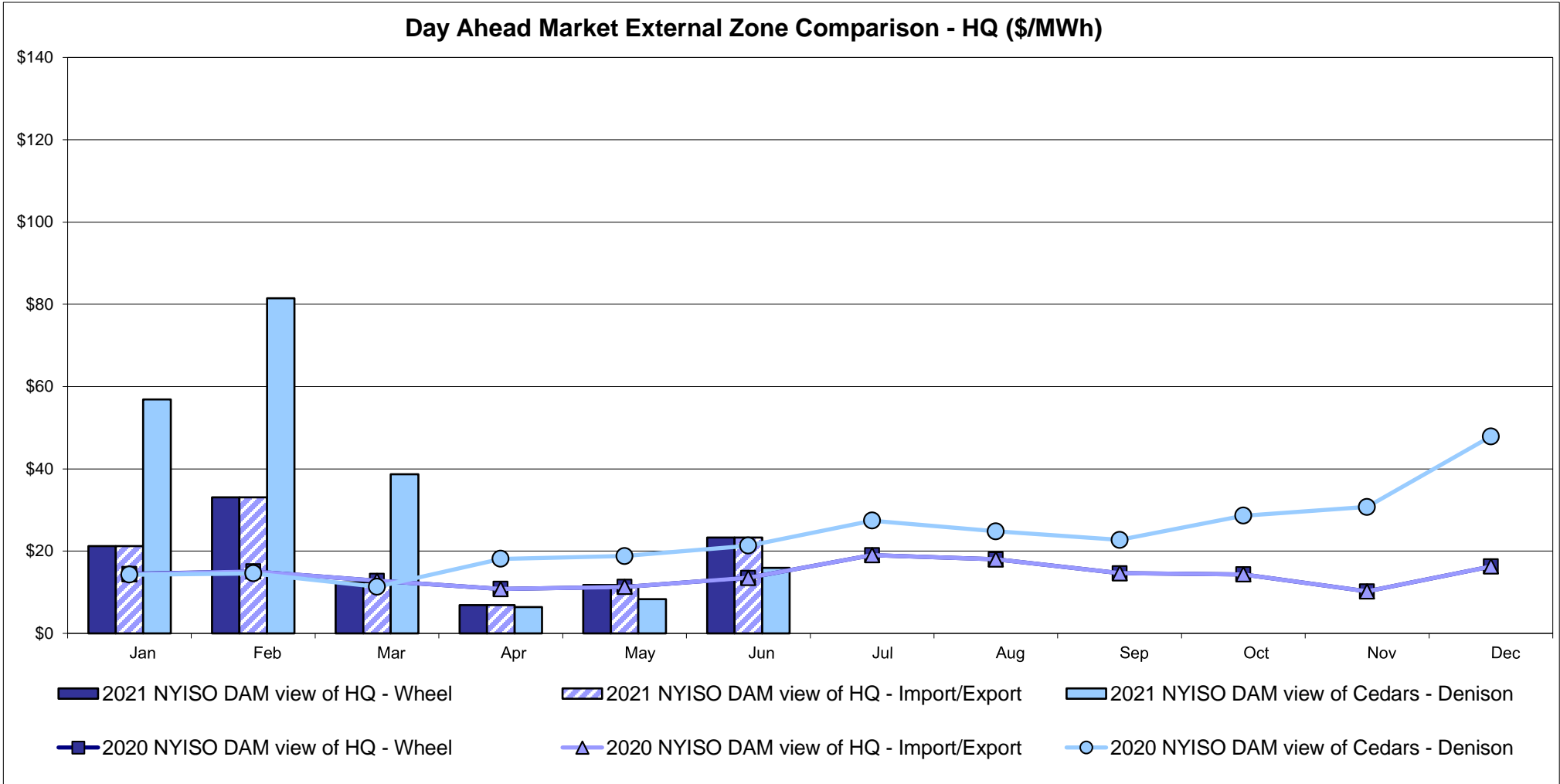


Note:
ISO-NE Forecast is an advisory posting @ 18:00 day before.
The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.
The DAM and R/T prices at the 1385 interface are used for NYISO.

External Controllable Line: Neptune (PJM)

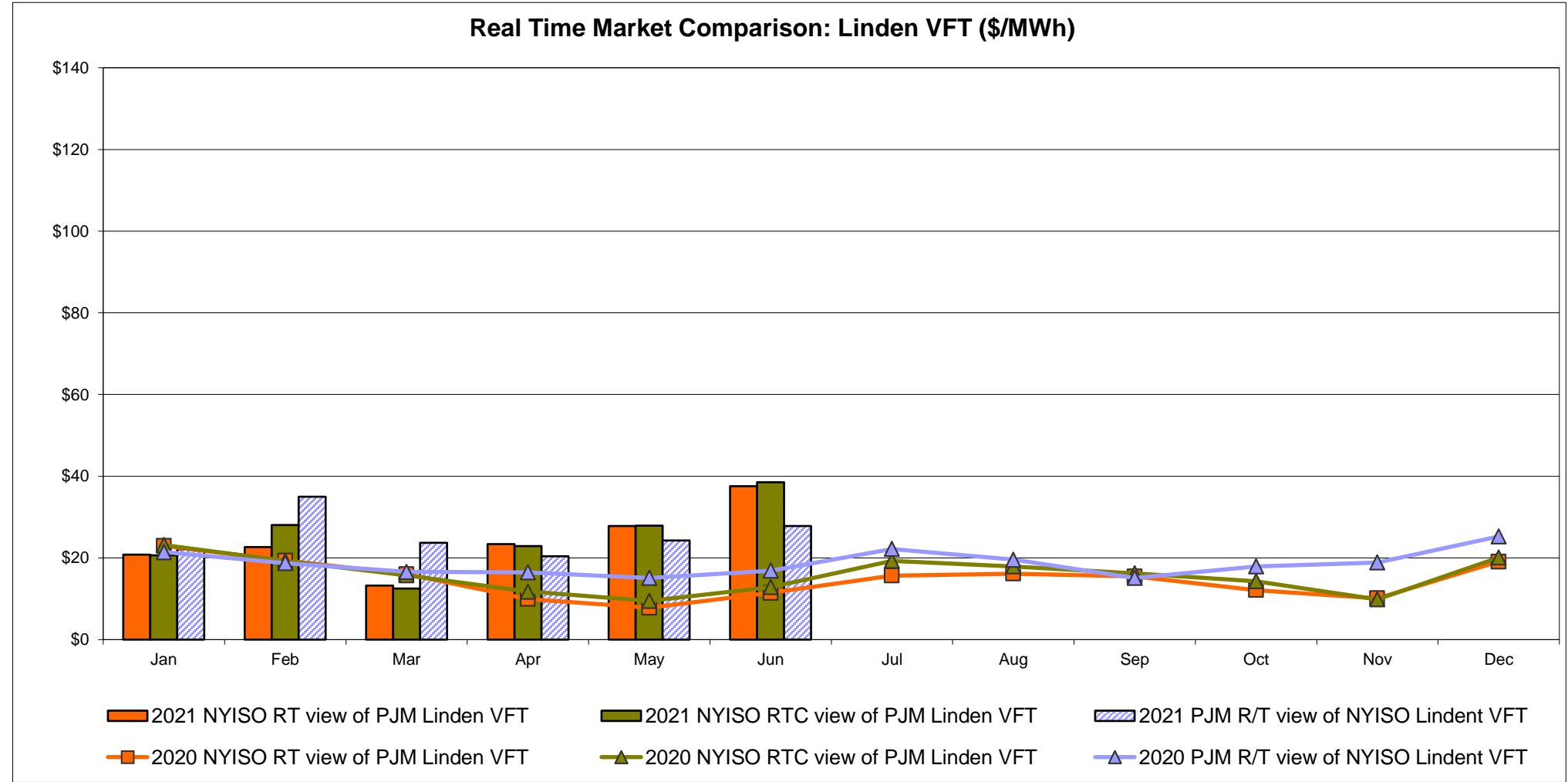
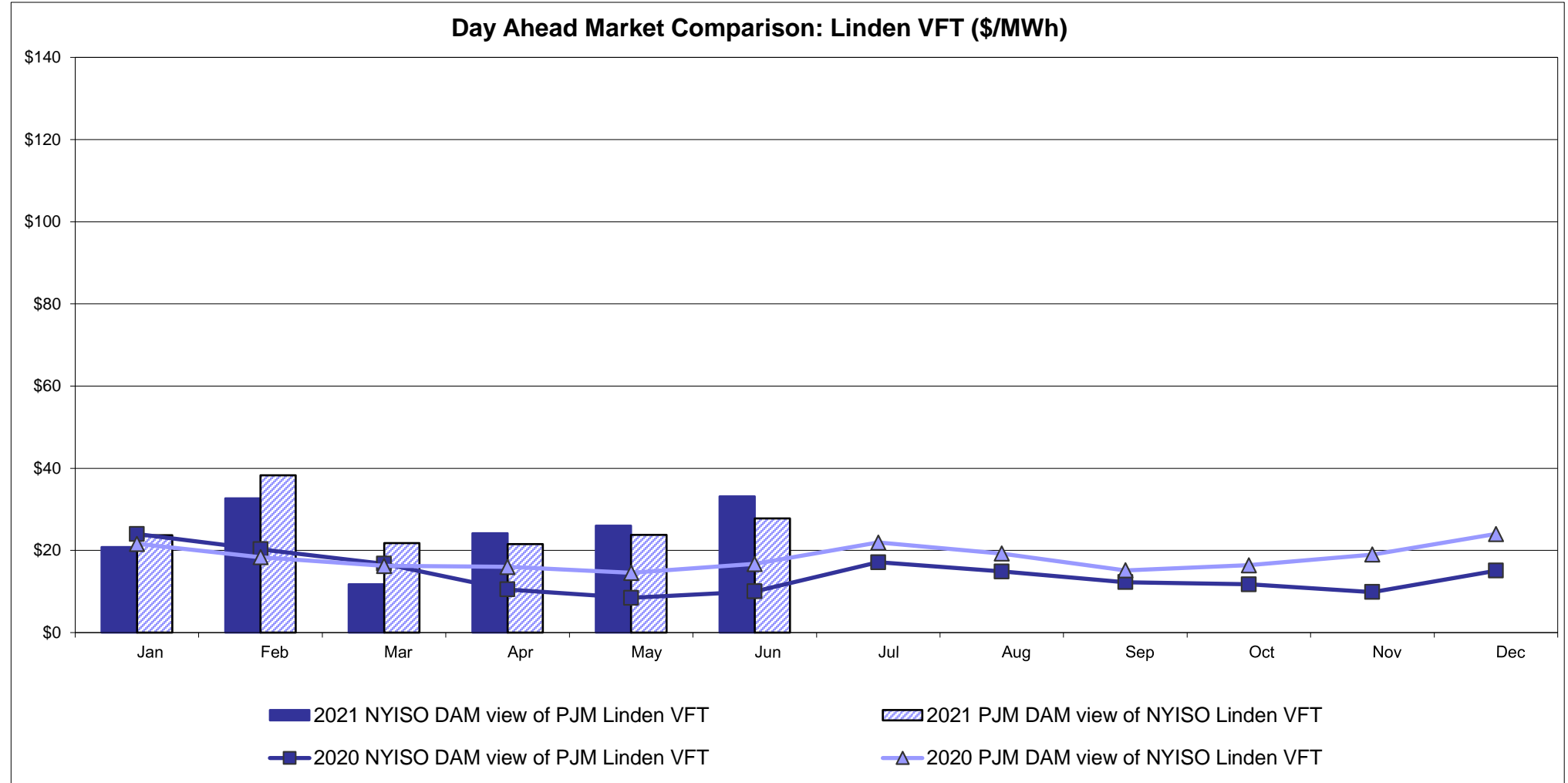


External Comparison Hydro-Quebec

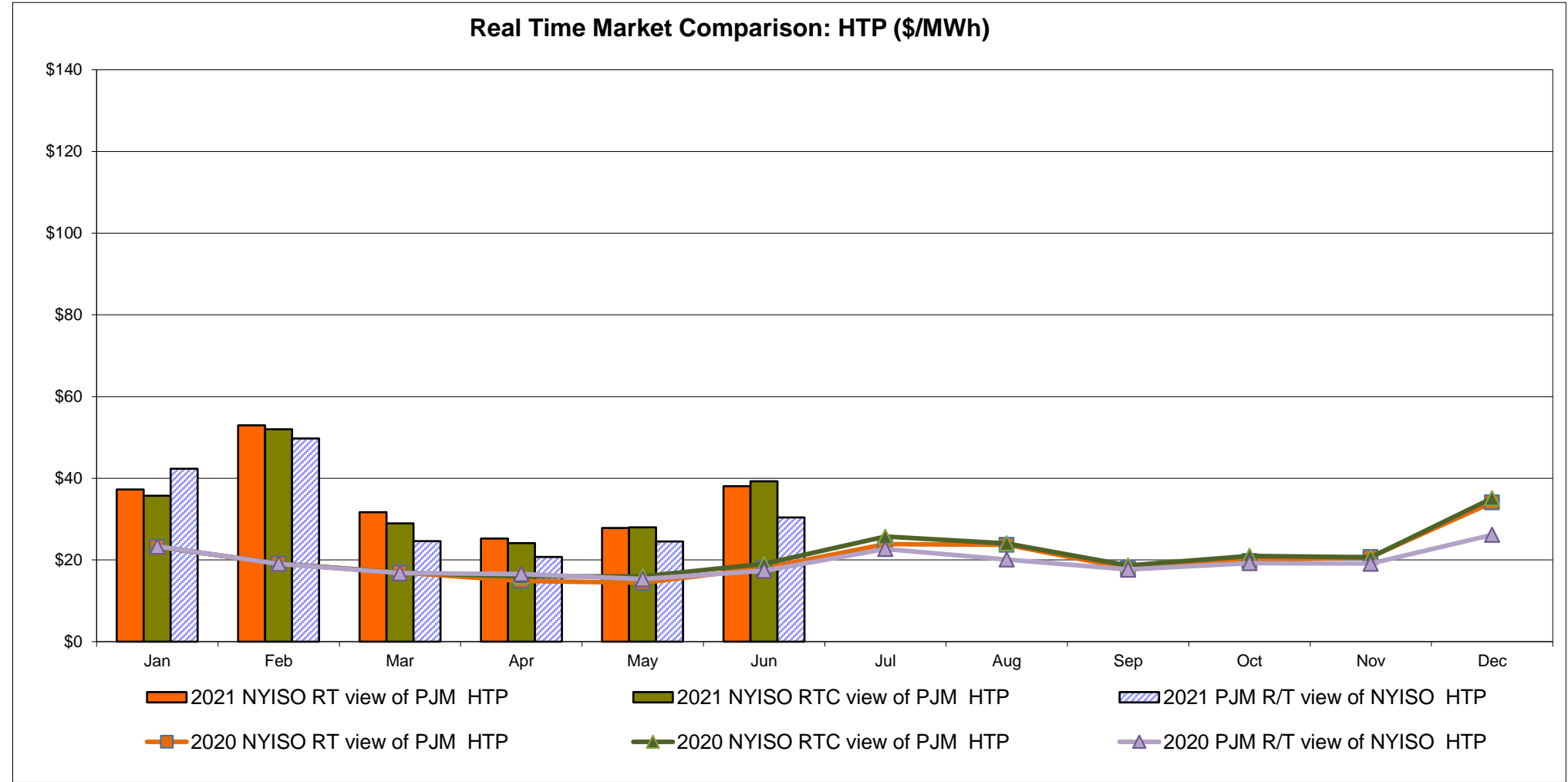
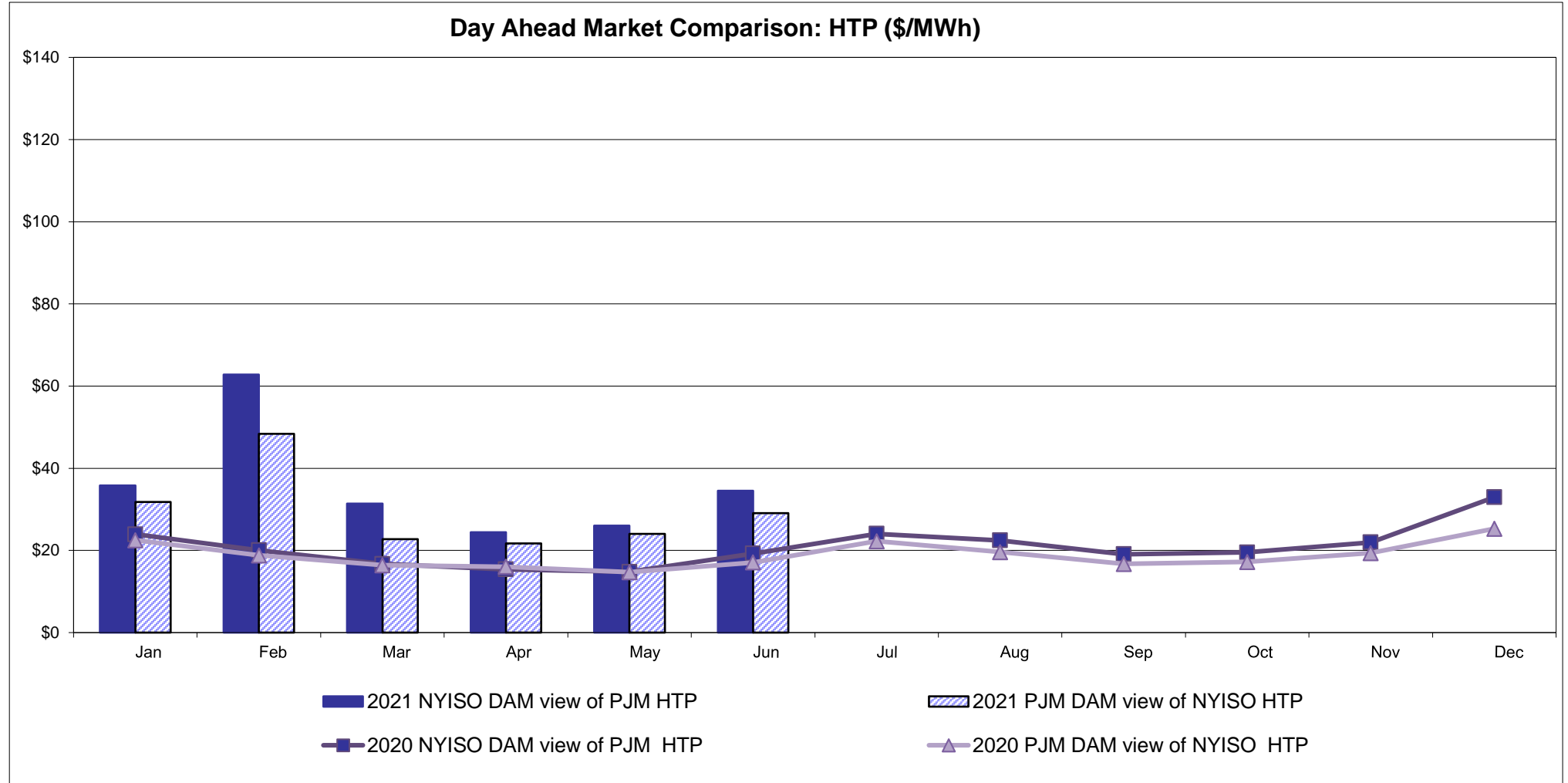


Note:
Hydro-Quebec Prices are unavailable.

External Controllable Line: Linden VFT (PJM)



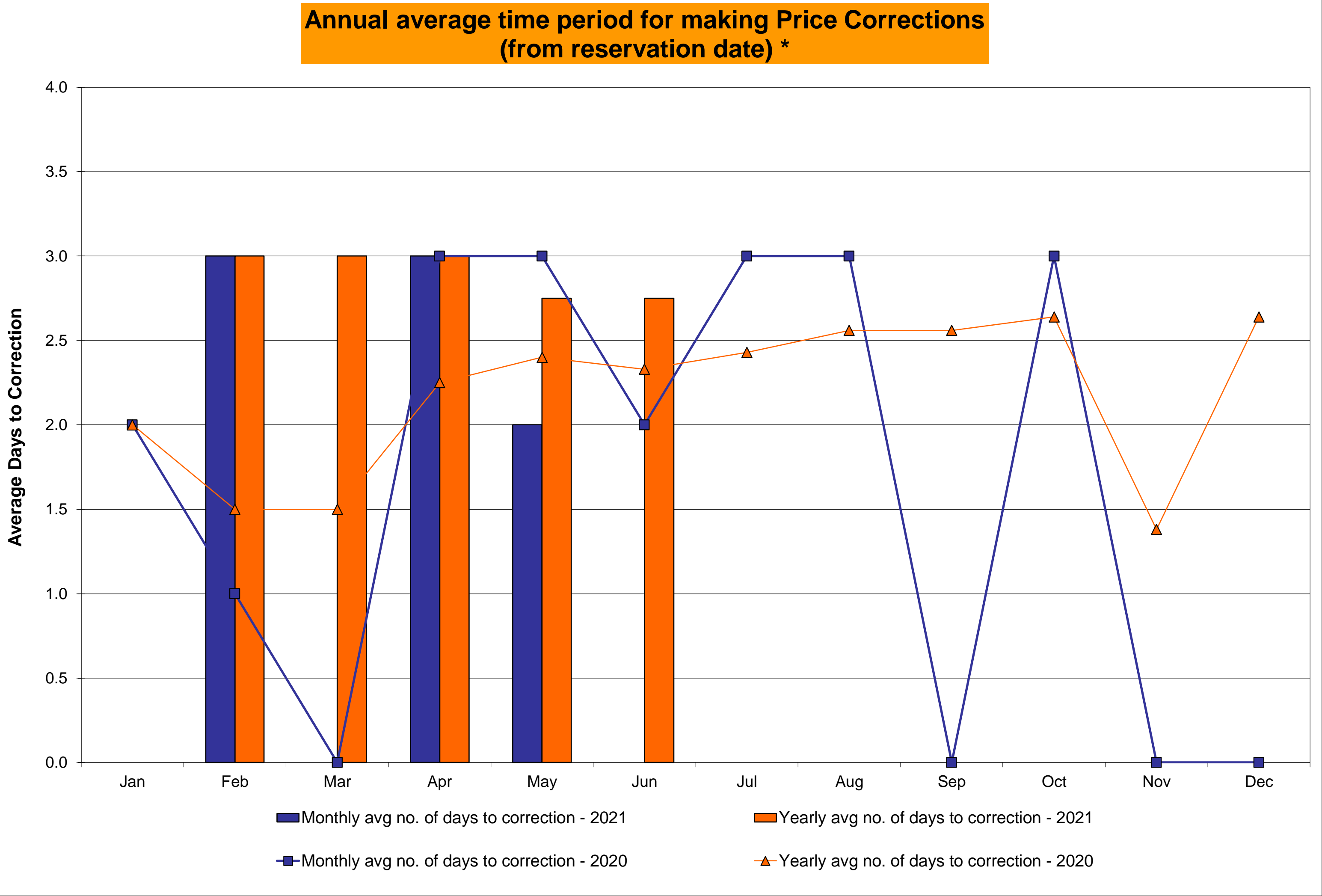
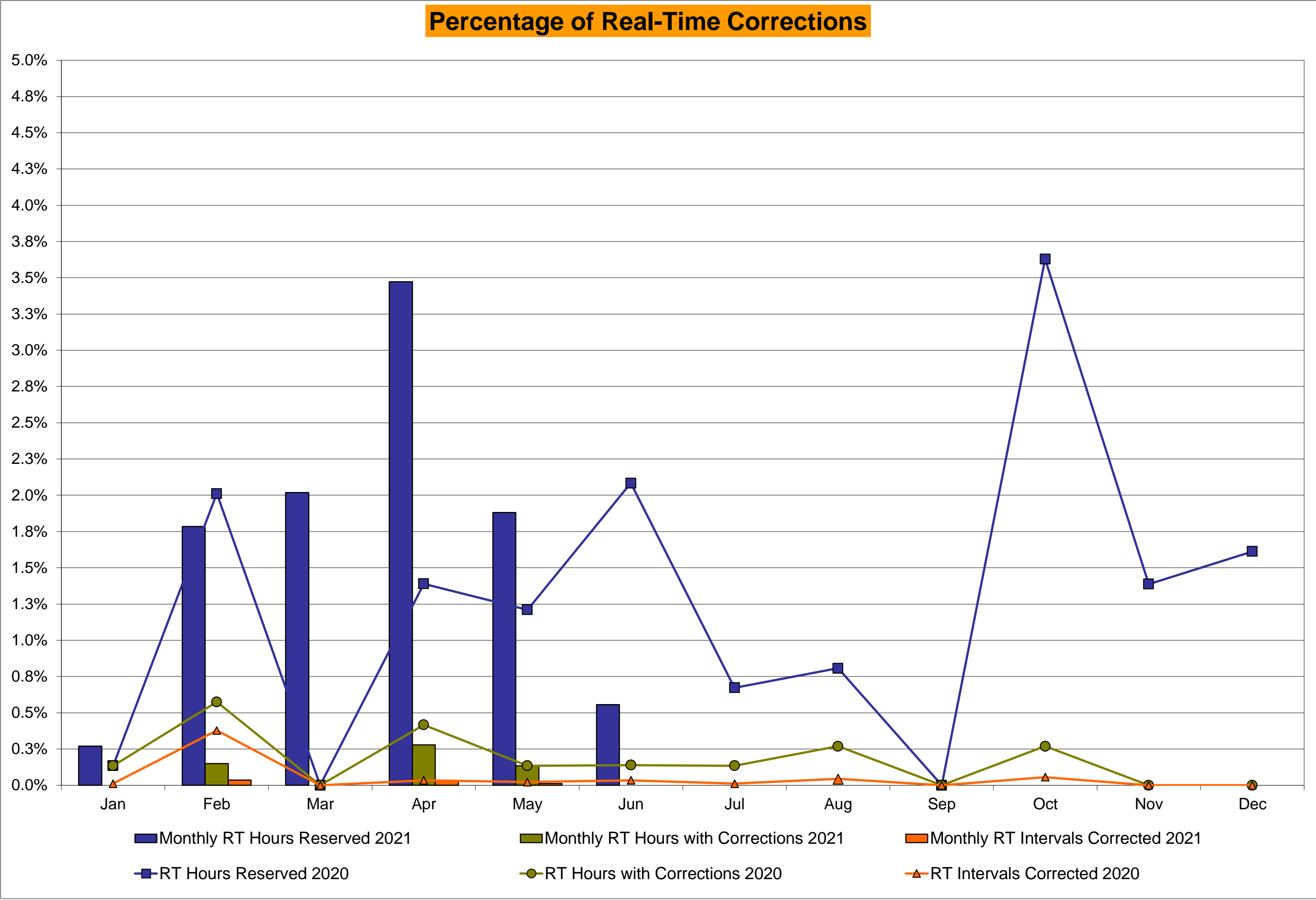
External Controllable Line: Hudson (PJM)



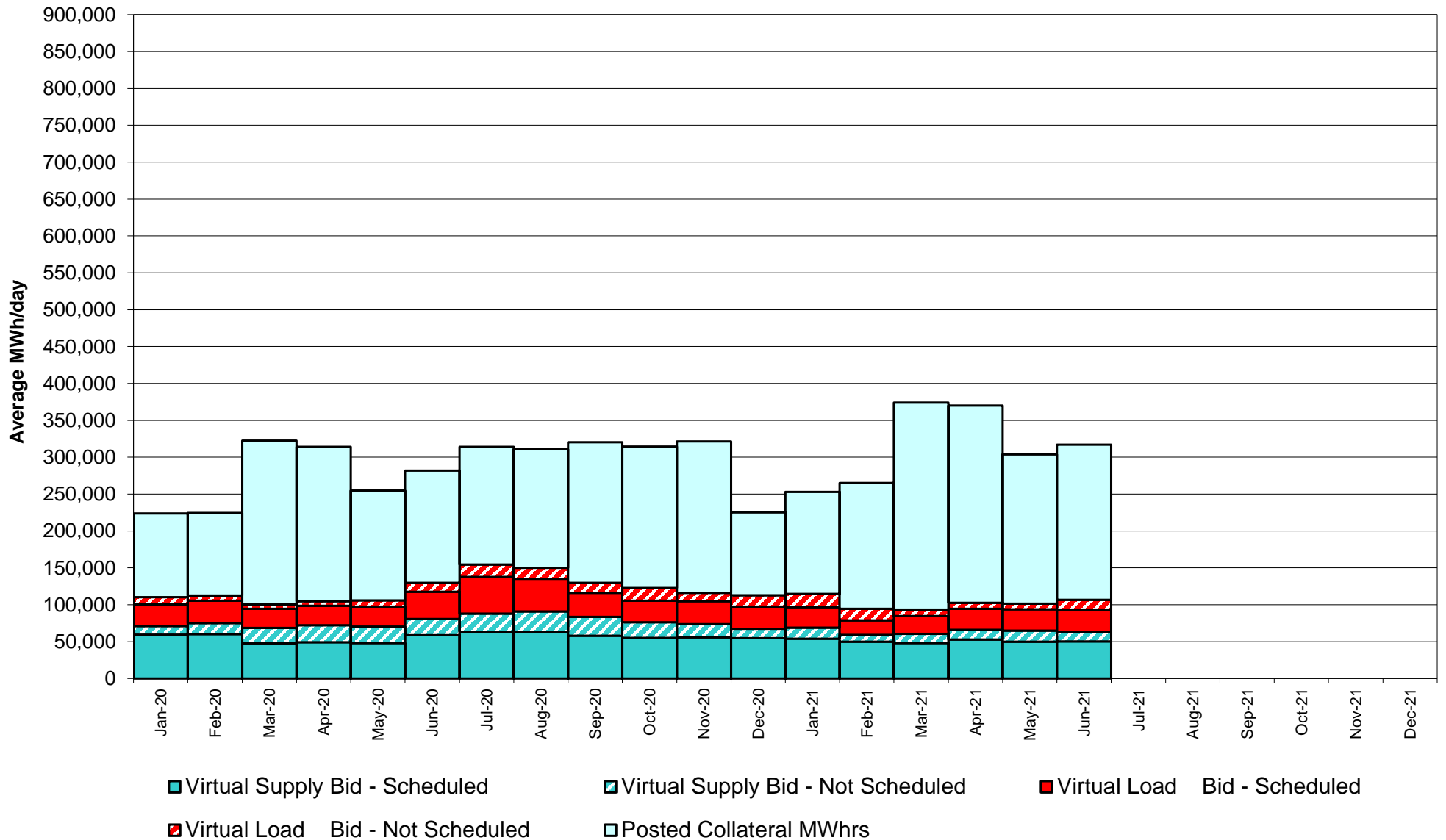
NYISO Real Time Price Correction Statistics

2021		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Hour Corrections</u>													
Number of hours with corrections	in the month	0	1	0	2	1	0						
Number of hours	in the month	744	672	743	720	744	720						
% of hours with corrections	in the month	0.00%	0.15%	0.00%	0.28%	0.13%	0.00%						
% of hours with corrections	year-to-date	0.00%	0.07%	0.05%	0.10%	0.11%	0.09%						
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	0	3	0	3	1	0						
Number of intervals	in the month	9,095	8,236	9,100	8,827	9,157	8,813						
% of intervals corrected	in the month	0.00%	0.04%	0.00%	0.03%	0.01%	0.00%						
% of intervals corrected	year-to-date	0.00%	0.02%	0.01%	0.02%	0.02%	0.01%						
<u>Hours Reserved</u>													
Number of hours reserved	in the month	2	12	15	25	14	4						
Number of hours	in the month	744	672	743	720	744	720						
% of hours reserved	in the month	0.27%	1.79%	2.02%	3.47%	1.88%	0.56%						
% of hours reserved	year-to-date	0.27%	0.99%	1.34%	1.88%	1.88%	1.66%						
<u>Days to Correction</u> *													
Avg. number of days to correction	in the month	0.00	3.00	0.00	3.00	2.00	0.00						
Avg. number of days to correction	year-to-date	0.00	3.00	3.00	3.00	2.75	2.75						
<u>Days Without Corrections</u>													
Days without corrections	in the month	31	27	31	28	30	30						
Days without corrections	year-to-date	31	58	89	117	147	177						
2020		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Hour Corrections</u>													
Number of hours with corrections	in the month	1	4	0	3	1	1	1	2	0	2	0	0
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours with corrections	in the month	0.13%	0.57%	0.00%	0.42%	0.13%	0.14%	0.13%	0.27%	0.00%	0.27%	0.00%	0.00%
% of hours with corrections	year-to-date	0.13%	0.35%	0.23%	0.28%	0.25%	0.23%	0.22%	0.22%	0.20%	0.20%	0.19%	0.17%
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	1	32	0	3	2	3	1	4	0	5	0	0
Number of intervals	in the month	9,088	8,460	9,011	8,776	9,030	8,826	9,128	9,156	8,810	9,048	8,790	9,083
% of intervals corrected	in the month	0.01%	0.38%	0.00%	0.03%	0.02%	0.03%	0.01%	0.04%	0.00%	0.06%	0.00%	0.00%
% of intervals corrected	year-to-date	0.01%	0.19%	0.12%	0.10%	0.09%	0.08%	0.07%	0.06%	0.06%	0.06%	0.05%	0.05%
<u>Hours Reserved</u>													
Number of hours reserved	in the month	1	14	0	10	9	15	5	6	0	27	10	12
Number of hours	in the month	744	696	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	0.13%	2.01%	0.00%	1.39%	1.21%	2.08%	0.67%	0.81%	0.00%	3.63%	1.39%	1.61%
% of hours reserved	year-to-date	0.13%	1.04%	0.69%	0.86%	0.93%	1.12%	1.06%	1.02%	0.91%	1.19%	1.21%	1.24%
<u>Days to Correction</u> *													
Avg. number of days to correction	in the month	2.00	1.00	0.00	3.00	3.00	2.00	3.00	3.00	0.00	3.00	0.00	0.00
Avg. number of days to correction	year-to-date	2.00	1.50	1.50	2.25	2.40	2.33	2.43	2.56	2.56	2.64	1.38	2.64
<u>Days Without Corrections</u>													
Days without corrections	in the month	30	28	31	28	30	29	30	29	30	29	30	31
Days without corrections	year-to-date	30	58	89	117	147	176	206	235	265	294	324	355

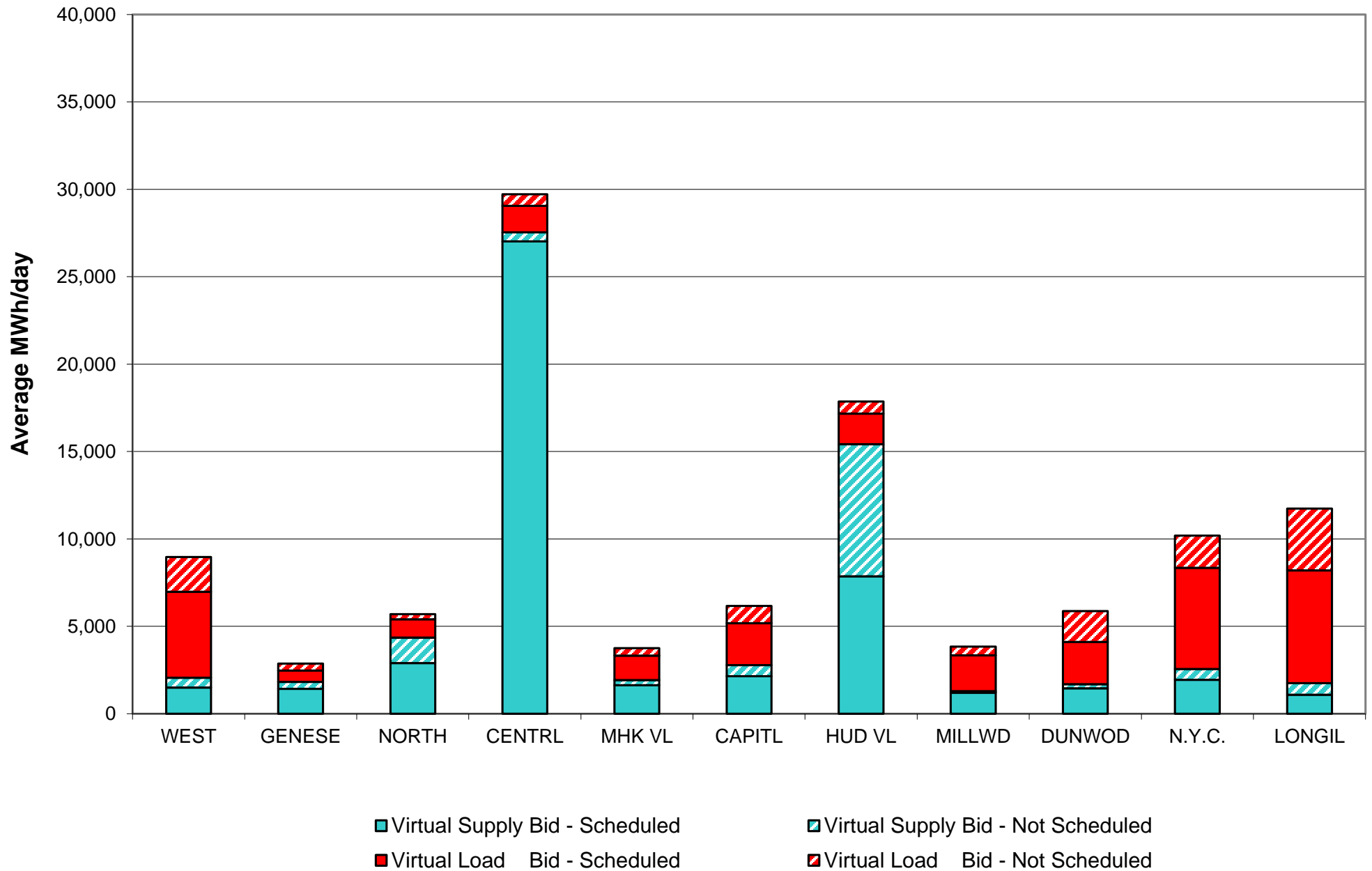
*Calendar days from reservation date; for June 2018 forward, business days from market date



NYISO Virtual Trading Average MWh per day



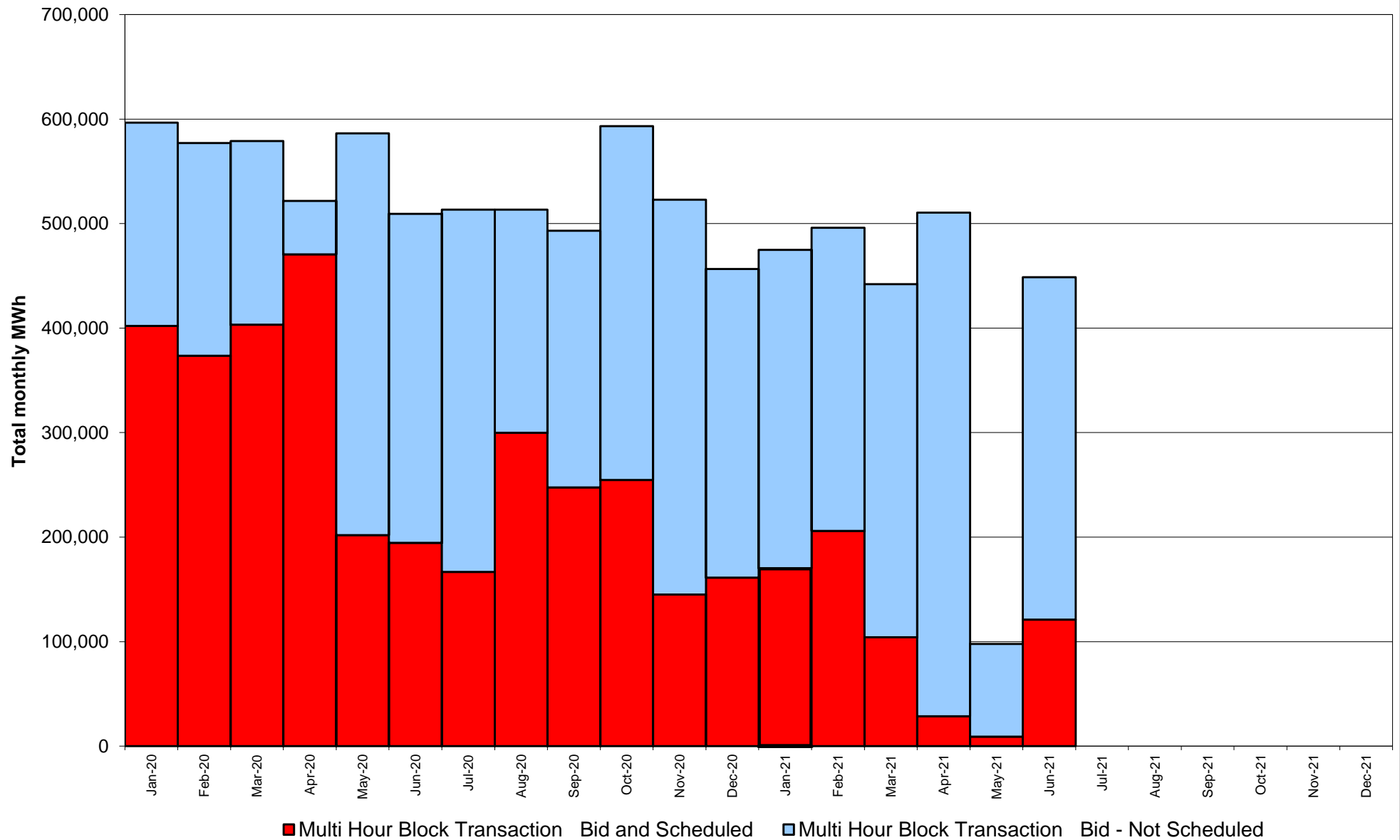
Virtual Load and Supply Zonal Statistics through June 30, 2021



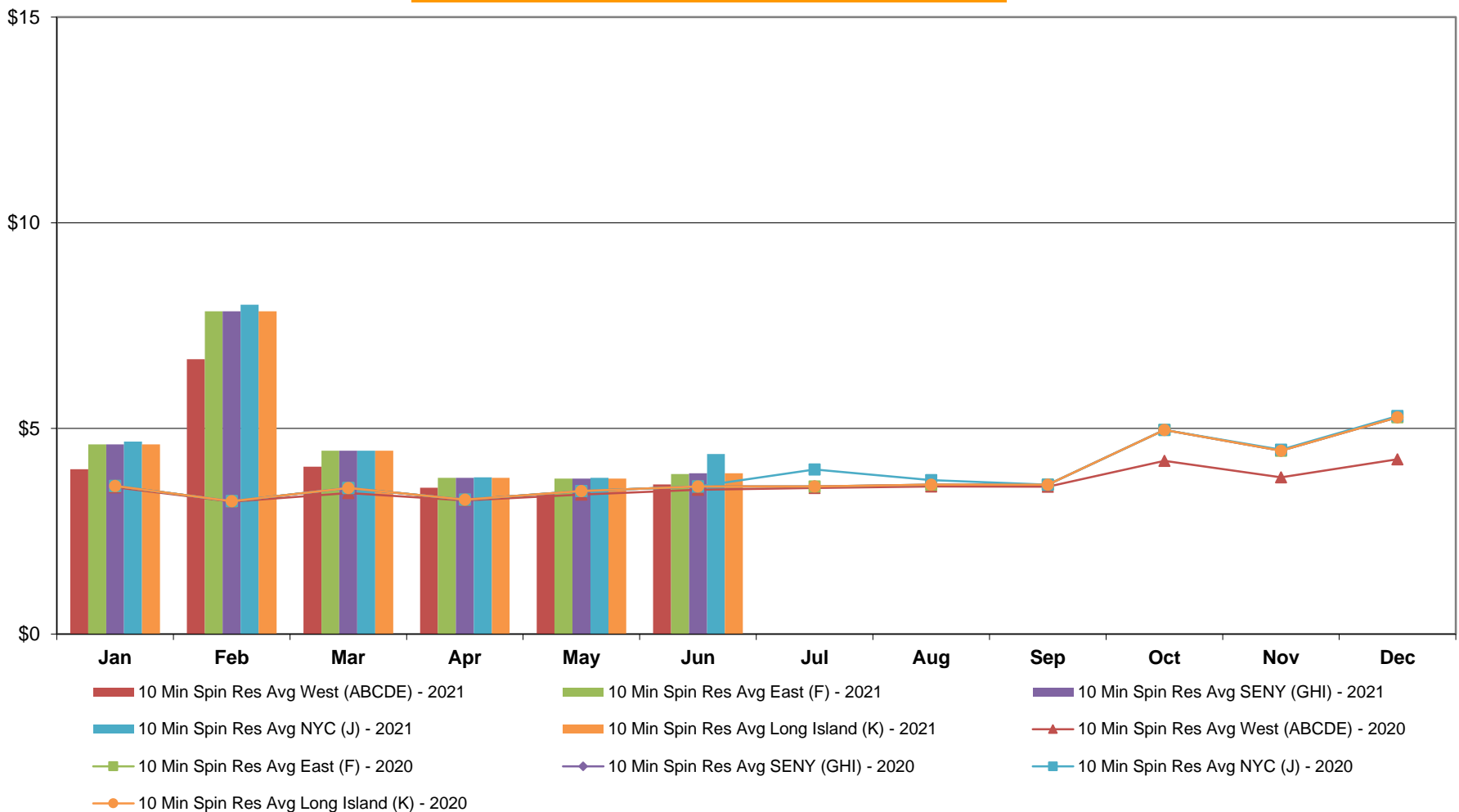
Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2021

		Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid				Virtual Load Bid		Virtual Supply Bid	
Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled		Zone	Date	Scheduled	Not Scheduled	Scheduled	Not Scheduled		Zone	Date	Scheduled	Not Scheduled
WEST	Jan-21	6,262	1,726	2,018	1,076		MHK VL	Jan-21	1,537	548	1,967	531		DUNWOD	Jan-21	1,881	2,339
	Feb-21	4,588	1,544	1,842	959			Feb-21	1,031	584	2,081	392			Feb-21	912	1,806
	Mar-21	5,696	840	1,144	893			Mar-21	1,669	305	1,402	524			Mar-21	1,303	817
	Apr-21	6,747	1,100	1,948	873			Apr-21	1,741	366	1,982	670			Apr-21	1,519	638
	May-21	7,289	1,632	1,432	630			May-21	1,279	353	2,009	447			May-21	3,219	868
	Jun-21	4,916	1,989	1,498	559			Jun-21	1,400	438	1,637	283			Jun-21	2,411	1,770
	Jul-21							Jul-21							Jul-21		
	Aug-21							Aug-21							Aug-21		
	Sep-21							Sep-21							Sep-21		
	Oct-21							Oct-21							Oct-21		
	Nov-21							Nov-21							Nov-21		
	Dec-21							Dec-21							Dec-21		
GENESE	Jan-21	1,117	329	1,085	853		CAPITL	Jan-21	3,046	1,995	2,207	792		N.Y.C.	Jan-21	3,486	2,580
	Feb-21	857	390	1,310	617			Feb-21	2,483	1,967	2,065	535			Feb-21	1,983	2,475
	Mar-21	817	295	1,433	833			Mar-21	3,192	1,581	2,230	1,041			Mar-21	2,149	1,385
	Apr-21	1,396	466	1,251	834			Apr-21	2,770	1,075	3,404	694			Apr-21	2,116	602
	May-21	862	431	1,680	486			May-21	1,417	532	2,776	837			May-21	2,664	678
	Jun-21	653	393	1,426	390			Jun-21	2,396	994	2,144	636			Jun-21	5,791	1,832
	Jul-21							Jul-21							Jul-21		
	Aug-21							Aug-21							Aug-21		
	Sep-21							Sep-21							Sep-21		
	Oct-21							Oct-21							Oct-21		
	Nov-21							Nov-21							Nov-21		
	Dec-21							Dec-21							Dec-21		
NORTH	Jan-21	830	498	3,280	1,220		HUD VL	Jan-21	1,666	1,215	5,917	7,429		LONGIL	Jan-21	4,341	4,976
	Feb-21	405	410	2,654	1,258			Feb-21	1,685	1,148	4,967	2,247			Feb-21	3,899	3,560
	Mar-21	641	125	3,152	2,052			Mar-21	1,013	455	5,555	3,086			Mar-21	4,846	2,196
	Apr-21	1,031	278	3,310	1,622			Apr-21	1,096	411	6,547	5,166			Apr-21	6,288	1,581
	May-21	1,041	164	3,171	1,703			May-21	1,658	425	5,040	8,201			May-21	6,112	1,898
	Jun-21	1,051	294	2,897	1,454			Jun-21	1,758	692	7,862	7,556			Jun-21	6,451	3,532
	Jul-21							Jul-21							Jul-21		
	Aug-21							Aug-21							Aug-21		
	Sep-21							Sep-21							Sep-21		
	Oct-21							Oct-21							Oct-21		
	Nov-21							Nov-21							Nov-21		
	Dec-21							Dec-21							Dec-21		
CENTRL	Jan-21	2,124	938	28,034	1,094		MILLWD	Jan-21	1,368	672	1,820	139		NYISO	Jan-21	27,659	17,816
	Feb-21	1,357	1,102	27,531	954			Feb-21	530	541	1,463	115			Feb-21	19,732	15,526
	Mar-21	2,108	541	24,874	888			Mar-21	731	240	1,732	175			Mar-21	24,164	8,780
	Apr-21	3,179	941	25,006	1,249			Apr-21	775	359	2,106	126			Apr-21	28,658	7,818
	May-21	1,973	708	27,134	433			May-21	1,245	245	1,386	145			May-21	28,758	7,933
	Jun-21	1,508	672	27,029	512			Jun-21	2,049	506	1,203	85			Jun-21	30,385	13,112
	Jul-21							Jul-21							Jul-21		
	Aug-21							Aug-21							Aug-21		
	Sep-21							Sep-21							Sep-21		
	Oct-21							Oct-21							Oct-21		
	Nov-21							Nov-21							Nov-21		
	Dec-21							Dec-21							Dec-21		

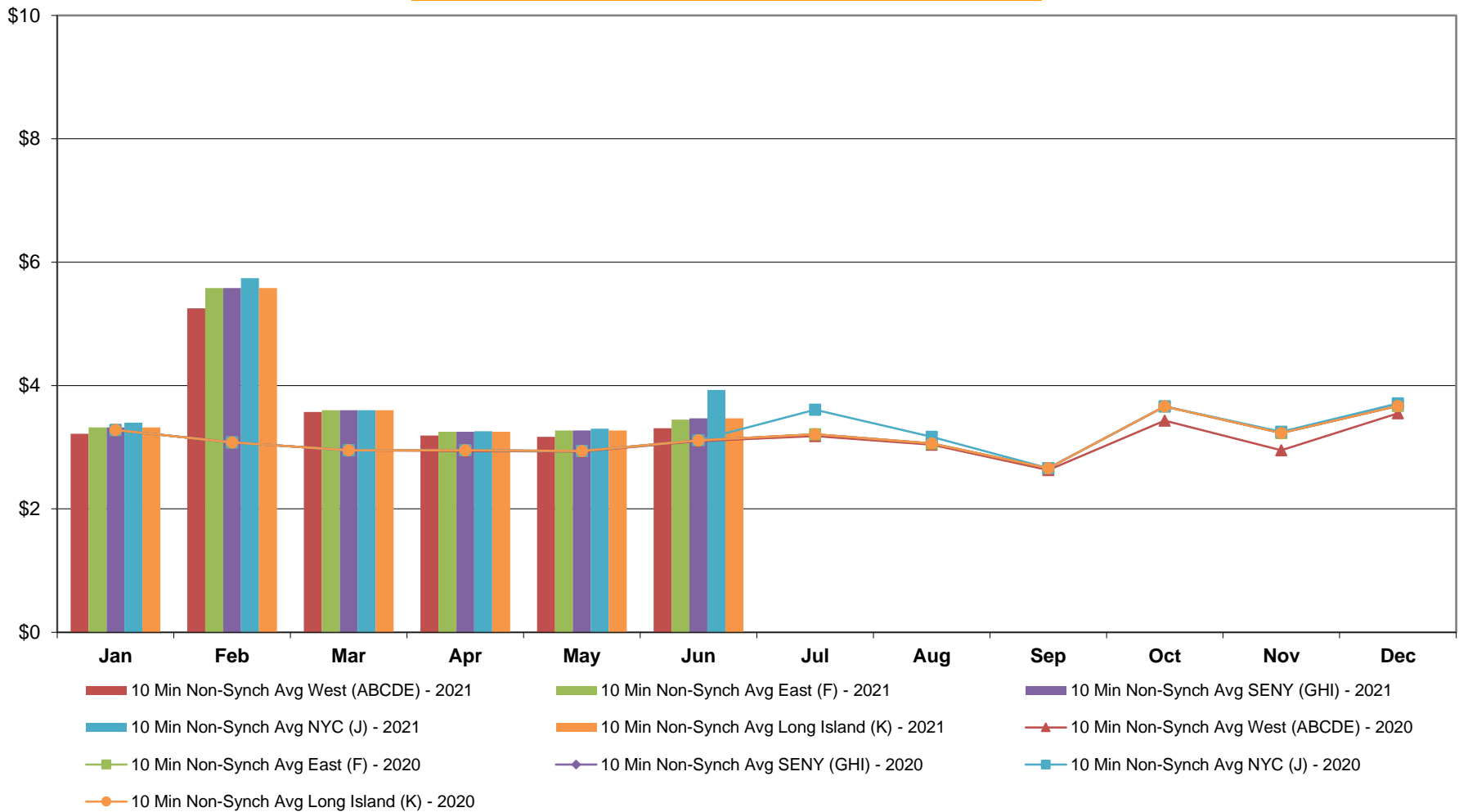
NYISO Multi Hour Block Transactions Monthly Total MWh



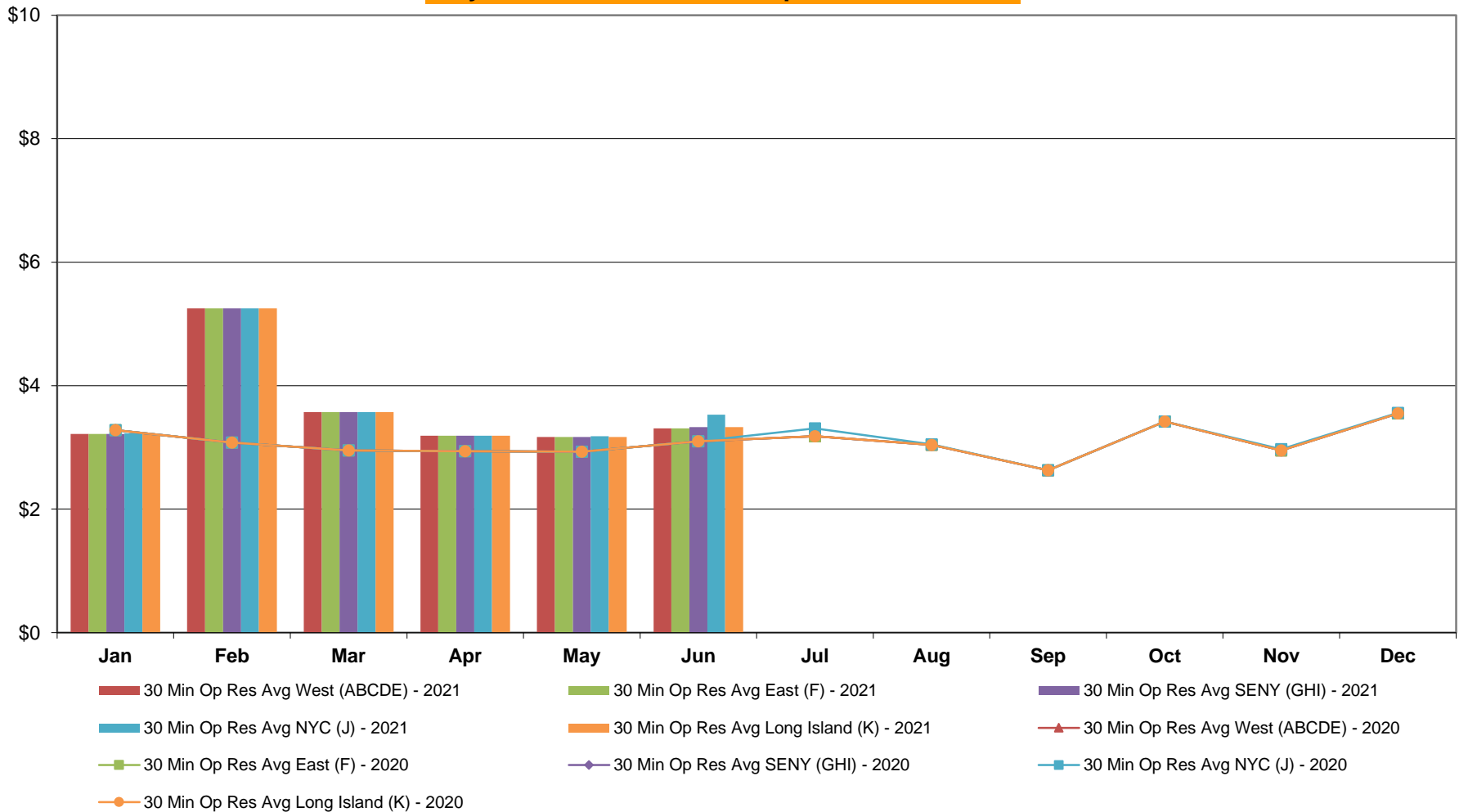
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Spin 2020 - 2021**



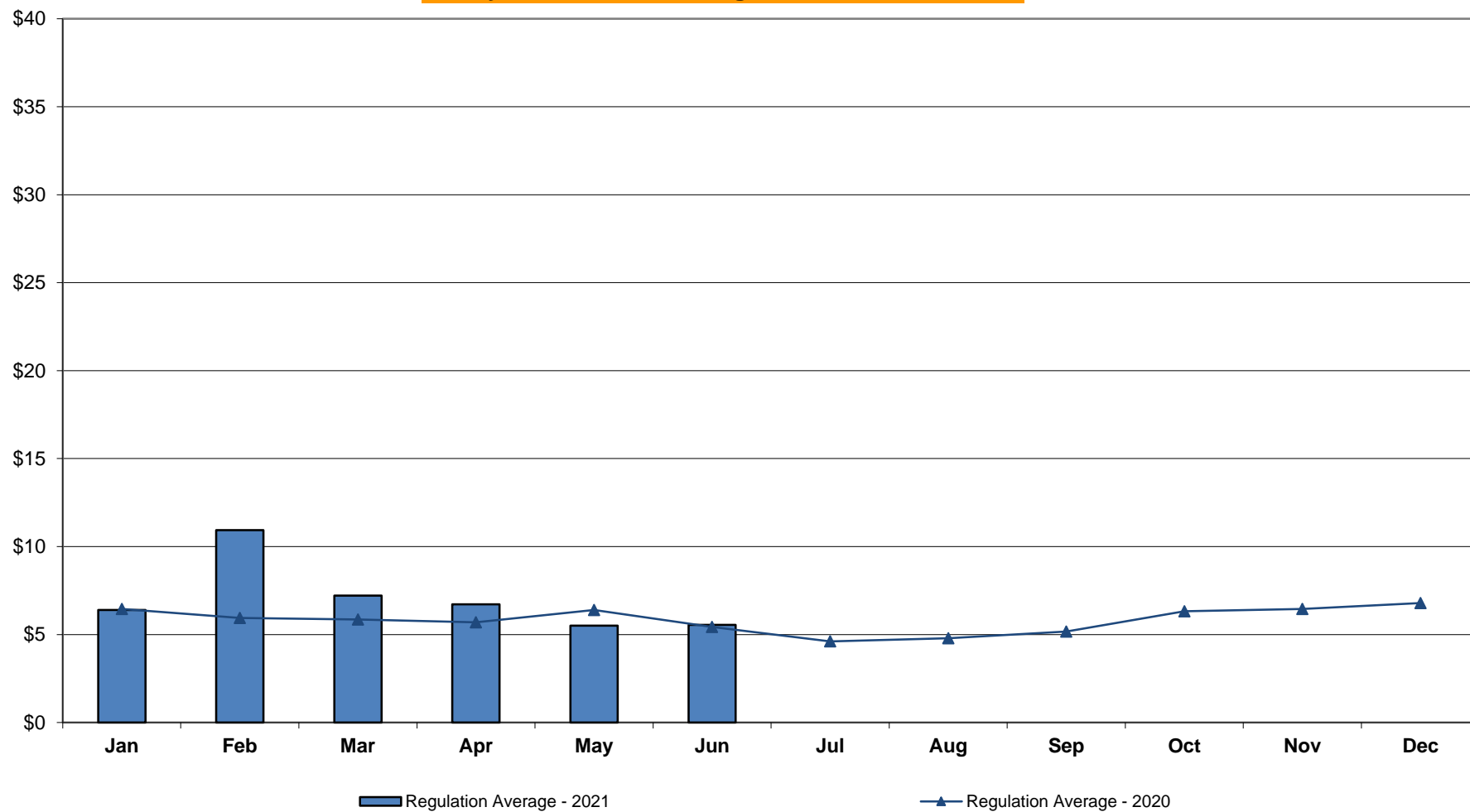
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Non-Synch 2020 - 2021**



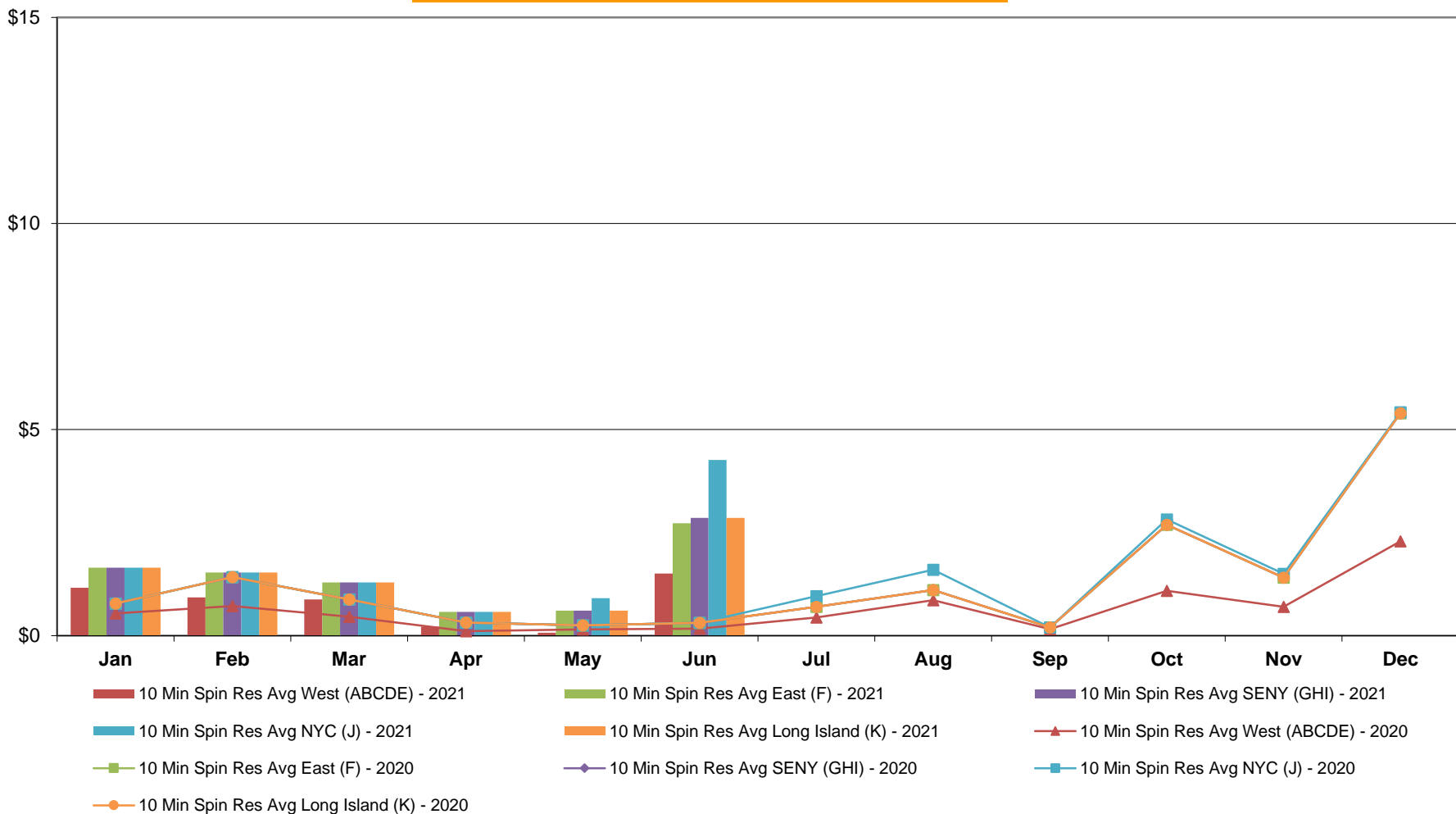
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 30 Min Op Res 2020 - 2021**



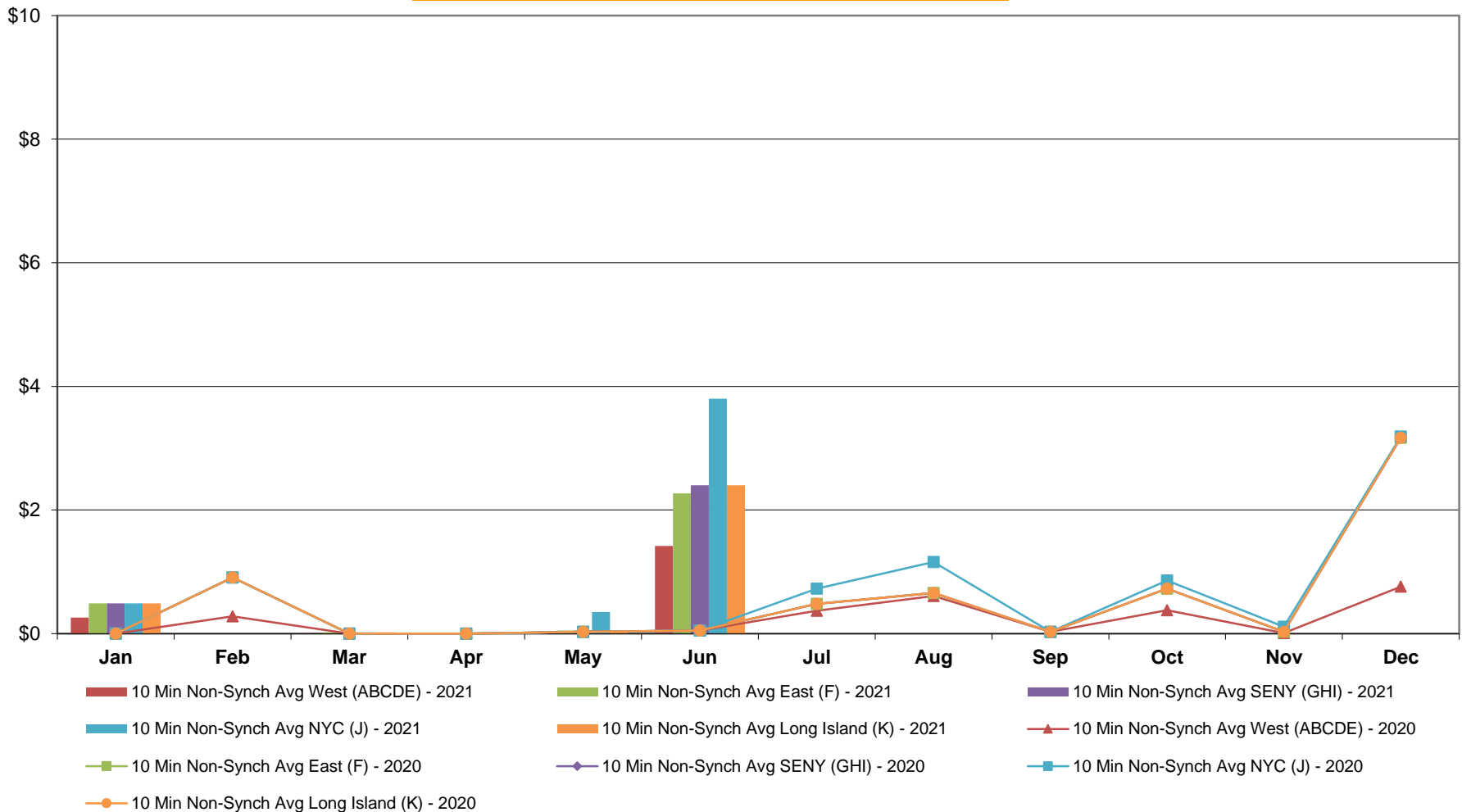
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - Regulation 2020 - 2021**



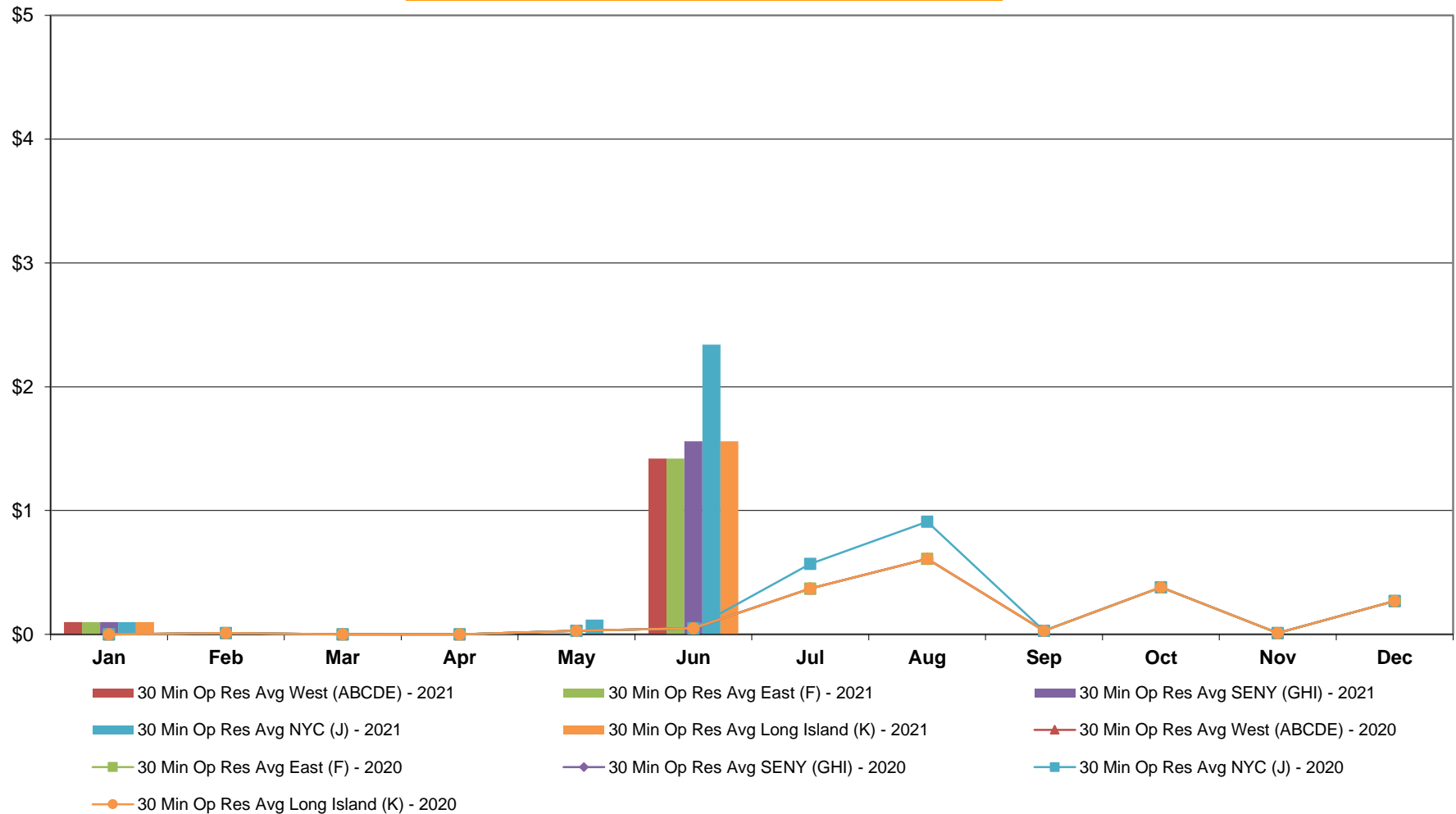
NYISO Monthly Average Ancillary Service Prices RTC Market - 10 Min Spin 2020 - 2021



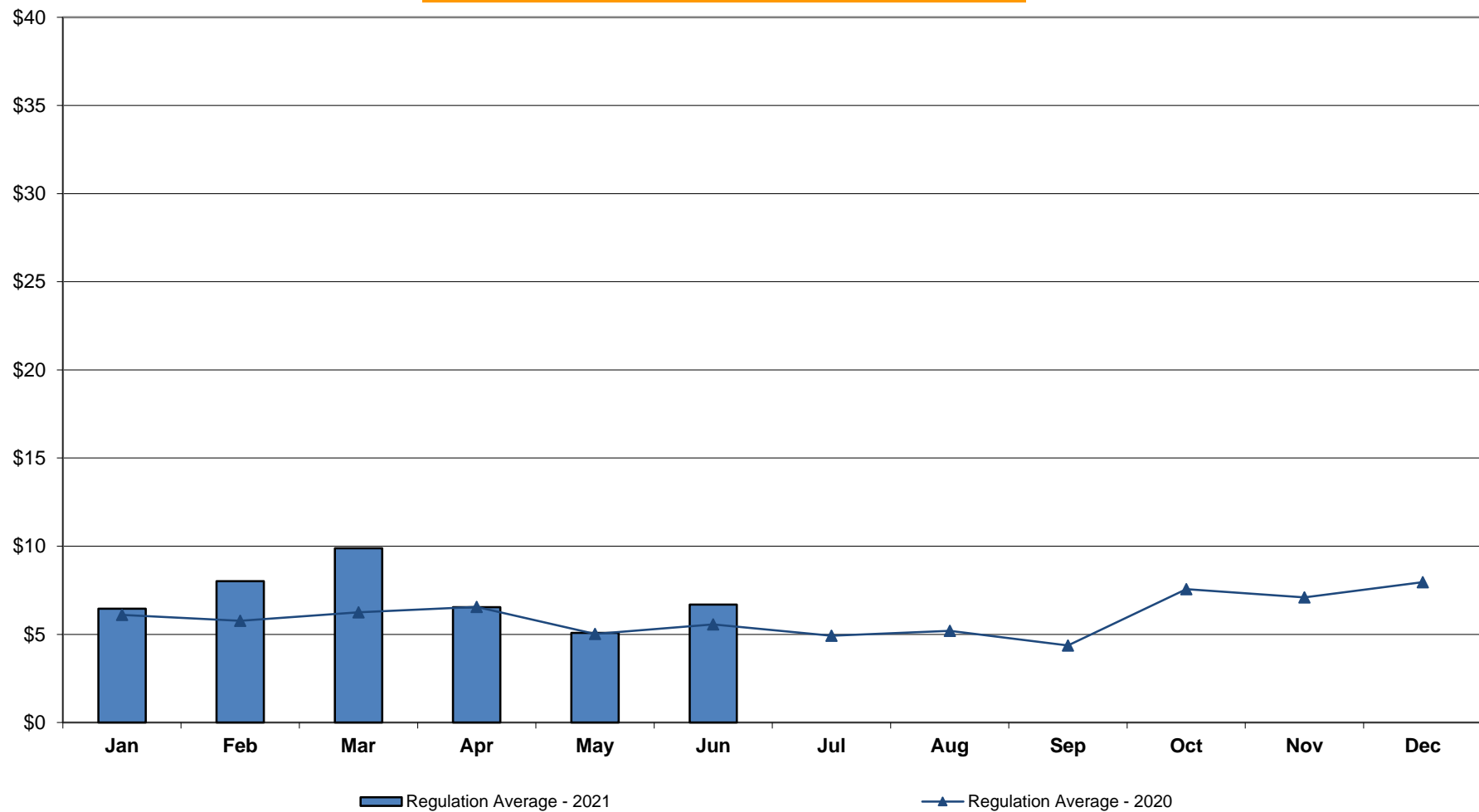
NYISO Monthly Average Ancillary Service Prices RTC Market - 10 Min Non-Synch 2020 - 2021



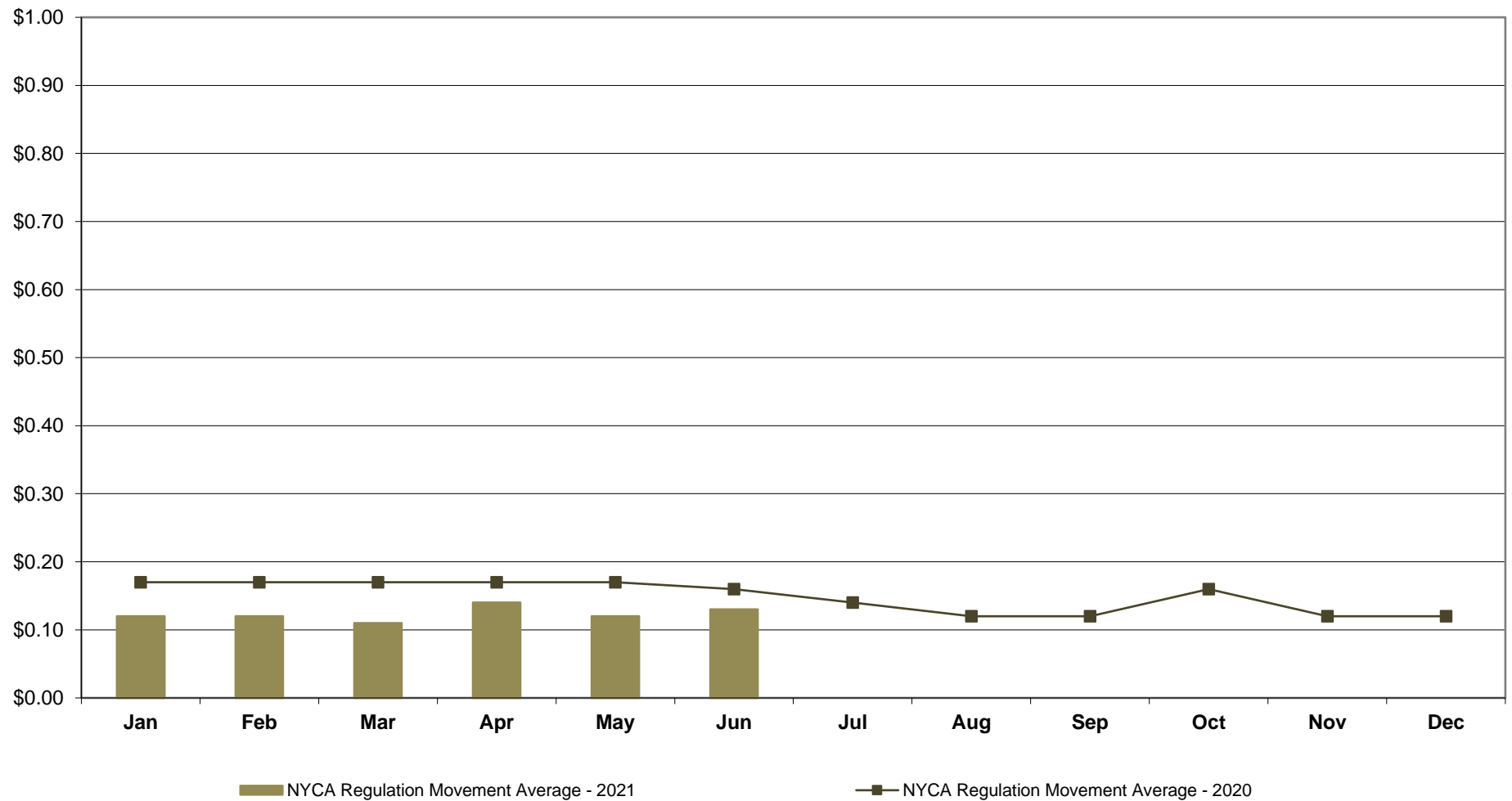
NYISO Monthly Average Ancillary Service Prices RTC Market - 30 Min Op Res 2020 - 2021



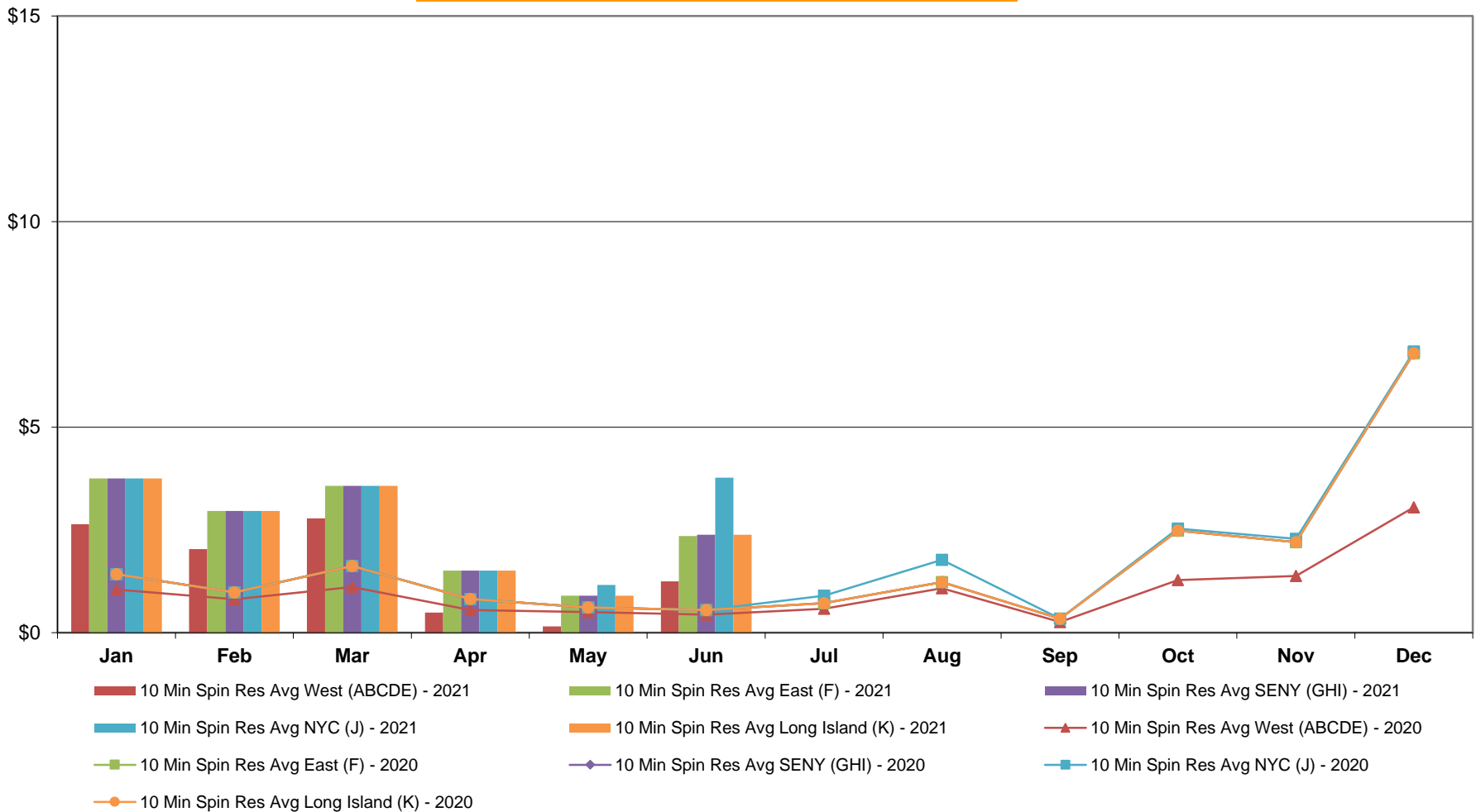
**NYISO Monthly Average Ancillary Service Prices
RTC Market - Regulation 2020 - 2021**



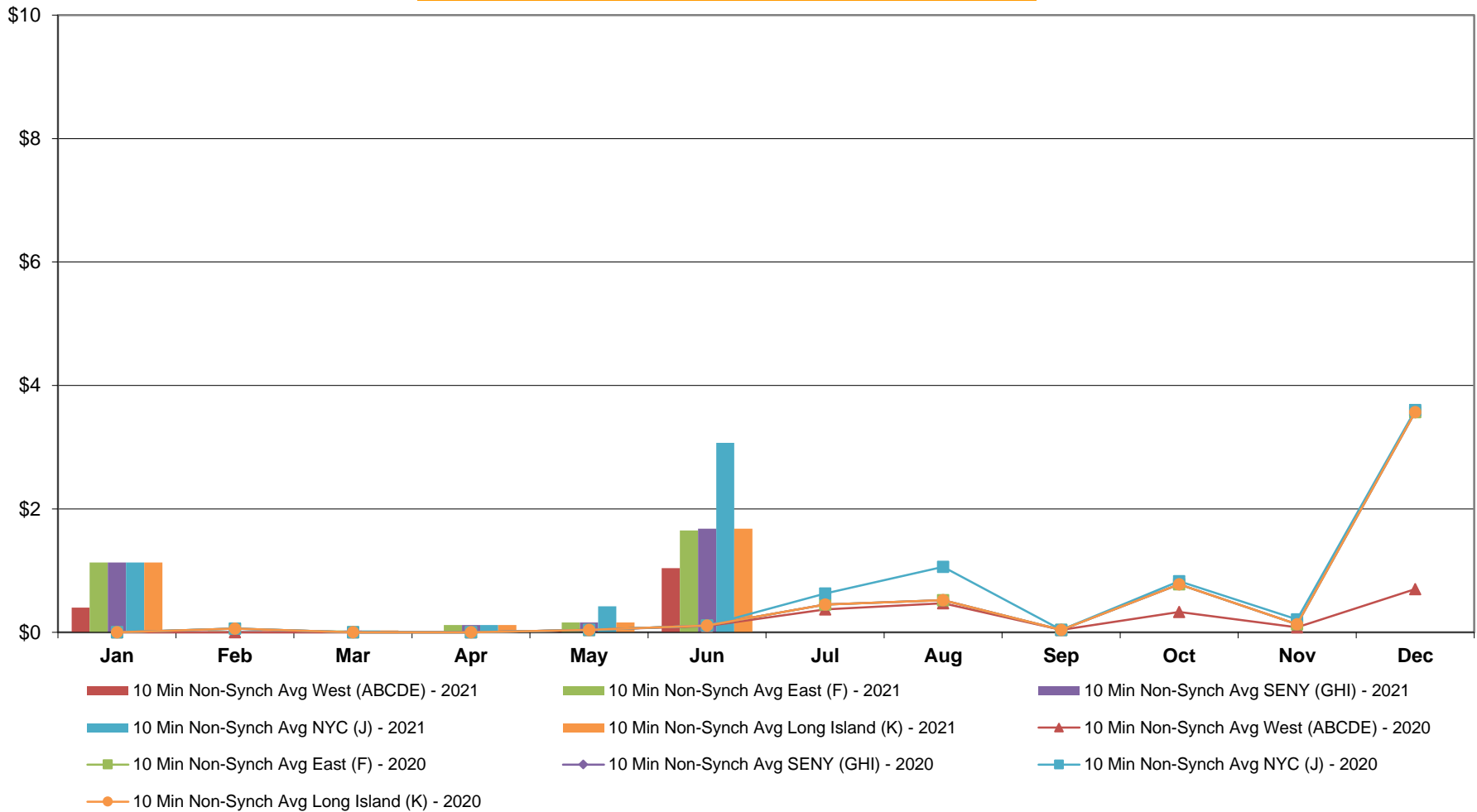
NYISO Monthly Average Ancillary Service Prices RTC Market - Regulation Movement 2020 - 2021



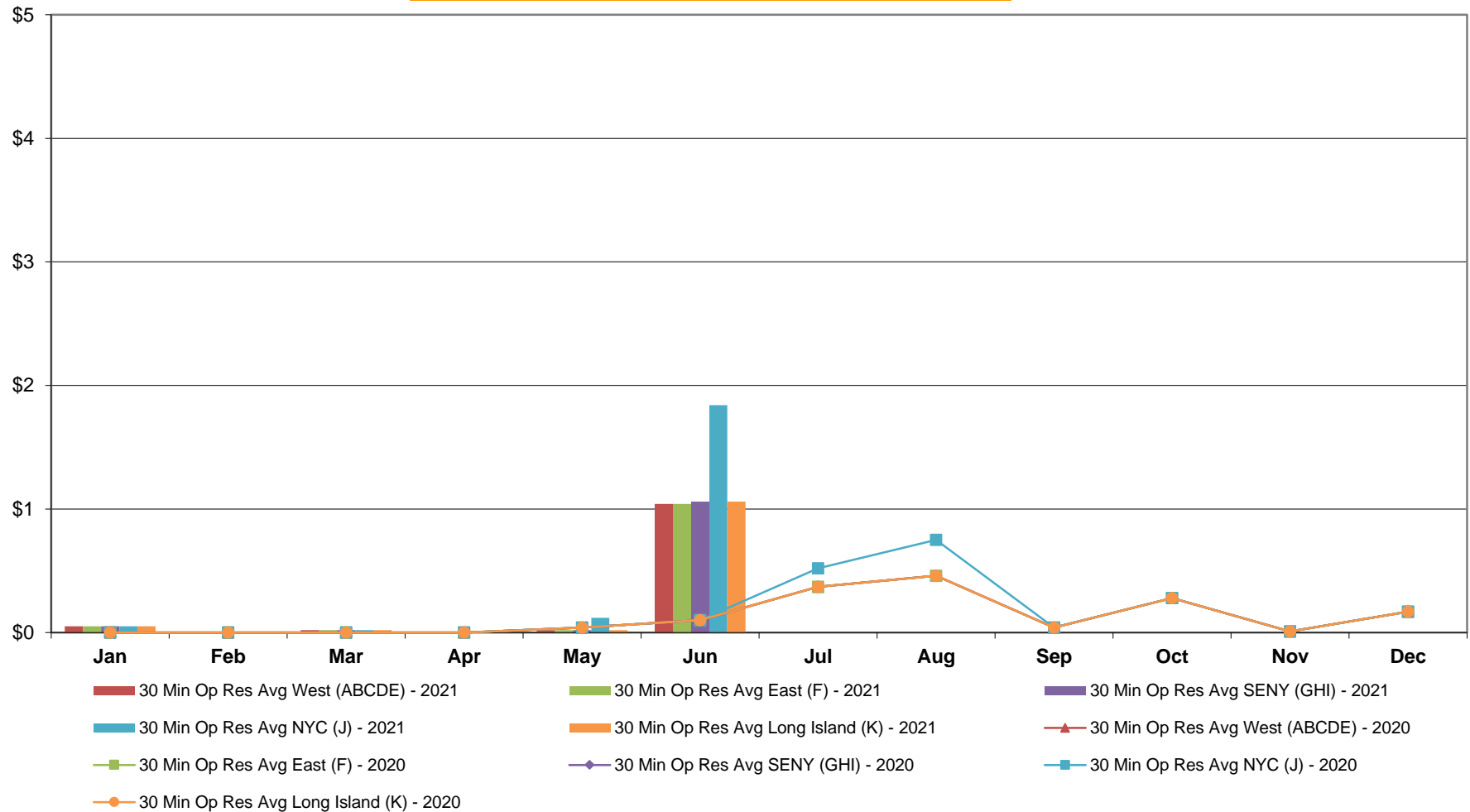
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 10 Min Spin 2020 - 2021**



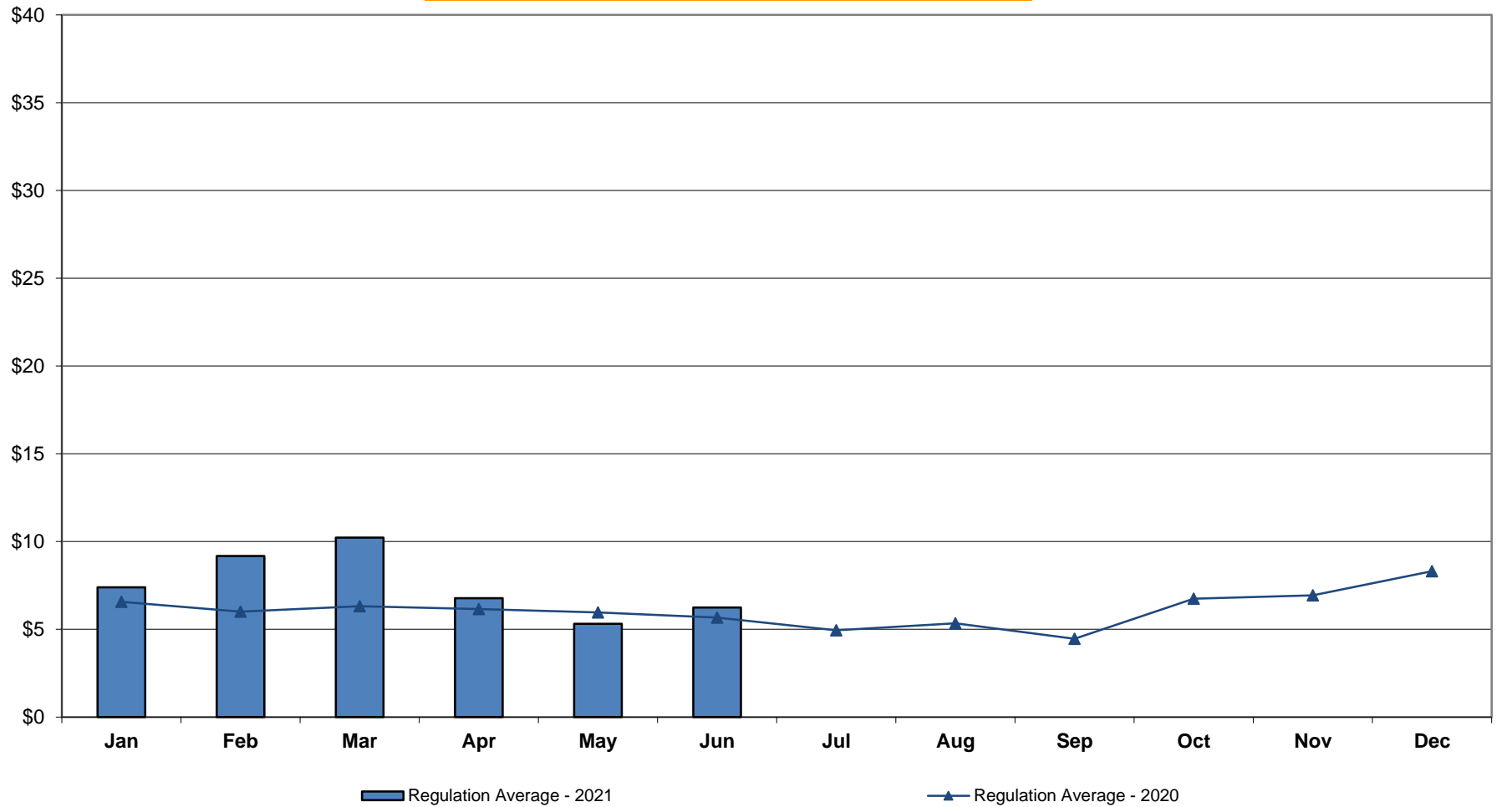
NYISO Monthly Average Ancillary Service Prices Real Time Market - 10 Min Non-Synch 2020 - 2021



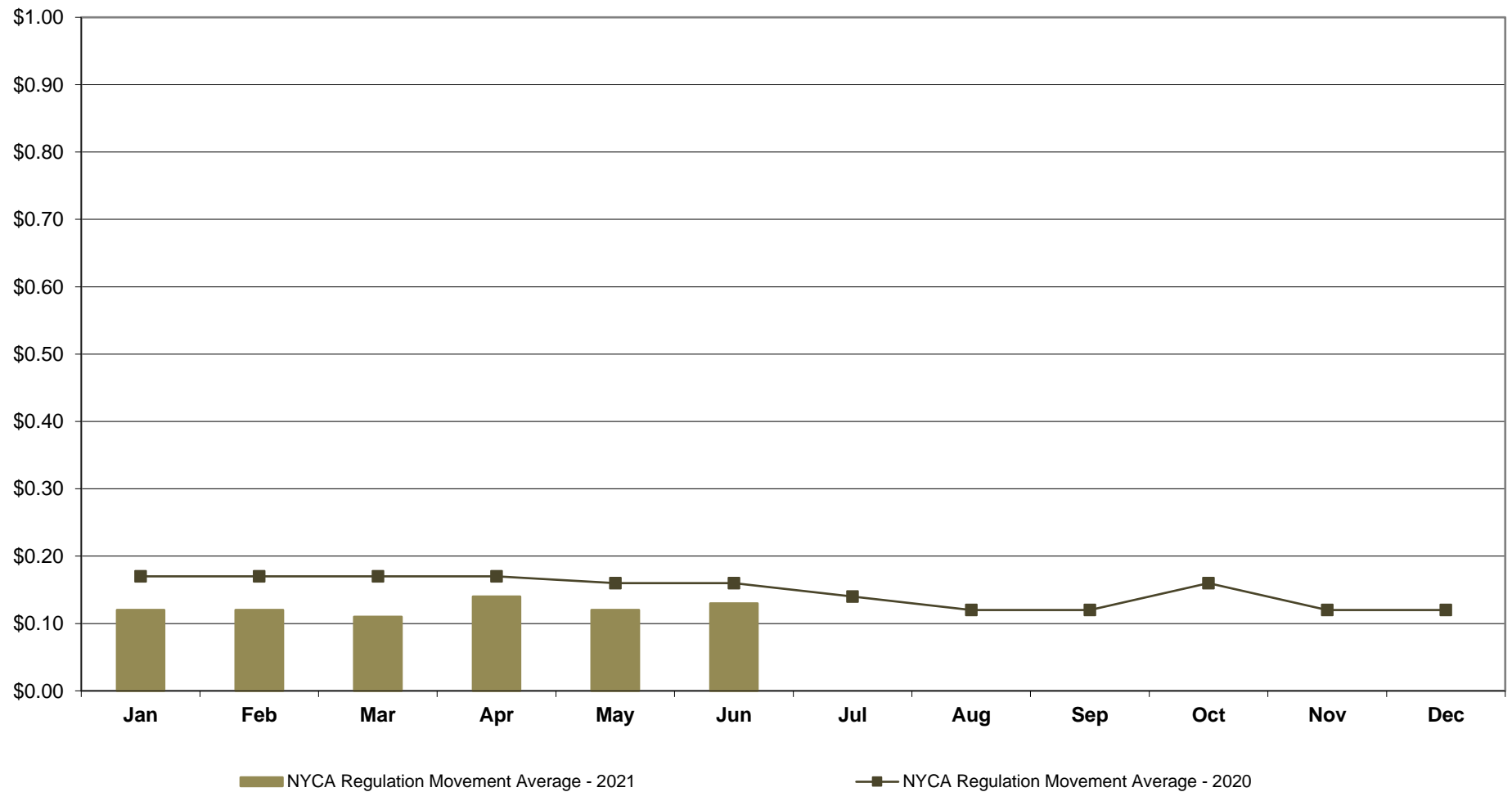
NYISO Monthly Average Ancillary Service Prices Real Time Market - 30 Min Op Res 2020 - 2021



**NYISO Monthly Average Ancillary Service Prices
Real Time Market - Regulation 2020 - 2021**



NYISO Monthly Average Ancillary Service Prices Real Time Market - Regulation Movement 2020 - 2021



NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - DAM

<u>2021</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Day Ahead Market</u>												
10 Min Spin Long Island (K)	4.61	7.85	4.46	3.80	3.78	3.91						
10 Min Spin NYC (J)	4.68	8.01	4.46	3.81	3.80	4.38						
10 Min Spin SENY (GHI)	4.61	7.85	4.46	3.80	3.78	3.91						
10 Min Spin East (F)	4.61	7.85	4.46	3.80	3.78	3.89						
10 Min Spin West (ABCDE)	4.01	6.68	4.07	3.56	3.43	3.64						
10 Min Non Synch Long Island (K)	3.32	5.58	3.60	3.25	3.27	3.47						
10 Min Non Synch NYC (J)	3.40	5.74	3.60	3.26	3.30	3.93						
10 Min Non Synch SENY (GHI)	3.32	5.58	3.60	3.25	3.27	3.47						
10 Min Non Synch East (F)	3.32	5.58	3.60	3.25	3.27	3.45						
10 Min Non Synch West (ABCDE)	3.22	5.25	3.57	3.19	3.17	3.31						
30 Min Long Island (K)	3.22	5.25	3.57	3.19	3.17	3.33						
30 Min NYC (J)	3.23	5.25	3.57	3.19	3.18	3.53						
30 Min SENY (GHI)	3.22	5.25	3.57	3.19	3.17	3.33						
30 Min East (F)	3.22	5.25	3.57	3.19	3.17	3.31						
30 Min West (ABCDE)	3.22	5.25	3.57	3.19	3.17	3.31						
Regulation	6.40	10.93	7.21	6.72	5.50	5.55						
<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Day Ahead Market</u>												
10 Min Spin Long Island (K)	3.60	3.23	3.55	3.27	3.48	3.59	3.59	3.63	3.63	4.96	4.46	5.27
10 Min Spin NYC (J)	3.60	3.23	3.55	3.27	3.48	3.64	4.00	3.74	3.63	4.96	4.48	5.30
10 Min Spin SENY (GHI)	3.60	3.23	3.55	3.27	3.48	3.59	3.59	3.63	3.63	4.96	4.46	5.27
10 Min Spin East (F)	3.60	3.23	3.55	3.27	3.48	3.59	3.59	3.63	3.63	4.96	4.46	5.27
10 Min Spin West (ABCDE)	3.57	3.22	3.43	3.25	3.39	3.51	3.55	3.59	3.58	4.21	3.81	4.25
10 Min Non Synch Long Island (K)	3.28	3.08	2.95	2.95	2.94	3.11	3.21	3.06	2.66	3.66	3.23	3.67
10 Min Non Synch NYC (J)	3.28	3.08	2.95	2.95	2.94	3.17	3.61	3.17	2.66	3.66	3.25	3.71
10 Min Non Synch SENY (GHI)	3.28	3.08	2.95	2.95	2.94	3.11	3.21	3.06	2.66	3.66	3.23	3.67
10 Min Non Synch East (F)	3.28	3.08	2.95	2.95	2.94	3.11	3.21	3.06	2.66	3.66	3.23	3.67
10 Min Non Synch West (ABCDE)	3.28	3.08	2.95	2.94	2.93	3.10	3.18	3.04	2.63	3.43	2.95	3.55
30 Min Long Island (K)	3.28	3.08	2.95	2.94	2.93	3.10	3.18	3.04	2.63	3.42	2.95	3.55
30 Min NYC (J)	3.28	3.08	2.95	2.94	2.93	3.10	3.31	3.05	2.63	3.42	2.97	3.56
30 Min SENY (GHI)	3.28	3.08	2.95	2.94	2.93	3.10	3.18	3.04	2.63	3.42	2.95	3.55
30 Min East (F)	3.28	3.08	2.95	2.94	2.93	3.10	3.18	3.04	2.63	3.42	2.95	3.55
30 Min West (ABCDE)	3.28	3.08	2.95	2.94	2.93	3.10	3.18	3.04	2.63	3.42	2.95	3.55
Regulation	6.46	5.94	5.86	5.70	6.40	5.44	4.61	4.79	5.17	6.32	6.45	6.79

NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - RTC

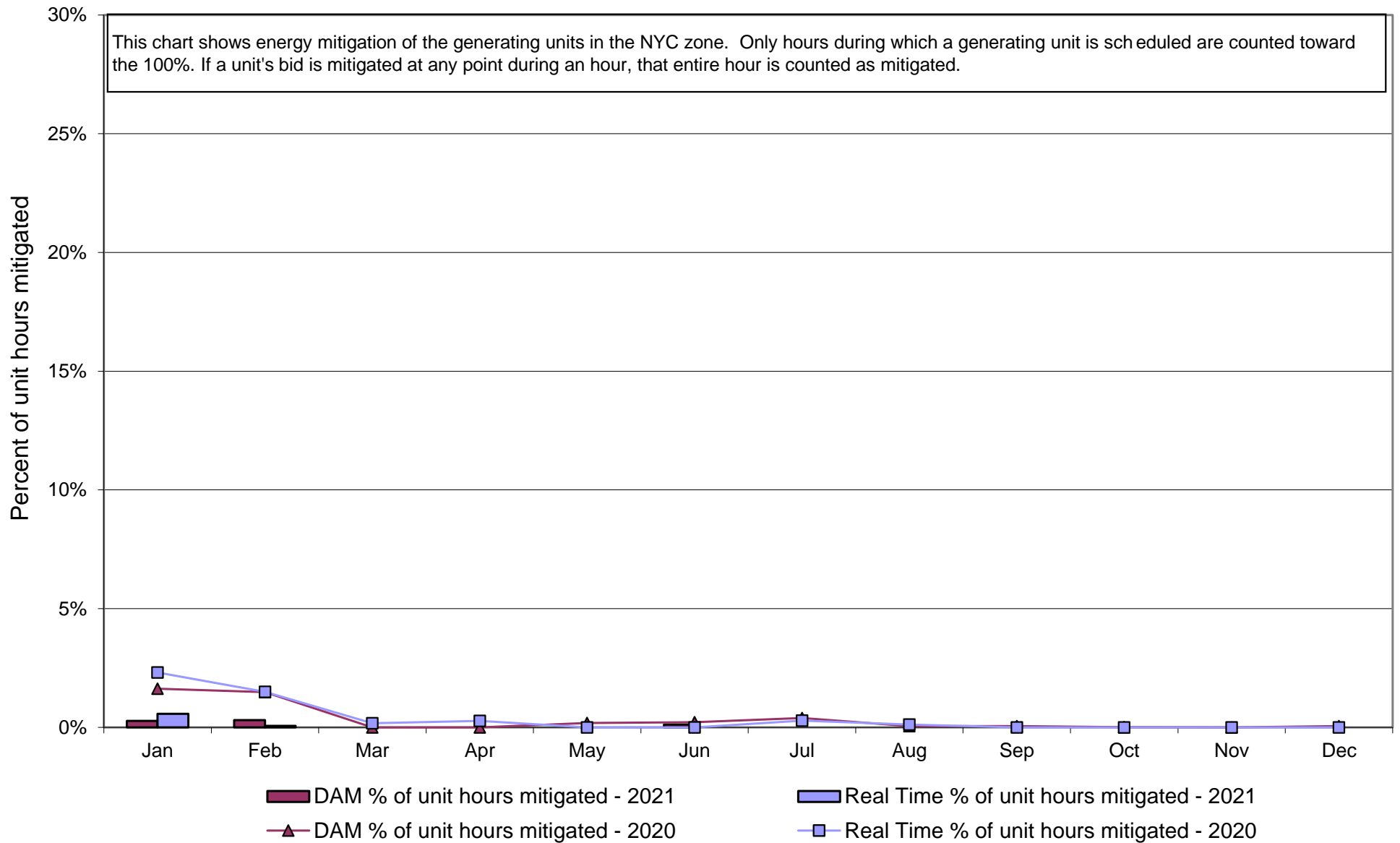
<u>2021</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>RTC Market</u>												
10 Min Spin Long Island (K)	1.65	1.53	1.29	0.58	0.61	2.86						
10 Min Spin NYC (J)	1.65	1.53	1.29	0.58	0.91	4.26						
10 Min Spin SENY (GHI)	1.65	1.53	1.29	0.58	0.61	2.86						
10 Min Spin East (F)	1.65	1.53	1.29	0.58	0.61	2.73						
10 Min Spin West (ABCDE)	1.16	0.93	0.88	0.22	0.07	1.51						
10 Min Non Synch Long Island (K)	0.49	0.00	0.02	0.00	0.05	2.40						
10 Min Non Synch NYC (J)	0.49	0.00	0.02	0.00	0.35	3.80						
10 Min Non Synch SENY (GHI)	0.49	0.00	0.02	0.00	0.05	2.40						
10 Min Non Synch East (F)	0.49	0.00	0.02	0.00	0.05	2.27						
10 Min Non Synch West (ABCDE)	0.26	0.00	0.01	0.00	0.00	1.42						
30 Min Long Island (K)	0.10	0.00	0.01	0.00	0.00	1.56						
30 Min NYC (J)	0.10	0.00	0.01	0.00	0.12	2.34						
30 Min SENY (GHI)	0.10	0.00	0.01	0.00	0.00	1.56						
30 Min East (F)	0.10	0.00	0.01	0.00	0.00	1.42						
30 Min West (ABCDE)	0.10	0.00	0.01	0.00	0.00	1.42						
Regulation	6.46	8.02	9.88	6.54	5.08	6.69						
NYCA Regulation Movement	0.12	0.12	0.11	0.14	0.12	0.13						
<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>RTC Market</u>												
10 Min Spin Long Island (K)	0.78	1.42	0.88	0.32	0.25	0.31	0.70	1.11	0.20	2.69	1.41	5.40
10 Min Spin NYC (J)	0.78	1.46	0.88	0.32	0.26	0.31	0.96	1.60	0.20	2.82	1.50	5.42
10 Min Spin SENY (GHI)	0.78	1.42	0.88	0.32	0.25	0.31	0.70	1.11	0.20	2.69	1.41	5.40
10 Min Spin East (F)	0.78	1.42	0.88	0.32	0.25	0.31	0.70	1.11	0.20	2.69	1.41	5.40
10 Min Spin West (ABCDE)	0.54	0.72	0.46	0.11	0.15	0.17	0.44	0.86	0.16	1.09	0.70	2.29
10 Min Non Synch Long Island (K)	0.00	0.91	0.00	0.00	0.03	0.05	0.48	0.66	0.03	0.73	0.03	3.17
10 Min Non Synch NYC (J)	0.00	0.95	0.00	0.00	0.04	0.06	0.73	1.16	0.03	0.86	0.11	3.19
10 Min Non Synch SENY (GHI)	0.00	0.91	0.00	0.00	0.03	0.05	0.48	0.66	0.03	0.73	0.03	3.17
10 Min Non Synch East (F)	0.00	0.91	0.00	0.00	0.03	0.05	0.48	0.66	0.03	0.73	0.03	3.17
10 Min Non Synch West (ABCDE)	0.00	0.28	0.00	0.00	0.03	0.05	0.37	0.61	0.03	0.38	0.01	0.76
30 Min Long Island (K)	0.00	0.01	0.00	0.00	0.03	0.05	0.37	0.61	0.03	0.38	0.01	0.27
30 Min NYC (J)	0.00	0.01	0.00	0.00	0.03	0.05	0.57	0.91	0.03	0.38	0.01	0.27
30 Min SENY (GHI)	0.00	0.01	0.00	0.00	0.03	0.05	0.37	0.61	0.03	0.38	0.01	0.27
30 Min East (F)	0.00	0.01	0.00	0.00	0.03	0.05	0.37	0.61	0.03	0.38	0.01	0.27
30 Min West (ABCDE)	0.00	0.01	0.00	0.00	0.03	0.05	0.37	0.61	0.03	0.38	0.01	0.27
Regulation	6.11	5.77	6.25	6.56	5.02	5.56	4.92	5.20	4.37	7.57	7.09	7.96
NYCA Regulation Movement	0.17	0.17	0.17	0.17	0.17	0.16	0.14	0.12	0.12	0.16	0.12	0.12

NYISO Markets Ancillary Services Statistics - Unweighted Price (\$/MWH) - RT

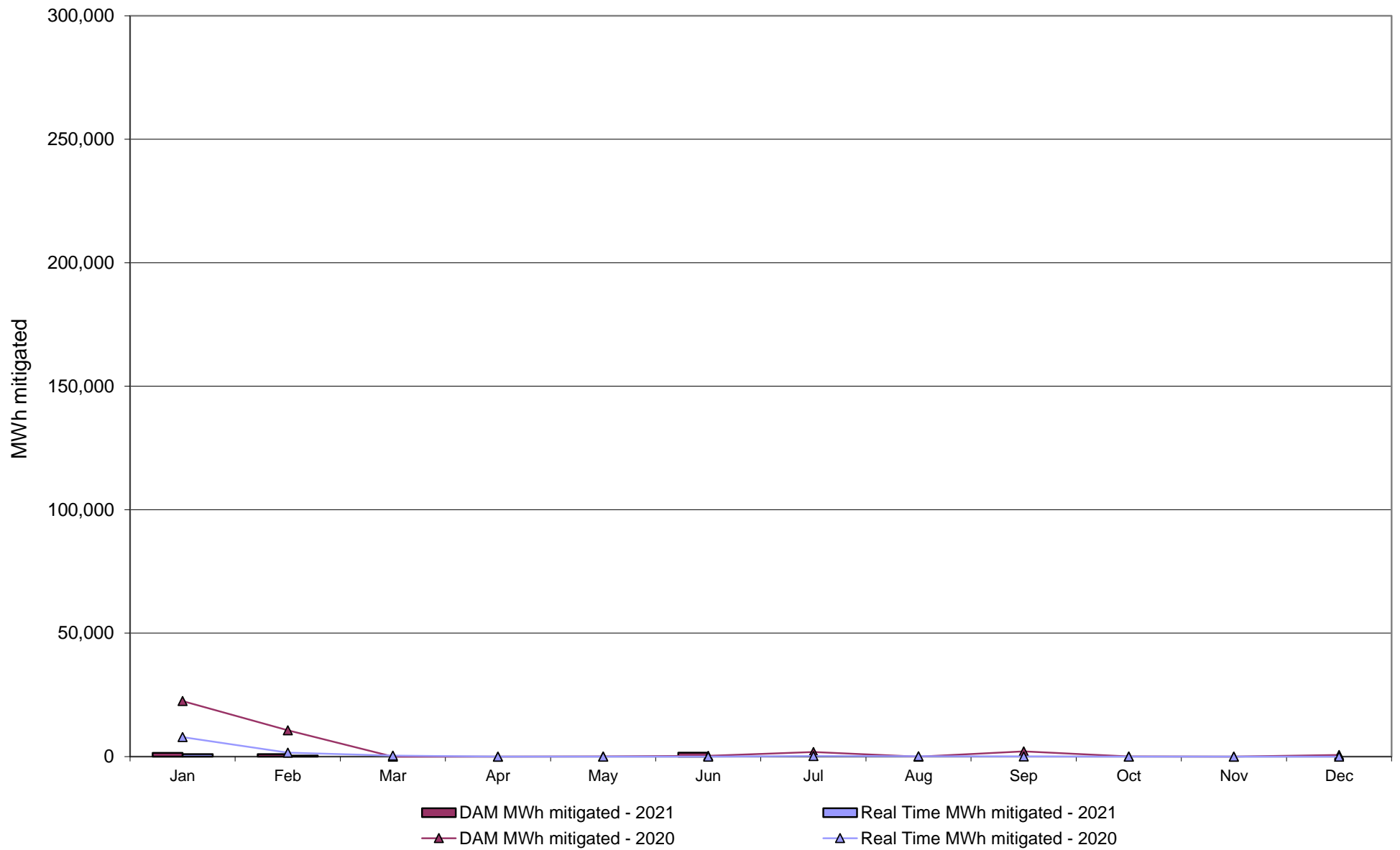
<u>2021</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Real Time Market</u>												
10 Min Spin Long Island (K)	3.75	2.96	3.57	1.51	0.90	2.38						
10 Min Spin NYC (J)	3.75	2.96	3.57	1.51	1.16	3.77						
10 Min Spin SENY (GHI)	3.75	2.96	3.57	1.51	0.90	2.38						
10 Min Spin East (F)	3.75	2.96	3.57	1.51	0.90	2.35						
10 Min Spin West (ABCDE)	2.64	2.03	2.78	0.49	0.15	1.25						
10 Min Non Synch Long Island (K)	1.13	0.02	0.03	0.12	0.16	1.68						
10 Min Non Synch NYC (J)	1.13	0.02	0.03	0.12	0.42	3.07						
10 Min Non Synch SENY (GHI)	1.13	0.02	0.03	0.12	0.16	1.68						
10 Min Non Synch East (F)	1.13	0.02	0.03	0.12	0.16	1.65						
10 Min Non Synch West (ABCDE)	0.40	0.00	0.02	0.00	0.02	1.04						
30 Min Long Island (K)	0.05	0.00	0.02	0.00	0.02	1.06						
30 Min NYC (J)	0.05	0.00	0.02	0.00	0.12	1.84						
30 Min SENY (GHI)	0.05	0.00	0.02	0.00	0.02	1.06						
30 Min East (F)	0.05	0.00	0.02	0.00	0.02	1.04						
30 Min West (ABCDE)	0.05	0.00	0.02	0.00	0.02	1.04						
Regulation	7.39	9.17	10.23	6.78	5.31	6.24						
NYCA Regulation Movement	0.12	0.12	0.11	0.14	0.12	0.13						
<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Real Time Market</u>												
10 Min Spin Long Island (K)	1.42	0.98	1.62	0.82	0.61	0.55	0.72	1.23	0.34	2.48	2.20	6.80
10 Min Spin NYC (J)	1.42	0.98	1.62	0.82	0.63	0.56	0.90	1.77	0.34	2.53	2.28	6.84
10 Min Spin SENY (GHI)	1.42	0.98	1.62	0.82	0.61	0.55	0.72	1.23	0.34	2.48	2.20	6.80
10 Min Spin East (F)	1.42	0.98	1.62	0.82	0.61	0.55	0.72	1.23	0.34	2.48	2.20	6.80
10 Min Spin West (ABCDE)	1.05	0.81	1.11	0.55	0.50	0.44	0.58	1.08	0.26	1.28	1.38	3.05
10 Min Non Synch Long Island (K)	0.00	0.06	0.00	0.00	0.04	0.11	0.45	0.52	0.04	0.78	0.13	3.57
10 Min Non Synch NYC (J)	0.00	0.06	0.00	0.00	0.07	0.12	0.63	1.06	0.04	0.83	0.21	3.60
10 Min Non Synch SENY (GHI)	0.00	0.06	0.00	0.00	0.04	0.11	0.45	0.52	0.04	0.78	0.13	3.57
10 Min Non Synch East (F)	0.00	0.06	0.00	0.00	0.04	0.11	0.45	0.52	0.04	0.78	0.13	3.57
10 Min Non Synch West (ABCDE)	0.00	0.00	0.00	0.00	0.04	0.10	0.37	0.47	0.04	0.33	0.08	0.70
30 Min Long Island (K)	0.00	0.00	0.00	0.00	0.04	0.10	0.37	0.46	0.04	0.28	0.01	0.17
30 Min NYC (J)	0.00	0.00	0.00	0.00	0.04	0.10	0.52	0.75	0.04	0.28	0.01	0.17
30 Min SENY (GHI)	0.00	0.00	0.00	0.00	0.04	0.10	0.37	0.46	0.04	0.28	0.01	0.17
30 Min East (F)	0.00	0.00	0.00	0.00	0.04	0.10	0.37	0.46	0.04	0.28	0.01	0.17
30 Min West (ABCDE)	0.00	0.00	0.00	0.00	0.04	0.10	0.37	0.46	0.04	0.28	0.01	0.17
Regulation	6.57	6.00	6.32	6.16	5.96	5.67	4.94	5.34	4.46	6.75	6.93	8.31
NYCA Regulation Movement	0.17	0.17	0.17	0.17	0.16	0.16	0.14	0.12	0.12	0.16	0.12	0.12

NYISO In City Energy Mitigation - AMP (NYC Zone) 2020 - 2021

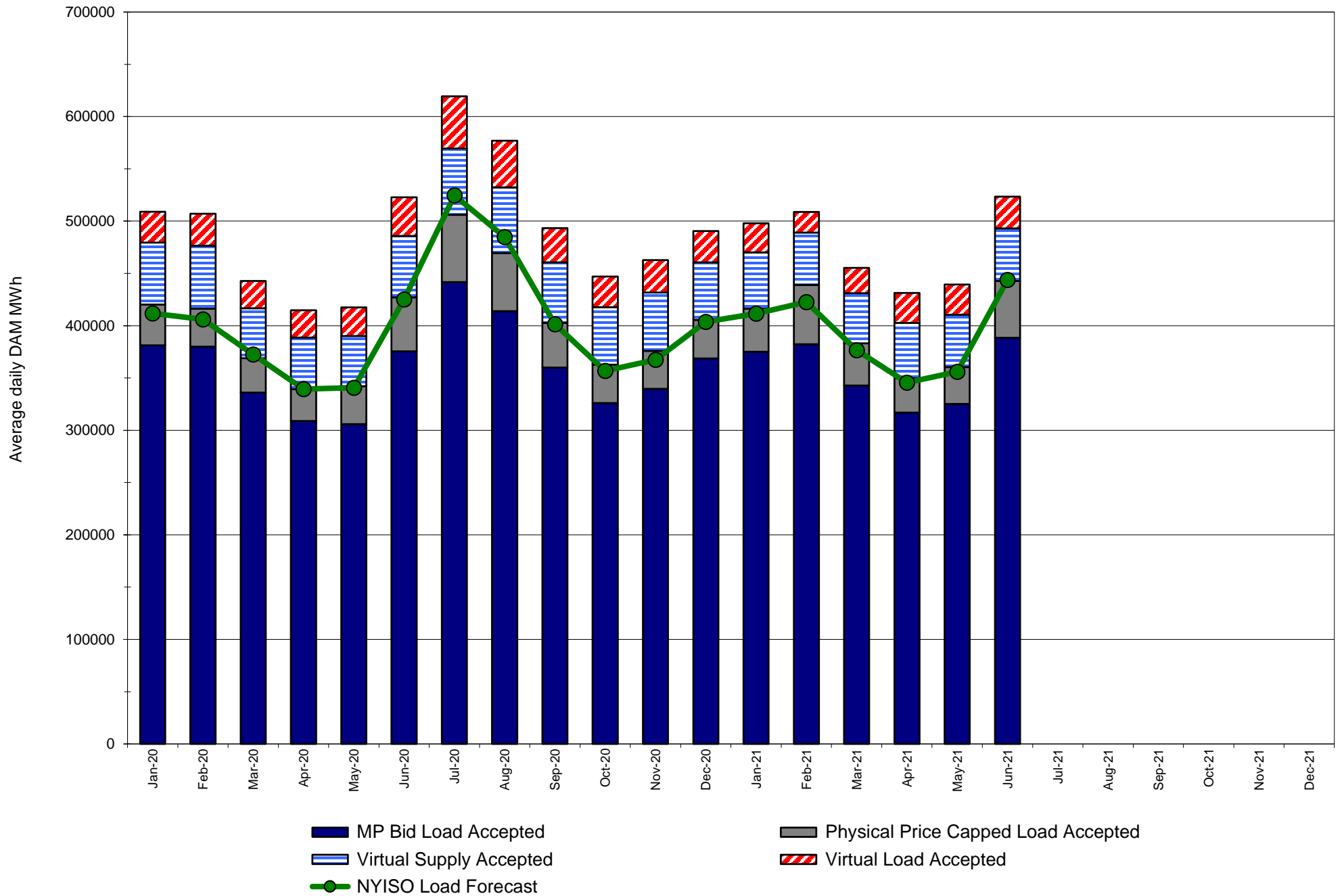
Percentage of committed unit-hours mitigated



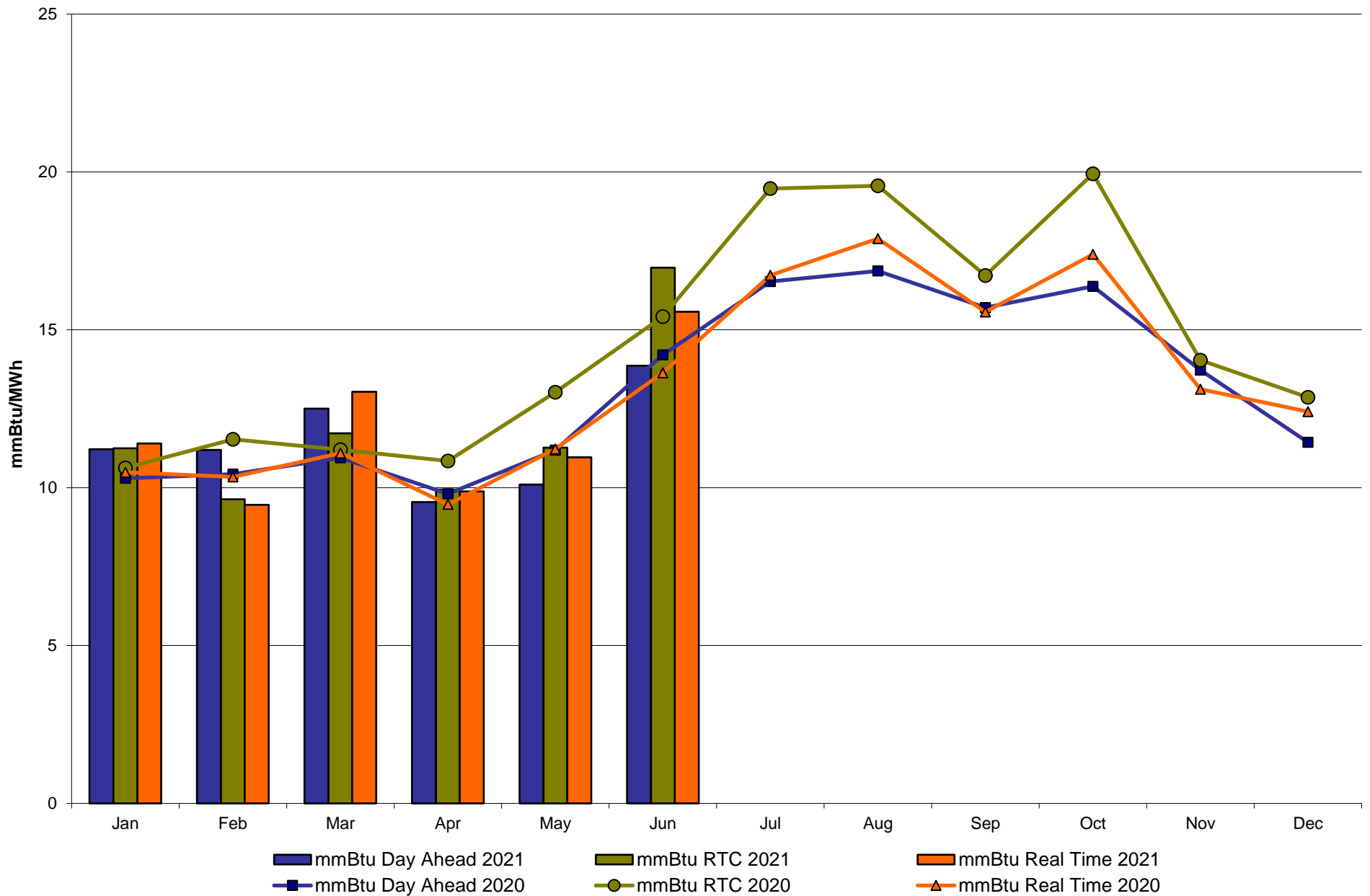
NYISO In City Energy Mitigation (NYC Zone) 2020 - 2021
Monthly megawatt hours mitigated



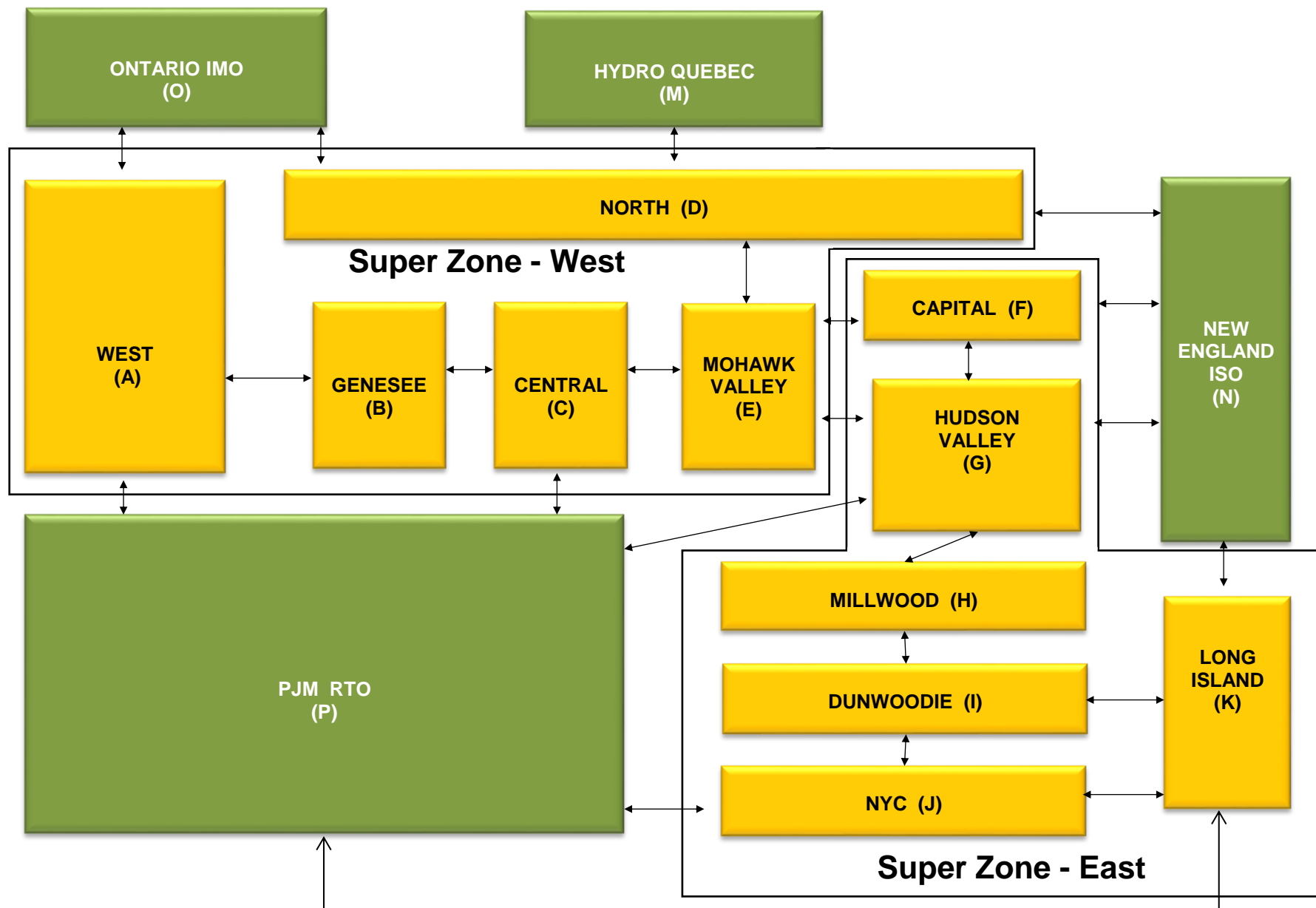
NYISO Average Daily DAM Load Bid Summary



Monthly Implied Heat Rate 2020-2021



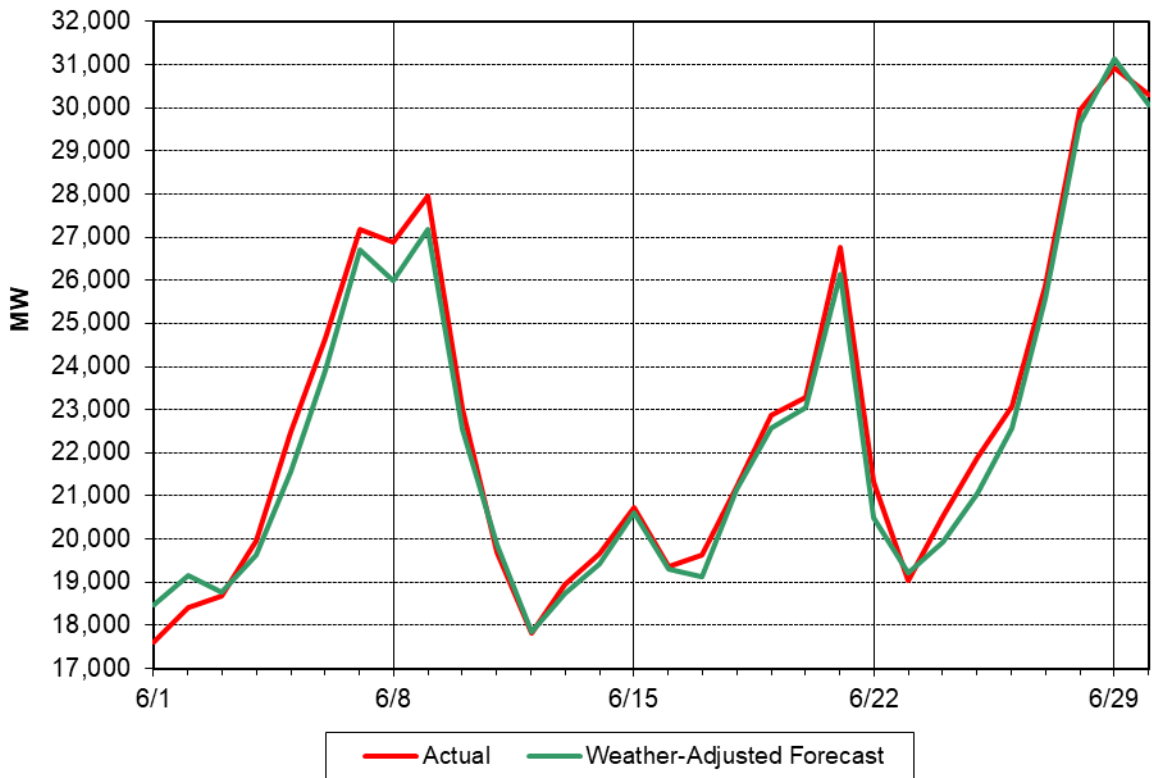
NYISO LBMP ZONES



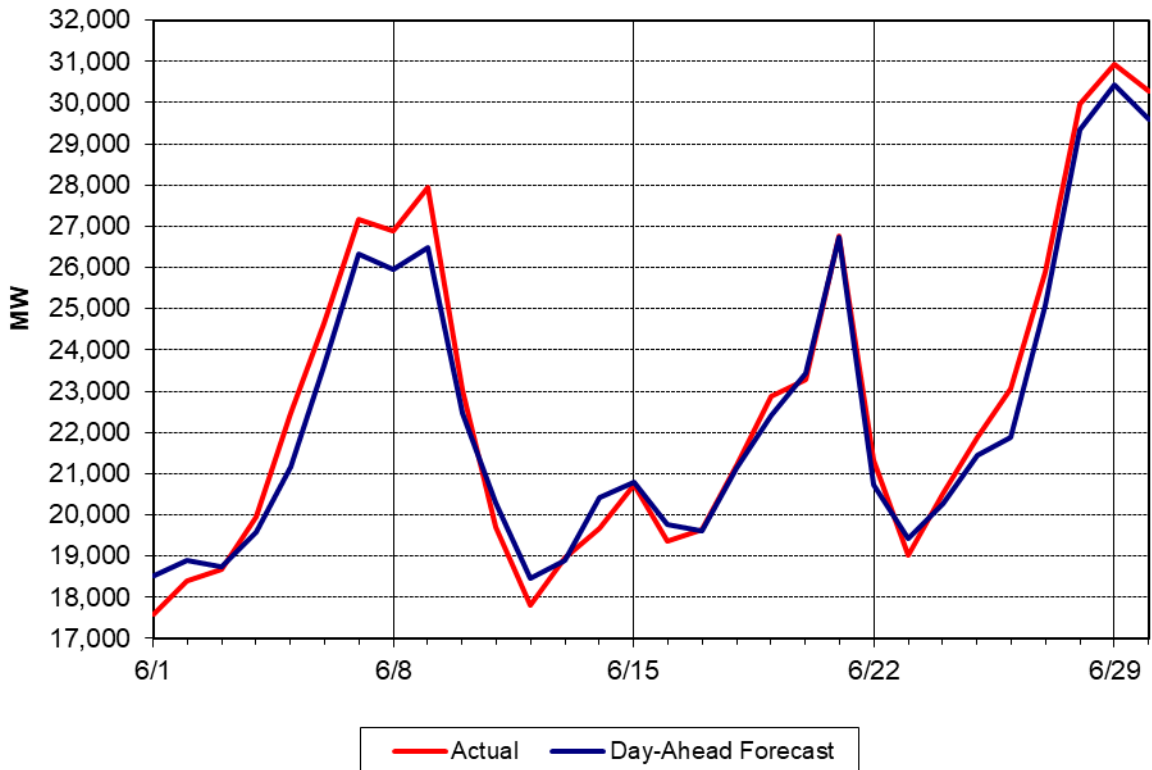
Billing Codes for Chart C

<u>Chart - C Category Name</u>	<u>Billing Code</u>	<u>Billing Category Name</u>
Bid Production Cost Guarantee Balancing	81203	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81204	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81205	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee Balancing	81208	Balancing NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee Balancing	81209	Balancing NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee Balancing	81213	Balancing NYISO Bid Production Cost Guarantee Expenditure due to Curtailed Imports
Bid Production Cost Guarantee DAM	81201	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	84001	EDRP/SCR Demand Response - Local
Bid Production Cost Guarantee DAM	84101	EDRP/SCR Demand Response - NYISO Wide
Bid Production Cost Guarantee DAM	81401	DAM Price Responsive Load Program
Bid Production Cost Guarantee DAM	81202	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM	81206	DAM NYISO Bid Production Cost Guarantee - Internal Units
Bid Production Cost Guarantee DAM	81207	DAM NYISO Bid Production Cost Guarantee - External Units
Bid Production Cost Guarantee DAM Virtual	81501	DAM Virtual Bid Production Cost Guarantee
DAM Contract Balancing	81315	DAM Contract Balancing
DAM Contract Balancing	81317	DAM Contract Balancing
Local Reliability Balancing	81002	Balancing Local Reliability Bid Production Cost Guarantee
Local Reliability Balancing	83901	Margin Restoration (MOB) Revenue
Local Reliability DAM	81001	DAM Local Reliability Bid Production Cost Guarantee
NYISO Cost of Operations	80901	NYISO Cost Of Operations
NYISO Cost of Operations	80902	NYISO Cost Of Operations
NYISO Cost of Operations	83501	NYISO Cost Of Operations
NYISO Cost of Operations	83502	NYISO Cost Of Operations
Residuals Balancing	81302	Balancing Market Energy Residual
Residuals Balancing	81304	Balancing Market Loss Residual
Residuals Balancing	81305	Balancing Market Congestion Balancing
Residuals Balancing	81306	Emergency Energy Purchases
Residuals Balancing	81307	Emergency Energy Sales
Residuals Balancing	81309	Balancing Market Energy Residual
Residuals Balancing	81311	Balancing Market Loss Residual
Residuals Balancing	81312	Balancing Market Congestion Balancing
Residuals Balancing	81313	Emergency Energy Purchases
Residuals Balancing	81314	Emergency Energy Sales
Residuals DAM	81301	Day Ahead Market Energy Residual
Residuals DAM	81303	Day Ahead Market Loss Residual
Residuals DAM	81308	Day Ahead Market Energy Residual
Residuals DAM	81310	Day Ahead Market Loss Residual

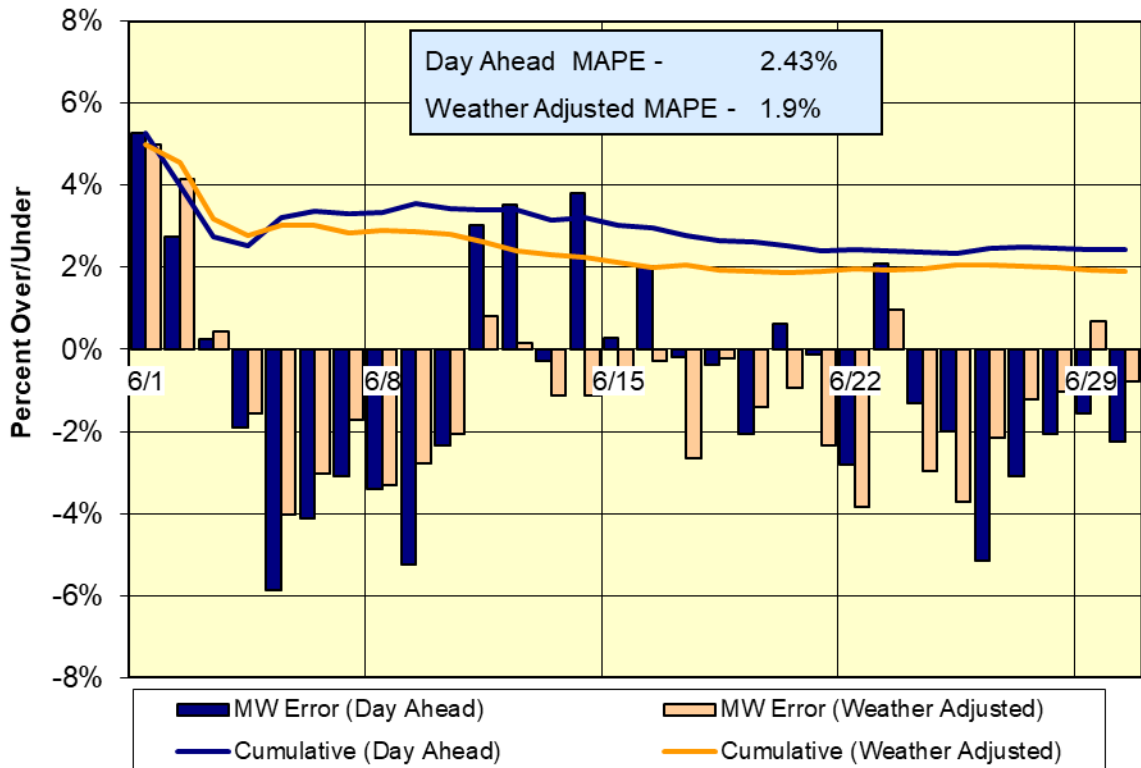
NYISO Daily Peak Load - June 2021
Actual vs. Weather-Adjusted Forecast



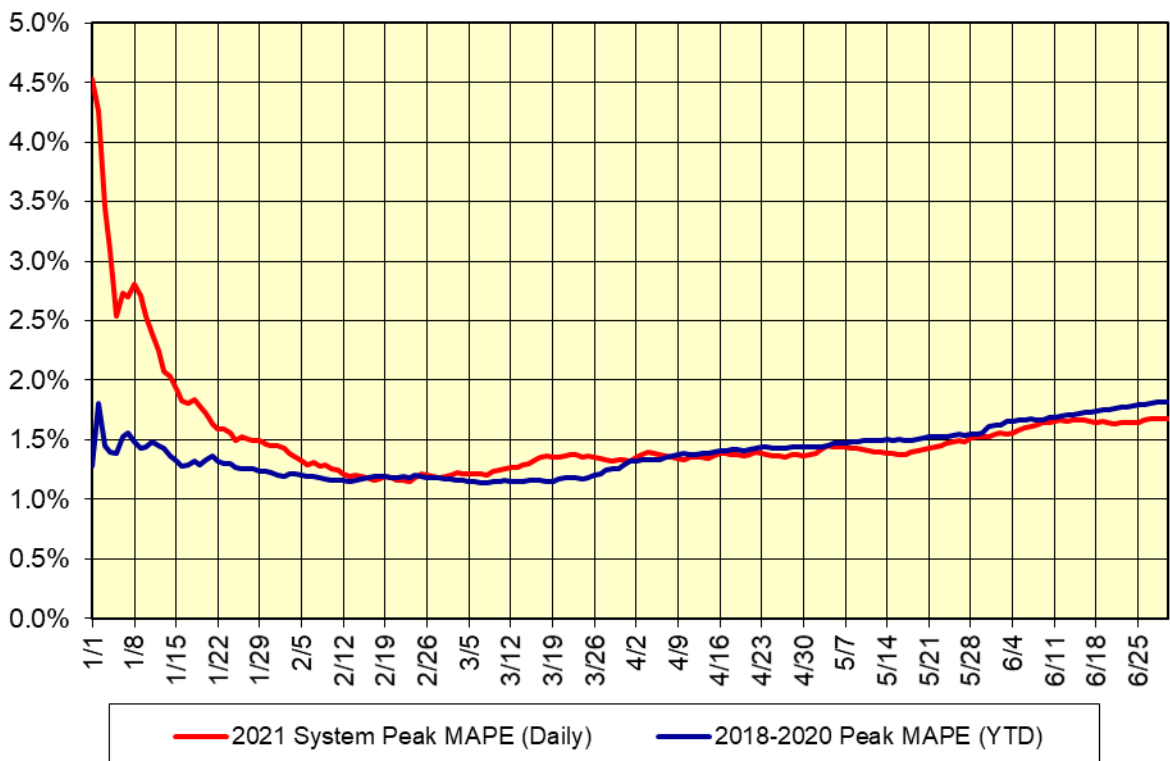
NYISO Daily Peak Load - June 2021
Actual vs. Forecast



Day Ahead Peak Forecast - June 2021 Percent Error - Actual & Weather-Adjusted



Day-Ahead Forecast Accuracy - Cumulative Performance 2021 Year-to-Date



Summary Description of Regulatory Filings, Investigations, Rulemakings and Related Orders in NYISO Matters – June 2021

Filing Date	Filing Summary	Docket	Order Summary	Order Date
04/15/2021	NYISO-National Grid joint Section 205 joint filing of a Transmission Project Interconnection Agreement among the NYISO, National Grid, and LS Power Grid New York Corporation I	ER21-1687-000	Letter order accepted the submission, effective 4/2/21 as requested	06/04/2021
04/23/2021	NYISO filing of an implementation agreement with Helix Ravenswood regarding recovery of its costs to generate electric energy using fuel oil in lieu of natural gas in furtherance of New York State Reliability Council Local Reliability Rule G.2	ER21-1754-00	Letter order accepted the submission, effective 5/15/21 as requested	06/14/2021
04/19/2021	NYISO-Transco, filing of an Engineering, Procurement & Construction Agreement among NY Transco, Holcim and NYISO	ER21-1710-000	Letter order accepted the submission, effective 4/2/21 as requested	06/15/2021
05/25/2021	NYISO compliance notice of June 8, 2021 as effective date for Services Tariff revisions to enhance operational control of solar resources	ER21-892-001	Letter order accepted NYISO filing, effective 6/8/21 as requested	06/17/2021
04/28/2021	NYISO-NMPC joint Section 205 filing of a Small Generator Interconnection Agreement among NYISO, National Grid, and SunEast Skyline Solar	ER21-1784-000	Letter order accepted the submission, effective 4/15/21 as requested	06/22/2021
02/02/2021, 04/07/2021	NYISO section 205 filing and deficiency response to tariff revisions process for procuring Operating Reserves and to establish a process for procuring Supplemental Reserves	ER21-1018-000, 001	Order accepted the NYISO's proposed Operating Reserve Demand Curve enhancements and rejected the NYISO's supplemental reserves proposal, and directed submittal of a further compliance filing	06/23/2021
06/07/2021	ISO/RTO Council filing of post technical conference comments on coordination and information sharing	AD20-6-000, AD21-6-000		
06/07/2021	NYISO filing of post-technical conference comments on principles and best practices for credit risk management in organized wholesale electricity markets	AD20-6-000, AD21-6-000		
06/07/2021	NYISO compliance notice of a delayed effective date establishing a June 10, 2021 effective date for tariff revisions to implement Southeastern New York Reserve enhancements	ER21-625-002		
06/08/2021	NYISO compliance notice of a further delayed effective date establishing a June 17, 2021 effective date for tariff revisions to implement Southeastern New York Reserve enhancements	ER21-625-003		

06/08/2021	NYISO section 205 filing of tariff revisions reflecting the results of its post-ICAP DCR review of exempt renewable technologies and a revised definition of Exempt Renewable Technologies as defined in the Market Services Tariff	ER21-2098-000		
06/09/2021	NYISO-National Grid joint filing of a Large Generator Interconnection Agreement entered into by the NYISO, National Grid-as the connecting Transmission Owner-and Ball Hill Wind	ER21-2106-000		
06/09/2021	NYISO filing of an executed Operating Agreement between the NYISO and LS Power Grid New York Corporation I	ER21-2104-000		
06/09/2021	NYISO filing of an executed Operating Agreement between the NYISO and NextEra Energy Transmission New York	ER21-2105-000		
06/24/2021	NYISO-NYPA joint section 205 filing of an executed Engineering, Procurement, and Construction Agreement among the NYISO, NYPA, and New York Transco for Affected System Upgrade Facilities (Dolson Ave Substation) for Segment B of the AC Transmission Needs	ER21-2197-000		
06/29/2021	NYISO filing of a notice of effective date and compliance filing of tariff language relating to Operating Reserve Demand Curves	ER21-1018-002		