



Market Operations Report

Rana Mukerji

SENIOR VICE PRESIDENT – MARKET STRUCTURES, NYISO

Business Issues Committee Meeting:

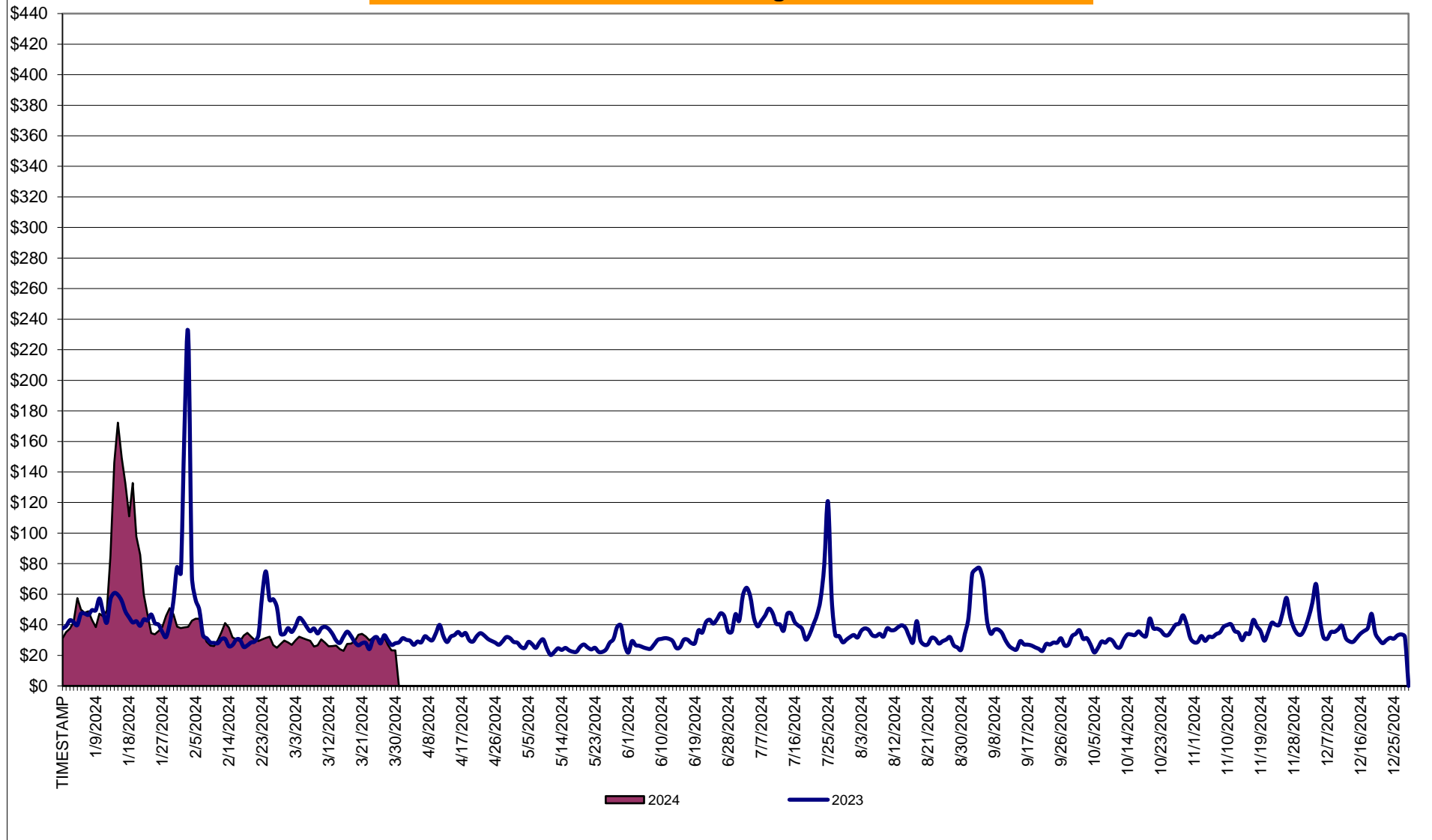
April 10, 2024, Rensselaer, NY

Market Performance Highlights

March 2024

- LBMP for March is \$26.47/MWh; lower than the \$31.33/MWh in February 2024 and lower than \$31.11/MWh in March 2023.
 - Day Ahead Load Weighted LBMPs and Real Time Load Weighted LBMPs are lower compared to February.
- March 2024 average year-to-date monthly cost of \$45.52/MWh is a 2.4% decrease from \$46.65/MWh in March 2023.
- Average daily send-out is 376 GWh/day in March; lower than 409 GWh/day in February 2024 and lower than 387 GWh/day in March 2023.
- Natural gas prices are lower compared to the previous month. Distillate prices are lower compared to the previous month.
 - Natural Gas (Transco Z6 NY) was \$1.46/MMBtu, down from \$1.71/MMBtu in February.
 - Natural gas prices (Transco Z6 NY) are down 14.6% year-over-year.
 - Jet Kerosene Gulf Coast was \$19.18/MMBtu, down from \$19.92/MMBtu in February.
 - Jet Kerosene Gulf Coast prices are down 3.7% from last year.
 - Ultra Low Sulfur No.2 Diesel NY Harbor was \$19.09/MMBtu, down from \$19.84/MMBtu in February.
 - Distillate prices are down 3.8% year-over-year.
- Uplift per MWh is higher compared to the previous month.
 - Uplift (not including NYISO cost of operations) is (\$0.17)/MWh; higher than (\$0.27)/MWh in February.
 - Local Reliability Share is \$0.08/MWh, same as \$0.08/MWh in February.
 - Statewide Share is (\$0.25)/MWh, higher than (\$0.35)/MWh in February.
 - TSA \$ per NYC MWh is \$0.00/MWh.
 - Total uplift costs (Schedule 1 components including NYISO Cost of Operations) are higher than February.

Daily NYISO Average Cost/MWh (Energy & Ancillary Services)*
2023 Annual Average \$39.12/MWh
March 2023 YTD Average \$46.65/MWh
March 2024 YTD Average \$45.52/MWh



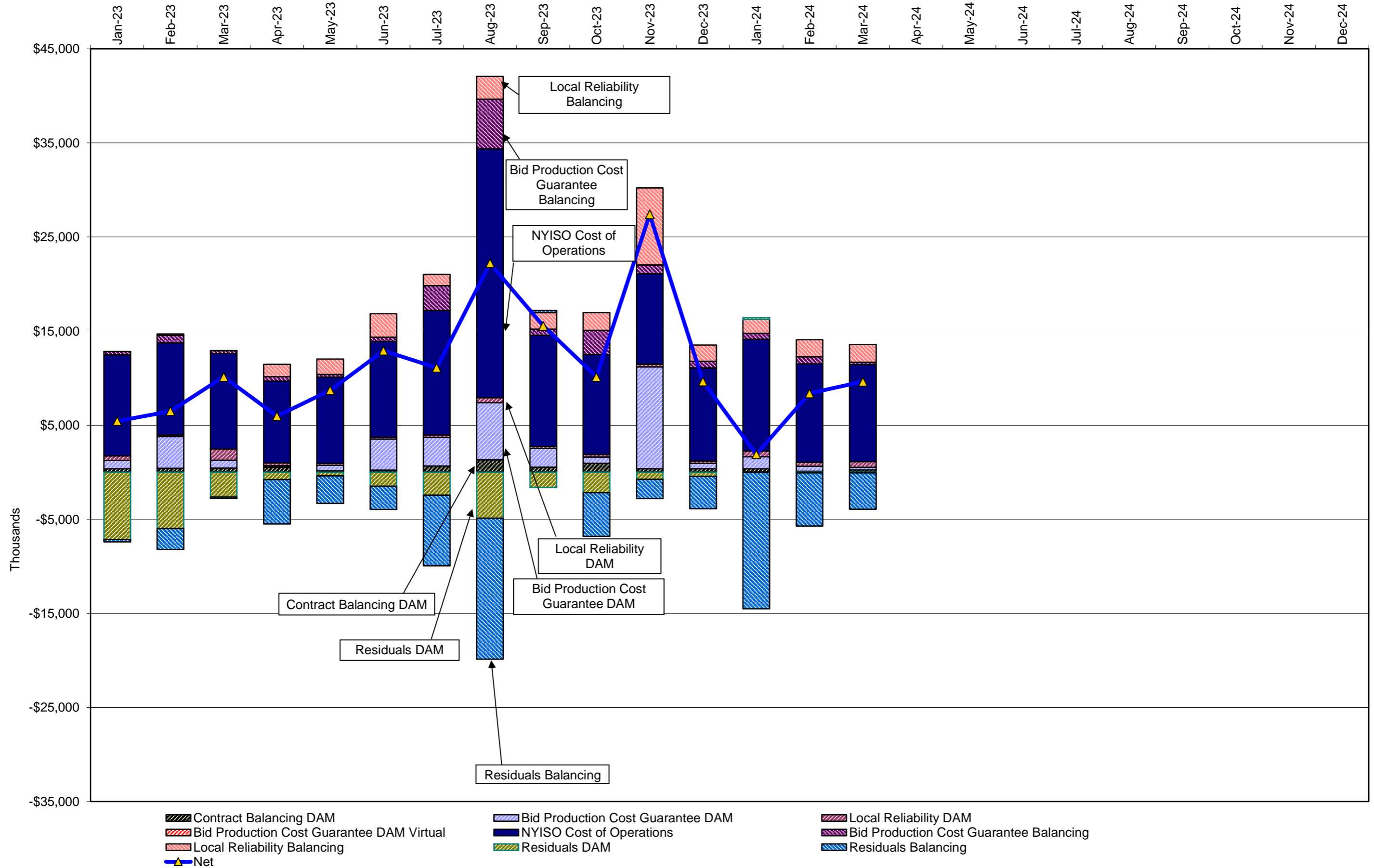
* Excludes ICAP payments.

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

2024	<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	65.76	31.33	26.47									
NTAC	1.48	1.29	1.13									
Reserve	0.78	0.54	0.56									
Regulation	0.12	0.09	0.09									
NYISO Cost of Operations	0.80	0.78	0.81									
FERC Fee Recovery	0.07	0.08	0.08									
Uplift	(0.76)	(0.27)	(0.17)									
Uplift: Local Reliability Share	0.04	0.08	0.08									
Uplift: Statewide Share	(0.80)	(0.35)	(0.25)									
Voltage Support and Black Start	0.47	0.47	0.49									
Avg Monthly Cost	68.68	34.25	29.41									
Avg YTD Cost	68.75	52.70	45.52									
TSA \$ per NYC MWh	0.00	0.07	0.00									
2023	<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	42.10	55.47	31.11	28.07	23.13	29.85	45.70	29.95	36.92	28.10	34.90	33.67
NTAC	2.82	1.15	1.39	1.72	1.38	1.62	1.79	1.74	1.19	1.43	1.36	1.58
Reserve	0.72	0.90	0.73	0.85	0.81	0.69	0.76	0.56	0.50	0.77	0.66	0.59
Regulation	0.09	0.13	0.13	0.15	0.12	0.10	0.10	0.09	0.08	0.18	0.11	0.10
NYISO Cost of Operations	0.77	0.77	0.77	0.78	0.78	0.78	0.80	0.80	0.80	0.79	0.76	0.78
FERC Fee Recovery	0.08	0.09	0.09	0.10	0.10	0.09	0.06	0.07	0.08	0.09	0.08	0.08
Uplift	(0.38)	(0.27)	(0.00)	(0.34)	(0.13)	0.09	(0.43)	0.16	(0.58)	1.35	(0.11)	(0.03)
Uplift: Local Reliability Share	0.03	0.03	0.09	0.04	0.07	0.35	0.20	0.19	0.11	1.44	0.08	0.03
Uplift: Statewide Share	(0.41)	(0.30)	(0.10)	(0.38)	(0.20)	(0.26)	(0.62)	(0.03)	(0.68)	(0.09)	(0.19)	(0.06)
Voltage Support and Black Start	0.42	0.42	0.43	0.43	0.43	0.43	0.44	0.44	0.44	0.44	0.42	0.43
Avg Monthly Cost	46.56	58.58	34.58	31.67	26.55	33.60	49.17	33.76	39.38	33.07	38.13	37.14
Avg YTD Cost	46.64	52.36	46.65	43.45	40.45	39.27	41.18	40.13	40.06	39.44	39.32	39.12
TSA \$ per NYC MWh	0.00	0.00	0.00	0.00	0.00	0.08	0.74	0.07	1.27	0.00	0.00	0.00

* Excludes ICAP payments.
Market Mitigation and Analysis
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NYISO Dollar Flows - Uplift - OATT Schedule 1 components - Data through March 31, 2024



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

2024	<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>
Day Ahead Market MWh	14,664,418	13,164,226	12,775,923									
DAM LSE Internal LBMP Energy Sales	55%	55%	57%									
DAM External TC LBMP Energy Sales	9%	10%	8%									
DAM Bilateral - Internal Bilaterals	26%	27%	27%									
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	6%									
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%									
DAM Bilateral - Wheel Through Bilaterals	2%	2%	2%									
Balancing Energy Market MWh	454,835	220,147	205,332									
Balancing Energy LSE Internal LBMP Energy Sales	76%	105%	71%									
Balancing Energy External TC LBMP Energy Sales	63%	91%	121%									
Balancing Energy Bilateral - Internal Bilaterals	0%	0%	0%									
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%									
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	6%	4%	4%									
Balancing Energy Bilateral - Wheel Through Bilaterals	-44%	-101%	-95%									
Transactions Summary												
LBMP	67%	66%	66%									
Internal Bilaterals	26%	26%	26%									
Import Bilaterals	5%	5%	6%									
Export Bilaterals	2%	2%	2%									
Wheels Through	1%	0%	0%									
Market Share of Total Load												
Day Ahead Market	97.0%	98.4%	98.4%									
Balancing Energy †	3.0%	1.6%	1.6%									
Total MWh	15,119,254	13,384,373	12,981,254									
Average Daily Energy Sendout/Month GWh	434	409	376									

2023	<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>
Day Ahead Market MWh	13,662,137	12,355,489	12,651,083	11,058,870	11,601,426	12,934,709	16,199,282	14,407,179	12,745,161	11,638,707	12,376,575	13,838,467
DAM LSE Internal LBMP Energy Sales	55%	55%	56%	55%	55%	57%	63%	62%	63%	58%	57%	55%
DAM External TC LBMP Energy Sales	7%	7%	4%	4%	4%	6%	4%	3%	4%	3%	7%	9%
DAM Bilateral - Internal Bilaterals	28%	29%	30%	30%	31%	29%	25%	28%	27%	30%	29%	27%
DAM Bilateral - Import/Non-LBMP Market Bilaterals	5%	5%	6%	6%	6%	6%	5%	4%	4%	5%	3%	5%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	2%	2%	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%
DAM Bilateral - Wheel Through Bilaterals	3%	2%	2%	2%	2%	2%	2%	1%	2%	2%	1%	2%
Balancing Energy Market MWh	328,840	397,488	420,170	303,381	-77,279	-40,037	235,270	217,374	455,261	491,286	437,159	220,832
Balancing Energy LSE Internal LBMP Energy Sales	65%	38%	53%	43%	-157%	37%	118%	79%	98%	79%	62%	68%
Balancing Energy External TC LBMP Energy Sales	68%	68%	58%	69%	223%	143%	47%	72%	19%	38%	48%	92%
Balancing Energy Bilateral - Internal Bilaterals	2%	1%	2%	-1%	-5%	28%	5%	8%	2%	-1%	2%	0%
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	7%	6%	6%	5%	10%	18%	5%	5%	2%	3%	5%	7%
Balancing Energy Bilateral - Wheel Through Bilaterals	-43%	-13%	-18%	-16%	-178%	-326%	-75%	-64%	-21%	-19%	-17%	-67%
Transactions Summary												
LBMP	63%	63%	62%	61%	60%	63%	69%	67%	68%	64%	66%	66%
Internal Bilaterals	28%	28%	29%	29%	31%	29%	25%	27%	26%	28%	28%	27%
Import Bilaterals	5%	5%	6%	6%	6%	6%	4%	4%	4%	4%	3%	5%
Export Bilaterals	2%	2%	2%	3%	2%	2%	1%	2%	2%	2%	2%	2%
Wheels Through	2%	1%	1%	2%	1%	0%	0%	0%	1%	1%	0%	1%
Market Share of Total Load												
Day Ahead Market	97.6%	96.9%	96.8%	97.3%	100.7%	100.3%	98.6%	98.5%	96.6%	95.9%	96.6%	98.4%
Balancing Energy †	2.4%	3.1%	3.2%	2.7%	-0.7%	-0.3%	1.4%	1.5%	3.4%	4.1%	3.4%	1.6%
Total MWh	13,990,977	12,752,977	13,071,253	11,362,252	11,524,147	12,894,671	16,434,552	14,624,553	13,200,422	12,129,993	12,813,735	14,059,300
Average Daily Energy Sendout/Month GWh	410	408	387	349	350	401	503	450	419	367	387	403

† 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 2024 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 *	\$63.42	\$29.93	\$25.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Standard Deviation	\$42.45	\$7.19	\$5.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Load Weighted Price **	\$65.99	\$30.38	\$25.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<u>RTC LBMP</u>												
Price *	\$55.97	\$29.86	\$25.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Standard Deviation	\$31.73	\$9.66	\$7.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Load Weighted Price **	\$58.02	\$30.33	\$25.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<u>REAL TIME LBMP</u>												
Price *	\$55.96	\$30.31	\$25.93	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Standard Deviation	\$33.50	\$12.46	\$13.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Load Weighted Price **	\$58.28	\$30.89	\$26.57	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Average Daily Energy Sendout/Month GWh	434	409	376	0	0	0	0	0	0	0	0	0

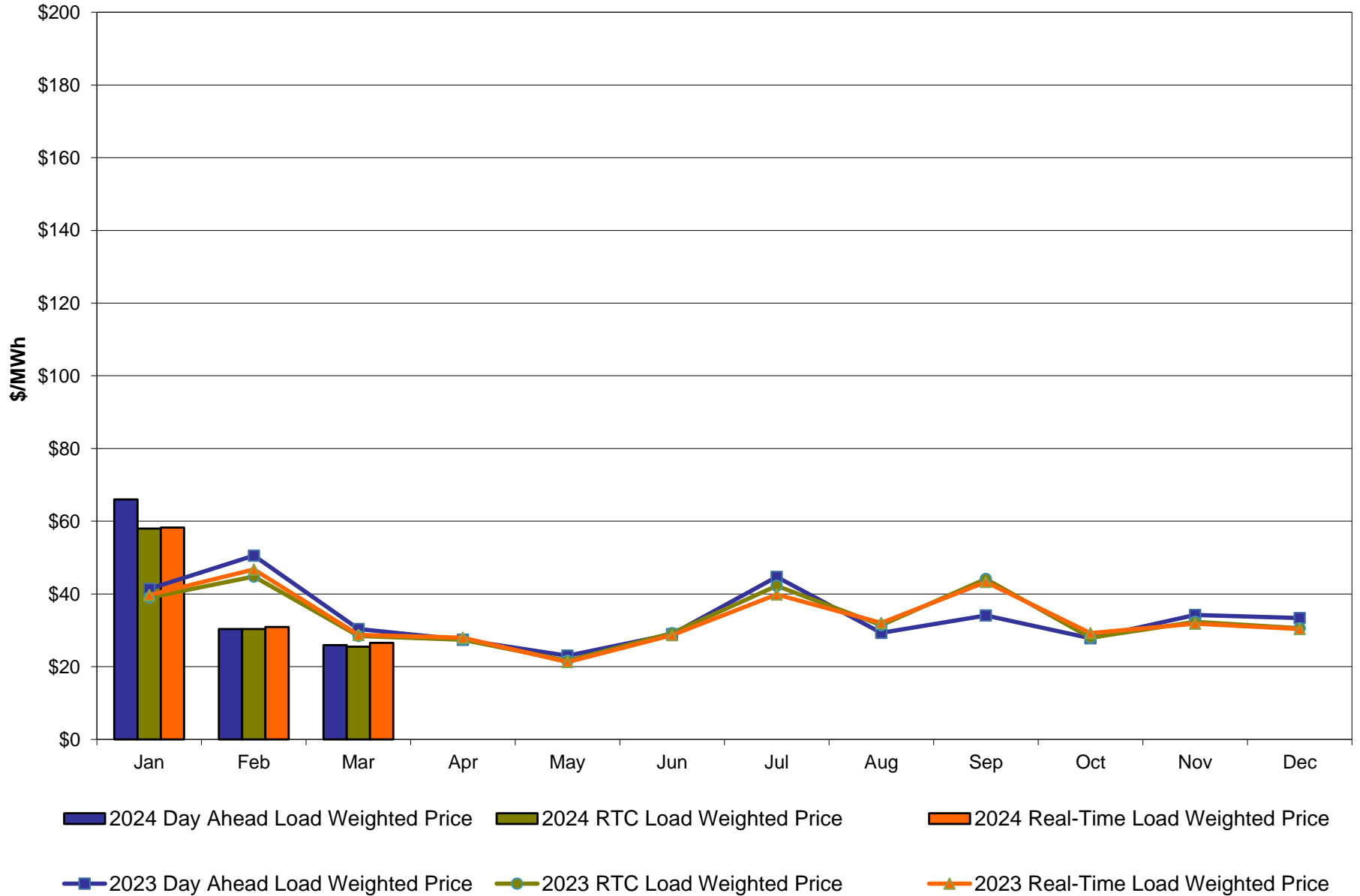
NYISO Markets 2023 Energy Statistics

	<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 *	\$40.60	\$47.82	\$29.84	\$26.91	\$22.41	\$27.67	\$41.75	\$28.18	\$30.79	\$27.05	\$33.40	\$32.56
Standard Deviation	\$10.32	\$47.20	\$7.42	\$6.50	\$6.46	\$9.25	\$24.21	\$8.54	\$17.49	\$8.78	\$9.83	\$10.10
Load Weighted Price **	\$41.37	\$50.55	\$30.37	\$27.38	\$23.02	\$28.99	\$44.71	\$29.28	\$34.09	\$27.86	\$34.23	\$33.39
<u>RTC LBMP</u>												
Price *	\$38.28	\$42.67	\$28.02	\$26.93	\$21.13	\$27.94	\$40.11	\$30.37	\$37.36	\$27.23	\$31.67	\$29.95
Standard Deviation	\$31.37	\$39.75	\$11.53	\$9.23	\$7.61	\$12.06	\$25.96	\$12.80	\$48.96	\$10.57	\$14.33	\$8.66
Load Weighted Price **	\$39.04	\$44.80	\$28.49	\$27.39	\$21.62	\$29.24	\$42.24	\$31.41	\$44.14	\$27.97	\$32.35	\$30.57
<u>REAL TIME LBMP</u>												
Price *	\$38.76	\$43.99	\$28.15	\$27.41	\$20.76	\$27.44	\$37.88	\$30.75	\$36.50	\$28.44	\$31.19	\$29.67
Standard Deviation	\$45.06	\$43.54	\$15.02	\$13.08	\$9.13	\$12.38	\$23.42	\$21.44	\$52.32	\$23.62	\$13.67	\$9.50
Load Weighted Price **	\$39.68	\$46.75	\$28.72	\$27.97	\$21.27	\$28.66	\$39.88	\$32.06	\$43.32	\$29.27	\$31.87	\$30.33
Average Daily Energy Sendout/Month GWh	410	408	387	349	350	401	503	450	419	367	387	403

* Average zonal load weighted prices.

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

NYISO Monthly Average Internal LBMPs 2023 - 2024

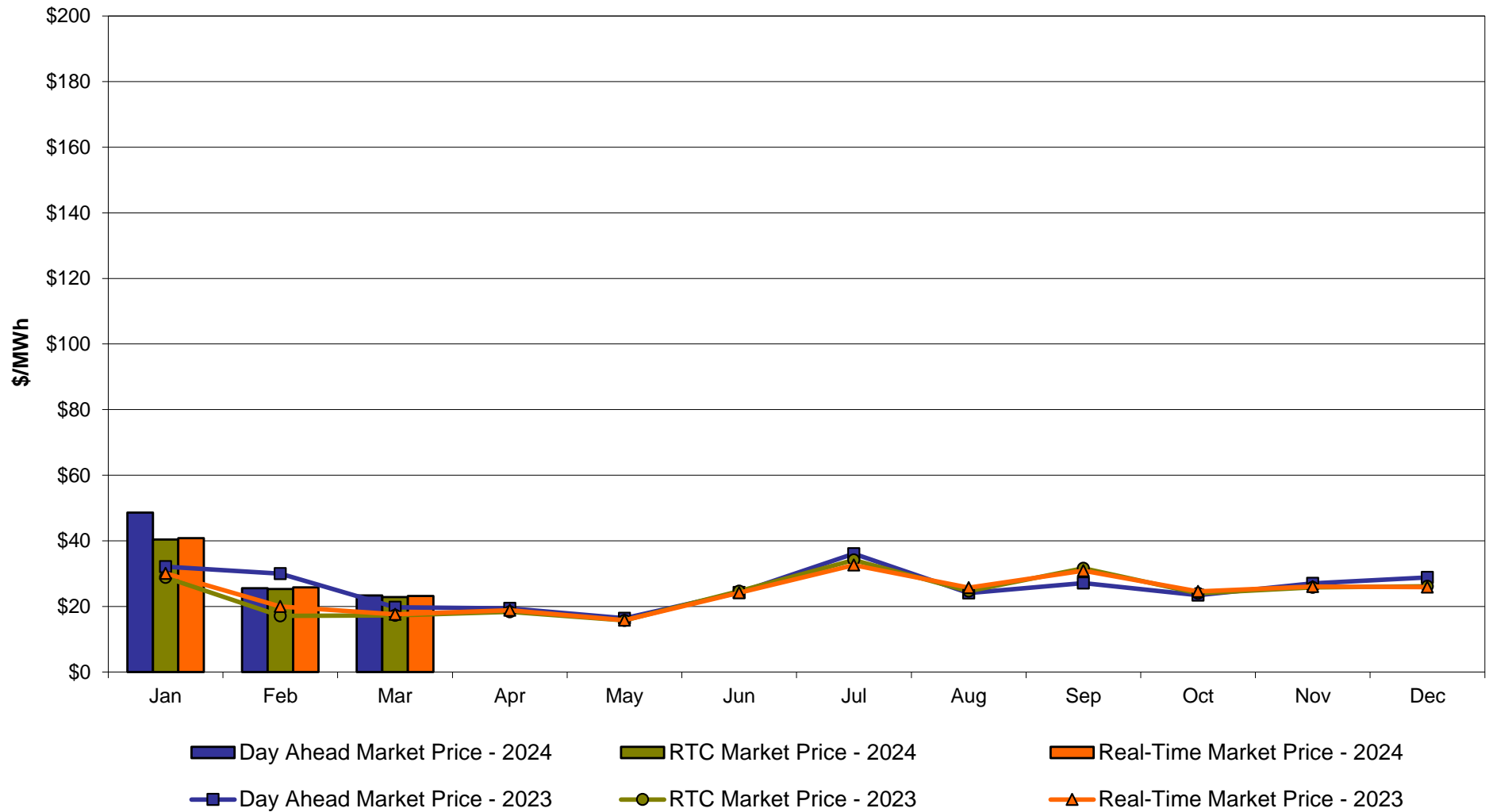


March 2024 Zonal LBMP Statistics for NYISO (\$/MWh)

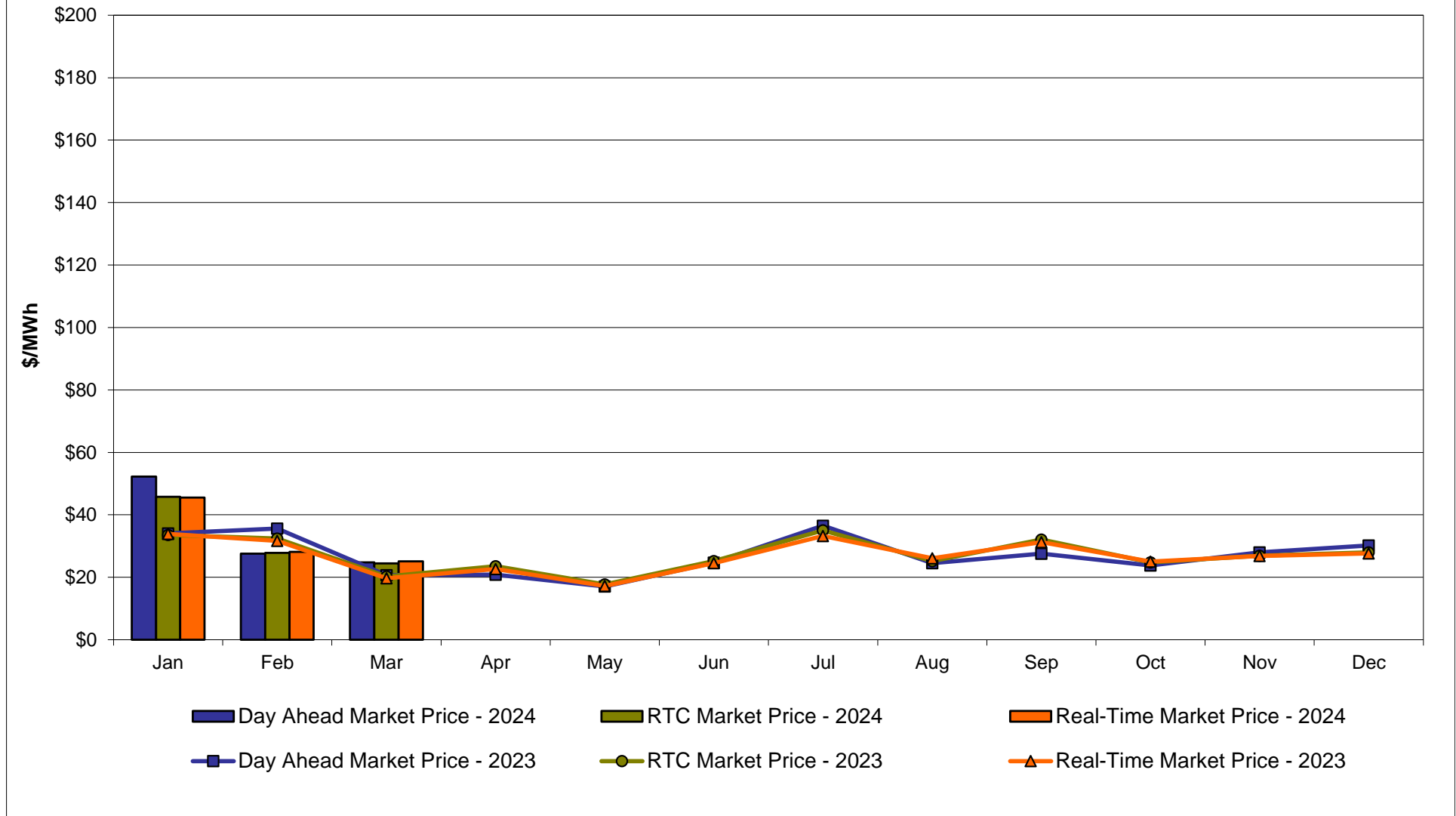
	<u>WEST Zone A</u>	<u>GENESEE Zone B</u>	<u>NORTH Zone D</u>	<u>CENTRAL Zone C</u>	<u>MOHAWK VALLEY Zone E</u>	<u>CAPITAL Zone F</u>	<u>HUDSON VALLEY Zone G</u>	<u>MILLWOOD Zone H</u>	<u>DUNWOODIE Zone I</u>	<u>NEW YORK CITY Zone J</u>	<u>LONG ISLAND Zone K</u>
<u>DAY AHEAD LBMP</u>											
Unweighted Price *	23.38	23.65	24.21	24.78	25.52	25.61	25.78	25.92	26.04	26.21	26.97
Standard Deviation	4.96	5.14	5.43	5.48	5.73	5.77	5.87	5.92	5.95	6.02	6.38
<u>RTC LBMP</u>											
Unweighted Price *	22.82	22.31	23.72	24.44	25.17	25.40	25.58	25.67	25.74	25.89	26.59
Standard Deviation	6.91	28.04	7.82	7.57	7.46	7.65	7.64	7.53	7.54	7.59	8.54
<u>REAL TIME LBMP</u>											
Unweighted Price *	23.22	22.77	24.24	25.09	25.80	25.92	26.35	26.45	26.52	27.22	27.41
Standard Deviation	11.76	32.17	12.45	12.52	12.64	12.72	12.89	13.01	13.04	18.44	14.41
	<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 *	22.75	24.55	24.55	24.65	25.37	26.85	26.50	26.60	25.80	26.02	24.54
Standard Deviation	4.72	5.29	5.29	5.38	5.65	6.35	6.12	6.22	5.71	5.89	5.30
<u>RTC LBMP</u>											
Unweighted Price *	22.20	24.54	24.54	23.95	24.76	25.79	25.59	25.76	25.49	25.70	24.61
Standard Deviation	6.70	7.08	7.08	8.88	7.53	7.87	7.94	7.59	7.41	7.53	7.17
<u>REAL TIME LBMP</u>											
Unweighted Price *	21.95	25.15	25.15	24.38	24.48	26.43	25.62	26.46	26.73	27.06	25.25
Standard Deviation	11.81	12.06	12.06	13.87	18.58	13.09	14.78	12.95	18.25	18.61	12.15

* Straight LBMP averages

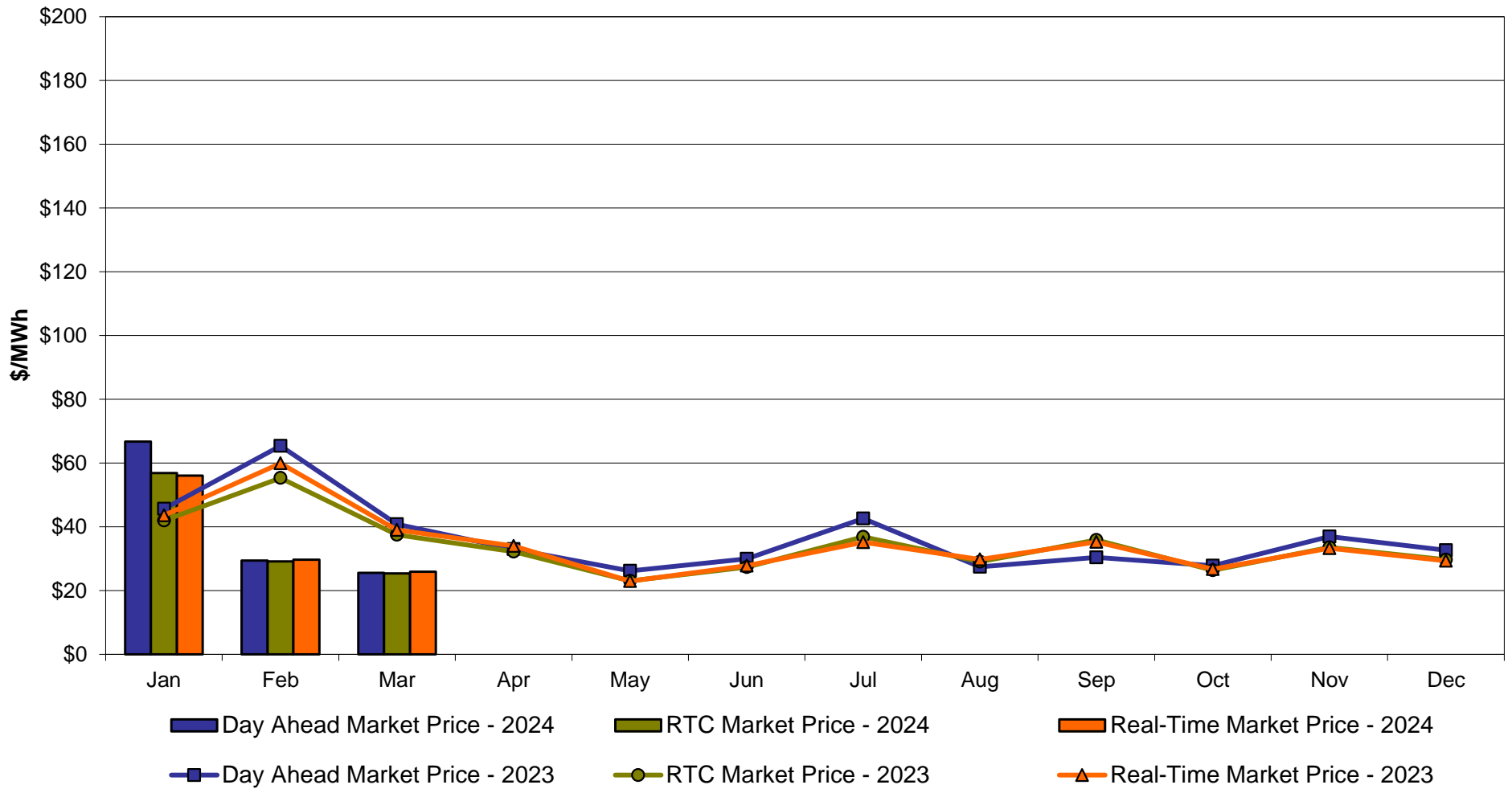
West Zone A Monthly Average LBMP Prices 2023 - 2024



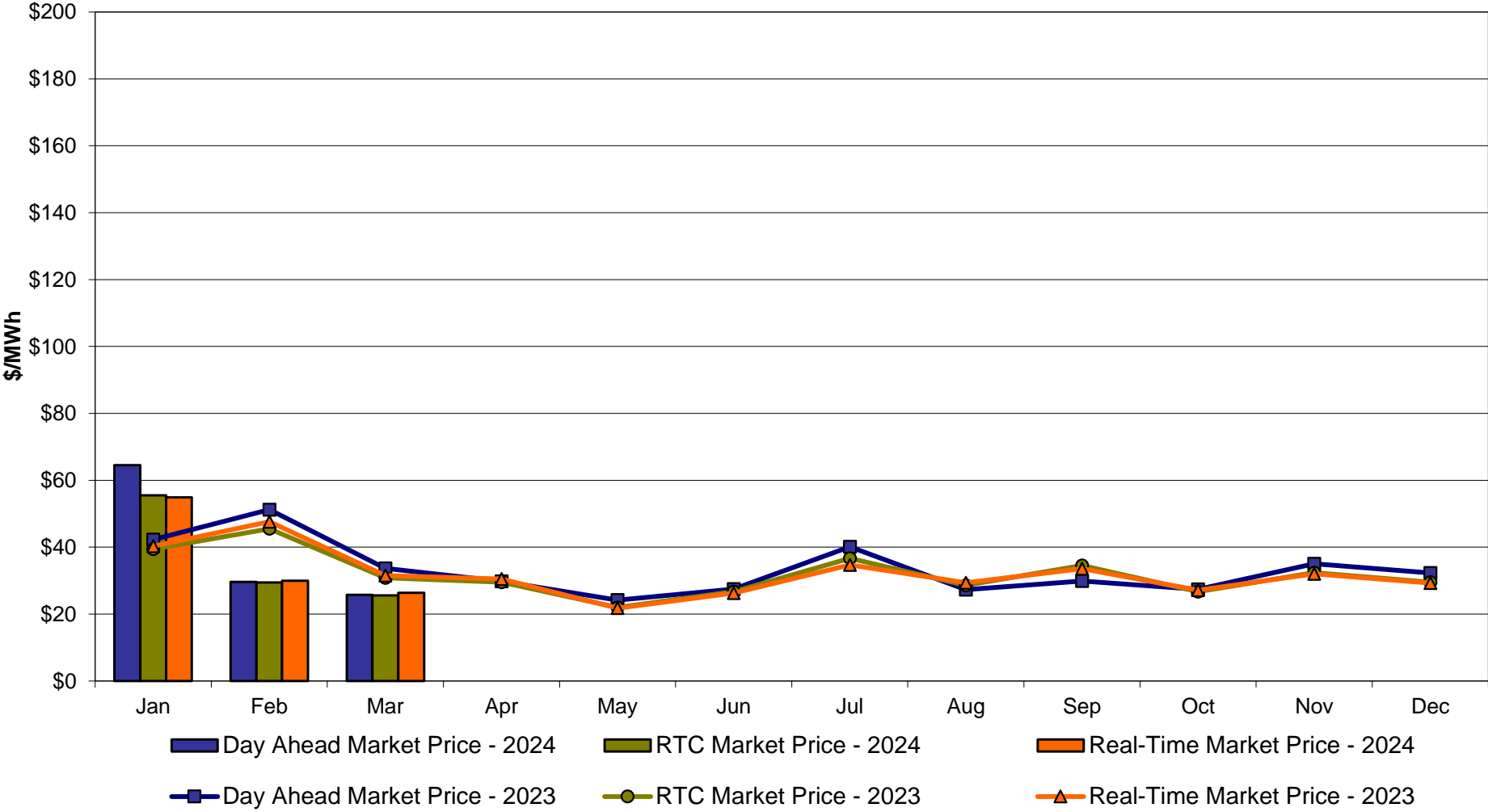
Central Zone C Monthly Average LBMP Prices 2023 - 2024



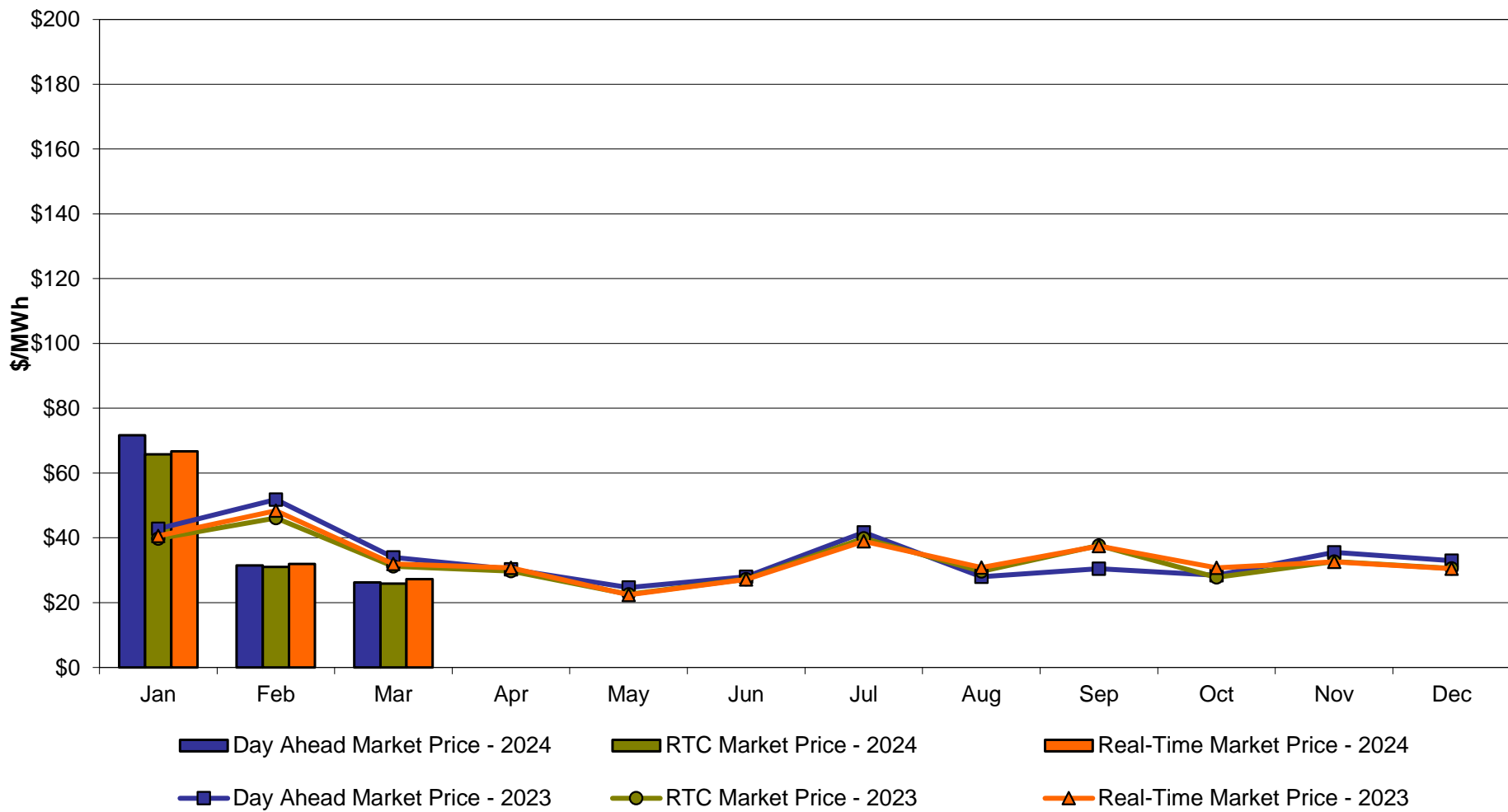
Capital Zone F Monthly Average LBMP Prices 2023 - 2024



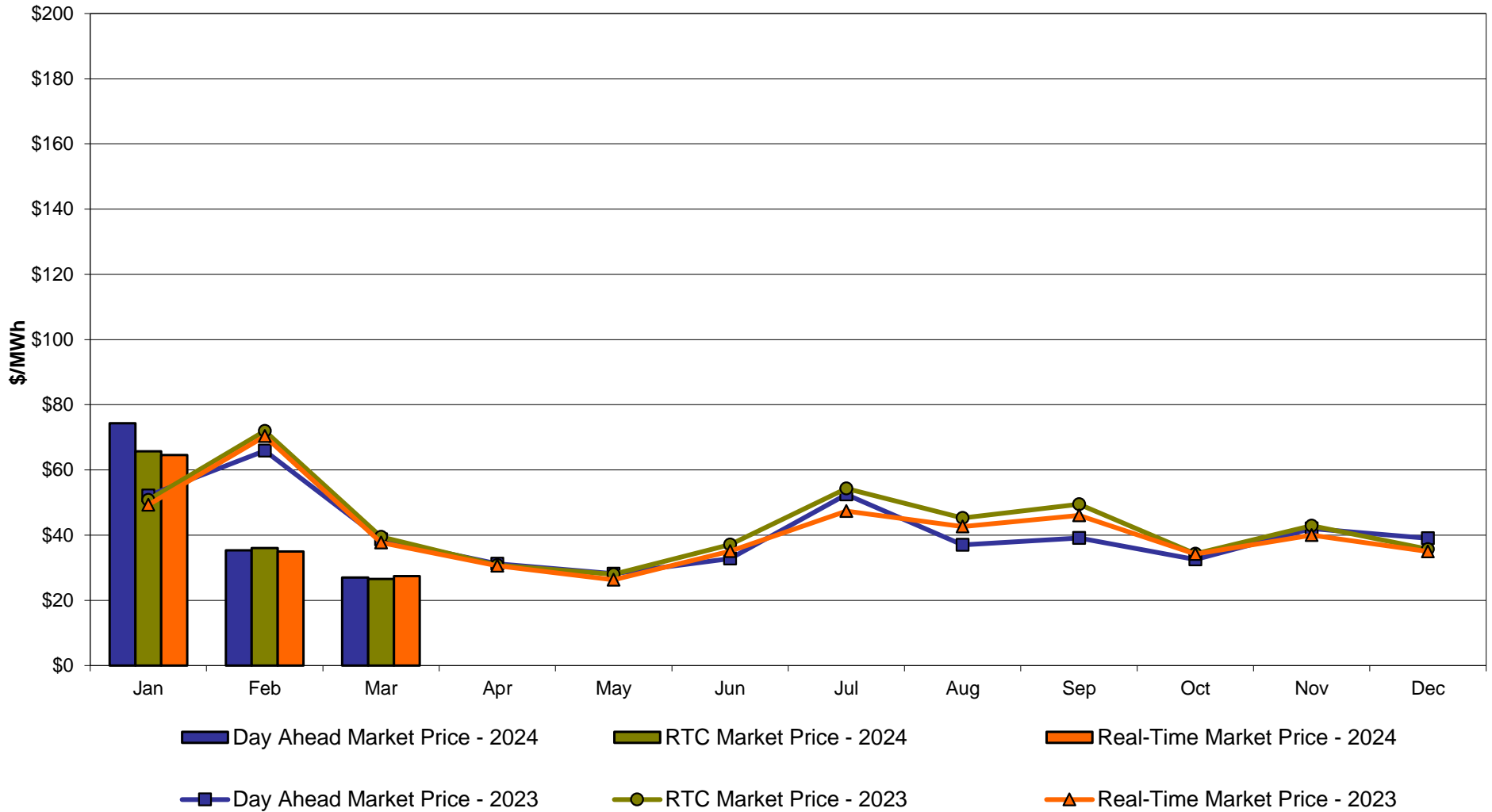
Hudson Valley Zone G Monthly Average LBMP Prices 2023 - 2024



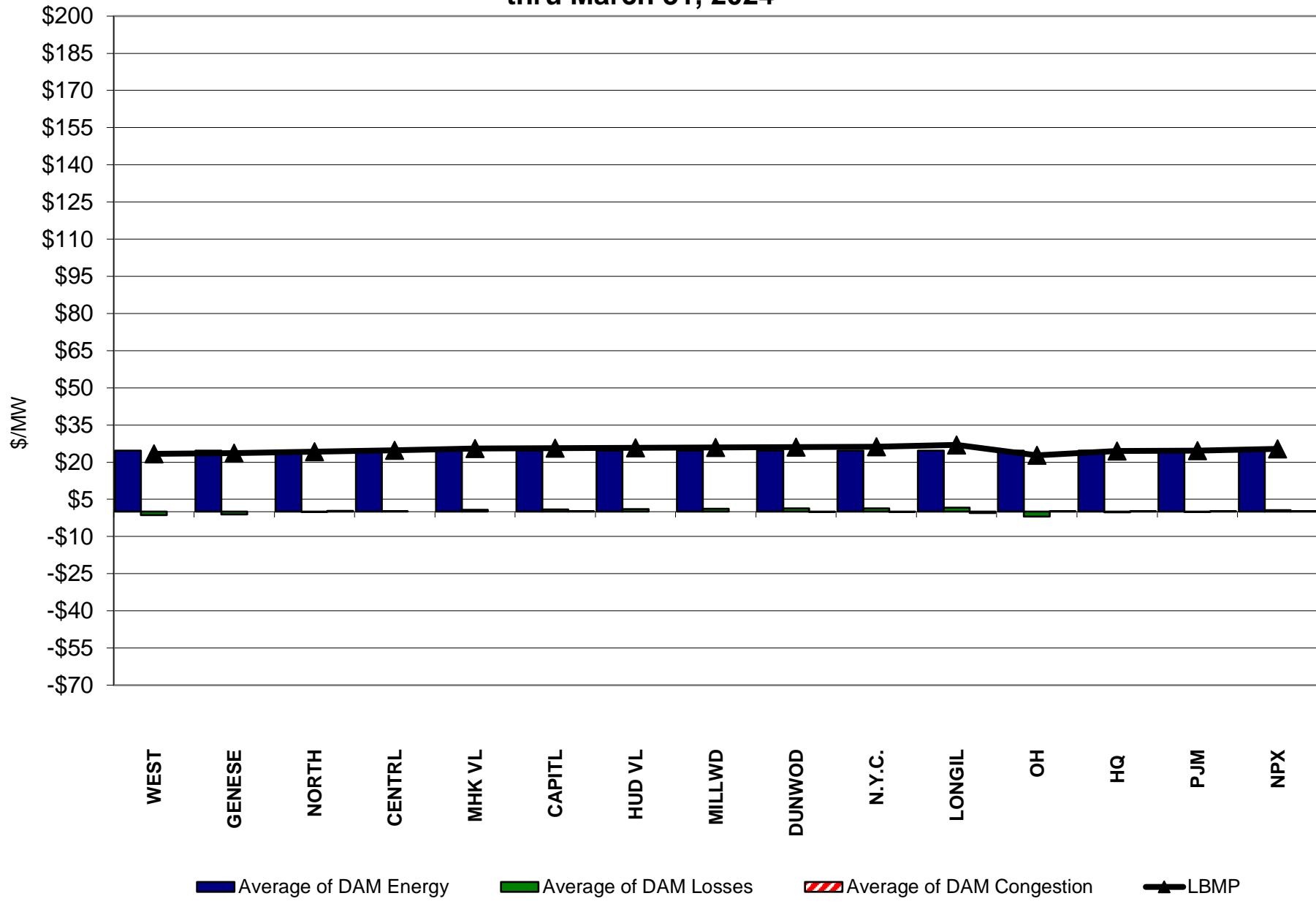
NYC Zone J Monthly Average LBMP Prices 2023 - 2024



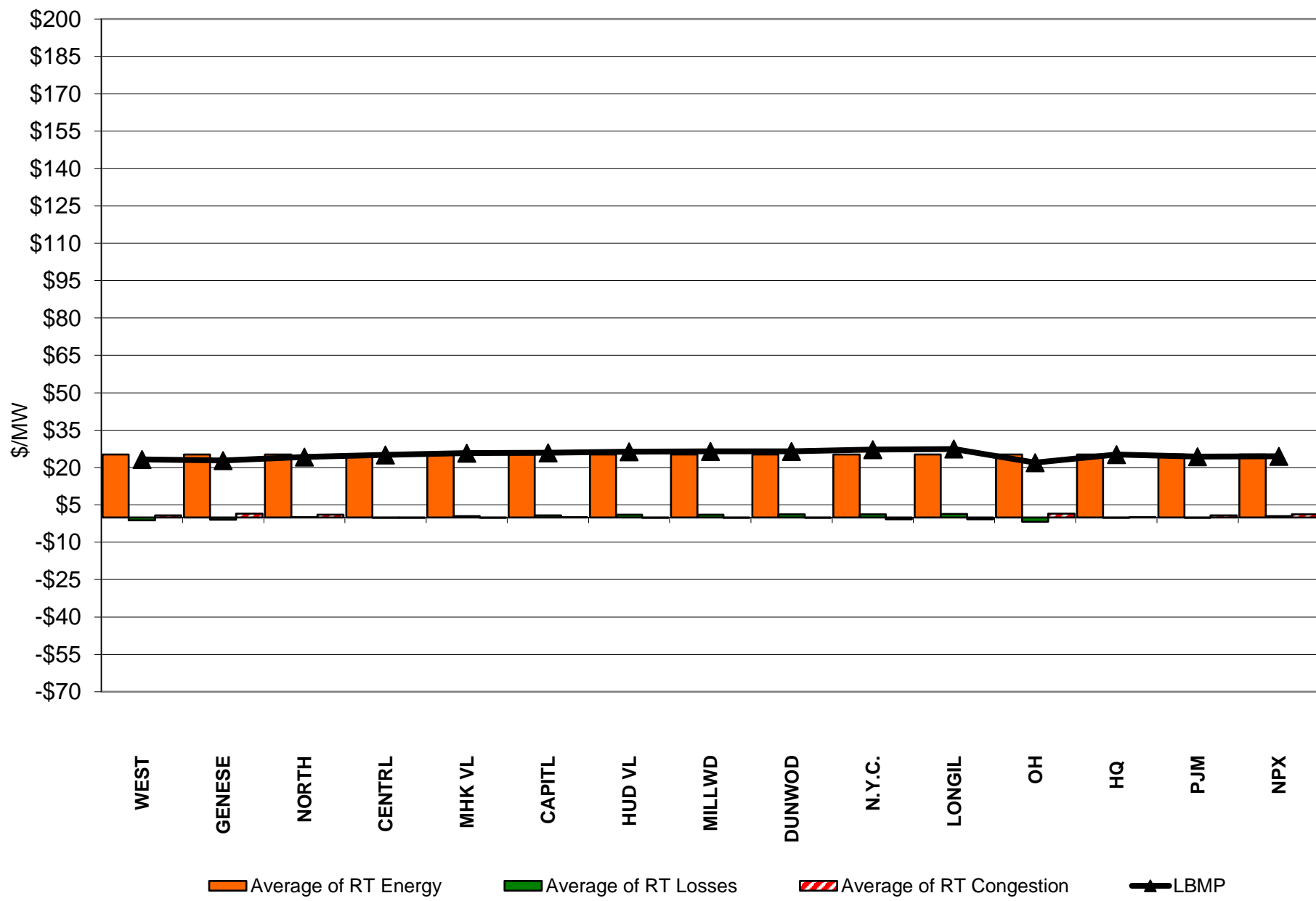
Long Island Zone K Monthly Average LBMP Prices 2023 - 2024



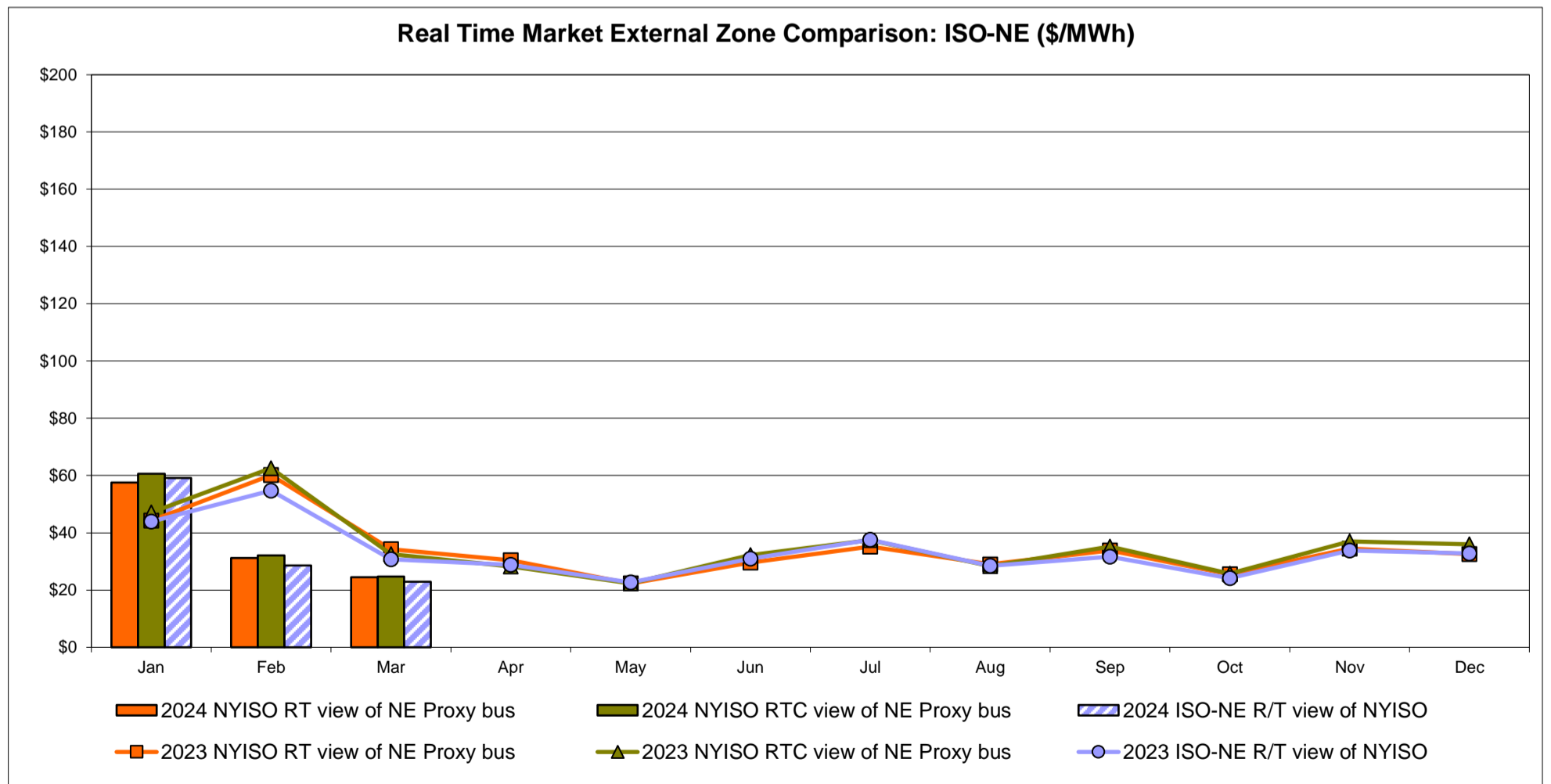
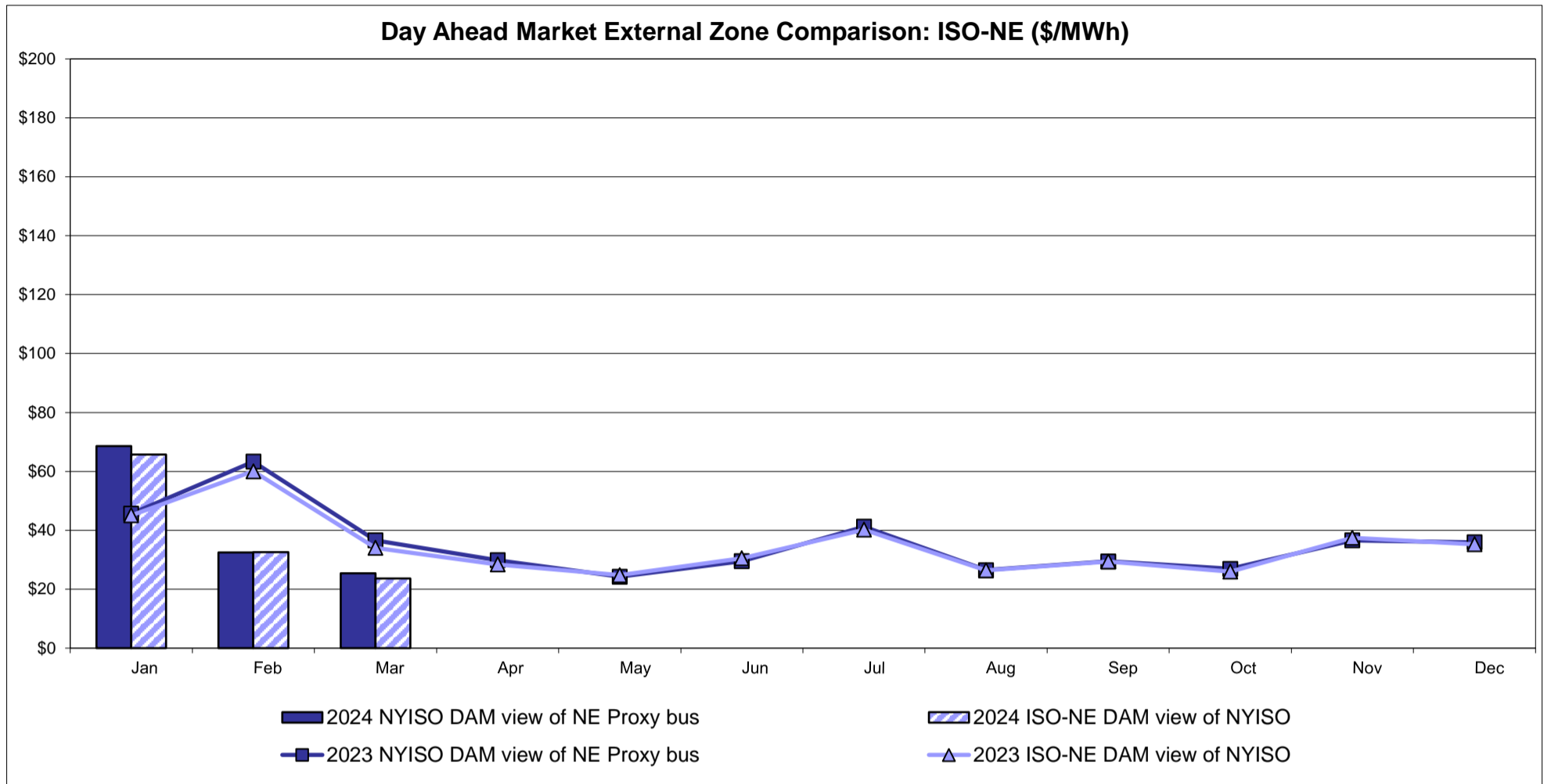
**DAM Zonal Unweighted Monthly Average LBMP Components
thru March 31, 2024**



**RT Zonal Unweighted Monthly Average LBMP Components
thru March 31, 2024**

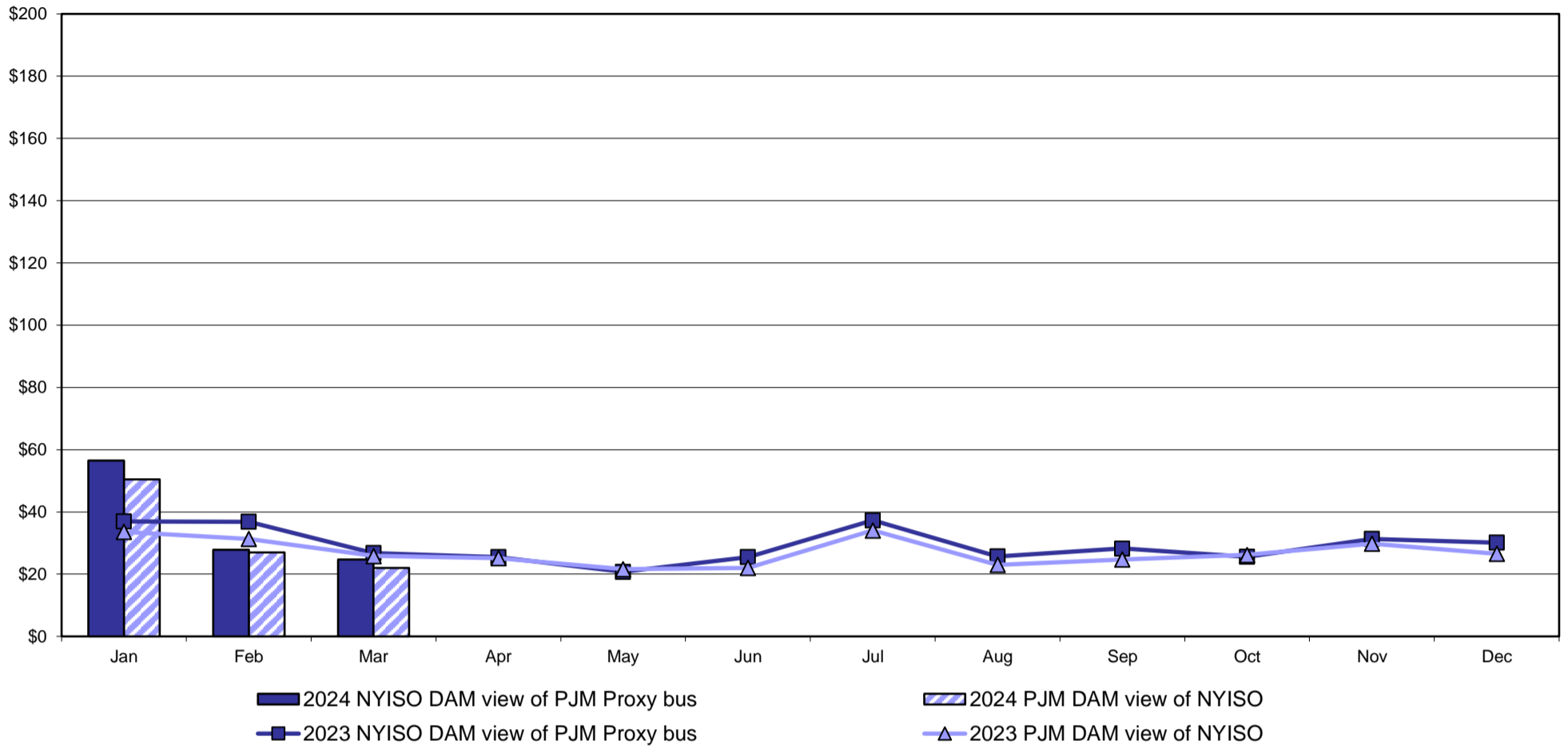


External Comparison ISO-New England

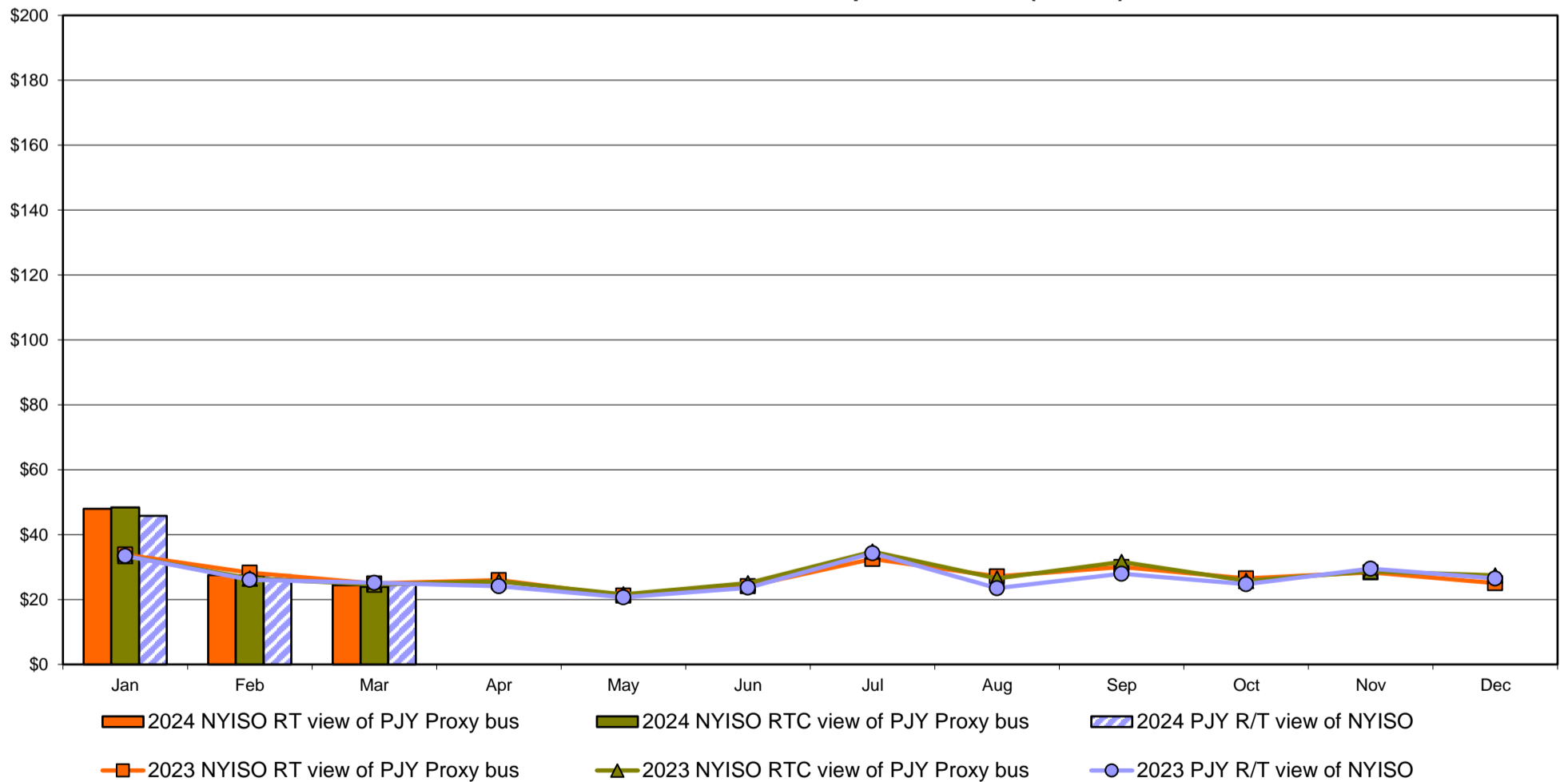


External Comparison PJM

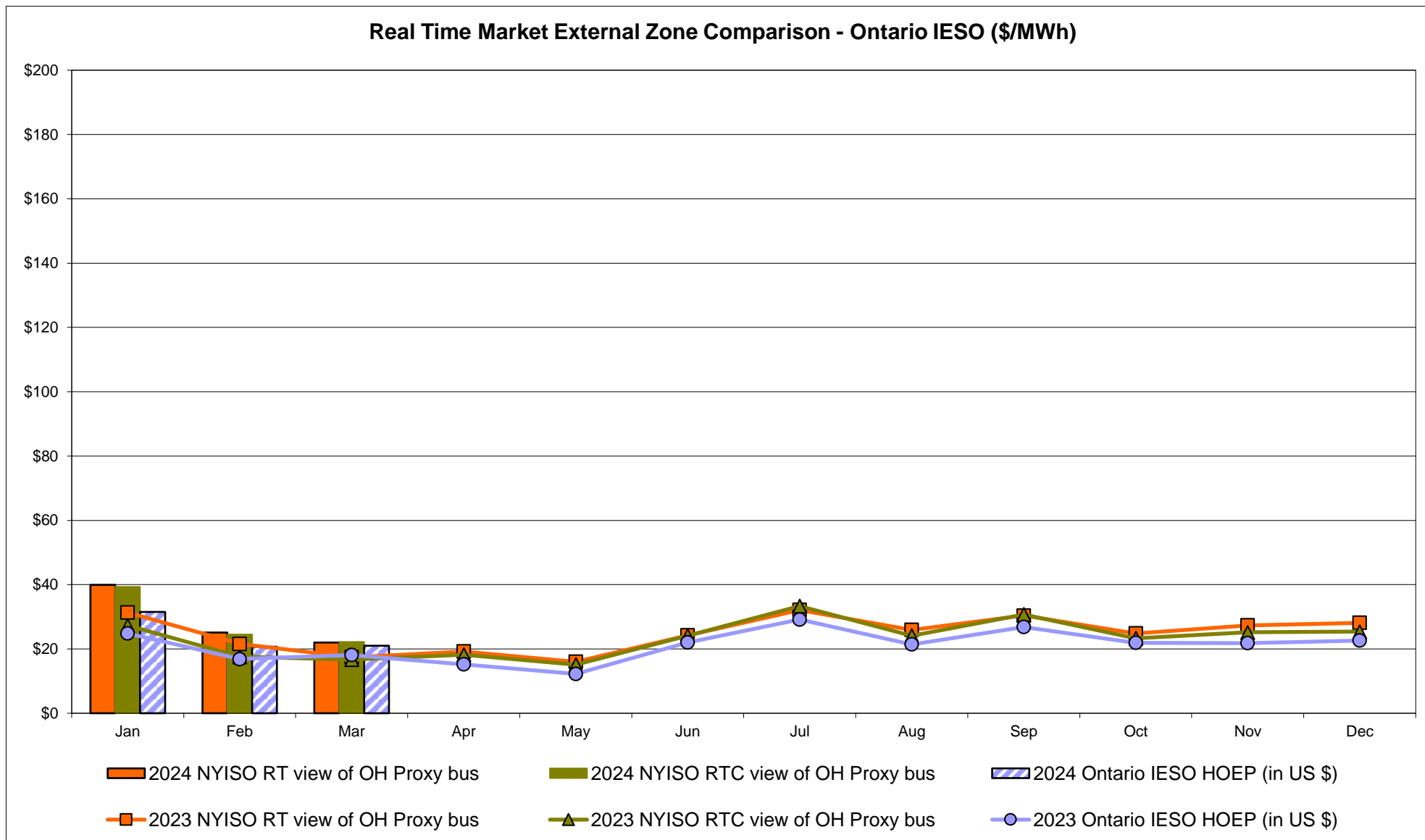
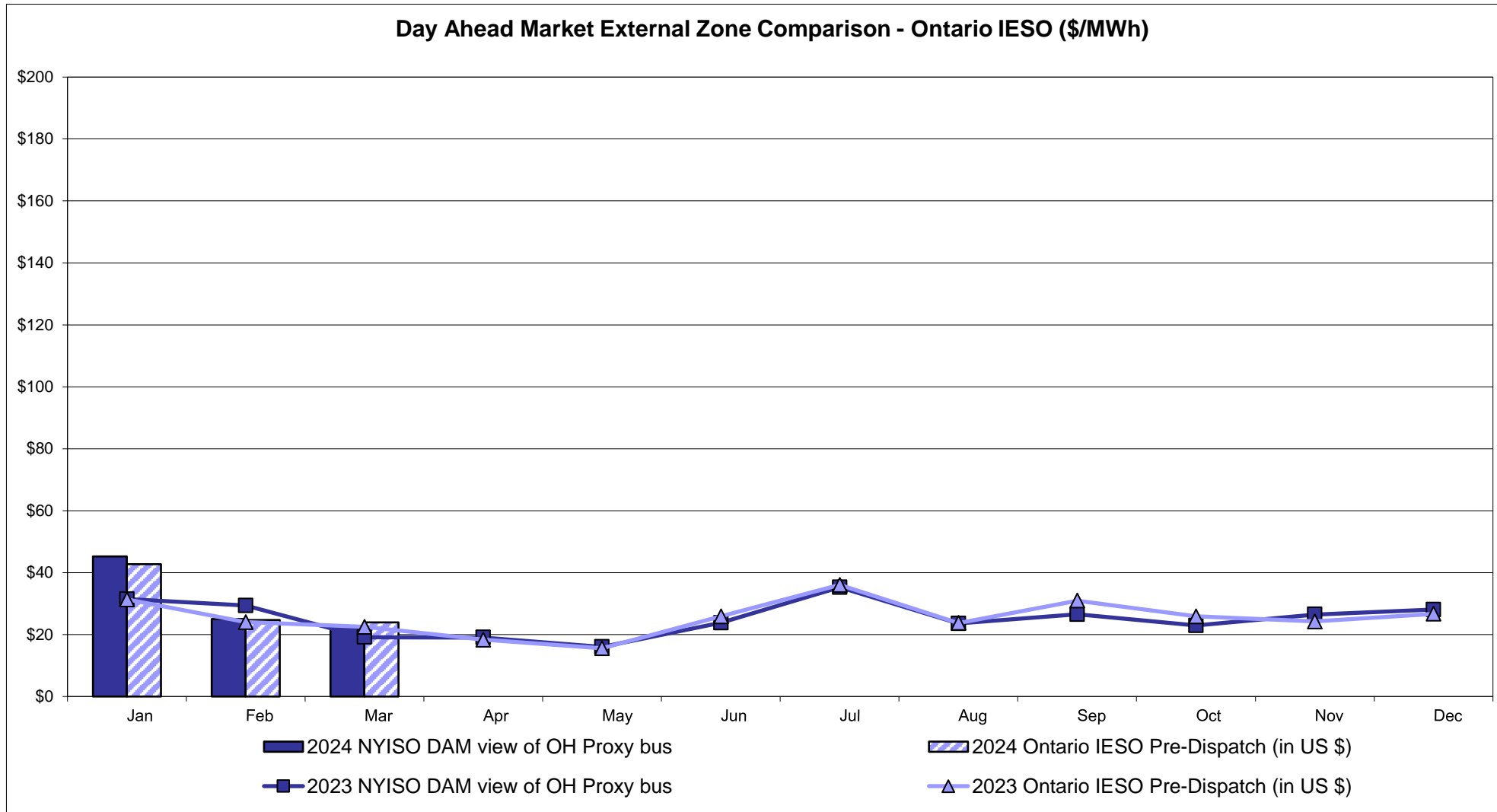
Day Ahead Market External Zone Comparison - PJM (\$/MWh)



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

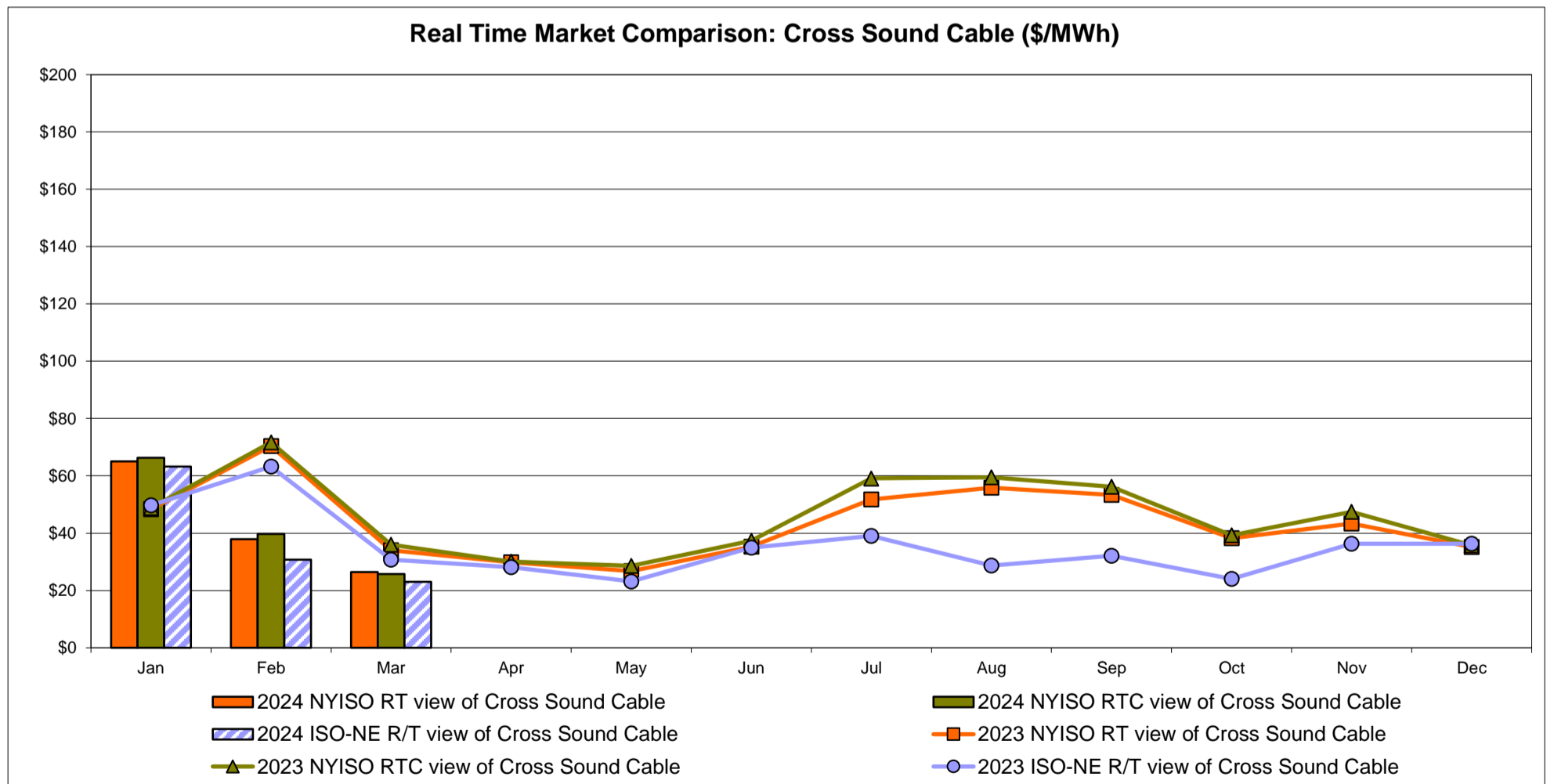
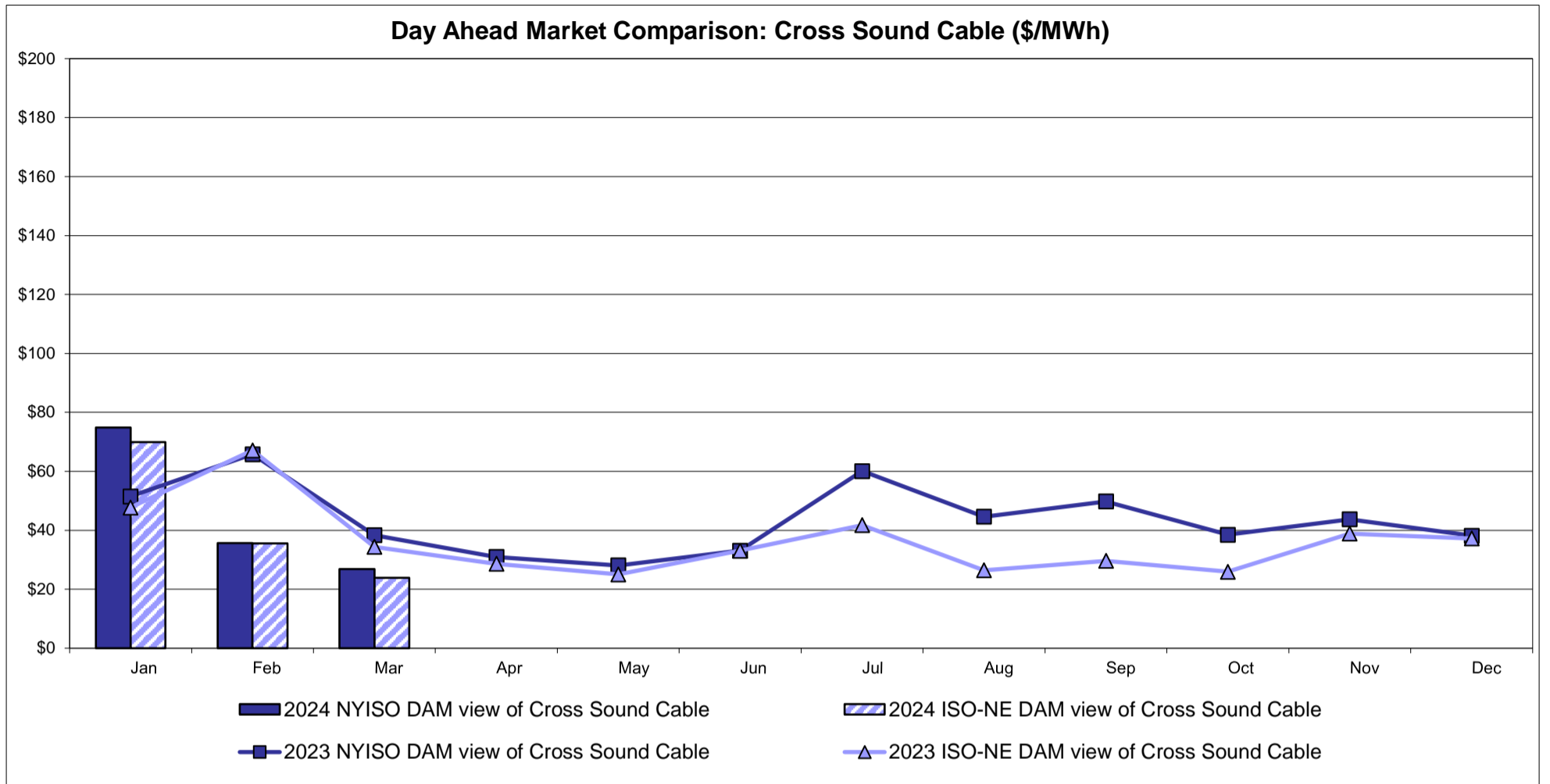


External Comparison Ontario IESO



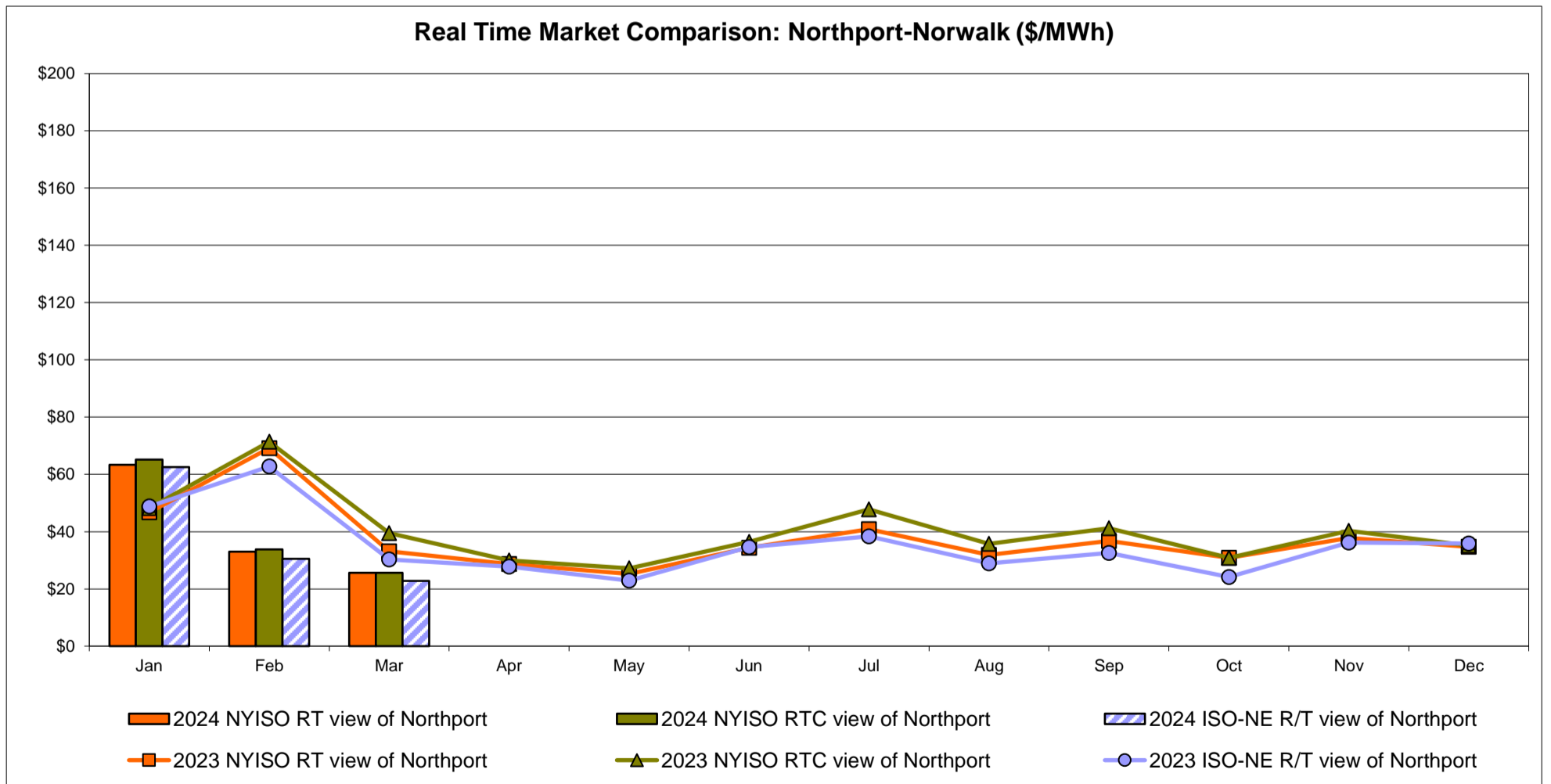
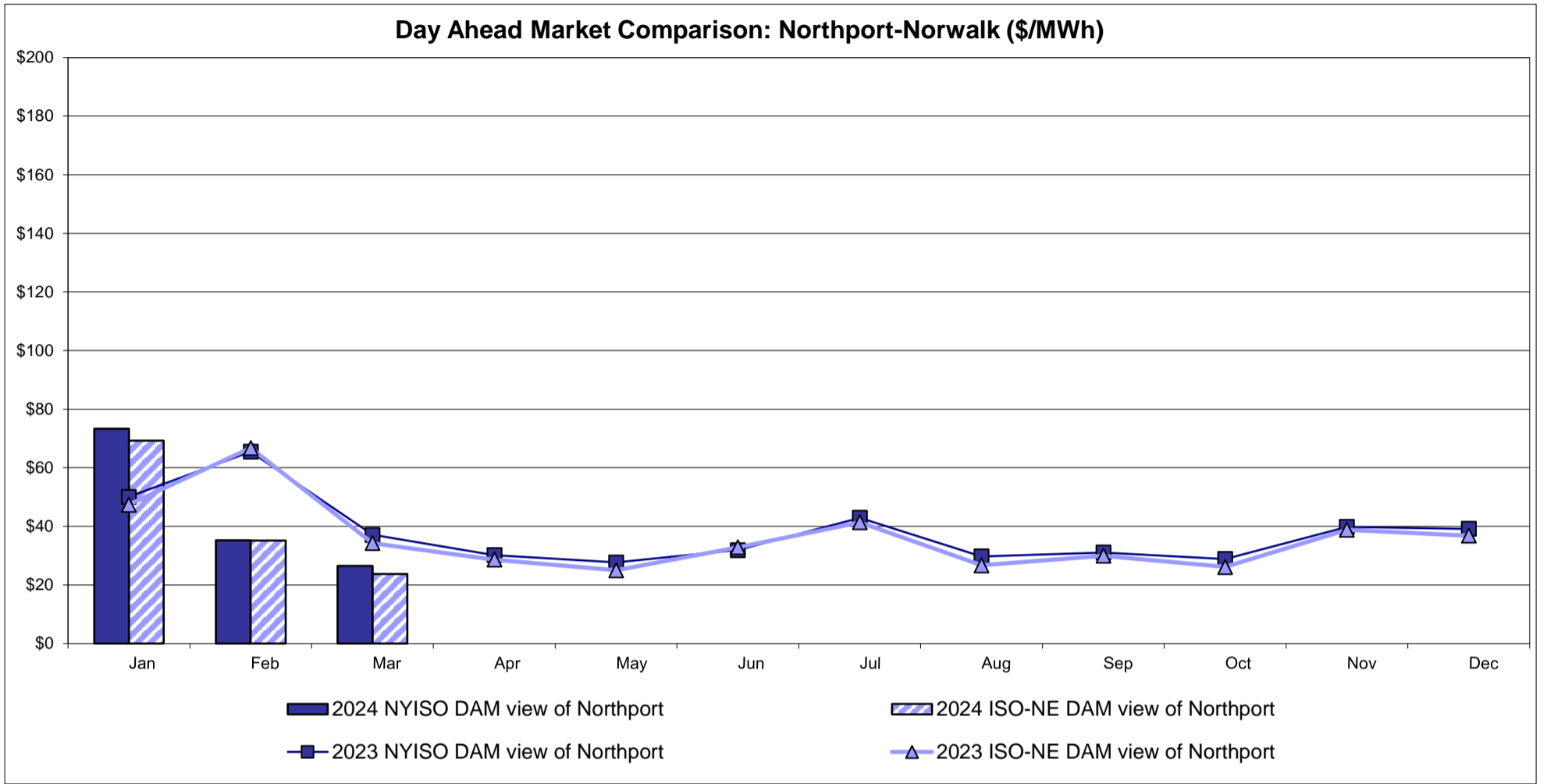
Notes: Exchange factor used for March 2024 was 0.738794076904369 to US
 HOEP: Hourly Ontario Energy Price
 Pre-Dispatch: Projected Energy Price

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.

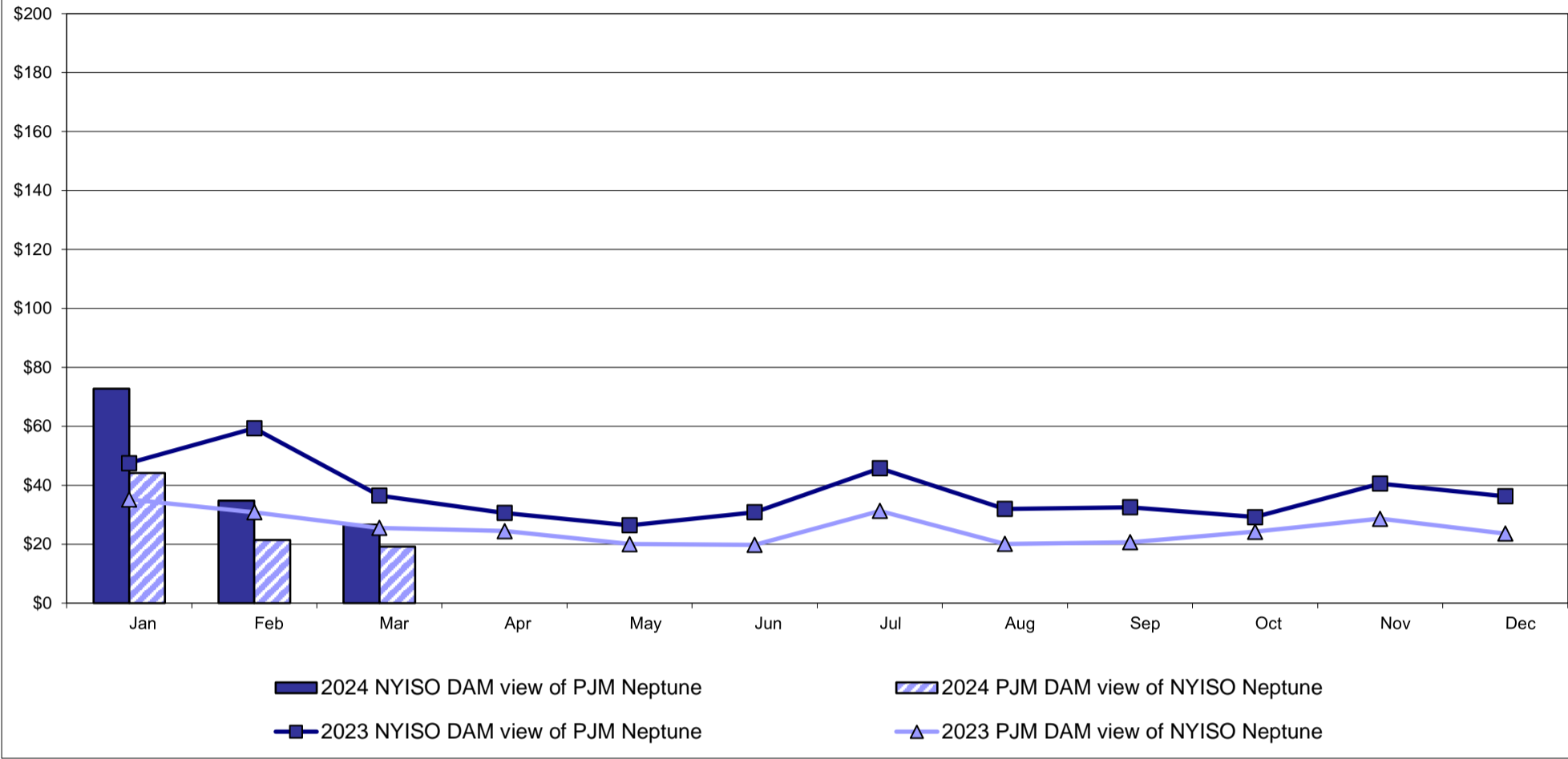
External Controllable Line: Northport - Norwalk (New England)



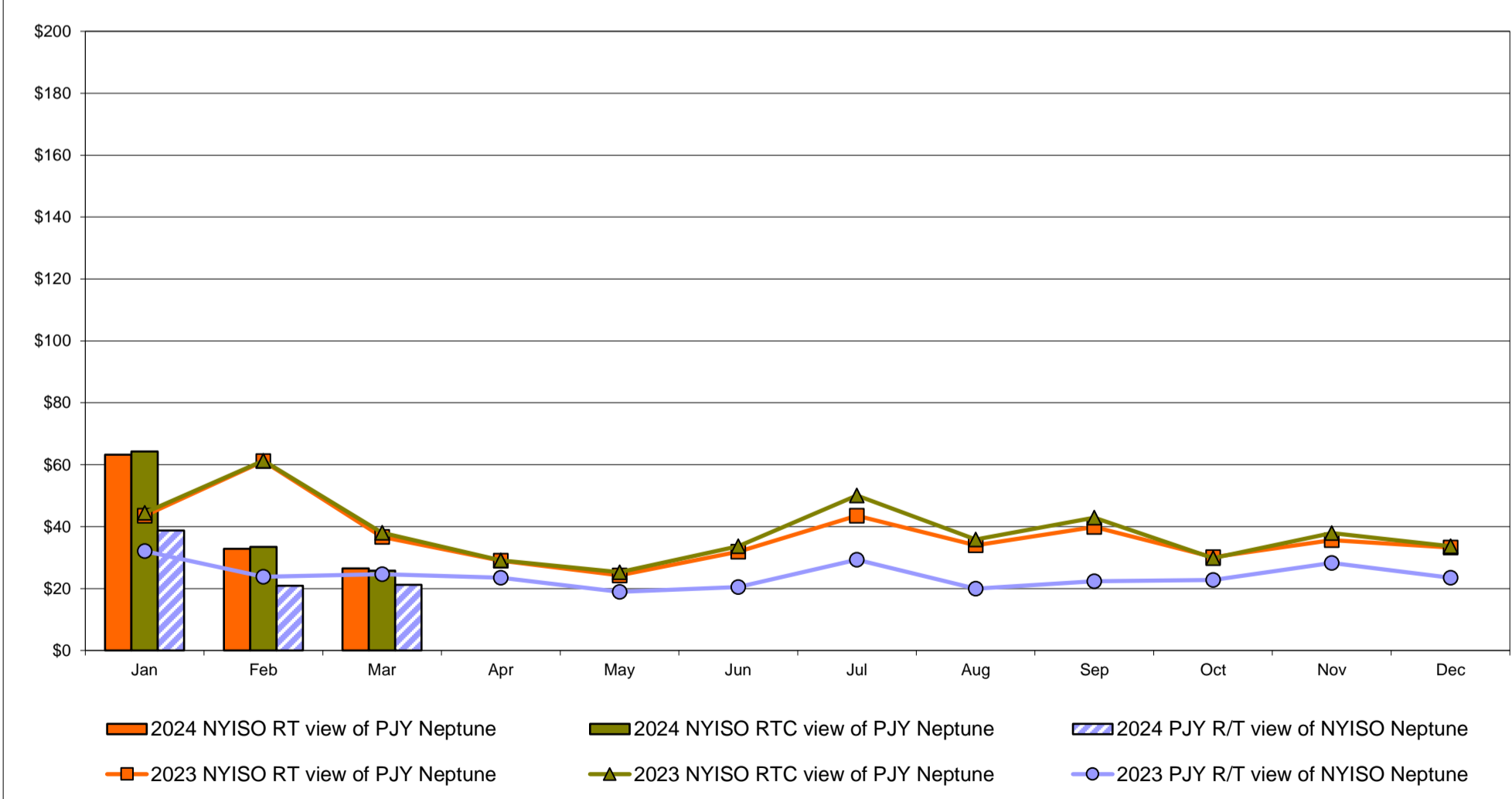
Note:
 ISO-NE Forecast is an advisory posting @ 18:00 day before.
 The DAM and R/T prices at the Northport 138 interface are used for ISO-NE.
 The DAM and R/T prices at the 1385 interface are used for NYISO.

External Controllable Line: Neptune (PJM)

Day Ahead Market Comparison: Neptune (\$/MWh)

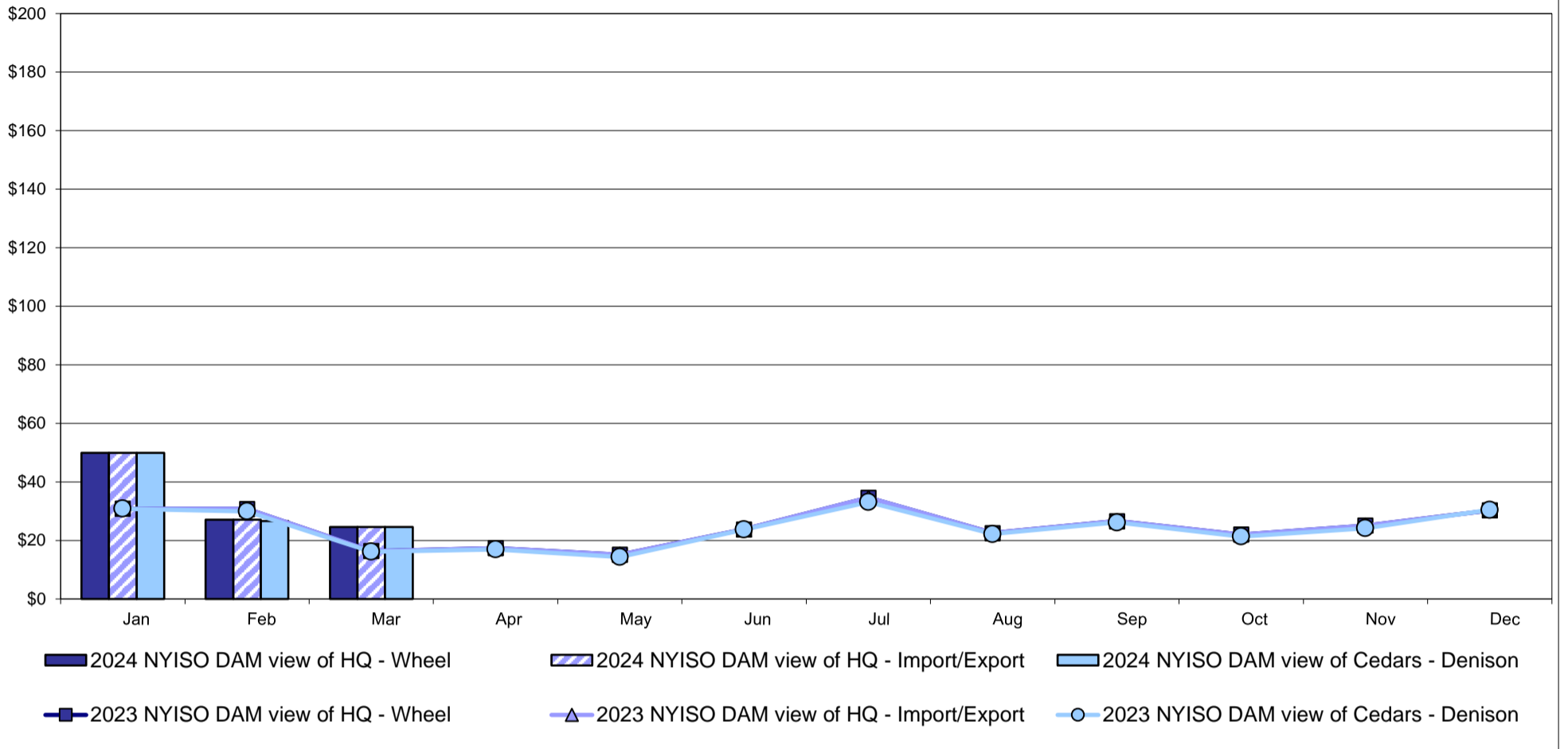


Real Time Market Comparison: Neptune (\$/MWh)

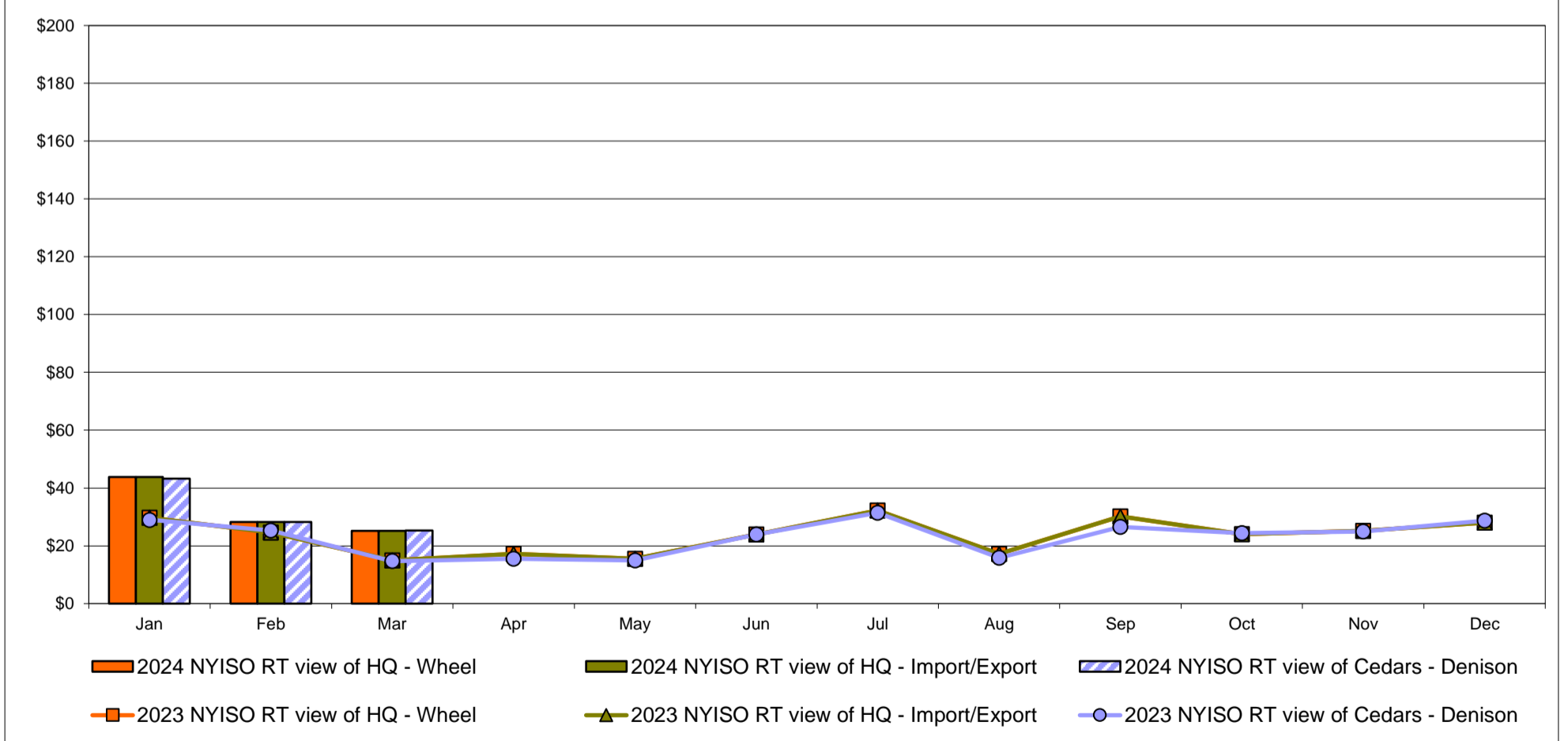


External Comparison Hydro-Quebec

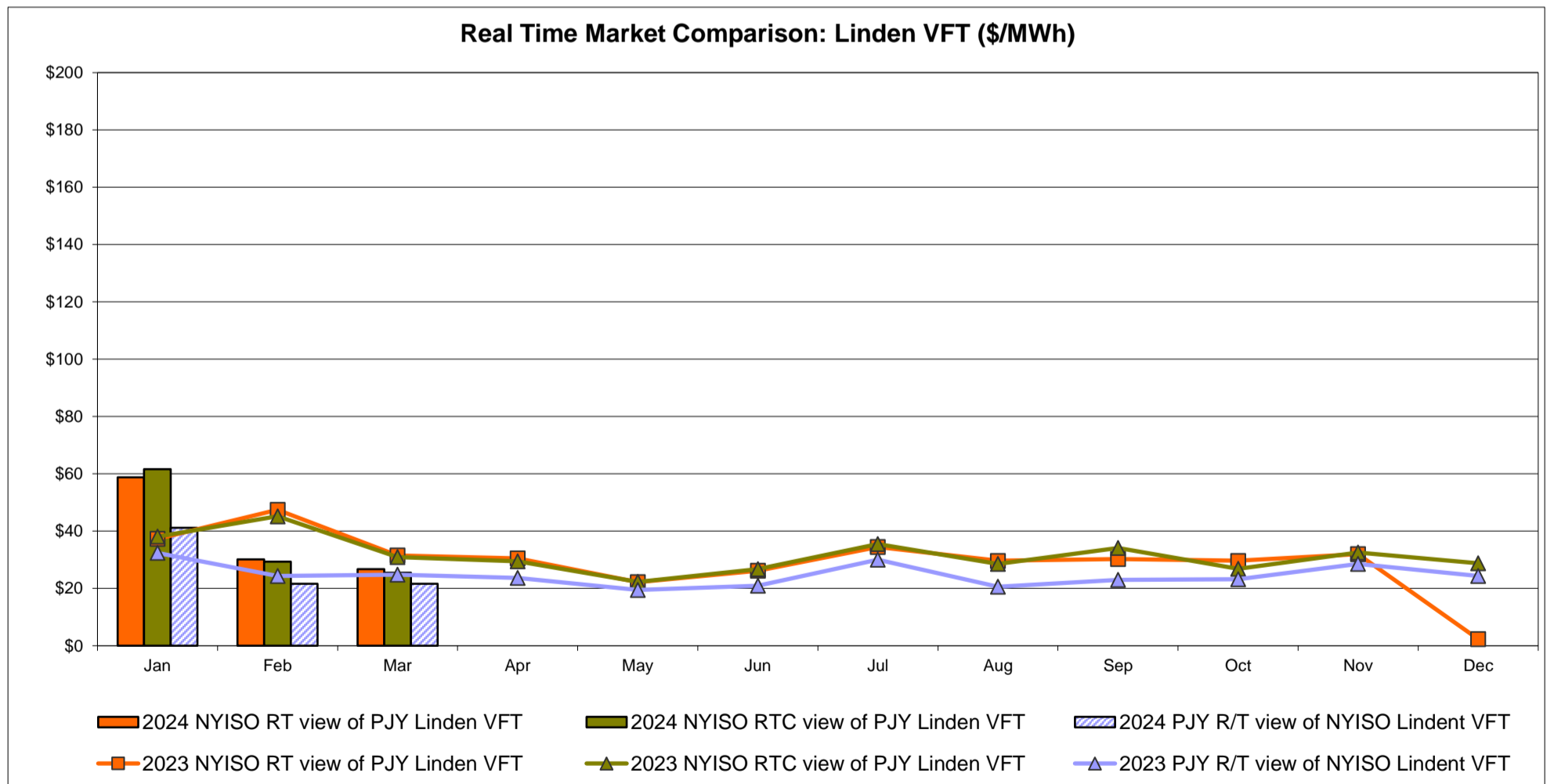
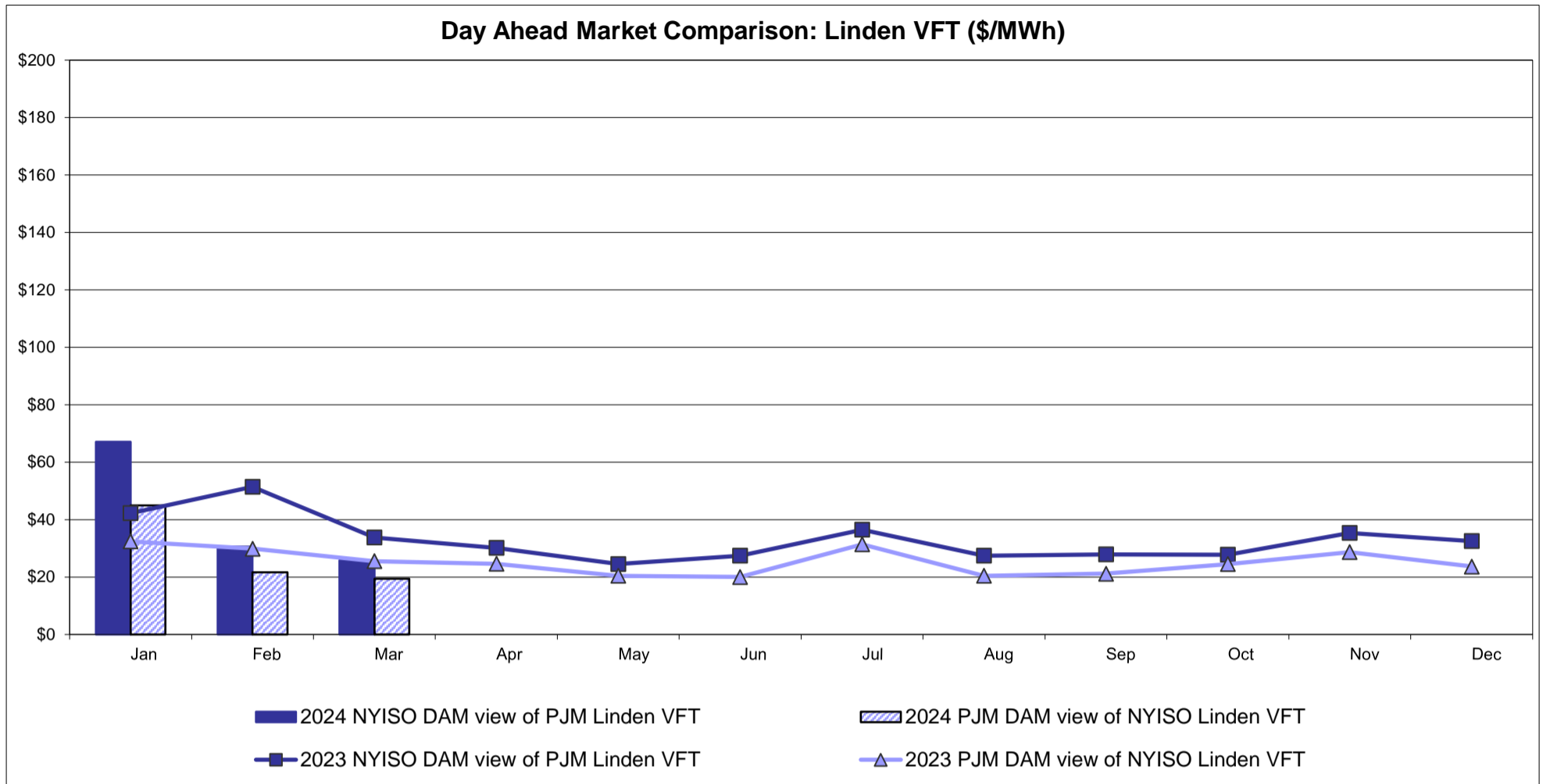
Day Ahead Market External Zone Comparison - HQ (\$/MWh)



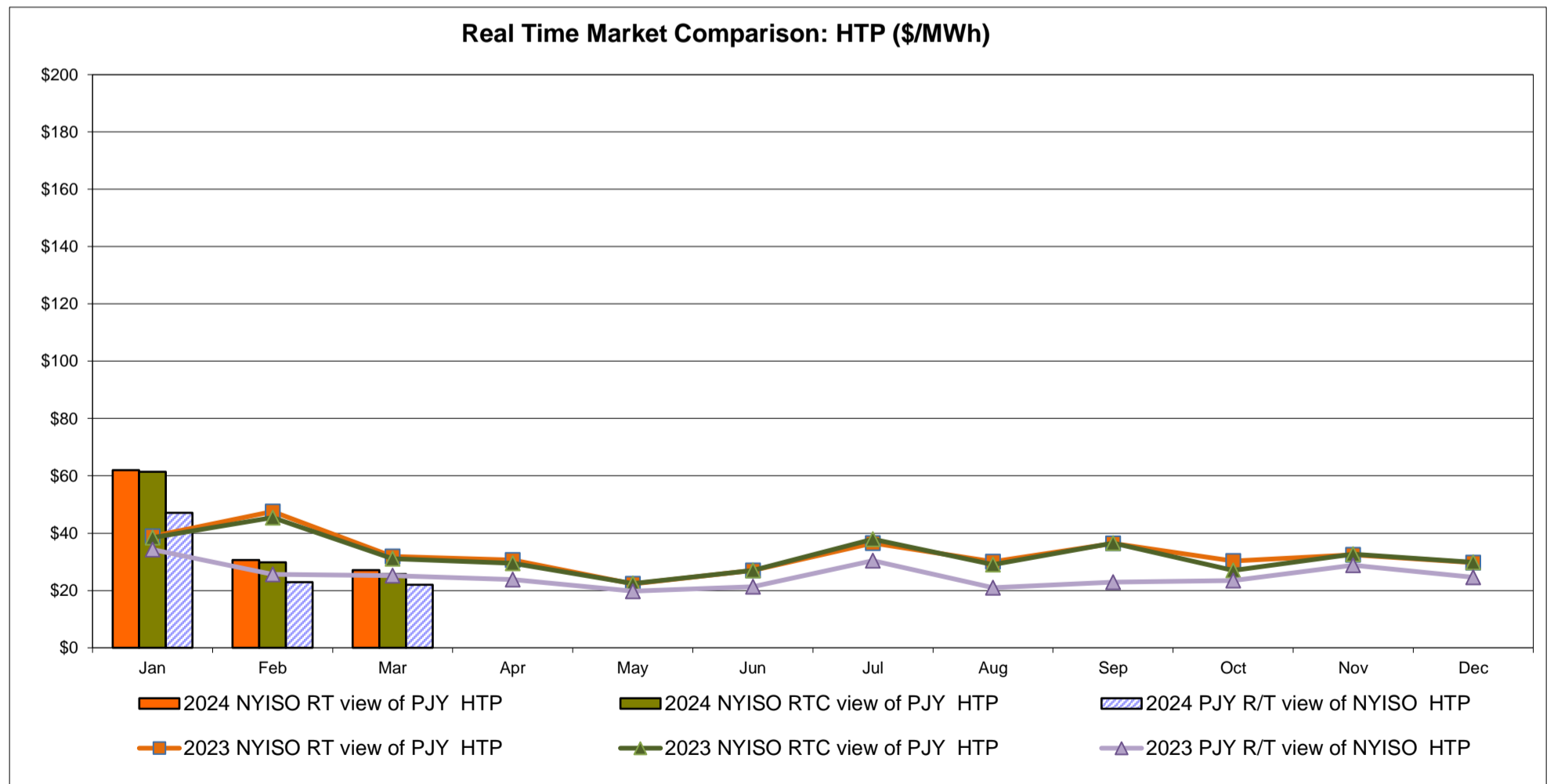
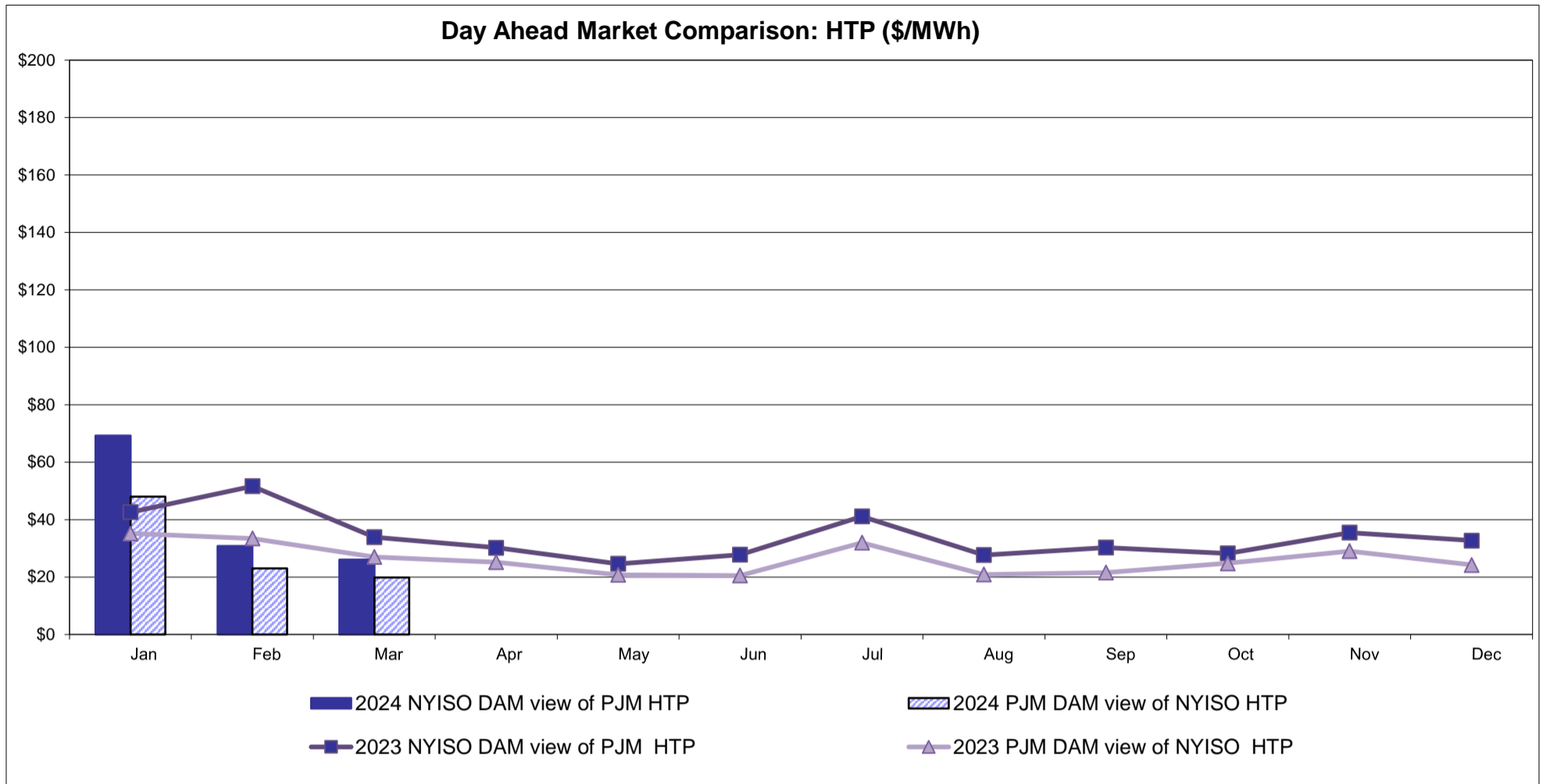
Real Time Market External Zone Comparison - HQ (\$/MWh)



External Controllable Line: Linden VFT (PJM)



External Controllable Line: Hudson (PJM)

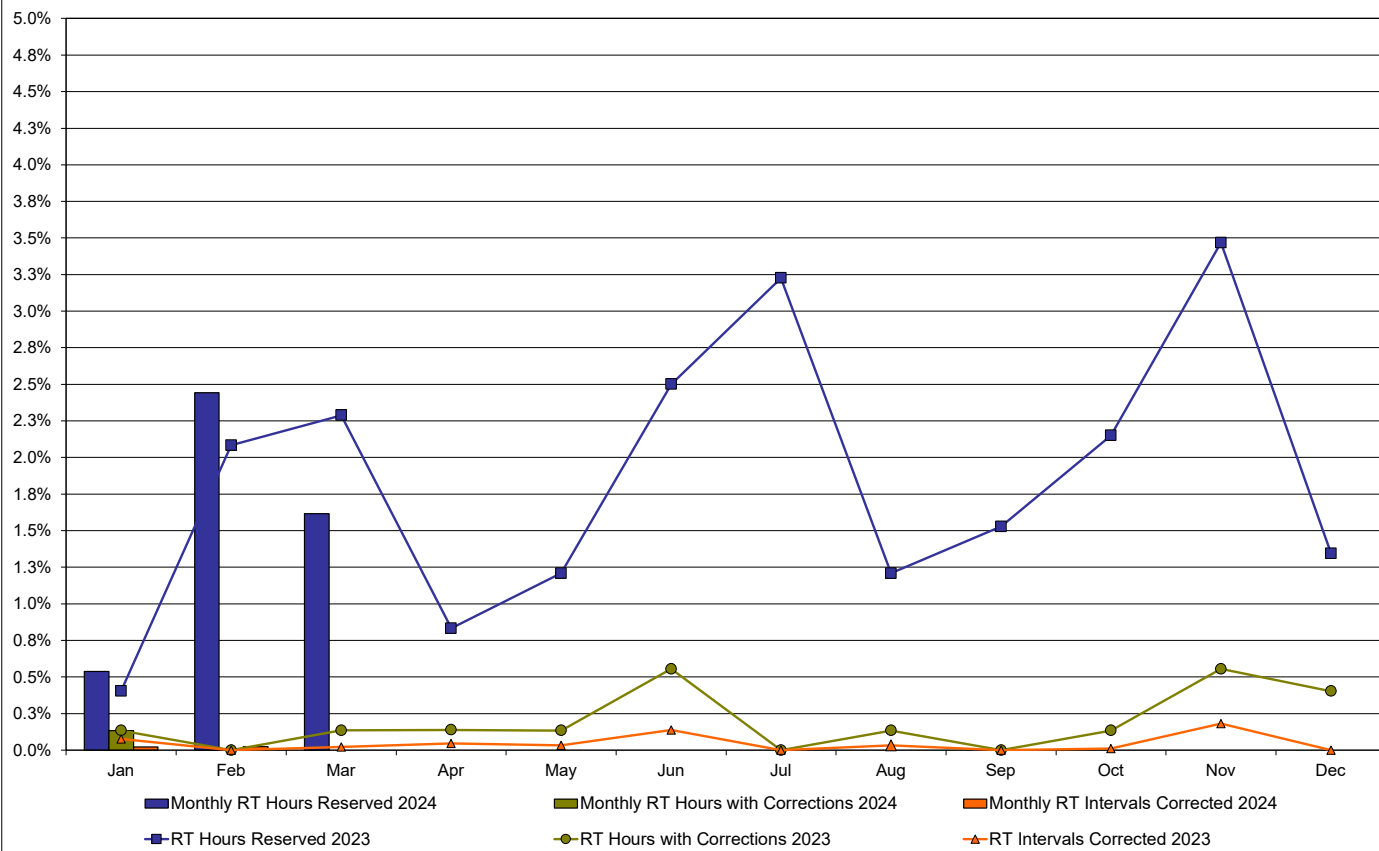


NYISO Real Time Price Correction Statistics

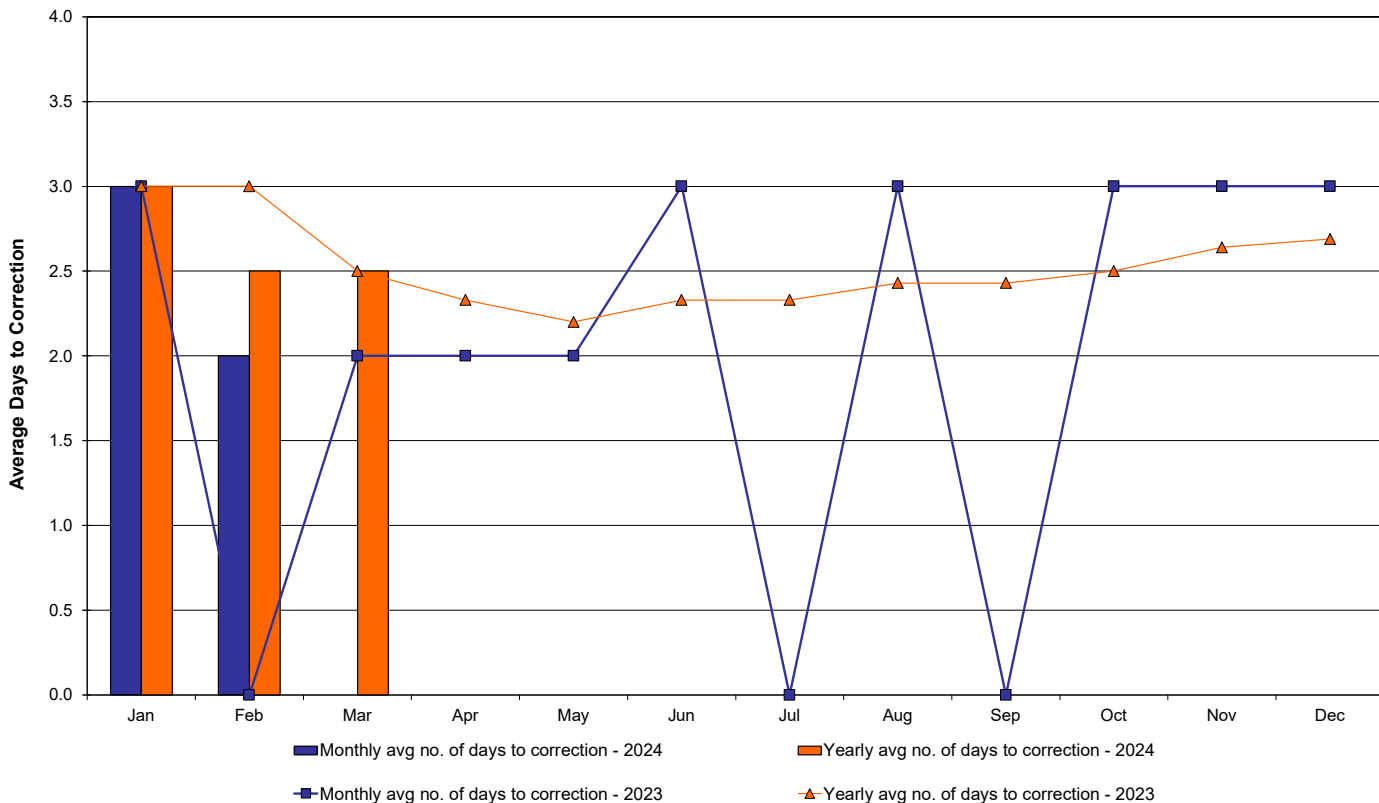
2024		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Hour Corrections													
Number of hours with corrections	in the month	1	0	0									
Number of hours	in the month	744	696	743									
% of hours with corrections	in the month	0.13%	0.00%	0.00%									
% of hours with corrections	year-to-date	0.13%	0.07%	0.05%									
Interval Corrections													
Number of intervals corrected	in the month	2	2	0									
Number of intervals	in the month	9,093	8,487	294									
% of intervals corrected	in the month	0.02%	0.02%	0.00%									
% of intervals corrected	year-to-date	0.02%	0.02%	0.02%									
Hours Reserved													
Number of hours reserved	in the month	4	17	12									
Number of hours	in the month	744	696	743									
% of hours reserved	in the month	0.54%	2.44%	1.62%									
% of hours reserved	year-to-date	0.54%	1.46%	1.51%									
Days to Correction *													
Avg. number of days to correction	in the month	3.00	2.00	0.00									
Avg. number of days to correction	year-to-date	3.00	2.50	2.50									
Days Without Corrections													
Days without corrections	in the month	30	28	1									
Days without corrections	year-to-date	30	58	59									
2023		<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>
Hour Corrections													
Number of hours with corrections	in the month	1	0	1	1	1	4	0	1	0	1	4	3
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%	0.00%	0.13%	0.14%	0.13%	0.56%	0.00%	0.13%	0.00%	0.13%	0.55%	0.40%
% of hours with corrections	year-to-date	0.13%	0.07%	0.09%	0.10%	0.11%	0.18%	0.16%	0.15%	0.14%	0.14%	0.17%	0.19%
Interval Corrections													
Number of intervals corrected	in the month	7	0	2	4	3	12	0	3	0	1	16	0
Number of intervals	in the month	9,082	8,373	9,171	8,890	9,160	8,733	9,085	9,107	8,790	9,069	8,804	295
% of intervals corrected	in the month	0.08%	0.00%	0.02%	0.04%	0.03%	0.14%	0.00%	0.03%	0.00%	0.01%	0.18%	0.00%
% of intervals corrected	year-to-date	0.08%	0.04%	0.03%	0.04%	0.04%	0.05%	0.04%	0.04%	0.04%	0.04%	0.05%	0.05%
Hours Reserved													
Number of hours reserved	in the month	3	14	17	6	9	18	24	9	11	16	25	10
Number of hours	in the month	744	672	743	720	744	720	744	744	720	744	721	744
% of hours reserved	in the month	0.40%	2.08%	2.29%	0.83%	1.21%	2.50%	3.23%	1.21%	1.53%	2.15%	3.47%	1.34%
% of hours reserved	year-to-date	0.40%	1.20%	1.57%	1.39%	1.35%	1.54%	1.79%	1.71%	1.69%	1.74%	1.90%	1.85%
Days to Correction *													
Avg. number of days to correction	in the month	3.00	0.00	2.00	2.00	2.00	3.00	0.00	3.00	0.00	3.00	3.00	3.00
Avg. number of days to correction	year-to-date	3.00	3.00	2.50	2.33	2.20	2.33	2.33	2.43	2.43	2.50	2.64	2.69
Days Without Corrections													
Days without corrections	in the month	30	28	30	29	29	29	31	30	30	30	27	1
Days without corrections	year-to-date	30	58	88	117	146	175	206	236	266	296	323	324

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

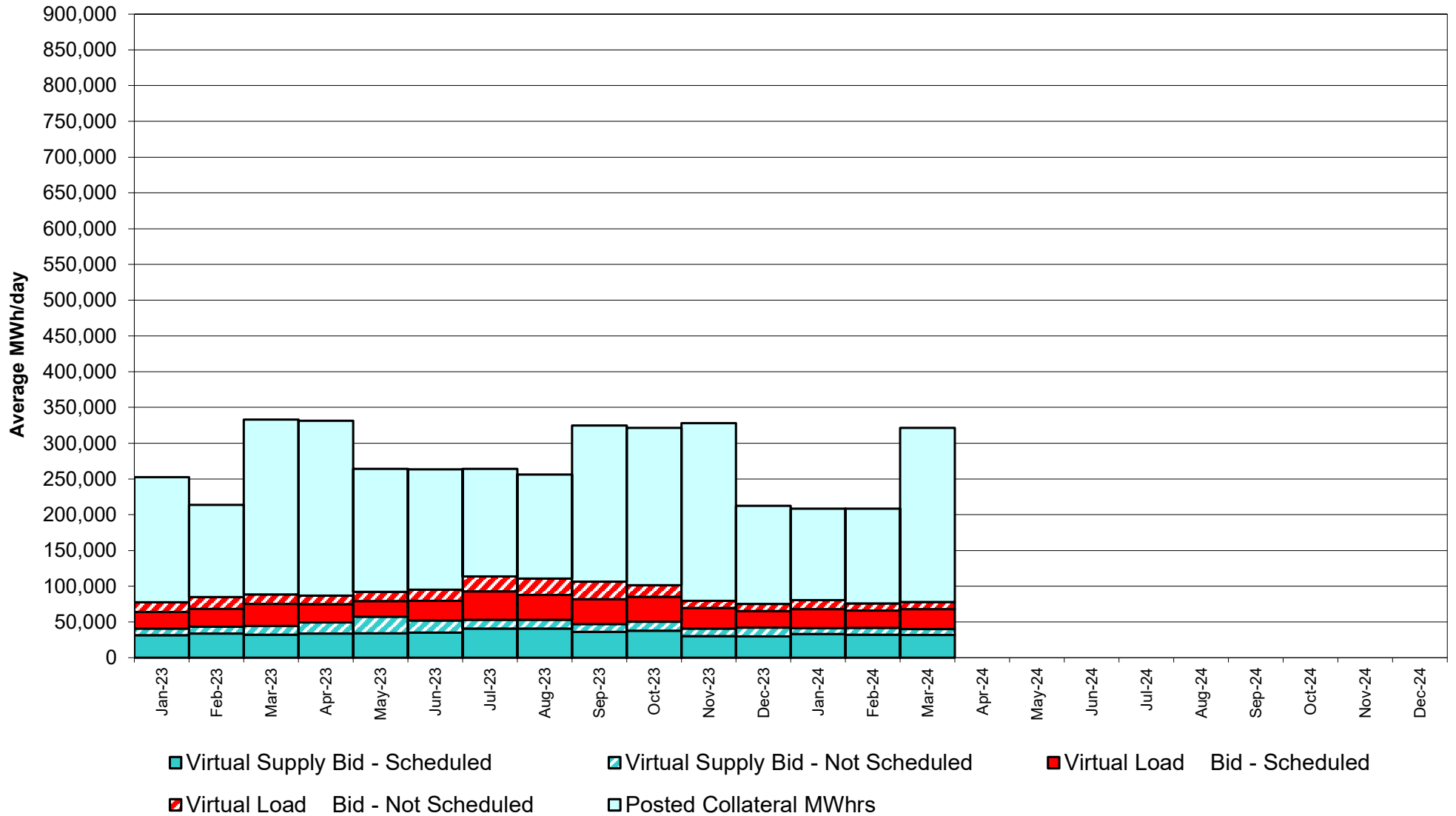
Percentage of Real-Time Corrections



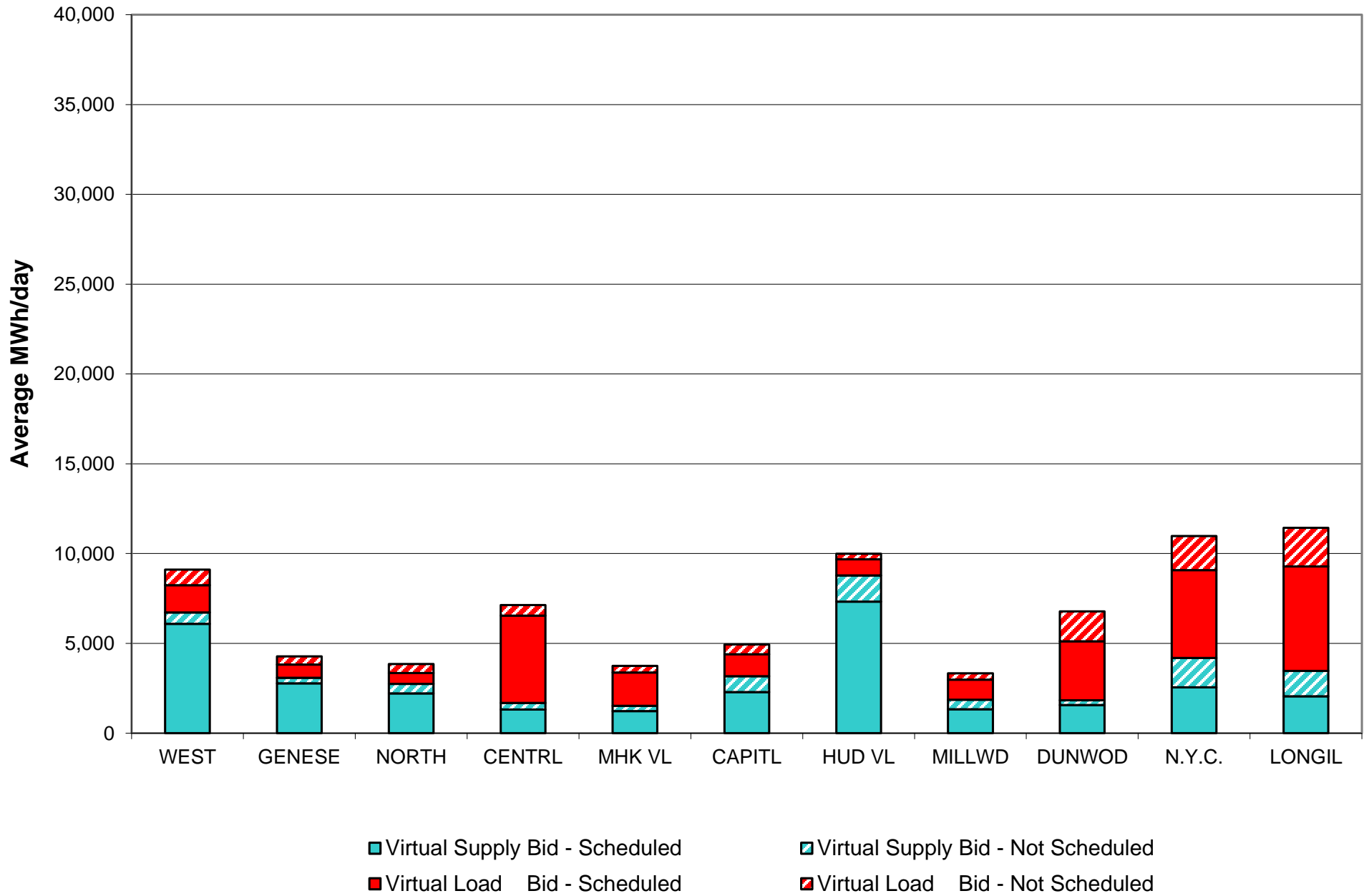
Annual average time period for making Price Corrections (from reservation date) *



NYISO Virtual Trading Average MWh per day



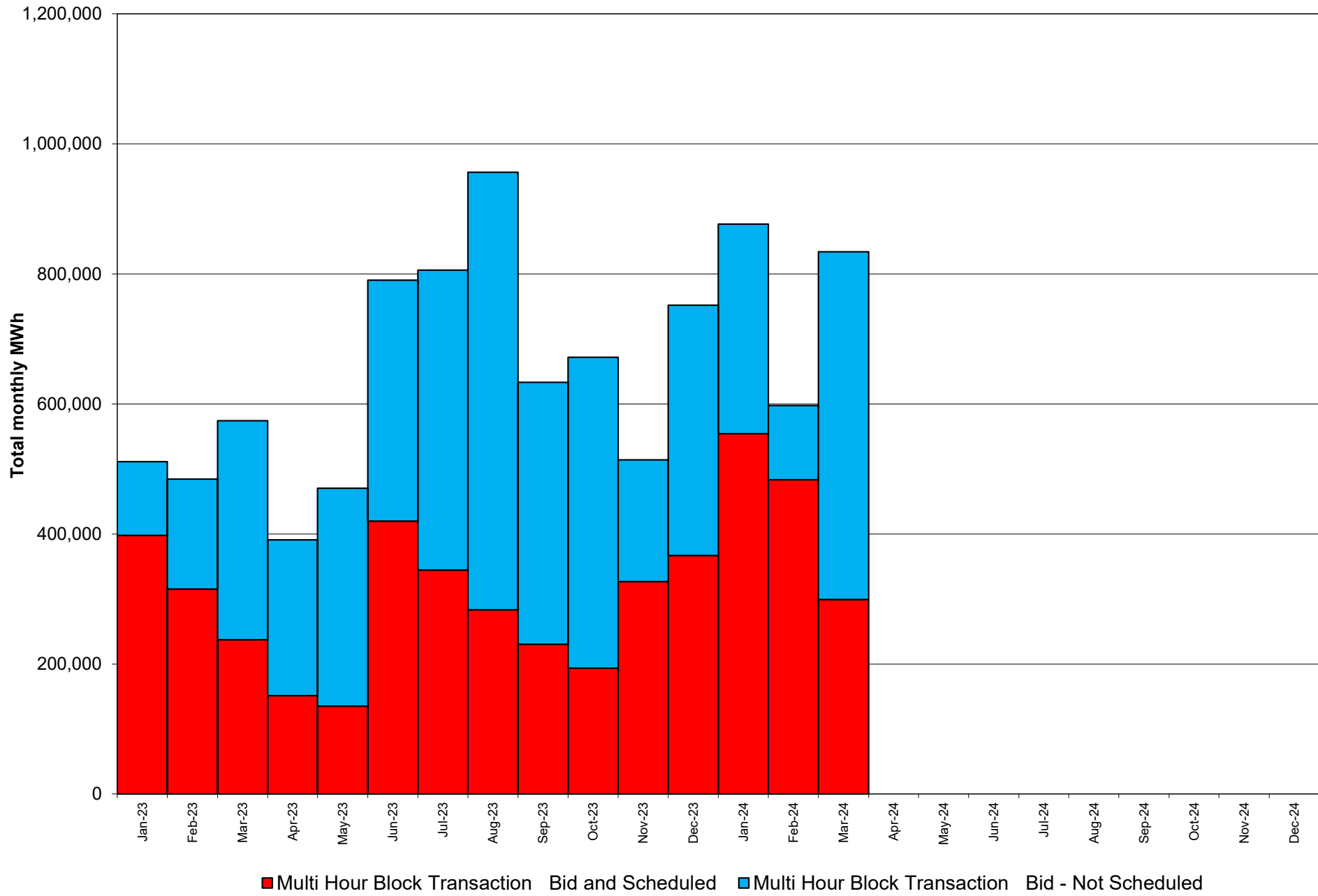
Virtual Load and Supply Zonal Statistics through March 31, 2024



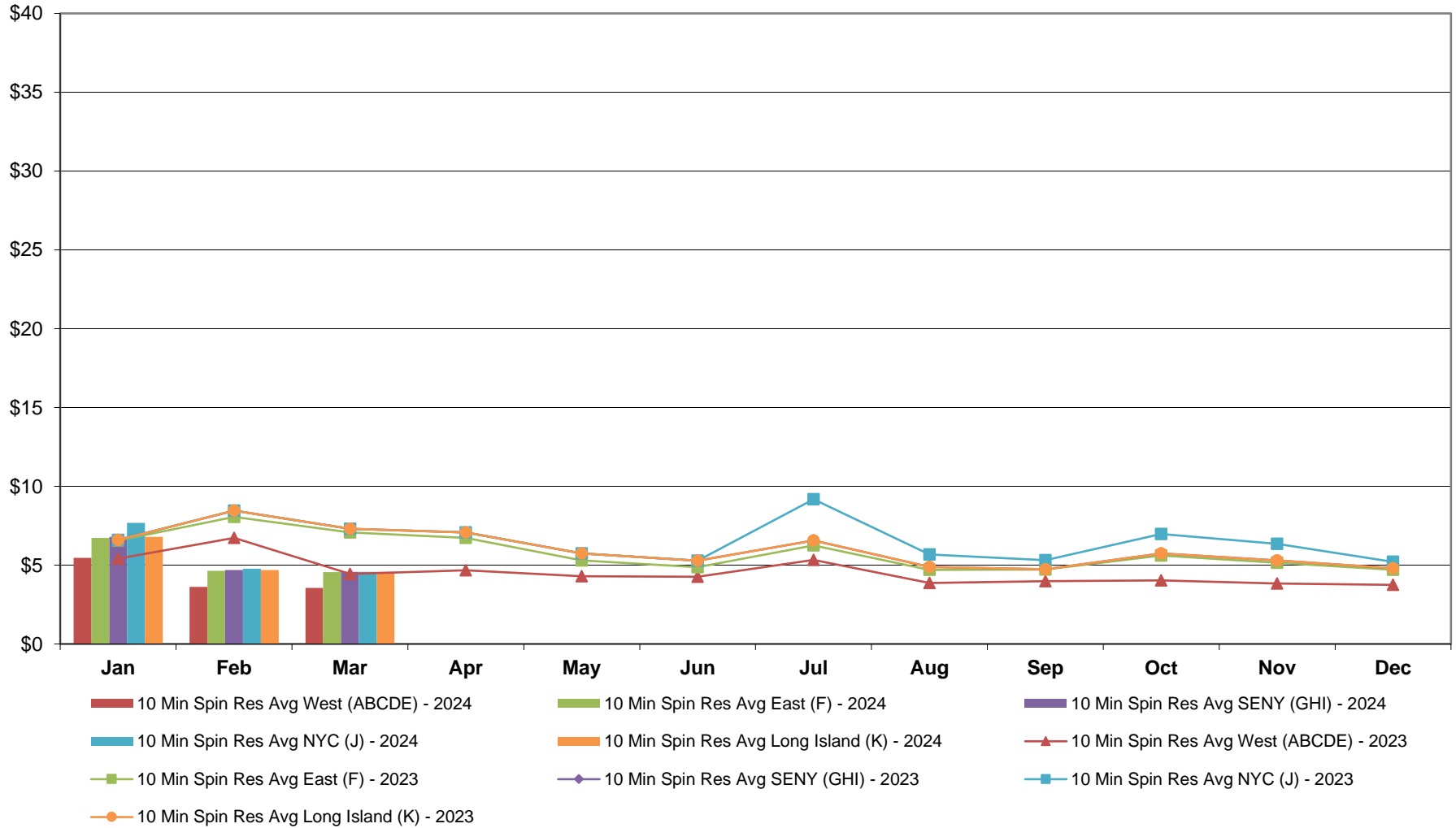
Virtual Load and Supply Zonal Statistics (Average MWh/day) - 2024

		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-24	1,508	820	6,264	515	MHK VL	Jan-24	1,177	528	1,591	246	DUNWOD	Jan-24	2,823	1,889	1,591	286
	Feb-24	1,276	962	6,844	912		Feb-24	2,576	282	1,502	336		Feb-24	2,937	1,658	1,776	533
	Mar-24	1,515	875	6,082	633		Mar-24	1,852	368	1,226	295		Mar-24	3,288	1,655	1,566	268
	Apr-24						Apr-24						Apr-24				
	May-24						May-24						May-24				
	Jun-24						Jun-24						Jun-24				
	Jul-24						Jul-24						Jul-24				
	Aug-24						Aug-24						Aug-24				
	Sep-24						Sep-24						Sep-24				
	Oct-24						Oct-24						Oct-24				
	Nov-24						Nov-24						Nov-24				
	Dec-24						Dec-24						Dec-24				
GENESE	Jan-24	751	399	2,002	251	CAPITL	Jan-24	1,679	1,057	2,022	1,064	N.Y.C.	Jan-24	5,739	2,705	2,305	1,517
	Feb-24	640	505	3,026	347		Feb-24	1,355	908	2,021	1,011		Feb-24	5,752	1,873	2,183	2,402
	Mar-24	734	459	2,771	308		Mar-24	1,216	556	2,294	879		Mar-24	4,893	1,899	2,547	1,639
	Apr-24						Apr-24						Apr-24				
	May-24						May-24						May-24				
	Jun-24						Jun-24						Jun-24				
	Jul-24						Jul-24						Jul-24				
	Aug-24						Aug-24						Aug-24				
	Sep-24						Sep-24						Sep-24				
	Oct-24						Oct-24						Oct-24				
	Nov-24						Nov-24						Nov-24				
	Dec-24						Dec-24						Dec-24				
NORTH	Jan-24	643	355	2,104	676	HUD VL	Jan-24	972	390	8,908	1,509	LONGIL	Jan-24	4,618	2,798	2,149	1,207
	Feb-24	629	422	2,335	438		Feb-24	713	500	8,614	1,448		Feb-24	4,473	2,588	2,825	1,707
	Mar-24	595	505	2,209	542		Mar-24	907	298	7,325	1,455		Mar-24	5,815	2,149	2,058	1,409
	Apr-24						Apr-24						Apr-24				
	May-24						May-24						May-24				
	Jun-24						Jun-24						Jun-24				
	Jul-24						Jul-24						Jul-24				
	Aug-24						Aug-24						Aug-24				
	Sep-24						Sep-24						Sep-24				
	Oct-24						Oct-24						Oct-24				
	Nov-24						Nov-24						Nov-24				
	Dec-24						Dec-24						Dec-24				
CENTRL	Jan-24	4,838	627	1,718	377	MILLWD	Jan-24	1,083	430	1,402	426	NYISO	Jan-24	25,830	11,999	32,055	8,074
	Feb-24	4,694	515	1,855	403		Feb-24	1,024	404	1,398	570		Feb-24	26,070	10,617	34,378	10,108
	Mar-24	4,860	596	1,322	361		Mar-24	1,116	359	1,325	532		Mar-24	26,791	9,718	30,726	8,321
	Apr-24						Apr-24						Apr-24				
	May-24						May-24						May-24				
	Jun-24						Jun-24						Jun-24				
	Jul-24						Jul-24						Jul-24				
	Aug-24						Aug-24						Aug-24				
	Sep-24						Sep-24						Sep-24				
	Oct-24						Oct-24						Oct-24				
	Nov-24						Nov-24						Nov-24				
	Dec-24						Dec-24						Dec-24				

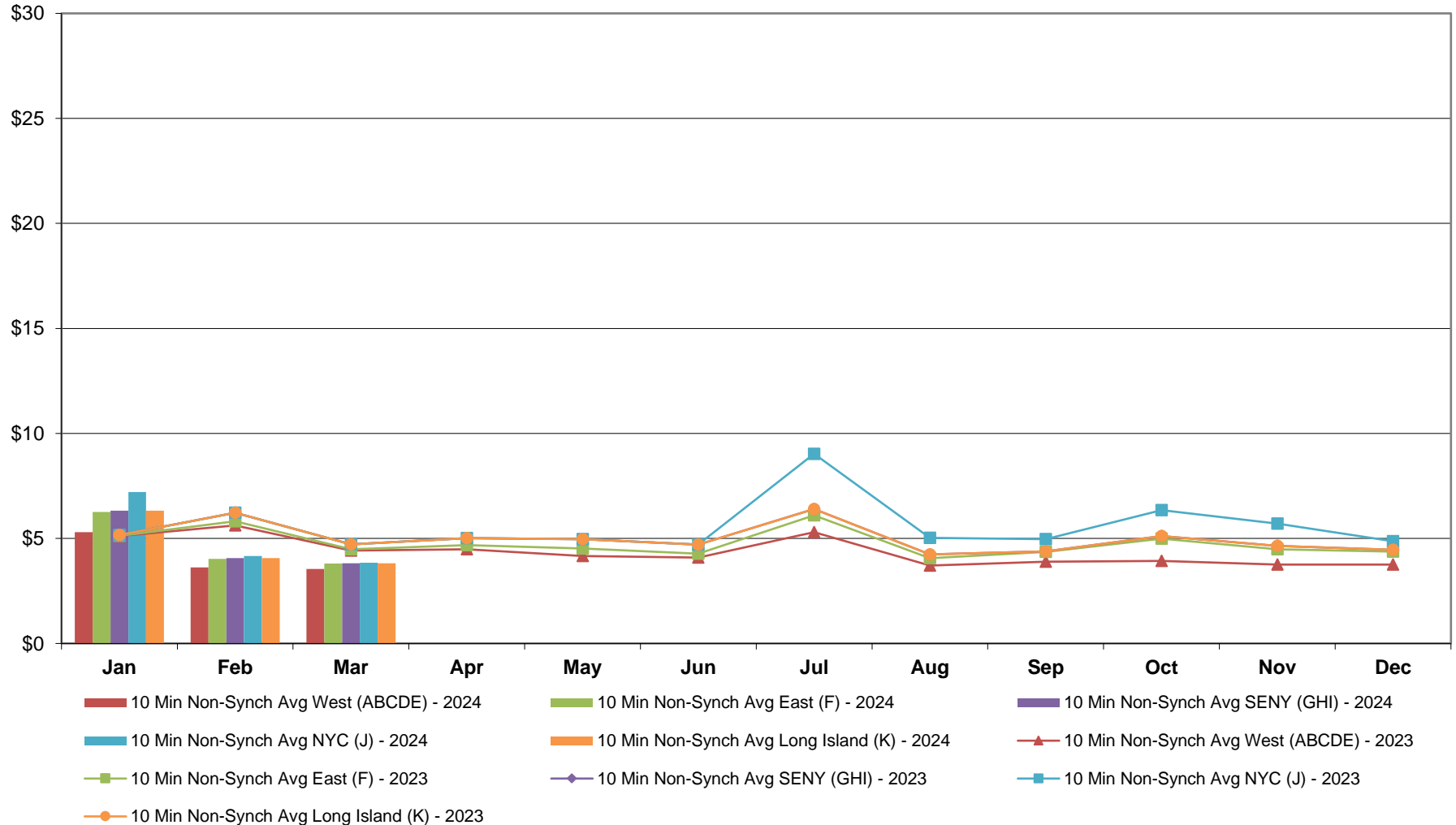
NYISO Multi Hour Block Transactions Monthly Total MWh



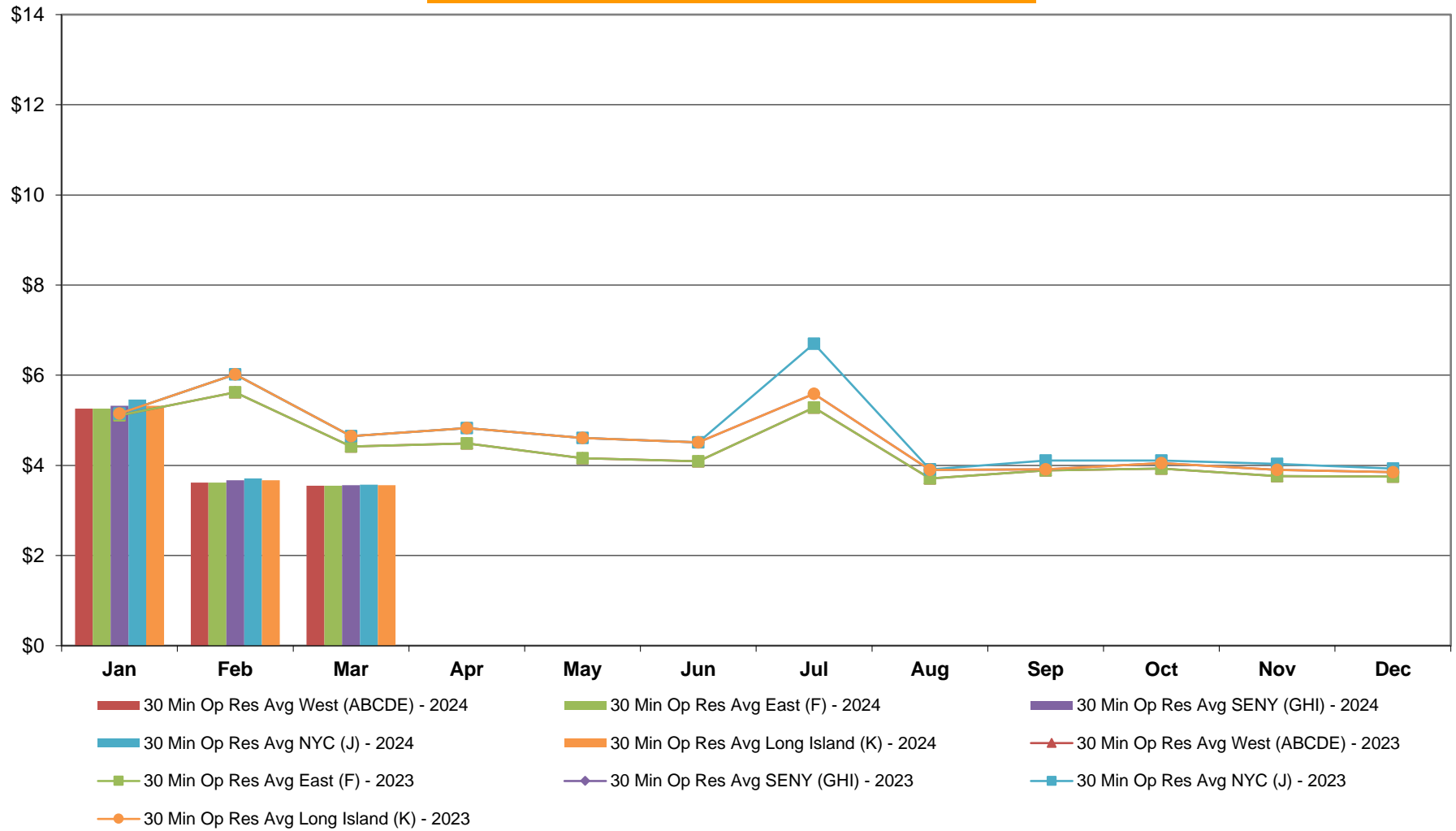
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Spin 2023 - 2024**



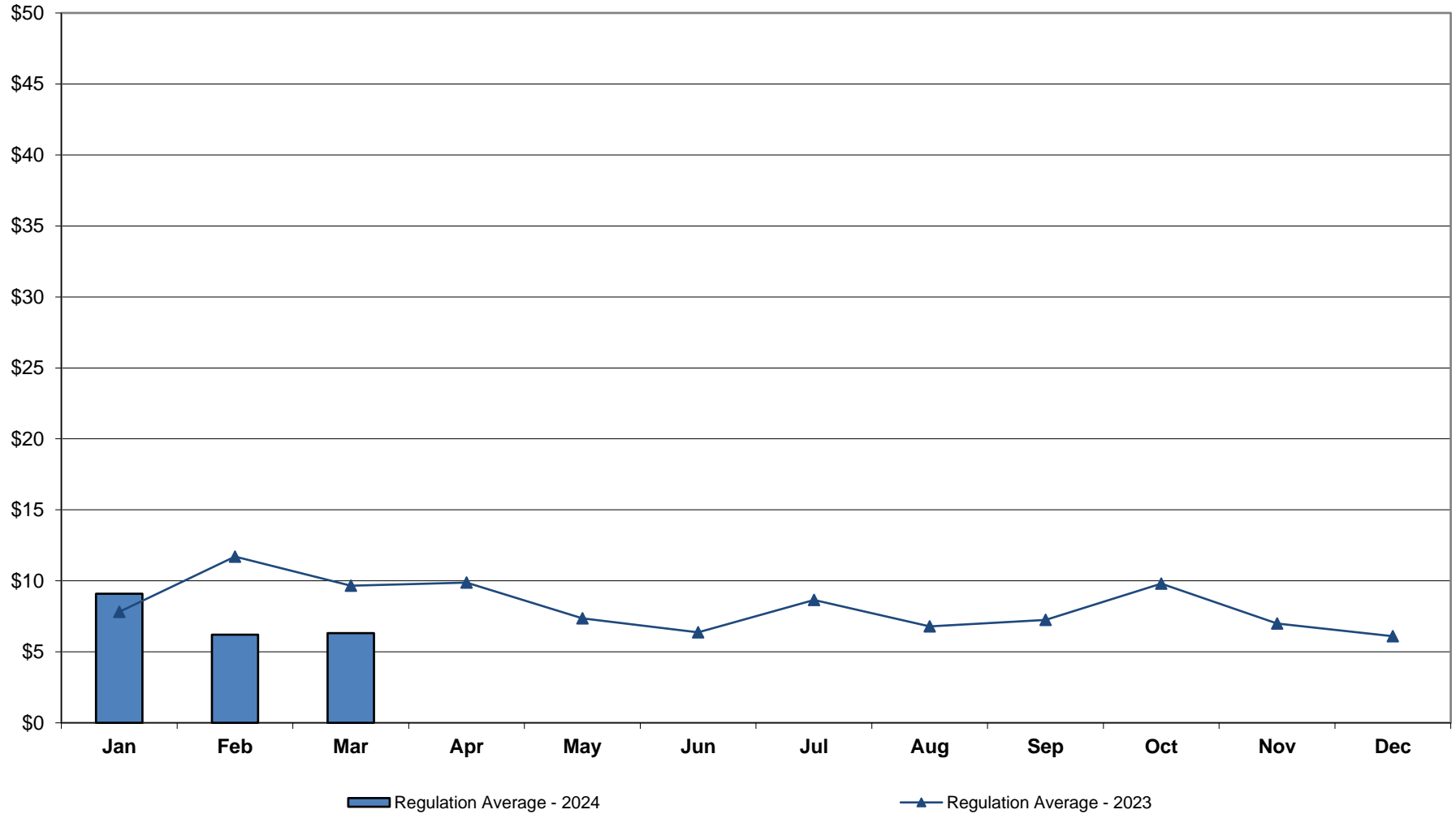
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 10 Min Non-Synch 2023 - 2024**



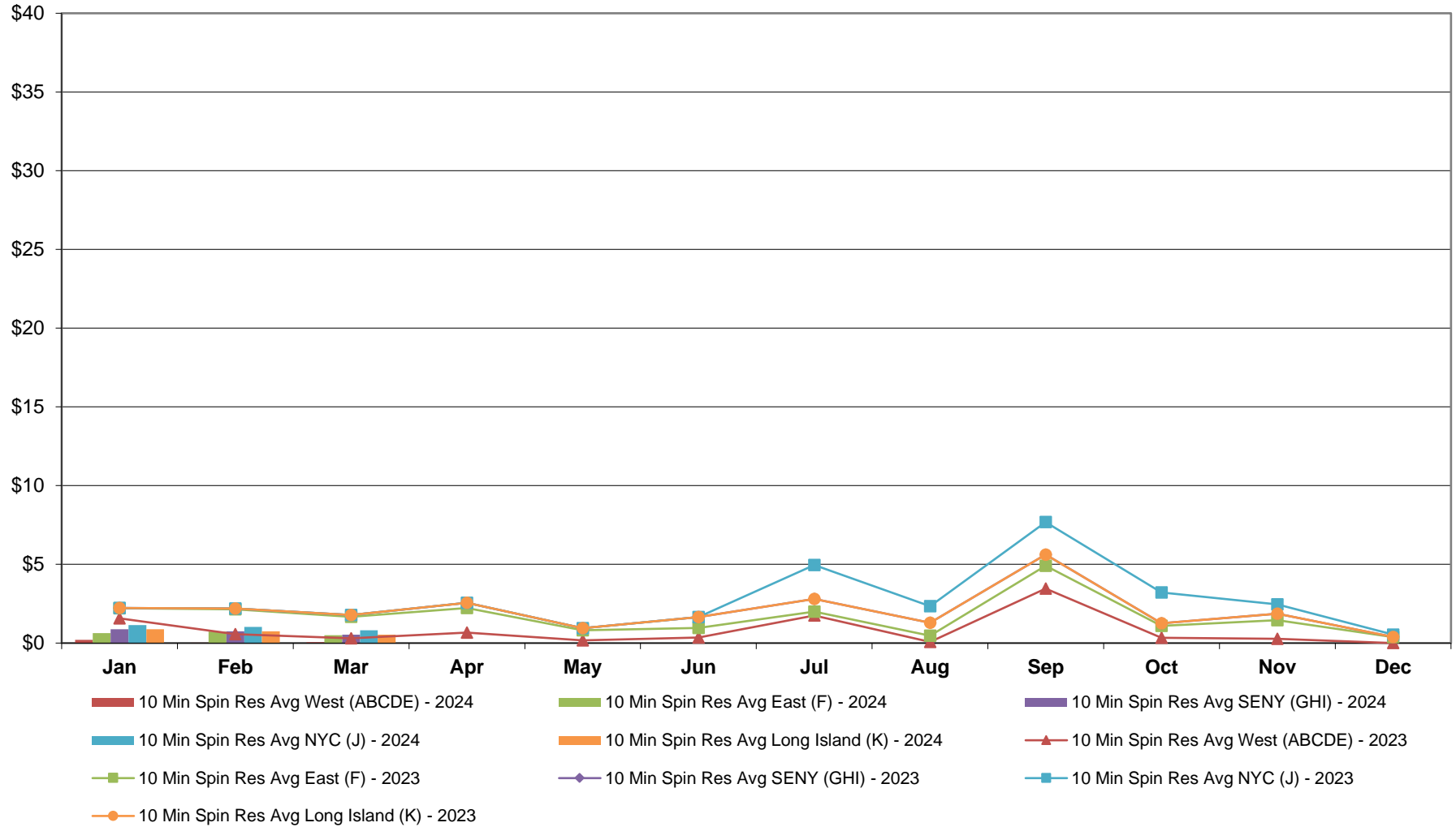
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - 30 Min Op Res 2023 - 2024**



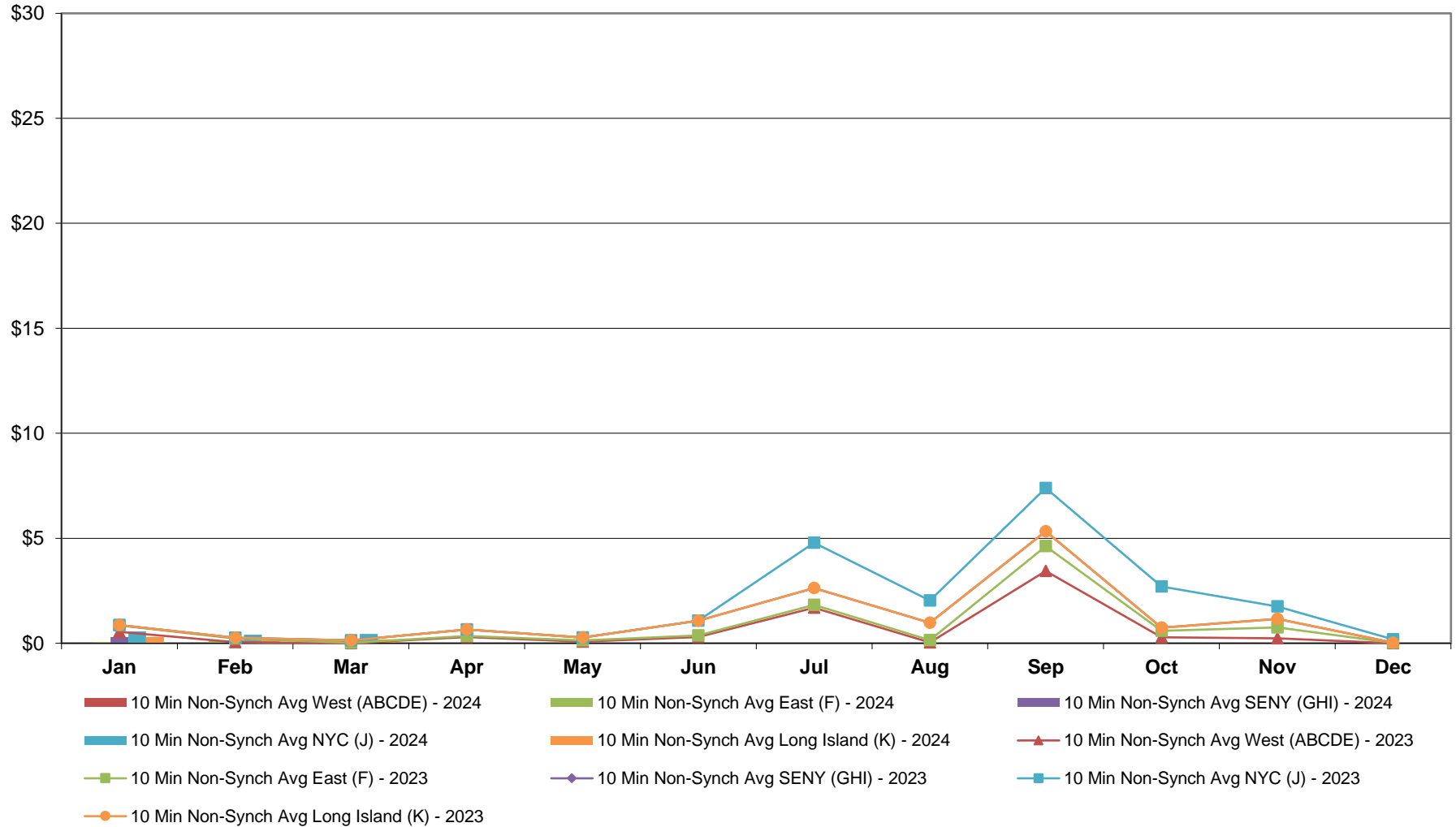
**NYISO Monthly Average Ancillary Service Prices
Day Ahead Market - Regulation 2023 - 2024**



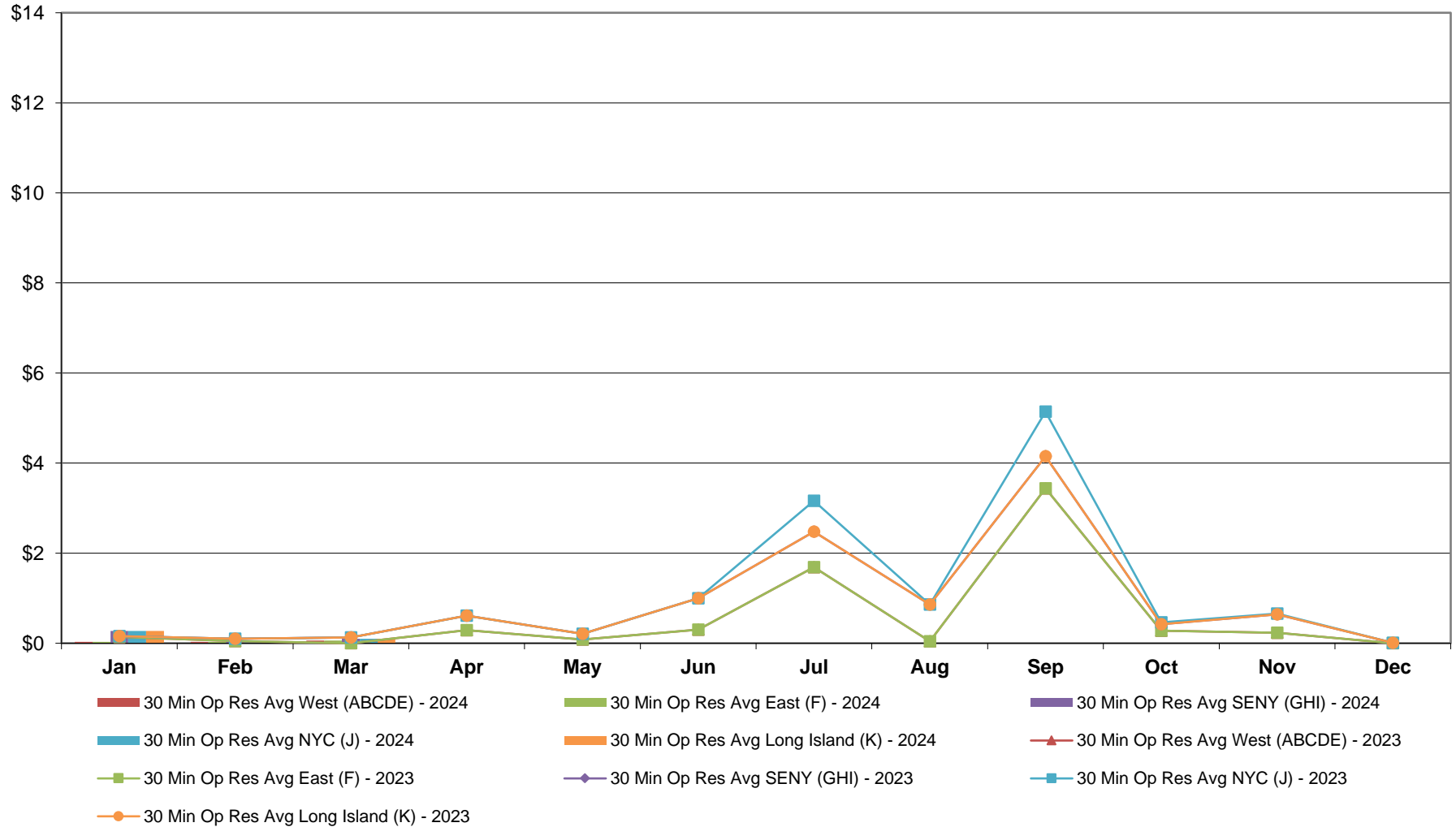
**NYISO Monthly Average Ancillary Service Prices
RTC Market - 10 Min Spin 2023 - 2024**



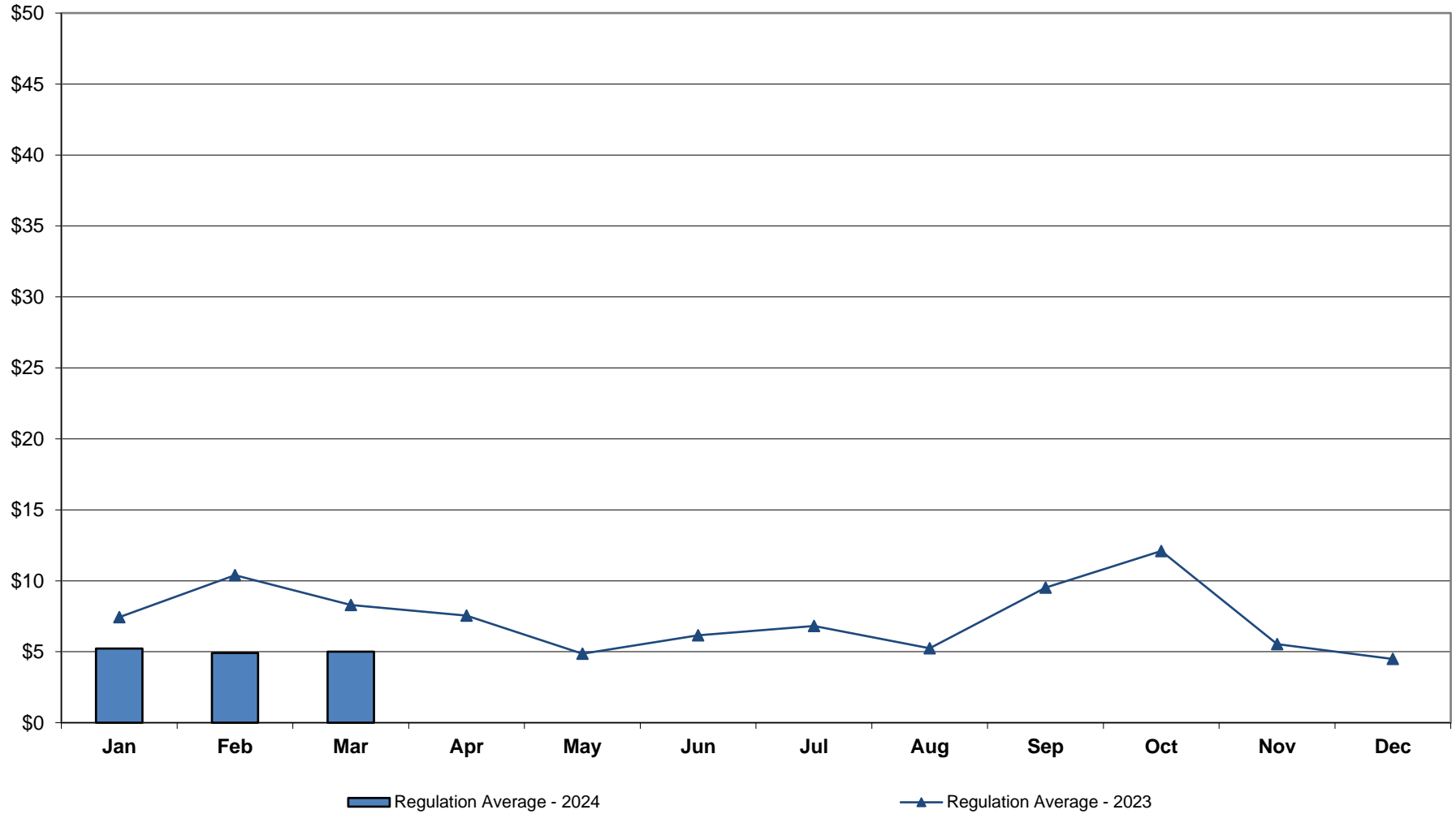
**NYISO Monthly Average Ancillary Service Prices
RTC Market - 10 Min Non-Synch 2023 - 2024**



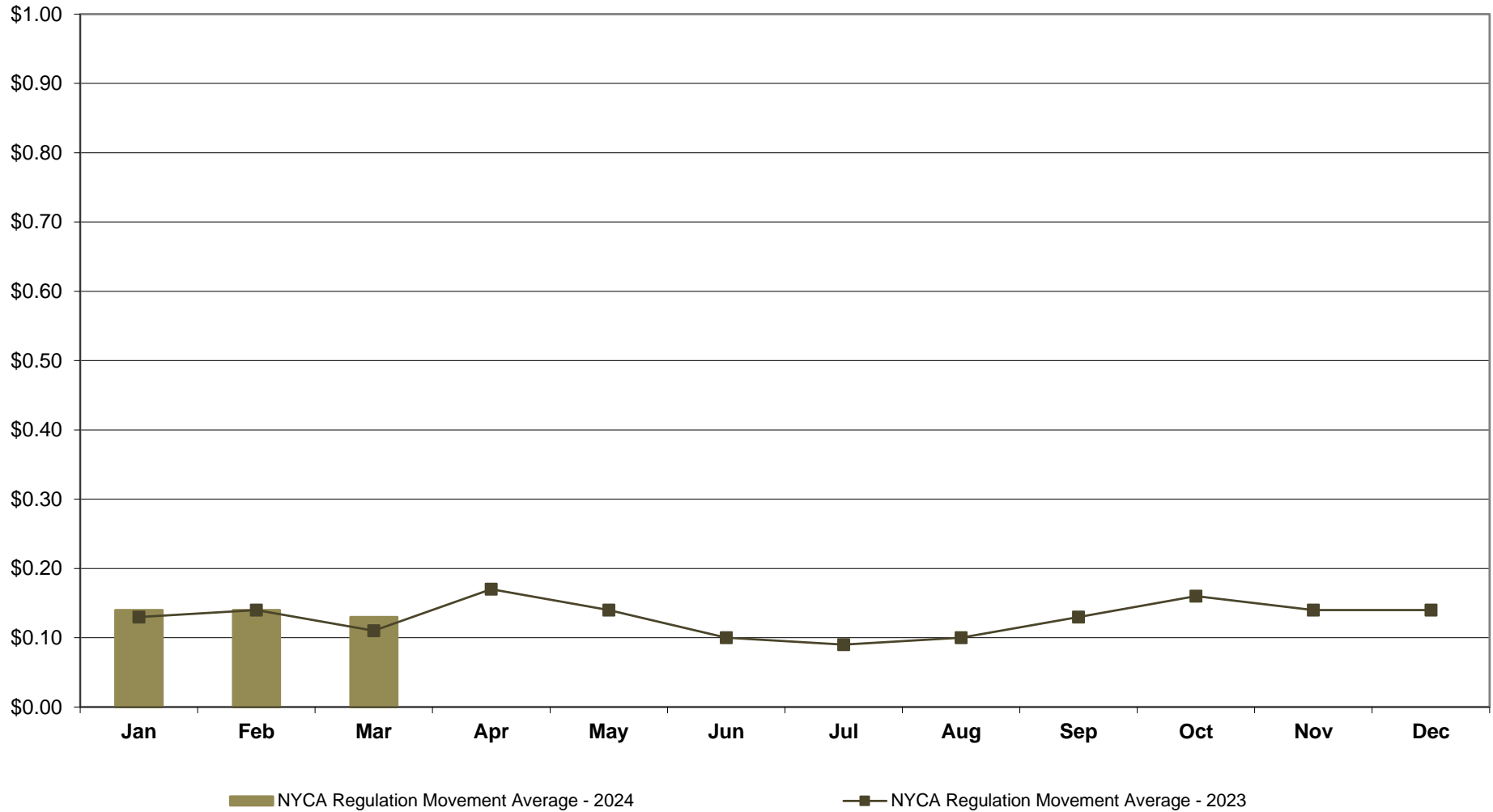
**NYISO Monthly Average Ancillary Service Prices
RTC Market - 30 Min Op Res 2023 - 2024**



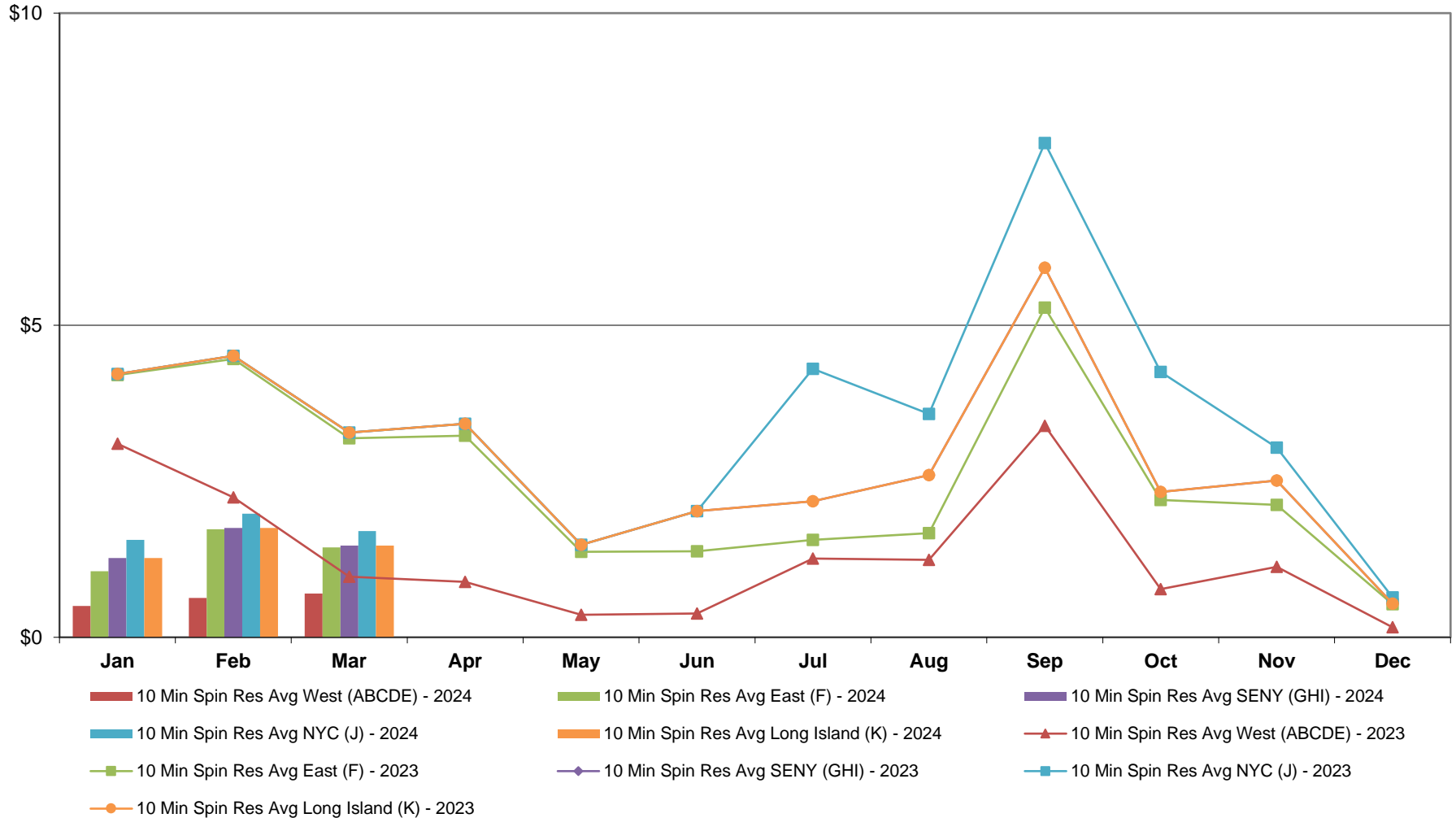
**NYISO Monthly Average Ancillary Service Prices
RTC Market - Regulation 2023 - 2024**



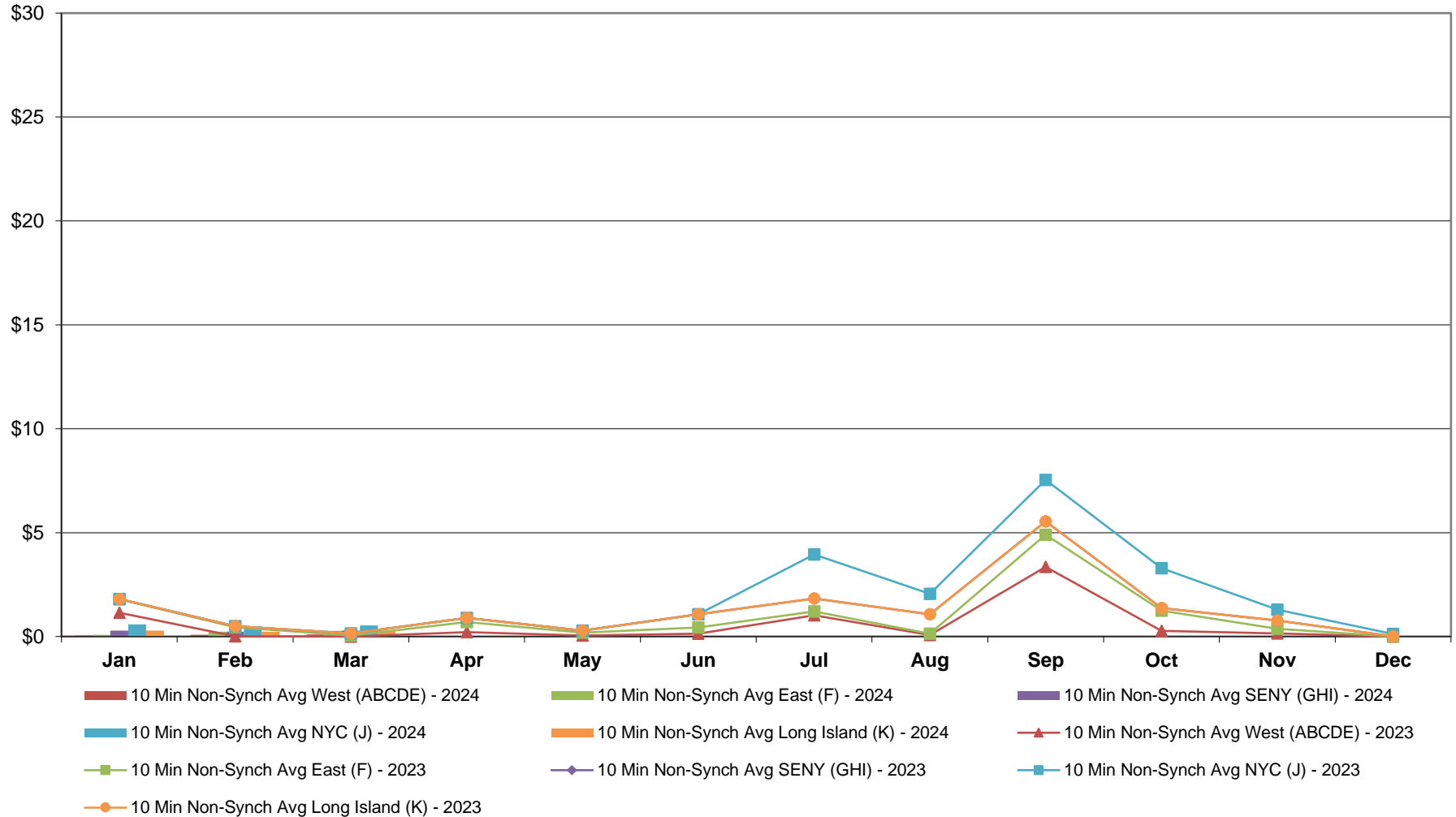
**NYISO Monthly Average Ancillary Service Prices
RTC Market - Regulation Movement 2023 - 2024**



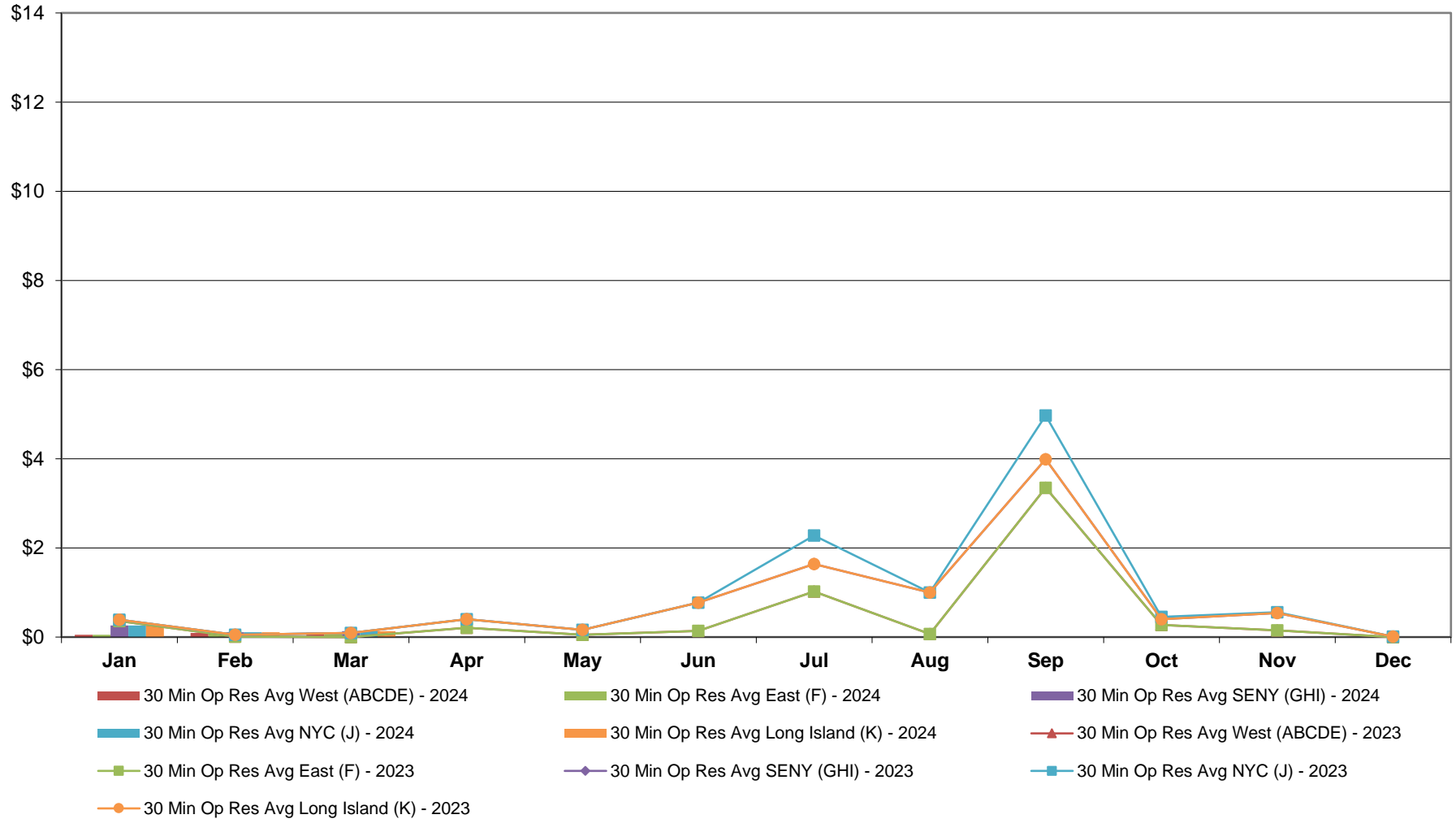
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 10 Min Spin 2023 - 2024**



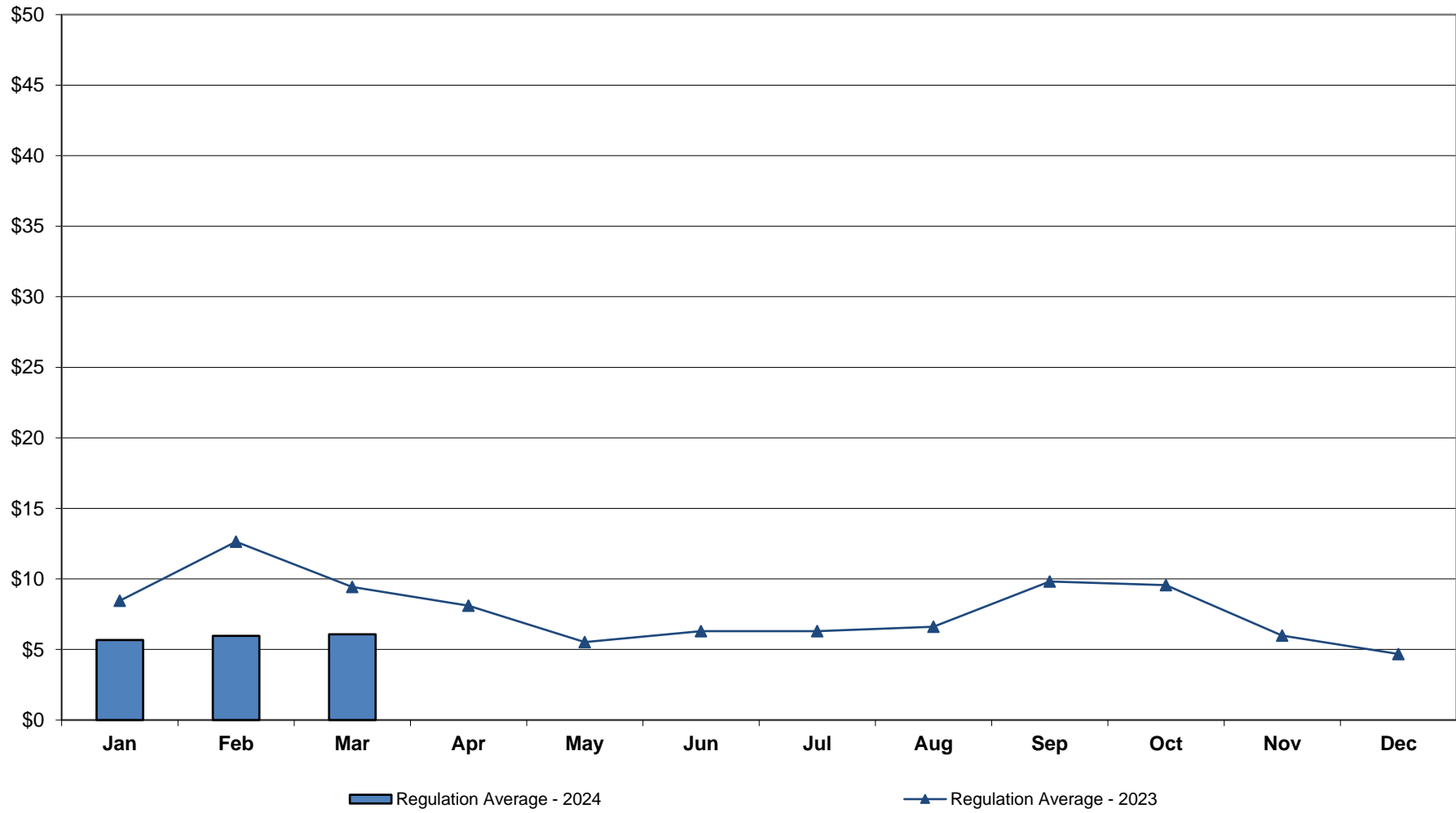
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 10 Min Non-Synch 2023 - 2024**



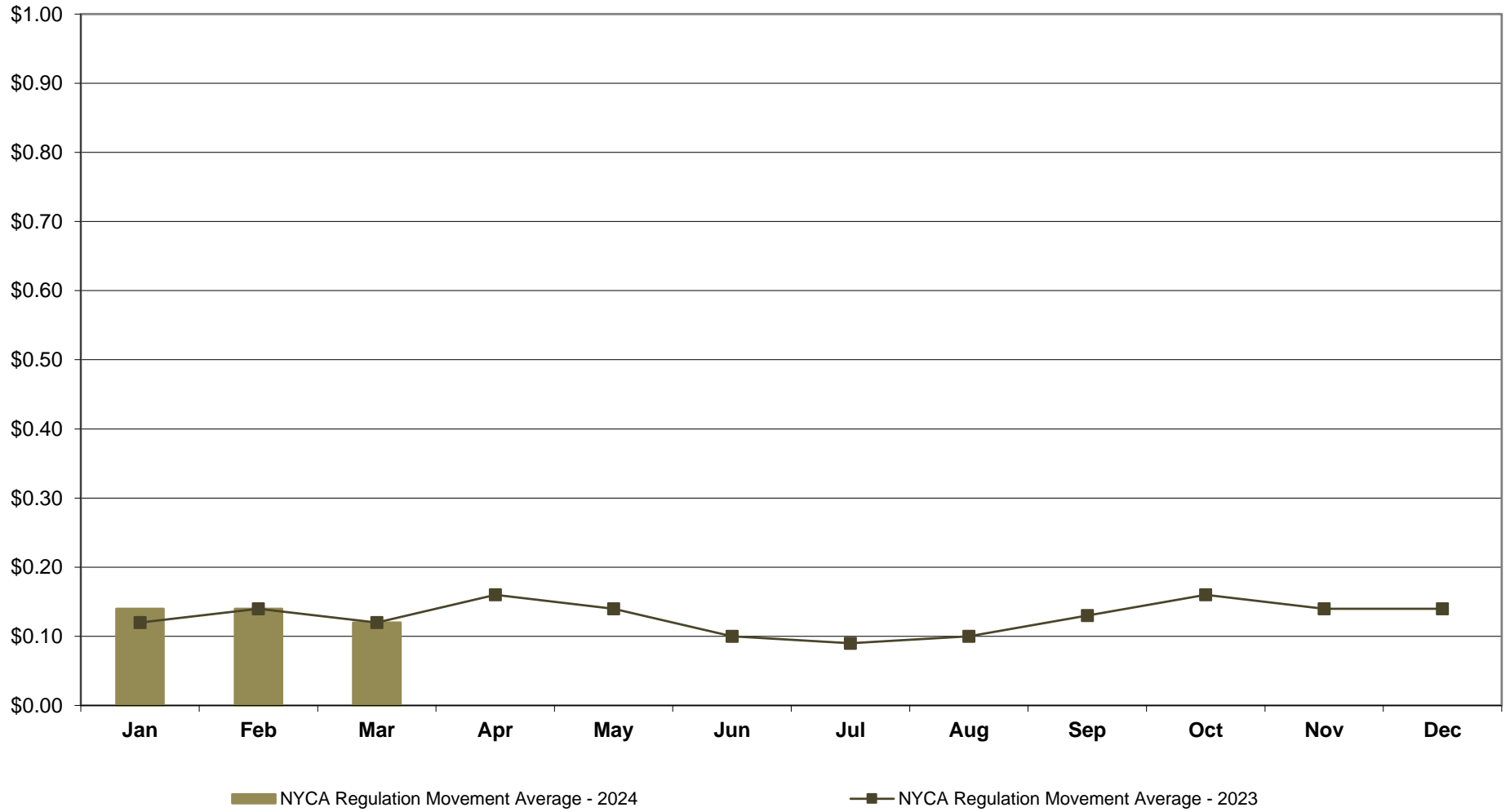
**NYISO Monthly Average Ancillary Service Prices
Real Time Market - 30 Min Op Res 2023 - 2024**



**NYISO Monthly Average Ancillary Service Prices
Real Time Market - Regulation 2023 - 2024**



**NYISO Monthly Average Ancillary Service Prices
Real Time Market - Regulation Movement 2023 - 2024**



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

<u>2024</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)	6.79	4.69	4.57									
10 Min Spin NYC (J)	7.68	4.78	4.58									
10 Min Spin SENY (GHI)	6.79	4.69	4.57									
10 Min Spin East (F)	6.73	4.65	4.56									
10 Min Spin West (ABCDE)	5.46	3.63	3.55									
10 Min Non Synch Long Island (K)	6.32	4.07	3.82									
10 Min Non Synch NYC (J)	7.21	4.16	3.84									
10 Min Non Synch SENY (GHI)	6.32	4.07	3.82									
10 Min Non Synch East (F)	6.26	4.03	3.81									
10 Min Non Synch West (ABCDE)	5.30	3.62	3.55									
30 Min Long Island (K)	5.32	3.67	3.56									
30 Min NYC (J)	5.46	3.71	3.57									
30 Min SENY (GHI)	5.32	3.67	3.56									
30 Min East (F)	5.26	3.62	3.55									
30 Min West (ABCDE)	5.26	3.62	3.55									
Regulation	9.10	6.21	6.31									
<u>2023</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)	6.60	8.46	7.31	7.07	5.74	5.29	6.56	4.89	4.74	5.75	5.30	4.81
10 Min Spin NYC (J)	6.63	8.68	7.38	7.20	5.81	6.37	9.18	5.68	5.31	6.98	6.36	5.21
10 Min Spin SENY (GHI)	6.60	8.46	7.31	7.07	5.74	5.29	6.56	4.89	4.74	5.75	5.30	4.81
10 Min Spin East (F)	6.56	8.06	7.07	6.73	5.30	4.87	6.25	4.70	4.72	5.62	5.16	4.71
10 Min Spin West (ABCDE)	5.41	6.73	4.45	4.67	4.29	4.27	5.34	3.87	3.99	4.04	3.83	3.75
10 Min Non Synch Long Island (K)	5.16	6.22	4.72	5.02	4.97	4.71	6.40	4.24	4.38	5.11	4.64	4.46
10 Min Non Synch NYC (J)	5.18	6.44	4.79	5.15	5.04	5.79	9.03	5.03	4.96	6.35	5.70	4.87
10 Min Non Synch SENY (GHI)	5.16	6.22	4.72	5.02	4.97	4.71	6.40	4.24	4.38	5.11	4.64	4.46
10 Min Non Synch East (F)	5.12	5.82	4.48	4.68	4.52	4.28	6.10	4.06	4.36	4.99	4.49	4.37
10 Min Non Synch West (ABCDE)	5.11	5.62	4.42	4.49	4.16	4.09	5.30	3.71	3.89	3.93	3.76	3.75
30 Min Long Island (K)	5.15	6.02	4.65	4.83	4.61	4.51	5.59	3.90	3.91	4.05	3.90	3.85
30 Min NYC (J)	5.15	6.14	4.70	4.95	4.61	4.59	6.70	3.91	4.11	4.11	4.03	3.93
30 Min SENY (GHI)	5.15	6.02	4.65	4.83	4.61	4.51	5.59	3.90	3.91	4.05	3.90	3.85
30 Min East (F)	5.11	5.62	4.42	4.49	4.16	4.09	5.28	3.71	3.89	3.93	3.76	3.75
30 Min West (ABCDE)	5.11	5.62	4.42	4.49	4.16	4.09	5.28	3.71	3.89	3.93	3.76	3.75
Regulation	7.82	11.71	9.65	9.88	7.36	6.37	8.66	6.79	7.24	9.80	6.99	6.10

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

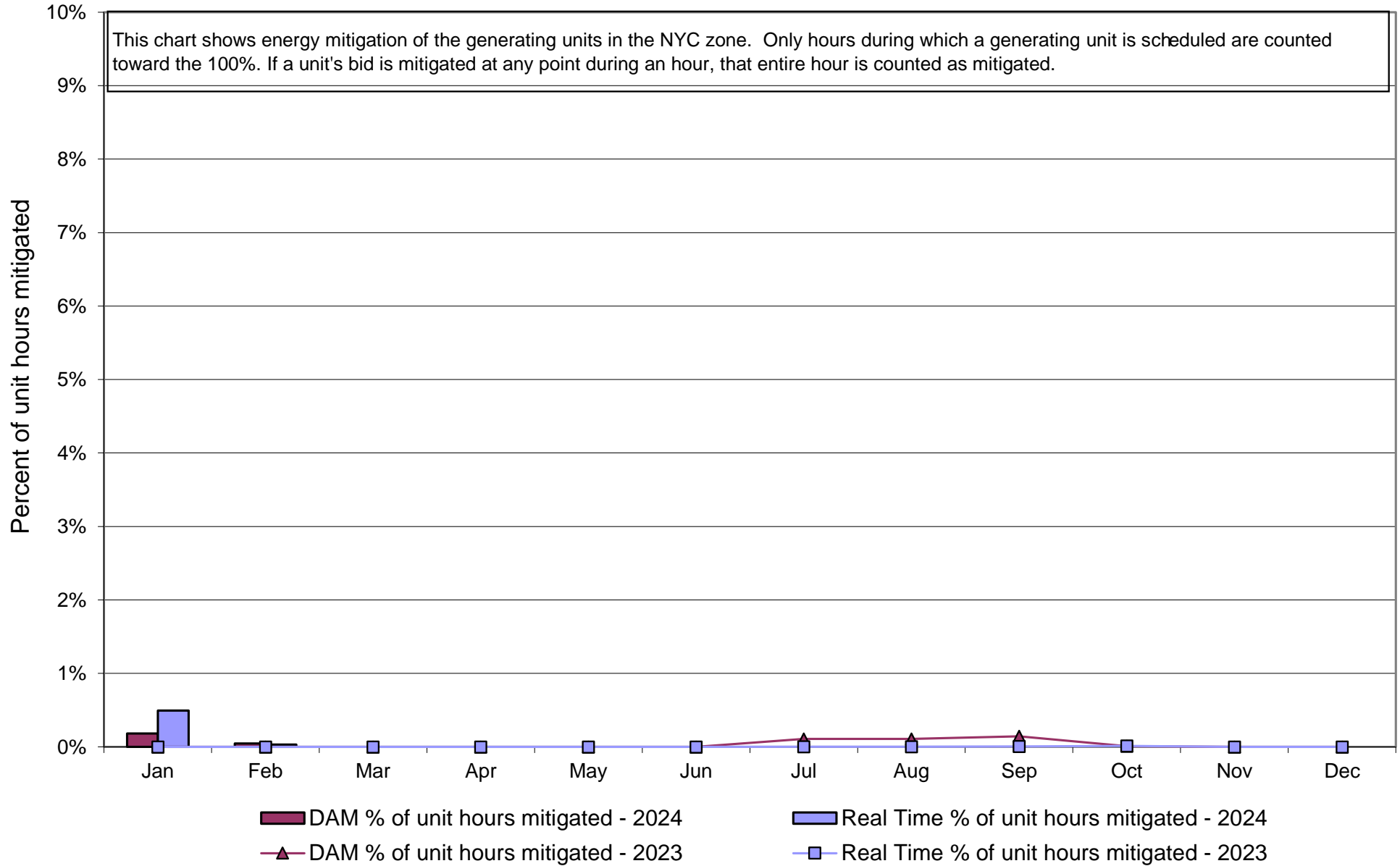
<u>2024</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
RTC Market												
10 Min Spin Long Island (K)	0.88	0.75	0.54									
10 Min Spin NYC (J)	1.14	1.03	0.81									
10 Min Spin SENY (GHI)	0.88	0.75	0.54									
10 Min Spin East (F)	0.64	0.73	0.50									
10 Min Spin West (ABCDE)	0.21	0.03	0.06									
10 Min Non Synch Long Island (K)	0.30	0.13	0.18									
10 Min Non Synch NYC (J)	0.57	0.41	0.45									
10 Min Non Synch SENY (GHI)	0.30	0.13	0.18									
10 Min Non Synch East (F)	0.06	0.11	0.14									
10 Min Non Synch West (ABCDE)	0.03	0.03	0.06									
30 Min Long Island (K)	0.27	0.05	0.10									
30 Min NYC (J)	0.27	0.05	0.10									
30 Min SENY (GHI)	0.27	0.05	0.10									
30 Min East (F)	0.03	0.03	0.06									
30 Min West (ABCDE)	0.03	0.03	0.06									
Regulation	5.22	4.91	5.00									
NYCA Regulation Movement	0.14	0.14	0.13									
<u>2023</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>
RTC Market												
10 Min Spin Long Island (K)	2.22	2.19	1.79	2.55	0.95	1.66	2.80	1.29	5.62	1.25	1.86	0.39
10 Min Spin NYC (J)	2.26	2.21	1.83	2.84	1.07	2.60	4.96	2.35	7.68	3.21	2.45	0.54
10 Min Spin SENY (GHI)	2.22	2.19	1.79	2.55	0.95	1.66	2.80	1.29	5.62	1.25	1.86	0.39
10 Min Spin East (F)	2.21	2.15	1.67	2.23	0.82	0.96	2.00	0.47	4.91	1.10	1.45	0.38
10 Min Spin West (ABCDE)	1.57	0.56	0.30	0.67	0.17	0.36	1.75	0.08	3.46	0.34	0.27	0.00
10 Min Non Synch Long Island (K)	0.86	0.26	0.14	0.65	0.27	1.07	2.63	0.97	5.33	0.74	1.16	0.03
10 Min Non Synch NYC (J)	0.89	0.27	0.18	0.95	0.39	2.01	4.79	2.03	7.39	2.70	1.75	0.18
10 Min Non Synch SENY (GHI)	0.86	0.26	0.14	0.65	0.27	1.07	2.63	0.97	5.33	0.74	1.16	0.03
10 Min Non Synch East (F)	0.85	0.22	0.02	0.34	0.14	0.37	1.83	0.15	4.62	0.59	0.75	0.02
10 Min Non Synch West (ABCDE)	0.54	0.05	0.00	0.29	0.08	0.30	1.69	0.04	3.44	0.28	0.23	0.00
30 Min Long Island (K)	0.16	0.10	0.13	0.61	0.21	1.00	2.48	0.86	4.15	0.42	0.64	0.01
30 Min NYC (J)	0.16	0.10	0.15	0.68	0.22	1.00	3.16	0.86	5.14	0.46	0.66	0.01
30 Min SENY (GHI)	0.16	0.10	0.13	0.61	0.21	1.00	2.48	0.86	4.15	0.42	0.64	0.01
30 Min East (F)	0.14	0.05	0.00	0.29	0.08	0.30	1.69	0.04	3.44	0.28	0.23	0.00
30 Min West (ABCDE)	0.14	0.05	0.00	0.29	0.08	0.30	1.69	0.04	3.44	0.28	0.23	0.00
Regulation	7.44	10.40	8.29	7.55	4.86	6.16	6.81	5.25	9.52	12.10	5.53	4.49
NYCA Regulation Movement	0.13	0.14	0.11	0.17	0.14	0.10	0.09	0.10	0.13	0.16	0.14	0.14

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

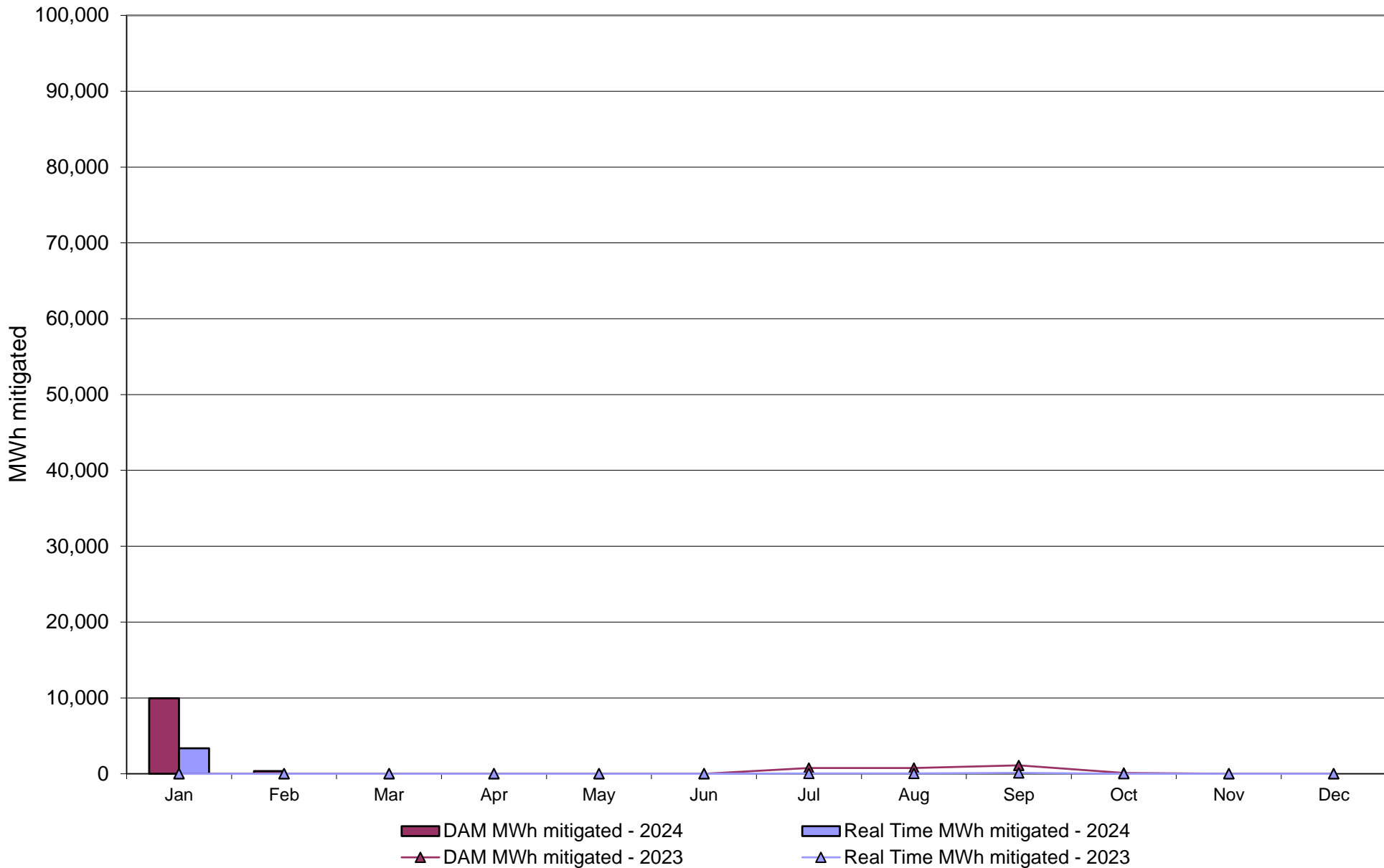
<u>2024</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Real Time Market												
10 Min Spin Long Island (K)	1.27	1.75	1.47									
10 Min Spin NYC (J)	1.56	1.98	1.70									
10 Min Spin SENY (GHI)	1.27	1.75	1.47									
10 Min Spin East (F)	1.06	1.73	1.44									
10 Min Spin West (ABCDE)	0.50	0.63	0.70									
10 Min Non Synch Long Island (K)	0.29	0.24	0.29									
10 Min Non Synch NYC (J)	0.59	0.48	0.53									
10 Min Non Synch SENY (GHI)	0.29	0.24	0.29									
10 Min Non Synch East (F)	0.08	0.23	0.27									
10 Min Non Synch West (ABCDE)	0.05	0.09	0.10									
30 Min Long Island (K)	0.26	0.11	0.13									
30 Min NYC (J)	0.26	0.11	0.13									
30 Min SENY (GHI)	0.26	0.11	0.13									
30 Min East (F)	0.05	0.09	0.10									
30 Min West (ABCDE)	0.05	0.09	0.10									
Regulation	5.68	5.97	6.07									
NYCA Regulation Movement	0.14	0.14	0.12									
2023	<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>
Real Time Market												
10 Min Spin Long Island (K)	4.22	4.51	3.28	3.42	1.48	2.02	2.18	2.60	5.92	2.33	2.51	0.54
10 Min Spin NYC (J)	4.30	4.53	3.28	3.72	1.61	2.89	4.30	3.58	7.92	4.25	3.04	0.64
10 Min Spin SENY (GHI)	4.22	4.51	3.28	3.42	1.48	2.02	2.18	2.60	5.92	2.33	2.51	0.54
10 Min Spin East (F)	4.20	4.46	3.19	3.23	1.37	1.38	1.56	1.67	5.28	2.20	2.12	0.53
10 Min Spin West (ABCDE)	3.10	2.24	0.97	0.89	0.36	0.38	1.26	1.24	3.39	0.77	1.13	0.16
10 Min Non Synch Long Island (K)	1.81	0.50	0.15	0.89	0.29	1.07	1.83	1.07	5.54	1.37	0.77	0.01
10 Min Non Synch NYC (J)	1.89	0.52	0.15	1.19	0.43	1.94	3.95	2.05	7.54	3.29	1.29	0.12
10 Min Non Synch SENY (GHI)	1.81	0.50	0.15	0.89	0.29	1.07	1.83	1.07	5.54	1.37	0.77	0.01
10 Min Non Synch East (F)	1.79	0.45	0.05	0.70	0.19	0.43	1.21	0.14	4.90	1.24	0.37	0.00
10 Min Non Synch West (ABCDE)	1.15	0.01	0.00	0.21	0.05	0.14	1.02	0.07	3.35	0.27	0.15	0.00
30 Min Long Island (K)	0.39	0.05	0.09	0.40	0.16	0.77	1.64	1.00	3.99	0.40	0.54	0.01
30 Min NYC (J)	0.39	0.05	0.09	0.47	0.16	0.77	2.28	1.00	4.97	0.45	0.56	0.01
30 Min SENY (GHI)	0.39	0.05	0.09	0.40	0.16	0.77	1.64	1.00	3.99	0.40	0.54	0.01
30 Min East (F)	0.36	0.01	0.00	0.21	0.05	0.14	1.02	0.07	3.35	0.27	0.15	0.00
30 Min West (ABCDE)	0.36	0.01	0.00	0.21	0.05	0.14	1.02	0.07	3.35	0.27	0.15	0.00
Regulation	8.46	12.64	9.44	8.10	5.52	6.30	6.30	6.62	9.82	9.57	5.98	4.68
NYCA Regulation Movement	0.12	0.14	0.12	0.16	0.14	0.10	0.09	0.10	0.13	0.16	0.14	0.14

NYISO In City Energy Mitigation - AMP (NYC Zone) 2023 - 2024

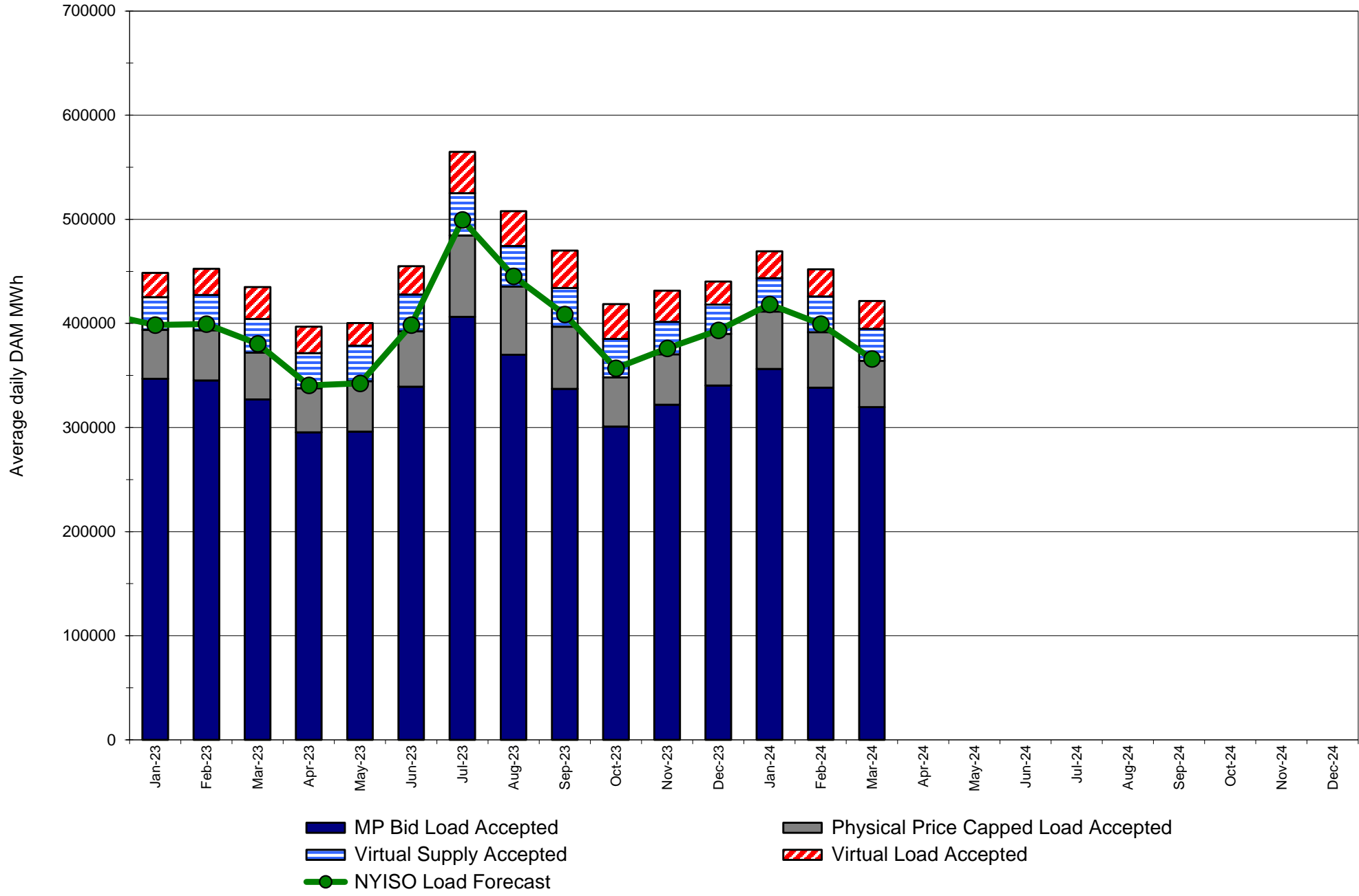
Percentage of committed unit-hours mitigated



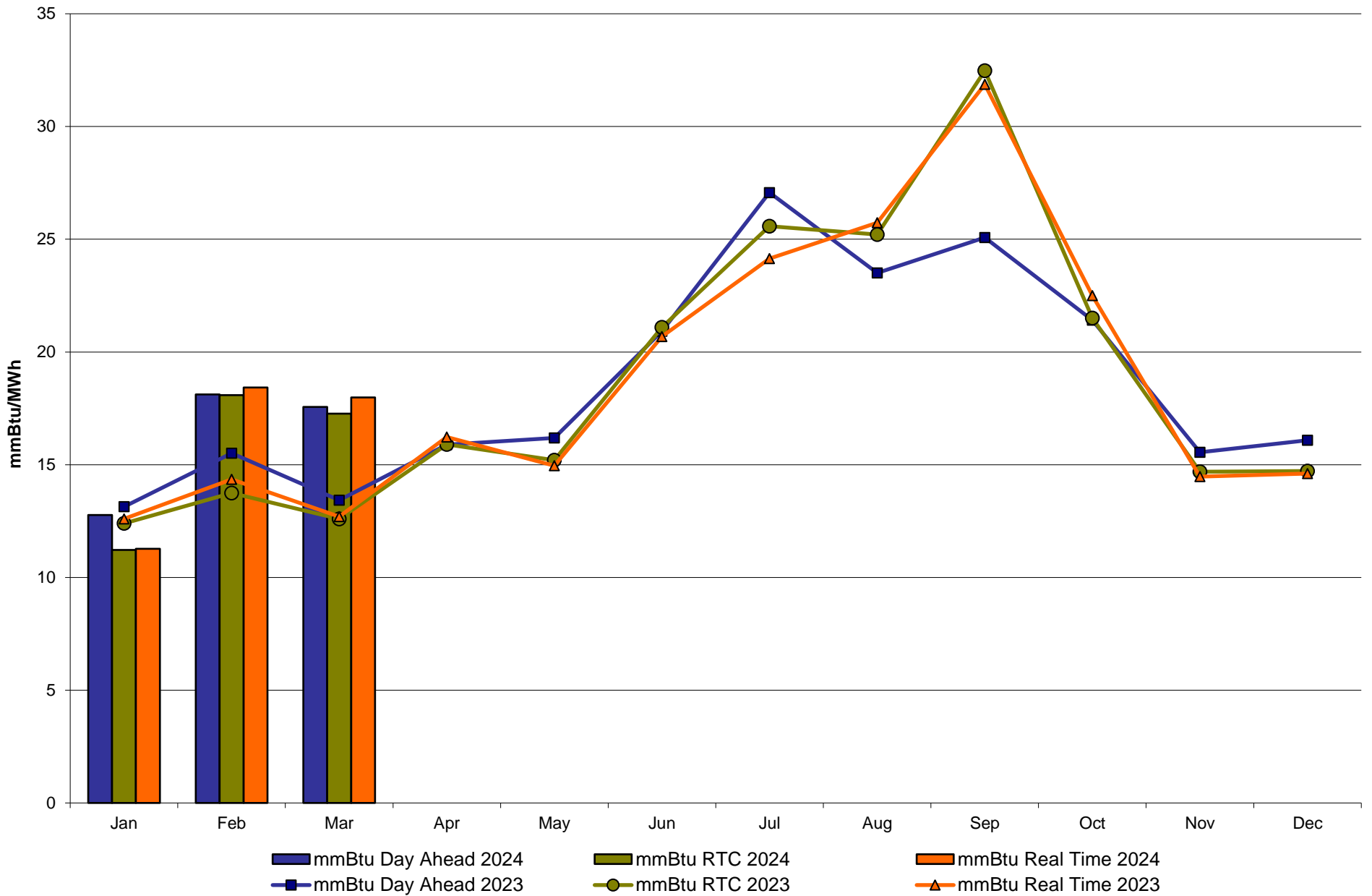
**NYISO In City Energy Mitigation (NYC Zone) 2023 - 2024
Monthly megawatt hours mitigated**



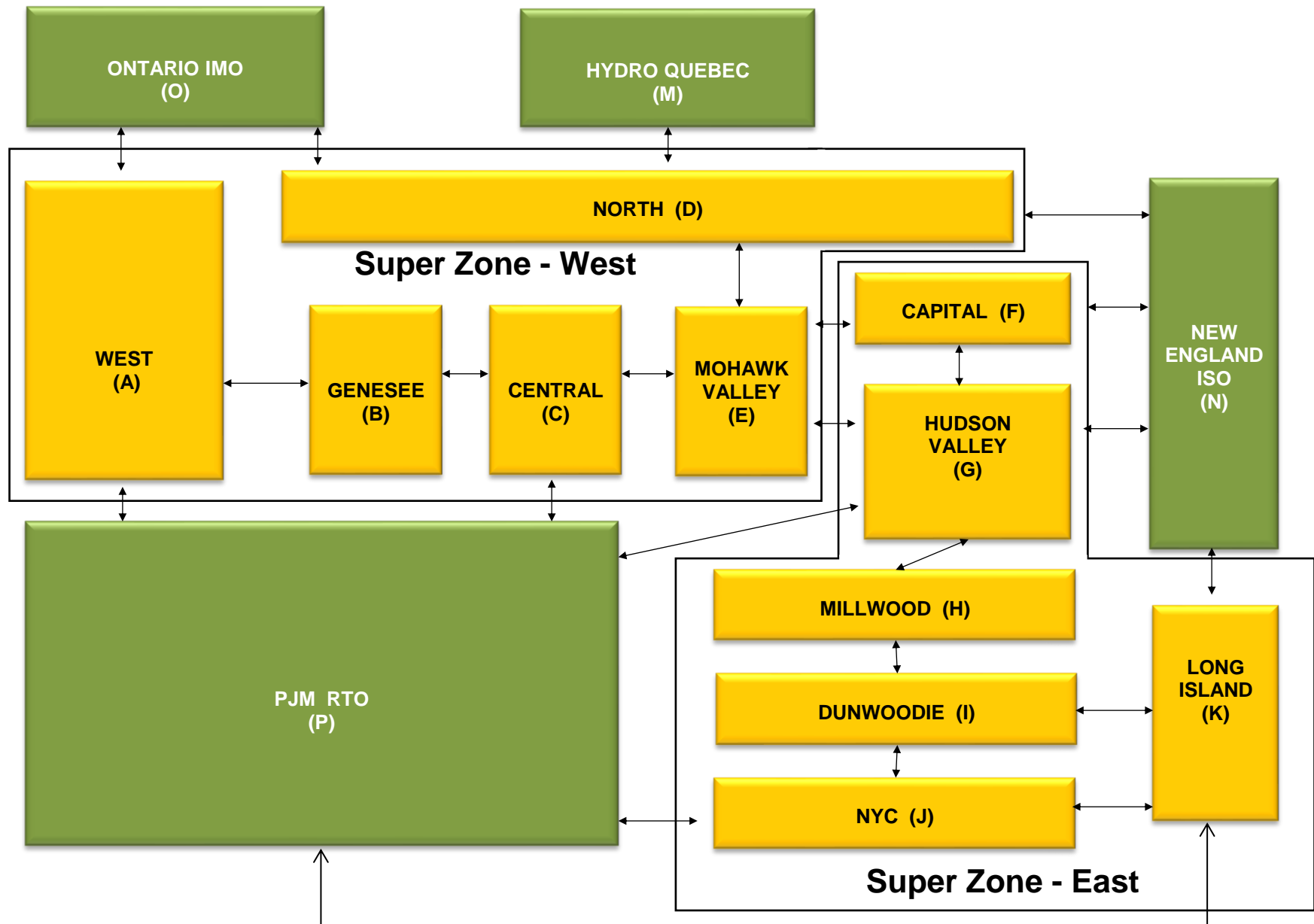
NYISO Average Daily DAM Load Bid Summary



Monthly Implied Heat Rate 2023-2024



NYISO LBMP ZONES



Billing Codes for Chart C

Chart - C Category Name	Billing Code	Billing Category Name
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

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation