

Monthly Report

A Report by the
New York Independent System Operator

February 2020

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February 2020 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 March 9, 2020.

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February 2020 Operations Performance Highlights

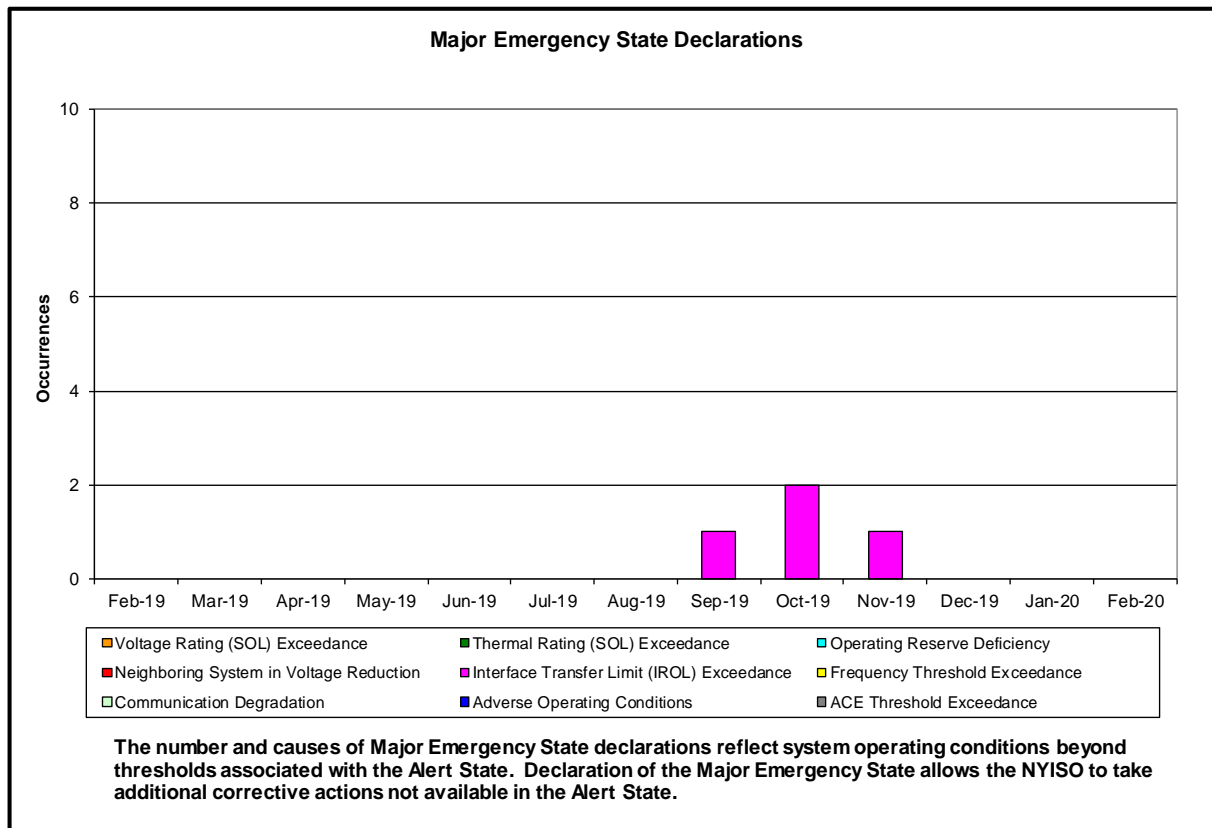
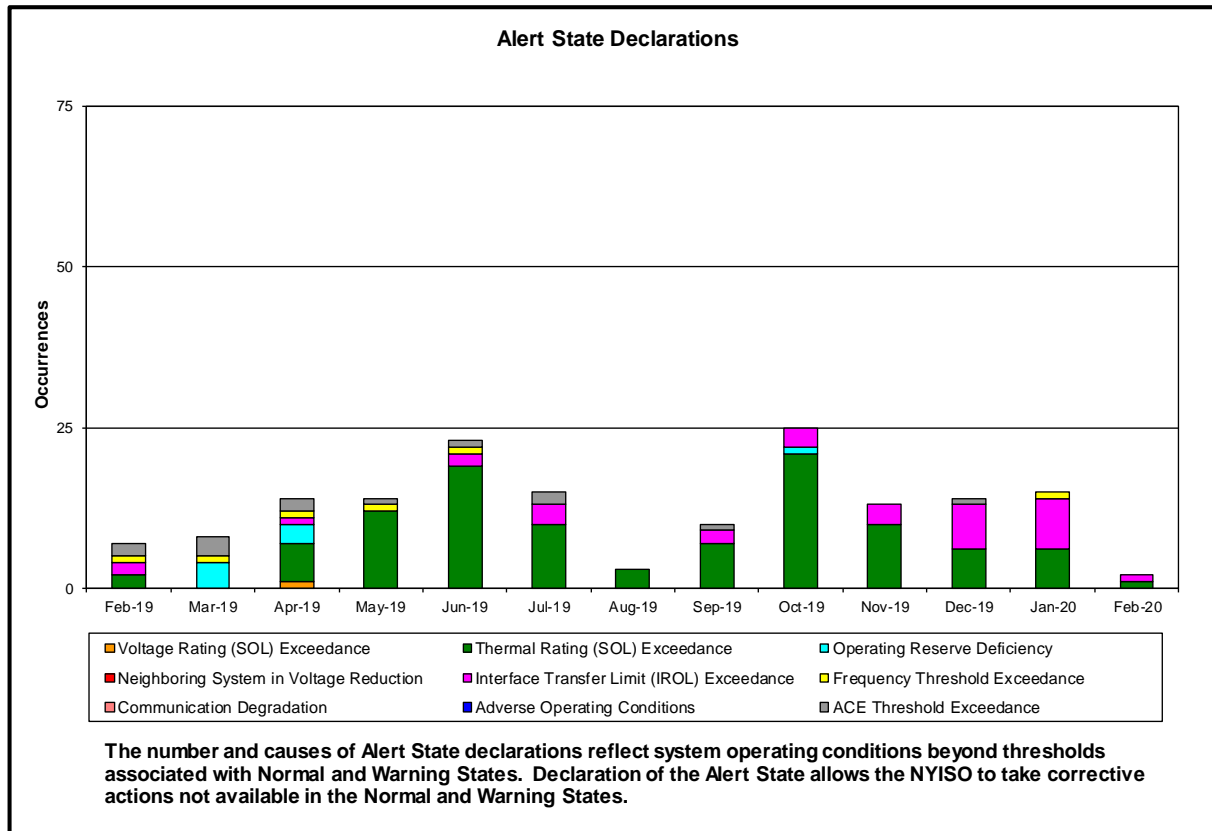
- Peak load of 21,027 MW occurred on 02/14/2020 HB 18
- All-time winter capability period peak load of 25,738 MW occurred on 1/7/2014 HB 18
- 0 hours of Thunder Storm Alerts were declared
- 0 hours of NERC TLR level 3 curtailment
- NYISO successfully cut-over to the new EMS/BMS system on 02/04/2020
- 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	\$0.65	\$3.13
NY Savings from PJM-NY Coordinated Transaction Scheduling	\$0.14	\$0.11
NY Savings from NE-NY Coordinated Transaction Scheduling	\$0.10	(\$0.02)
Total NY Savings	\$0.89	\$3.22
Regional Savings from PJM-NY Coordinated Transaction Scheduling	\$0.08	\$0.29
Regional Savings from NE-NY Coordinated Transaction Scheduling	\$0.01	\$0.03
Total Regional Savings	\$0.09	\$0.32

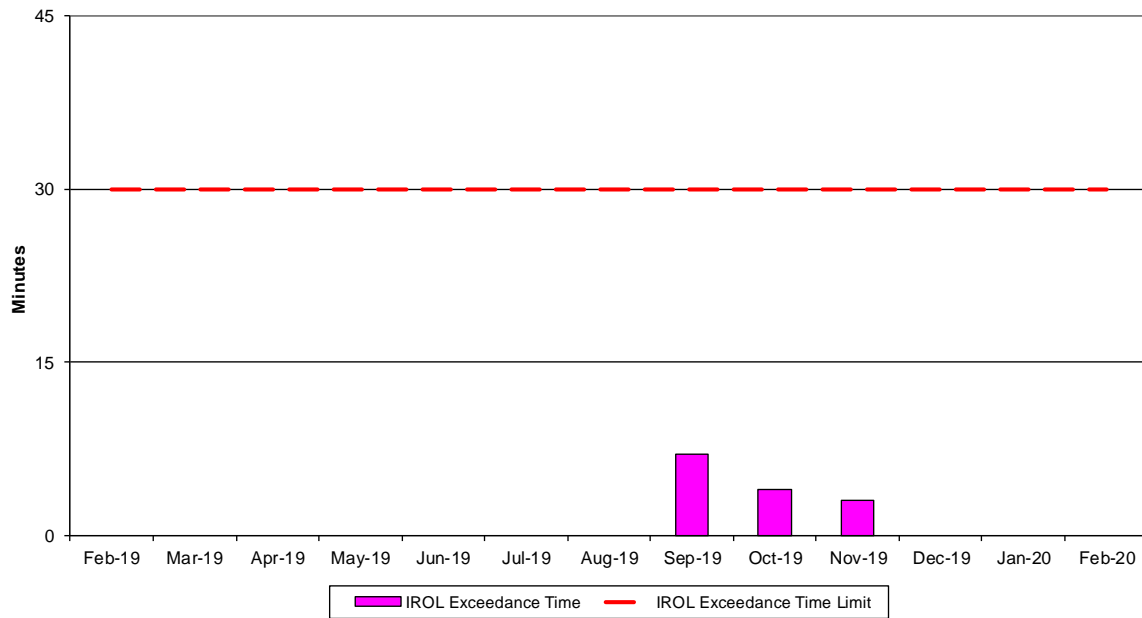
- Statewide uplift cost monthly average was (\$0.29)/MWh
- The following table identifies the Monthly ICAP spot market prices and the price delta.

Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
March 2020 Spot Price	\$0.01	\$0.01	\$3.72	\$0.01
February 2020 Spot Price	\$0.01	\$0.01	\$3.71	\$0.01
Delta	\$0.00	\$0.00	\$0.01	\$0.00

Reliability Performance Metrics

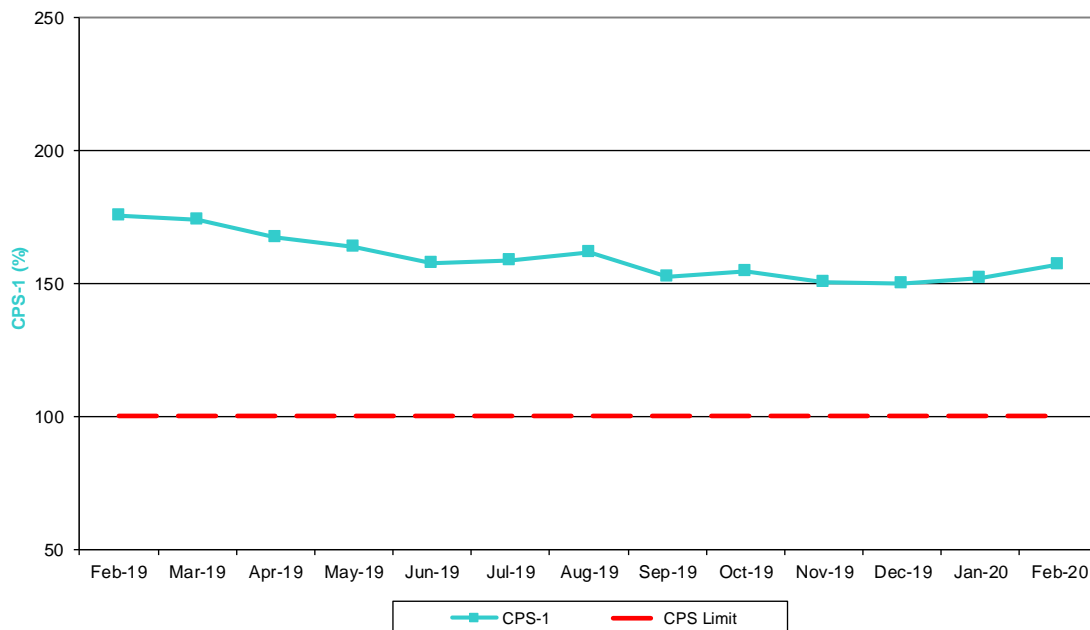


NERC IROL Time Over Limit



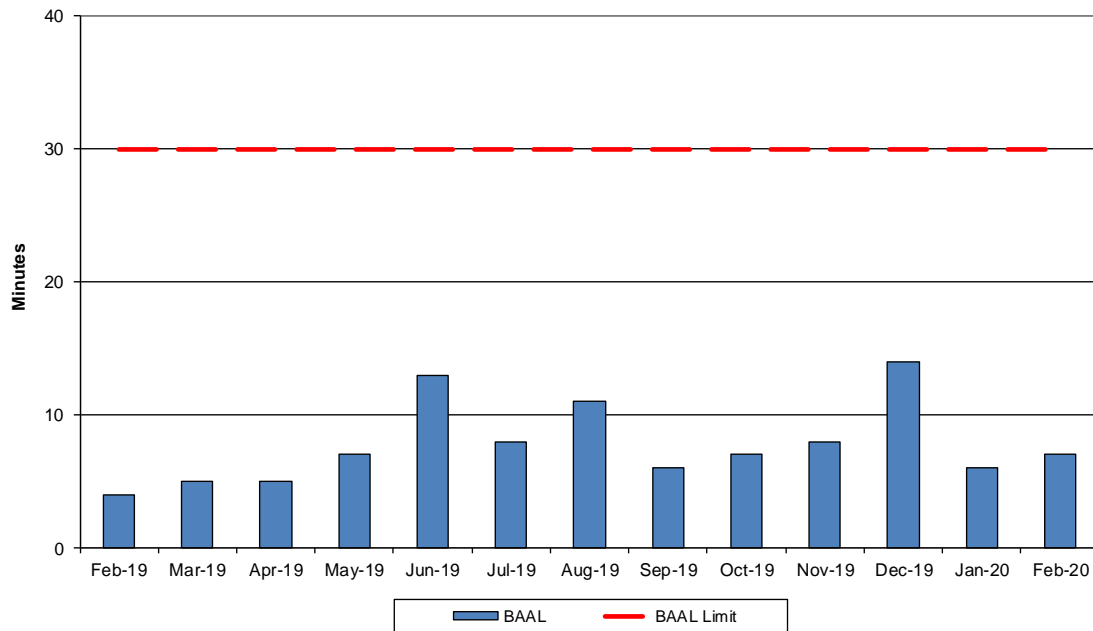
For IROL exceedances leading to Major Emergency State declarations, the maximum IROL exceedance time is identified. IROL exceedances of less than thirty minutes are considered NERC compliant.

NERC Control Performance Standards



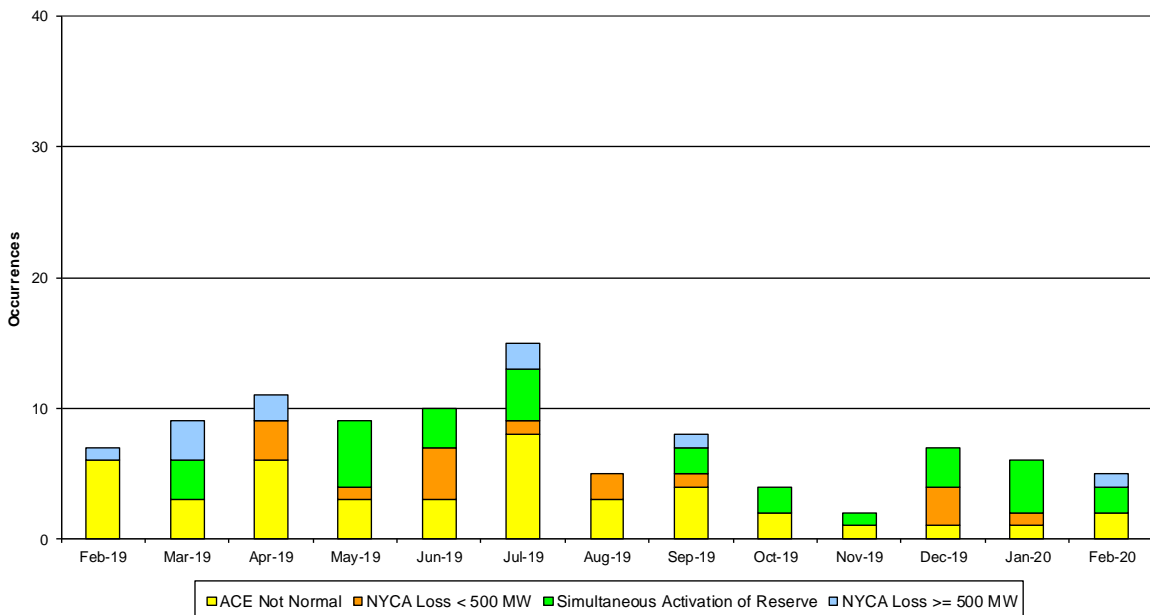
The value of NERC Control Performance Standards (CPS-1) is an indicator of the NYISO Area resource and demand balancing. Values exceeding the identified threshold are NERC compliant.

NERC Balancing Authority ACE Limit Standard



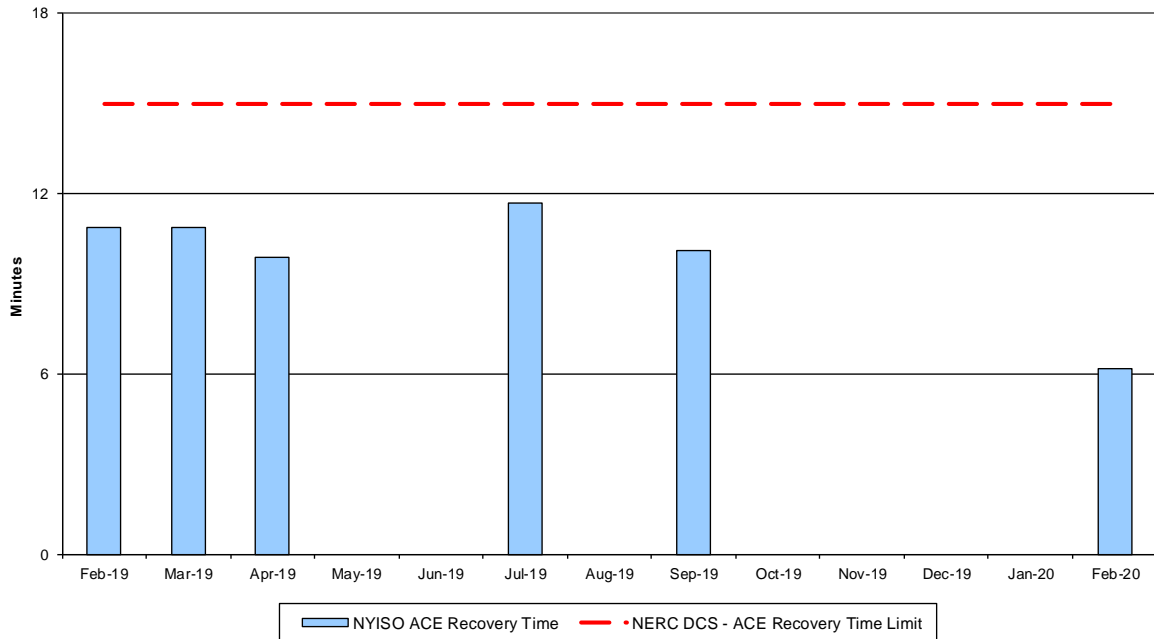
The amount of time the clock-minute average ACE exceeds the clock-minute Balancing Authority ACE Limit (BAAL) is an indicator of the NYISO Area resource and demand balancing. The maximum BAAL exceedance time is identified. BAAL exceedances of less than 30 consecutive clock-minutes are NERC compliant.

Reserve Activations



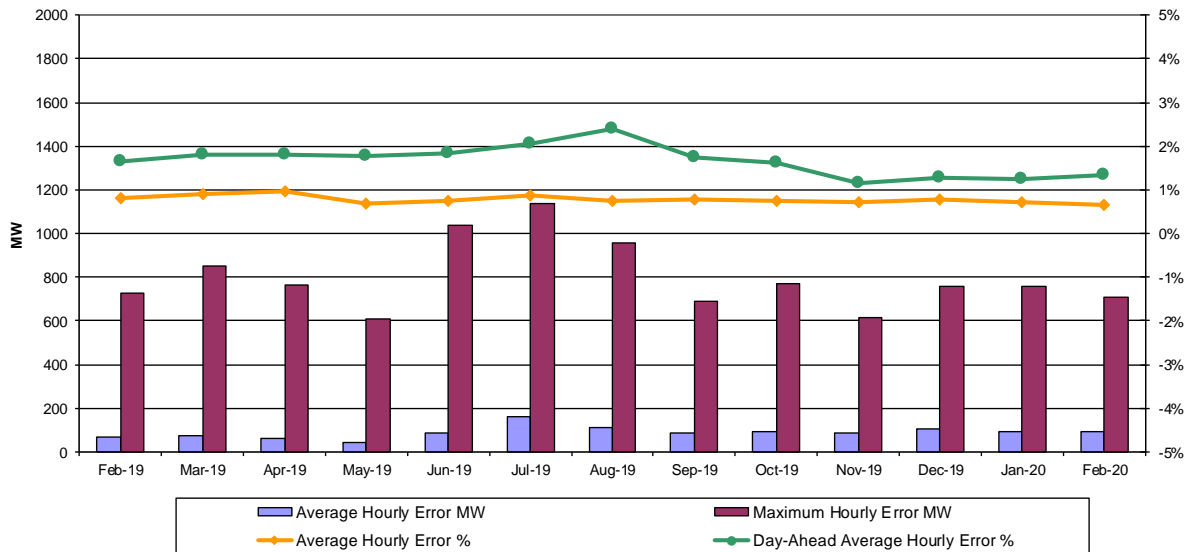
NYISO Reserve Activations are indicators of the need to respond to unexpected operational conditions within the NYISO Area or to assist a neighboring Area (Simultaneous Activation of Reserves) by activating an immediate resource and demand balancing operation.

DCS Event Time to ACE Recovery



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

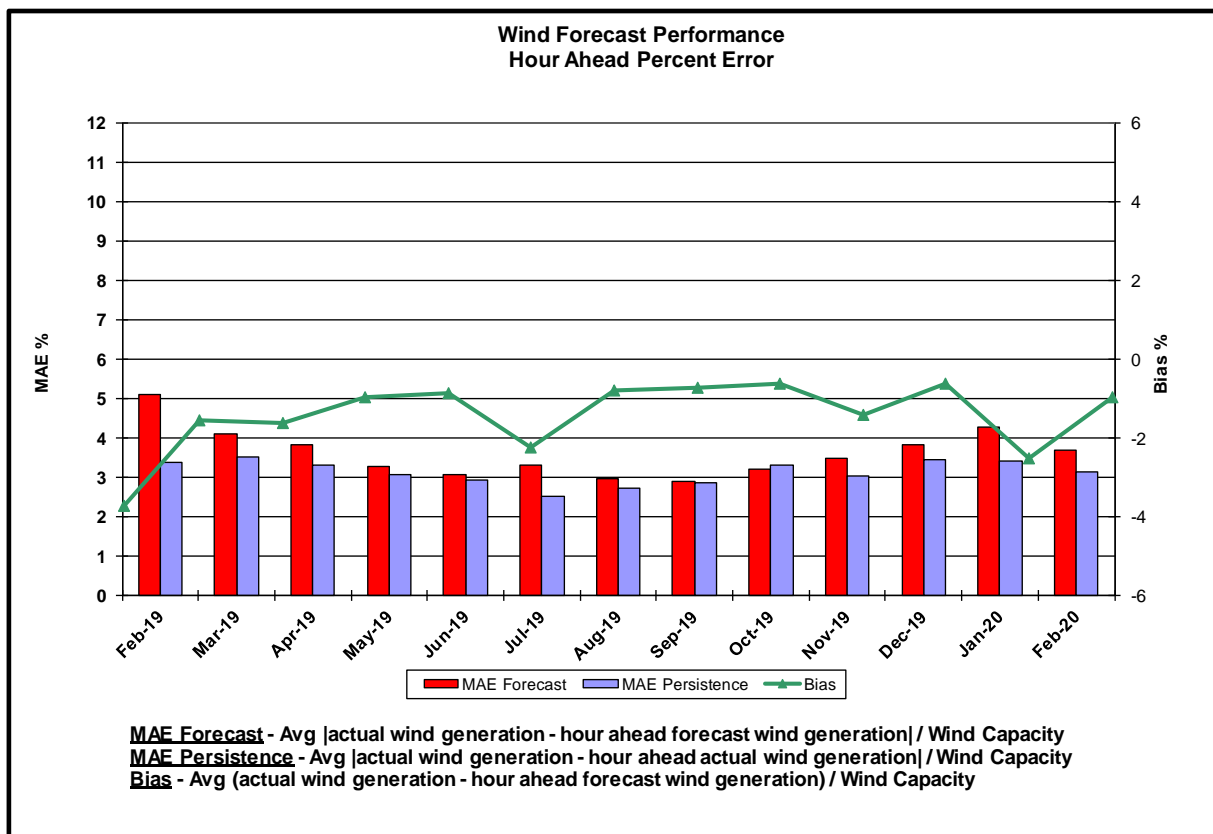
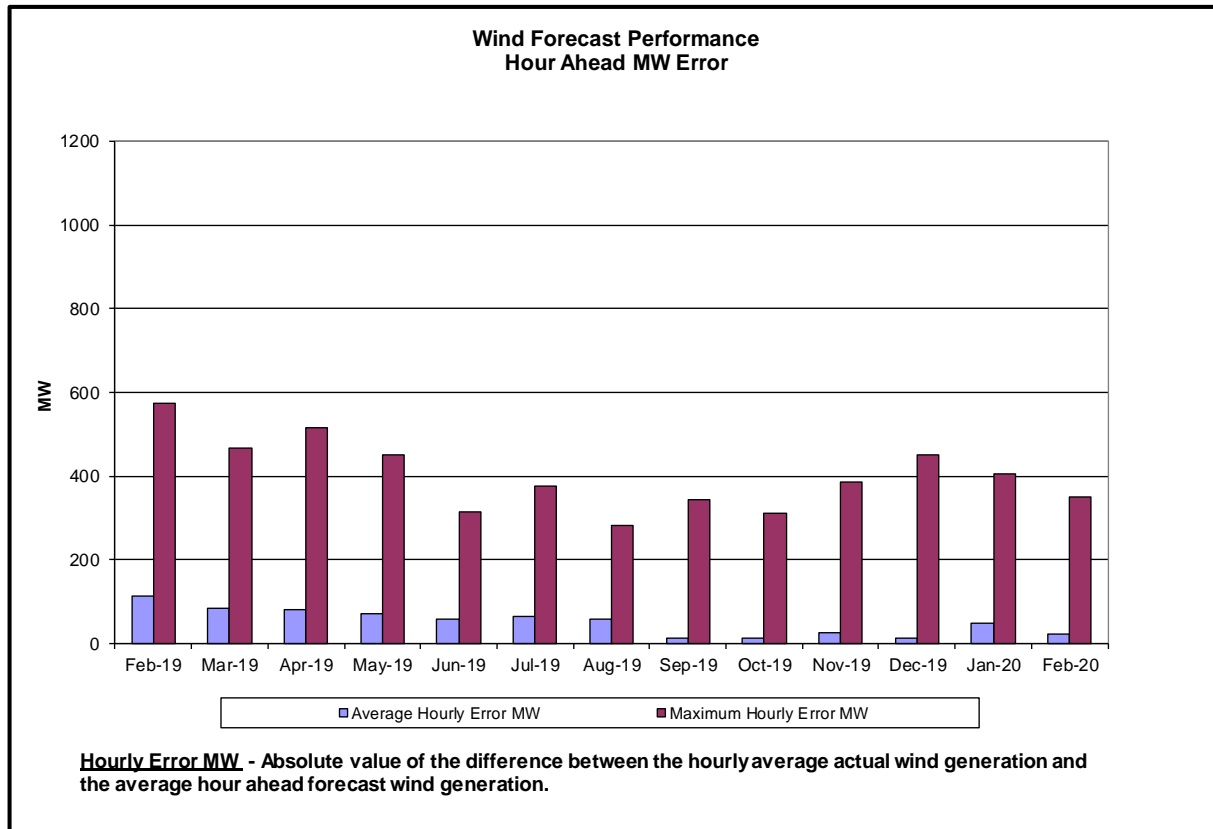
Load Forecast Performance

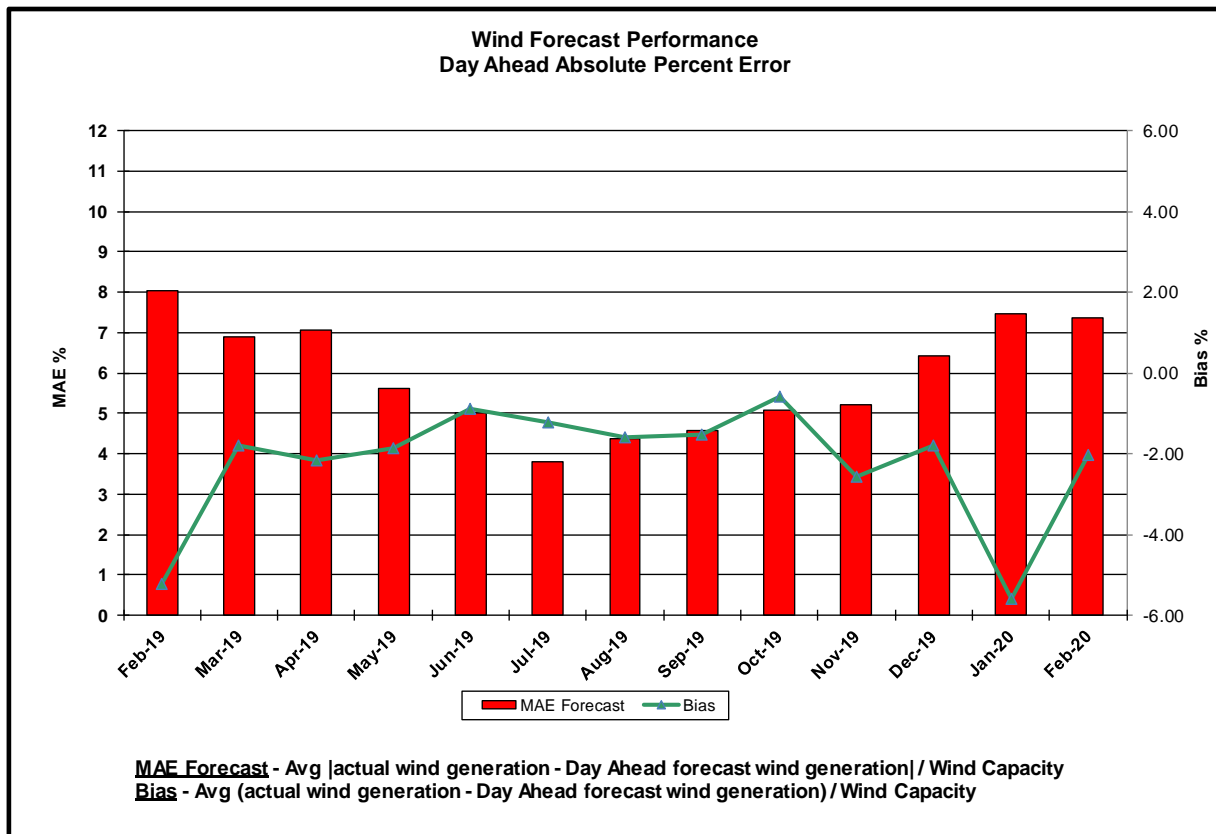
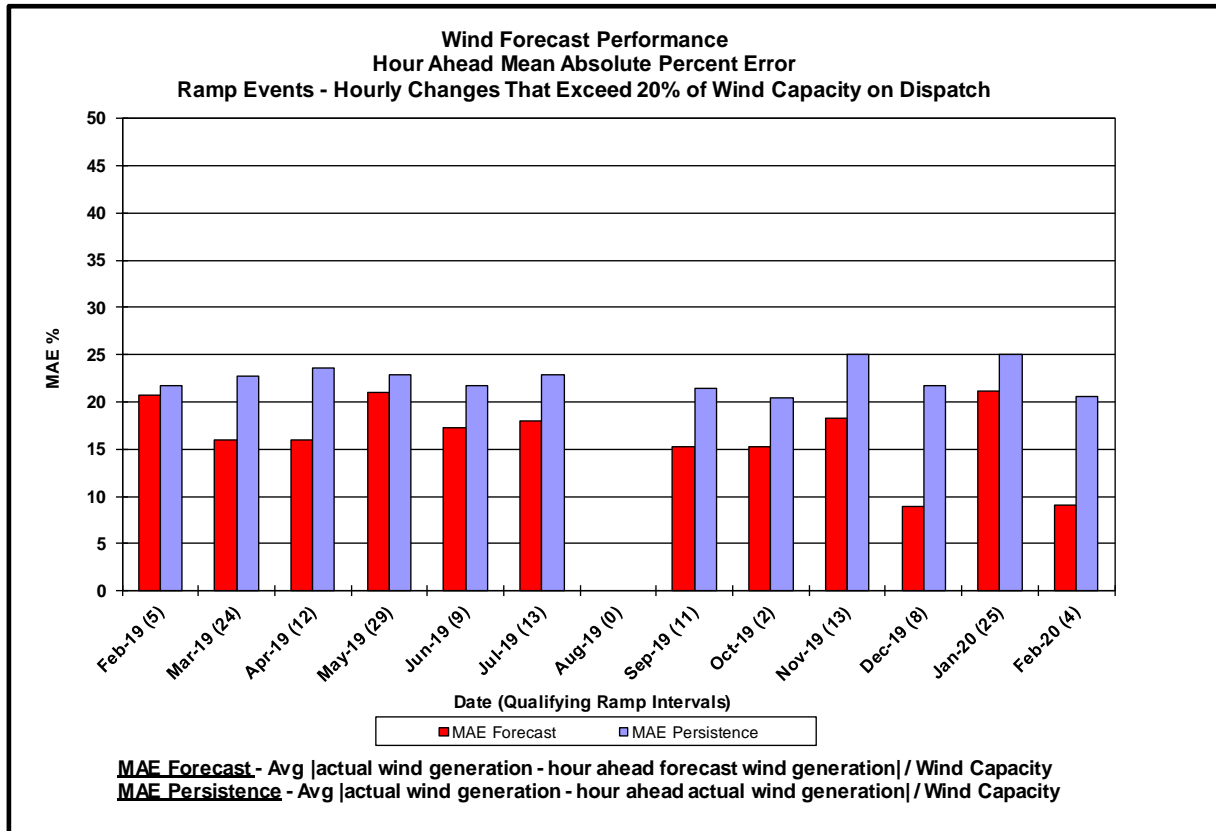


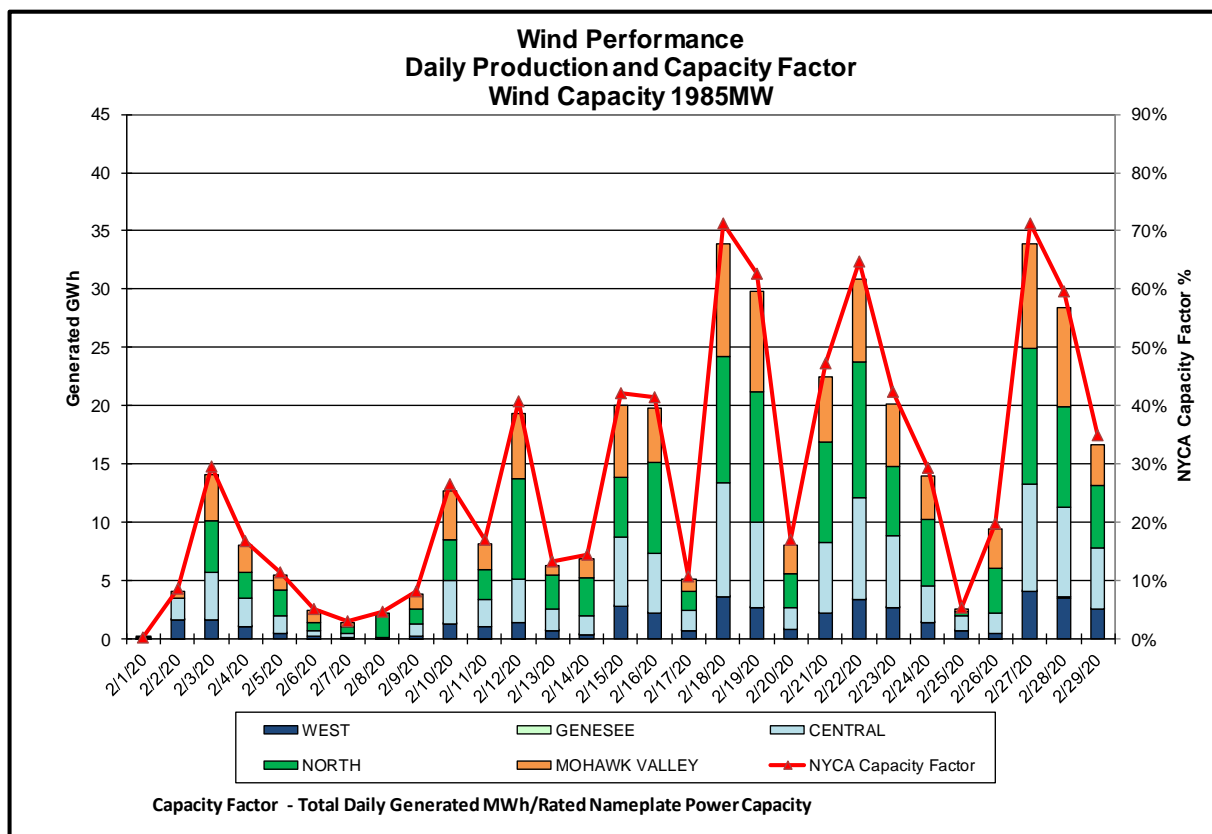
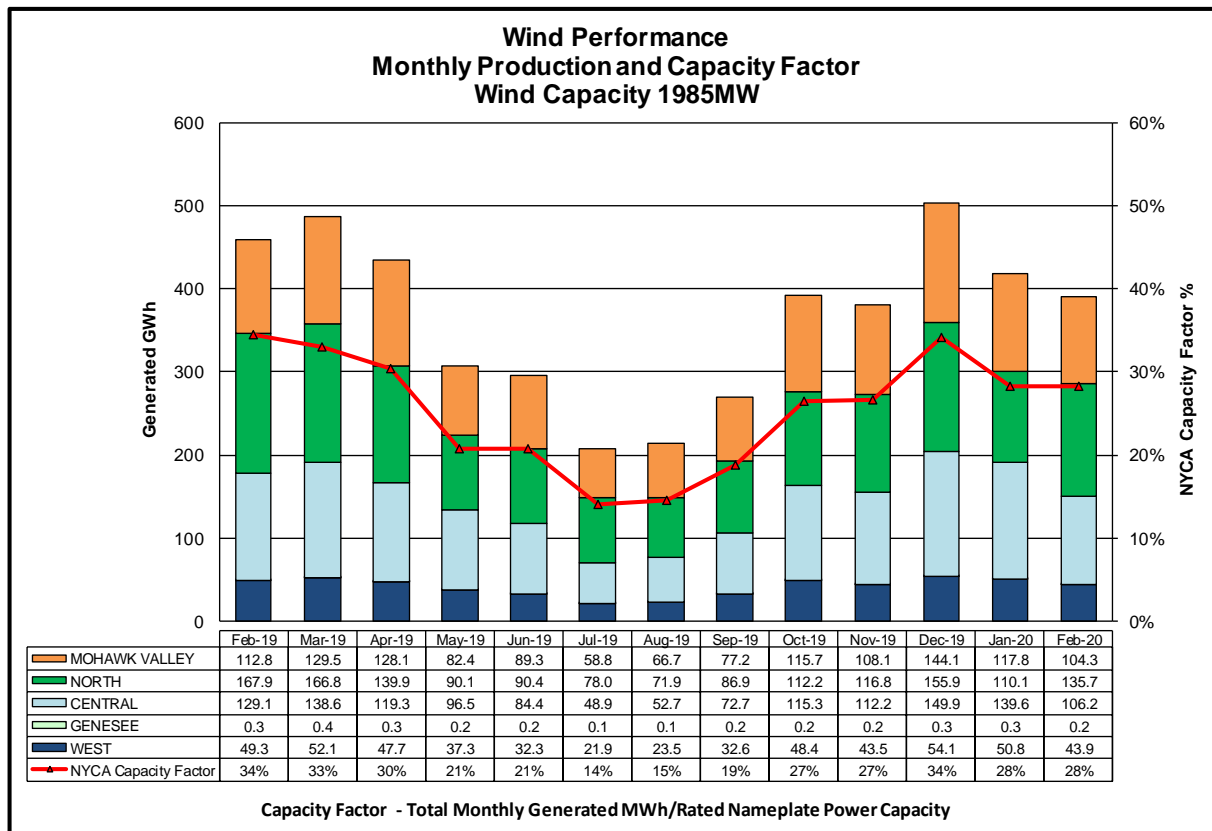
Hourly Error MW - Absolute value of the difference between the hourly average actual load demand and the average hour ahead forecast load demand.

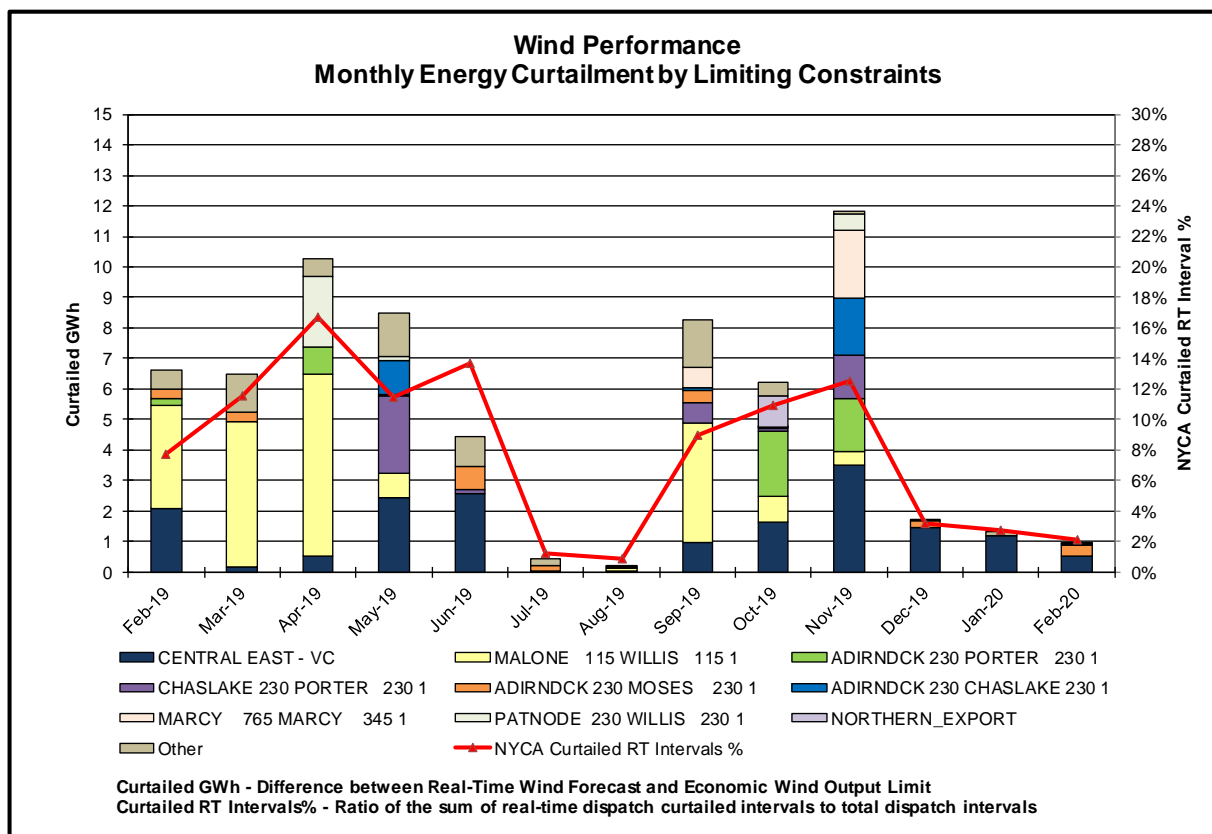
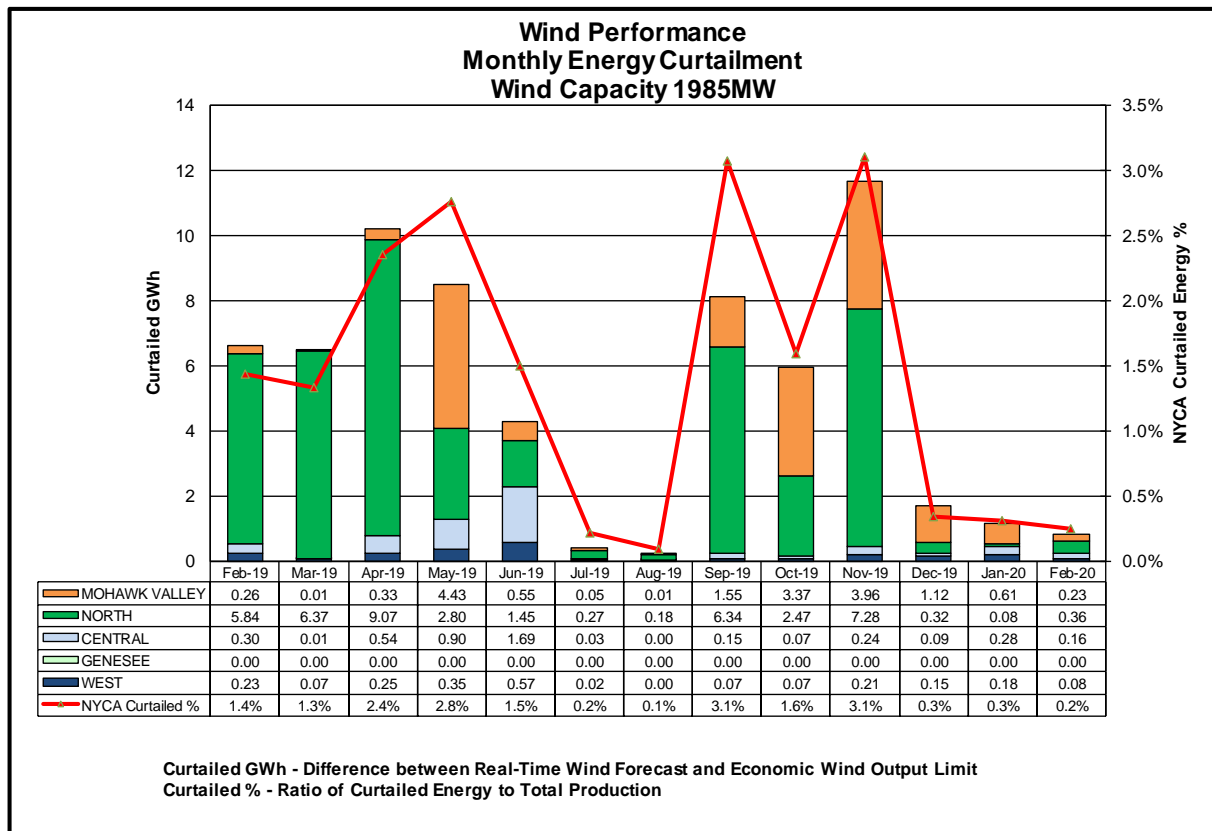
Average Hourly Error % - Average value of the ratio of hourly average error magnitude to hourly average actual load demand.

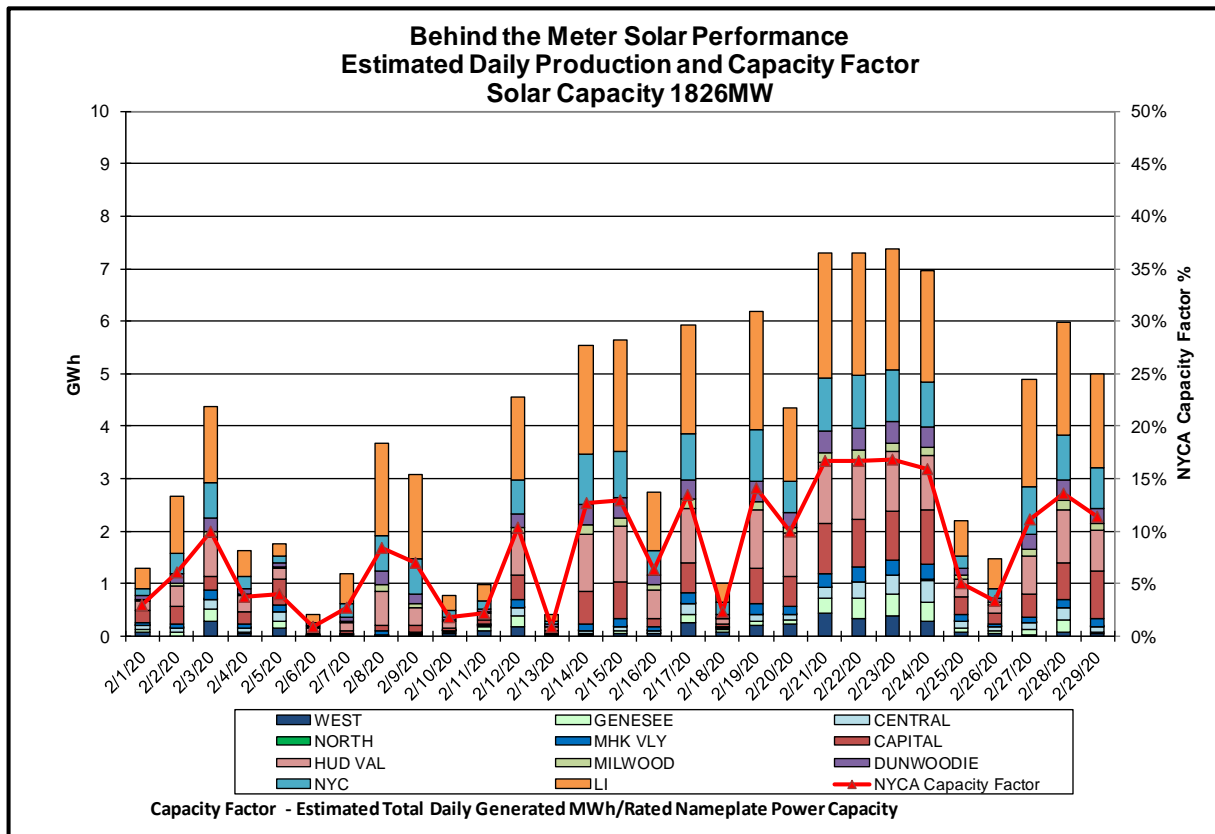
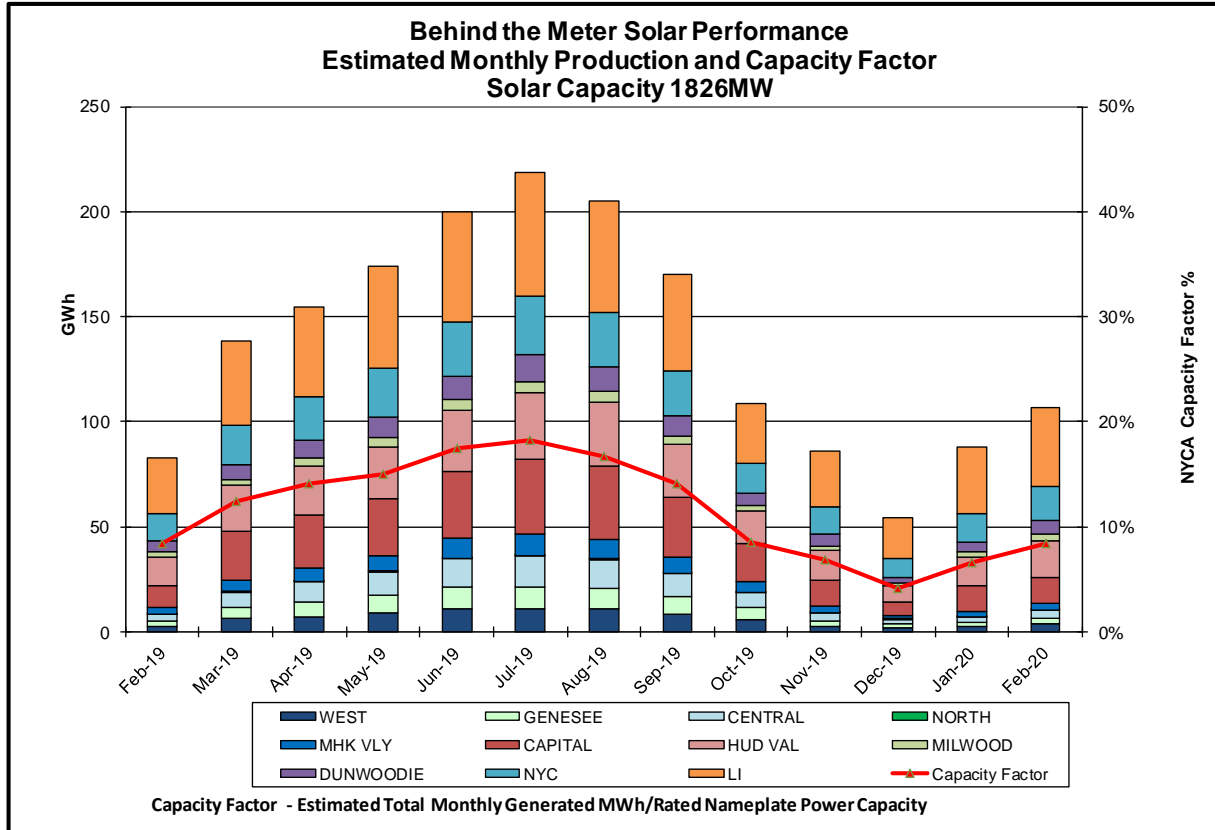
Day-Ahead Average Hourly Error % - Average across all hours of the month of the absolute value of the difference between actual load demand and the Day-Ahead forecast load demand, divided by the actual load demand.

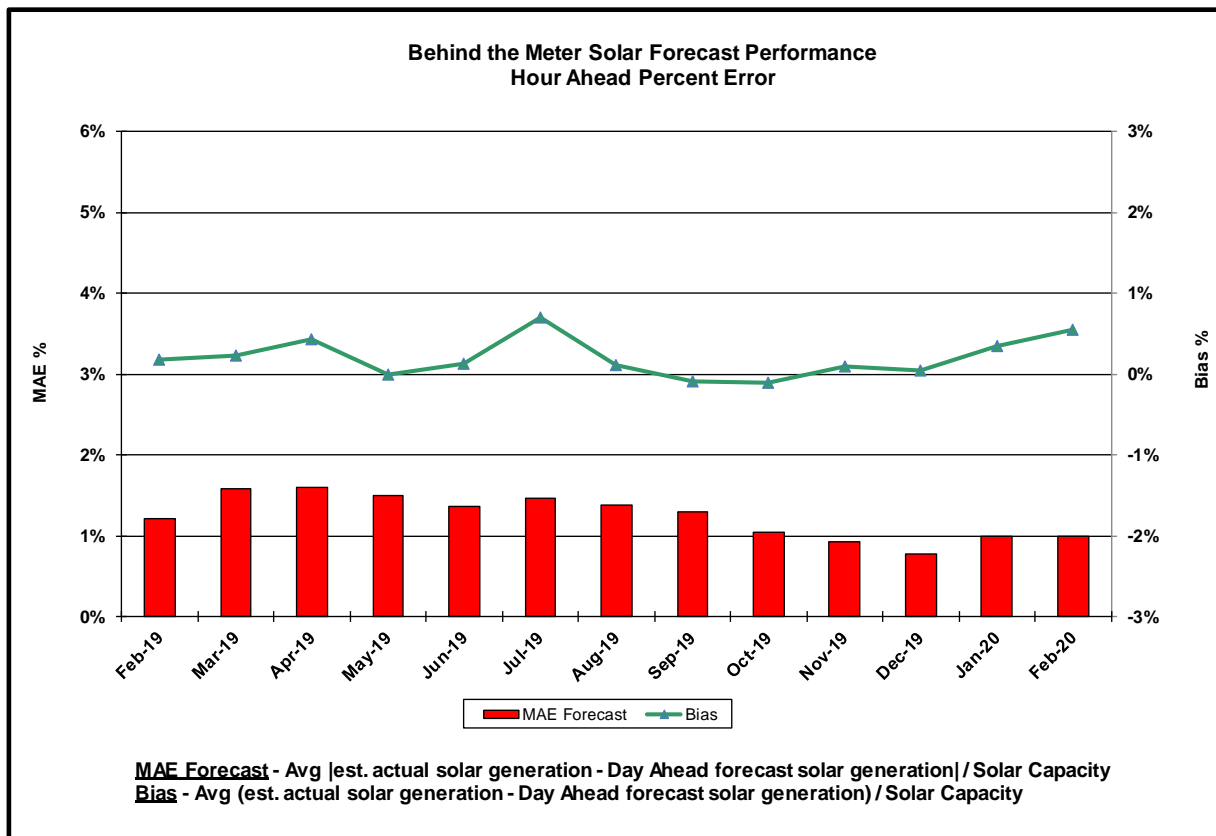
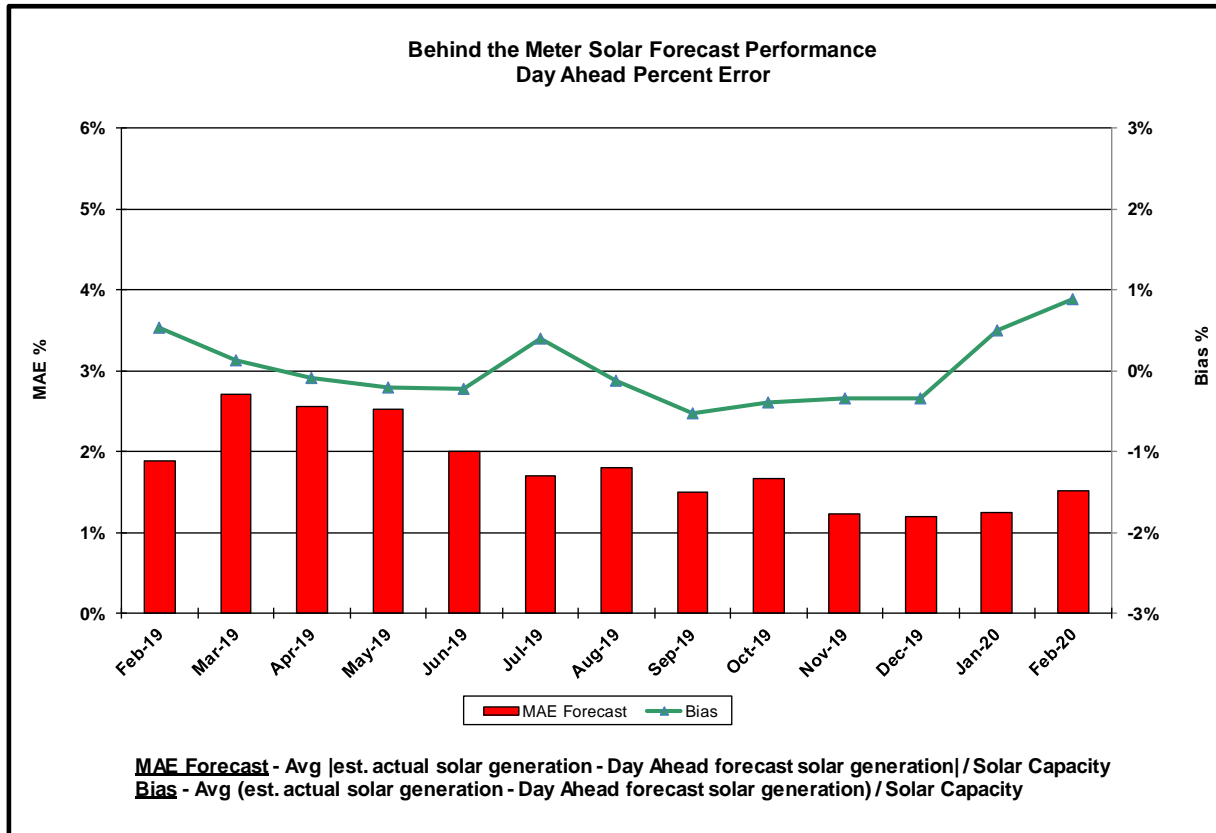


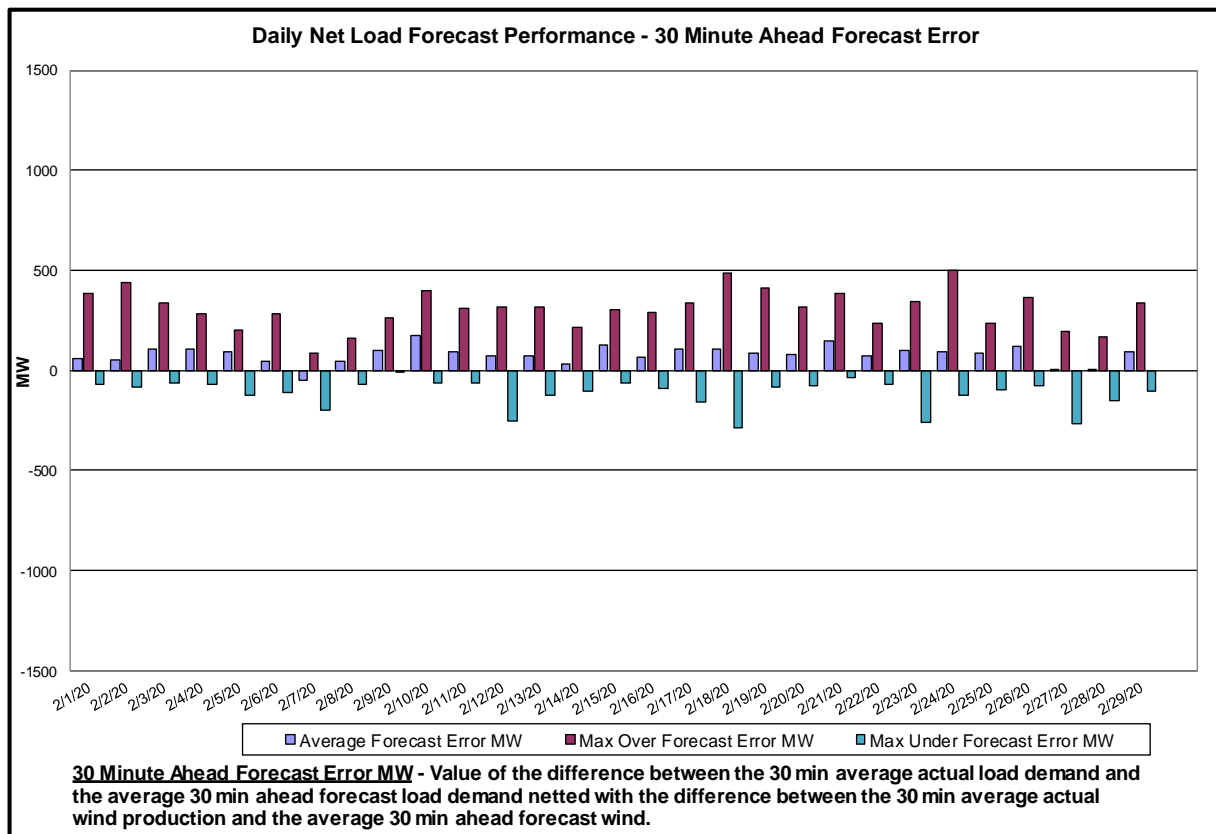
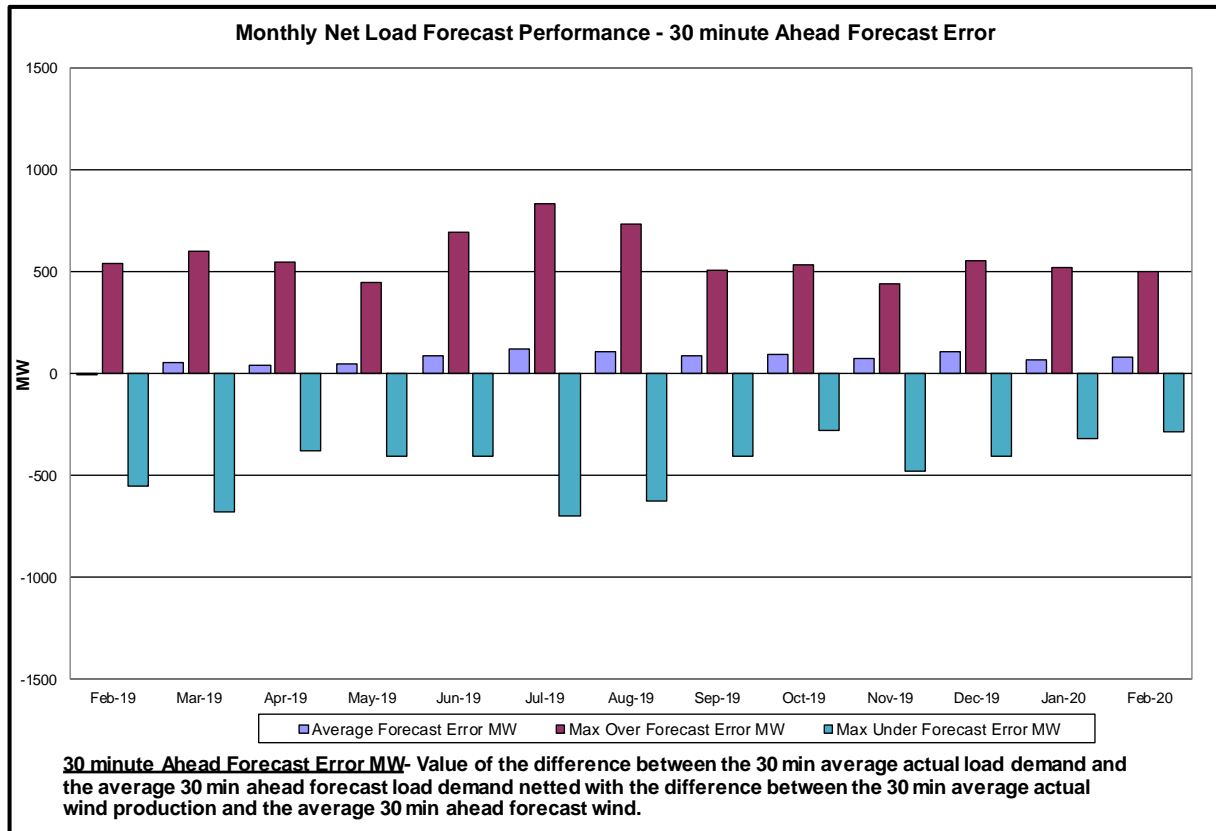


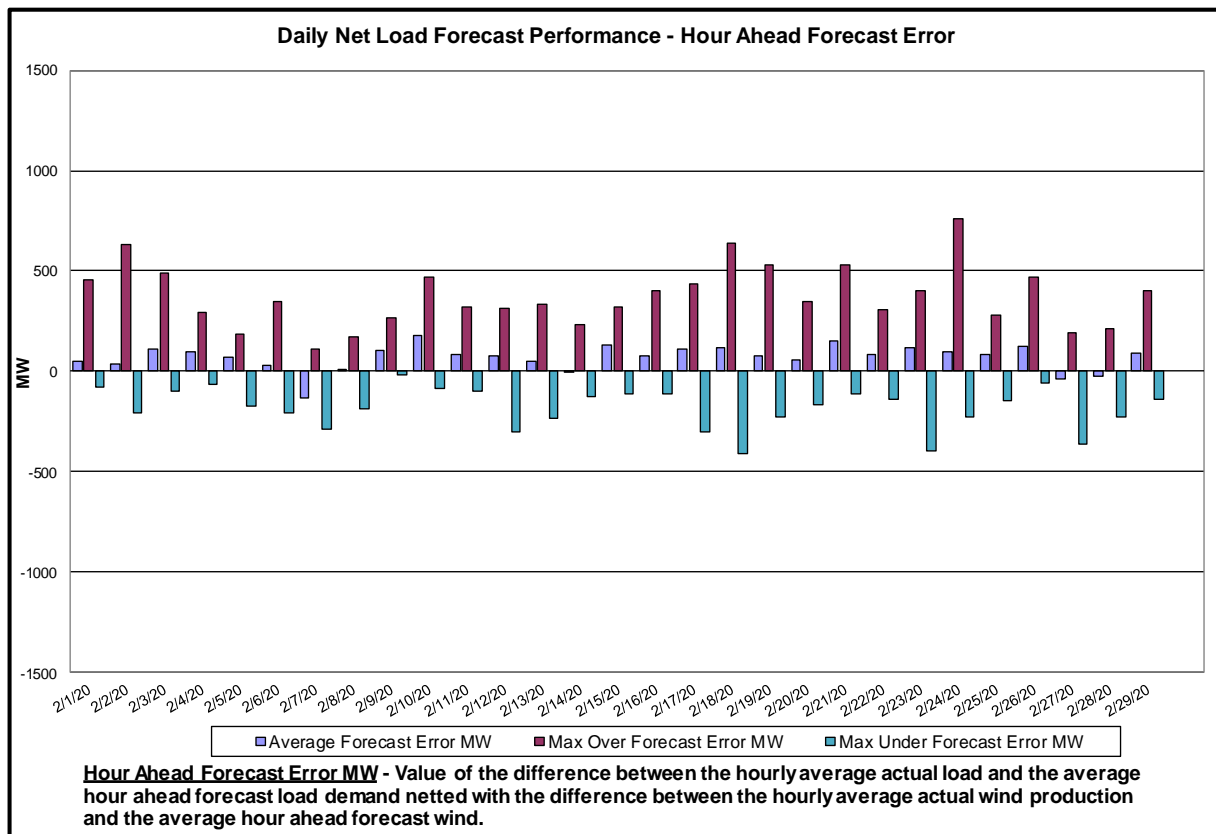
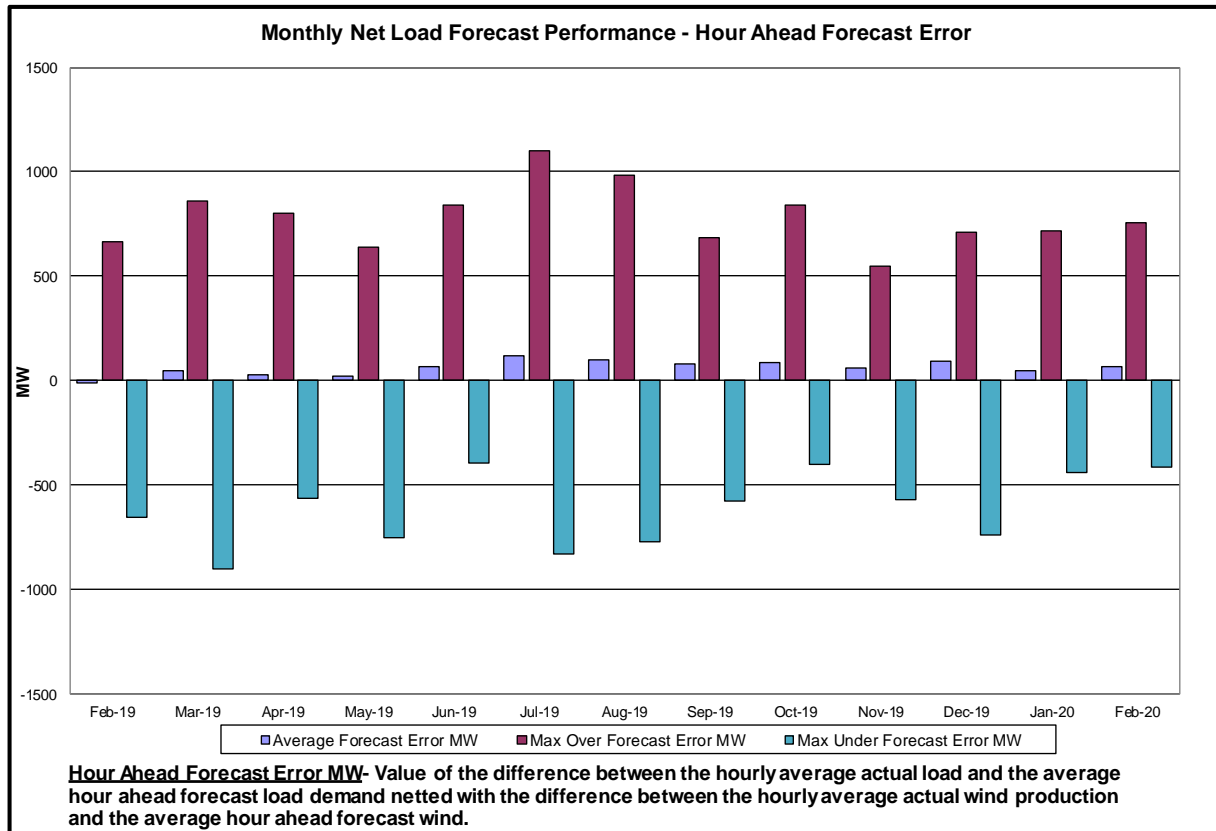


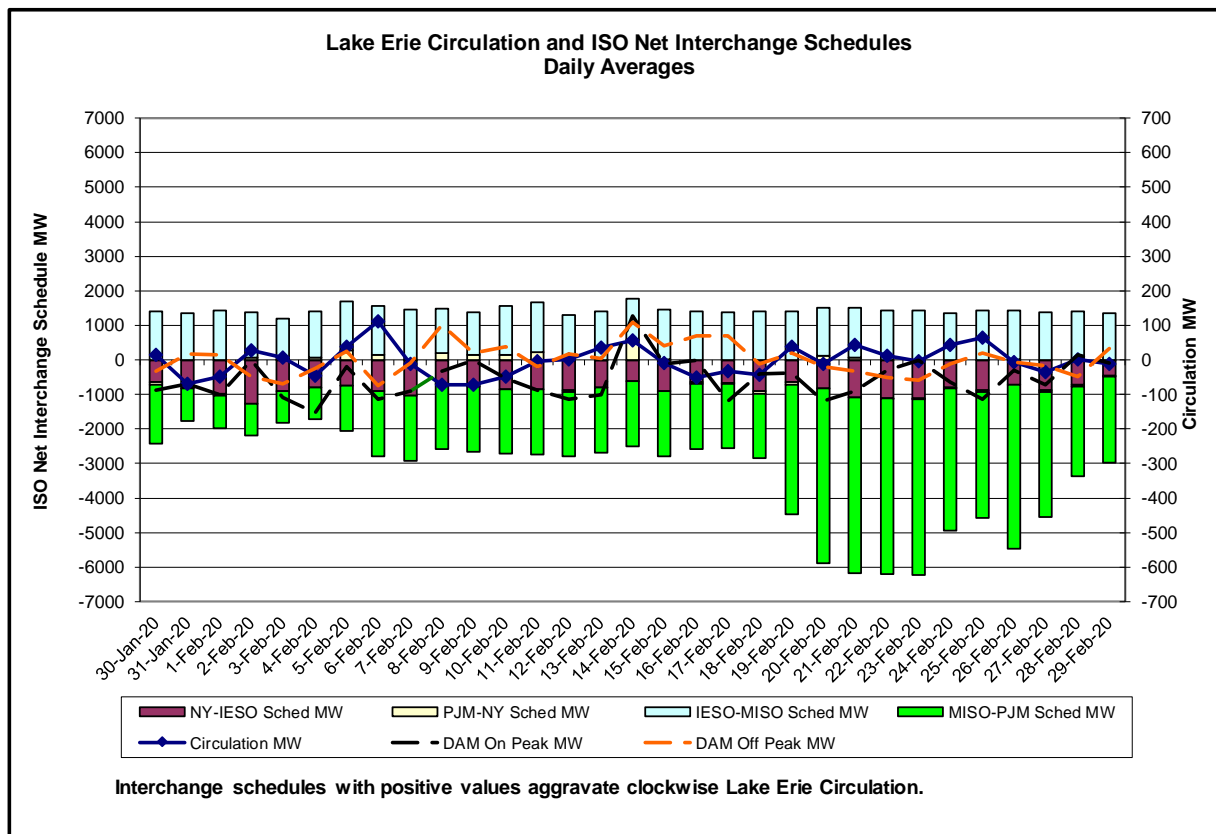
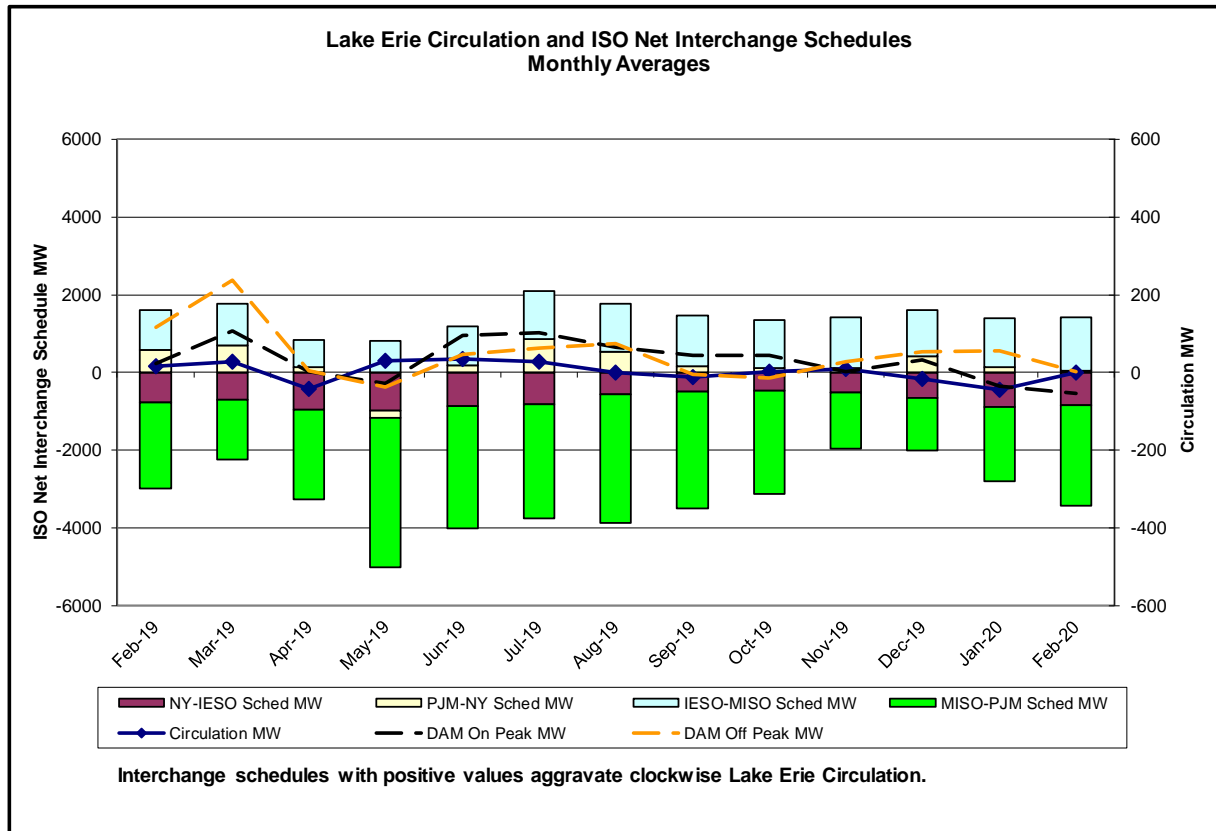




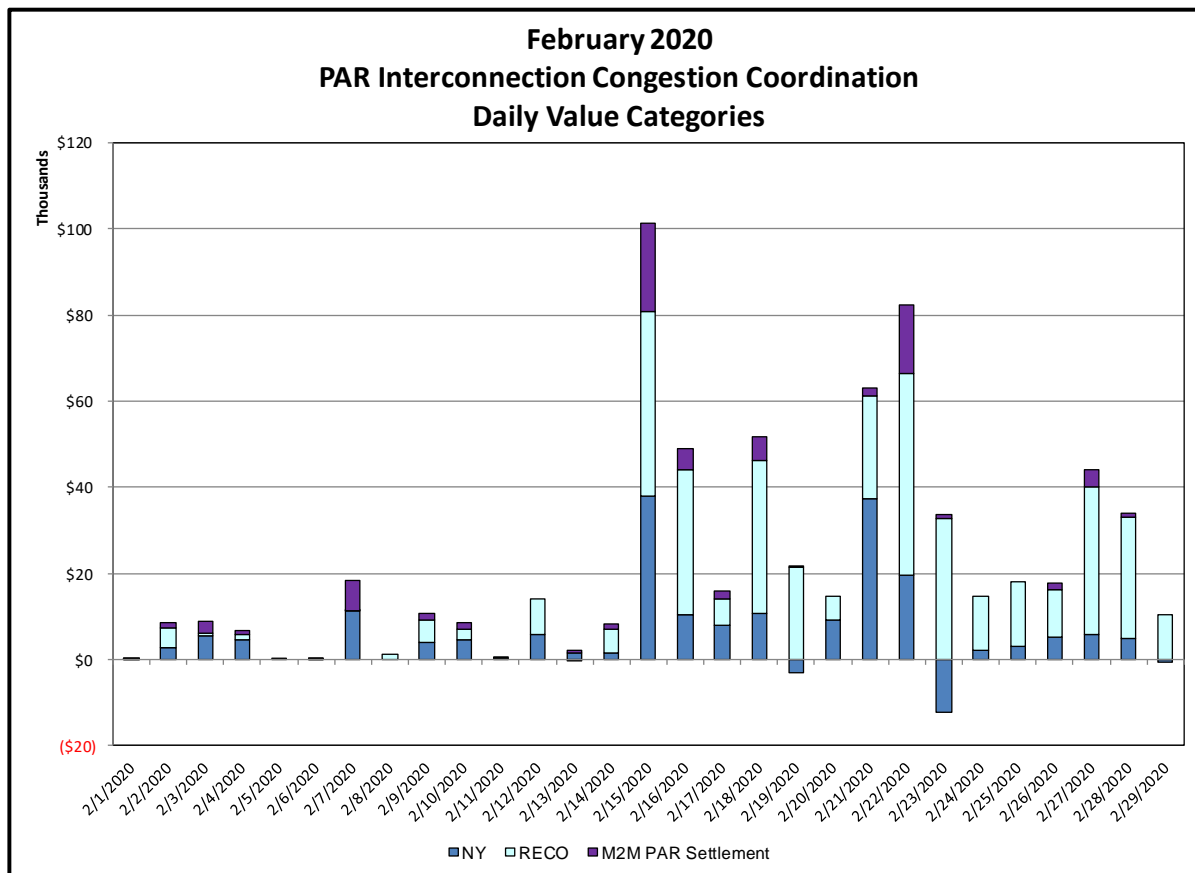
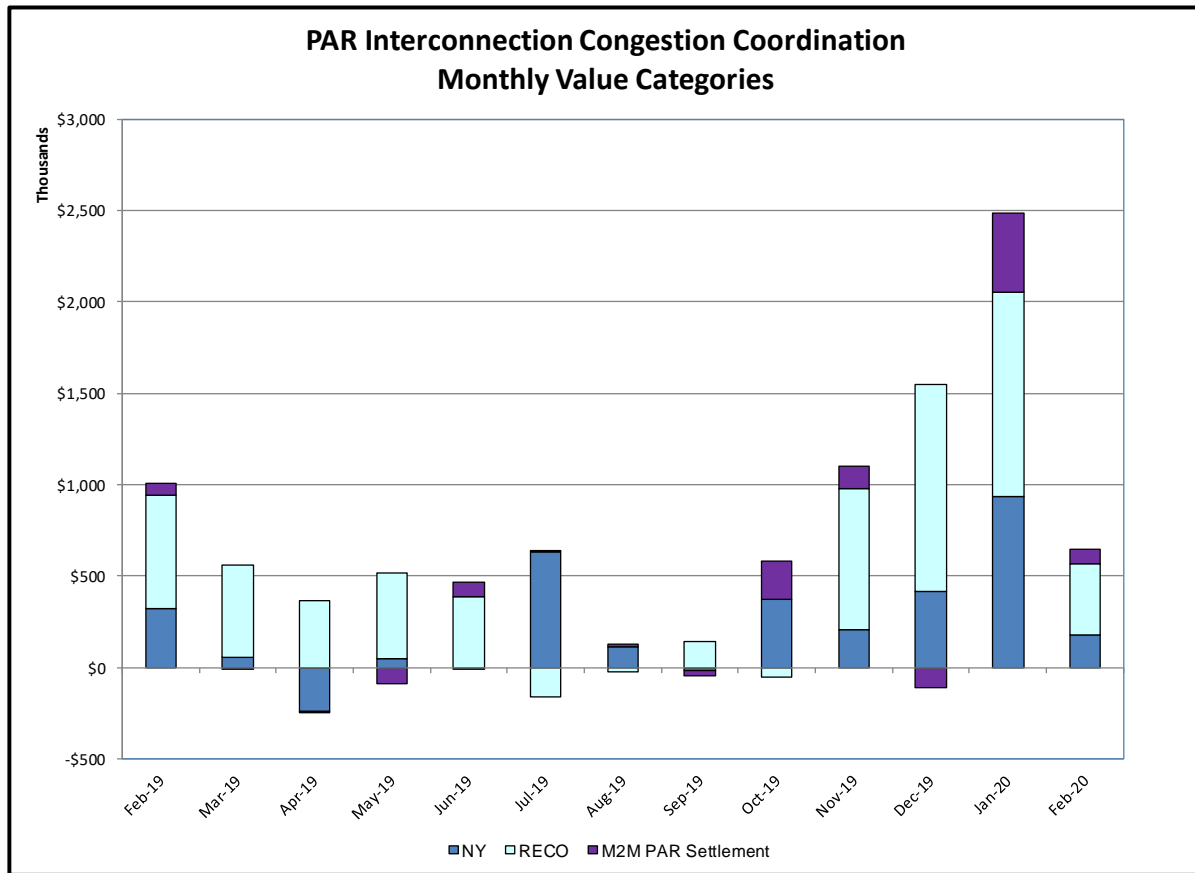






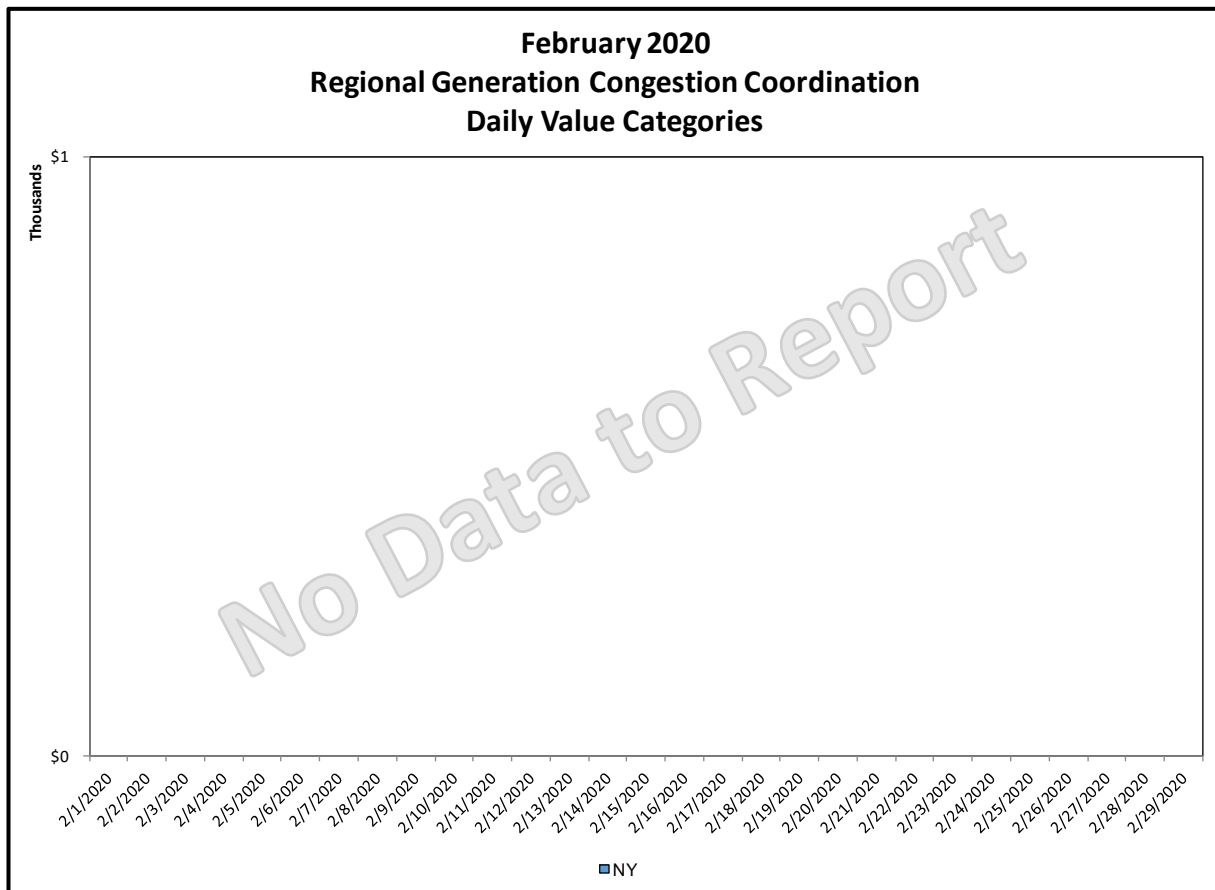
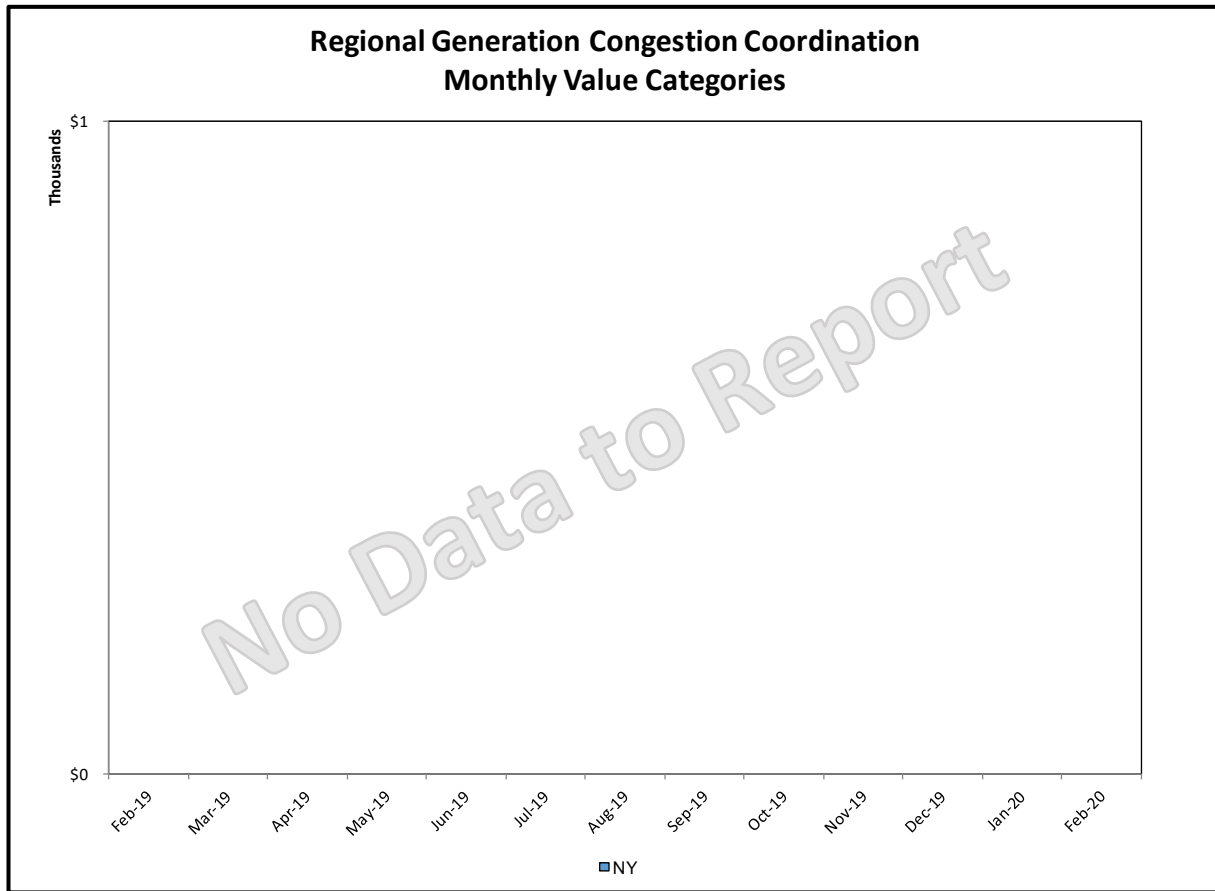


Broader Regional Market Performance Metrics



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.



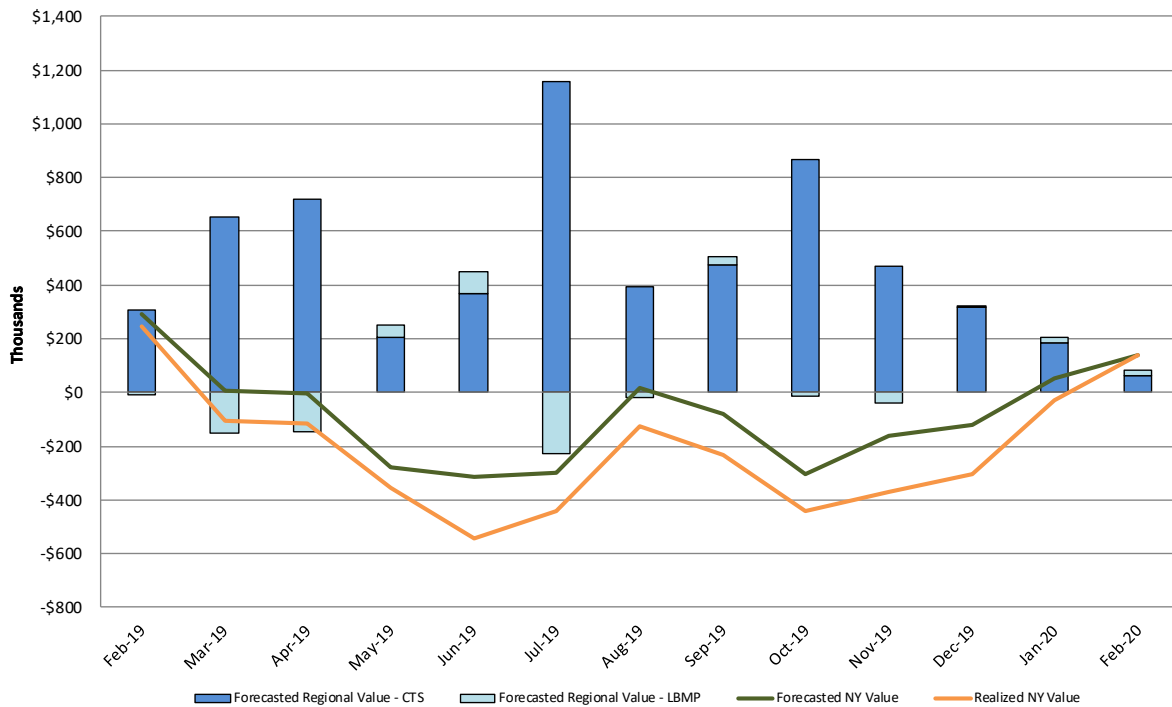
Regional Generation Congestion Coordination

Category
NY

Description

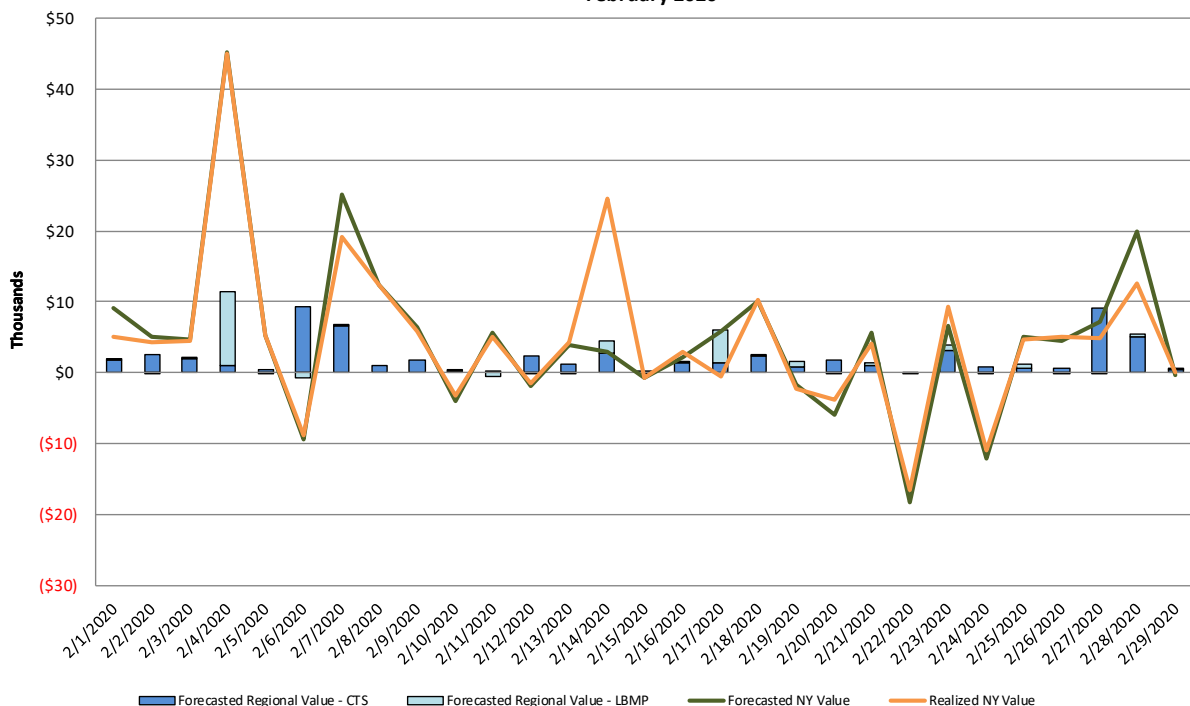
NYISO savings that result from PJM payments to NYISO when PJM's transmission use (PJM's market flow) is greater than PJM's entitlement of the NY transmission system and NYISO is incurring Western or Central NY congestion. Additionally, NYISO savings may result from the more efficient regional utilization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

Regional NYISO/PJM RT Scheduling for All PJM Proxies Monthly Value Categories

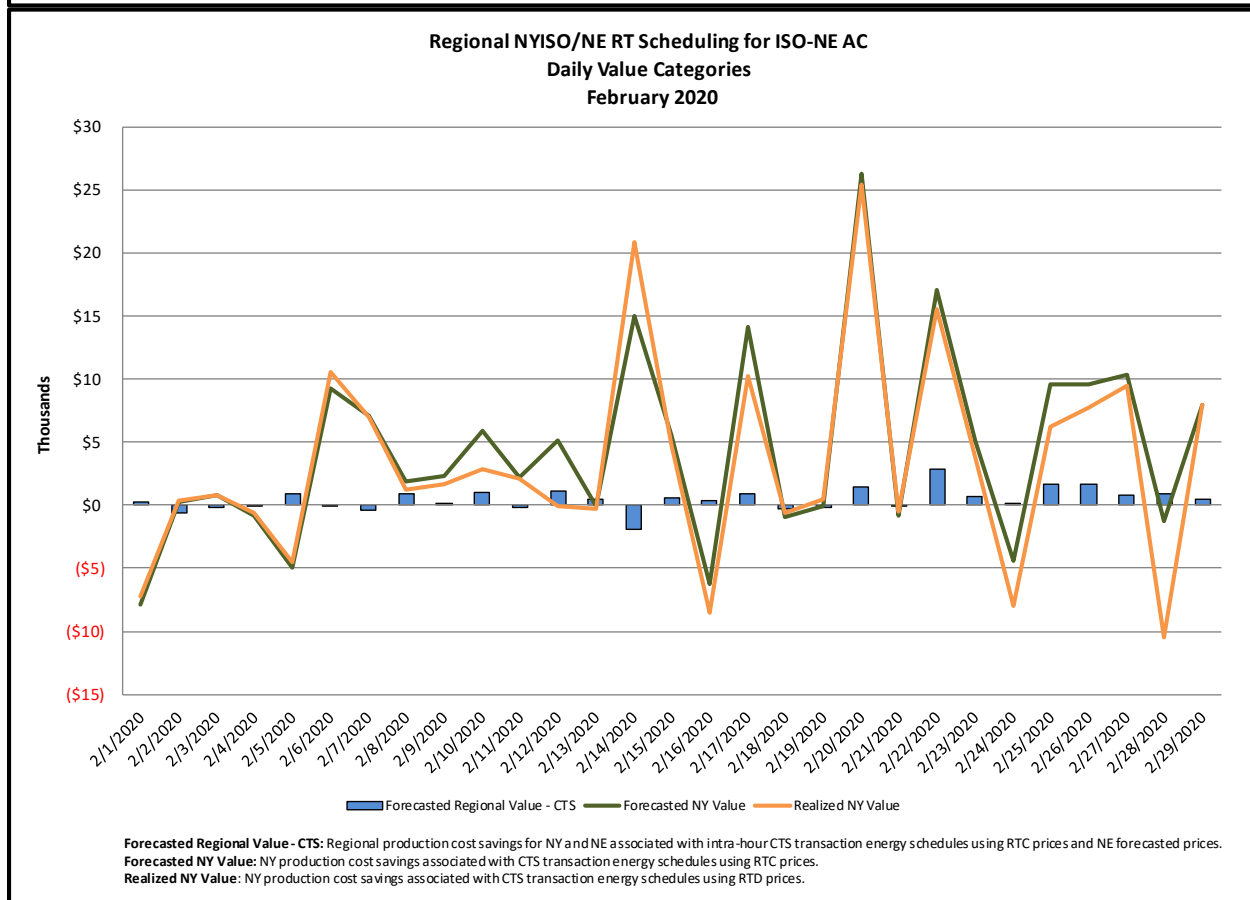
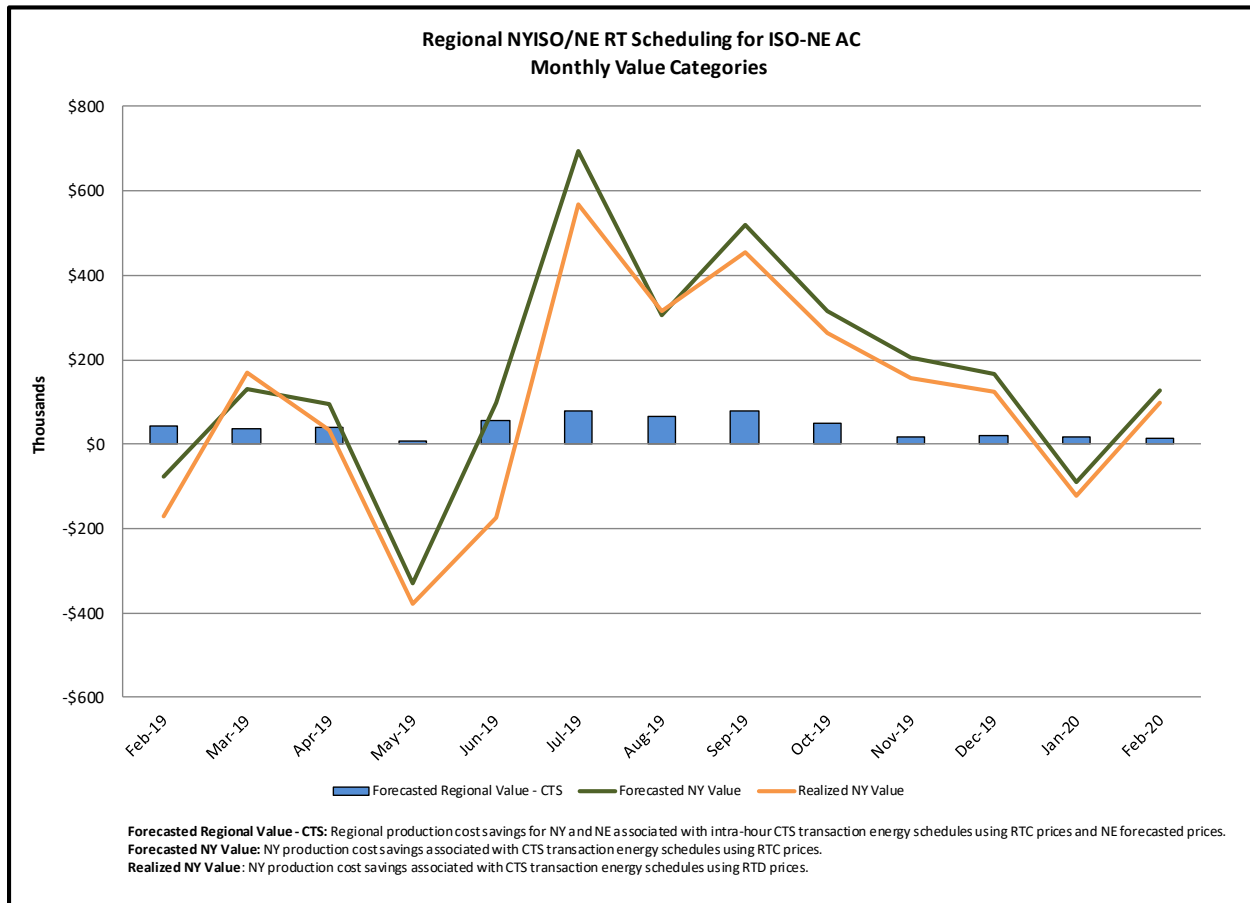


Forecasted Regional Value - CTS: Regional production cost savings for NY and PJM associated with intra-hour CTS transaction energy schedules using RTC/ITSCED prices.
Forecasted Regional Value - LBMP: Regional production cost savings for NY and PJM associated with intra-hour LBMP transaction energy schedules using RTC/ITSCED prices.
Forecasted NY Value: NY production cost savings associated with both CTS and LBMP transaction energy schedules using RTC prices.
Realized NY Value: NY production cost savings associated with both CTS and LBMP transaction energy schedules using RTD prices.

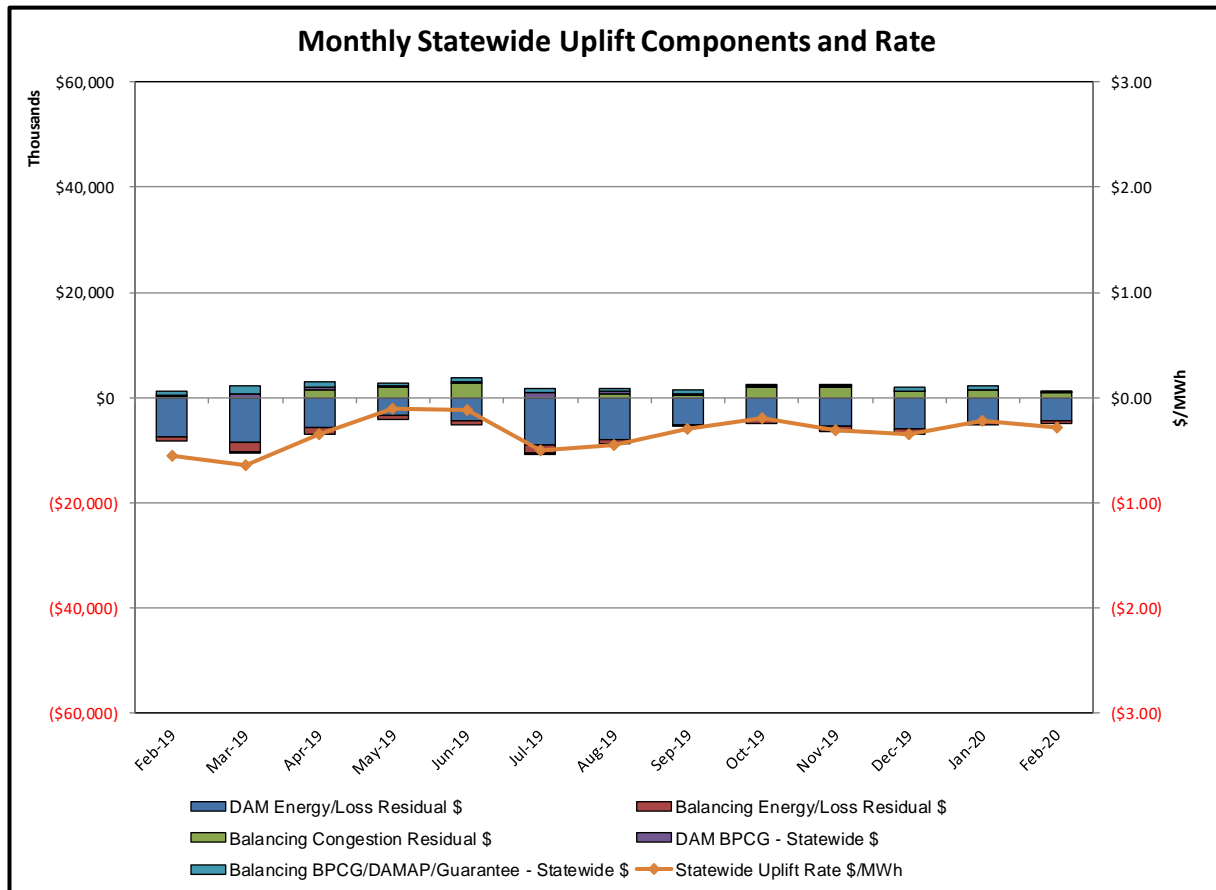
Regional NYISO/PJM RT Scheduling for All PJM Proxies Daily Value Categories February 2020

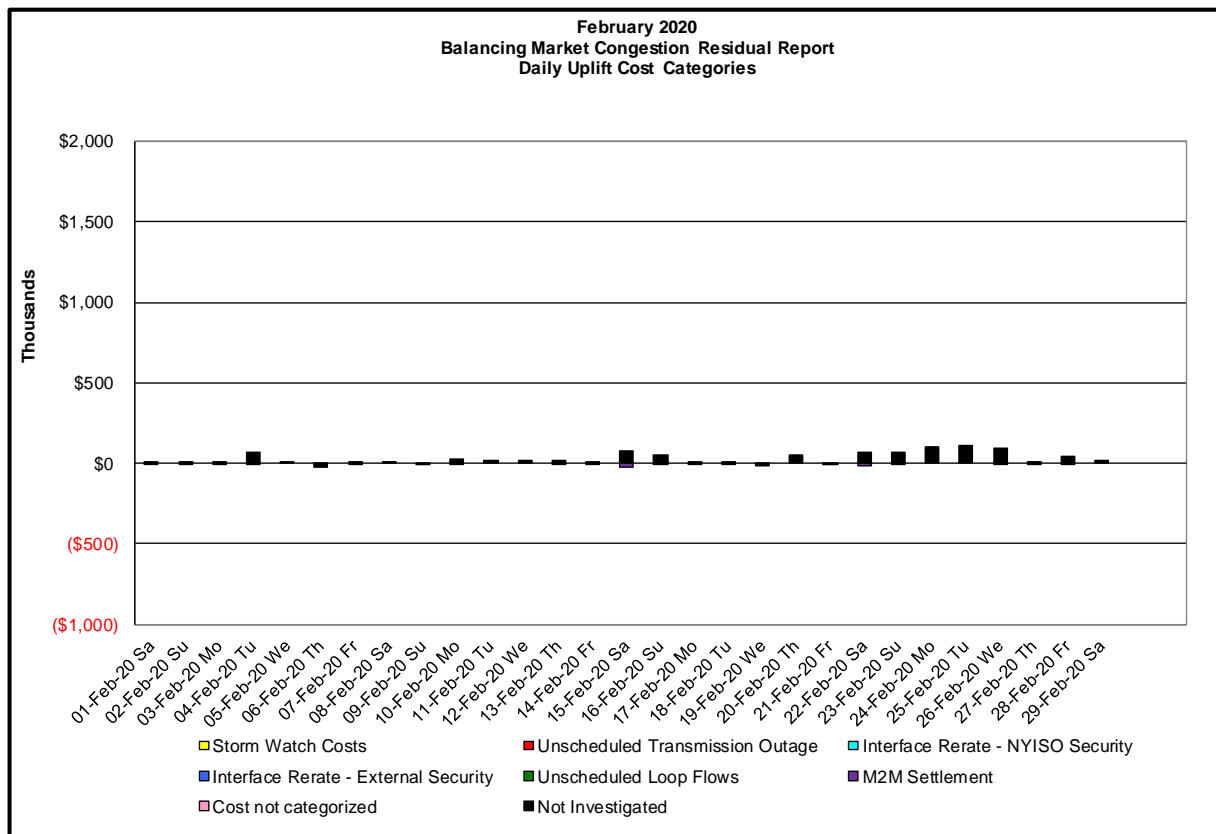
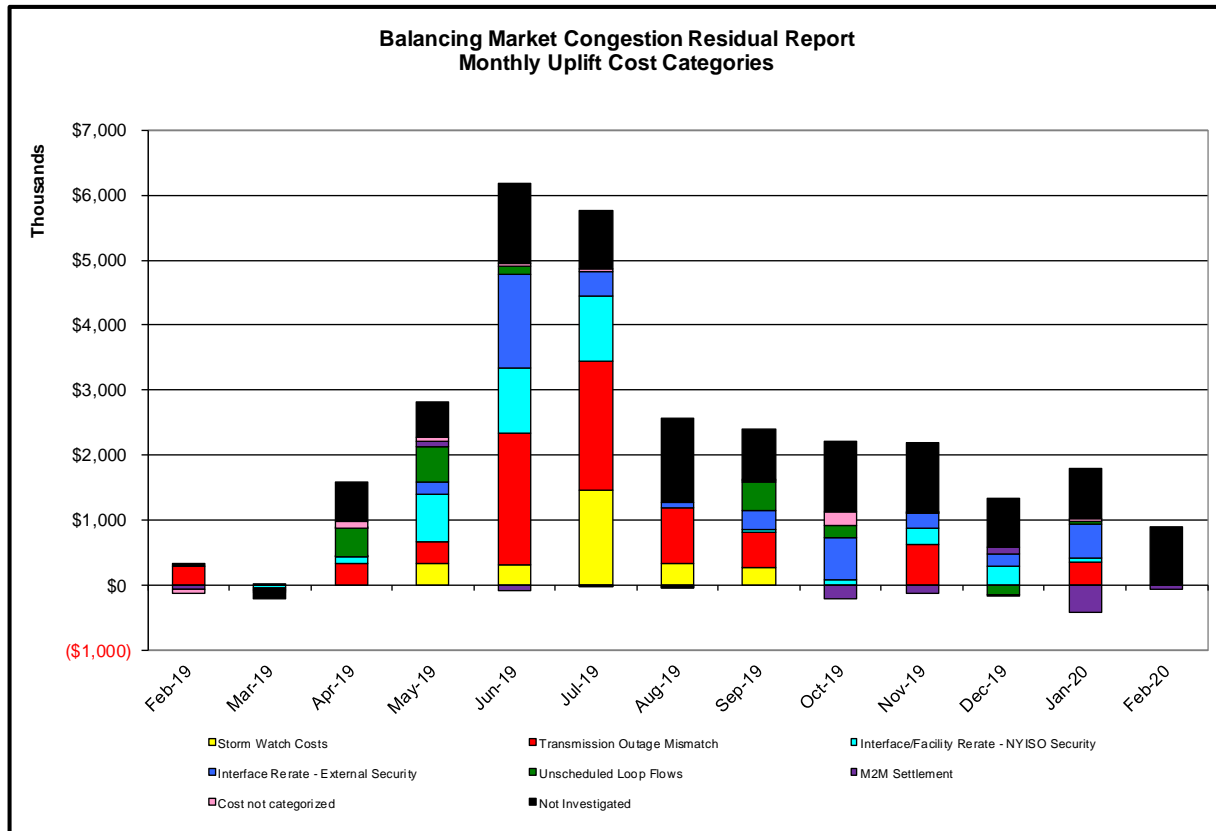


Forecasted Regional Value - CTS: Regional production cost savings for NY and PJM associated with intra-hour CTS transaction energy schedules using RTC/ITSCED prices.
Forecasted Regional Value - LBMP: Regional production cost savings for NY and PJM associated with intra-hour LBMP transaction energy schedules using RTC/ITSCED prices.
Forecasted NY Value: NY production cost savings associated with both CTS and LBMP transaction energy schedules using RTC prices.
Realized NY Value: NY production cost savings associated with both CTS and LBMP transaction energy schedules using RTD prices.



Market Performance Metrics





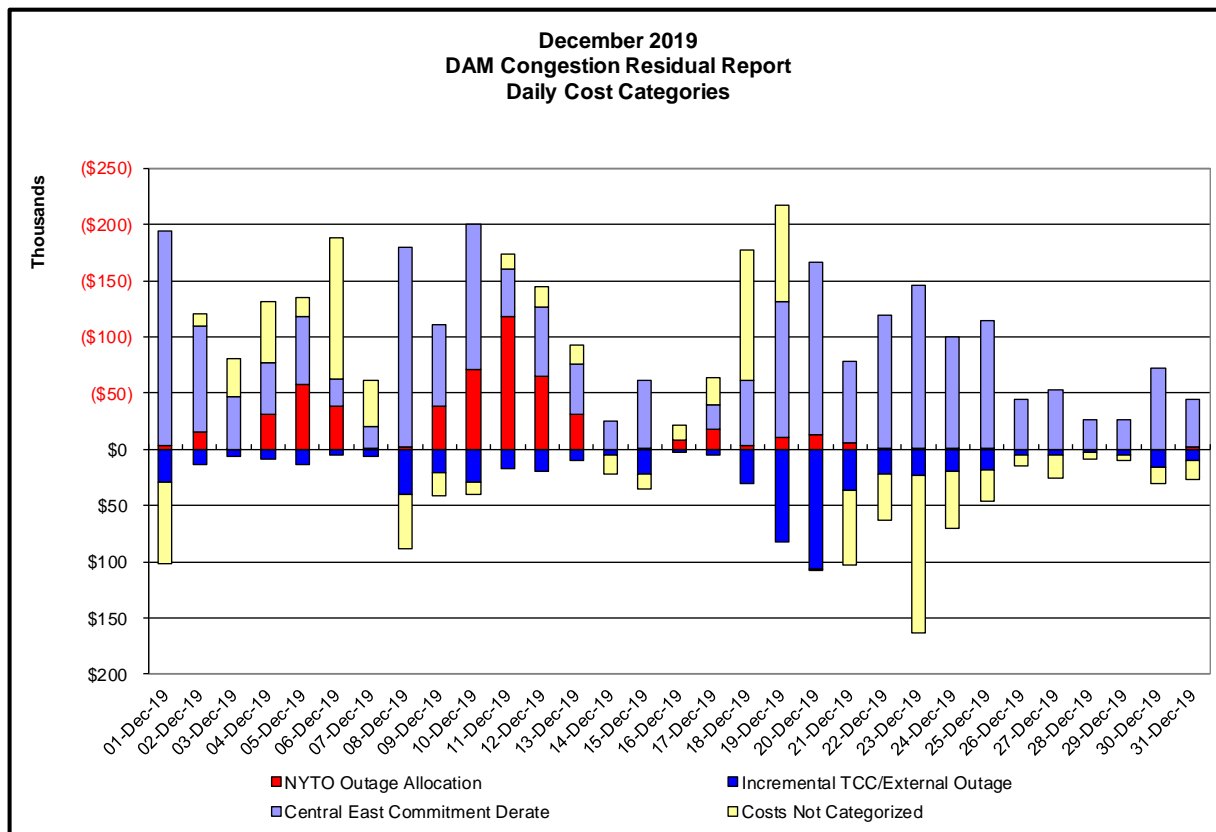
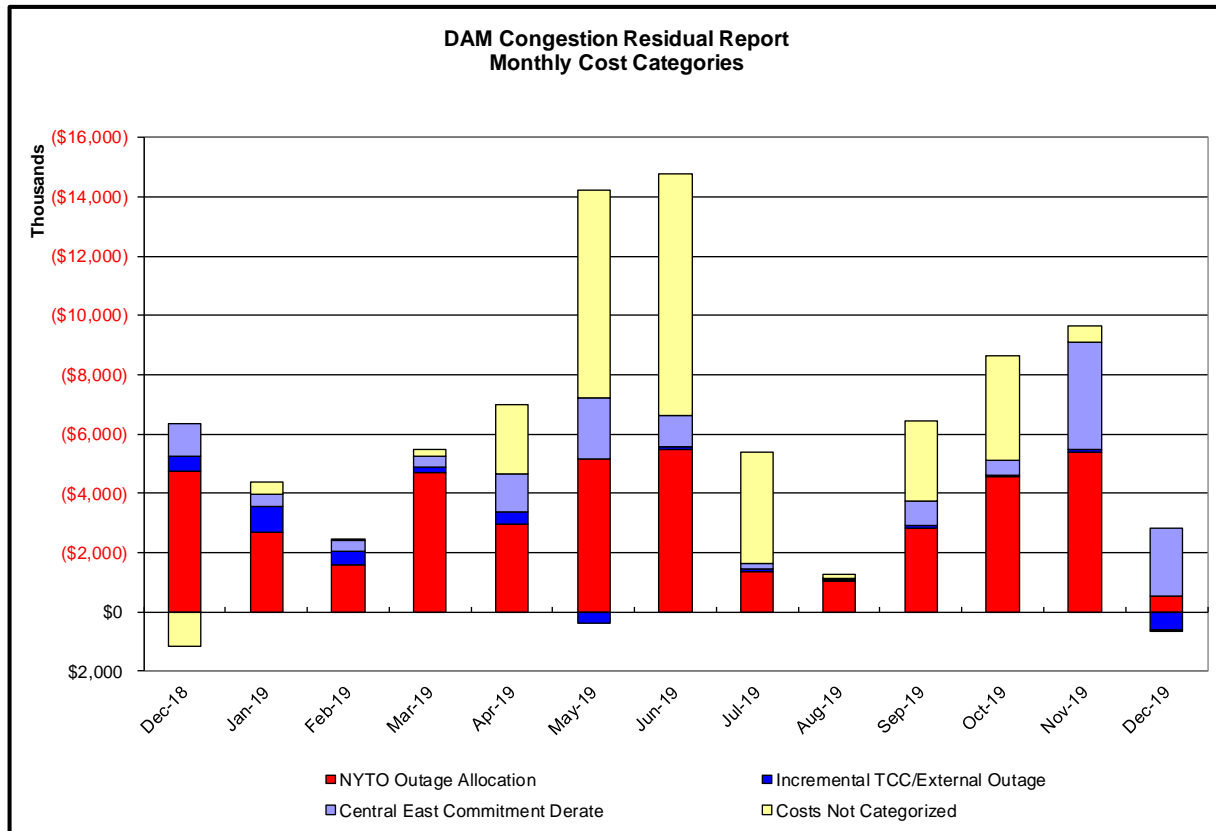
Day's investigated in February:			
Event	Date (yyyymmdd)	Hours	Description

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	

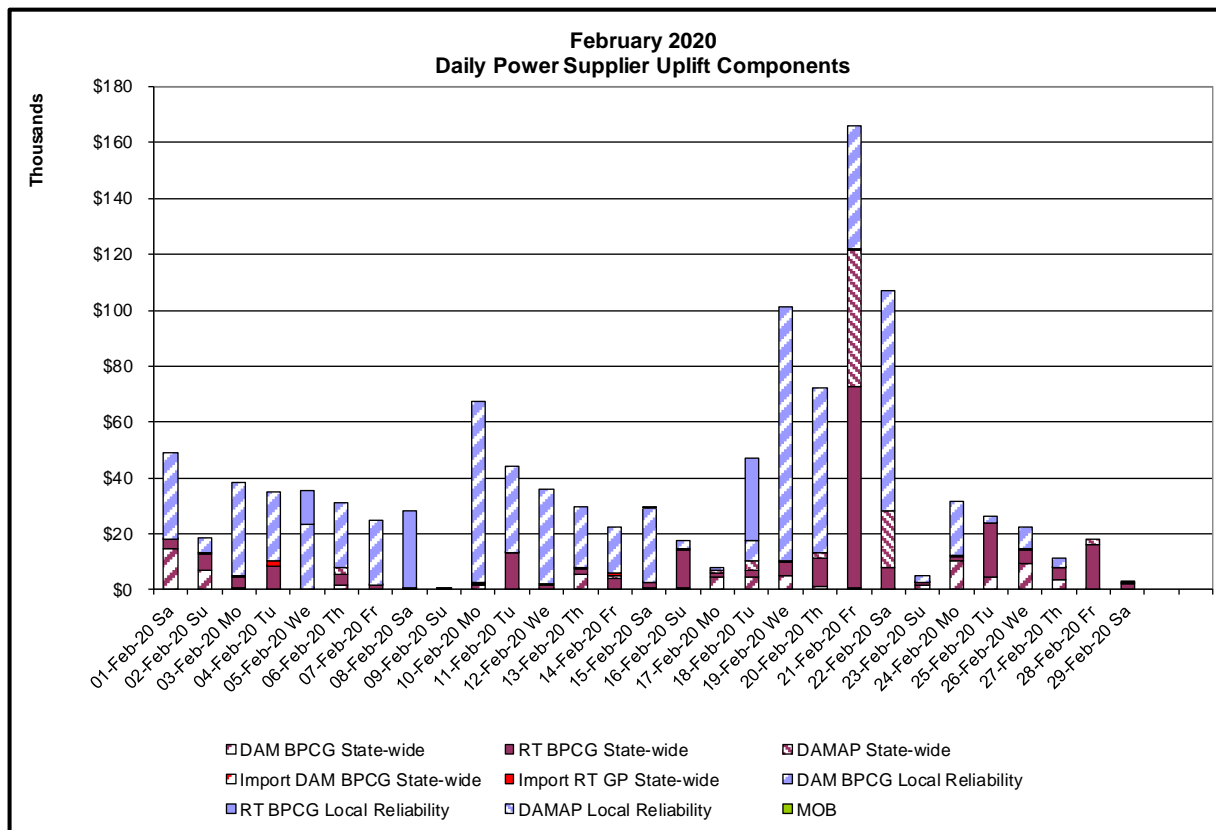
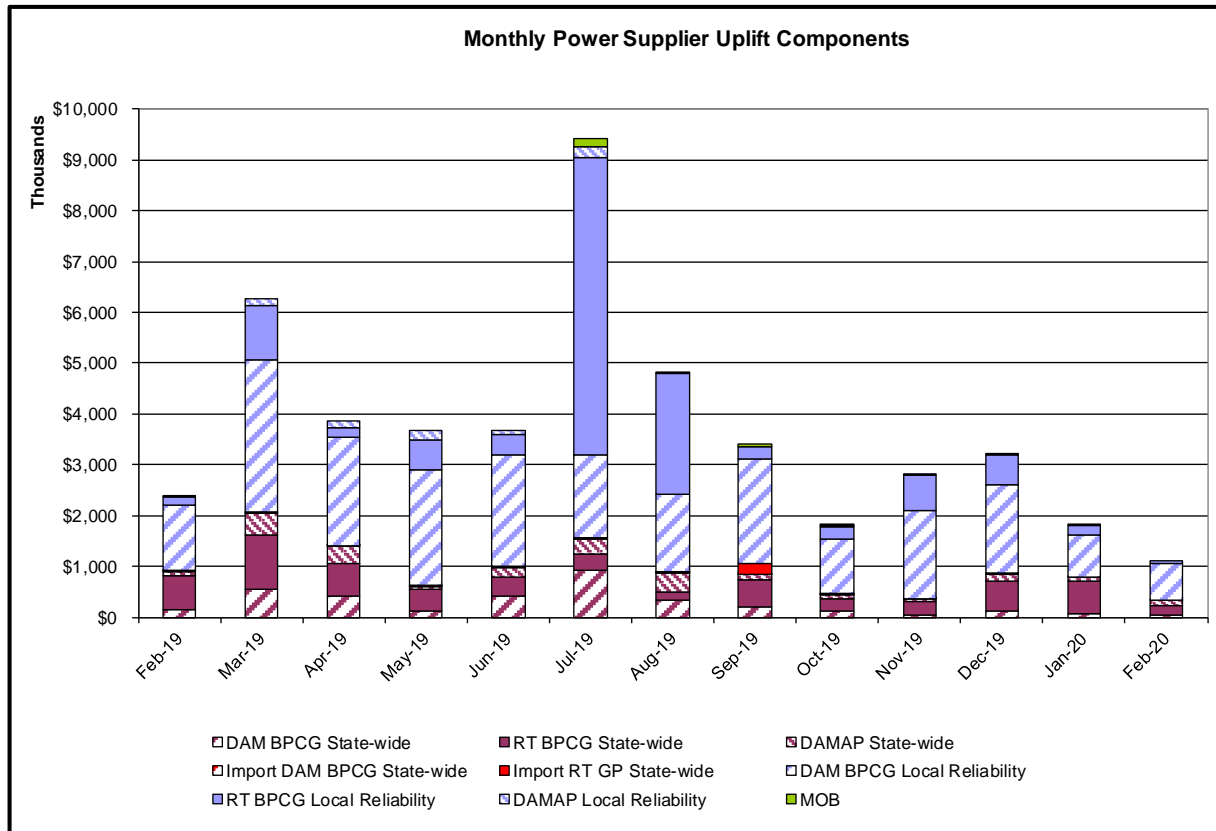
Monthly Balancing Market Congestion Report Assumptions/Notes

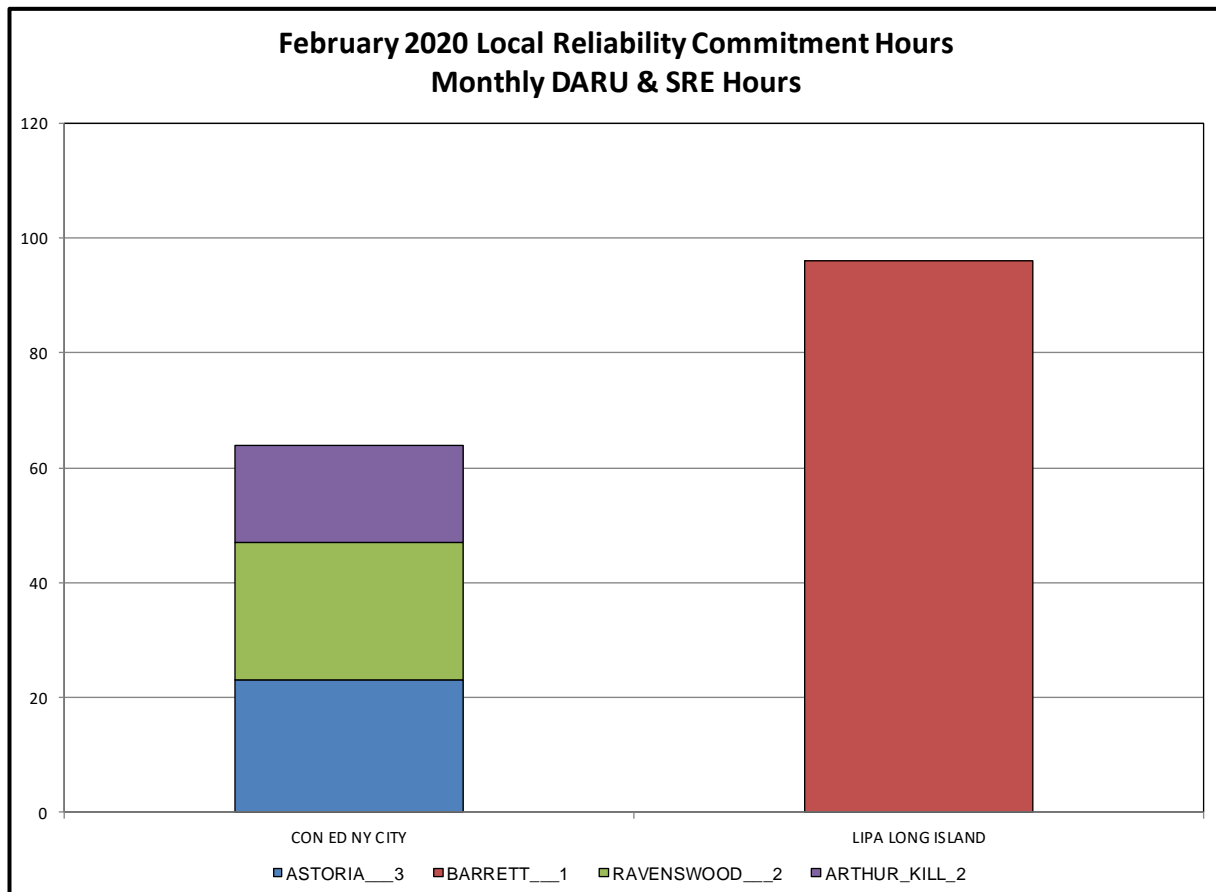
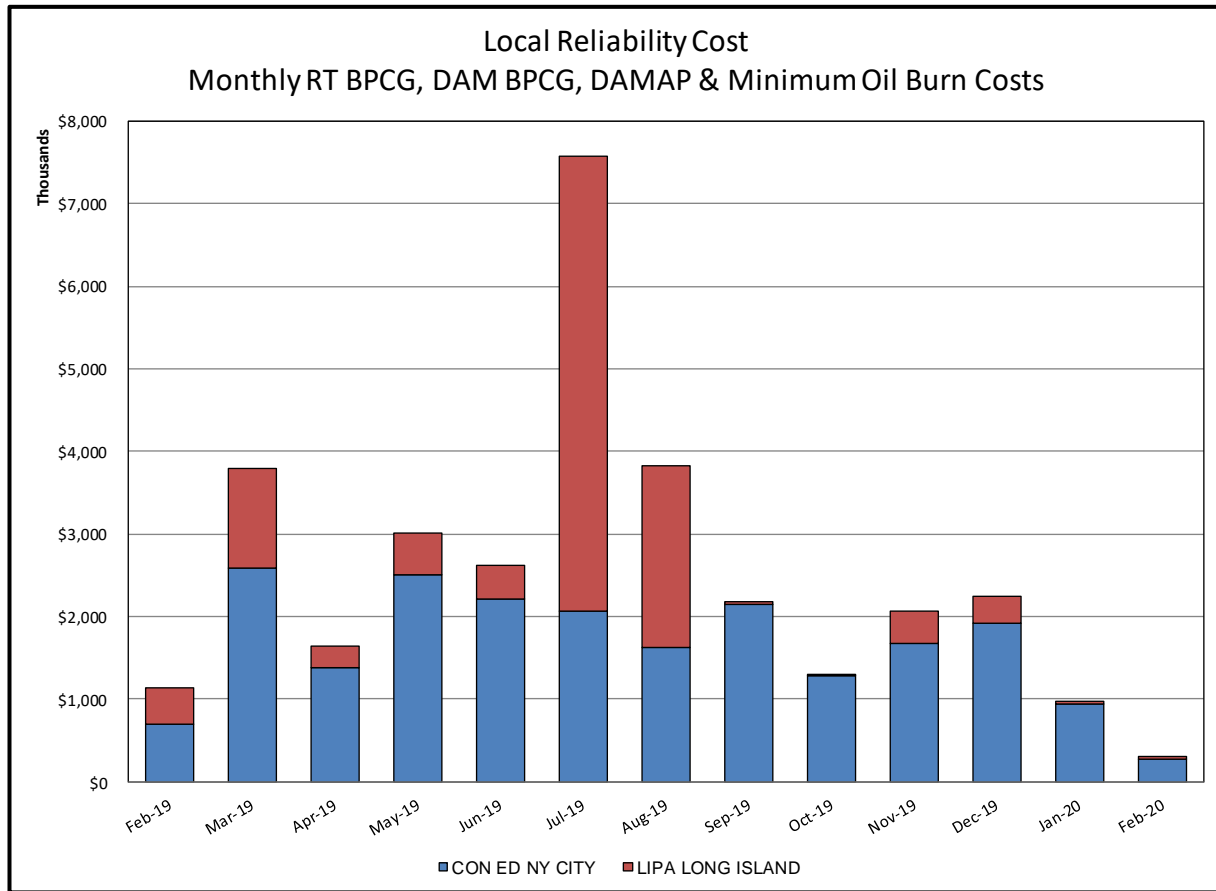
- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour

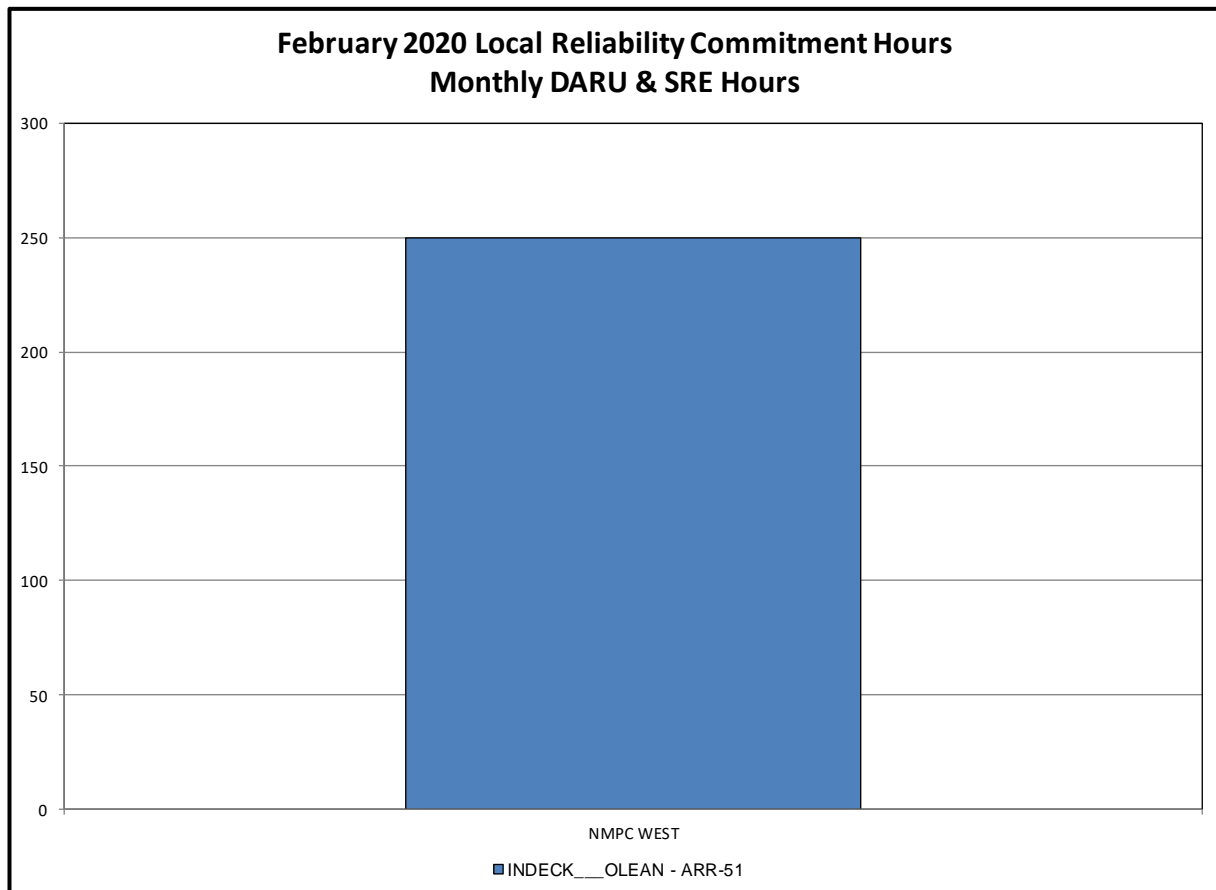
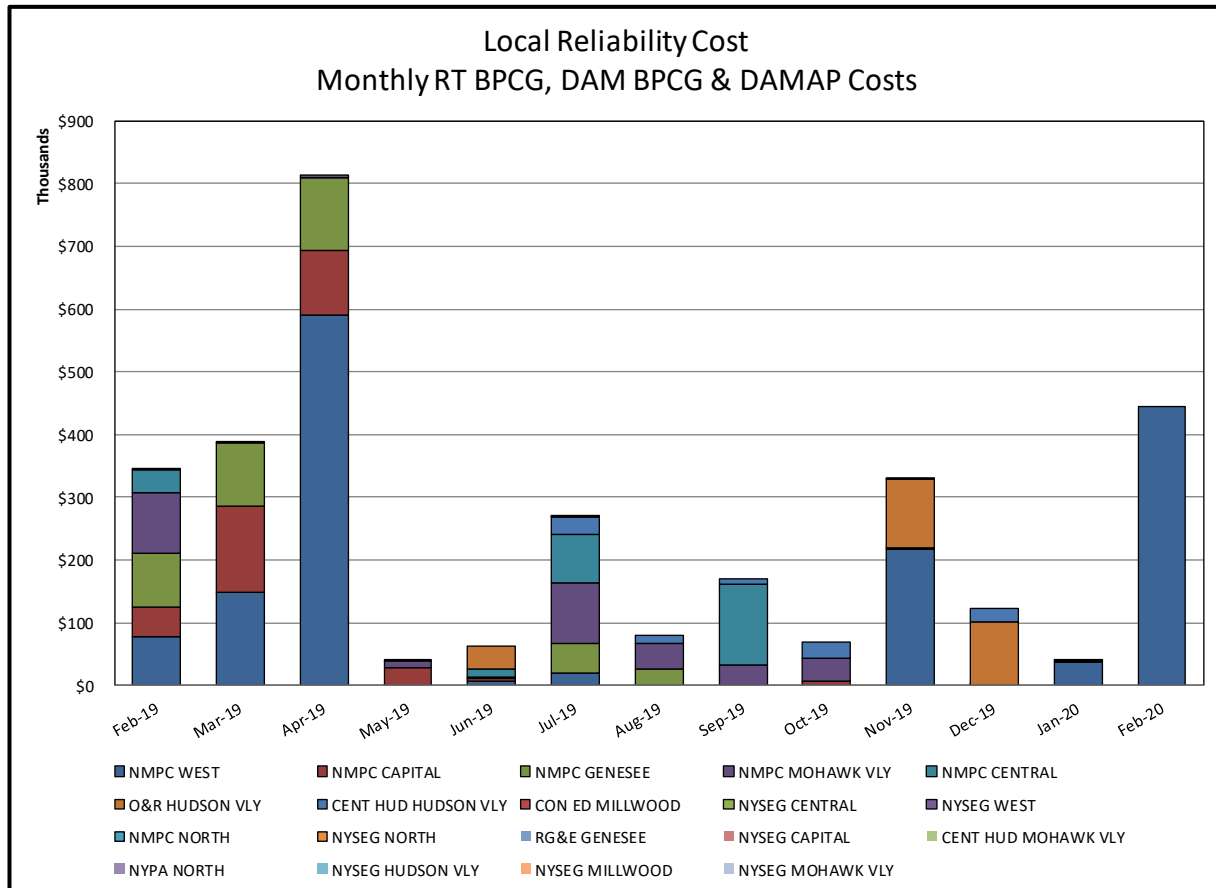


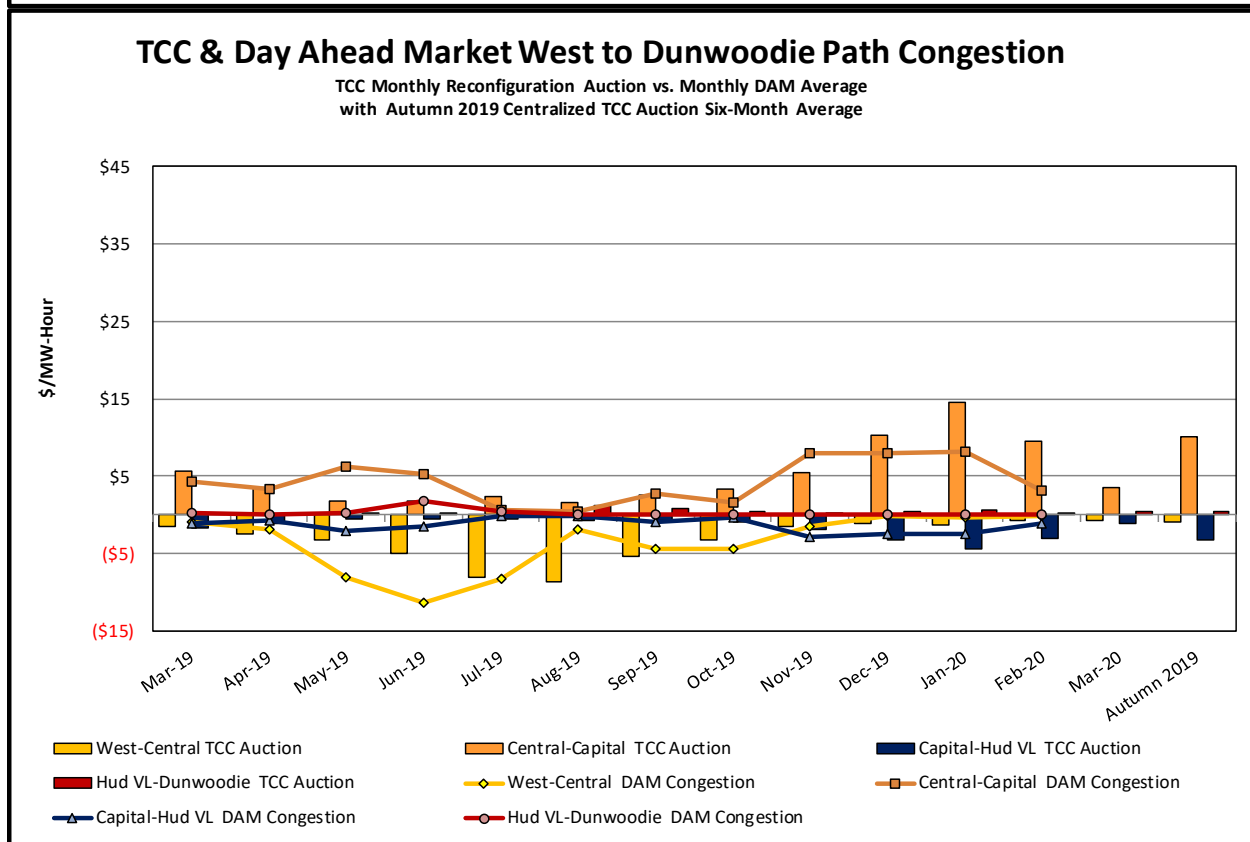
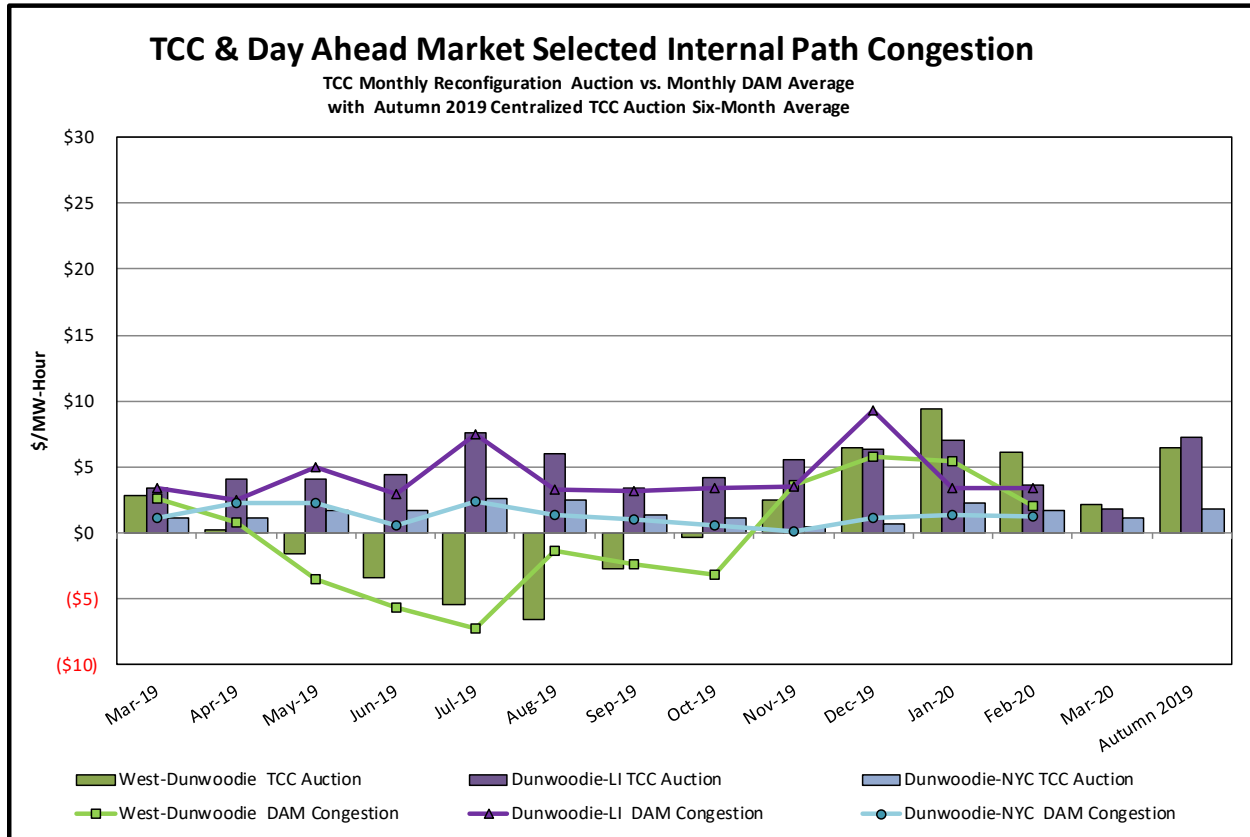
Day-Ahead Market Congestion Residual Categories

<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.
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.	



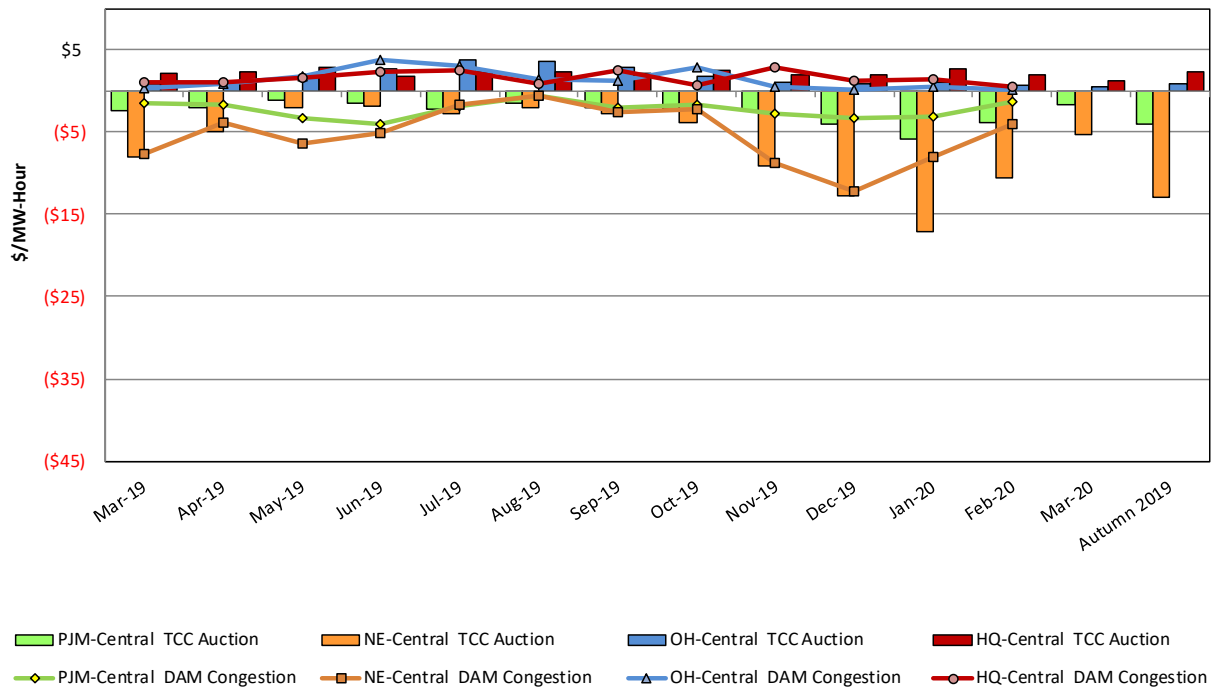




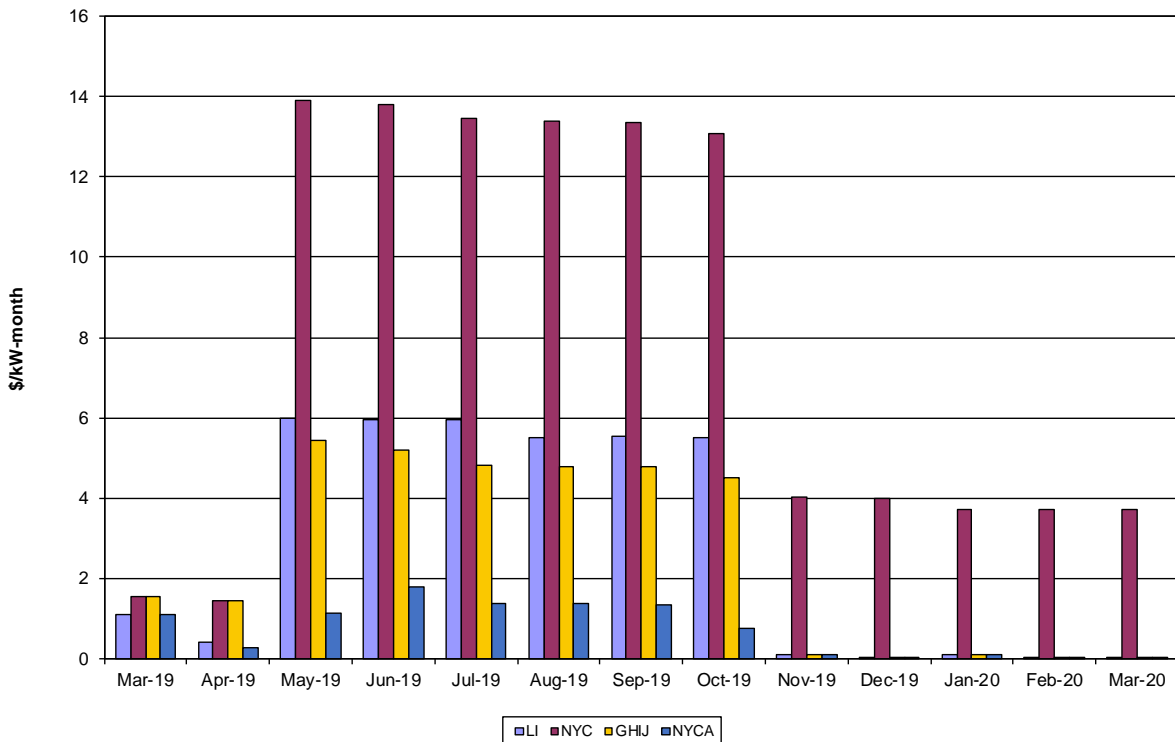


TCC & Day Ahead Market Selected External Path Congestion

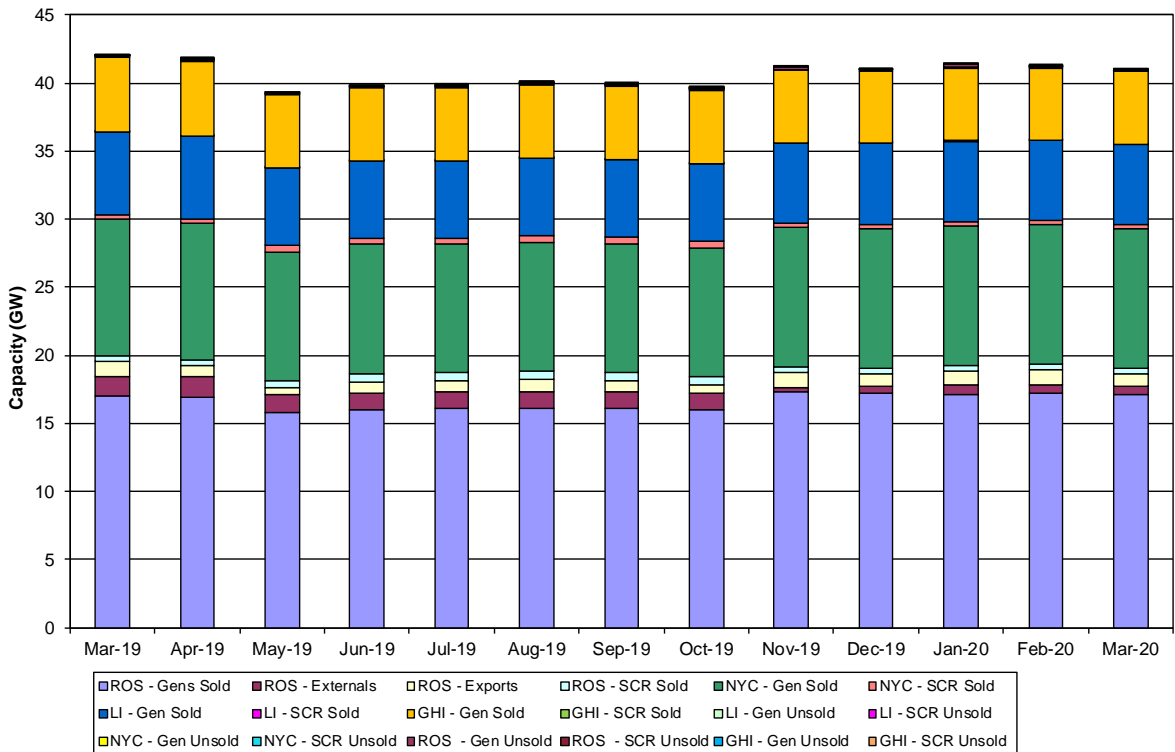
TCC Monthly Reconfiguration Auction vs. Monthly DAM Average
with Autumn 2019 Centralized TCC Auction Six-Month Average



ICAP Spot Market Clearing Price



UCAP Sales

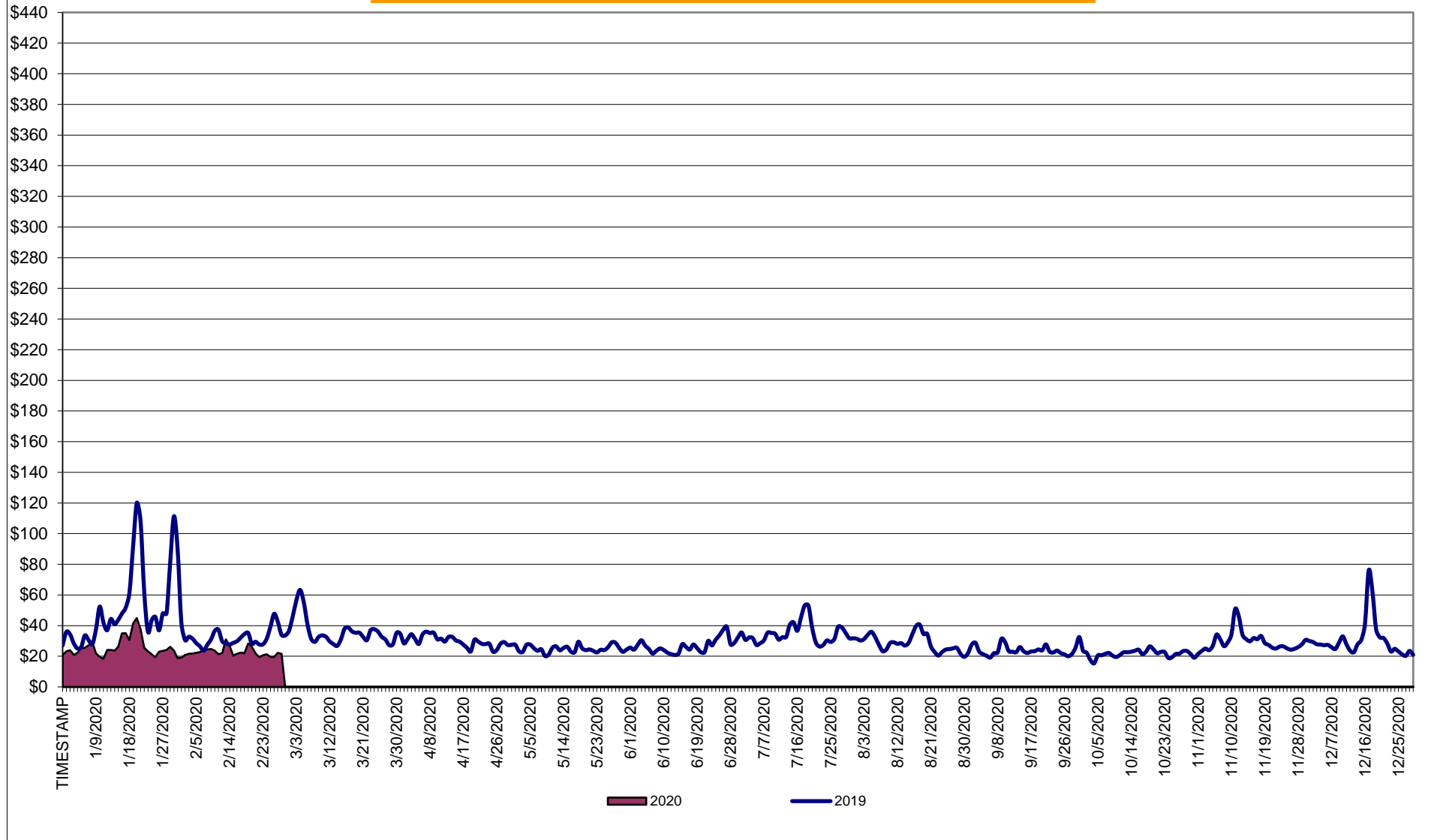


Market Performance Highlights

February 2020

- LBMP for February is \$21.11/MWh; lower than \$24.77/MWh in January 2020 and \$33.51/MWh in February 2019.
 - Day Ahead and Real Time Load Weighted LBMPs are lower compared to January.
- February 2020 average year-to-date monthly cost of \$25.40/MWh is a 43% decrease from \$44.93/MWh in February 2019.
- Average daily sendout is 417 GWh/day in February; lower than 423 GWh/day in January 2020 and 436 GWh/day in February 2019.
- Natural gas and distillate prices are lower compared to the previous month.
 - Natural Gas (Transco Z6 NY) was \$1.87 /MMBtu, down from \$2.20/MMBtu in January.
 - Natural gas prices are down 32.2% year-over-year.
 - Jet Kerosene Gulf Coast was \$11.33/MMBtu, down from \$13.24/MMBtu in January.
 - Ultra Low Sulfur No.2 Diesel NY Harbor was \$11.73/MMBtu, down from \$13.33/MMBtu in January.
 - Distillate prices are down 18.3% year-over-year.
- Uplift per MWh is lower compared to the previous month.
 - Uplift (not including NYISO cost of operations) is (\$0.23)/MWh; lower than (\$0.15)/MWh in January.
 - Local Reliability Share is \$0.06/MWh, lower than \$0.07/MWh in January.
 - Statewide Share is (\$0.29)/MWh, lower than (\$0.22)/MWh in January.
 - TSA \$ per NYC MWh is \$0.00/MWh.
 - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are lower than January.

Daily NYISO Average Cost/MWh (Energy & Ancillary Services)*
2019 Annual Average \$32.59/MWh
February 2019 YTD Average \$44.93/MWh
February 2020 YTD Average \$25.03/MWh

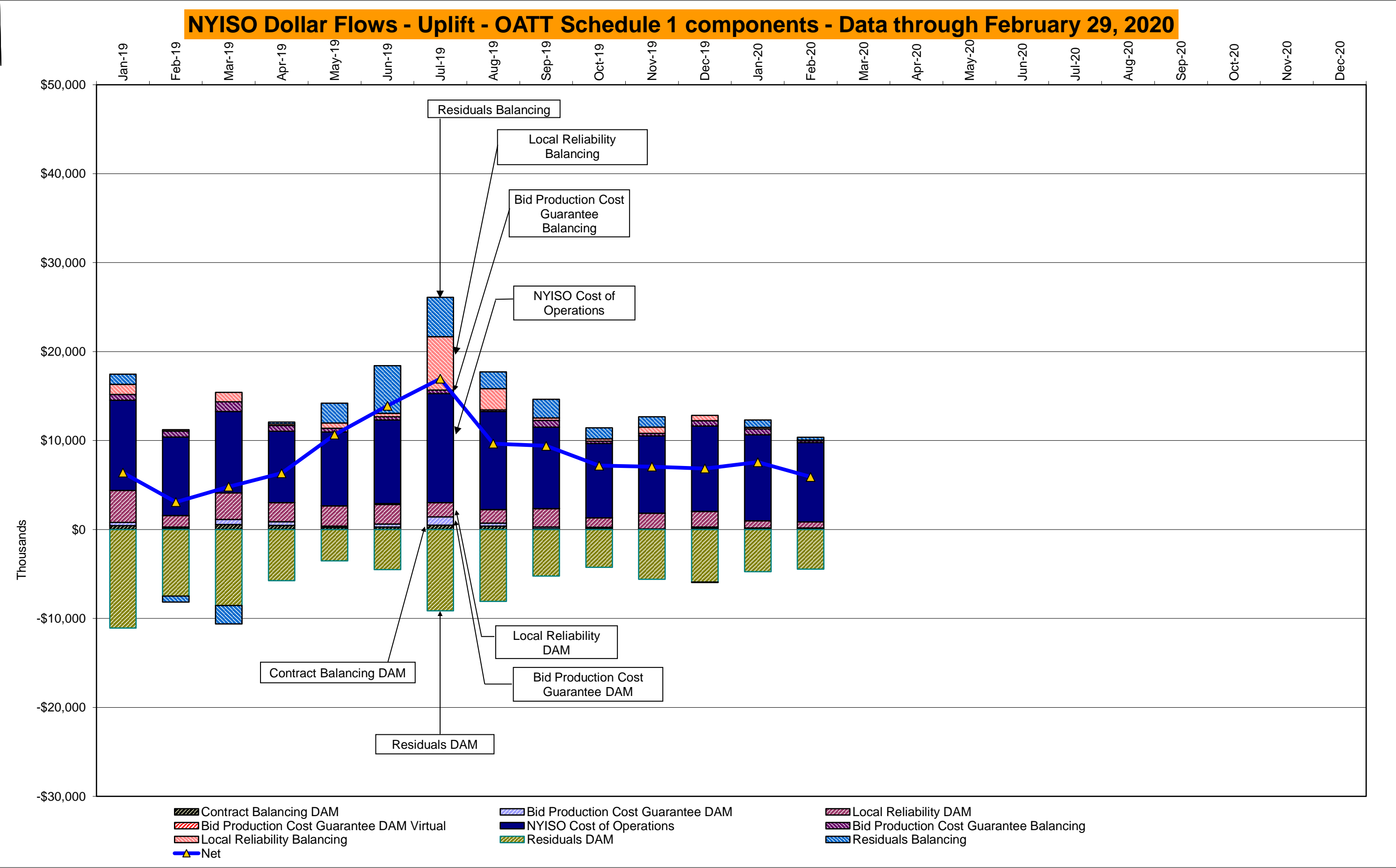


* Excludes ICAP payments.

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

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										
NTAC	0.91	0.70										
Reserve	0.46	0.43										
Regulation	0.09	0.08										
NYISO Cost of Operations	0.68	0.69										
FERC Fee Recovery	0.08	0.09										
Uplift	(0.15)	(0.23)										
Uplift: Local Reliability Share	0.07	0.06										
Uplift: Statewide Share	(0.22)	(0.29)										
Voltage Support and Black Start	0.44	0.44										
Avg Monthly Cost	27.29	23.32										
 Avg YTD Cost	27.29	25.40										
 TSA \$ per NYC MWh	0.00	0.00										
 2019	<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	50.93	33.51	34.91	28.01	23.10	24.43	33.18	27.83	22.22	20.84	27.39	29.52
NTAC	0.51	0.69	0.98	1.16	0.72	1.08	1.01	0.98	0.48	0.57	0.88	0.77
Reserve	0.54	0.51	0.55	0.63	0.63	0.50	0.44	0.49	0.50	0.62	0.50	0.44
Regulation	0.13	0.11	0.10	0.33	0.13	0.09	0.07	0.09	0.09	0.13	0.11	0.10
NYISO Cost of Operations	0.68	0.68	0.69	0.69	0.68	0.69	0.70	0.70	0.69	0.67	0.67	0.67
FERC Fee Recovery	0.08	0.09	0.09	0.10	0.10	0.08	0.06	0.07	0.09	0.09	0.09	0.08
Uplift	(0.25)	(0.44)	(0.33)	(0.15)	0.13	0.07	(0.06)	(0.20)	(0.13)	(0.09)	(0.13)	(0.19)
Uplift: Local Reliability Share	0.32	0.11	0.31	0.20	0.23	0.19	0.44	0.25	0.17	0.11	0.19	0.17
Uplift: Statewide Share	(0.57)	(0.55)	(0.64)	(0.35)	(0.11)	(0.12)	(0.50)	(0.45)	(0.30)	(0.20)	(0.31)	(0.35)
Voltage Support and Black Start	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.36
Avg Monthly Cost	52.99	35.51	37.38	31.16	25.88	27.32	35.78	30.33	24.32	23.21	29.89	31.76
 Avg YTD Cost	52.99	44.93	42.54	40.12	37.57	35.76	35.75	34.96	33.88	32.94	32.69	32.59
 TSA \$ per NYC MWh	0.00	0.00	0.01	0.01	0.19	0.77	1.00	0.33	0.43	0.00	0.00	0.00

* Excludes ICAP payments.
Market Mitigation and Analysis
Prepared: 3/10/2020 12:11 PM



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>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										
DAM LSE Internal LBMP Energy Sales	56%	56%										
DAM External TC LBMP Energy Sales	6%	5%										
DAM Bilateral - Internal Bilaterals	30%	30%										
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%										
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%										
DAM Bilateral - Wheel Through Bilaterals	1%	1%										
<u>Balancing Energy Market MWh</u>	-26,753	-142,168										
Balancing Energy LSE Internal LBMP Energy Sales	-1080%	-221%										
Balancing Energy External TC LBMP Energy Sales	1156%	181%										
Balancing Energy Bilateral - Internal Bilaterals	62%	5%										
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%										
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	127%	16%										
Balancing Energy Bilateral - Wheel Through Bilaterals	-365%	-81%										
<u>Transactions Summary</u>												
LBMP	62%	62%										
Internal Bilaterals	31%	31%										
Import Bilaterals	5%	5%										
Export Bilaterals	2%	2%										
Wheels Through	0%	1%										
<u>Market Share of Total Load</u>												
Day Ahead Market	100.2%	101.1%										
Balancing Energy +	-0.2%	-1.1%										
Total MWH	14,167,856	13,030,501										
Average Daily Energy Sendout/Month GWh	423	417										

<u>2019</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>	15,299,458	13,391,383	13,527,834	11,811,029	12,521,583	13,723,372	17,416,589	16,379,968	13,588,715	12,567,821	13,036,152	14,345,711
DAM LSE Internal LBMP Energy Sales	57%	57%	59%	59%	57%	58%	64%	63%	58%	57%	54%	56%
DAM External TC LBMP Energy Sales	6%	5%	3%	1%	3%	3%	3%	3%	3%	4%	6%	6%
DAM Bilateral - Internal Bilaterals	29%	30%	30%	31%	32%	29%	26%	26%	30%	32%	32%	30%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	5%	5%	6%	5%	4%	4%	5%	5%	5%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	2%	2%	2%	2%	1%	2%	2%	2%	2%	1%	1%	1%
<u>Balancing Energy Market MWh</u>	-322,442	-323,188	-261,217	-218,482	-392,699	-102,044	103,628	-514,102	-247,267	-112,057	-17,421	46,828
Balancing Energy LSE Internal LBMP Energy Sales	-120%	-126%	-138%	-178%	-150%	-264%	-2%	-119%	-163%	-346%	-1332%	-480%
Balancing Energy External TC LBMP Energy Sales	65%	67%	82%	113%	68%	233%	199%	41%	93%	266%	1435%	699%
Balancing Energy Bilateral - Internal Bilaterals	-4%	-1%	-3%	2%	1%	0%	5%	0%	-4%	6%	103%	39%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	3%	7%	6%	7%	2%	8%	8%	1%	6%	25%	170%	70%
Balancing Energy Bilateral - Wheel Through Bilaterals	-45%	-47%	-47%	-44%	-21%	-77%	-125%	-23%	-31%	-52%	-476%	-229%
<u>Transactions Summary</u>												
LBMP	63%	62%	61%	60%	59%	62%	68%	65%	61%	61%	60%	63%
Internal Bilaterals	29%	30%	30%	31%	33%	30%	25%	27%	30%	32%	32%	30%
Import Bilaterals	5%	5%	6%	6%	6%	5%	4%	5%	5%	5%	5%	5%
Export Bilaterals	1%	2%	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Wheels Through	1%	1%	1%	1%	0%	1%	1%	1%	2%	0%	0%	0%
<u>Market Share of Total Load</u>												
Day Ahead Market	102.2%	102.5%	102.0%	101.9%	103.2%	100.7%	99.4%	103.2%	101.9%	100.9%	100.1%	99.7%
Balancing Energy +	-2.2%	-2.5%	-2.0%	-1.9%	-3.2%	-0.7%	0.6%	-3.2%	-1.9%	-0.9%	-0.1%	0.3%
Total MWH	14,977,016	13,068,195	13,266,617	11,592,547	12,128,884	13,621,328	17,520,217	15,865,866	13,341,448	12,455,764	13,018,731	14,392,539
Average Daily Energy Sendout/Month GWh	449	436	411	371	373	429	539	487	419	377	401	427

+ 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 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										
Standard Deviation	\$7.43	\$4.45										
Load Weighted Price **	\$22.77	\$19.84										
<u>RTC LBMP</u>												
Price *	\$22.86	\$21.48										
Standard Deviation	\$9.33	\$53.30										
Load Weighted Price **	\$23.50	\$21.94										
<u>REAL TIME LBMP</u>												
Price *	\$22.53	\$19.29										
Standard Deviation	\$11.90	\$8.68										
Load Weighted Price **	\$23.20	\$19.68										
Average Daily Energy Sendout/Month GWh	423	417										

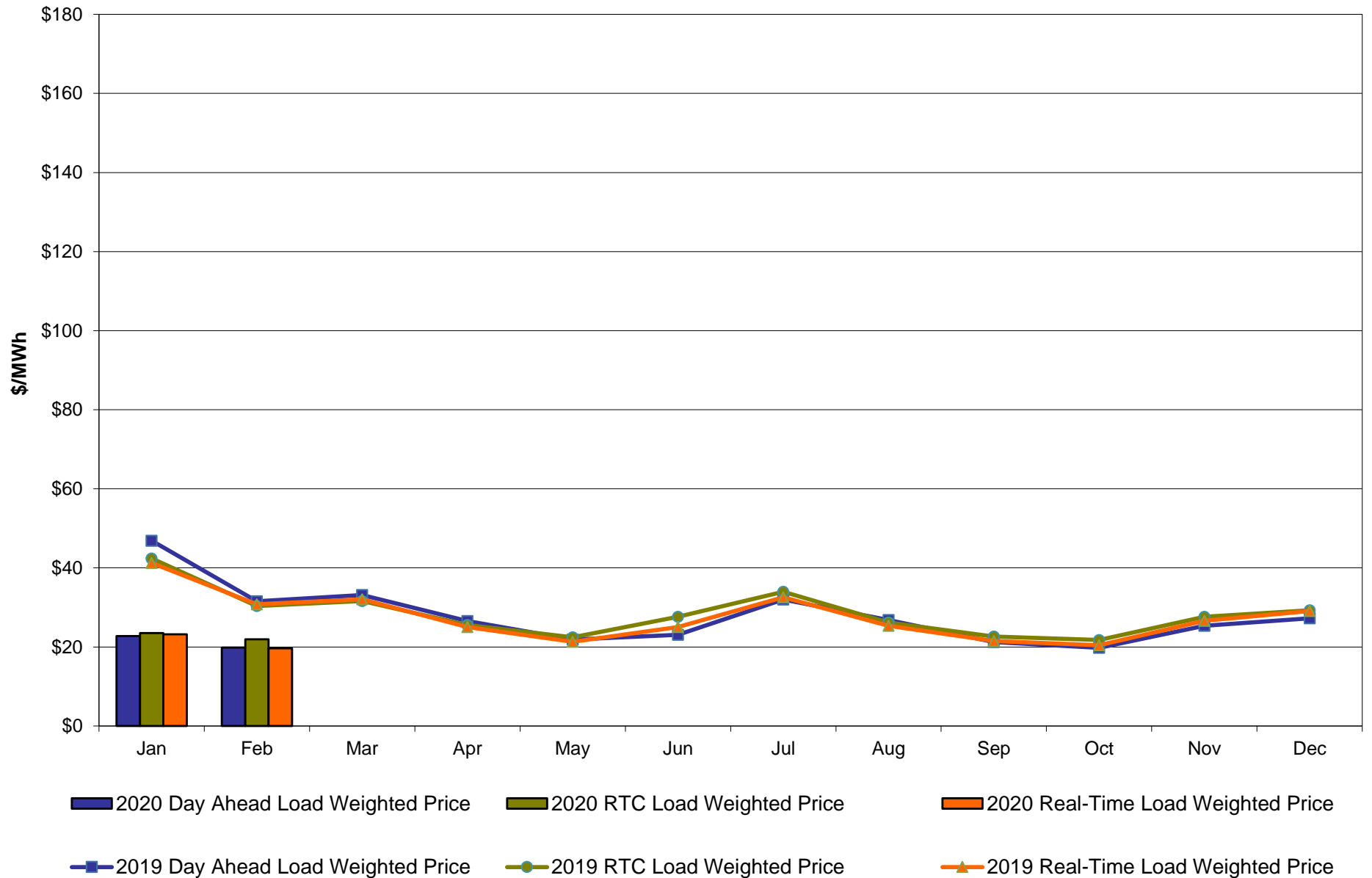
NYISO Markets 2019 Energy Statistics

	<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 *	\$45.01	\$30.66	\$32.34	\$25.97	\$21.16	\$21.79	\$30.16	\$25.35	\$20.45	\$19.18	\$24.65	\$26.29
Standard Deviation	\$25.67	\$12.86	\$9.30	\$6.32	\$5.89	\$7.28	\$12.06	\$8.73	\$5.57	\$5.09	\$7.73	\$11.81
Load Weighted Price **	\$46.88	\$31.53	\$33.14	\$26.57	\$21.89	\$23.04	\$31.98	\$26.83	\$21.23	\$19.77	\$25.36	\$27.22
<u>RTC LBMP</u>												
Price *	\$40.86	\$29.74	\$31.04	\$25.07	\$21.88	\$25.67	\$32.23	\$24.92	\$21.70	\$20.92	\$26.82	\$28.17
Standard Deviation	\$23.02	\$10.79	\$8.48	\$7.53	\$8.01	\$23.45	\$21.96	\$14.96	\$9.22	\$13.95	\$10.37	\$16.26
Load Weighted Price **	\$42.39	\$30.32	\$31.62	\$25.54	\$22.44	\$27.64	\$33.92	\$26.14	\$22.60	\$21.76	\$27.64	\$29.24
<u>REAL TIME LBMP</u>												
Price *	\$39.54	\$30.13	\$31.46	\$24.47	\$20.56	\$23.30	\$30.77	\$24.01	\$20.49	\$19.53	\$25.82	\$27.81
Standard Deviation	\$26.03	\$13.77	\$12.54	\$17.27	\$10.35	\$17.49	\$20.63	\$12.36	\$9.62	\$12.02	\$11.60	\$19.64
Load Weighted Price **	\$41.24	\$30.80	\$32.06	\$25.06	\$21.28	\$25.05	\$32.53	\$25.34	\$21.50	\$20.43	\$26.64	\$29.05
Average Daily Energy Sendout/Month GWh	449	436	411	371	373	429	539	487	419	377	401	427

* Average zonal load weighted prices.

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

NYISO Monthly Average Internal LBMPs 2019- 2020

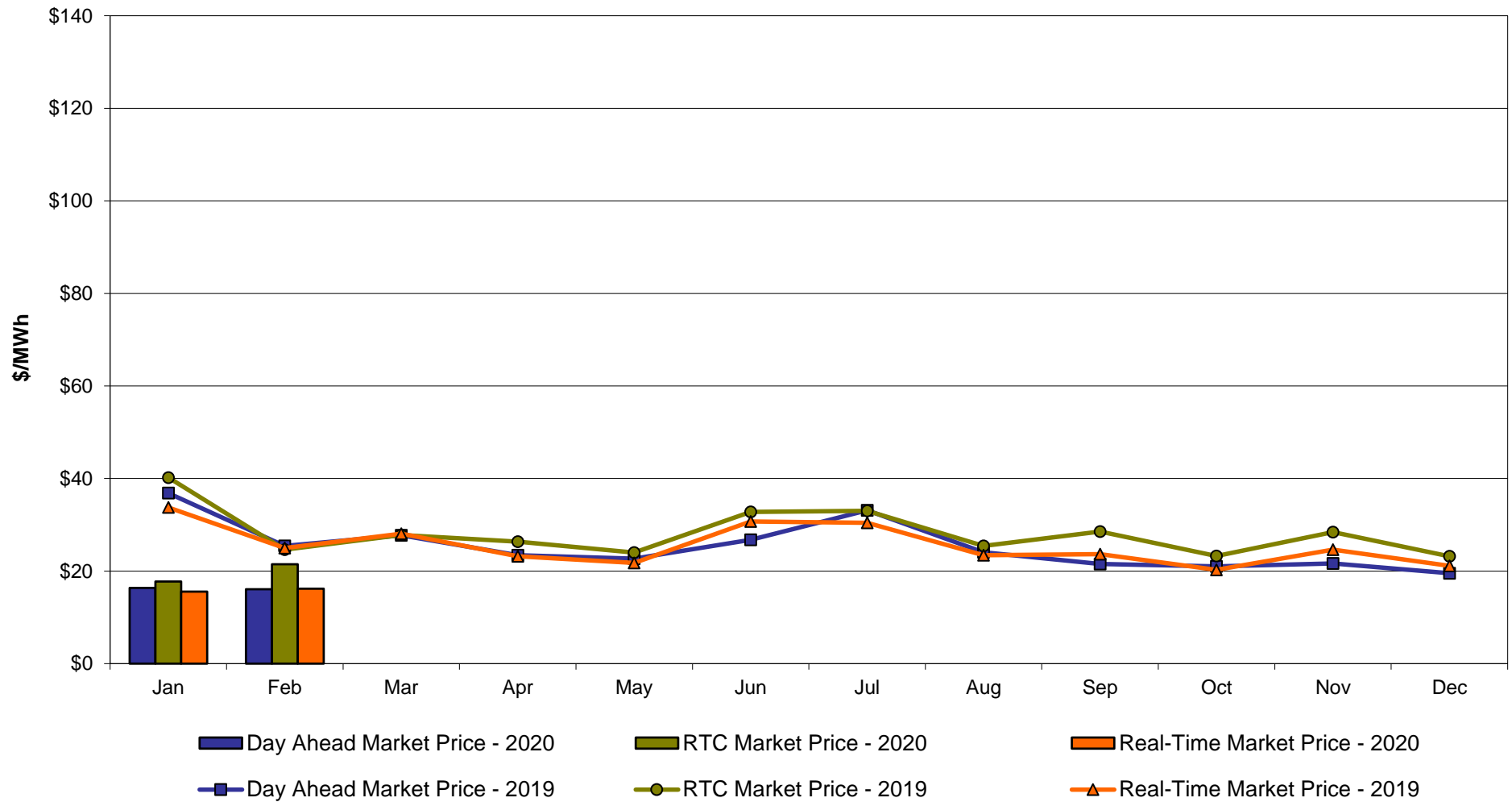


February 2020 Zonal LBMP Statistics for NYISO (\$/MWh)

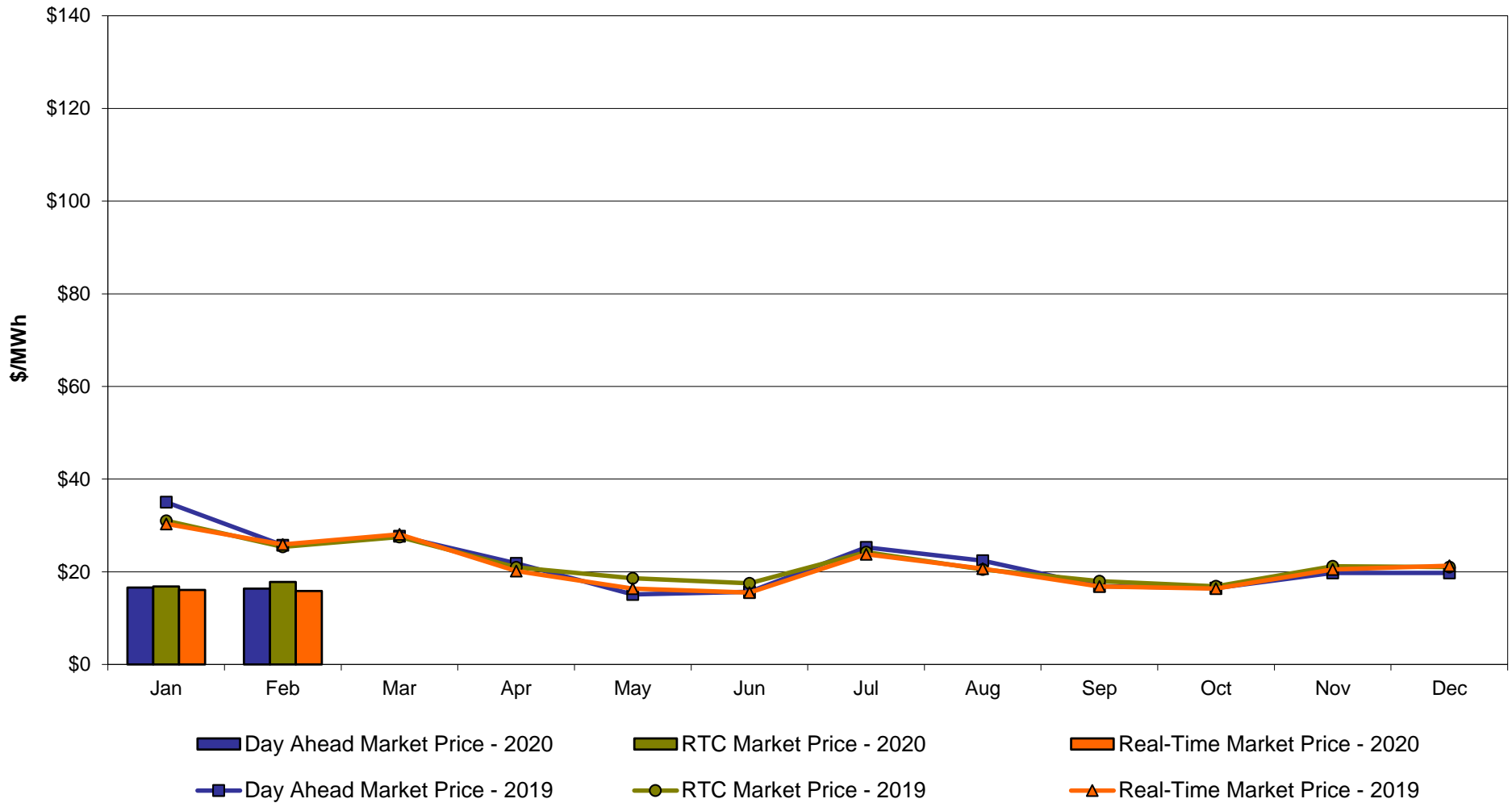
	<u>WEST</u> <u>Zone A</u>	<u>GENESEE</u> <u>Zone B</u>	<u>NORTH</u> <u>Zone D</u>	<u>CENTRAL</u> <u>Zone C</u>	<u>MOHAWK</u> <u>VALLEY</u> <u>Zone E</u>	<u>CAPITAL</u> <u>Zone F</u>	<u>HUDSON</u> <u>VALLEY</u> <u>Zone G</u>	<u>MILLWOOD</u> <u>Zone H</u>	<u>DUNWOODIE</u> <u>Zone I</u>	<u>NEW YORK</u> <u>CITY</u> <u>Zone J</u>	<u>LONG</u> <u>ISLAND</u> <u>Zone K</u>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	16.07	15.79	14.88	16.36	16.65	20.45	19.66	19.82	19.87	21.26	23.85
Standard Deviation	4.55	4.36	4.55	4.42	4.53	4.06	3.94	3.97	3.99	5.15	5.93
<u>RTC LBMP</u>											
Unweighted Price *	21.49	16.94	16.35	17.78	18.00	21.45	20.68	20.81	20.85	23.23	25.99
Standard Deviation	65.55	48.74	48.98	50.55	50.72	51.91	51.61	51.95	52.10	53.94	56.55
<u>REAL TIME LBMP</u>											
Unweighted Price *	16.21	15.23	14.52	15.84	16.11	19.68	18.87	18.99	19.02	22.23	22.30
Standard Deviation	9.48	8.33	8.89	8.42	8.60	8.13	7.73	7.77	7.78	12.26	11.79
	<u>ONTARIO</u> <u>IESO</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Wheel)</u>	<u>HYDRO</u> <u>QUEBEC</u> <u>(Import/Export)</u>	<u>PJM</u>	<u>NEW</u> <u>ENGLAND</u>	<u>CROSS</u> <u>SOUND</u> <u>CABLE</u> <u>Controllable</u> <u>Line</u>	<u>NORTHPORT-</u> <u>NORWALK</u> <u>Controllable</u> <u>Line</u>	<u>NEPTUNE</u> <u>Controllable</u> <u>Line</u>	<u>LINDEN VFT</u> <u>Controllable</u> <u>Line</u>	<u>HUDSON</u> <u>Controllable</u> <u>Line</u>	<u>Dennison</u> <u>Controllable</u> <u>Line</u>
	<u>Zone O</u>	<u>Zone M</u>	<u>Zone M</u>	<u>Zone P</u>	<u>Zone N</u>						
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	15.28	15.06	15.06	17.96	21.40	23.05	22.71	22.20	20.26	20.04	14.59
Standard Deviation	4.04	4.51	4.51	3.91	4.31	5.88	5.76	5.82	4.23	3.96	4.41
<u>RTC LBMP</u>											
Unweighted Price *	14.46	14.68	14.68	18.01	21.19	24.00	23.74	23.23	19.27	19.11	14.32
Standard Deviation	6.04	8.87	8.87	10.26	11.06	24.99	24.94	23.32	10.82	11.09	9.07
<u>REAL TIME LBMP</u>											
Unweighted Price *	14.61	14.57	14.52	17.35	20.20	22.18	21.69	21.70	19.32	19.07	13.91
Standard Deviation	9.02	8.71	8.71	7.72	8.12	11.86	11.64	11.70	8.71	7.88	8.83

* Straight LBMP averages

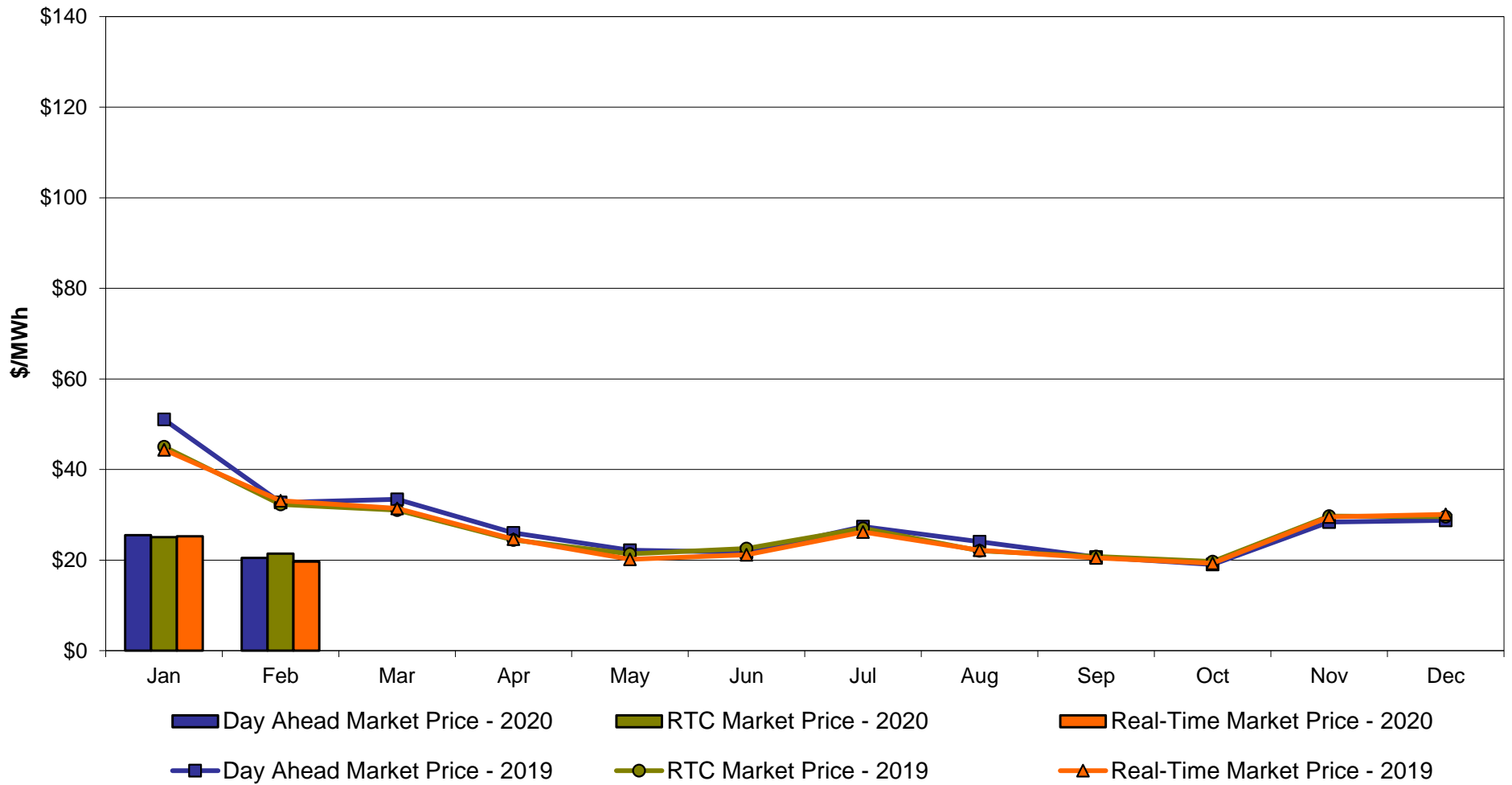
West Zone A **Monthly Average LBMP Prices 2019 - 2020**



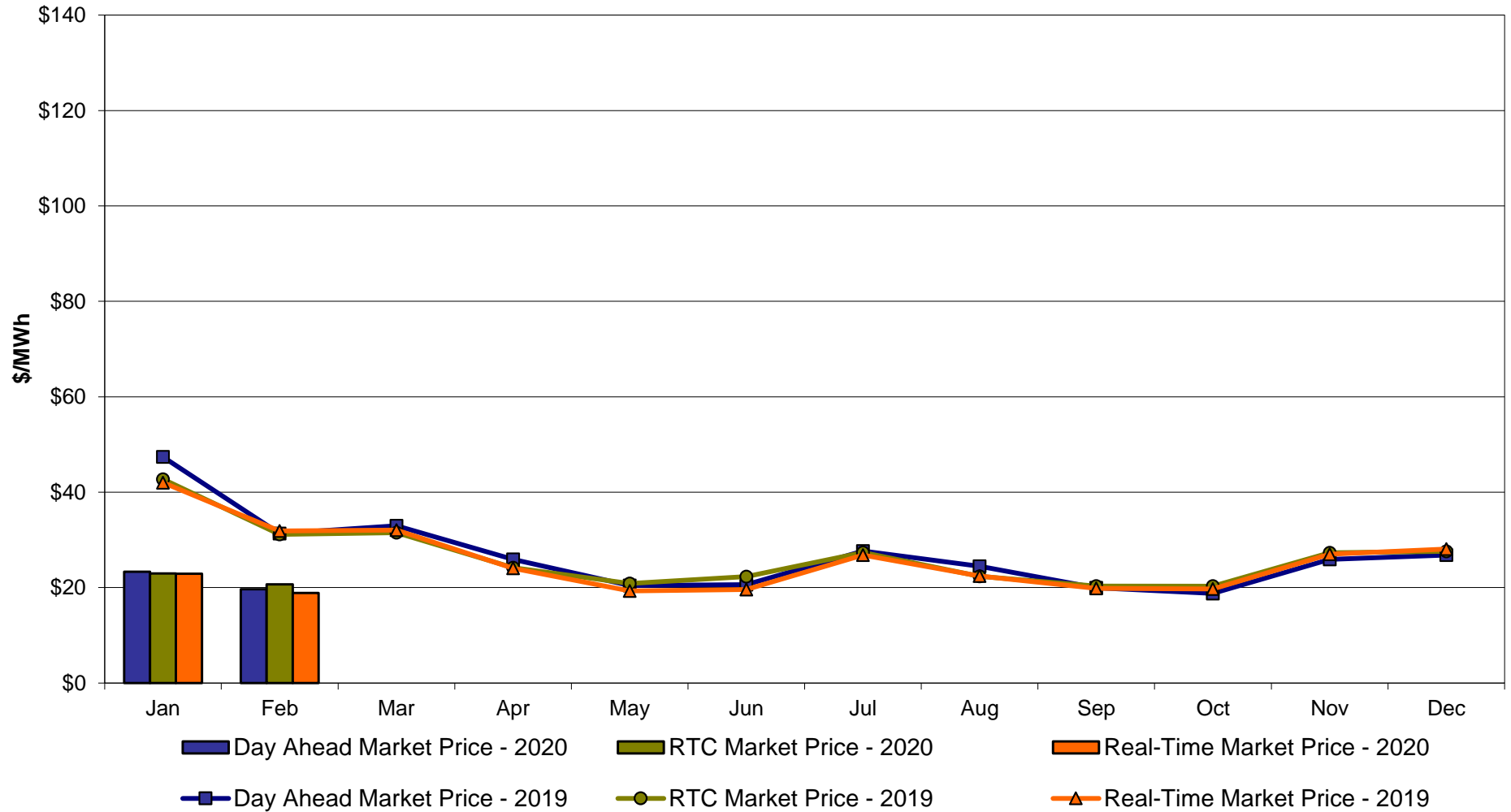
Central Zone C Monthly Average LBMP Prices 2019 - 2020



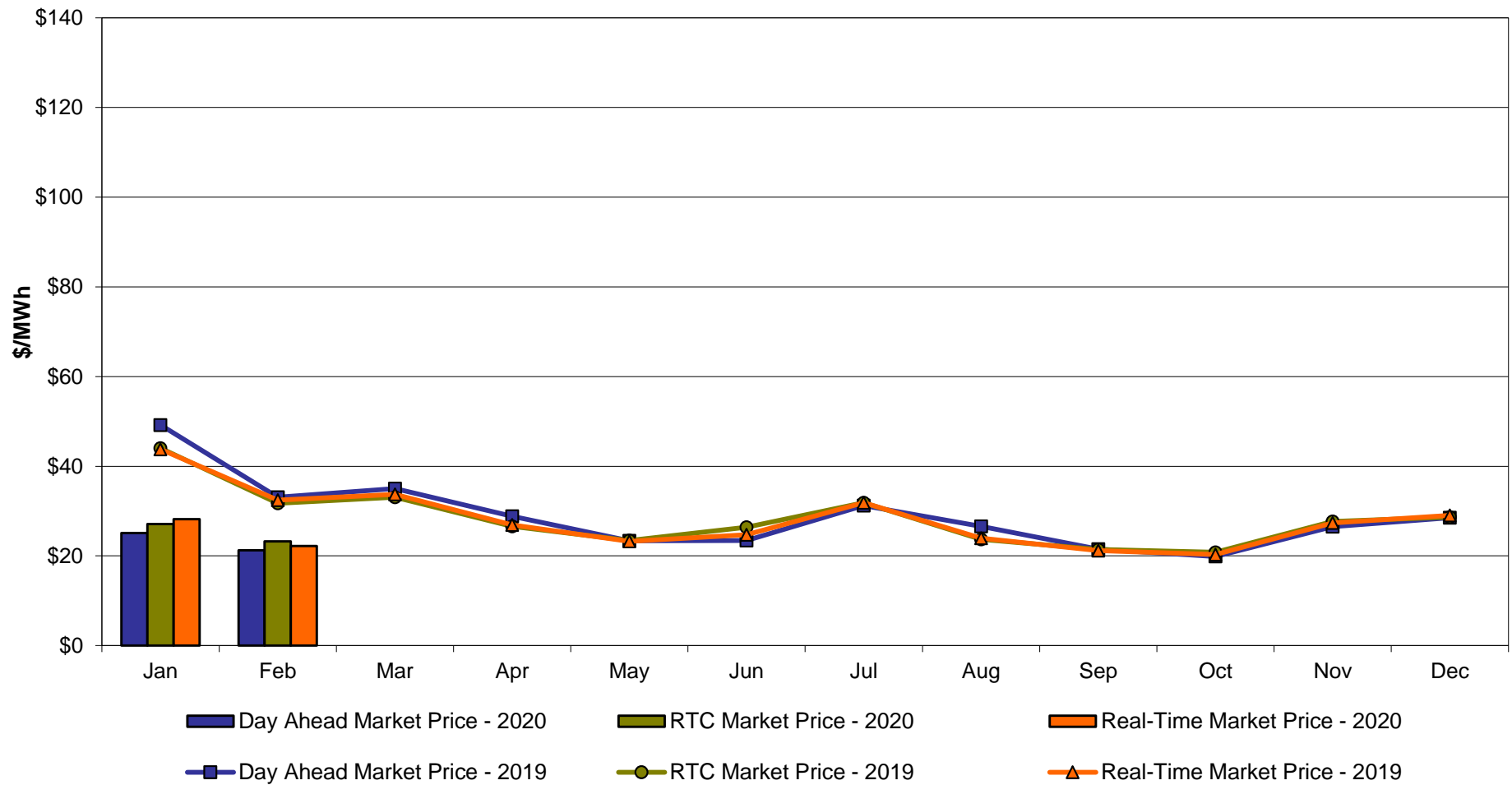
Capital Zone F **Monthly Average LBMP Prices 2019 - 2020**



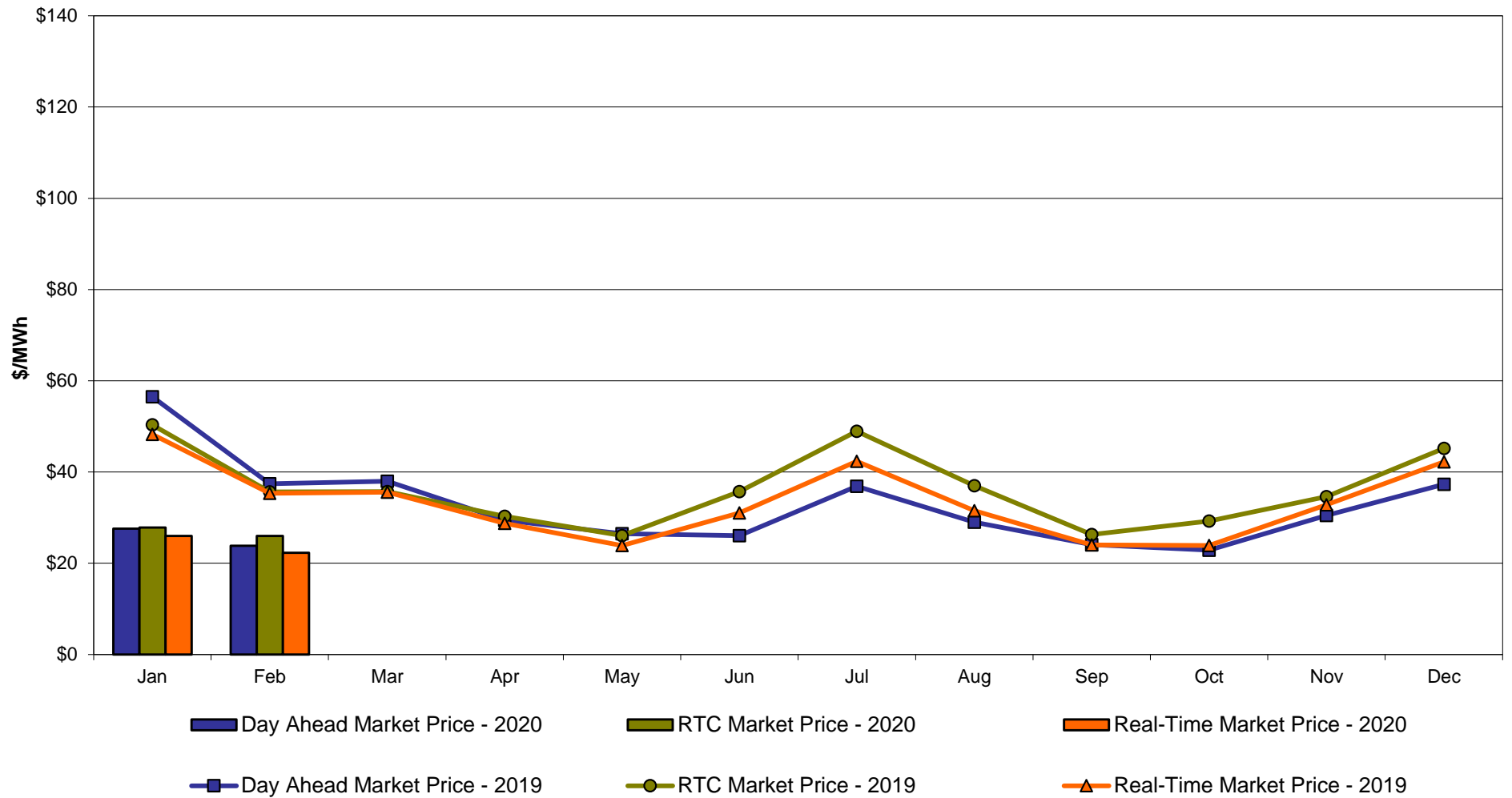
Hudson Valley Zone G **Monthly Average LBMP Prices 2019 - 2020**

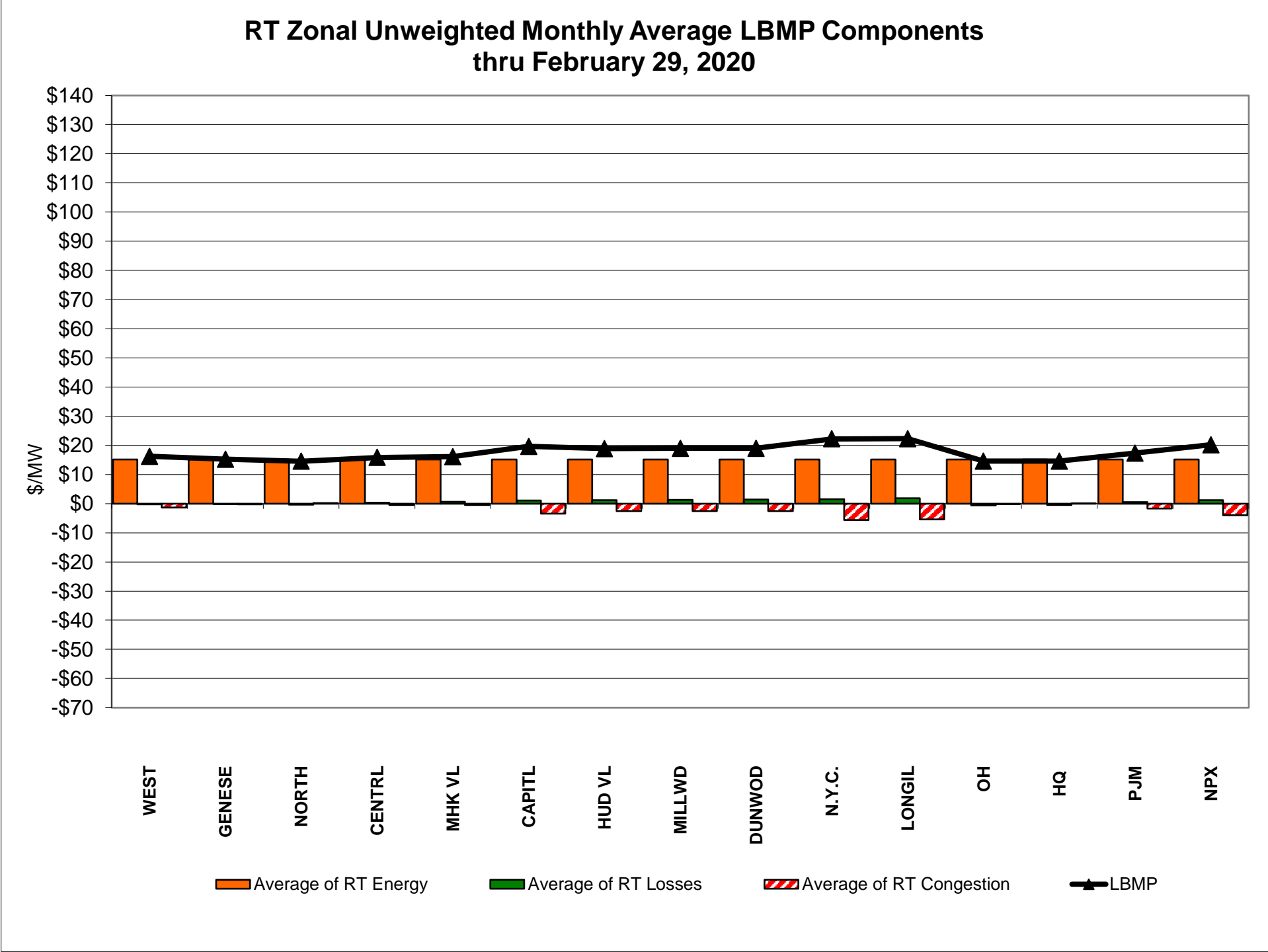
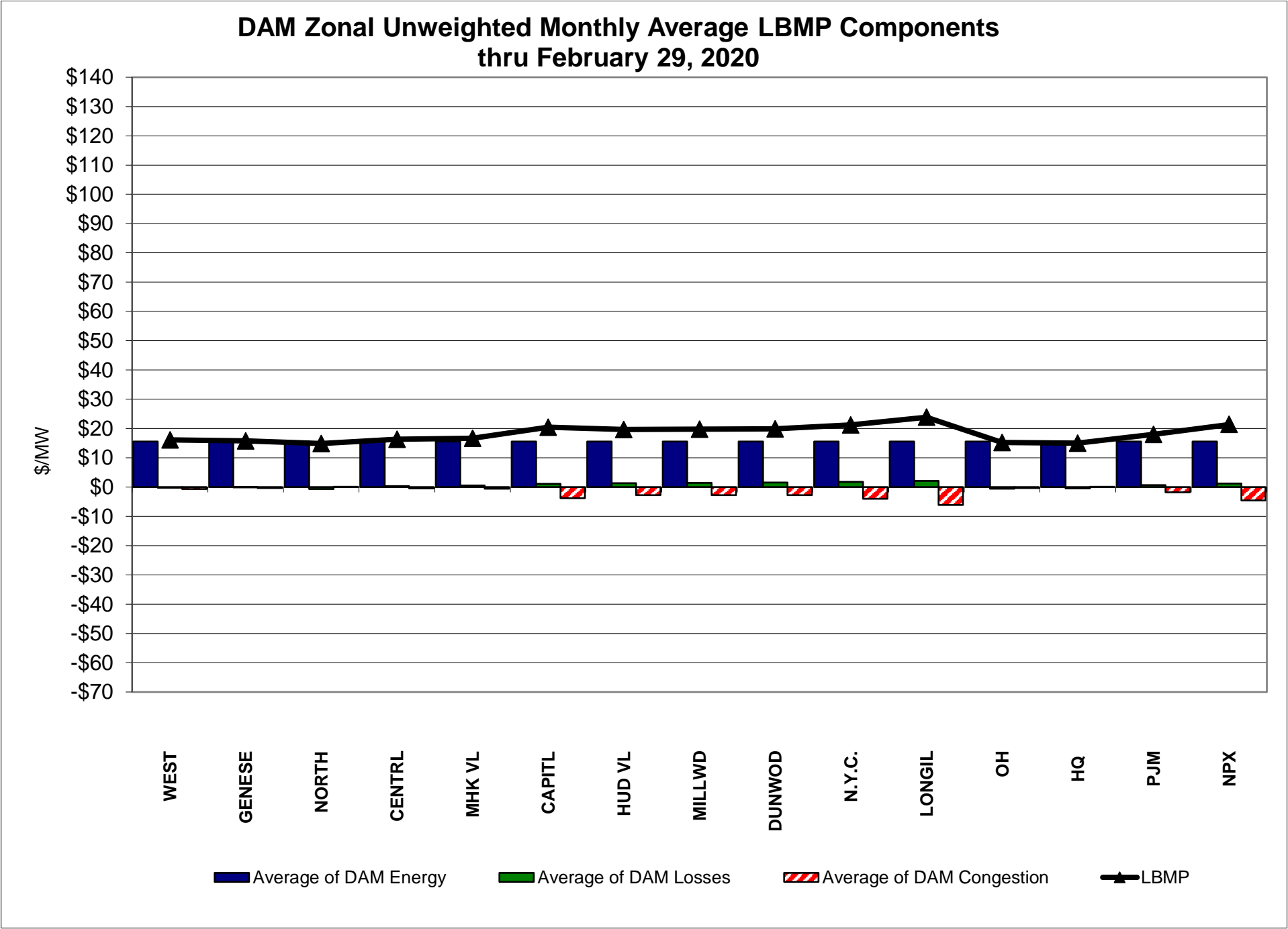


NYC Zone J Monthly Average LBMP Prices 2019 - 2020

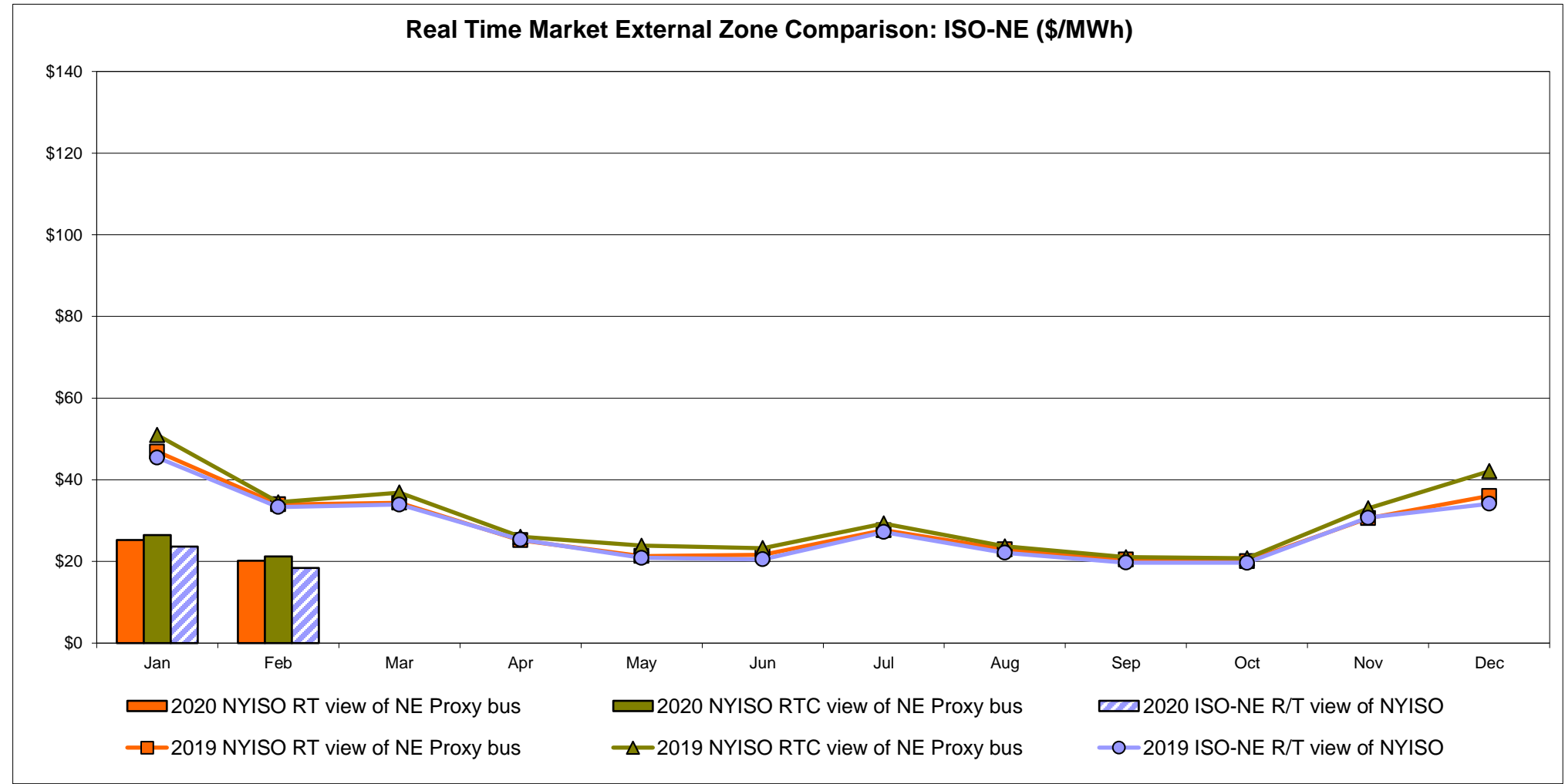
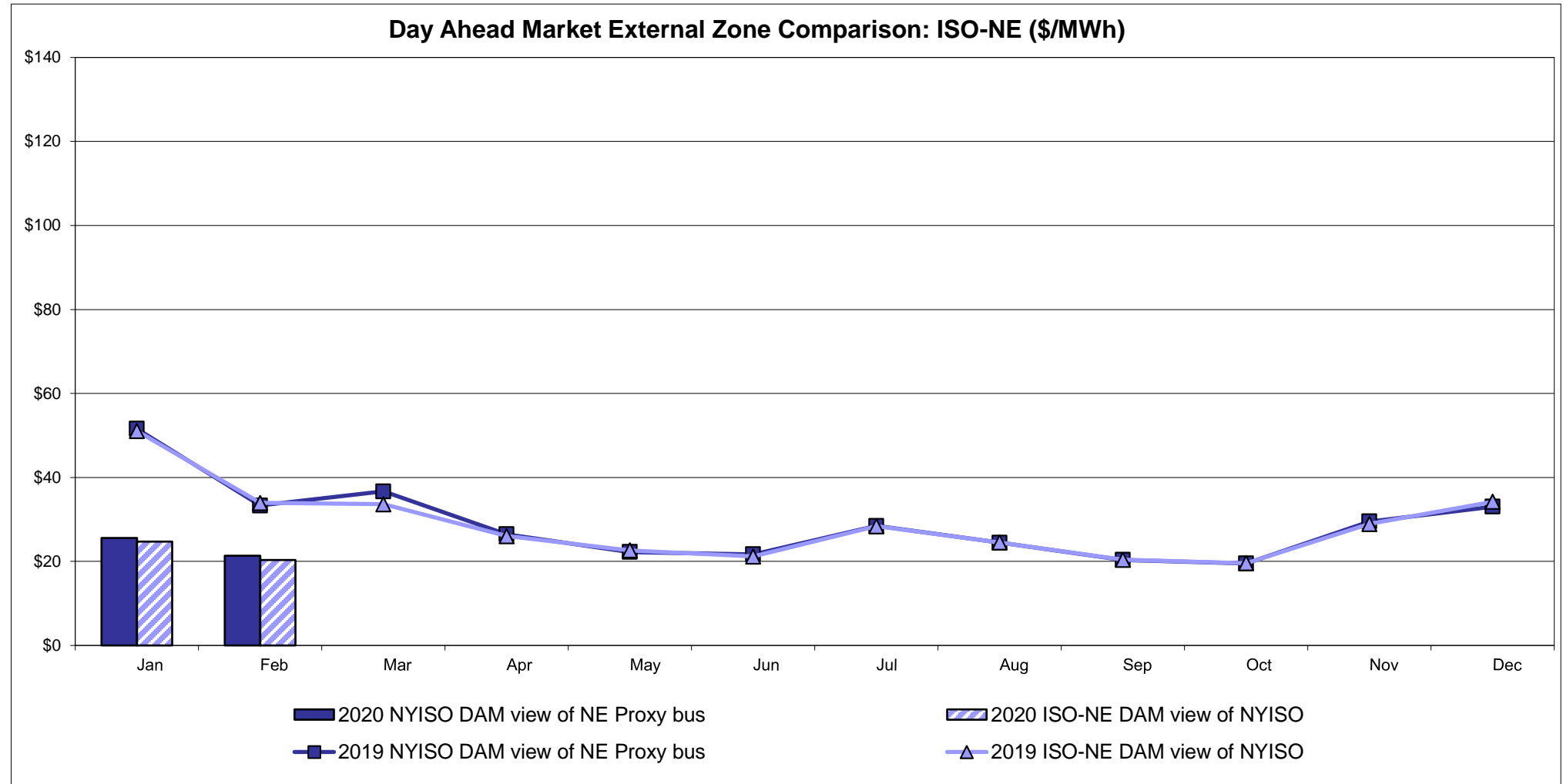


Long Island Zone K Monthly Average LBMP Prices 2019 - 2020



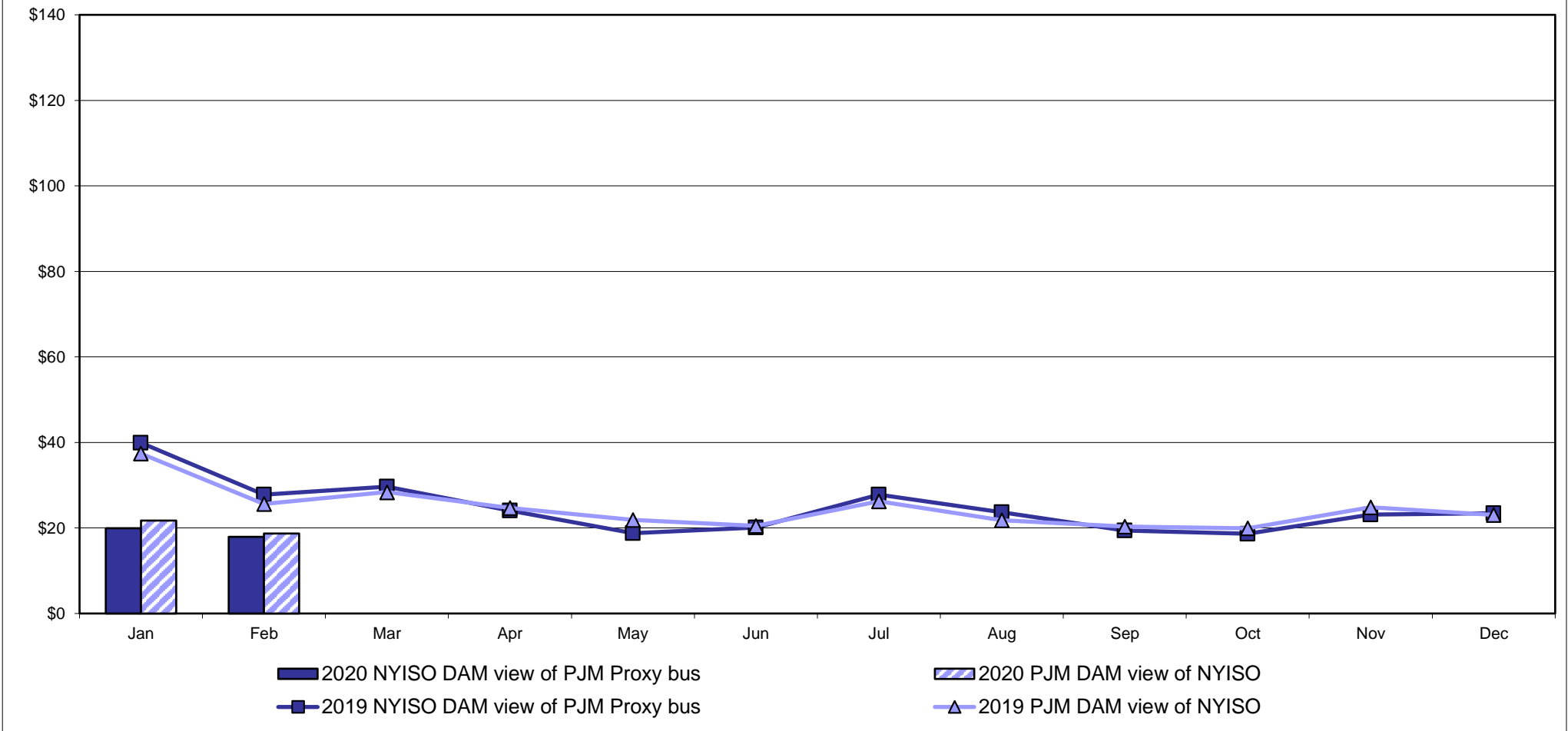


External Comparison ISO-New England

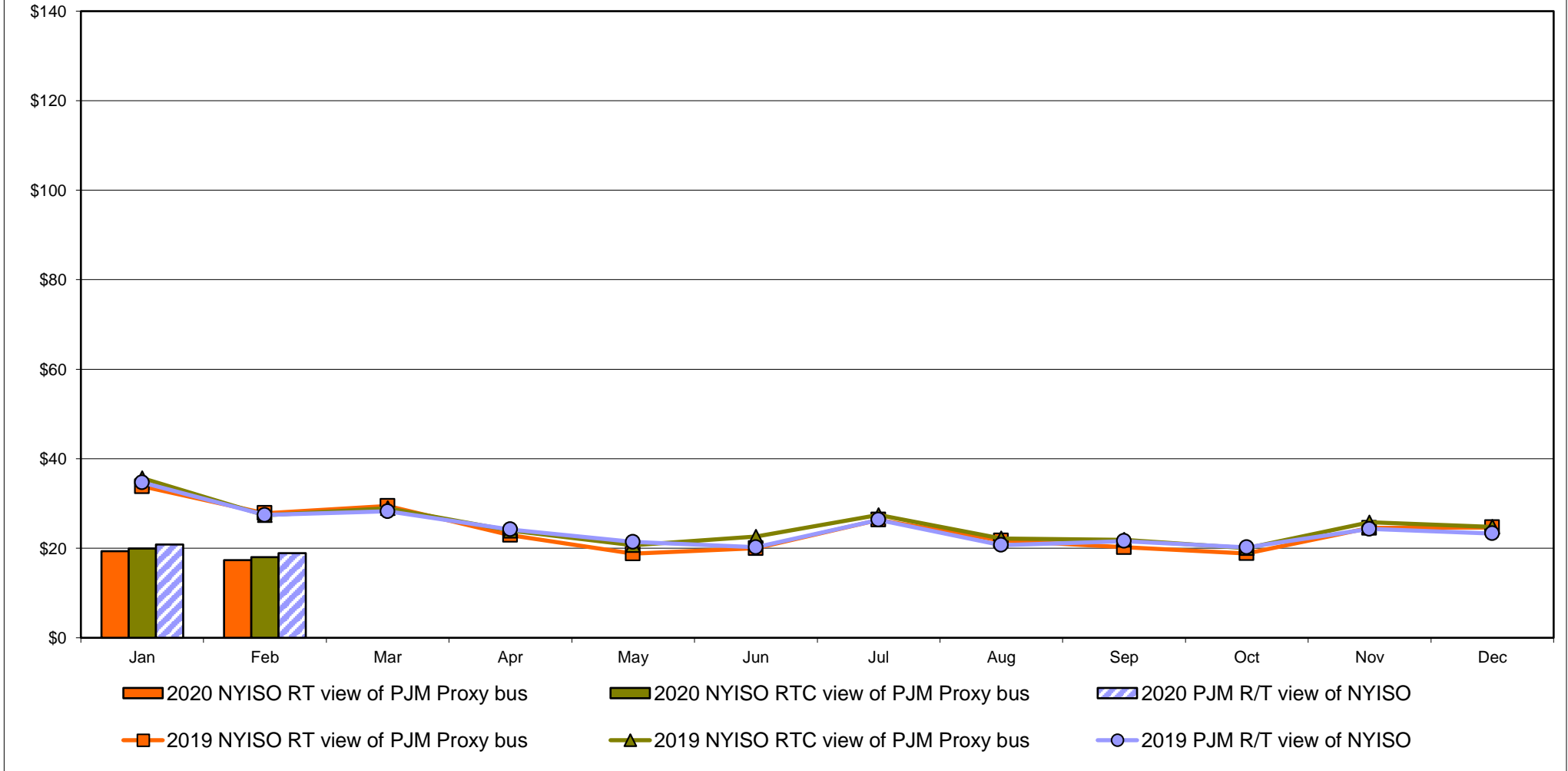


External Comparison PJM

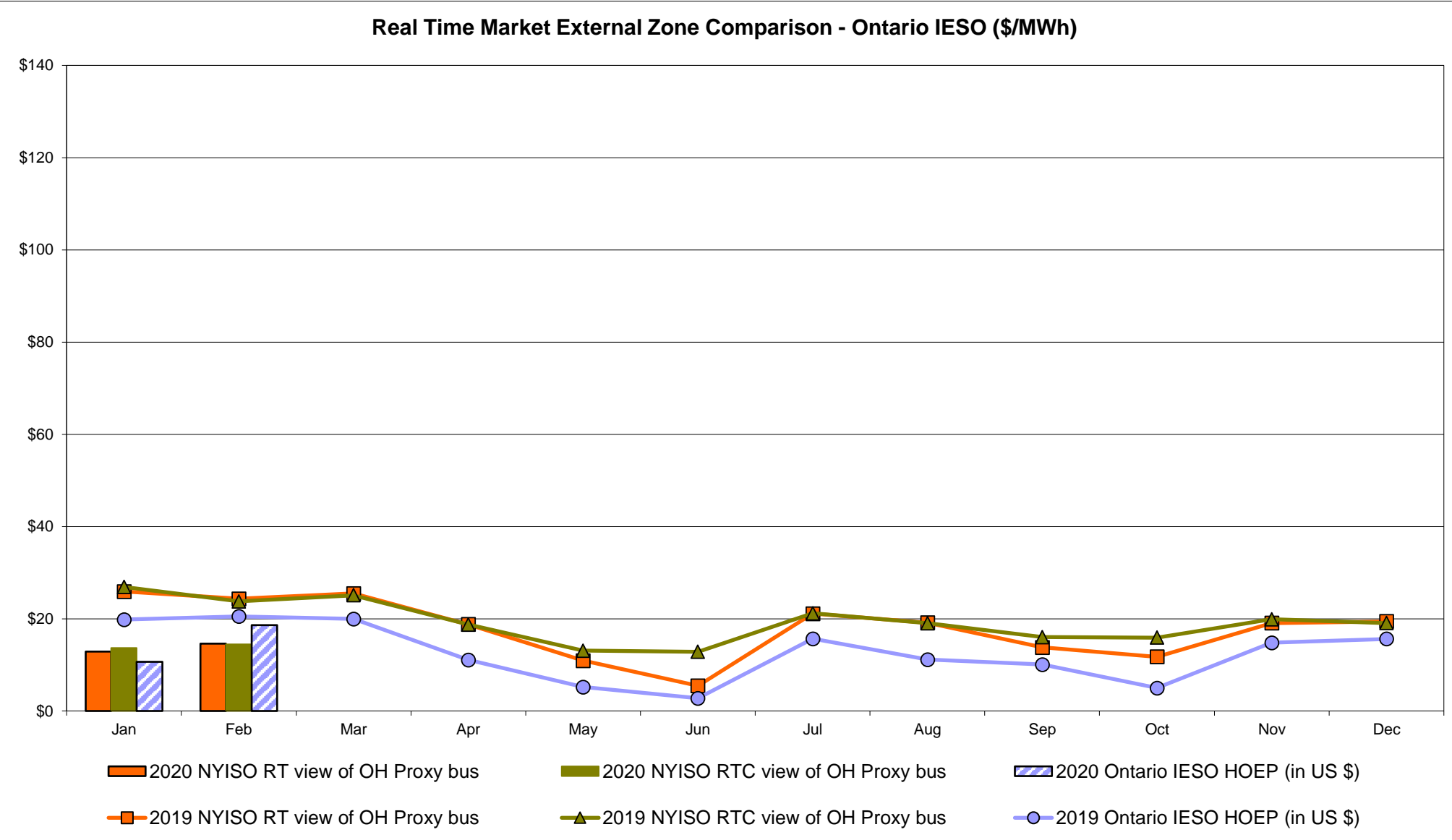
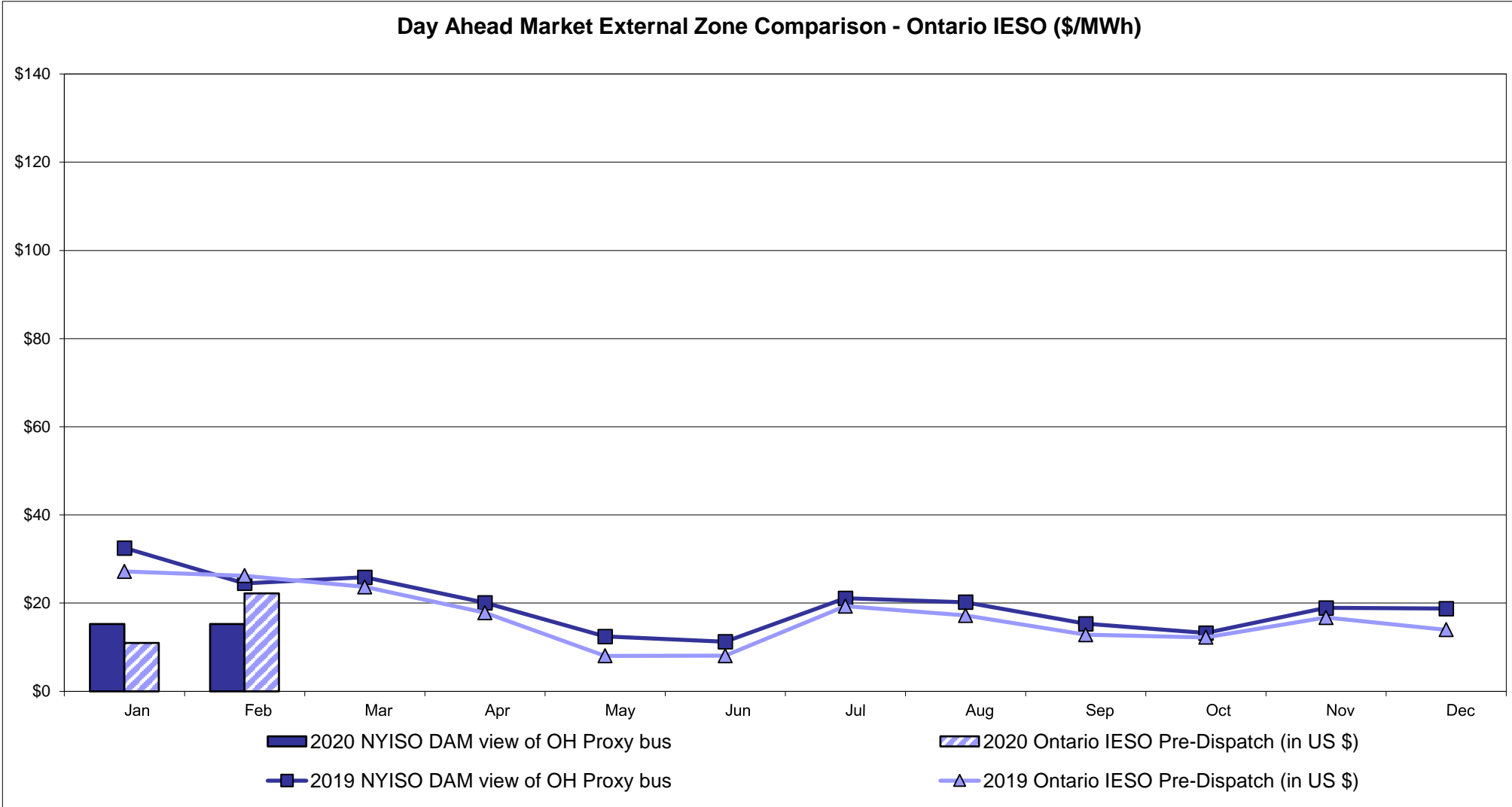
Day Ahead Market External Zone Comparison - PJM (\$/MWh)



Real Time Market External Zone Comparison - PJM (\$/MWh)

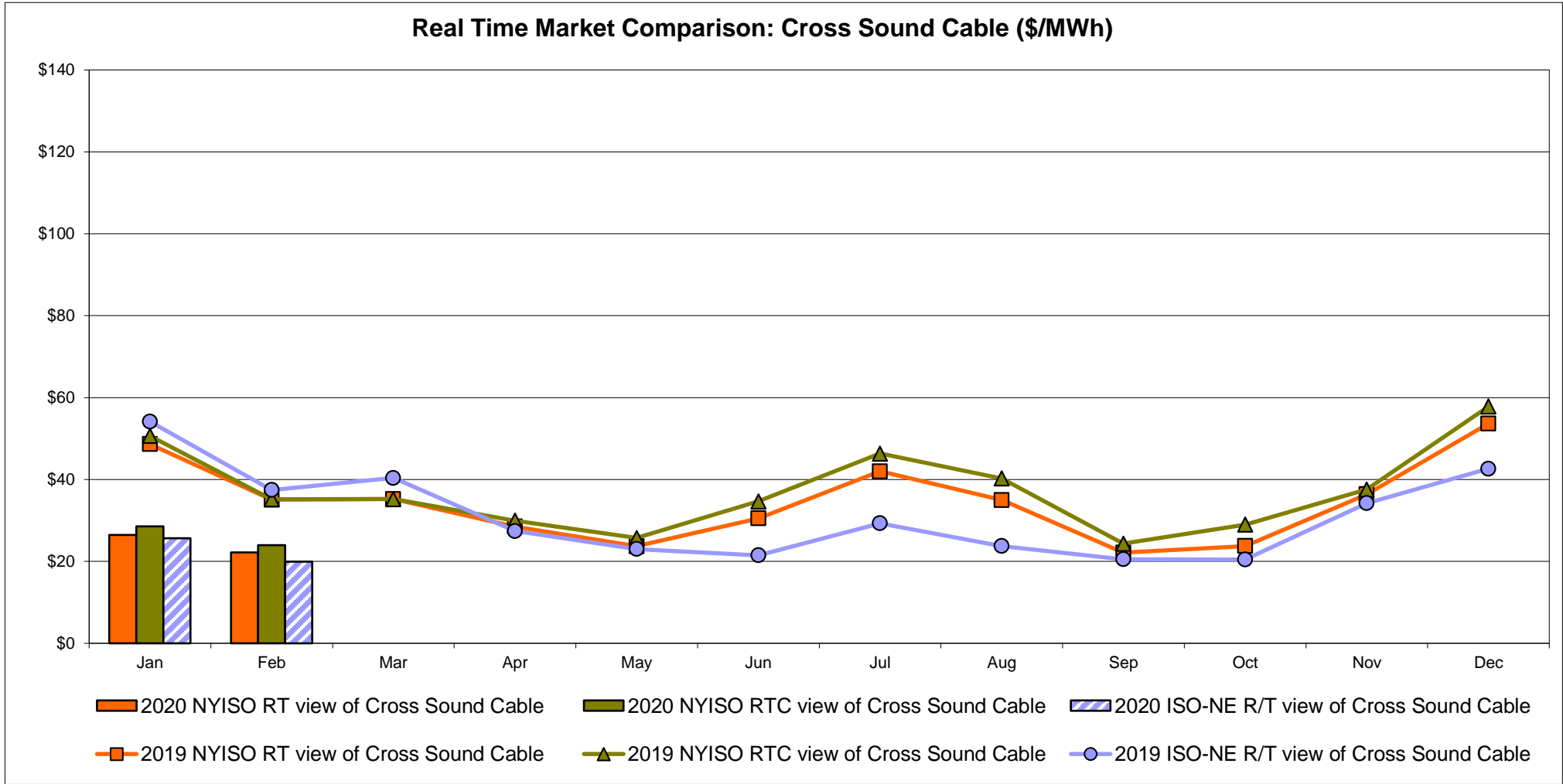
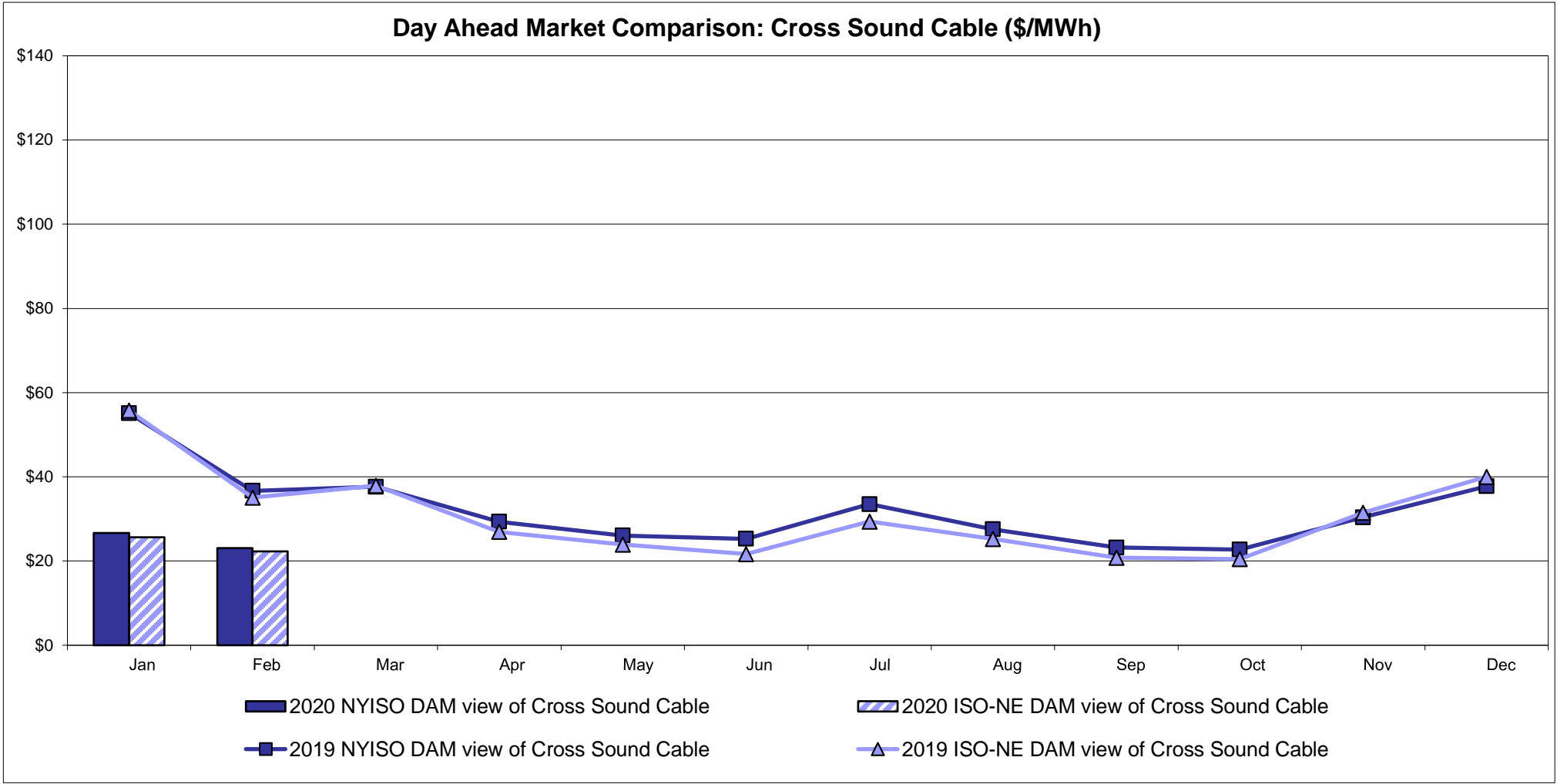


External Comparison Ontario IESO



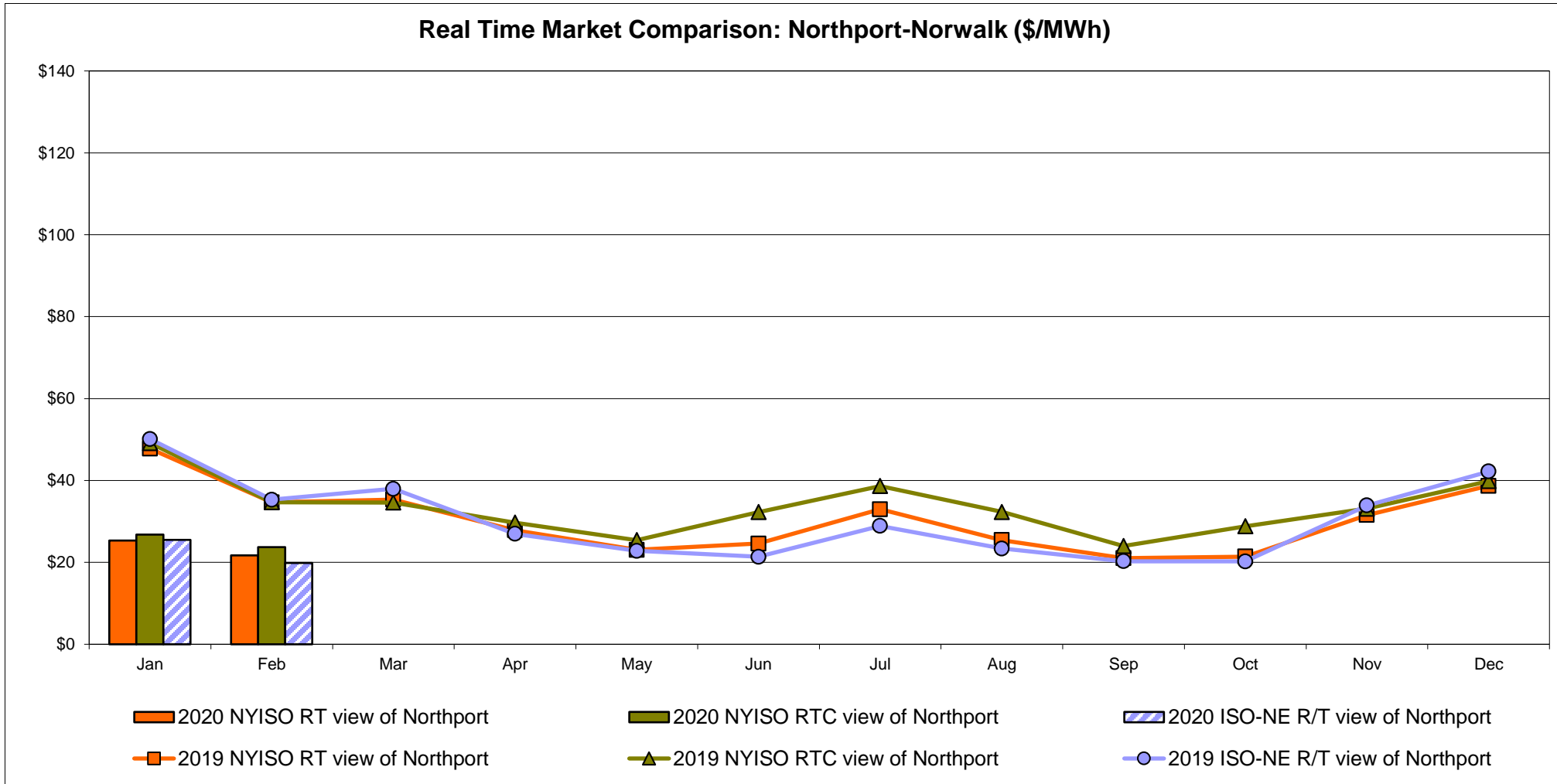
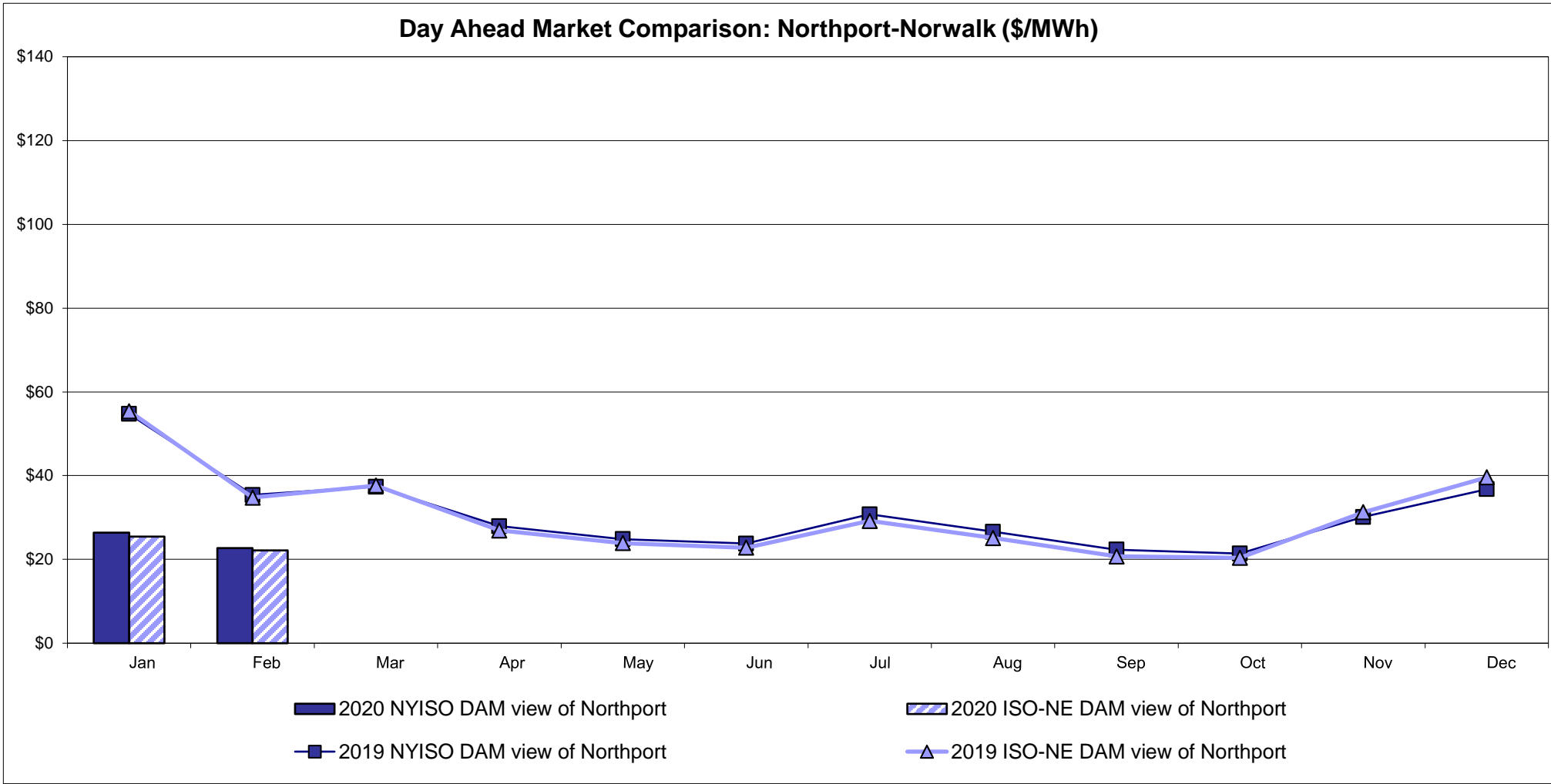
Notes: Exchange factor used for February 2020 was 1.3286 to US
HOEP: Hourly Ontario Energy Price
Pre-Dispatch: Projected Energy Price

External Controllable Line: Cross Sound Cable (New England)



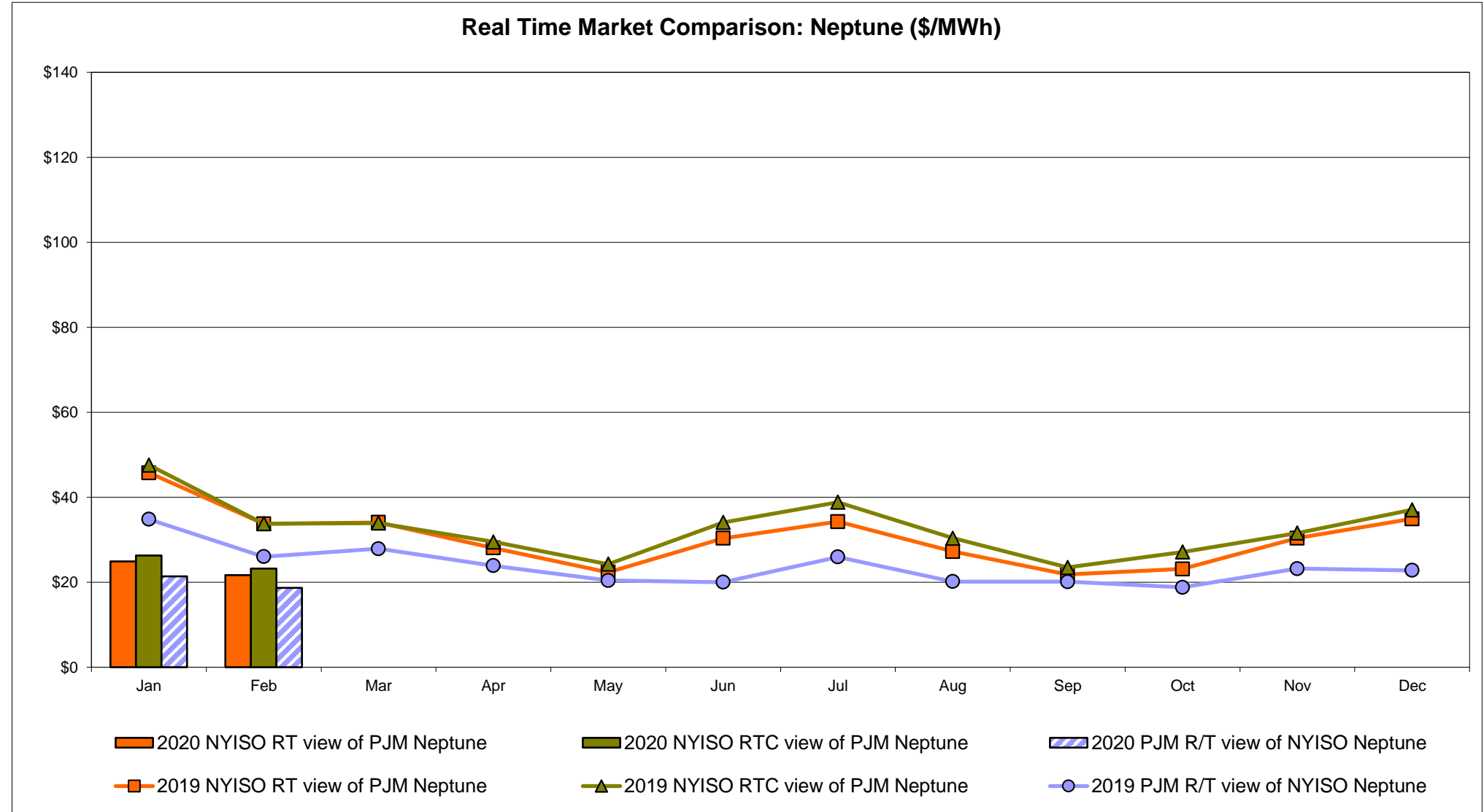
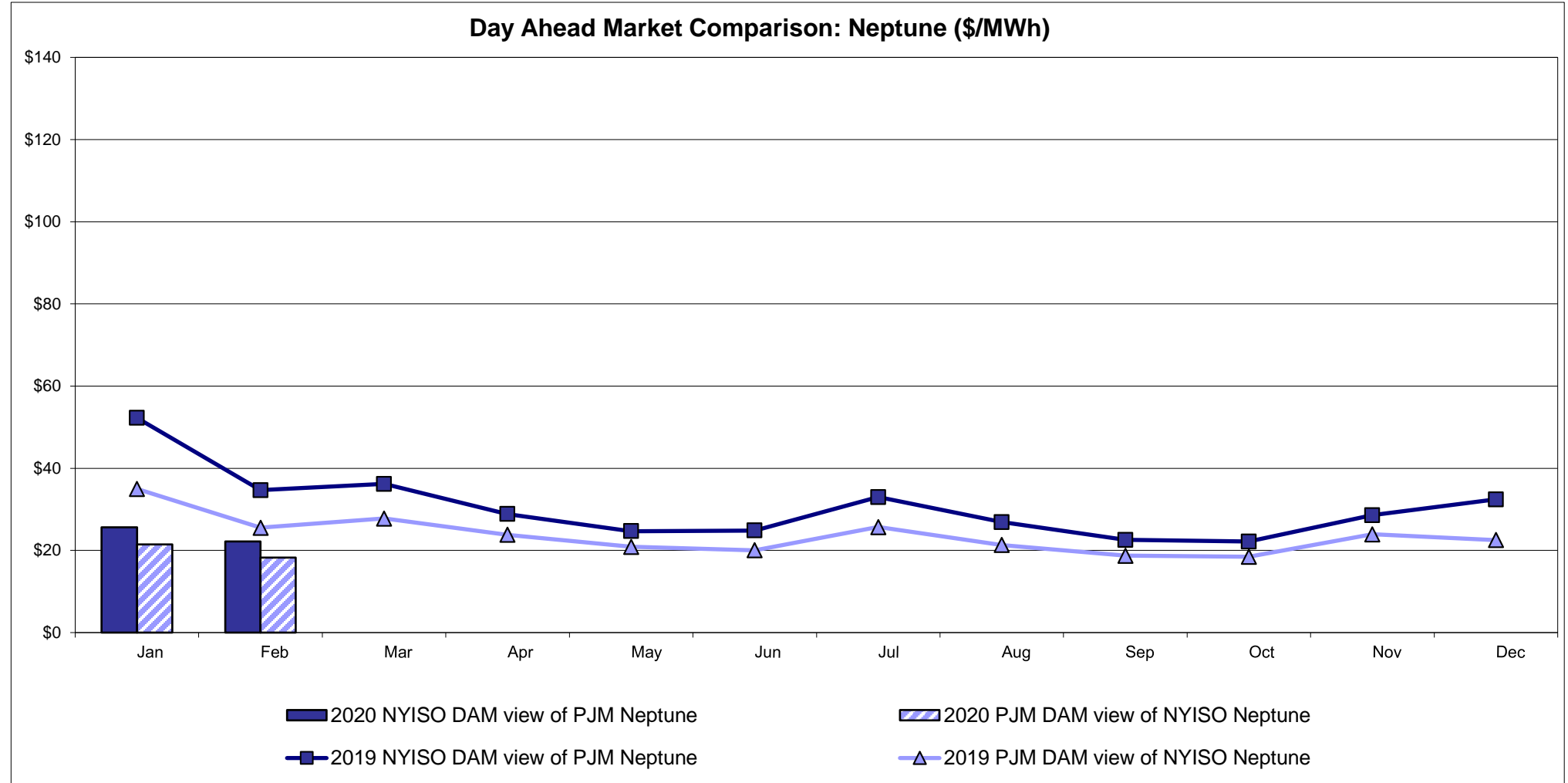
Note:
ISO-NE Forecast is an advisory posting @ 18:00 day before.
The DAM and R/T prices at the Shorham 13899 interface are used for ISO-NE.
The DAM and R/T prices at the CSC interface are used for NYISO.

External Controllable Line: Northport - Norwalk (New England)

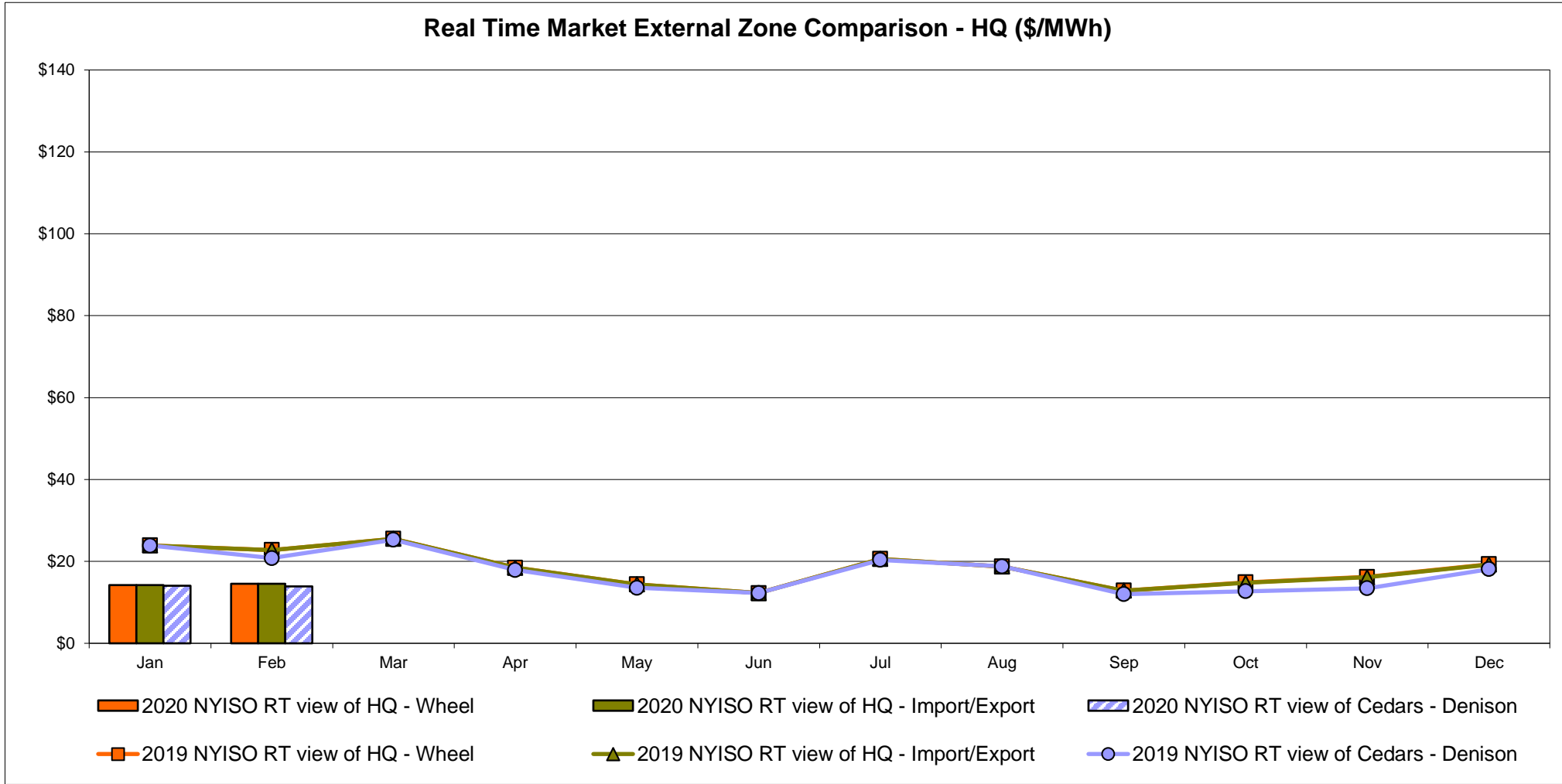
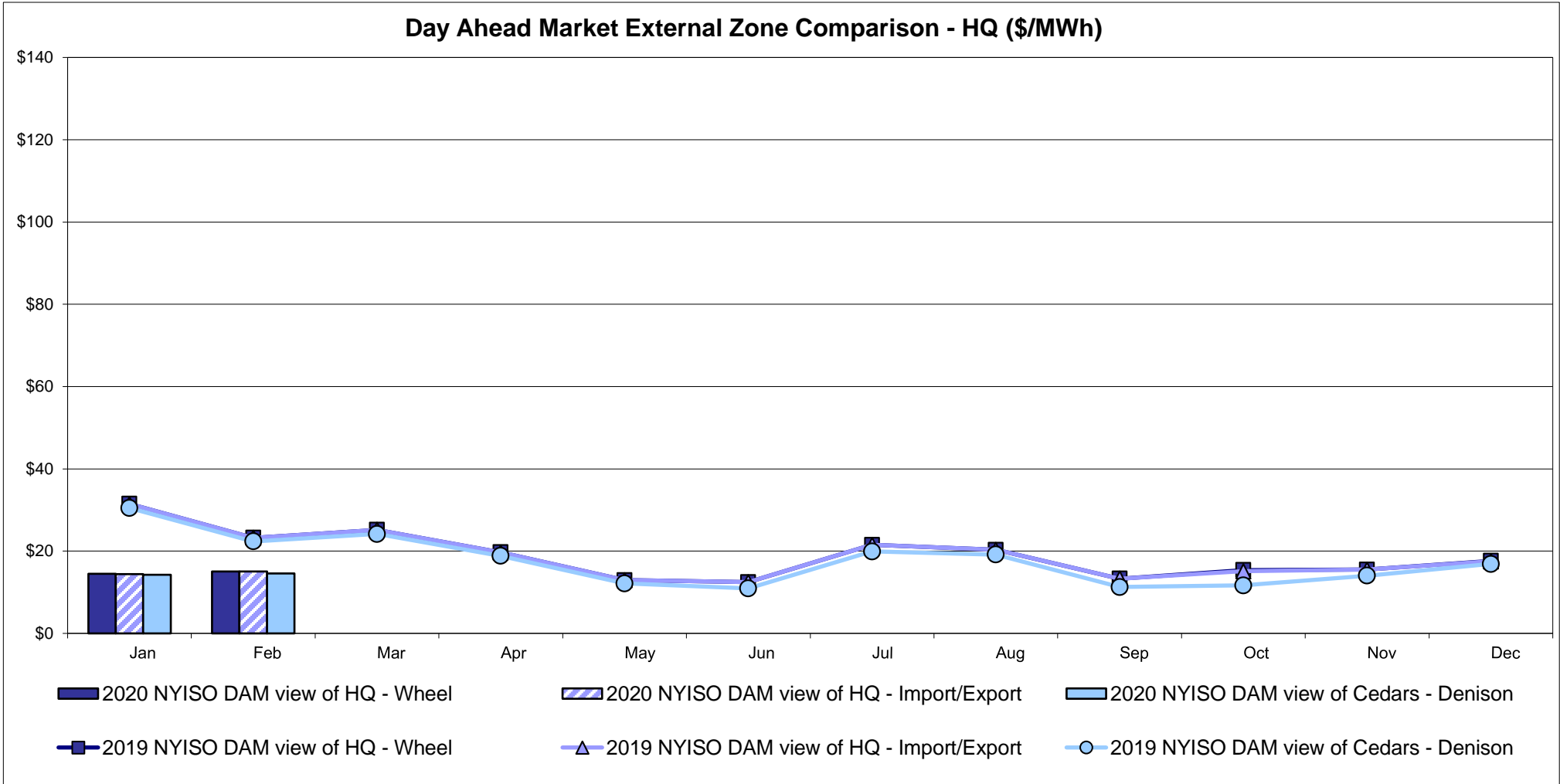


Note:
ISO-NE Forecast is an advisory posting @ 18:00 day before.
The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.
The DAM and R/T prices at the 1385 interface are used for NYISO.

External Controllable Line: Neptune (PJM)

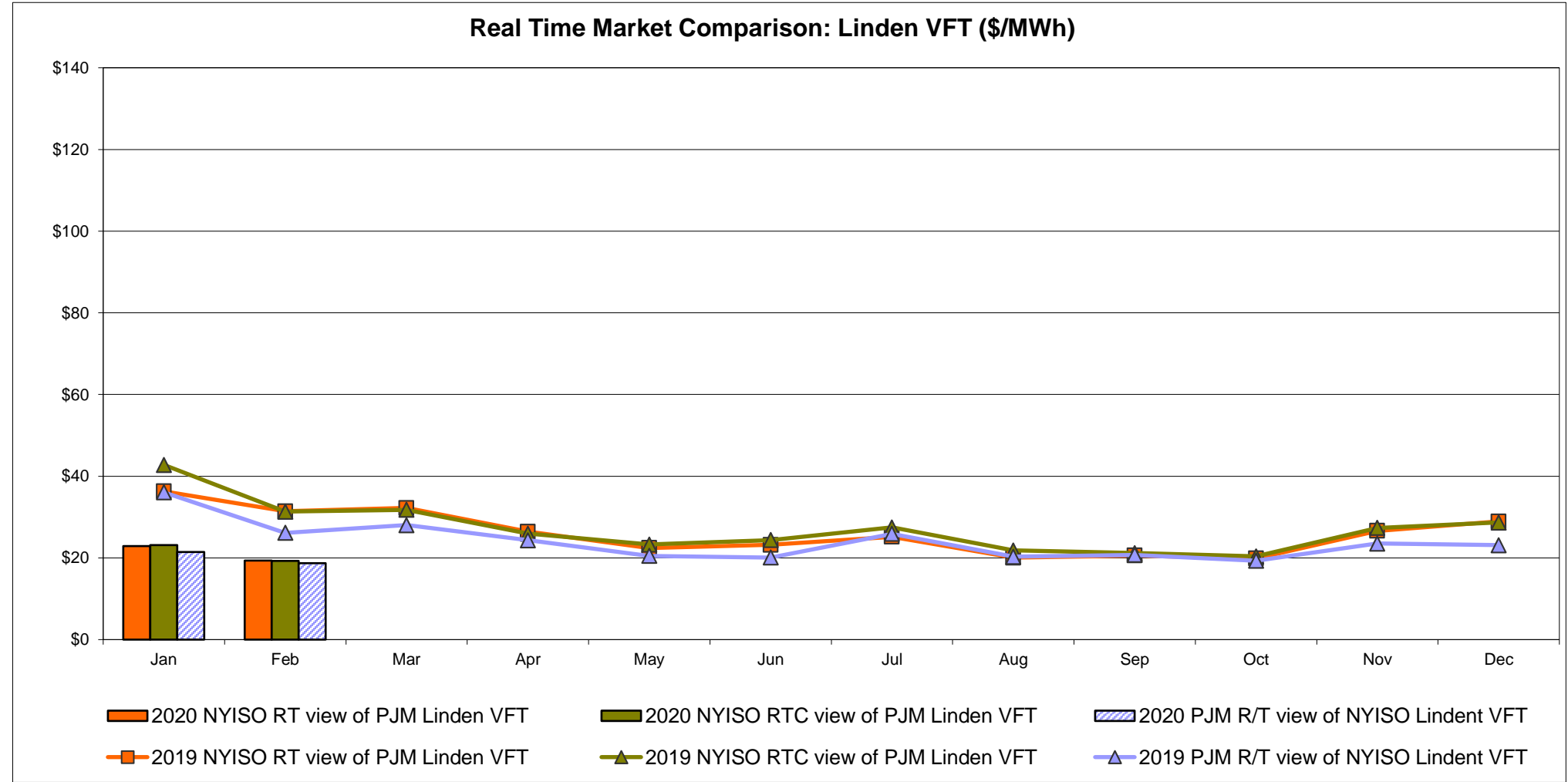
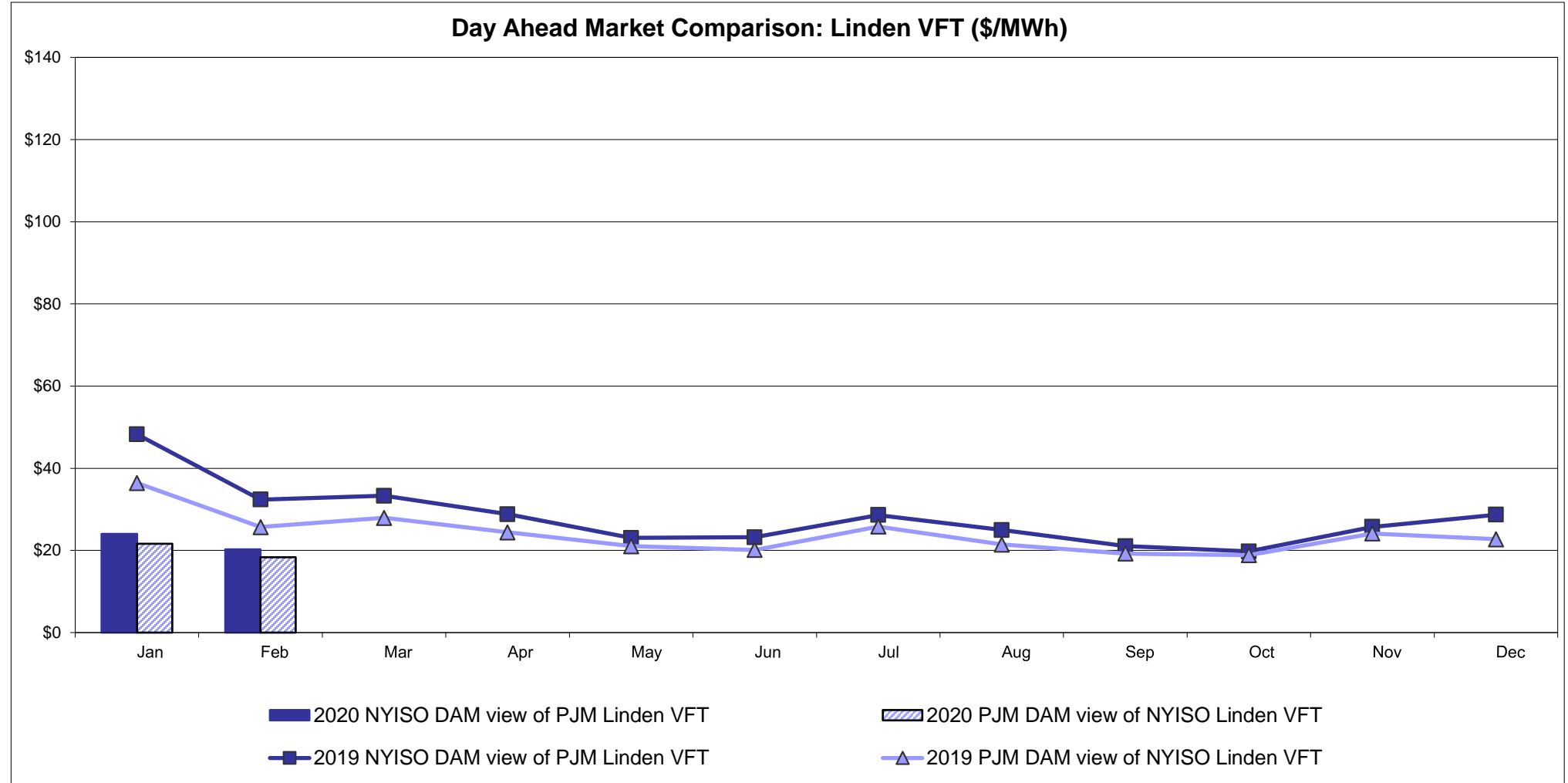


External Comparison Hydro-Quebec

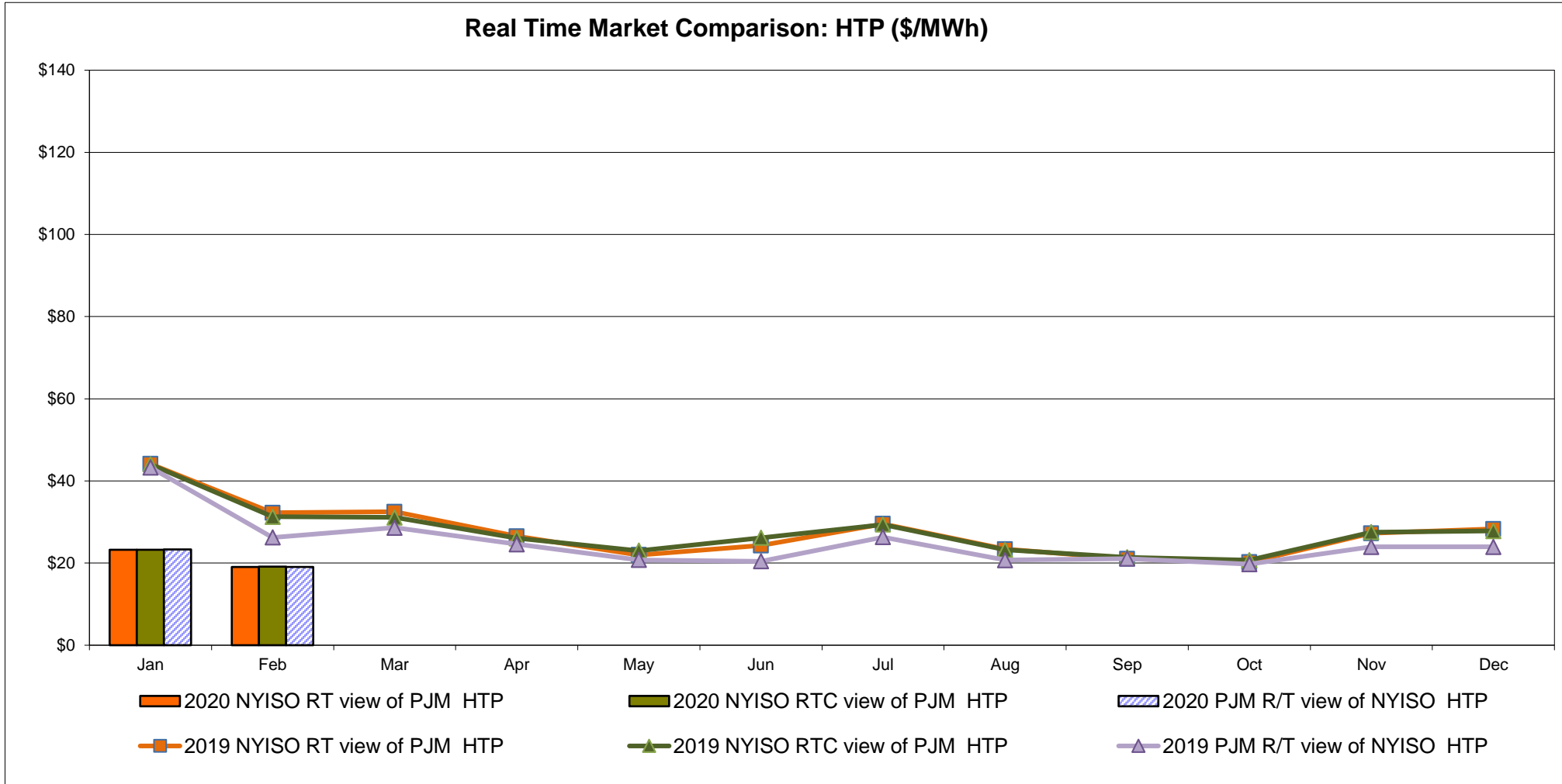
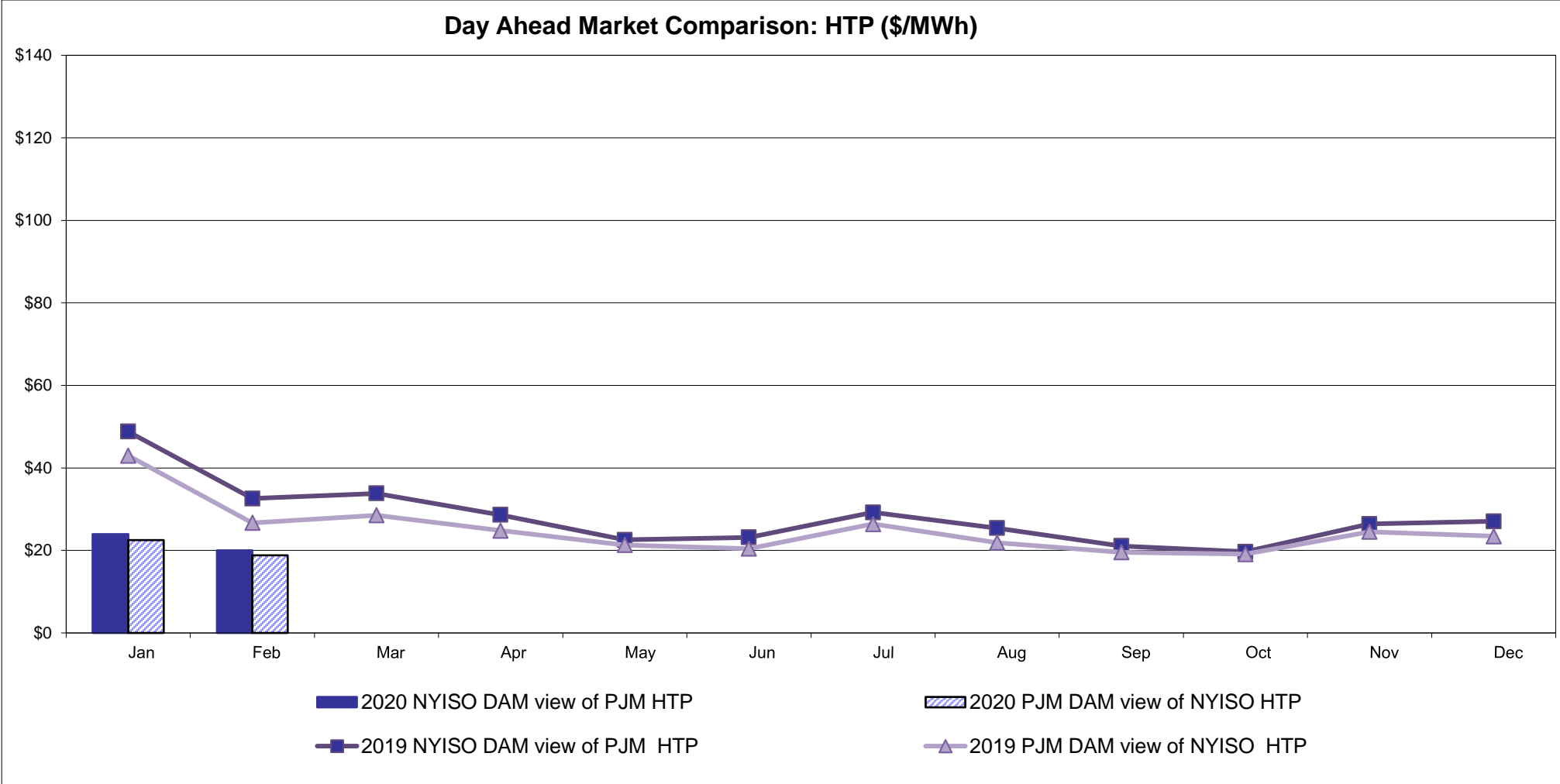


Note:
Hydro-Quebec Prices are unavailable.

External Controllable Line: Linden VFT (PJM)



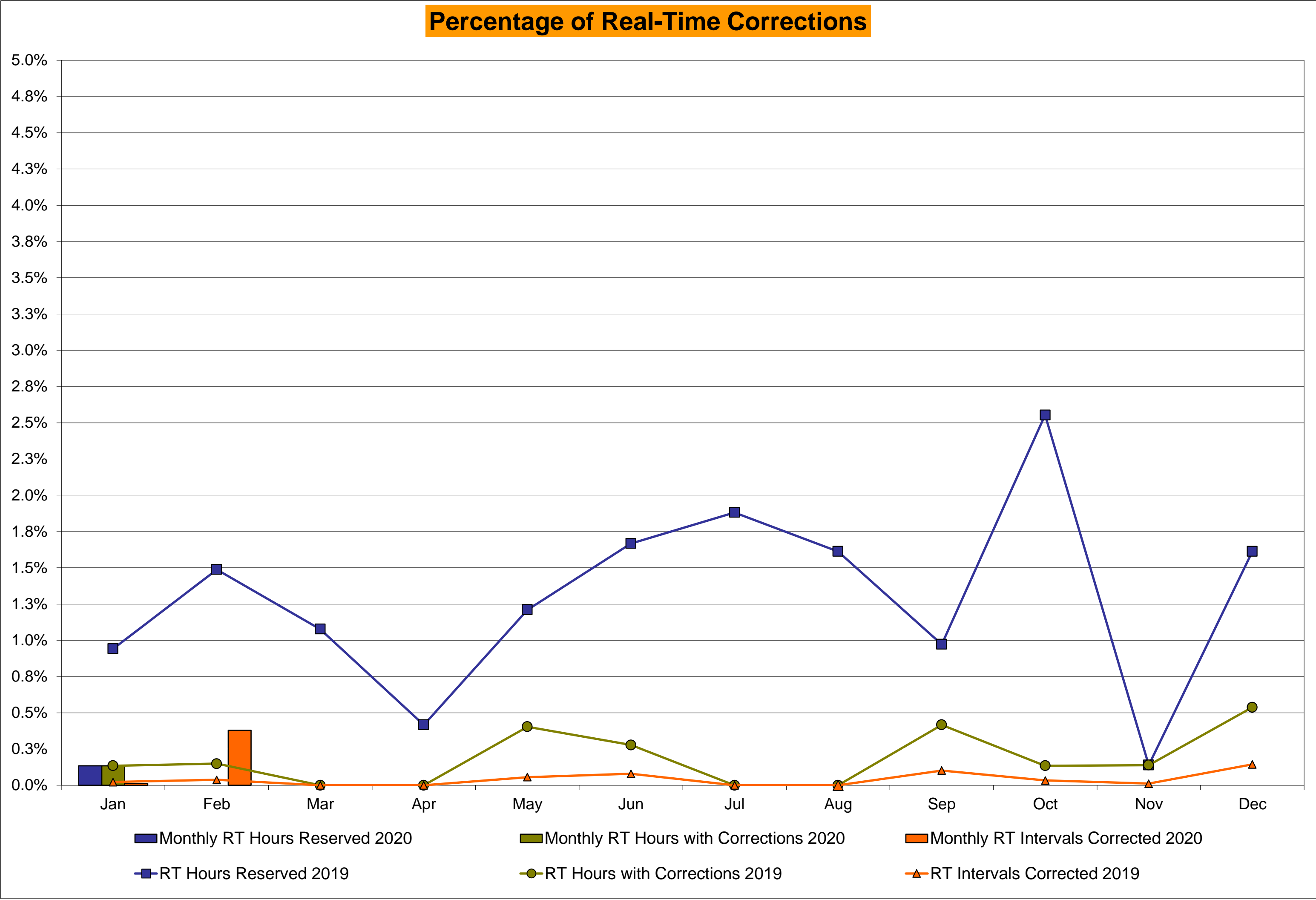
External Controllable Line: Hudson (PJM)



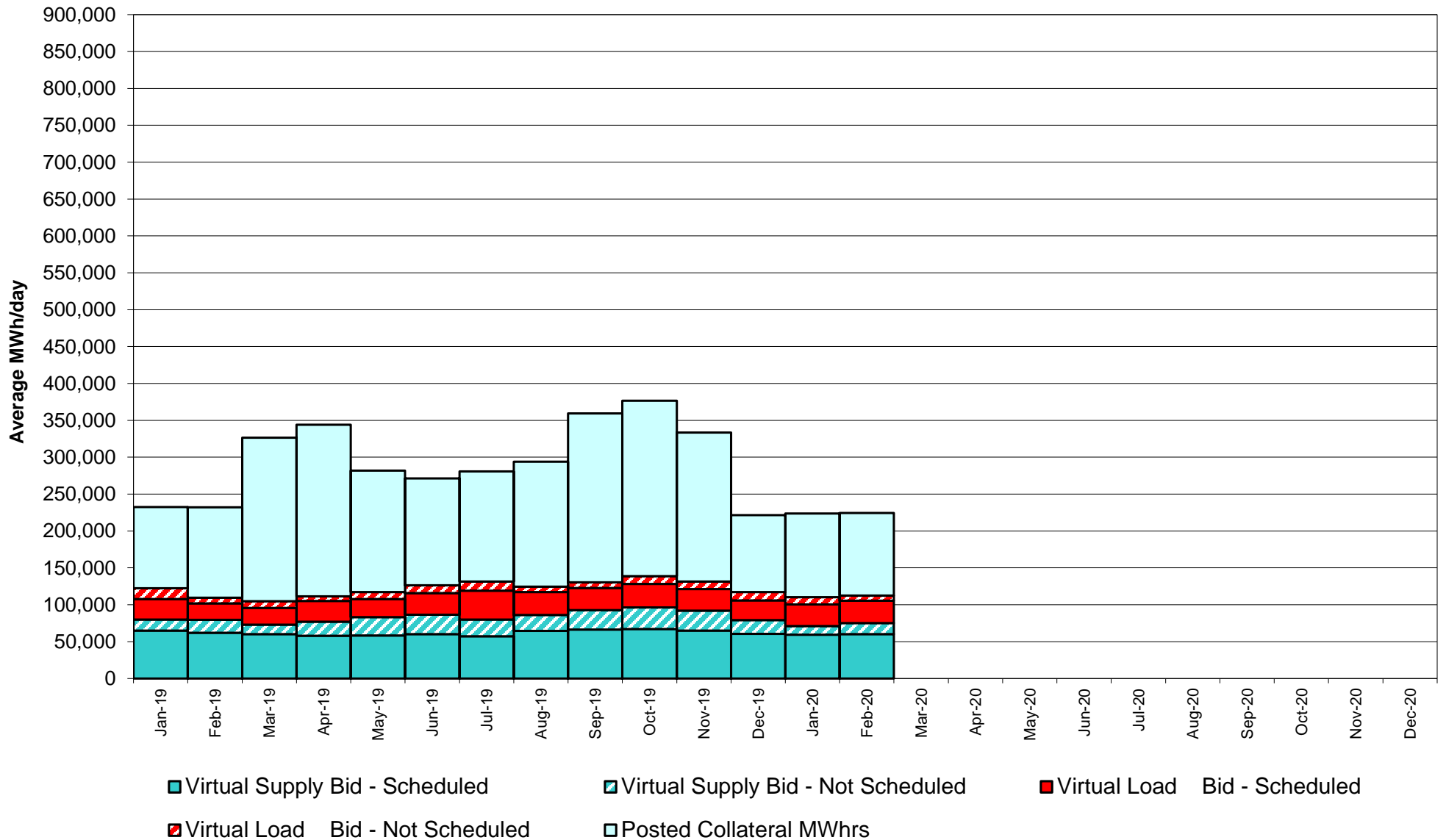
NYISO Real Time Price Correction Statistics

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										
Number of hours	in the month	744	696										
% of hours with corrections	in the month	0.13%	0.57%										
% of hours with corrections	year-to-date	0.13%	0.35%										
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	1	32										
Number of intervals	in the month	9,088	8,460										
% of intervals corrected	in the month	0.01%	0.38%										
% of intervals corrected	year-to-date	0.01%	0.19%										
<u>Hours Reserved</u>													
Number of hours reserved	in the month	1	14										
Number of hours	in the month	744	696										
% of hours reserved	in the month	0.13%	2.01%										
% of hours reserved	year-to-date	0.13%	1.04%										
<u>Days to Correction *</u>													
Avg. number of days to correction	in the month	2.00	1.00										
Avg. number of days to correction	year-to-date	2.00	1.50										
<u>Days Without Corrections</u>													
Days without corrections	in the month	30	28										
Days without corrections	year-to-date	30	58										
2019		<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	1	0	0	3	2	0	0	3	1	1	4
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours with corrections	in the month	0.13%	0.15%	0.00%	0.00%	0.40%	0.28%	0.00%	0.00%	0.42%	0.13%	0.14%	0.54%
% of hours with corrections	year-to-date	0.13%	0.14%	0.09%	0.07%	0.14%	0.16%	0.14%	0.12%	0.15%	0.15%	0.15%	0.18%
<u>Interval Corrections</u>													
Number of intervals corrected	in the month	2	3	0	0	5	7	0	0	9	3	1	13
Number of intervals	in the month	9,071	8,131	9,008	8,750	9,033	8,863	9,243	9,048	8,820	9,087	8,788	9,021
% of intervals corrected	in the month	0.02%	0.04%	0.00%	0.00%	0.06%	0.08%	0.00%	0.00%	0.10%	0.03%	0.01%	0.14%
% of intervals corrected	year-to-date	0.02%	0.03%	0.02%	0.01%	0.02%	0.03%	0.03%	0.02%	0.03%	0.03%	0.03%	0.04%
<u>Hours Reserved</u>													
Number of hours reserved	in the month	7	10	8	3	9	12	14	12	7	19	1	12
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	0.94%	1.49%	1.08%	0.42%	1.21%	1.67%	1.88%	1.61%	0.97%	2.55%	0.14%	1.61%
% of hours reserved	year-to-date	0.94%	1.20%	1.16%	0.97%	1.02%	1.13%	1.24%	1.29%	1.25%	1.38%	1.27%	1.30%
<u>Days to Correction *</u>													
Avg. number of days to correction	in the month	3.00	2.00	0.00	0.00	3.50	3.50	0.00	0.00	2.50	2.00	3.00	3.50
Avg. number of days to correction	year-to-date	3.00	2.50	2.50	2.50	3.00	3.17	3.17	3.17	3.00	2.89	2.90	3.00
<u>Days Without Corrections</u>													
Days without corrections	in the month	30	27	31	30	29	28	31	31	28	30	29	29
Days without corrections	year-to-date	30	57	88	118	147	175	206	237	265	295	324	353

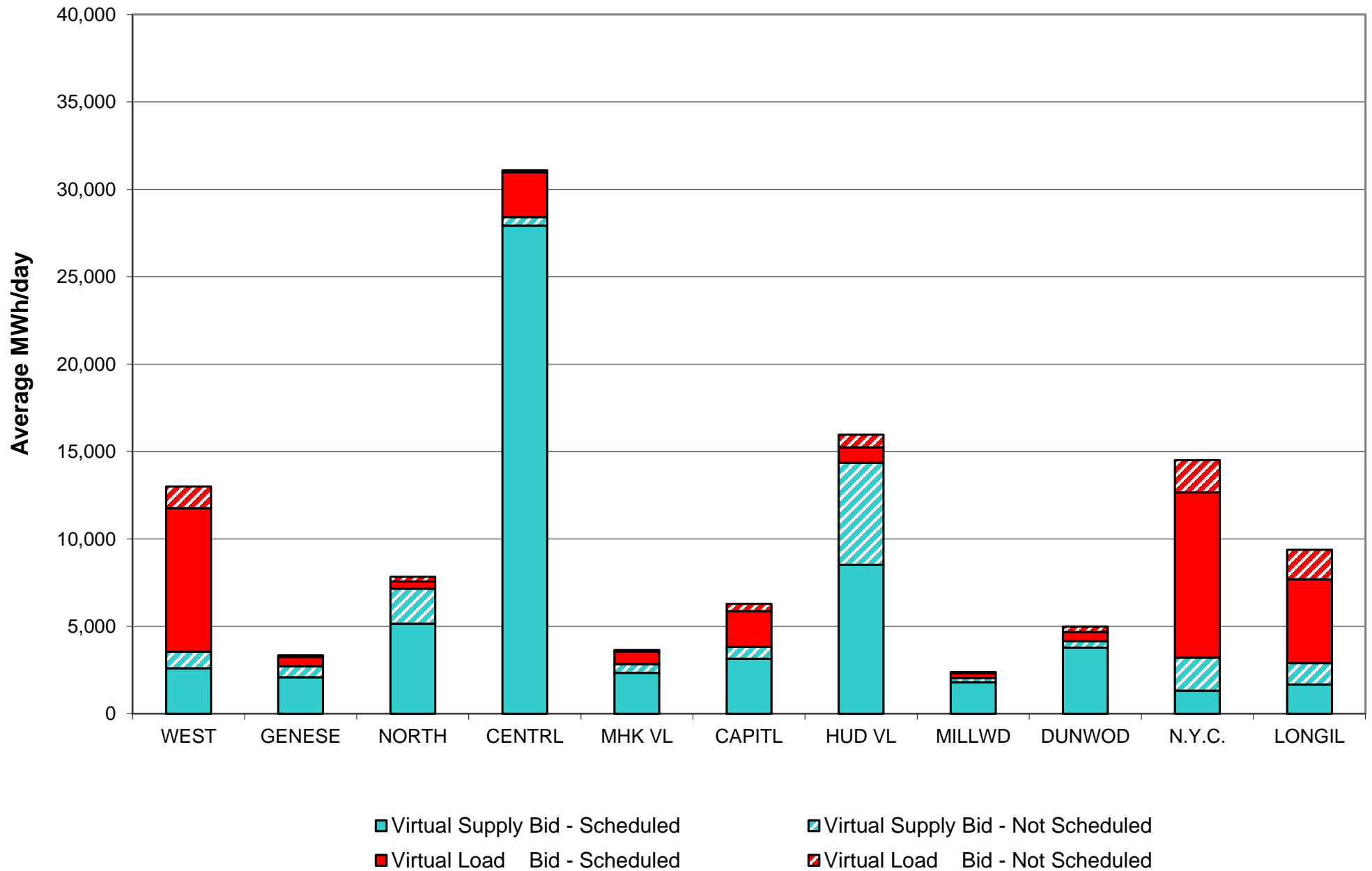
*Calendar days from reservation date; for June 2018 forward, business days from market date



NYISO Virtual Trading Average MWh per day



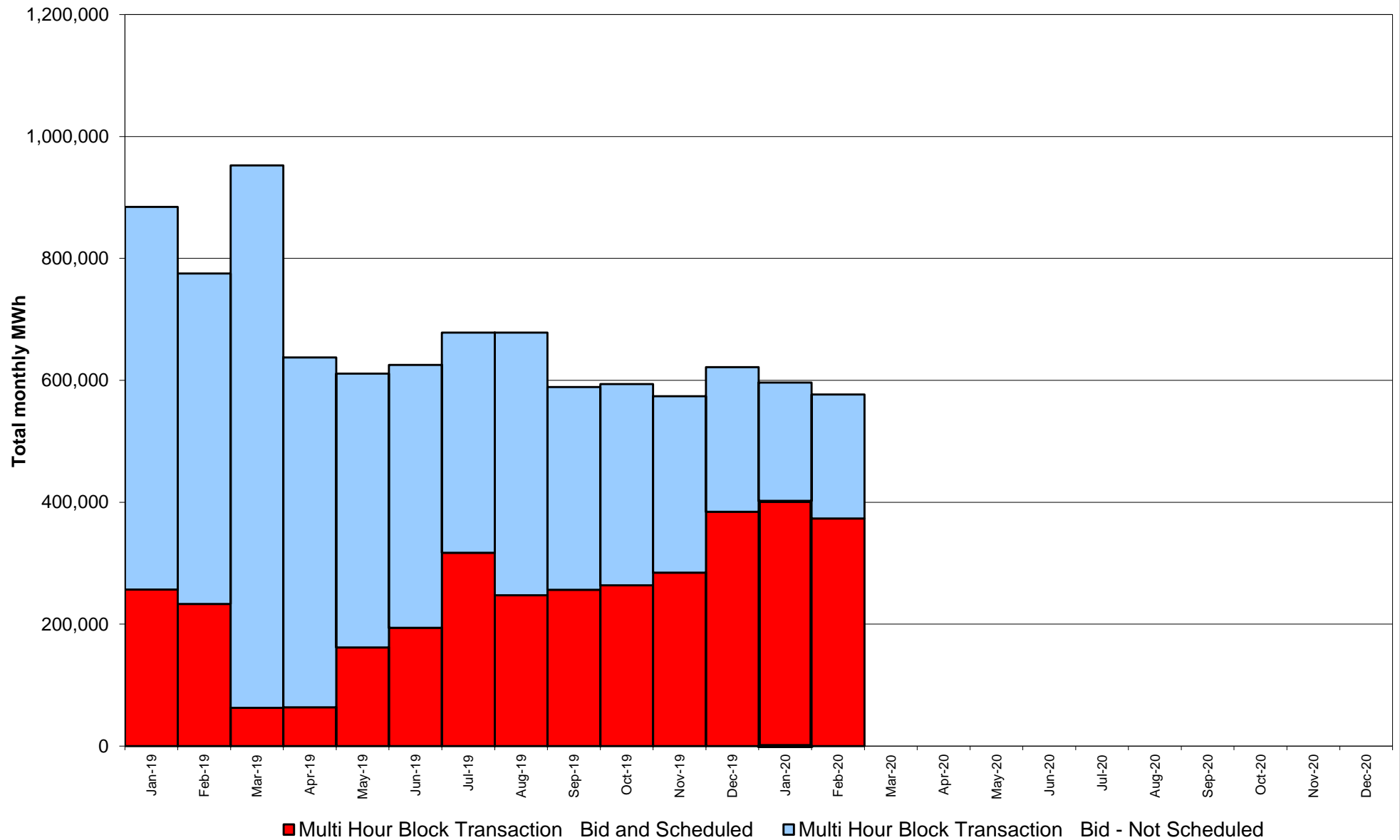
Virtual Load and Supply Zonal Statistics through February 29, 2020



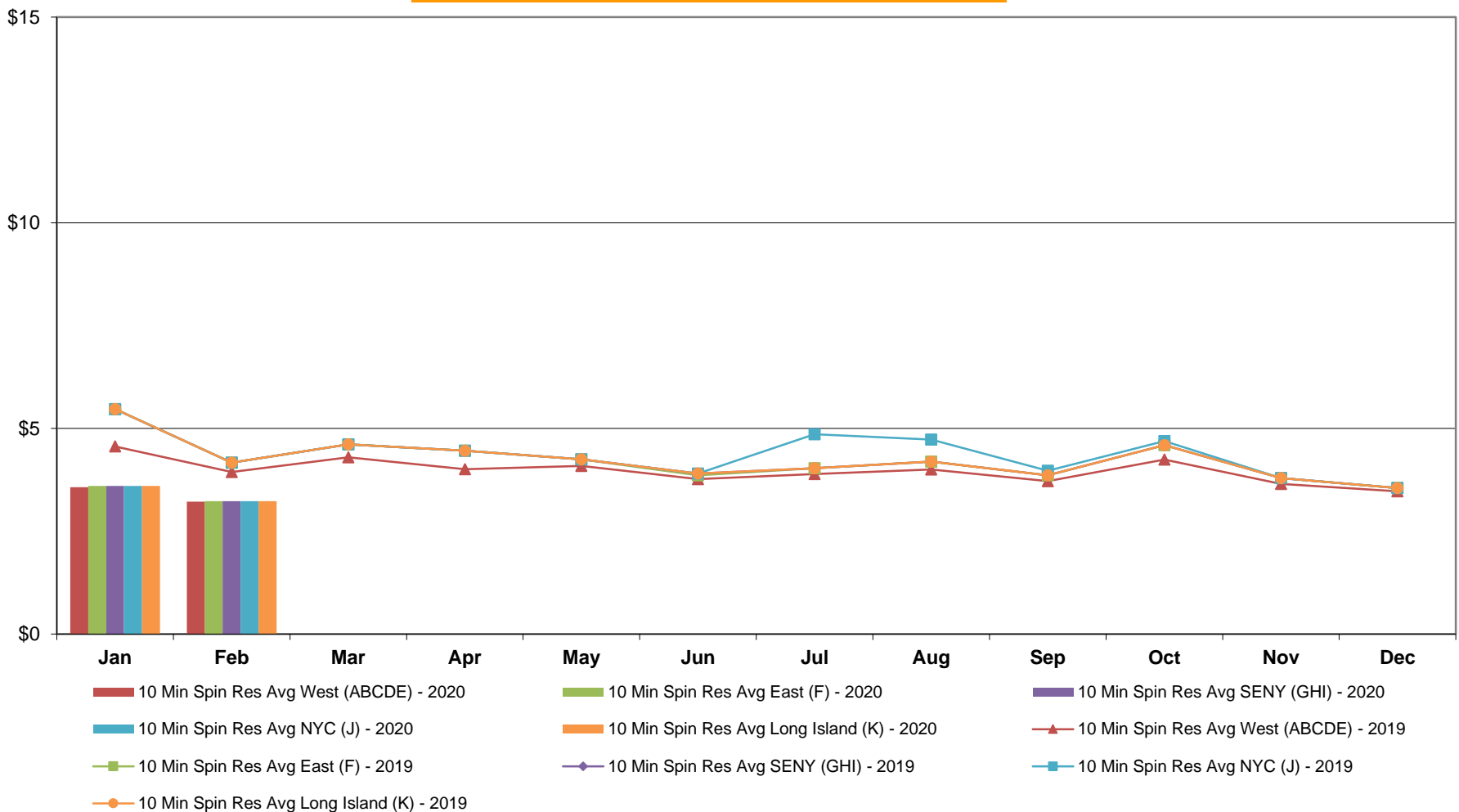
Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2020

		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	Scheduled	Not Scheduled
WEST	Jan-20	7,809	1,328	1,765	984		MHK VL	Jan-20	747	77	2,155	793		DUNWOD	Jan-20	1,120	241	3,191	370
	Feb-20	8,213	1,248	2,597	947			Feb-20	724	88	2,339	504			Feb-20	536	298	3,782	368
	Mar-20							Mar-20							Mar-20				
	Apr-20							Apr-20							Apr-20				
	May-20							May-20							May-20				
	Jun-20							Jun-20							Jun-20				
	Jul-20							Jul-20							Jul-20				
	Aug-20							Aug-20							Aug-20				
	Sep-20							Sep-20							Sep-20				
	Oct-20							Oct-20							Oct-20				
	Nov-20							Nov-20							Nov-20				
	Dec-20							Dec-20							Dec-20				
	GENESE	Jan-20	553	131	1,749	995			CAPITL	Jan-20	1,772	539	3,324		1,235		N.Y.C.	Jan-20	6,699
Feb-20		534	79	2,082	640		Feb-20	2,046		418	3,149	673		Feb-20	9,452	1,841		1,316	1,894
Mar-20							Mar-20							Mar-20					
Apr-20							Apr-20							Apr-20					
May-20							May-20							May-20					
Jun-20							Jun-20							Jun-20					
Jul-20							Jul-20							Jul-20					
Aug-20							Aug-20							Aug-20					
Sep-20							Sep-20							Sep-20					
Oct-20							Oct-20							Oct-20					
Nov-20							Nov-20							Nov-20					
Dec-20							Dec-20							Dec-20					
NORTH		Jan-20	811	206	5,038	1,765		HUD VL		Jan-20	891	1,274	7,573	2,206		LONGIL		Jan-20	5,640
	Feb-20	402	276	5,144	2,014		Feb-20		886	722	8,517	5,838		Feb-20	4,795		1,683	1,678	1,217
	Mar-20						Mar-20							Mar-20					
	Apr-20						Apr-20							Apr-20					
	May-20						May-20							May-20					
	Jun-20						Jun-20							Jun-20					
	Jul-20						Jul-20							Jul-20					
	Aug-20						Aug-20							Aug-20					
	Sep-20						Sep-20							Sep-20					
	Oct-20						Oct-20							Oct-20					
	Nov-20						Nov-20							Nov-20					
	Dec-20						Dec-20							Dec-20					
	CENTRL	Jan-20	3,050	214	28,503	541			MILLWD	Jan-20	270	68	1,646	213			NYISO	Jan-20	29,361
Feb-20		2,567	118	27,919	487		Feb-20	281		68	1,811	229		Feb-20	30,434	6,838		60,334	14,811
Mar-20							Mar-20							Mar-20					
Apr-20							Apr-20							Apr-20					
May-20							May-20							May-20					
Jun-20							Jun-20							Jun-20					
Jul-20							Jul-20							Jul-20					
Aug-20							Aug-20							Aug-20					
Sep-20							Sep-20							Sep-20					
Oct-20							Oct-20							Oct-20					
Nov-20							Nov-20							Nov-20					
Dec-20							Dec-20							Dec-20					

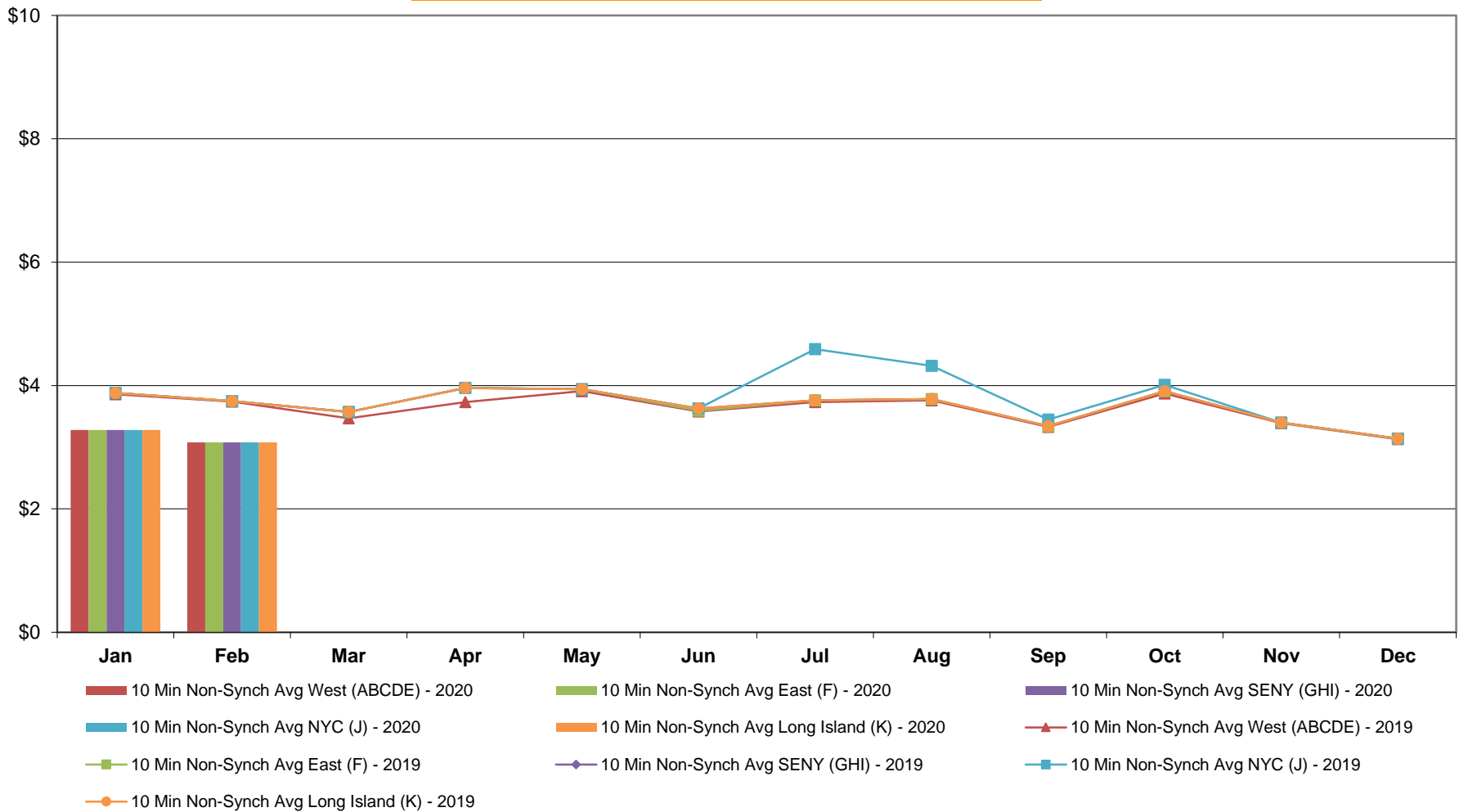
NYISO Multi Hour Block Transactions Monthly Total MWh



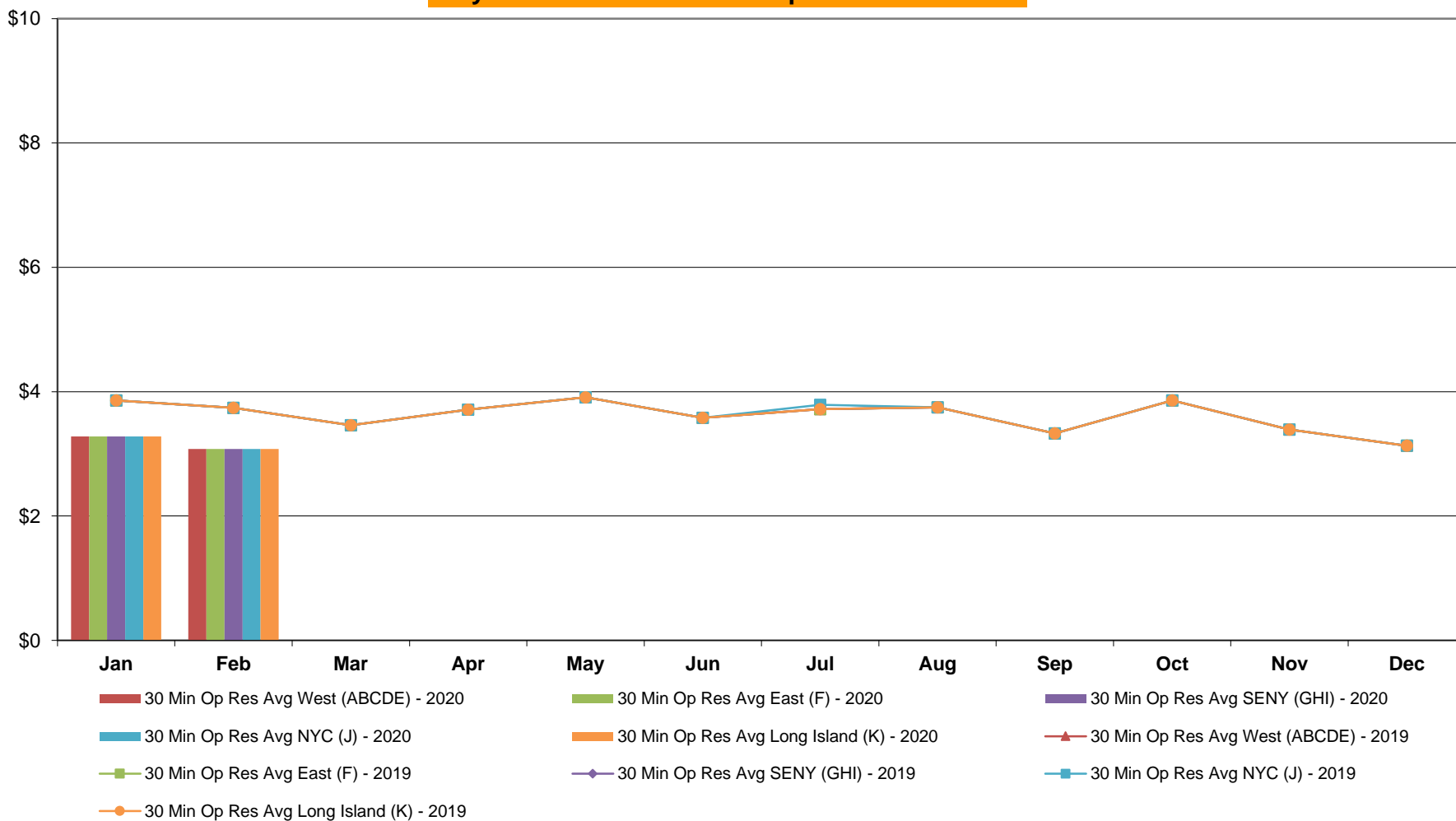
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Spin 2019 - 2020**



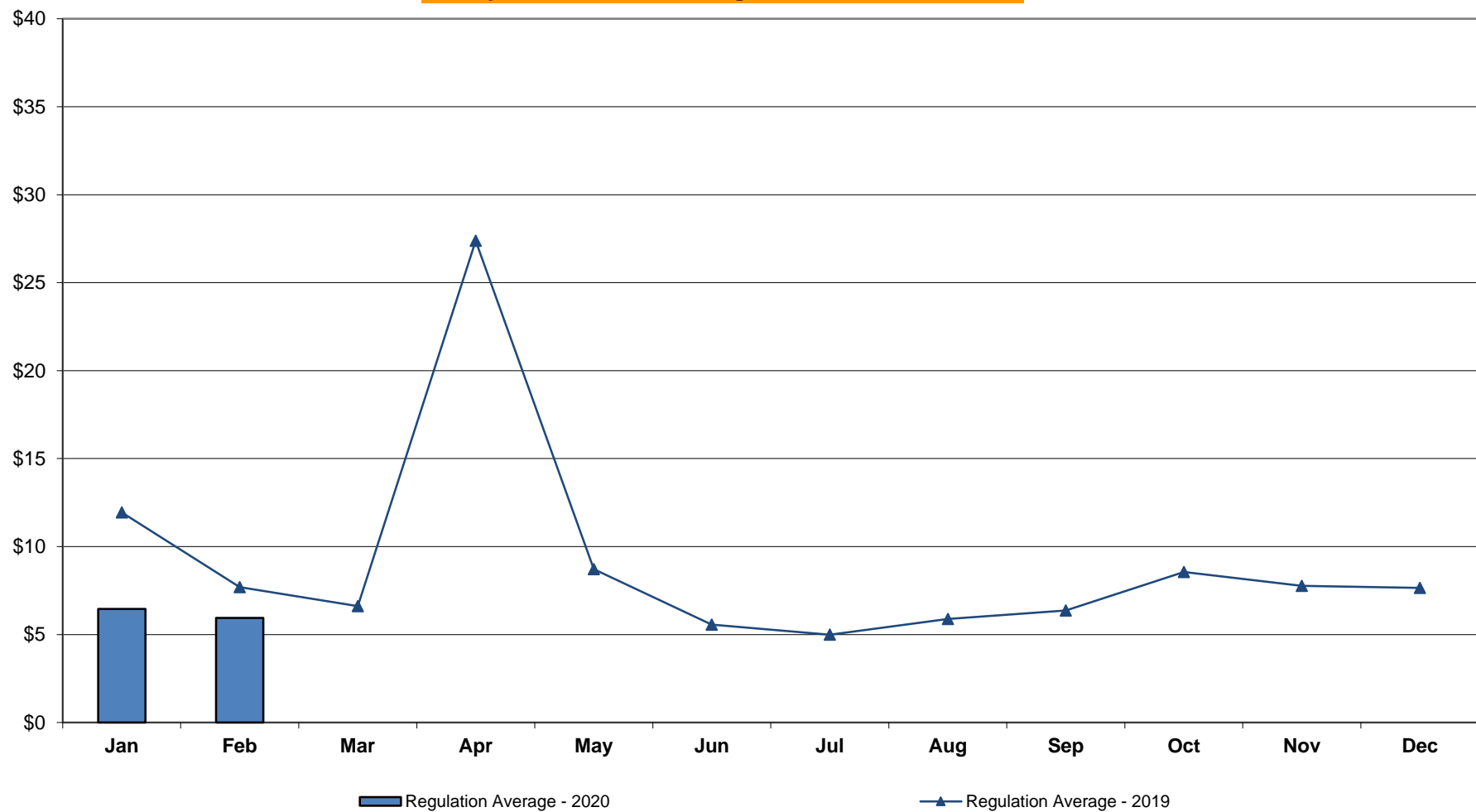
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Non-Synch 2019 - 2020**



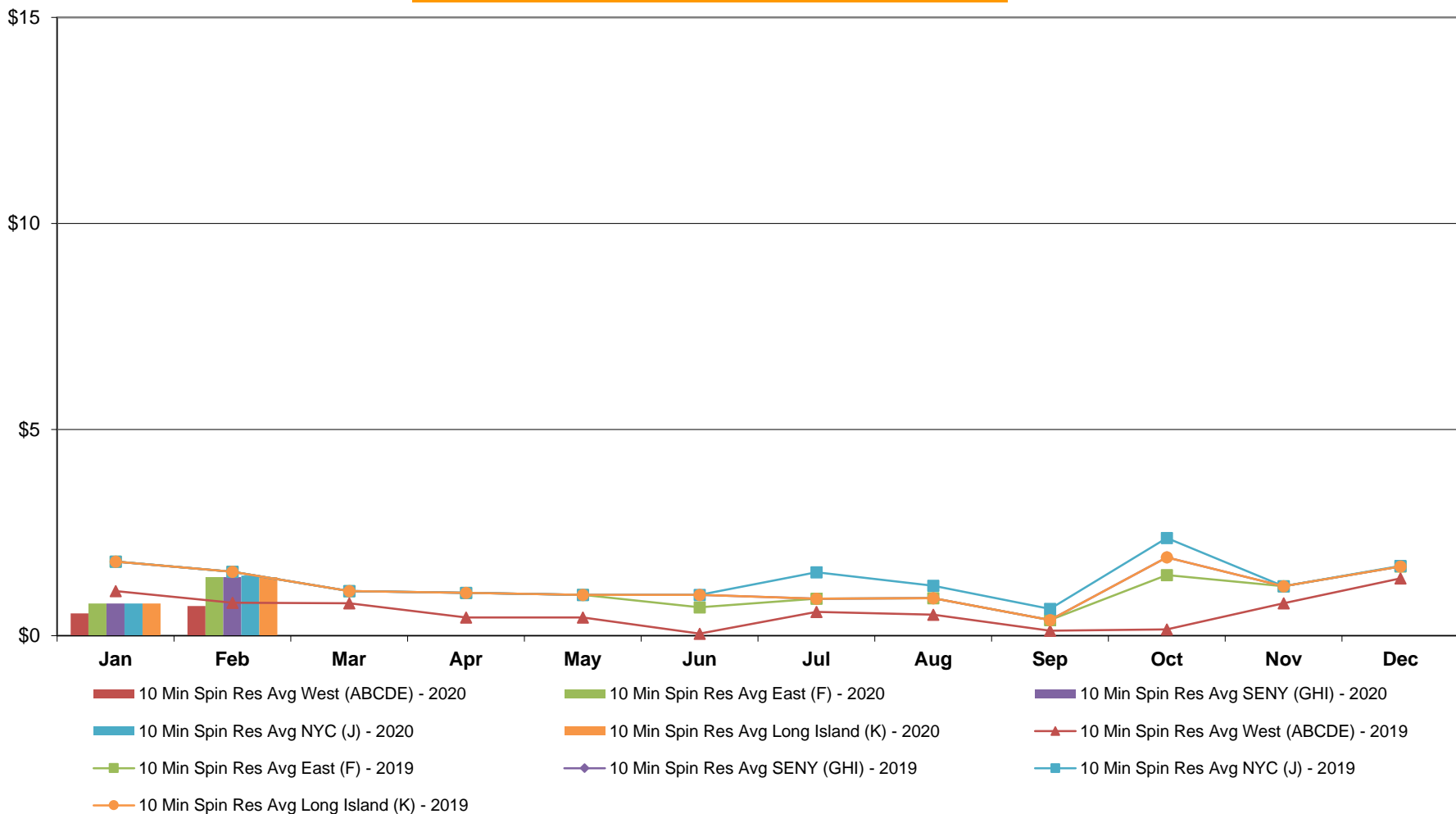
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 30 Min Op Res 2019 - 2020**



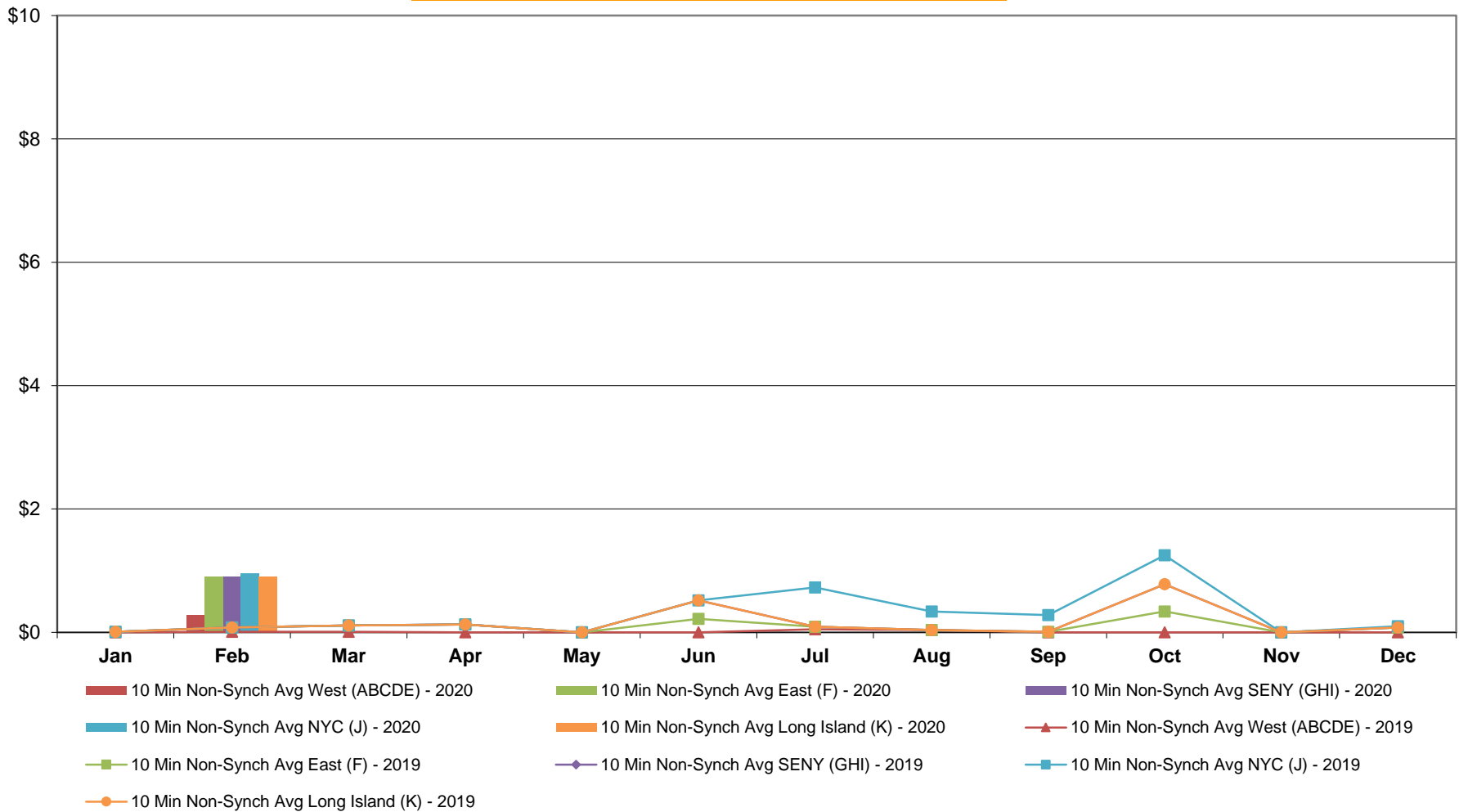
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - Regulation 2019 - 2020**



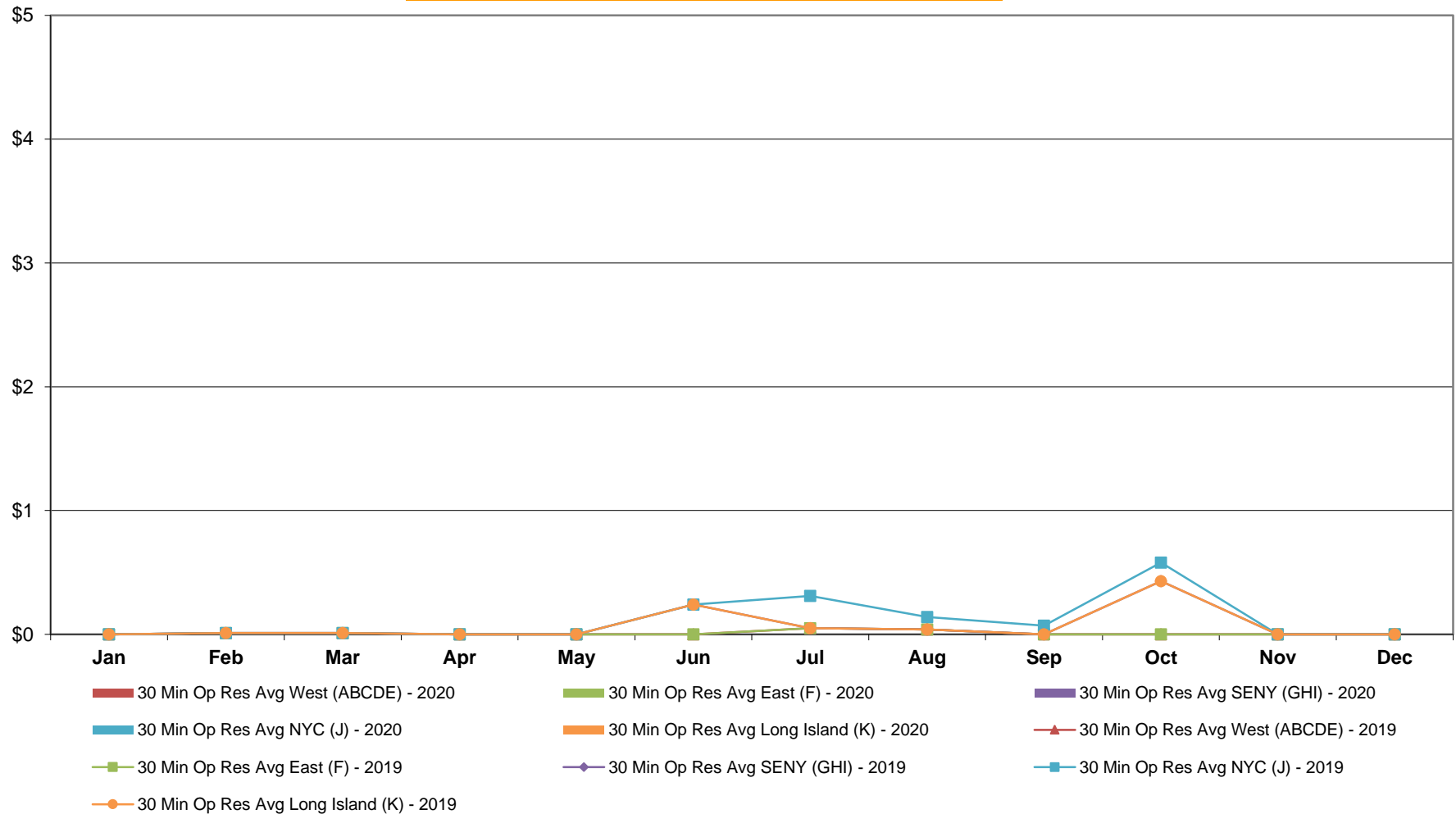
NYISO Monthly Average Ancillary Service Prices RTC Market - 10 Min Spin 2019 - 2020

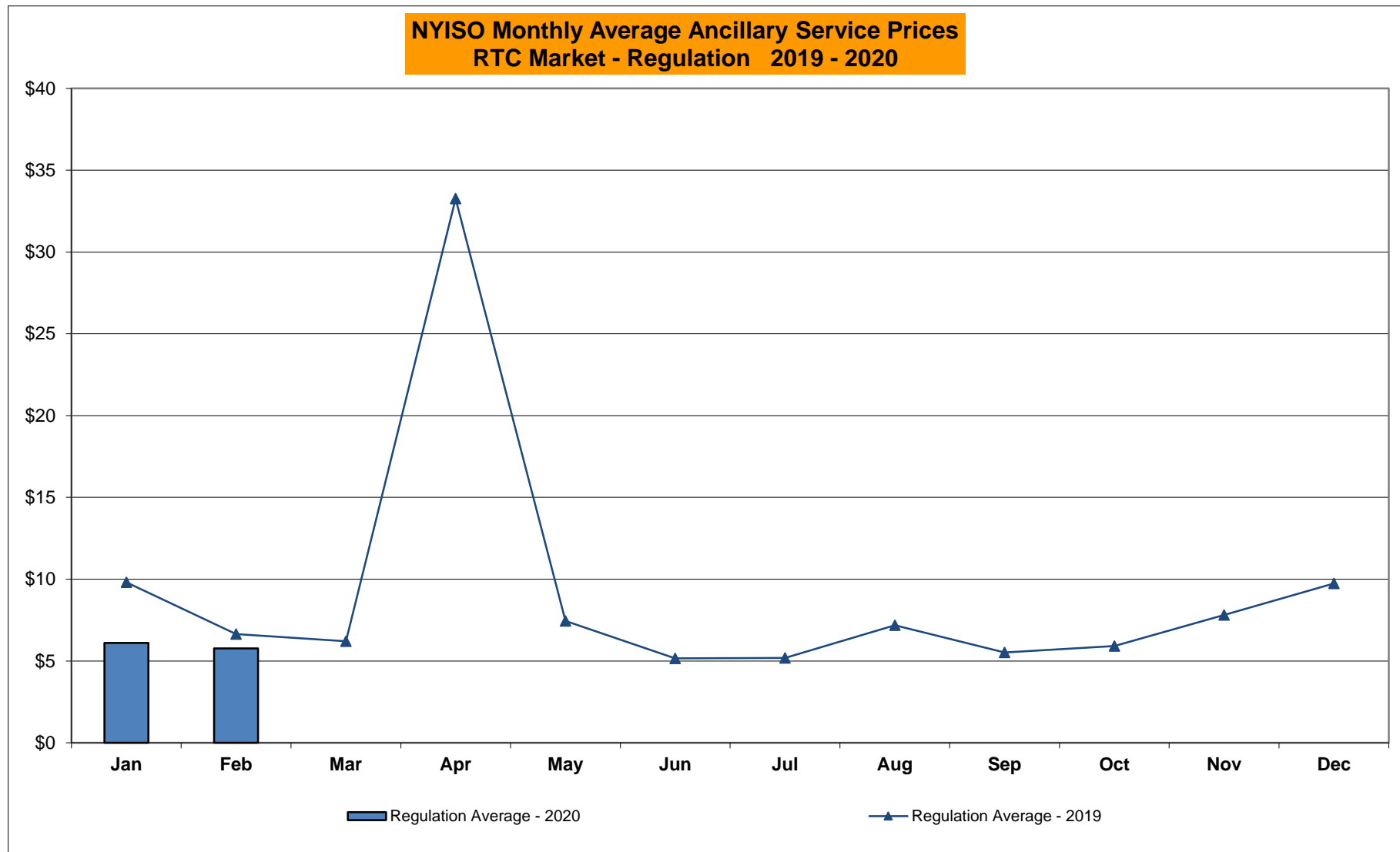


**NYISO Monthly Average Ancillary Service Prices
RTC Market - 10 Min Non-Synch 2019 - 2020**

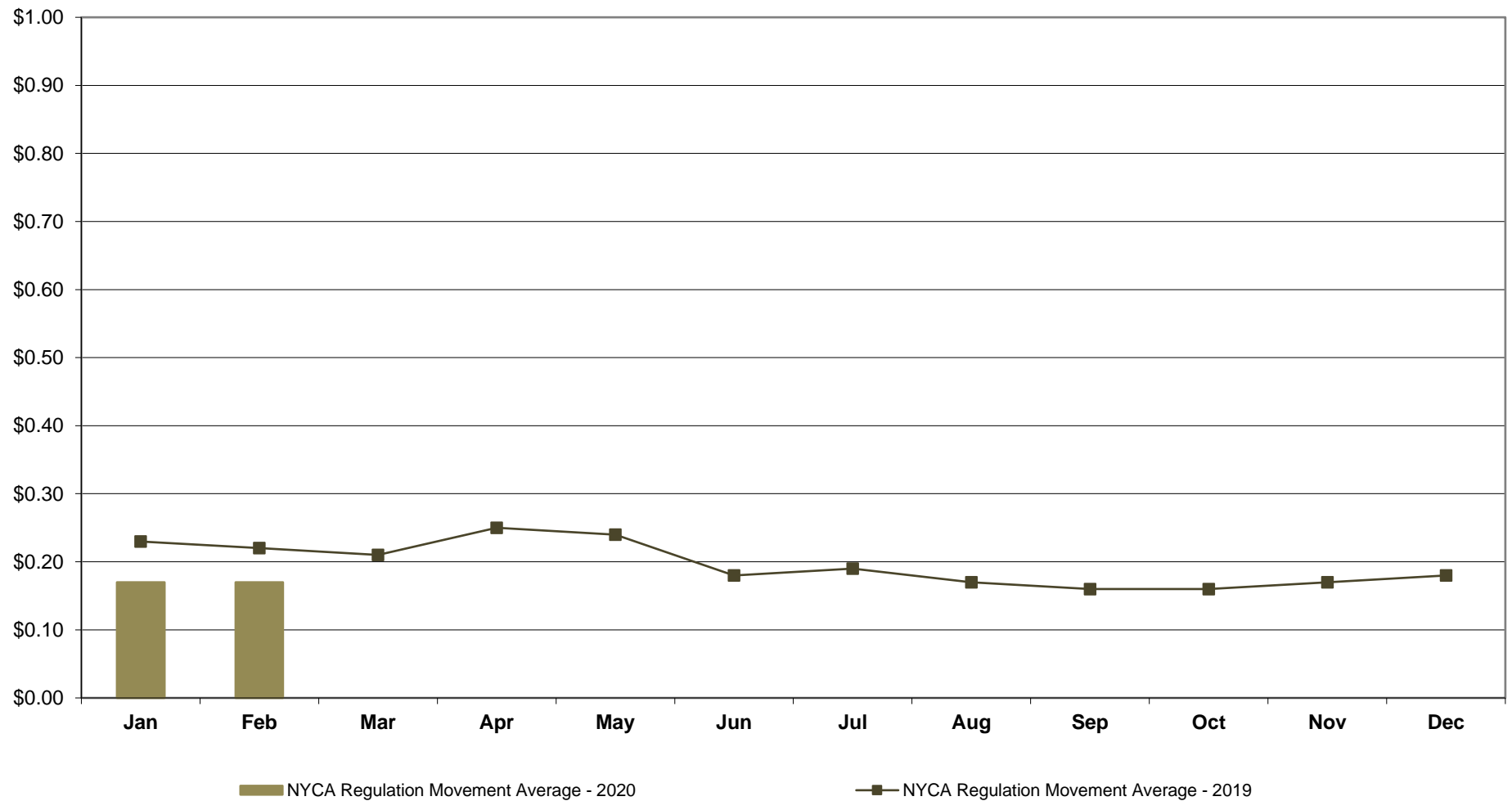


NYISO Monthly Average Ancillary Service Prices RTC Market - 30 Min Op Res 2019 - 2020

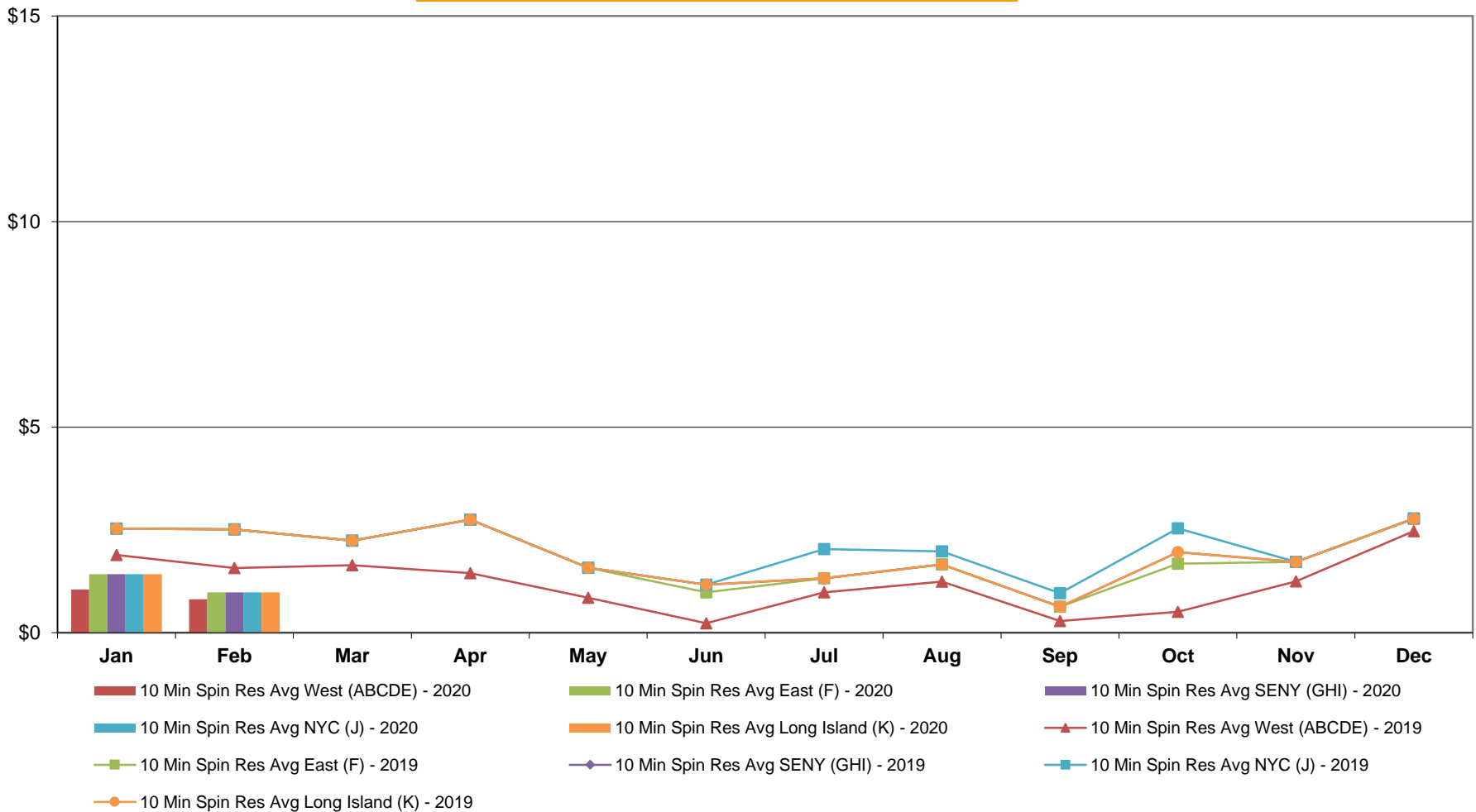




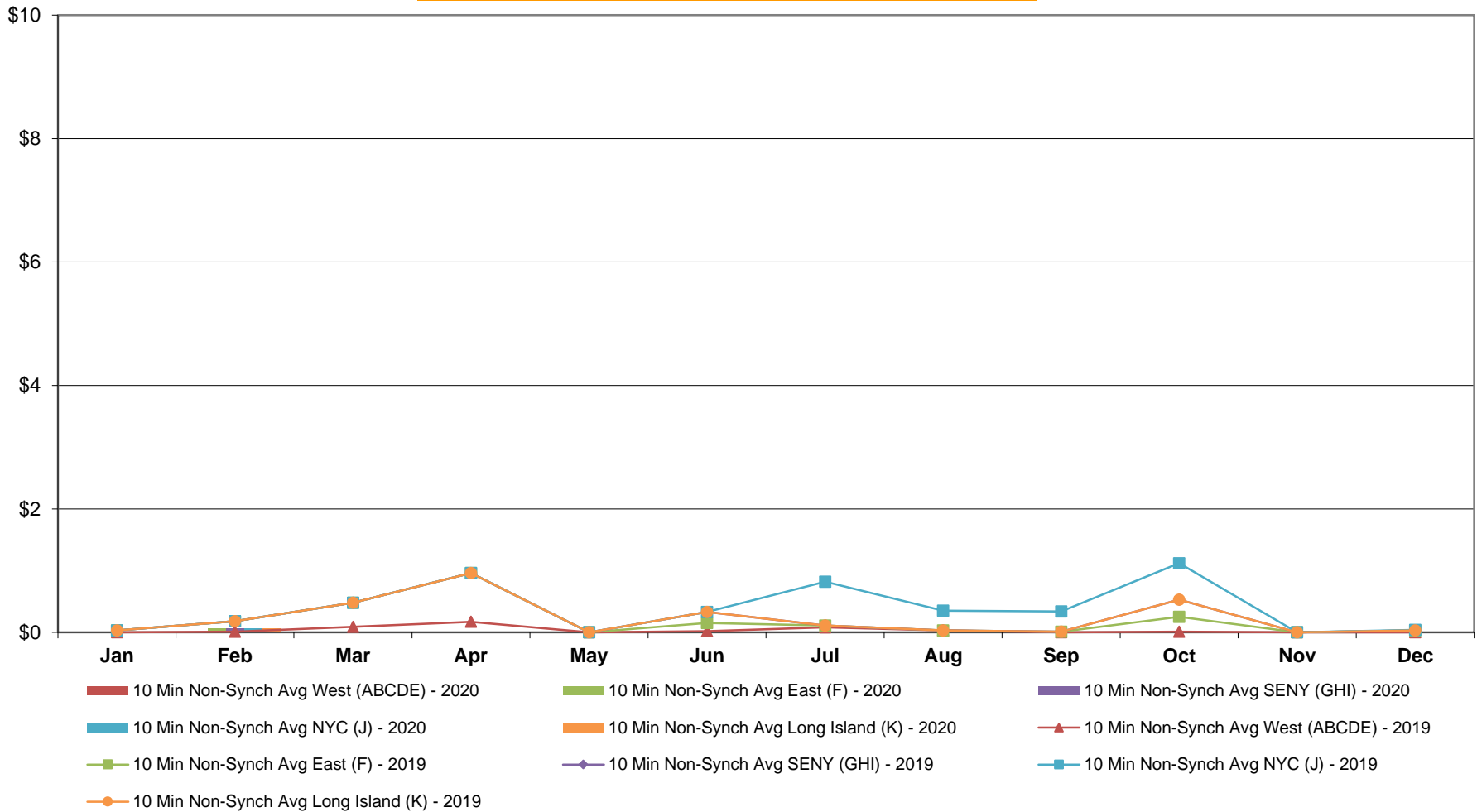
NYISO Monthly Average Ancillary Service Prices RTC Market - Regulation Movement 2019 - 2020



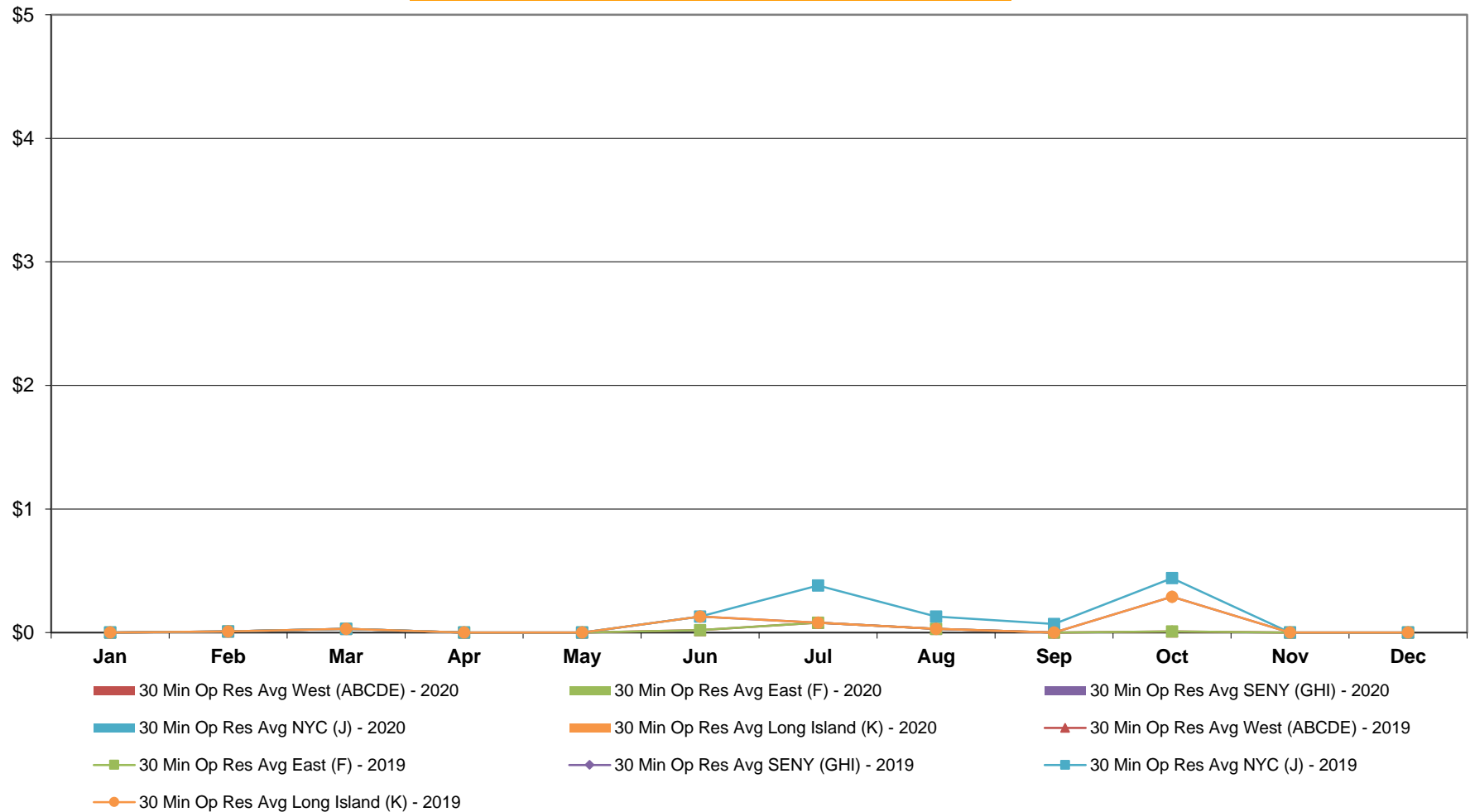
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 10 Min Spin 2019 - 2020**



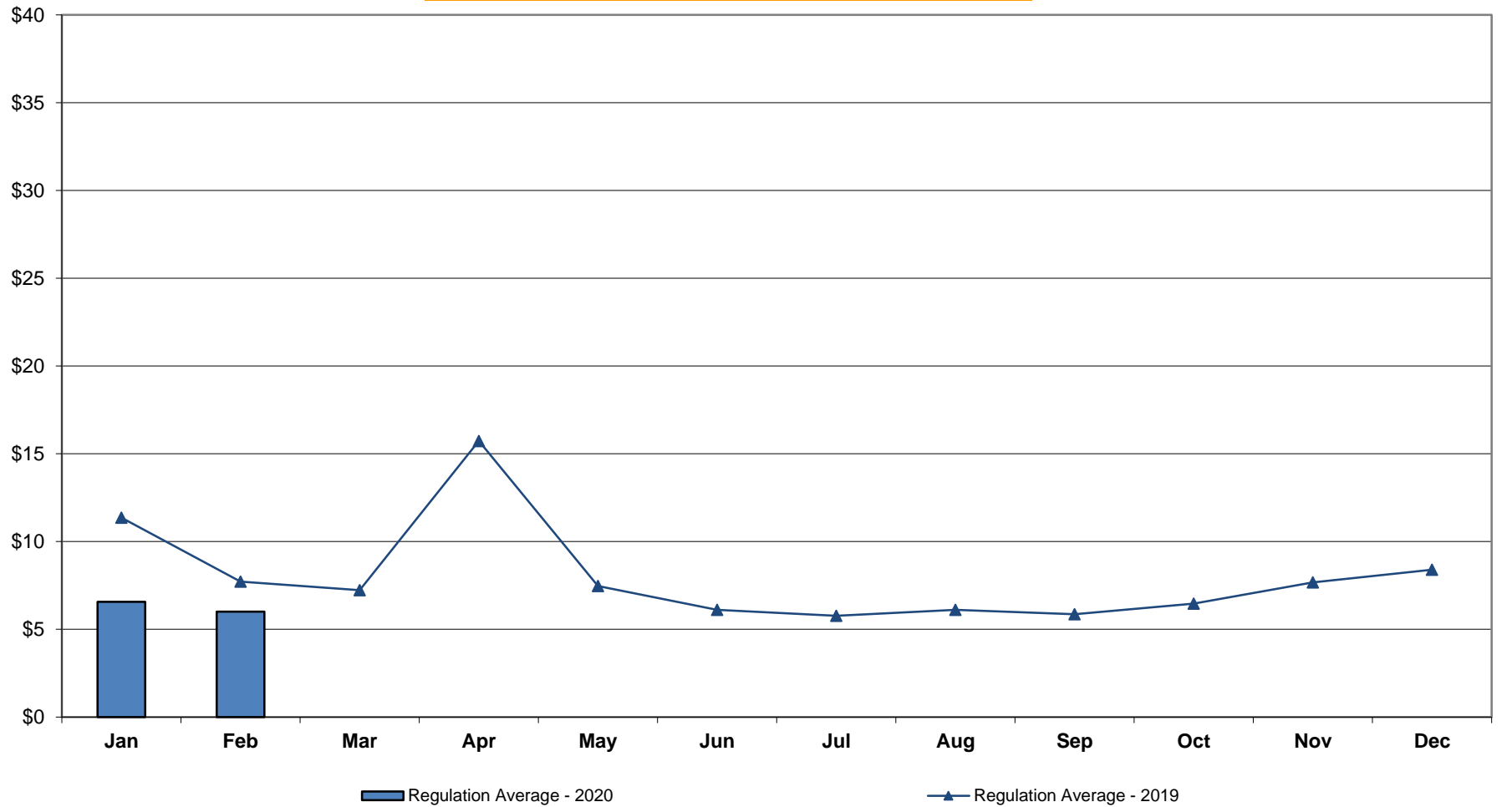
NYISO Monthly Average Ancillary Service Prices Real Time Market - 10 Min Non-Synch 2019 - 2020



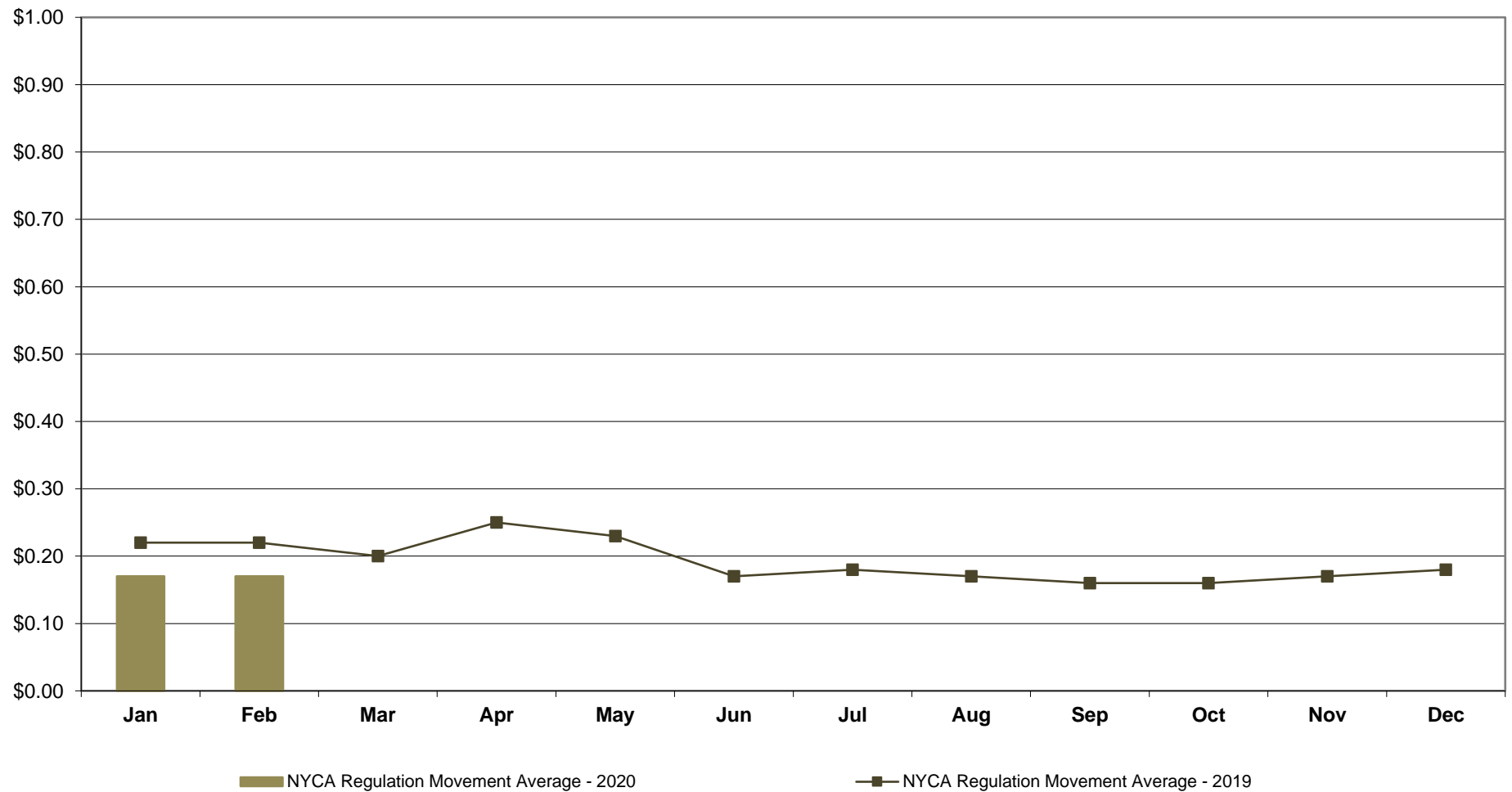
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 30 Min Op Res 2019 - 2020**



**NYISO Monthly Average Ancillary Service Prices
Real Time Market - Regulation 2019 - 2020**



NYISO Monthly Average Ancillary Service Prices Real Time Market - Regulation Movement 2019 - 2020



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

<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										
10 Min Spin NYC (J)	3.60	3.23										
10 Min Spin SENY (GHI)	3.60	3.23										
10 Min Spin East (F)	3.60	3.23										
10 Min Spin West (ABCDE)	3.57	3.22										
10 Min Non Synch Long Island (K)	3.28	3.08										
10 Min Non Synch NYC (J)	3.28	3.08										
10 Min Non Synch SENY (GHI)	3.28	3.08										
10 Min Non Synch East (F)	3.28	3.08										
10 Min Non Synch West (ABCDE)	3.28	3.08										
30 Min Long Island (K)	3.28	3.08										
30 Min NYC (J)	3.28	3.08										
30 Min SENY (GHI)	3.28	3.08										
30 Min East (F)	3.28	3.08										
30 Min West (ABCDE)	3.28	3.08										
Regulation	6.46	5.94										
<u>2019</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)	5.47	5.47	4.61	4.46	4.25	3.90	4.03	4.19	3.86	4.59	3.79	3.55
10 Min Spin NYC (J)	5.47	5.47	4.61	4.46	4.25	3.90	4.86	4.73	3.97	4.69	3.79	3.55
10 Min Spin SENY (GHI)	5.47	4.17	4.61	4.46	4.25	3.90	4.03	4.19	3.86	4.59	3.79	3.55
10 Min Spin East (F)	5.47	4.17	4.61	4.46	4.25	3.86	4.03	4.19	3.86	4.59	3.79	3.55
10 Min Spin West (ABCDE)	4.56	3.94	4.30	4.01	4.09	3.77	3.89	4.00	3.72	4.24	3.65	3.47
10 Min Non Synch Long Island (K)	3.88	3.88	3.57	3.96	3.94	3.63	3.76	3.78	3.34	3.91	3.40	3.14
10 Min Non Synch NYC (J)	3.88	3.88	3.57	3.96	3.94	3.63	4.59	4.32	3.45	4.01	3.40	3.14
10 Min Non Synch SENY (GHI)	3.88	3.75	3.57	3.96	3.94	3.63	3.76	3.78	3.34	3.91	3.40	3.14
10 Min Non Synch East (F)	3.88	3.75	3.57	3.96	3.94	3.59	3.76	3.78	3.34	3.91	3.40	3.14
10 Min Non Synch West (ABCDE)	3.86	3.74	3.47	3.73	3.91	3.58	3.73	3.76	3.33	3.87	3.39	3.13
30 Min Long Island (K)	3.86	3.86	3.46	3.71	3.91	3.58	3.72	3.75	3.33	3.86	3.39	3.13
30 Min NYC (J)	3.86	3.86	3.46	3.71	3.91	3.58	3.79	3.75	3.33	3.86	3.39	3.13
30 Min SENY (GHI)	3.86	3.74	3.46	3.71	3.91	3.58	3.72	3.75	3.33	3.86	3.39	3.13
30 Min East (F)	3.86	3.74	3.46	3.71	3.91	3.58	3.72	3.75	3.33	3.86	3.39	3.13
30 Min West (ABCDE)	3.86	3.74	3.46	3.71	3.91	3.58	3.72	3.75	3.33	3.86	3.39	3.13
Regulation	11.94	7.69	6.62	27.38	8.71	5.57	4.99	5.89	6.36	8.55	7.77	7.65

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

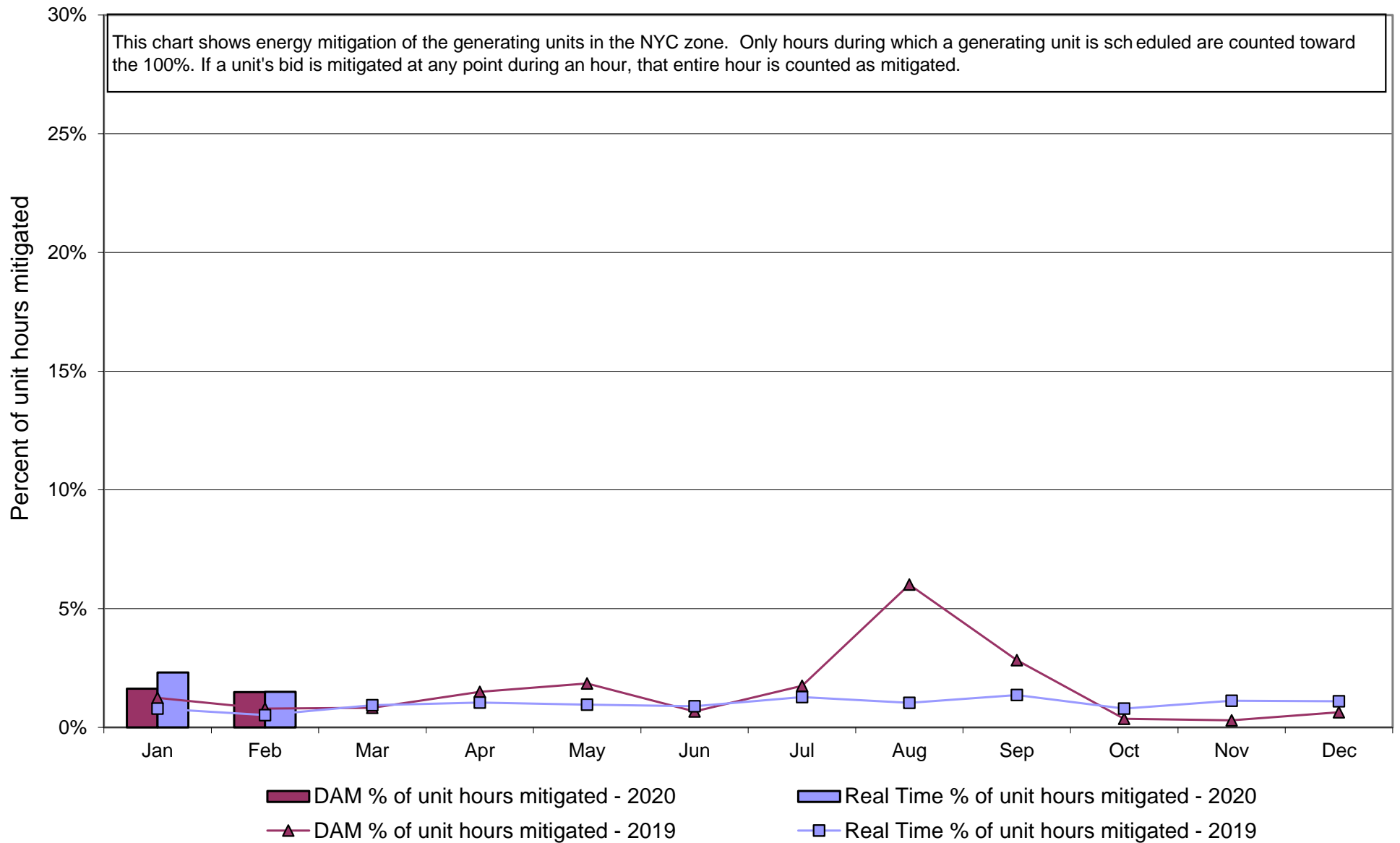
<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>RTC Market</u>												
10 Min Spin Long Island (K)	0.78	1.42										
10 Min Spin NYC (J)	0.78	1.46										
10 Min Spin SENY (GHI)	0.78	1.42										
10 Min Spin East (F)	0.78	1.42										
10 Min Spin West (ABCDE)	0.54	0.72										
10 Min Non Synch Long Island (K)	0.00	0.91										
10 Min Non Synch NYC (J)	0.00	0.95										
10 Min Non Synch SENY (GHI)	0.00	0.91										
10 Min Non Synch East (F)	0.00	0.91										
10 Min Non Synch West (ABCDE)	0.00	0.28										
30 Min Long Island (K)	0.00	0.01										
30 Min NYC (J)	0.00	0.01										
30 Min SENY (GHI)	0.00	0.01										
30 Min East (F)	0.00	0.01										
30 Min West (ABCDE)	0.00	0.01										
Regulation	6.11	5.77										
NYCA Regulation Movement	0.17	0.17										
<u>2019</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)	1.80	1.80	1.08	1.04	0.99	0.99	0.90	0.91	0.38	1.90	1.20	1.68
10 Min Spin NYC (J)	1.80	1.80	1.08	1.04	0.99	0.99	1.54	1.21	0.65	2.37	1.20	1.69
10 Min Spin SENY (GHI)	1.80	1.55	1.08	1.04	0.99	0.99	0.90	0.91	0.38	1.90	1.20	1.68
10 Min Spin East (F)	1.80	1.55	1.08	1.04	0.99	0.69	0.90	0.91	0.38	1.47	1.20	1.68
10 Min Spin West (ABCDE)	1.08	0.80	0.79	0.44	0.44	0.05	0.58	0.51	0.12	0.15	0.79	1.39
10 Min Non Synch Long Island (K)	0.01	0.01	0.11	0.13	0.00	0.52	0.09	0.04	0.01	0.78	0.00	0.08
10 Min Non Synch NYC (J)	0.01	0.01	0.11	0.13	0.00	0.52	0.73	0.34	0.28	1.25	0.00	0.10
10 Min Non Synch SENY (GHI)	0.01	0.08	0.11	0.13	0.00	0.52	0.09	0.04	0.01	0.78	0.00	0.08
10 Min Non Synch East (F)	0.01	0.08	0.11	0.13	0.00	0.22	0.09	0.04	0.01	0.34	0.00	0.08
10 Min Non Synch West (ABCDE)	0.00	0.01	0.01	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00
30 Min Long Island (K)	0.00	0.00	0.01	0.00	0.00	0.24	0.05	0.04	0.00	0.43	0.00	0.00
30 Min NYC (J)	0.00	0.00	0.01	0.00	0.00	0.24	0.31	0.14	0.07	0.58	0.00	0.00
30 Min SENY (GHI)	0.00	0.01	0.01	0.00	0.00	0.24	0.05	0.04	0.00	0.43	0.00	0.00
30 Min East (F)	0.00	0.01	0.01	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00
30 Min West (ABCDE)	0.00	0.01	0.01	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00
Regulation	9.81	6.64	6.21	33.26	7.45	5.16	5.19	7.19	5.52	5.91	7.81	9.74
NYCA Regulation Movement	0.23	0.22	0.21	0.25	0.24	0.18	0.19	0.17	0.16	0.16	0.17	0.18

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

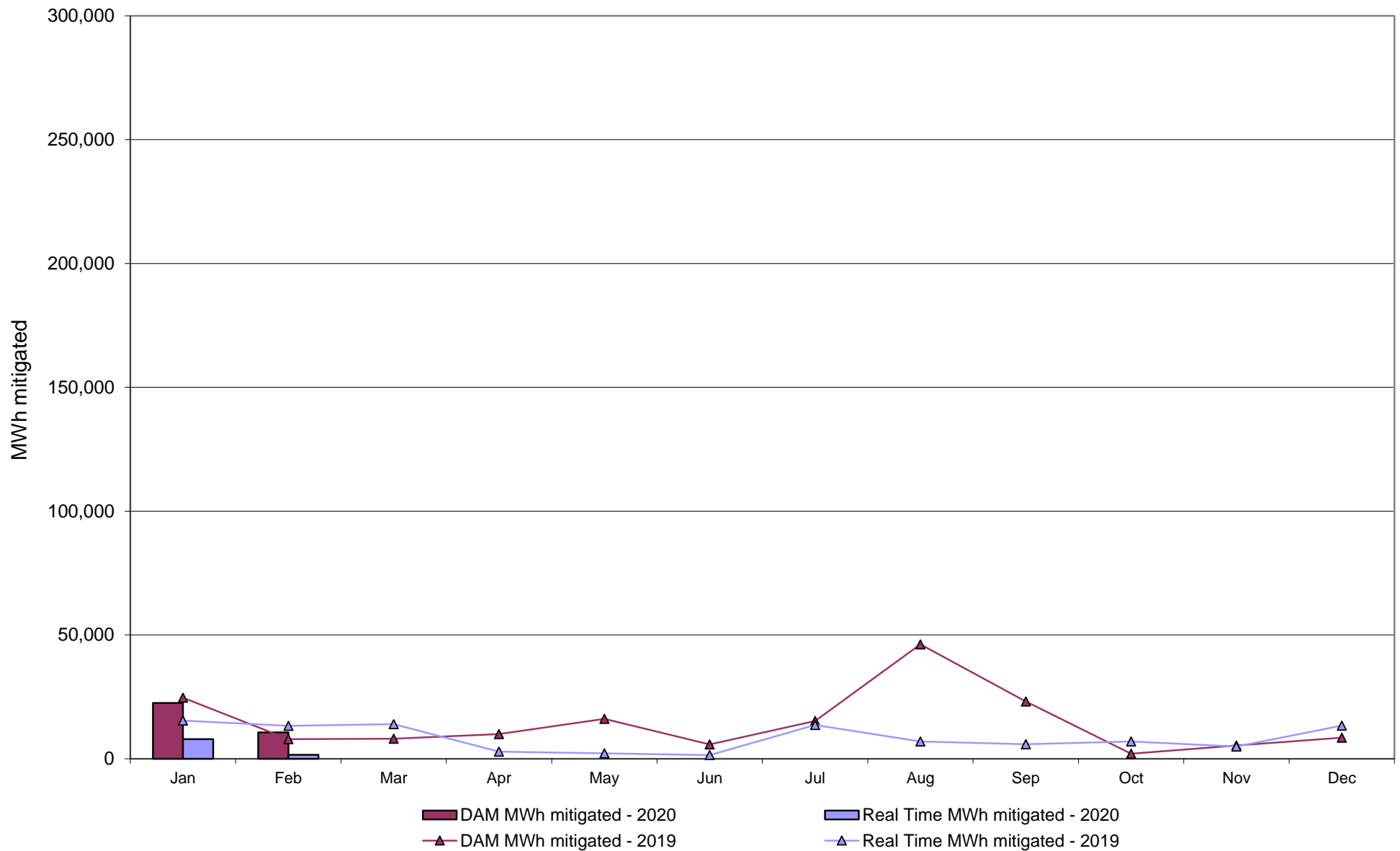
<u>2020</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
<u>Real Time Market</u>												
10 Min Spin Long Island (K)	1.42	0.98										
10 Min Spin NYC (J)	1.42	0.98										
10 Min Spin SENY (GHI)	1.42	0.98										
10 Min Spin East (F)	1.42	0.98										
10 Min Spin West (ABCDE)	1.05	0.81										
10 Min Non Synch Long Island (K)	0.00	0.06										
10 Min Non Synch NYC (J)	0.00	0.06										
10 Min Non Synch SENY (GHI)	0.00	0.06										
10 Min Non Synch East (F)	0.00	0.06										
10 Min Non Synch West (ABCDE)	0.00	0.00										
30 Min Long Island (K)	0.00	0.00										
30 Min NYC (J)	0.00	0.00										
30 Min SENY (GHI)	0.00	0.00										
30 Min East (F)	0.00	0.00										
30 Min West (ABCDE)	0.00	0.00										
Regulation	6.57	6.00										
NYCA Regulation Movement	0.17	0.17										
<u>2019</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)	2.53	2.53	2.24	2.75	1.58	1.17	1.32	1.66	0.63	1.96	1.72	2.77
10 Min Spin NYC (J)	2.53	2.53	2.24	2.75	1.58	1.17	2.03	1.98	0.96	2.54	1.72	2.78
10 Min Spin SENY (GHI)	2.53	2.51	2.24	2.75	1.58	1.17	1.32	1.66	0.63	1.96	1.72	2.77
10 Min Spin East (F)	2.53	2.51	2.24	2.75	1.58	0.98	1.32	1.66	0.63	1.68	1.72	2.77
10 Min Spin West (ABCDE)	1.89	1.57	1.64	1.45	0.85	0.23	0.98	1.24	0.28	0.51	1.25	2.47
10 Min Non Synch Long Island (K)	0.03	0.03	0.48	0.96	0.00	0.33	0.11	0.03	0.01	0.53	0.00	0.03
10 Min Non Synch NYC (J)	0.03	0.03	0.48	0.96	0.00	0.33	0.82	0.35	0.34	1.12	0.00	0.04
10 Min Non Synch SENY (GHI)	0.03	0.18	0.48	0.96	0.00	0.33	0.11	0.03	0.01	0.53	0.00	0.03
10 Min Non Synch East (F)	0.03	0.18	0.48	0.96	0.00	0.15	0.11	0.03	0.01	0.25	0.00	0.03
10 Min Non Synch West (ABCDE)	0.00	0.01	0.09	0.17	0.00	0.02	0.08	0.03	0.00	0.01	0.00	0.00
30 Min Long Island (K)	0.00	0.00	0.03	0.00	0.00	0.13	0.08	0.03	0.00	0.29	0.00	0.00
30 Min NYC (J)	0.00	0.00	0.03	0.00	0.00	0.13	0.38	0.13	0.07	0.44	0.00	0.00
30 Min SENY (GHI)	0.00	0.01	0.03	0.00	0.00	0.13	0.08	0.03	0.00	0.29	0.00	0.00
30 Min East (F)	0.00	0.01	0.03	0.00	0.00	0.02	0.08	0.03	0.00	0.01	0.00	0.00
30 Min West (ABCDE)	0.00	0.01	0.03	0.00	0.00	0.02	0.08	0.03	0.00	0.01	0.00	0.00
Regulation	11.36	7.72	7.23	15.73	7.47	6.11	5.77	6.11	5.86	6.47	7.67	8.40
NYCA Regulation Movement	0.22	0.22	0.20	0.25	0.23	0.17	0.18	0.17	0.16	0.16	0.17	0.18

NYISO In City Energy Mitigation - AMP (NYC Zone) 2019 - 2020

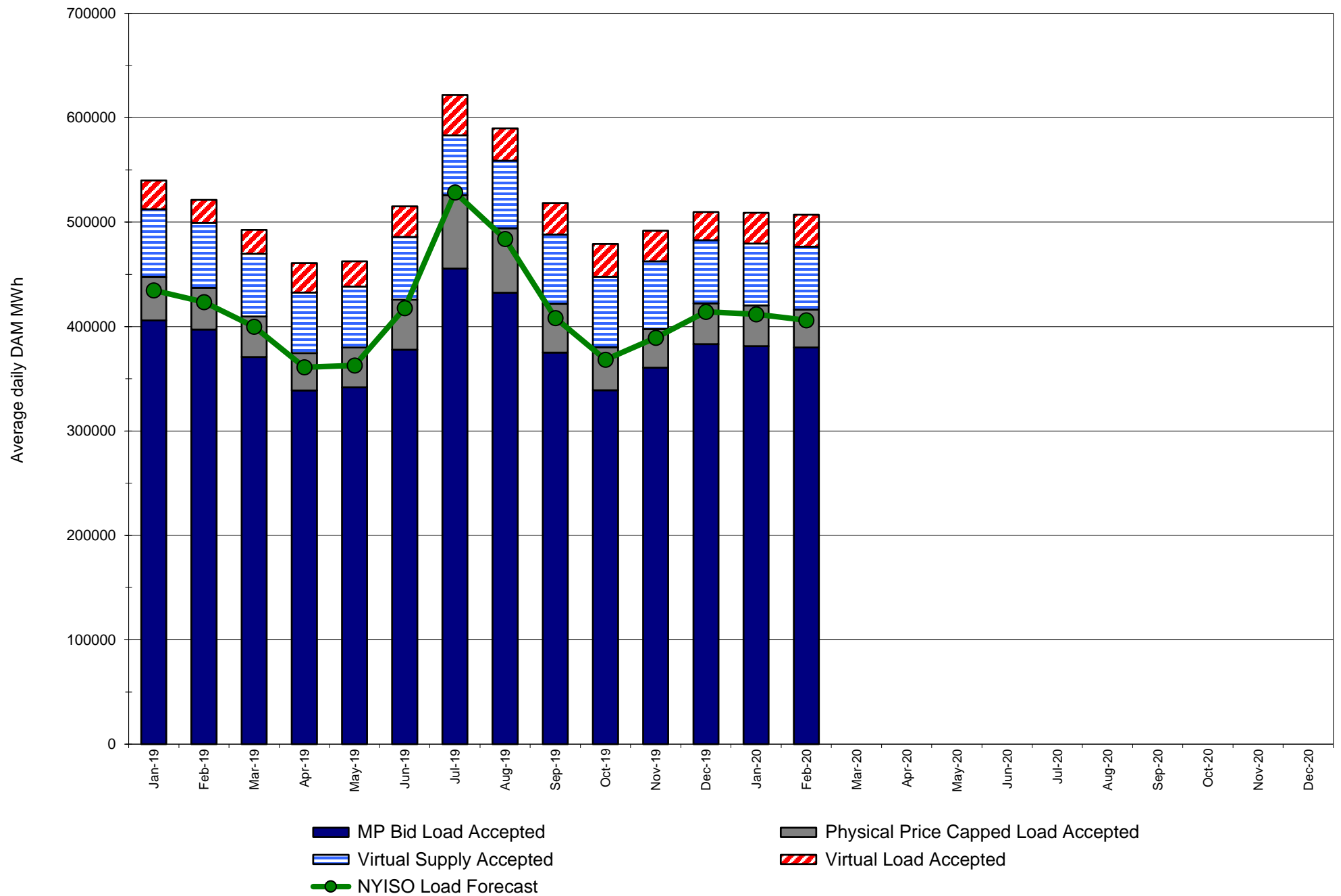
Percentage of committed unit-hours mitigated



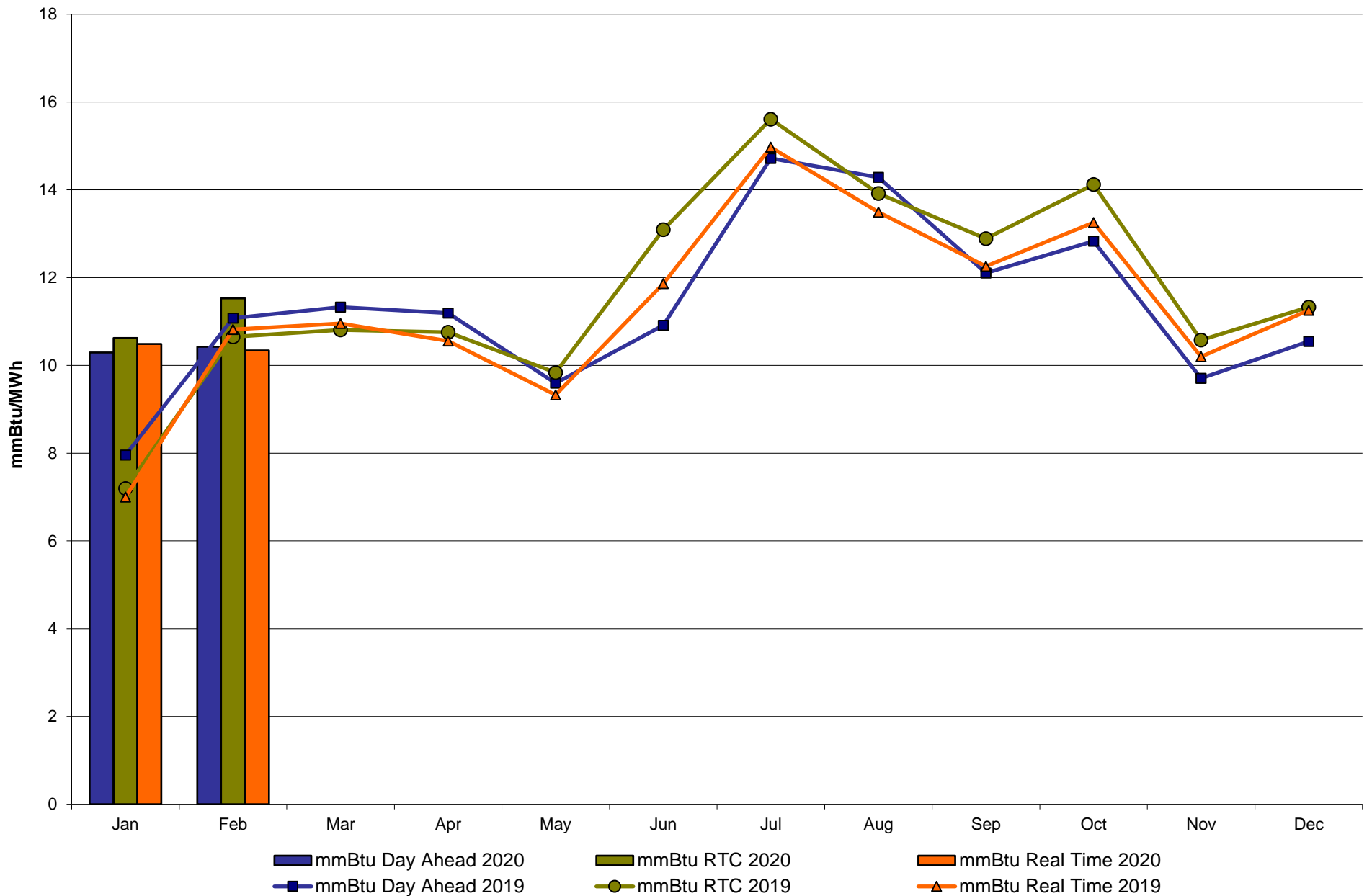
NYISO In City Energy Mitigation (NYC Zone) 2019 - 2020 **Monthly megawatt hours mitigated**



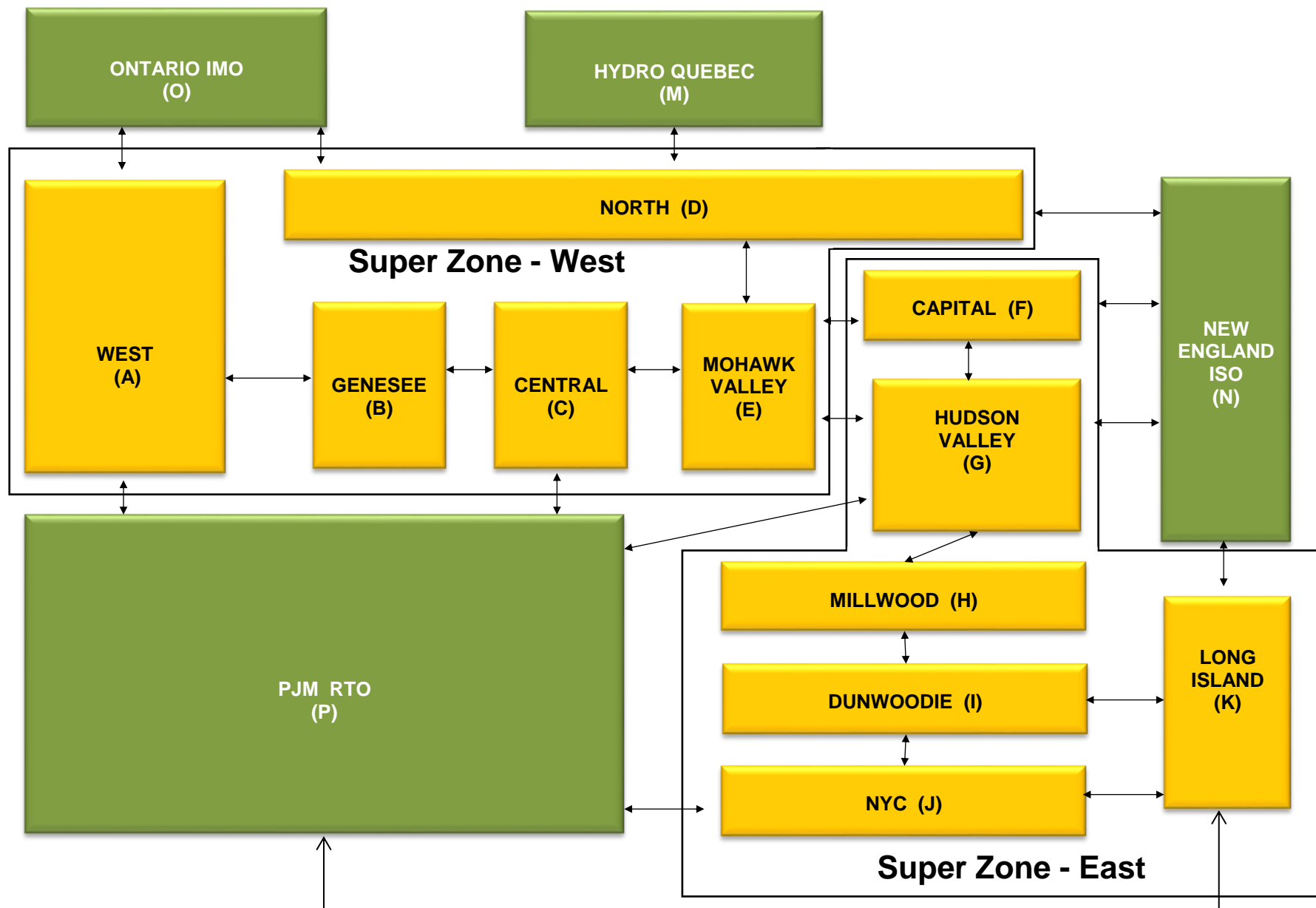
NYISO Average Daily DAM Load Bid Summary



Monthly Implied Heat Rate 2019-2020



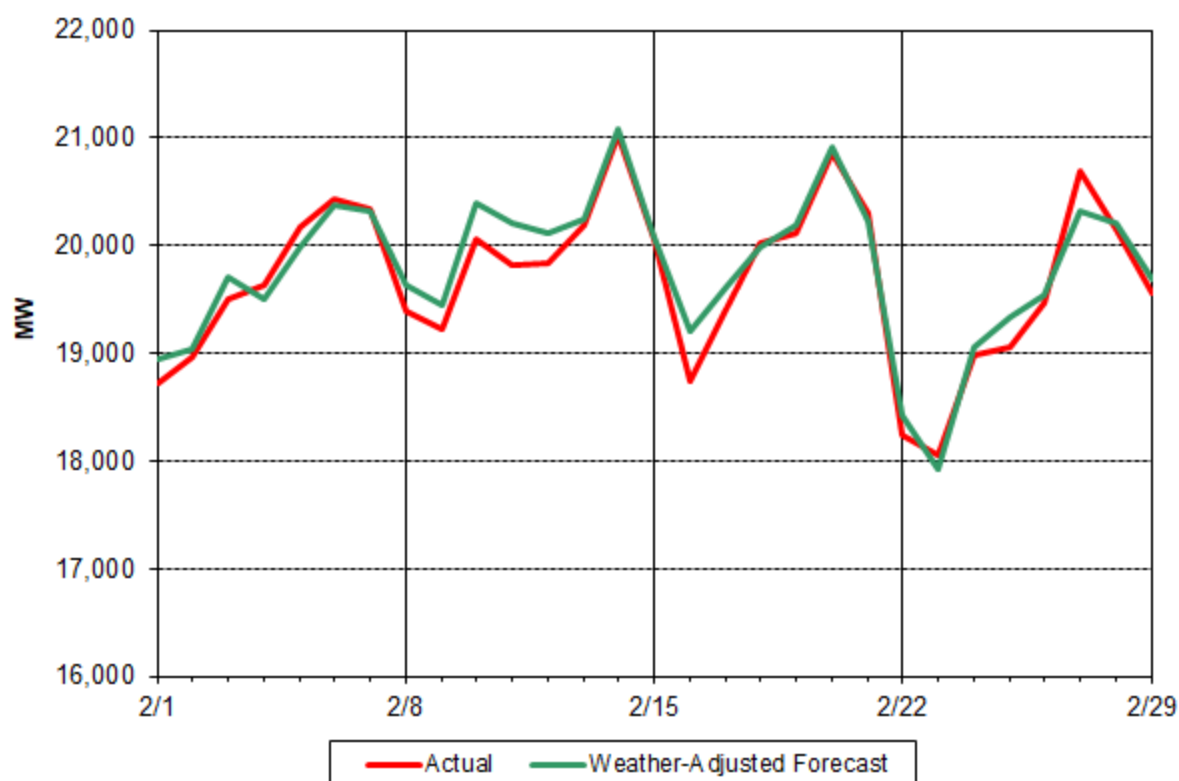
NYISO LBMP ZONES



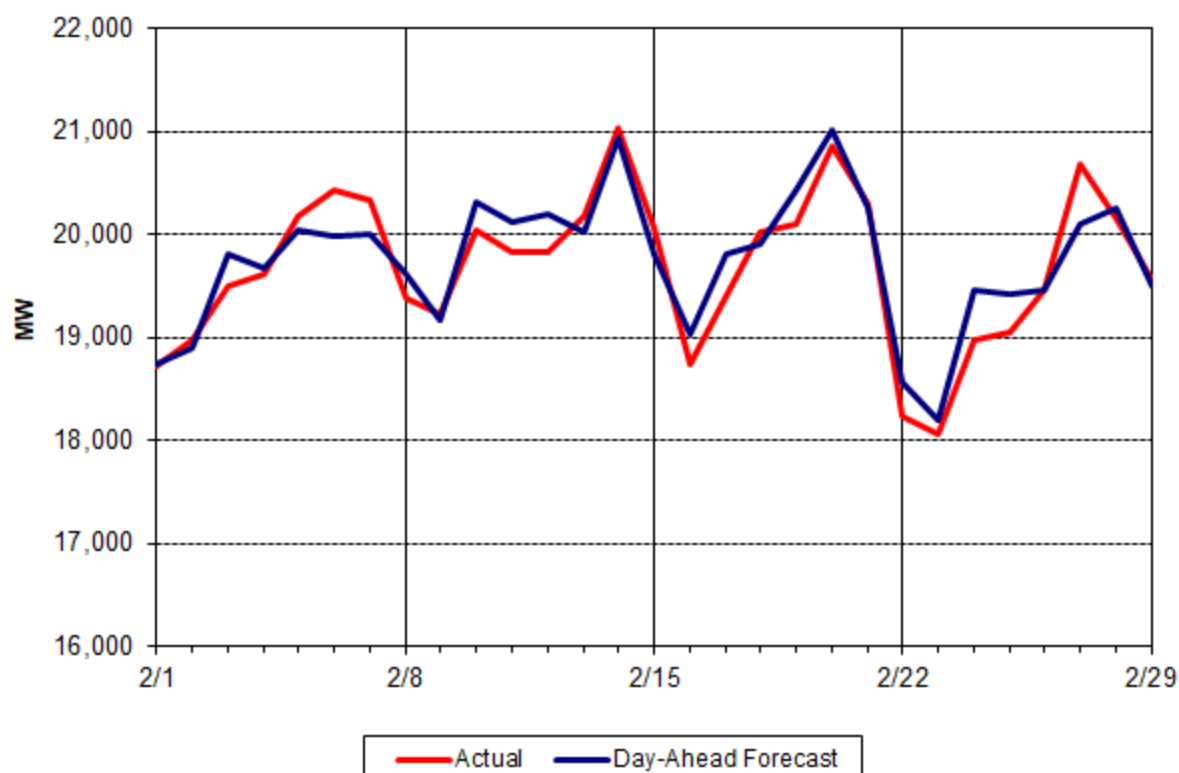
Billing Codes for Chart C

<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

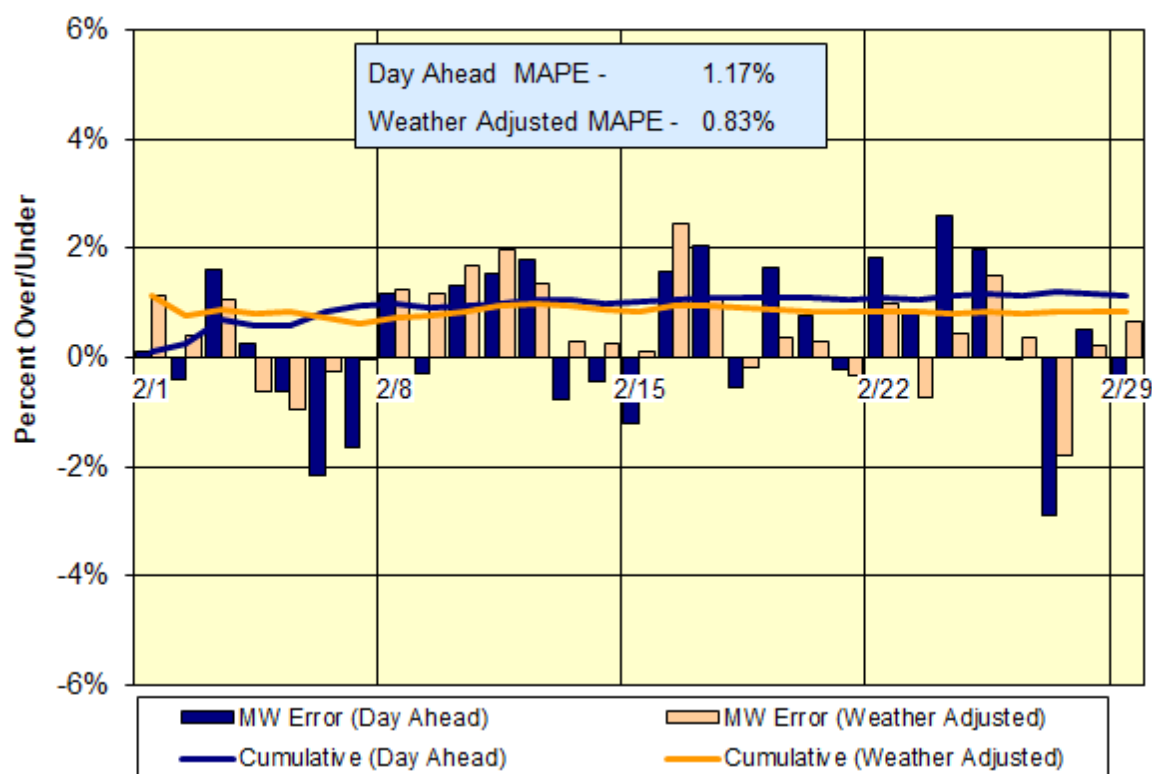
NYISO Daily Peak Load - February 2020
Actual vs. Weather-Adjusted Forecast



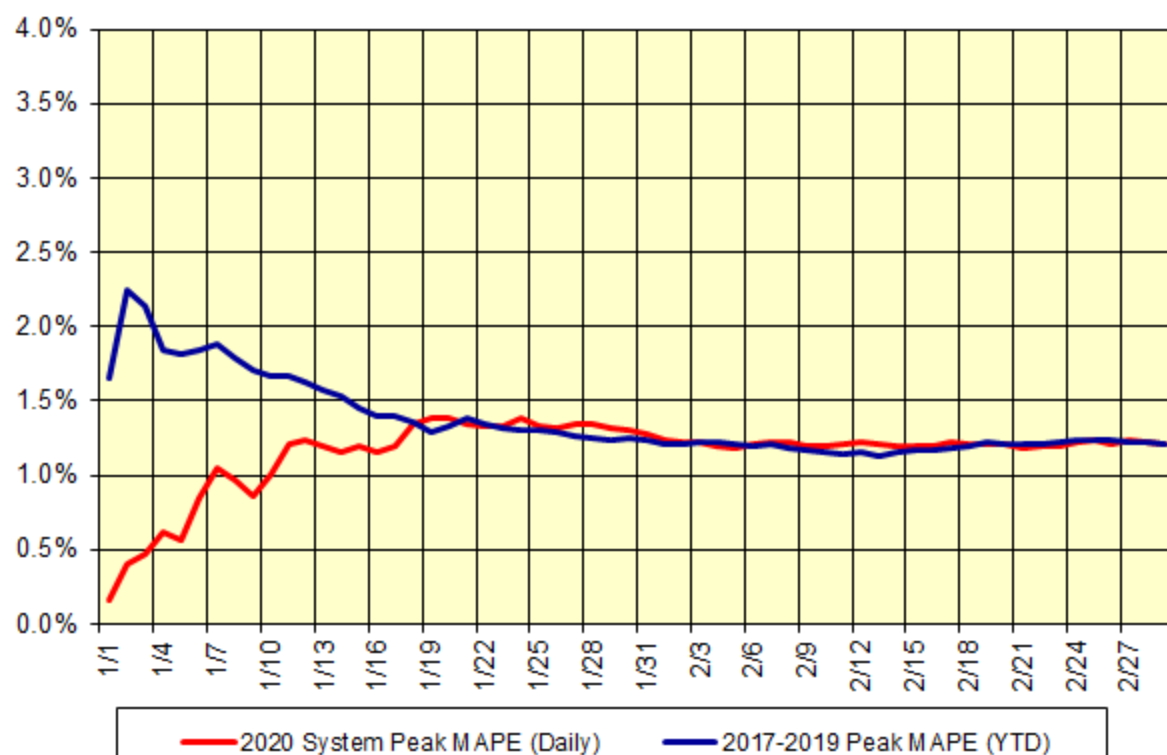
NYISO Daily Peak Load - February 2020
Actual vs. Forecast



Day Ahead Peak Forecast - February 2020 Percent Error - Actual & Weather-Adjusted



Day-Ahead Forecast Accuracy - Cumulative Performance 2020 Year-to-Date



**Summary Description of Regulatory Filings, Investigations,
Rulemakings and Related Orders in NYISO Matters – February 2020**

Filing Date	Filing Summary	Docket	Order Date	Order Summary
04/13/2016	NYISO compliance filing re: revisions to the buyer-side market mitigation rules	ER16-1404-000	02/20/2020	Order accepted in part, subject to condition, and denied in part the compliance filing subject to a further compliance filing to be filed within 30 days
02/17/2017	NYISO compliance filing re: exempt new Special Case Resources from the buyer-side market power mitigation rules	ER17-996-000	02/20/2020	Order dismissed as moot NYISO's 02/17/2017 compliance filing and initiated a paper hearing to gather information on the retail level demand side response programs listed in the complaint
03/13/2017	NYISO request for clarification of 02/03/2017 order re: statement concerning mitigation redeterminations and implications on the retesting provisions of the buyer-side market power mitigation rules	EL16-92-001		
05/22/2019	NYISO compliance filing re: Directives in Order 845 and Order 845-A to revise its Large Facility Interconnection Procedures and Large Generator Interconnection Agreement	ER19-1949-000	02/20/2020	Order accepted compliance filing effective 04/20/20, as requested and directed a further compliance filing to be filed within 60 days of the date of the order
07/29/2019	NYSPSC and NYSERDA filing re: complaint v. NYISO concerning application of the buyer-side market power mitigation rules to electric storage resources	EL19-86-000	02/20/2020	Order denied the complaint
08/19/2019	NYISO filing re: answer to the complaint			
12/13/2019	NYISO 205 filing on behalf of Niagara Mohawk Power Corporation re: a Cost Reimbursement Agreement (SA 2499) between Niagara Mohawk and Northbrook Lyons Falls LLC	ER20-590-000	02/10/2020	Order accepted agreement effective 11/15/2019, as requested
12/17/2019	NYISO 205 tariff filing re: cost containment in the public policy transmission planning process	ER20-617-000	02/14/2020	Order accepted revisions effective 02/16/2020, as requested
12/20/2019	NYISO compliance filing re: response to the 04/18/2019 order concerning fast-start resources	ER20-659-000	02/06/2020	Order accepted revisions subject to a compliance filing providing a two-week notice of the proposed effective date
12/23/2019	NYISO 205 filing on behalf of Niagara Mohawk Power Corporation ("Niagara Mohawk") re: large generator interconnection agreement (SA 2500) between Niagara Mohawk and Covanta Niagara I, LLC	ER20-671-000	02/20/2020	Order accepted agreement effective 11/26/2019, as requested
12/31/2019	NYISO filing on behalf of Central Hudson Gas and Electric Corporation re: Highway Facilities Charge for the Hurley Avenue System Deliverability Upgrade	ER20-715-000	02/25/2020	Deficiency letter requesting additional information from Central Hudson

01/07/2020	NYISO 205 filing on behalf of New York State Electric & Gas Corporation ("NYSEG") re: Engineering & Procurement Agreement (SA 2501) between NYSEG and Canisteo Wind Energy LLC	ER20-742-000	02/25/2020	Order accepted agreement effective 12/31/2019 as requested
02/07/2020	NYISO supplement filing re: 12/20/2019 205 filing of enhancements to the existing Competitive Entry Exemption	ER20-663-001		
02/13/2020	NYISO 205 filing re: update the name of the proxy generator bus that represents the Ontario Control Area	ER20-994-000		
02/14/2020	NYISO request for extension of effective date re: Energy Storage Resource tariff revisions	ER19-467-000		
02/14/2020	NYISO post workshop comments re: grid enhancing technologies	AD19-19-000		
02/18/2020	NYISO compliance filing re: energy storage resources	ER19-467-004		
02/19/2020	NYISO filing on behalf of Consolidated Edison Company of New York, Inc. ("Con Edison") re: amended interconnection agreement (SA 1162) between Con Edison and the Port Authority of New York and New Jersey	ER20-1034-000		
02/21/2020	NYISO 205 filing re: revisions to the ICAP demand curve annual update procedures	ER20-1049-000		
02/24/2020	NYISO informational filing re: 2019-2020 New Capacity Zone Study Report	ER20-1063-000		
02/24/2020	NYISO compliance filing re: distributed energy resources	ER19-2276-003		
02/27/2020	NYISO 205 filing re: change the RMR deactivation process to the short term reliability planning process	ER20-1105-000		
02/27/2020	NYISO and NYSEG Joint 205 filing re: Large Generator Interconnection Agreement (SA 2487) between NYISO, NYSEG and Baron Winds, LLC	ER20-1100-000		
02/28/2020	NYISO confidential filing to the NYSPSC re: quarterly reliability project tracking report	PSC Matter No. 10-02007		