



# Markets Report

Members Committee  
April 22, 2026

- PJM Wholesale Cost is now being calculated exclusively by Monitoring Analytics. ([Slide 4](#))
- Slides pertaining to weather conditions, in addition to slides showing average fuel prices, generation on-line fuel mixes, and System Marginal Prices have been combined into a **Market Conditions** section. ([Slides 6-19](#))
- In March, temperatures were above a typical level. The sum of Heating and Cooling Degree Days was below the historic average. ([Slides 7-8](#))
- Energy use was in-line with its historic average for March. ([Slides 7-8](#))
- In March, uplift exceeded \$2.25M on 3 days. ([Slide 24](#))

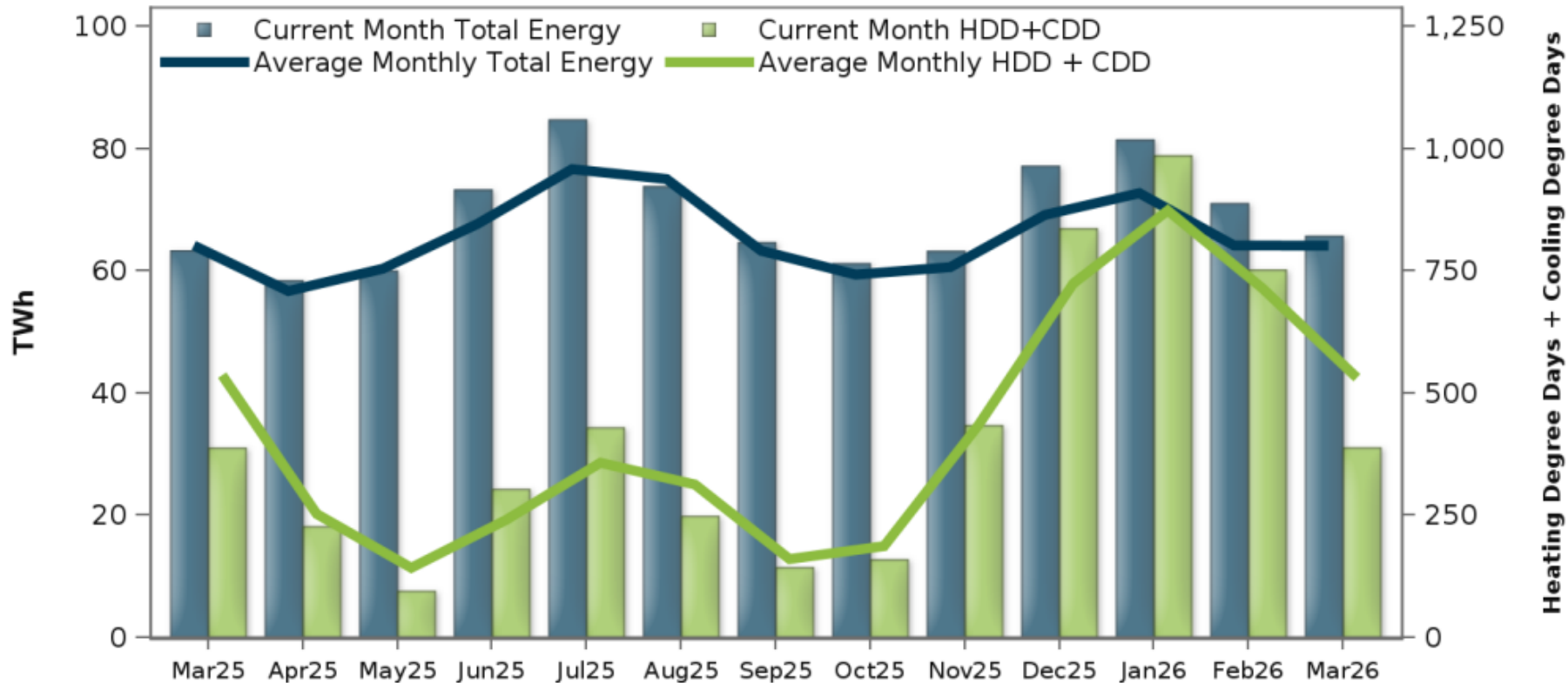
- Load-weighted average LMP for 2025 is \$87/MWh: ([Slides 32-33](#))
  - March 2025 was \$46/MWh, which is higher than March 2024 (\$42/MWh) and March 2023 (\$23/MWh).
- There were 21 5-minute intervals that experienced shortage pricing in March. ([Slide 31](#), Report Appendix)
- FTR revenue adequacy for the month of March is 86% and the 2025-2026 Planning Year is funded at 100%. ([Slides 49-52](#))
- Congestion values in 2026 are starting off higher than those seen in 2025. ([Slide 50](#))
- Regulation and Synchronized Reserve market costs have generally tracked with energy prices over time. ([Slides 66-68](#))

- PJM Wholesale Cost is now being calculated and published exclusively by Monitoring Analytics (IMM).
- Annual and quarterly updates can be found in the IMM's State of the Market Reports:
  - [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2024.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2024.shtml)
- Monthly updates can be found in Excel format on the IMM's website:
  - [https://www.monitoringanalytics.com/data/pjm\\_price.shtml](https://www.monitoringanalytics.com/data/pjm_price.shtml)
- Year-to-Date updates will be presented by the IMM at the monthly MC Webinar.
- PJM will continue to monitor the IMM's Wholesale Cost calculation.

# Market Conditions

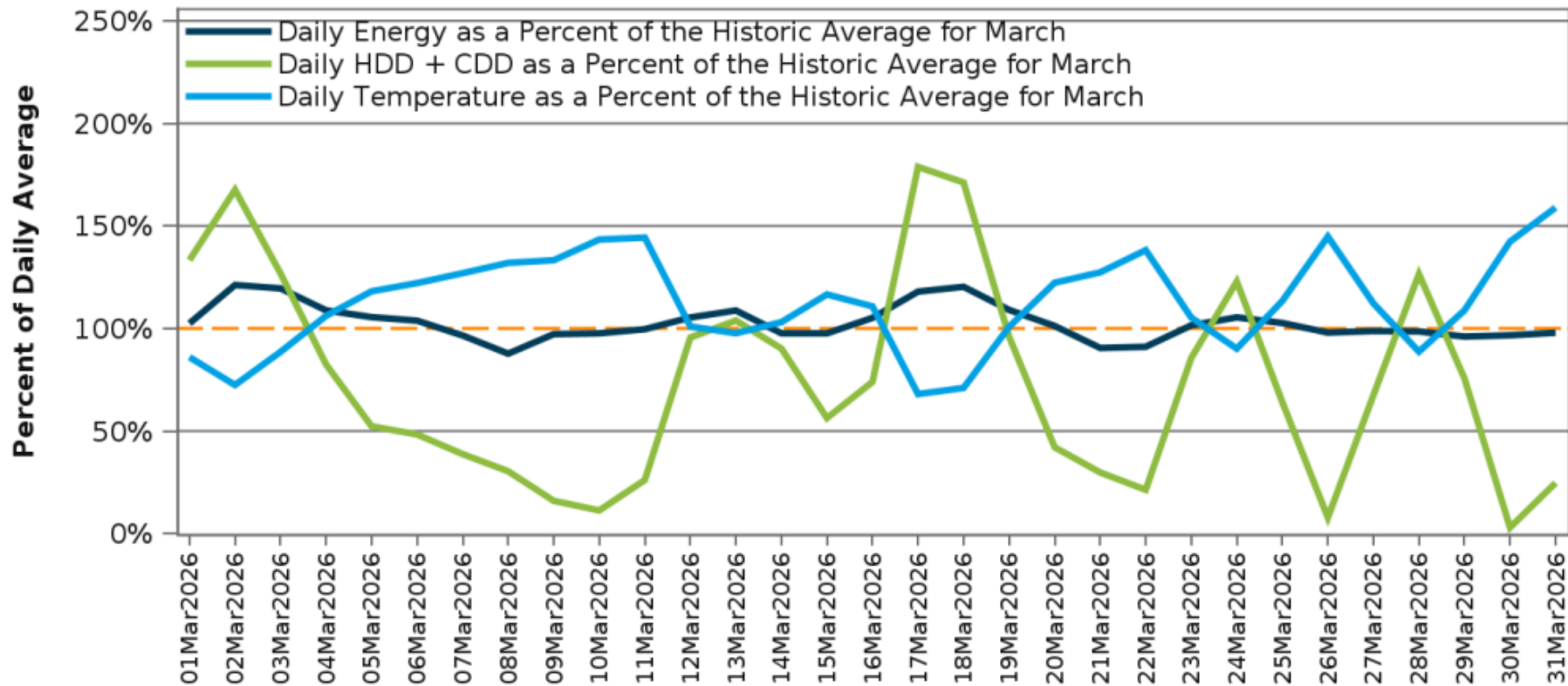
- The weather parameter shown in the following slide is a monthly sum of daily Heating Degree Days (HDD) and Cooling Degree Days (CDD).
- Degree days represent a deviation from a baseline temperature, in this case 60 degrees for HDD and 65 degrees for CDD. As temperatures get more extreme, colder or hotter, either HDDs or CDDs, respectively, will increase.
- Typically, winter months will only record HDDs, while summer months will only record CDDs. Shoulder months may have both HDDs and CDDs.
- Degree Days are calculated using a daily load weighting that weights values from stations in each TO zone according to the zonal contribution to the RTO peak on that day.
- Average values use data from 1998 to the most recent complete year, in this case, 2024. Averages include load data for all of TO zones in the current RTO footprint.

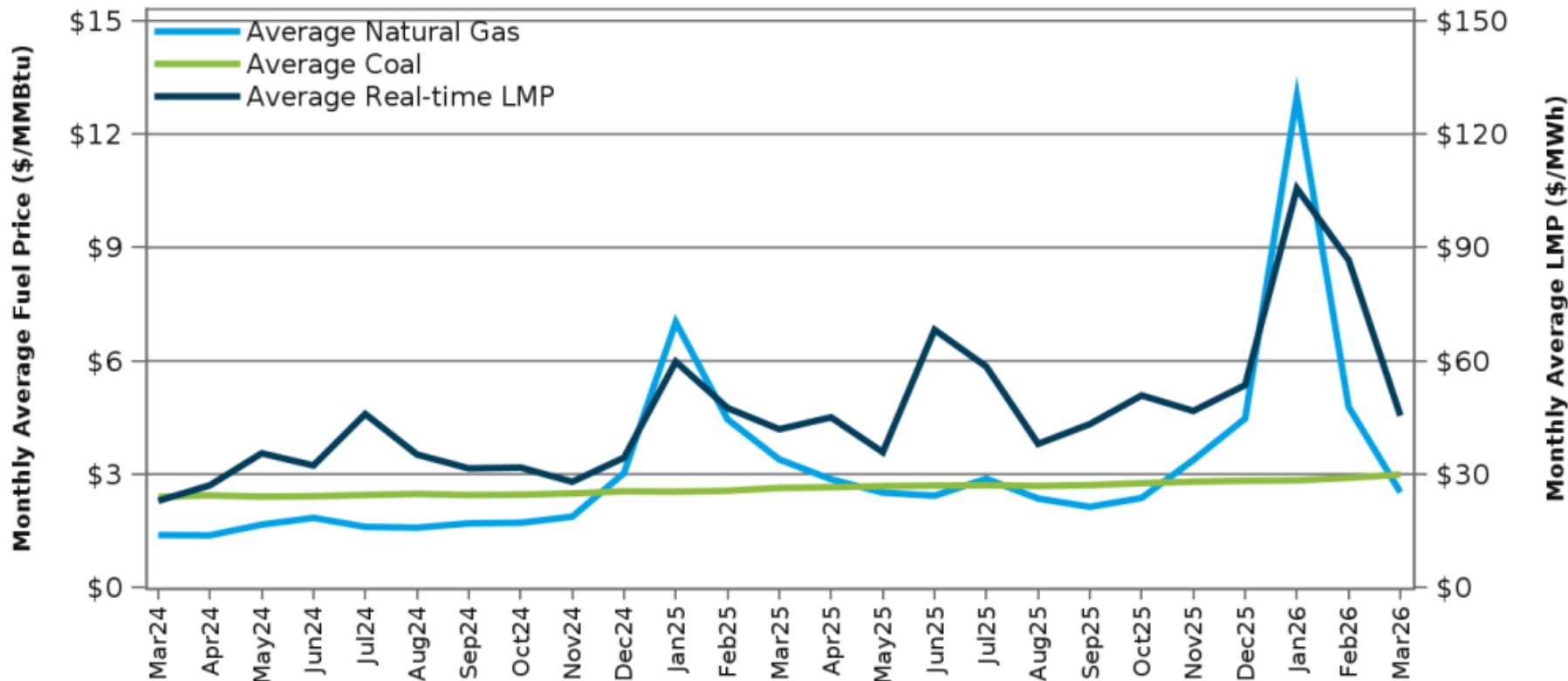
# Historic Average Weather and Energy versus Current Month



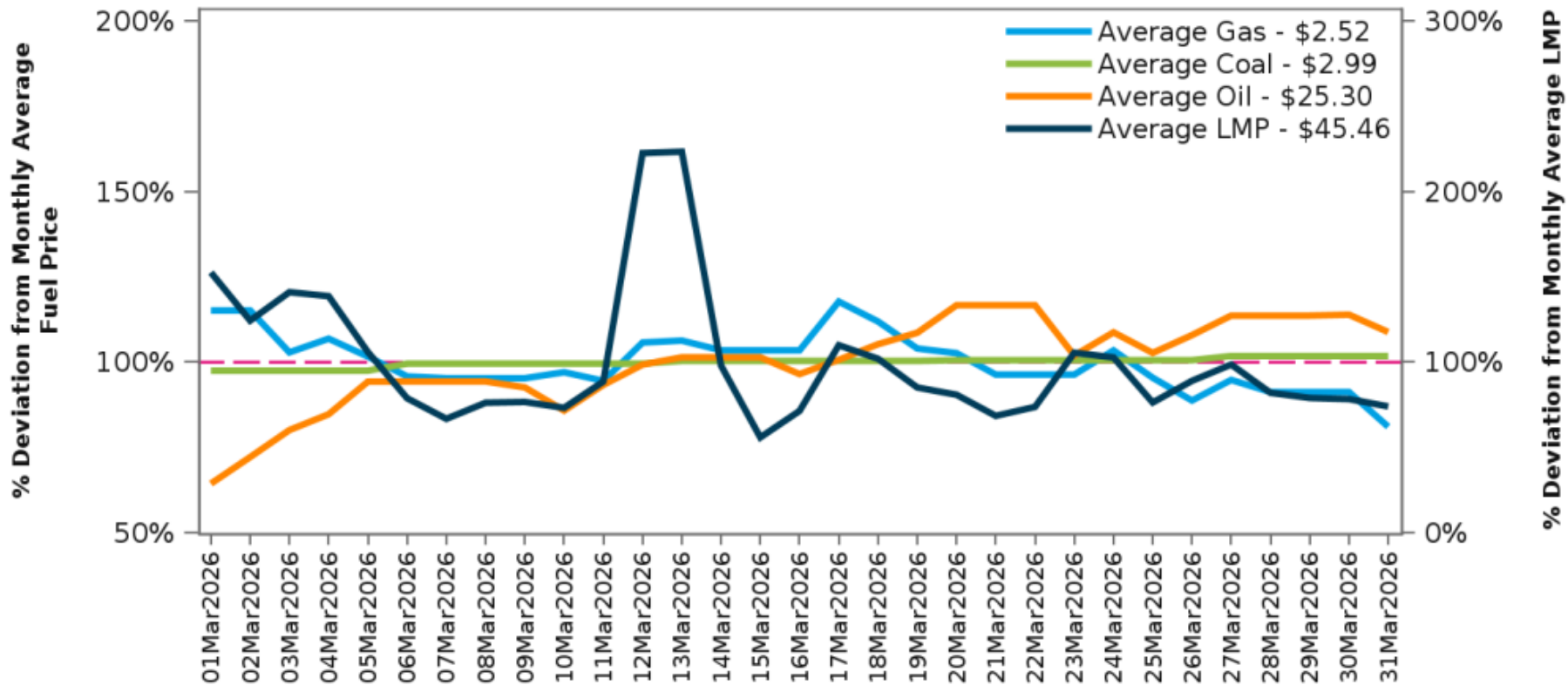


# Historic Average Weather and Energy versus Current Month - Daily





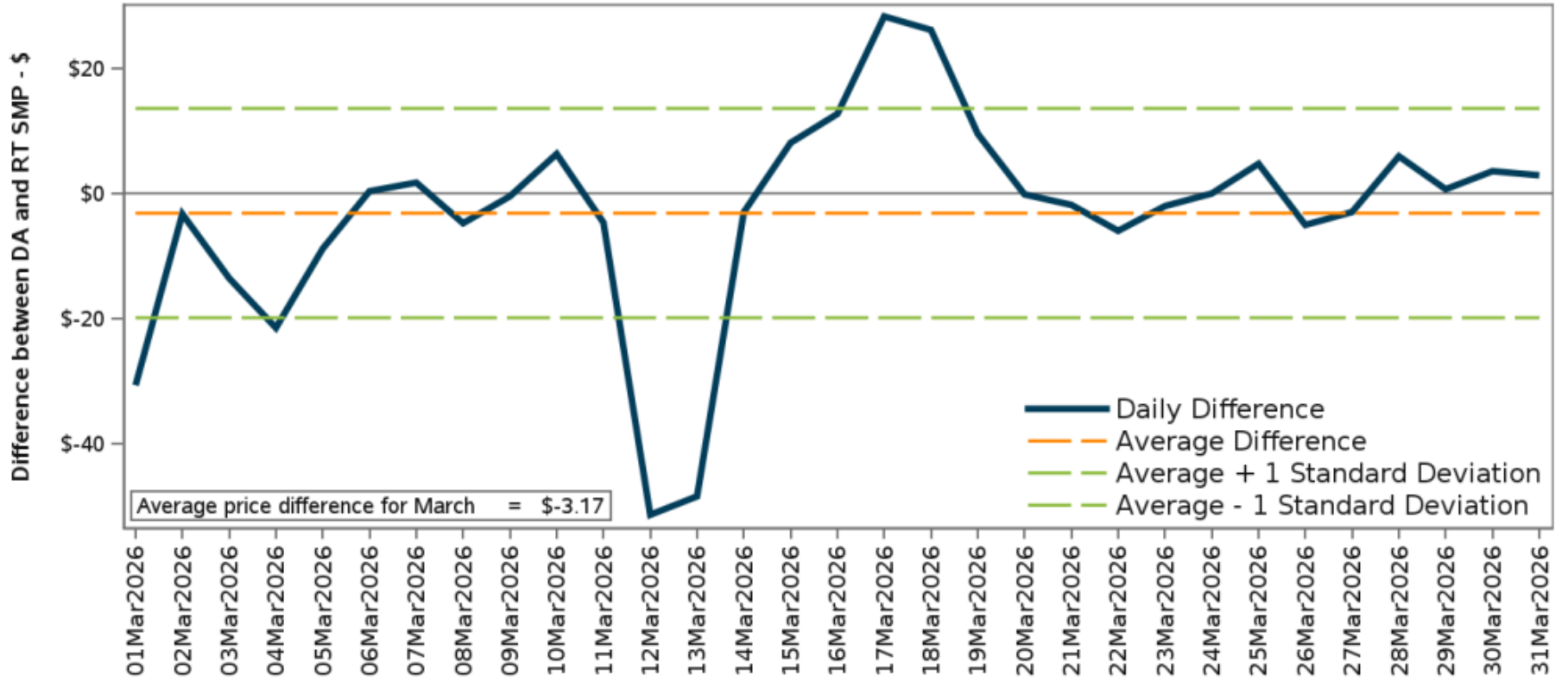
Fuel Price Source: S&P Global Platts



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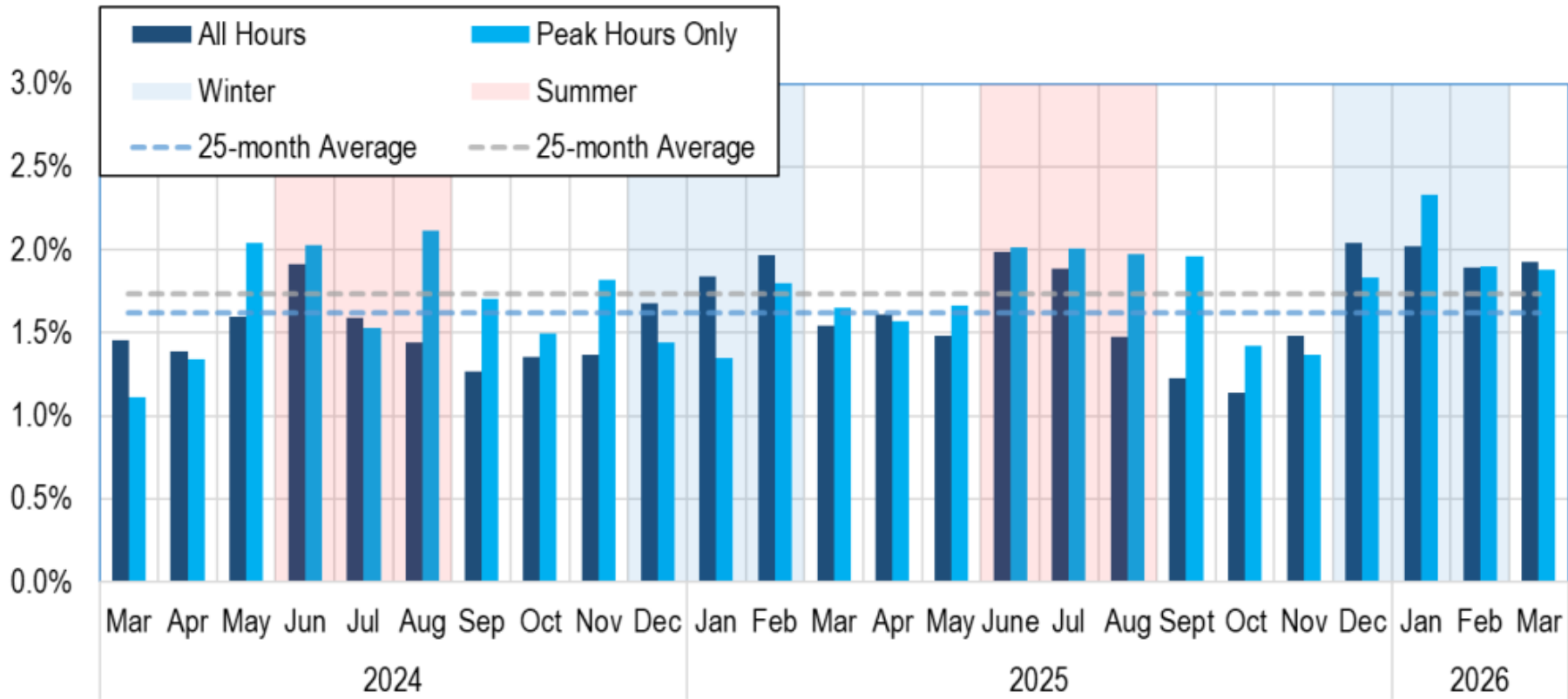


# Daily Difference Between Day-Ahead and Real-Time System Marginal Prices

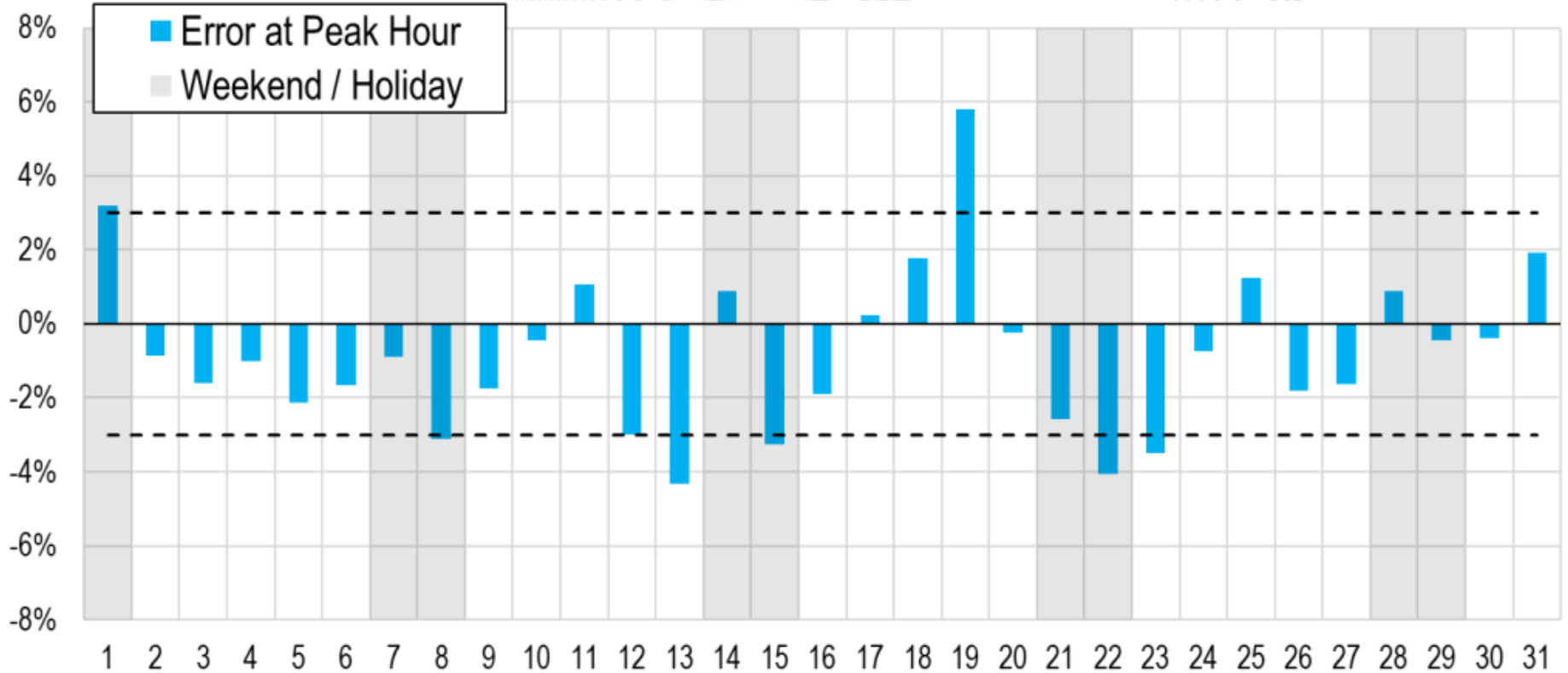


Positive values represent days when the DA daily average price was higher than RT. Negative values represent days when the DA price was lower.

# Load Forecast Error - Monthly Absolute Error, 10:00 Forecast

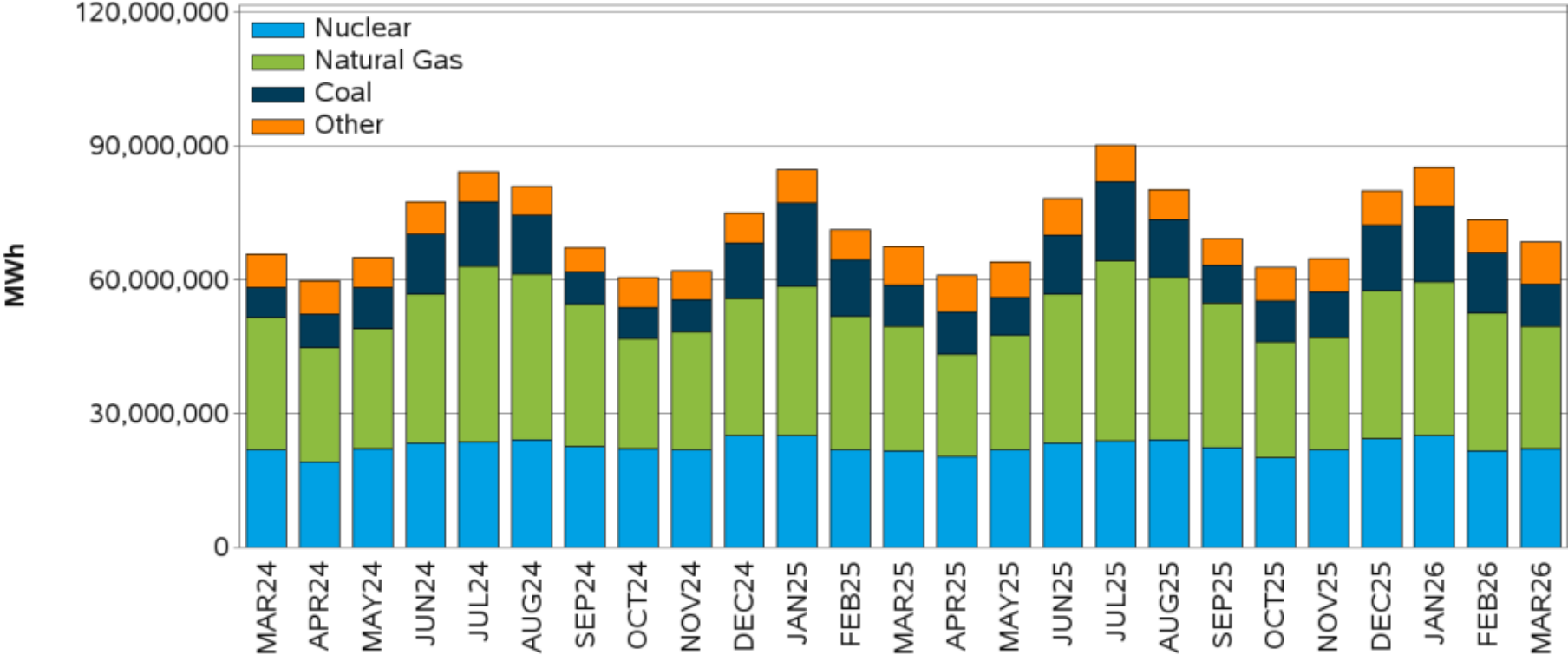


# Load Forecast Error - March Daily Peaks, 10:00 Forecast

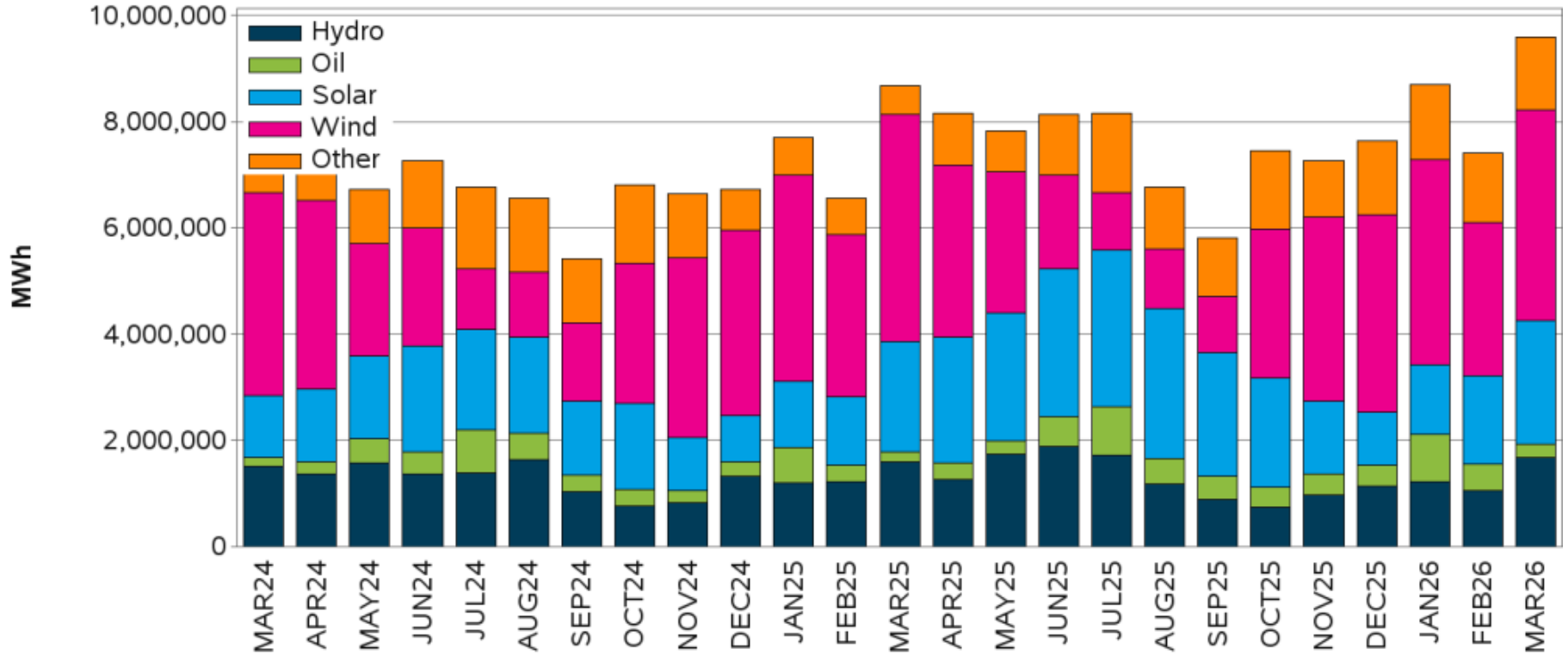


- PJM prepares a day-ahead load forecast at 10:00 am for use by our members.
- This forecast is not used to clear the day-ahead market and is not utilized for the reliability tools that run subsequent to the day-ahead market.

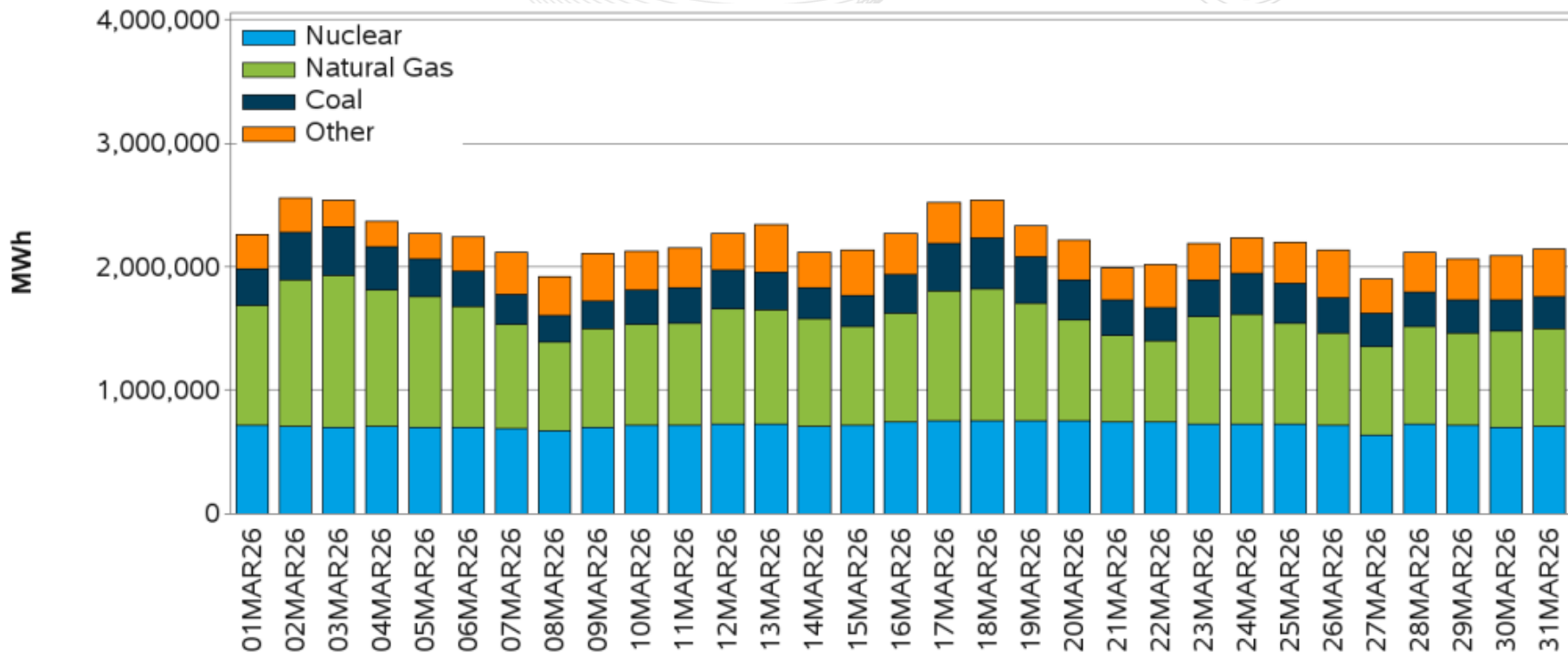
Missed day:	Reason
3/1/2026	Temperatures came in warmer than forecast, leading to lower loads.
3/8/2026	Temperatures came in warmer than forecast in several zones, leading to higher loads.
3/13/2026	Temperatures came in cooler than forecast in several zones, leading to higher loads.
3/15/2026	Temperatures came in cooler than forecast in several zones, resulting in higher loads.
3/19/2026	Temperatures came in much warmer than forecasting across the RTO, leading to lower loads.
3/22/2026	Temperature forecast error occurred in the West, leading to higher loads.
3/23/2026	Temperatures came in cooler than forecast across the RTO, leading to higher loads.



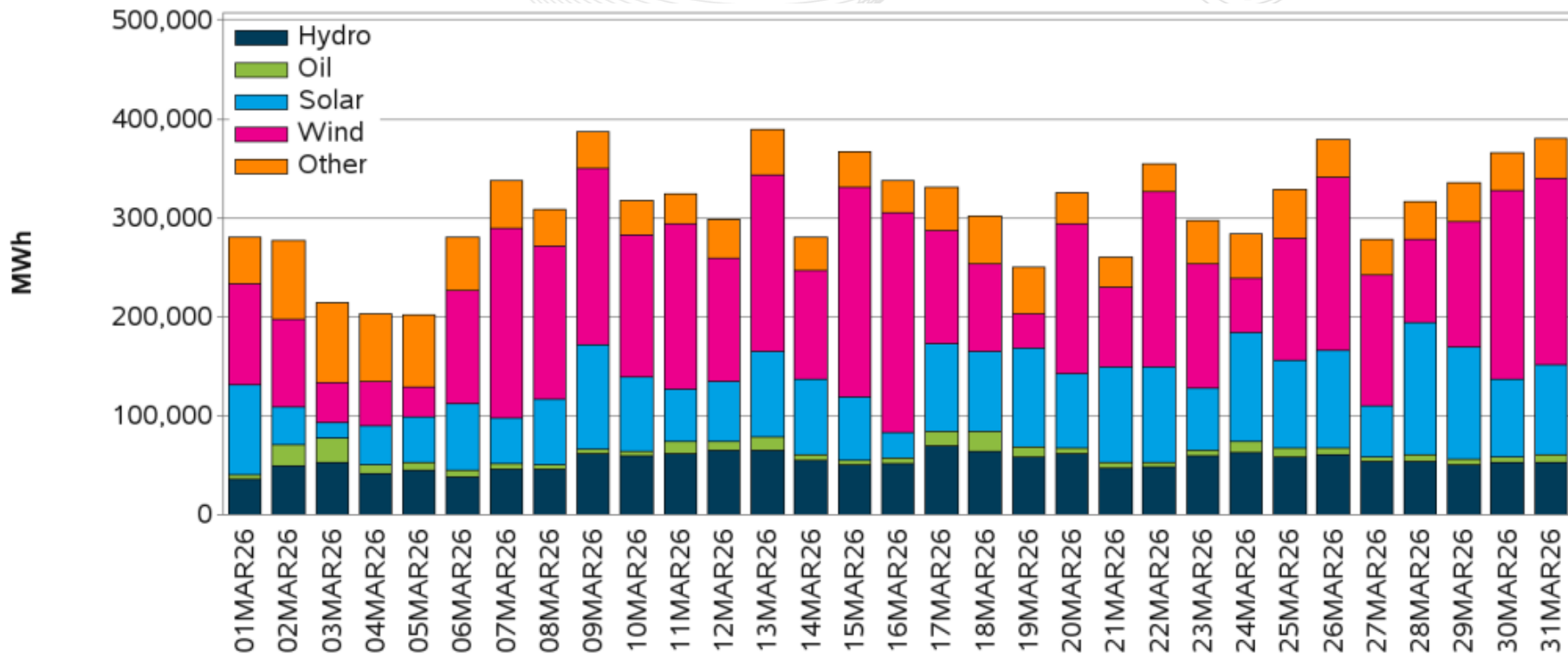
\*Other includes Hydro, Oil, Solar, Wind, and Other



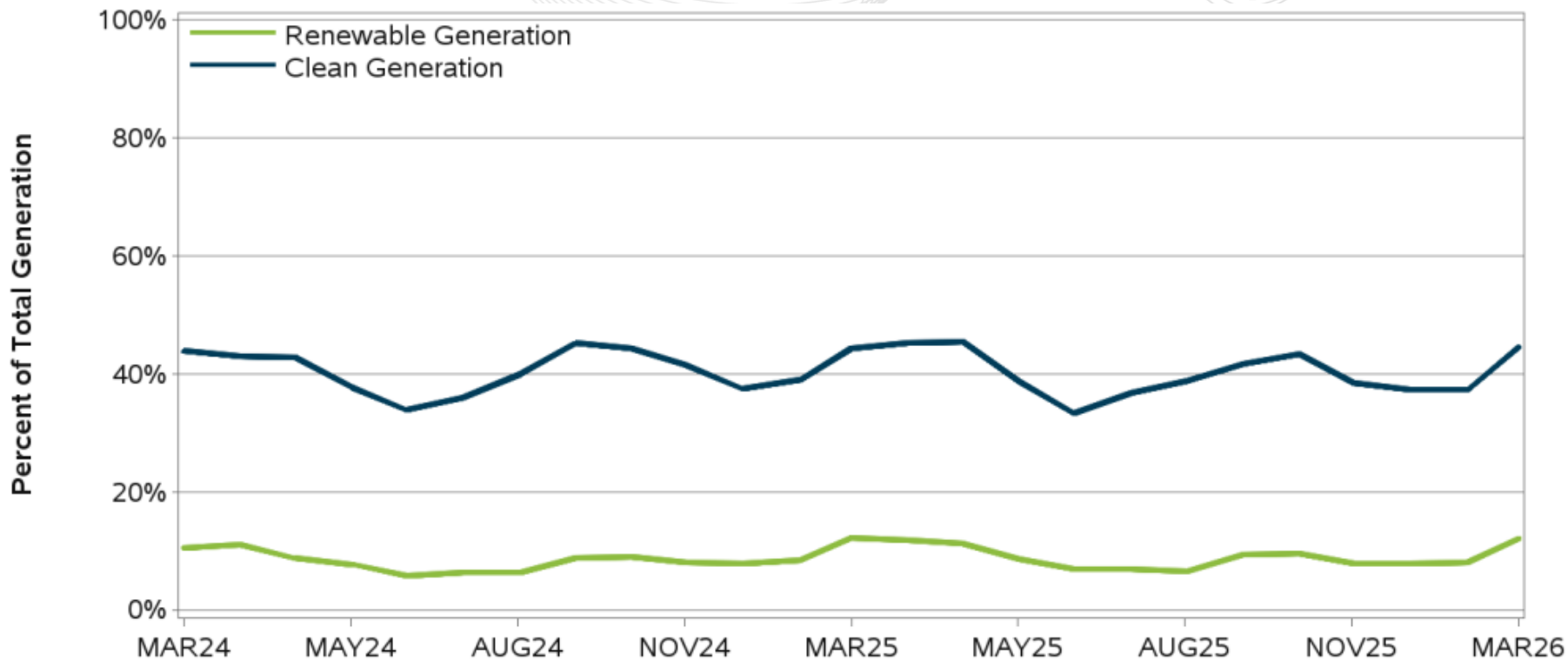
'Other' includes Flywheels, Multiple Fuels, Storage, and Other Renewables



\*Other includes Hydro, Oil, Solar, Wind, and Other

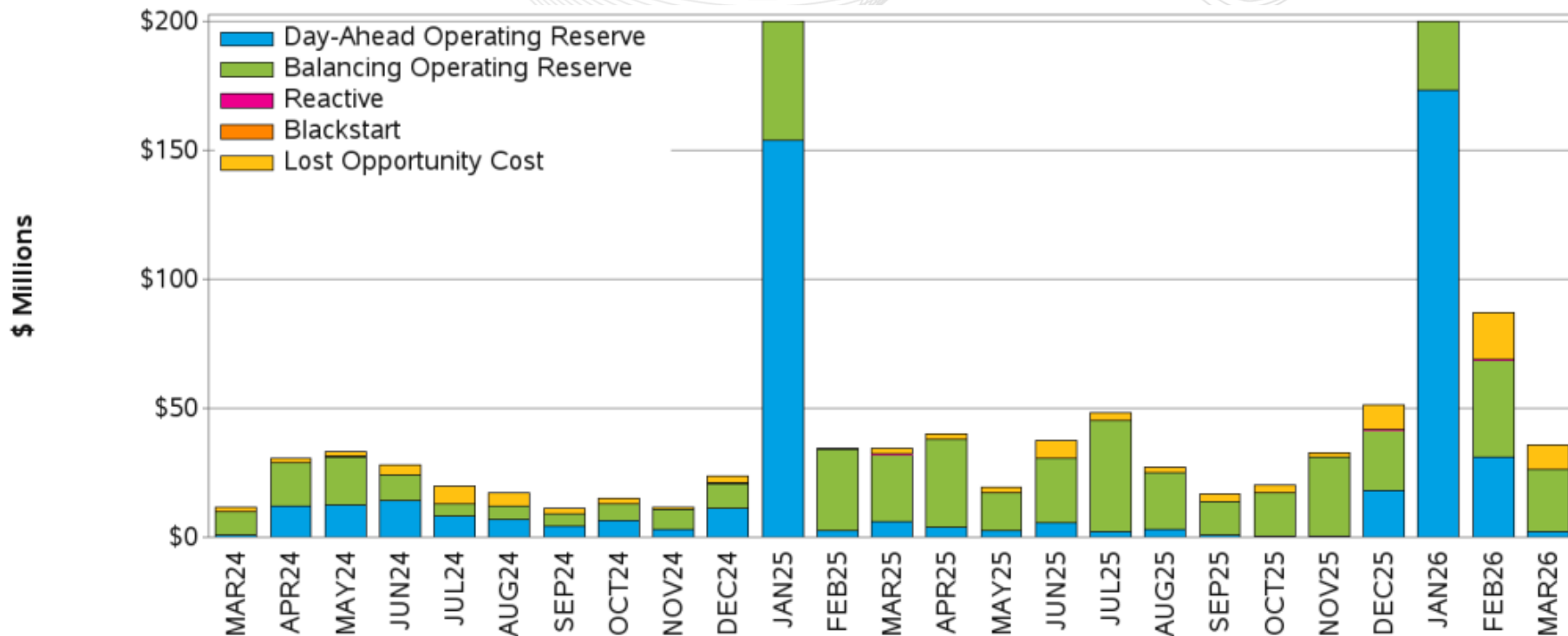


'Other' includes Flywheels, Multiple Fuels, Storage, and Other Renewables



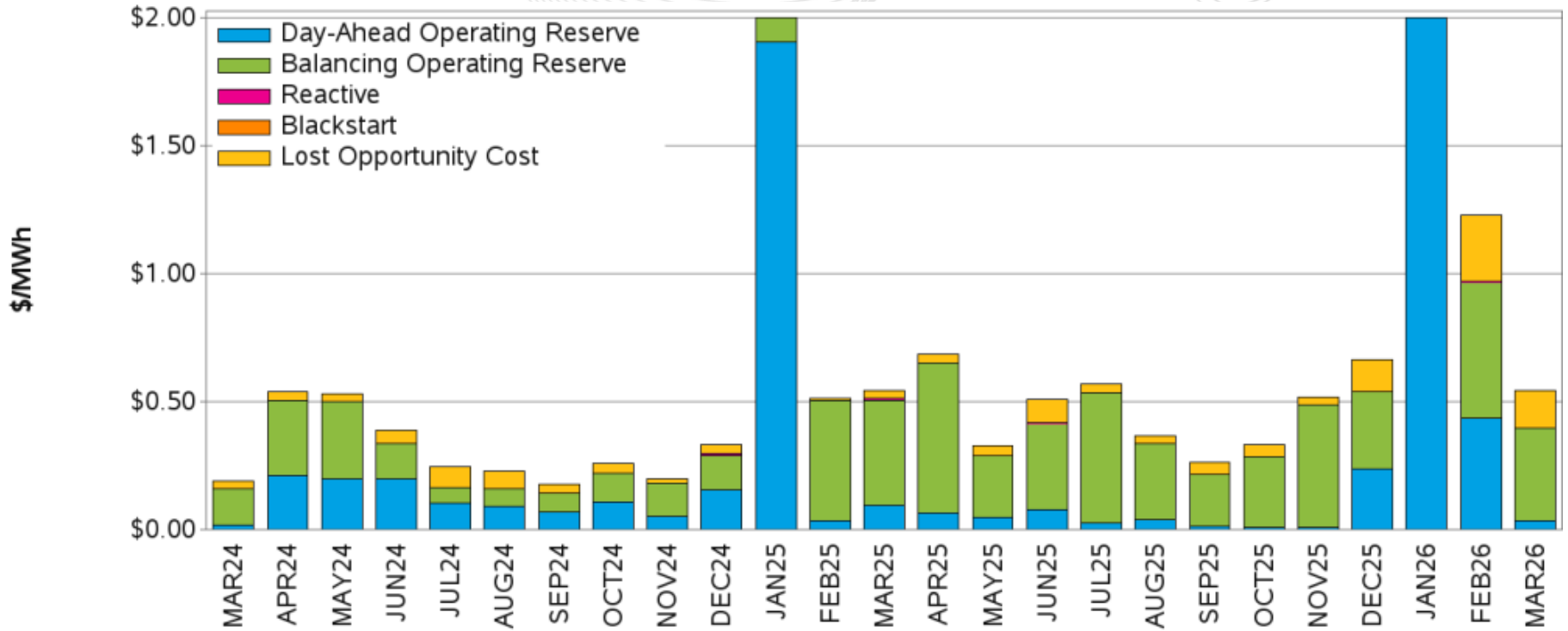
'Renewable' includes Wind, Solar, Hydro, and Other Renewables. 'Clean' includes Renewable and Nuclear.

# Operating Reserve (Uplift)



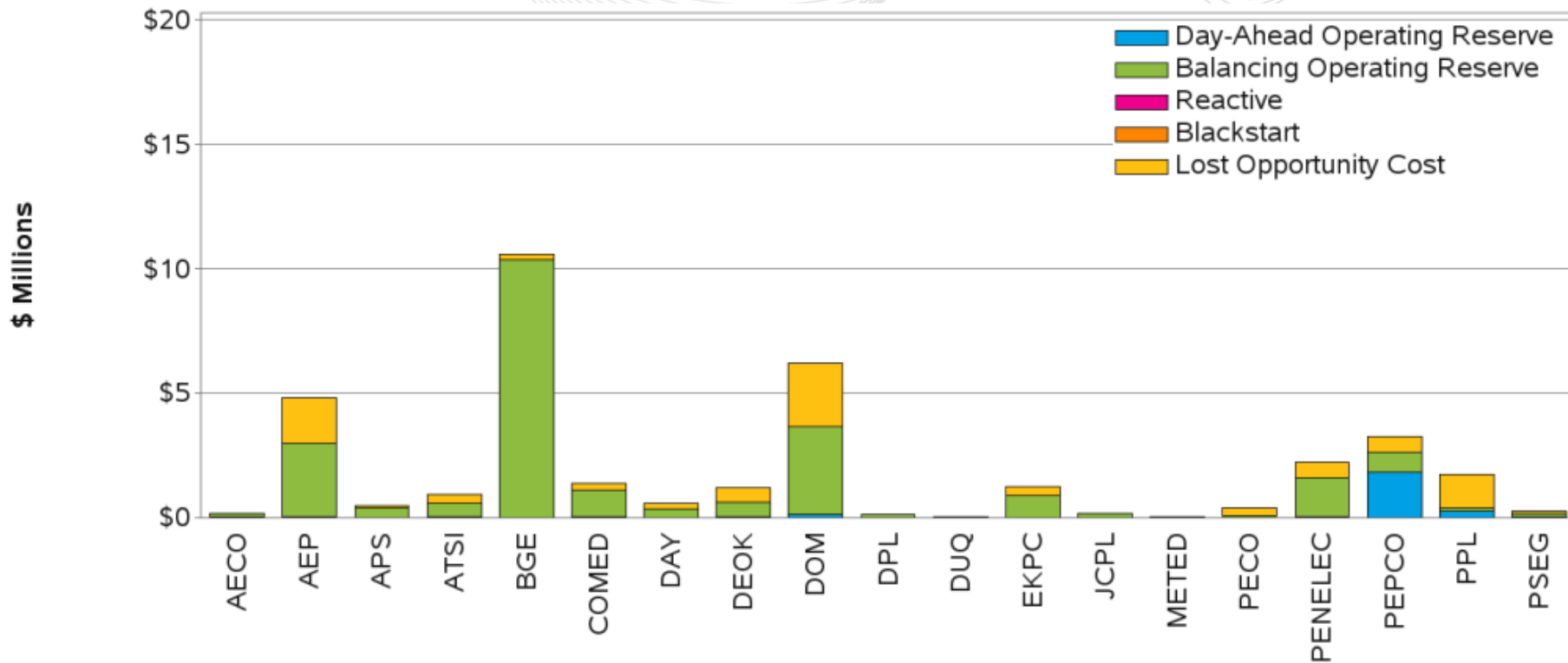
\*Uplift for January 2025 totaled nearly \$400M. Please see previous reports or the report appendix for the breakout of costs.

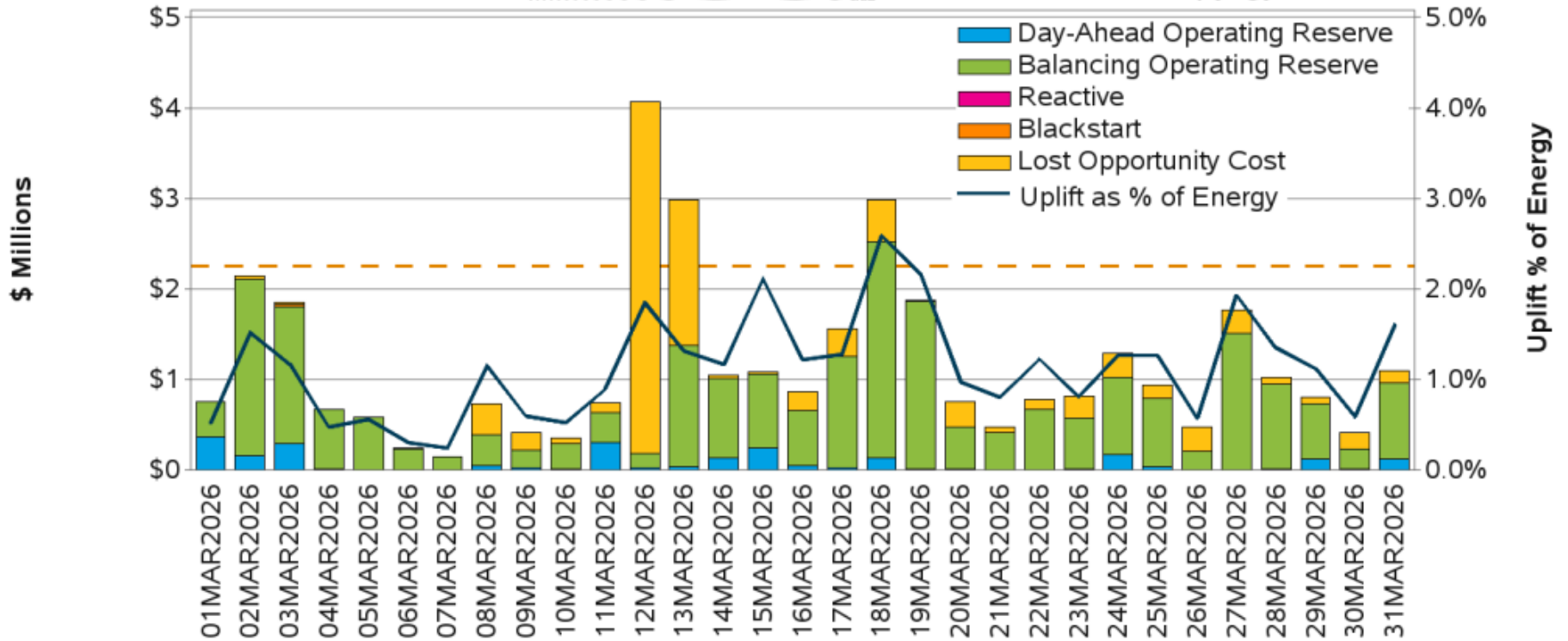
\*Uplift for January 2026 totaled nearly \$850M. Please see previous reports or the report appendix for the breakout of costs.

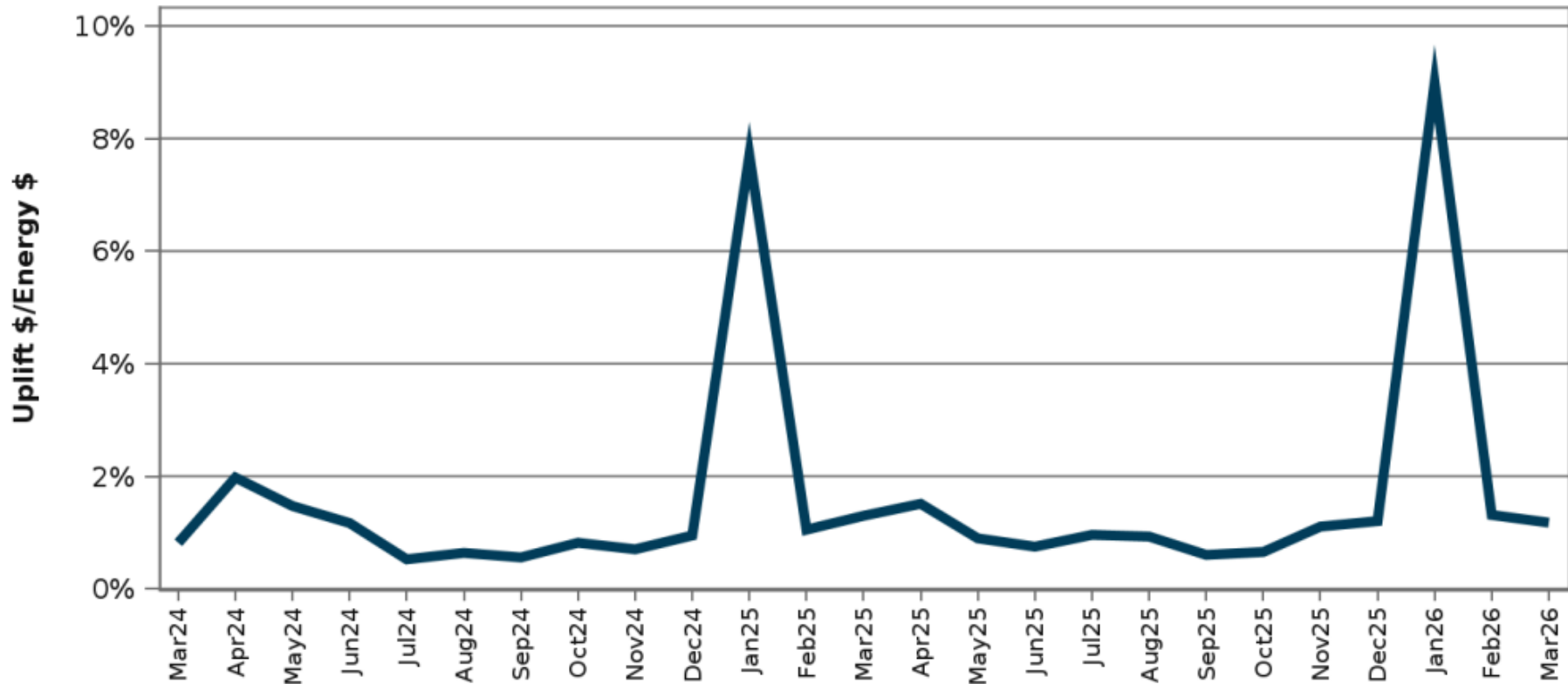


\*Uplift for January 2025 totaled nearly \$5/MWh. Please see previous reports or the report appendix for the breakout of costs.

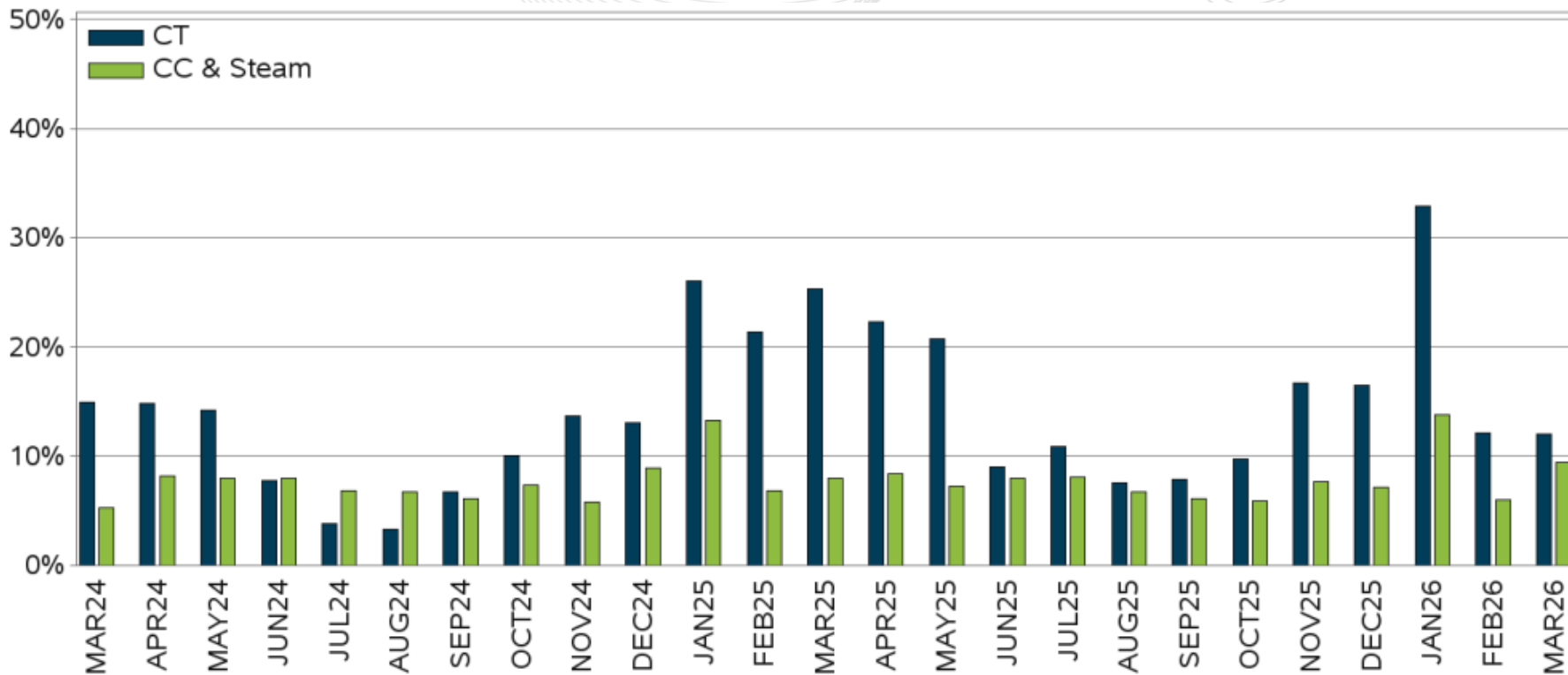
\*Uplift for January 2026 totaled nearly \$10.50/MWh. Please see previous reports or the report appendix for the breakout of costs.





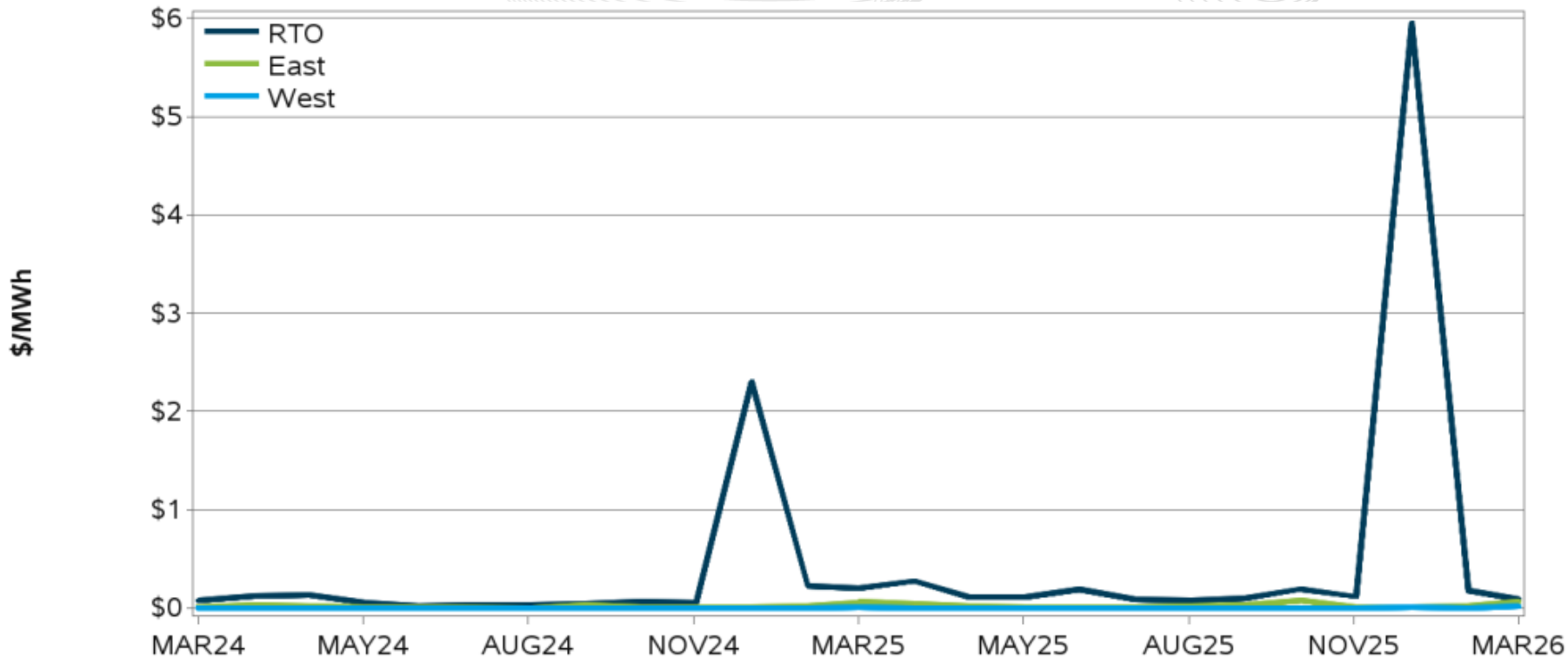


# Percent of Total CT, CC and Steam Hours with LMP < Offer

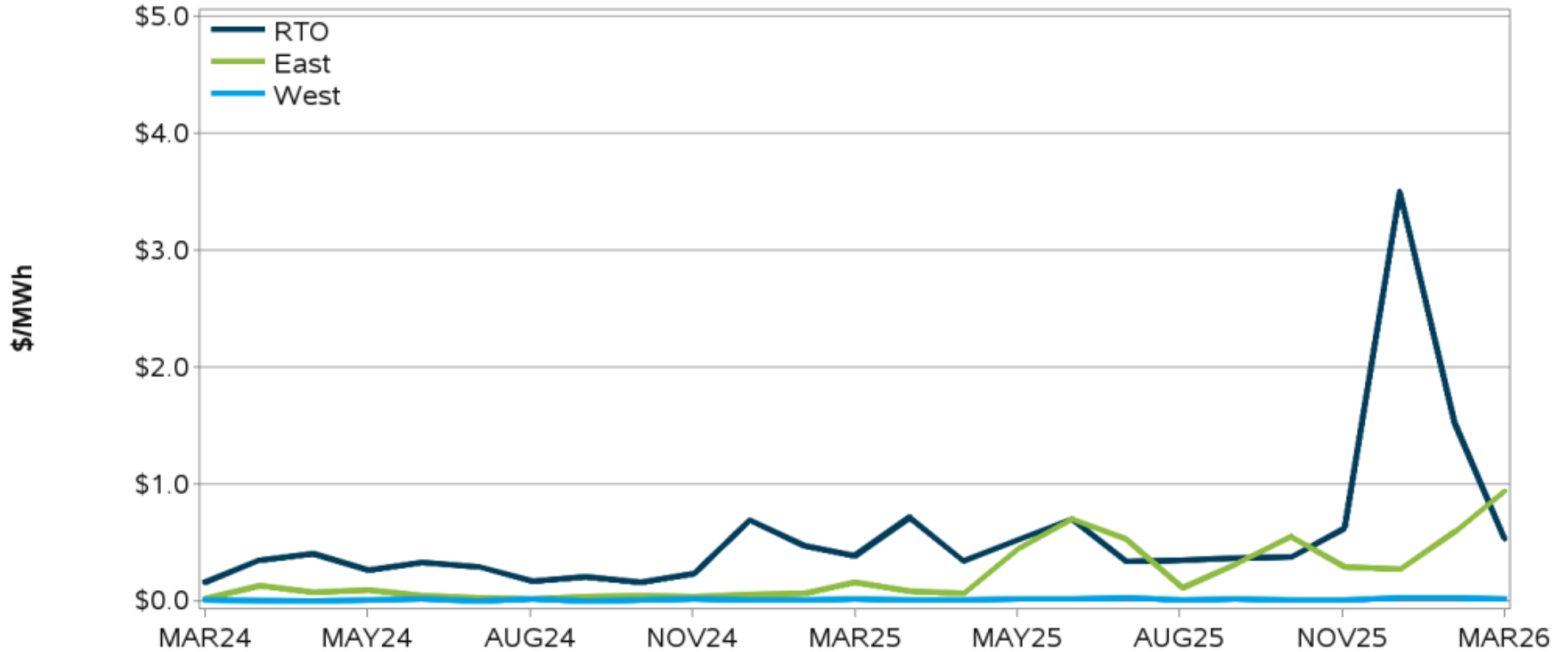


- Beginning in December 2008, the daily Balancing Operating Reserves (BOR) rate was replaced with six different BOR rates: RTO BOR for Reliability Rate, RTO BOR for Deviations Rate, East BOR for Reliability Rate, East BOR for Deviations Rate, West BOR for Reliability Rate, West BOR for Deviations Rate.
- Reliability rates are charged to all real-time load and exports, whereas deviation rates, as before, are charged only to real-time deviations. RTO rates are charged to the whole footprint, whereas East and West rate adders are charged based on location.

# Reliability Balancing Operating Reserve Rates

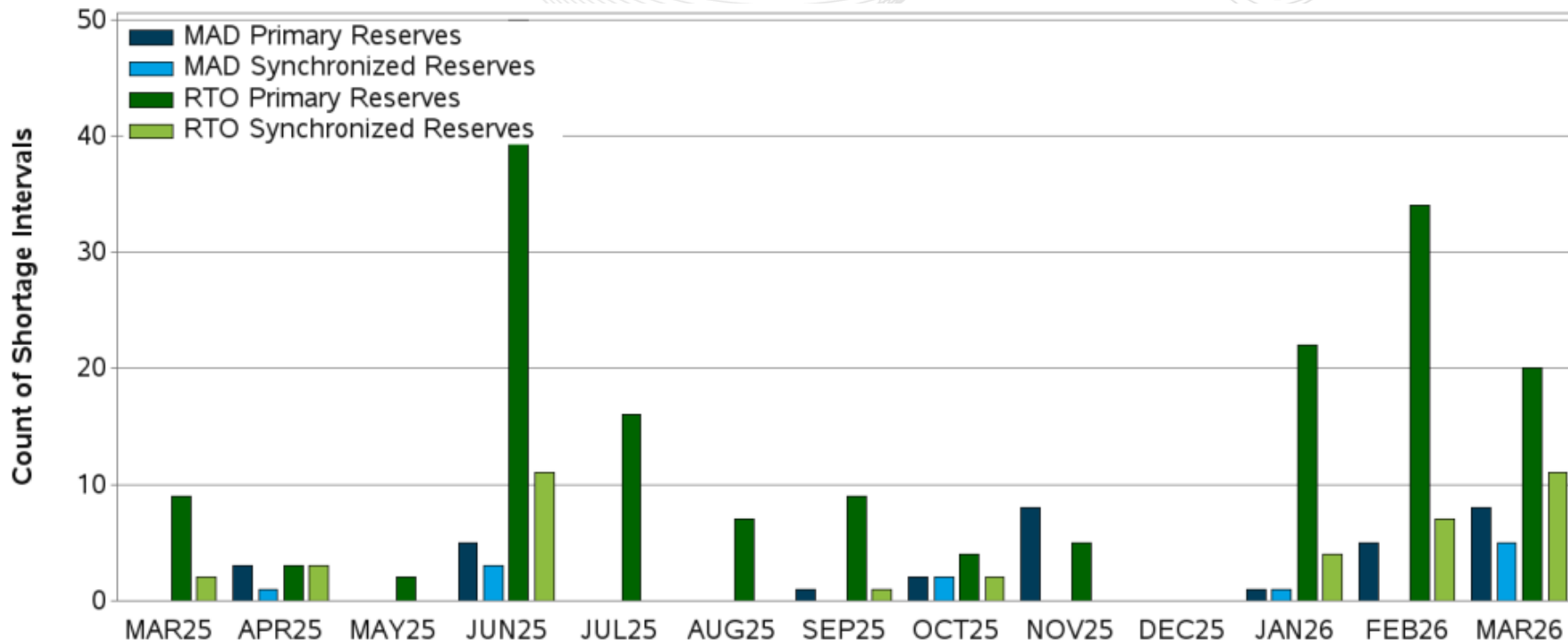


# Deviations Balancing Operating Reserve Rates



# Energy Market

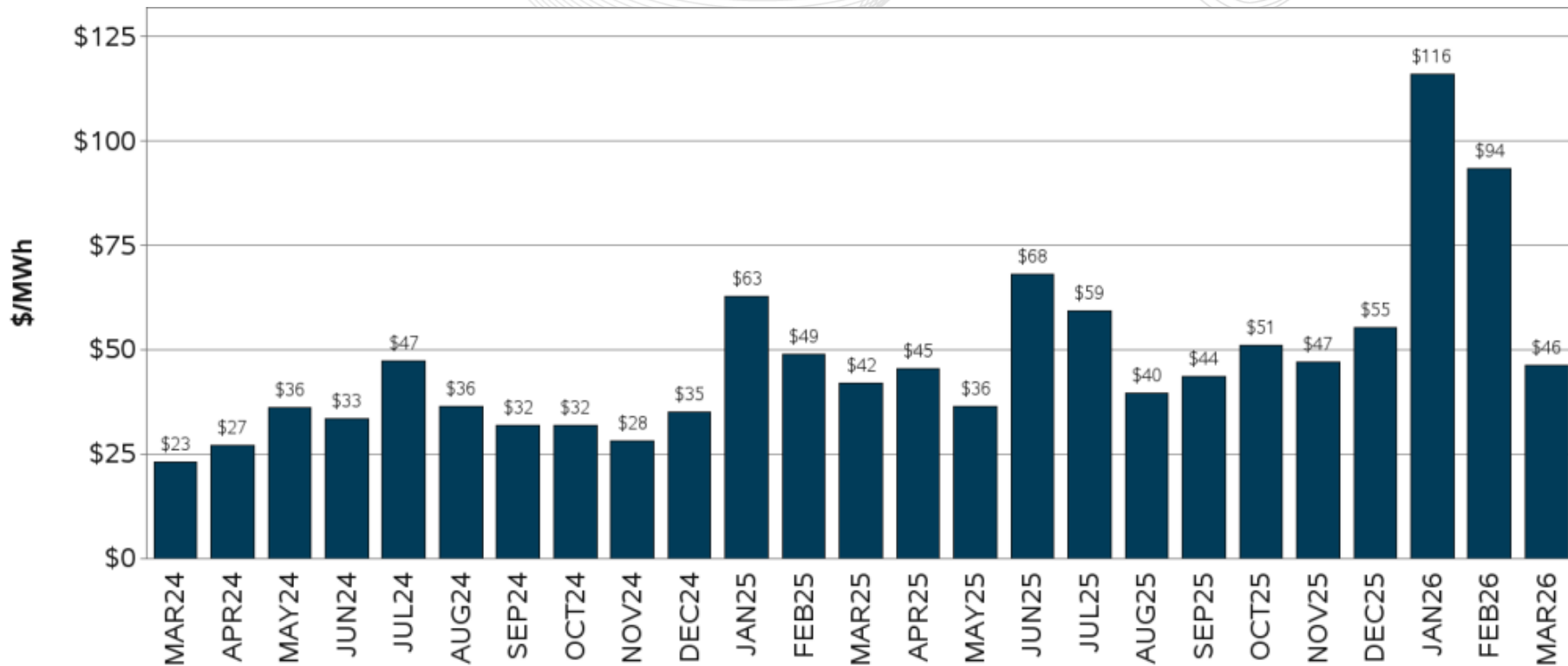
# LMP Summary

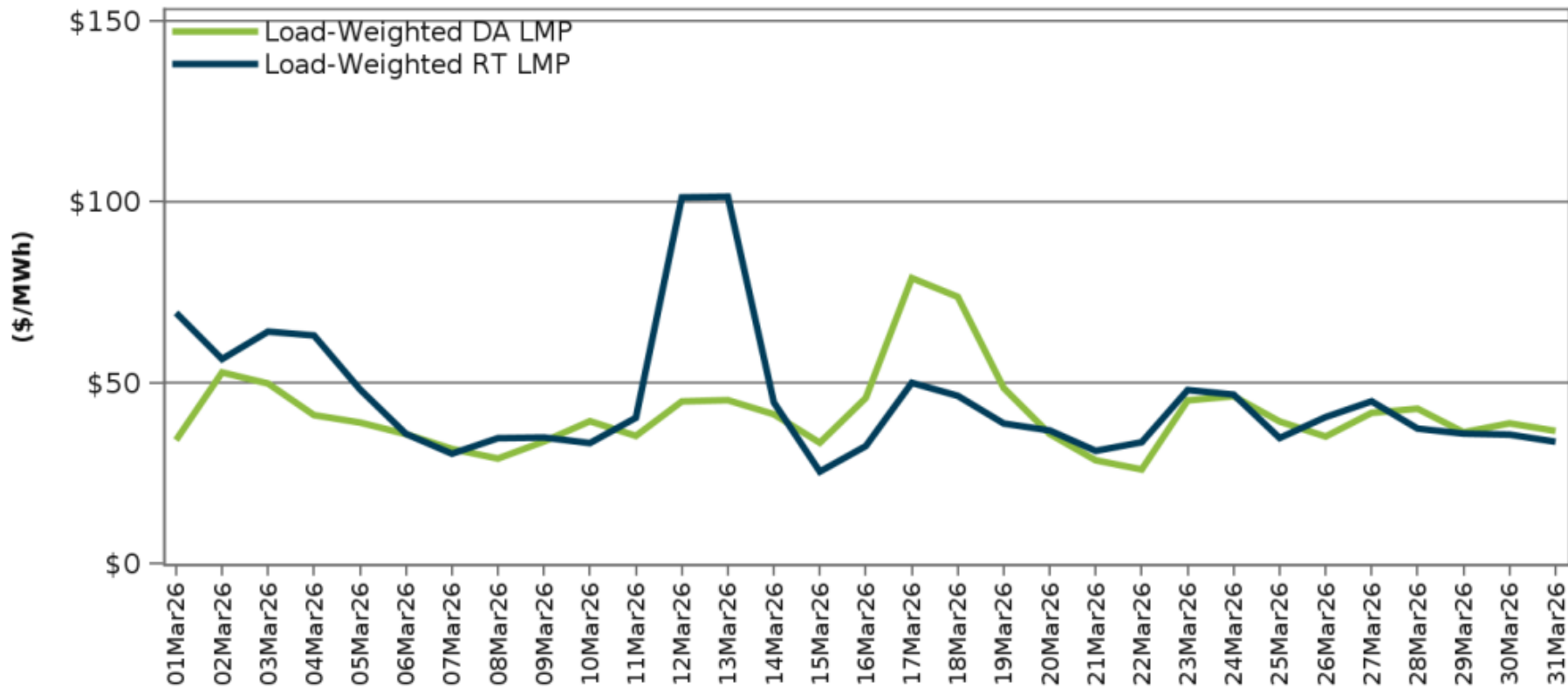


[Information on constraints and shadow prices can be found here](#)

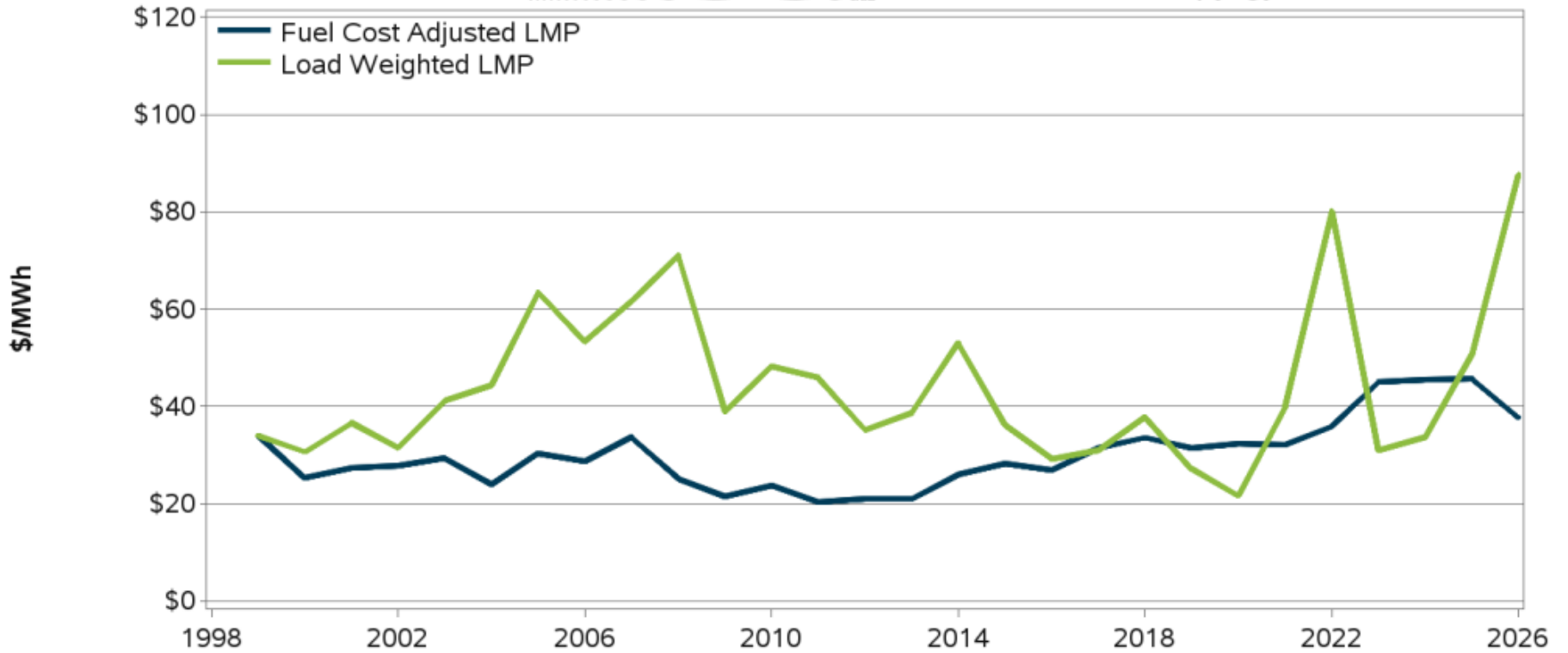
There were nearly 80 intervals that experienced shortage pricing for RTO Primary Reserves in June 2025.

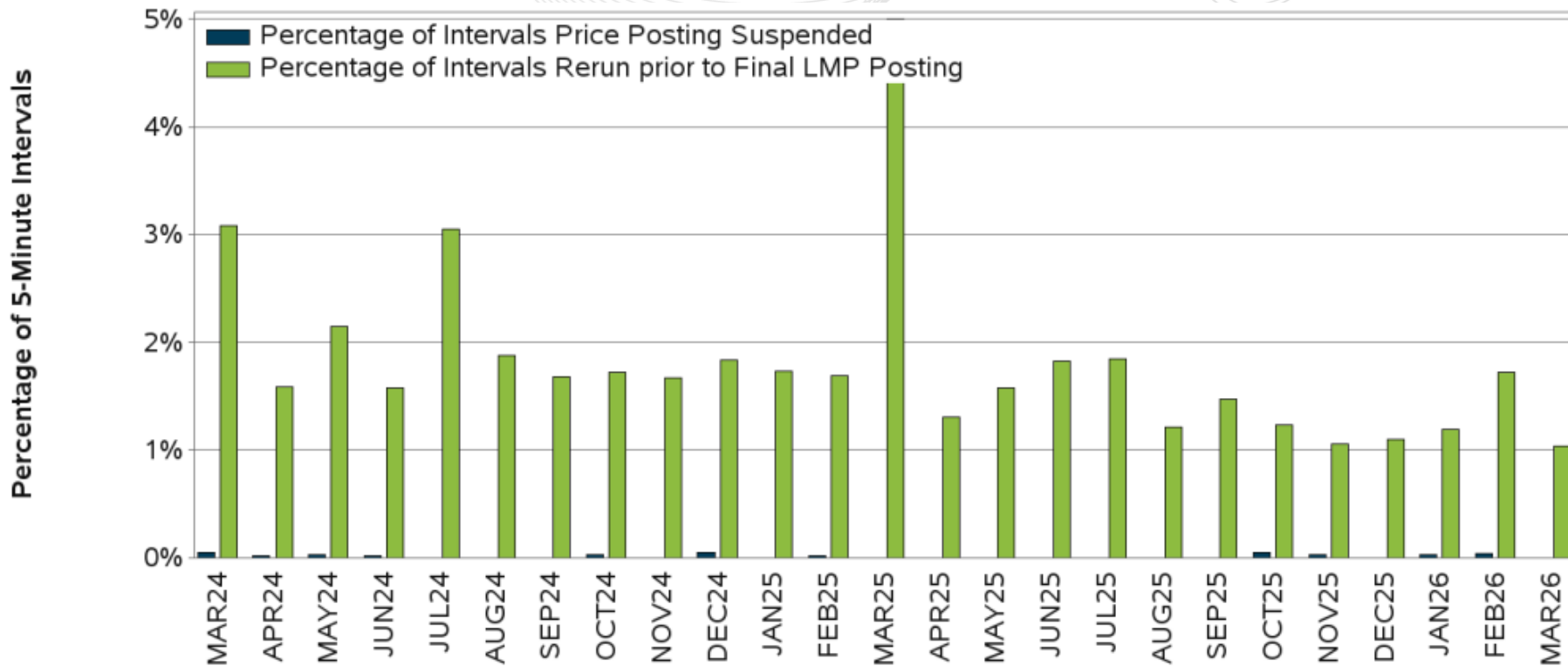
# Monthly Load-Weighted Average Real-time LMP





# Fuel Cost Adjusted LMP (Referenced to 1999 Fuel Prices)

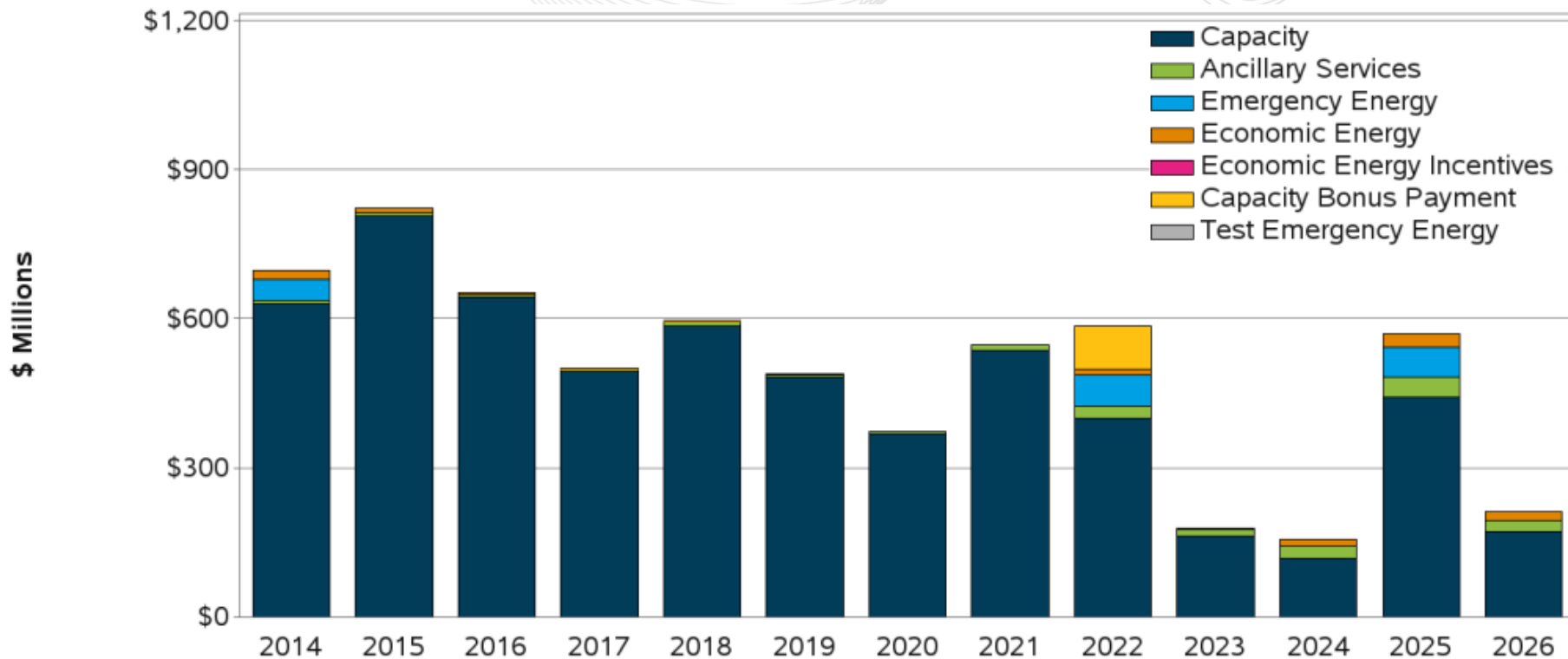


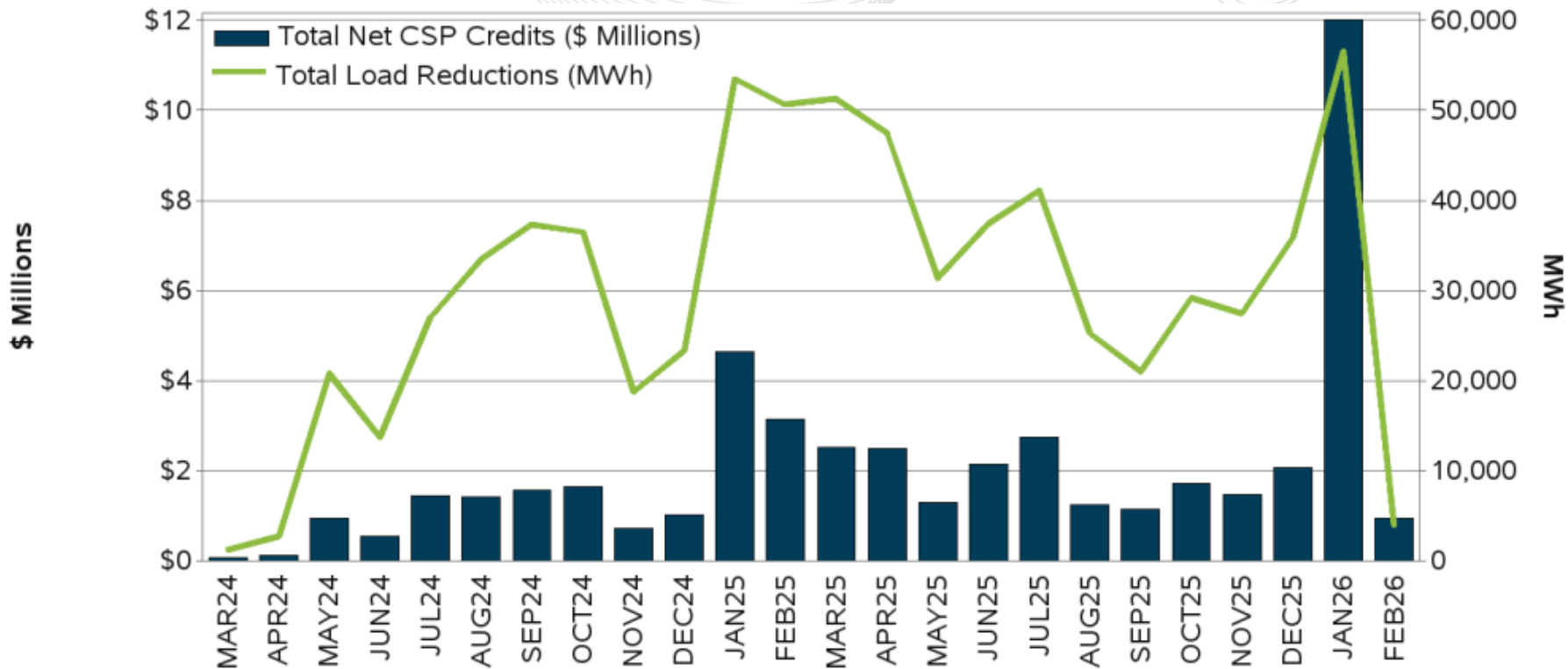


# Energy Market

# Demand Response Summary

# Demand Side Response Estimated Revenue

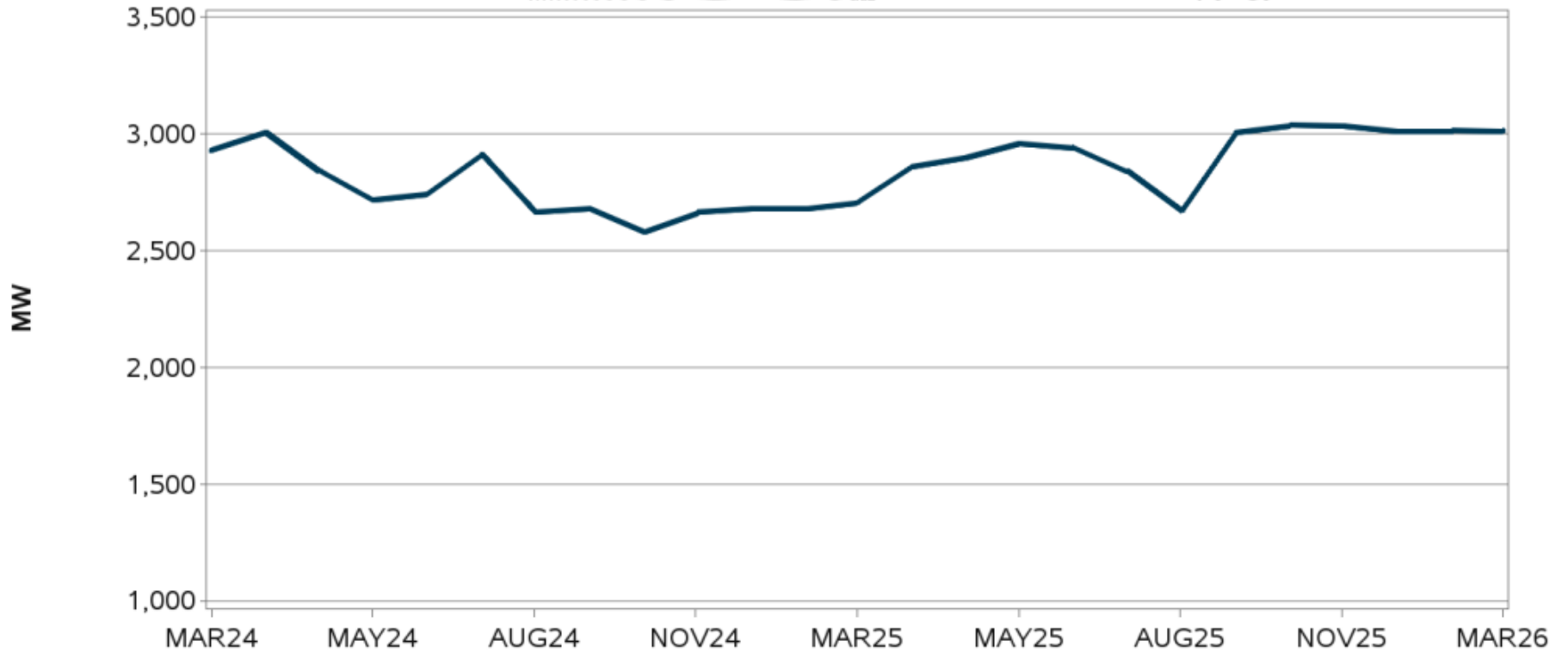




\*Data for the last few months are subject to significant change due to the settlement window.



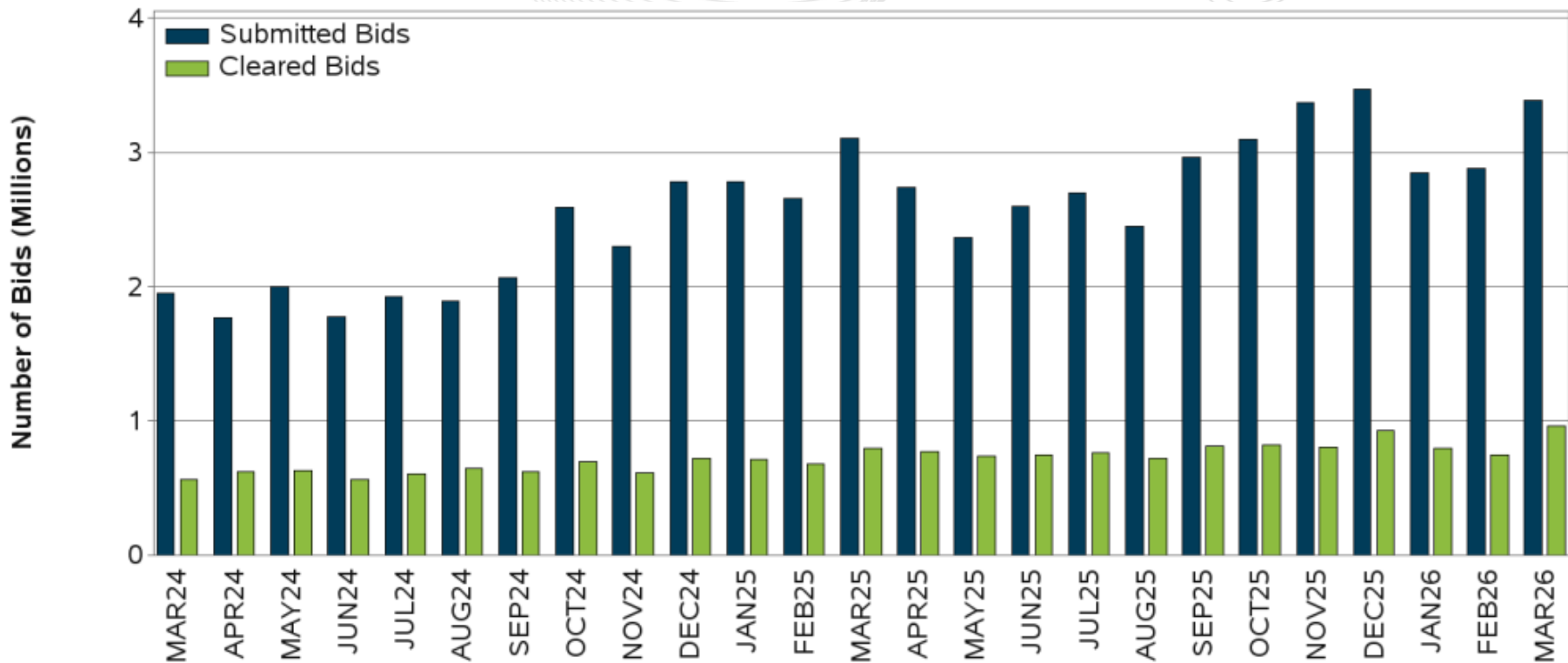
# Total Registered MW in PJM's Economic Demand Response

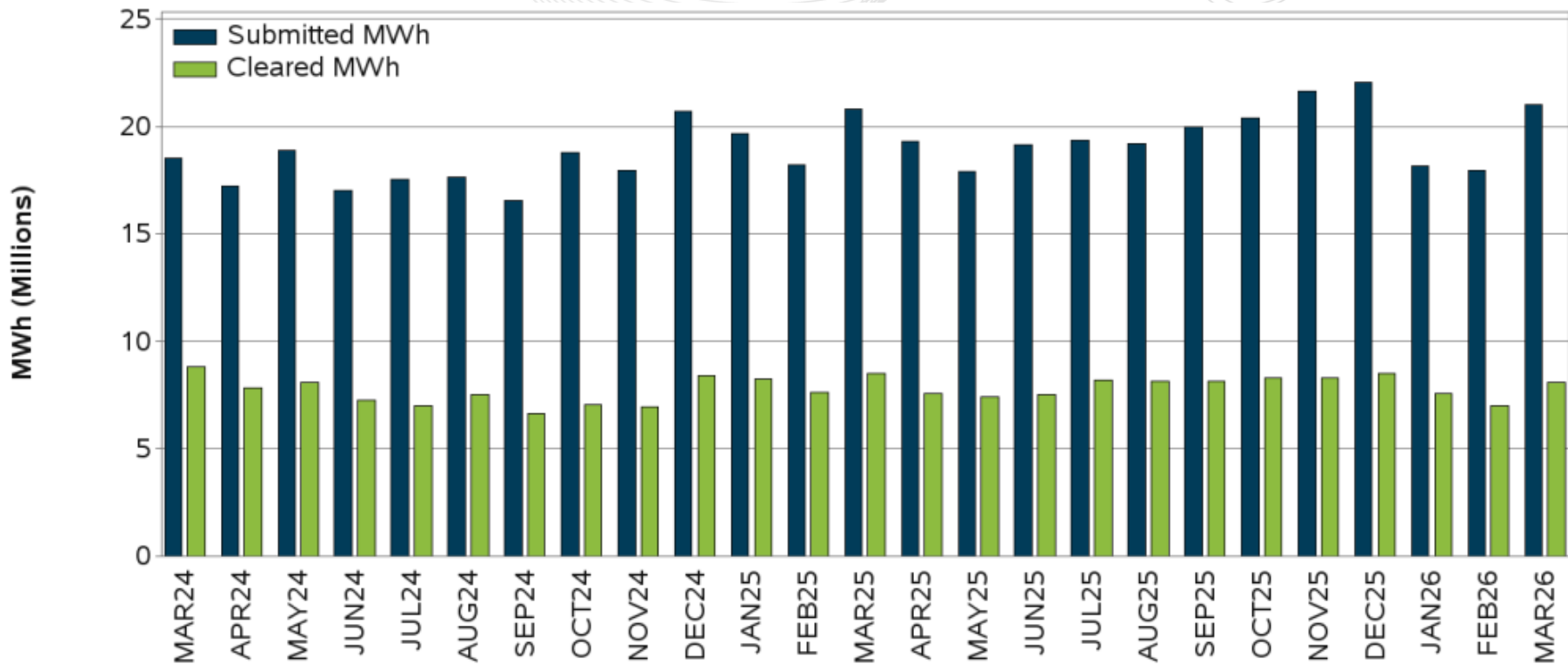


# Energy Market

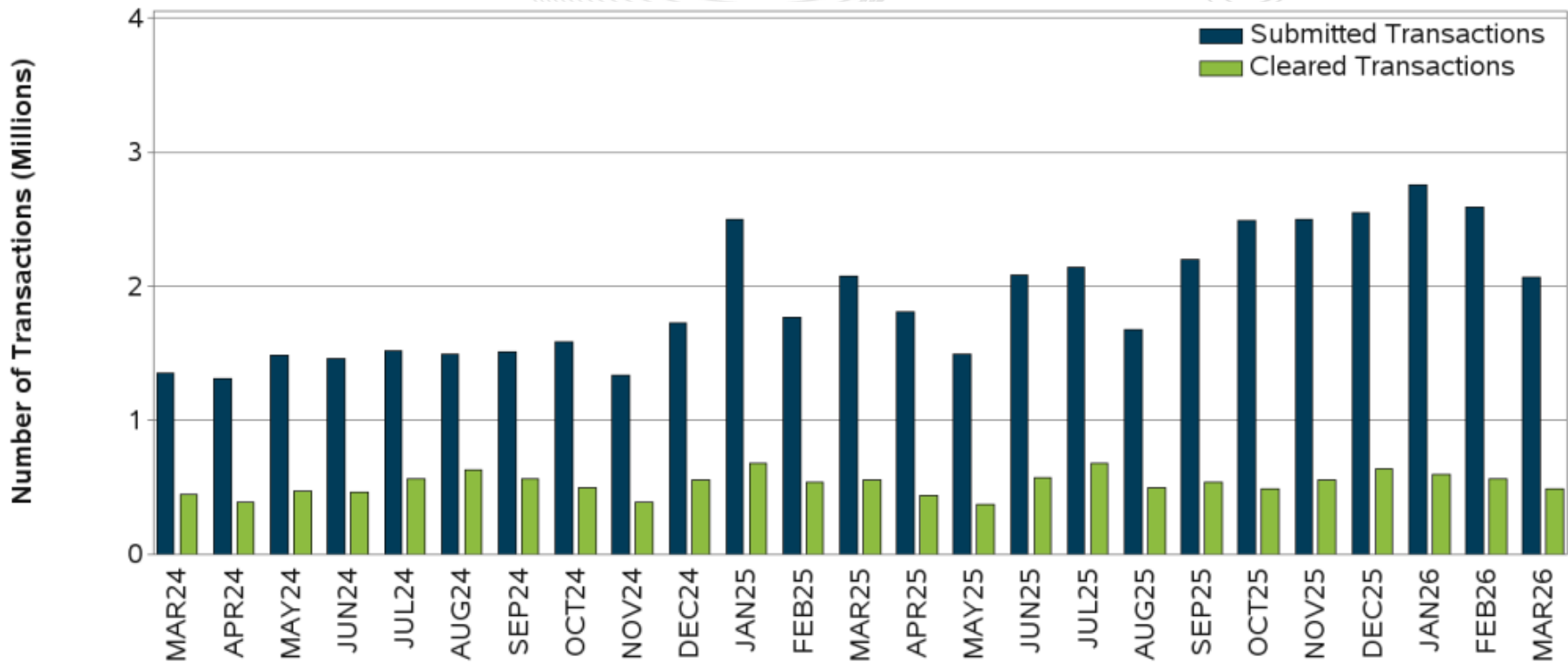
# Virtual Activity Summary

- The following six charts depict trends in submitted and cleared virtual and up-to-congestion transactions, in terms of number and volume, into the PJM Energy Market. The first two of these charts show the submitted and cleared increment and decrement bids (virtual transactions or virtuals) and they are the same as what was previously being presented in this report. The two charts after them display the trends in submitted and cleared up-to-congestion transactions into the PJM Energy Market. The last two of these six charts combine the virtual and up-to-congestion transactions and show the sum of these two categories.
- To clarify what a bid or transaction is, please consider the following example: An offer (increment, decrement or up-to-congestion) of 10 MW, valid for eight hours for a given day, is captured in the charts as eight submitted bids/transactions and 80 submitted MWh. If this offer fully clears for three of the hours it was submitted for, it shows in the charts as three cleared bids/transactions and 30 cleared MWh.

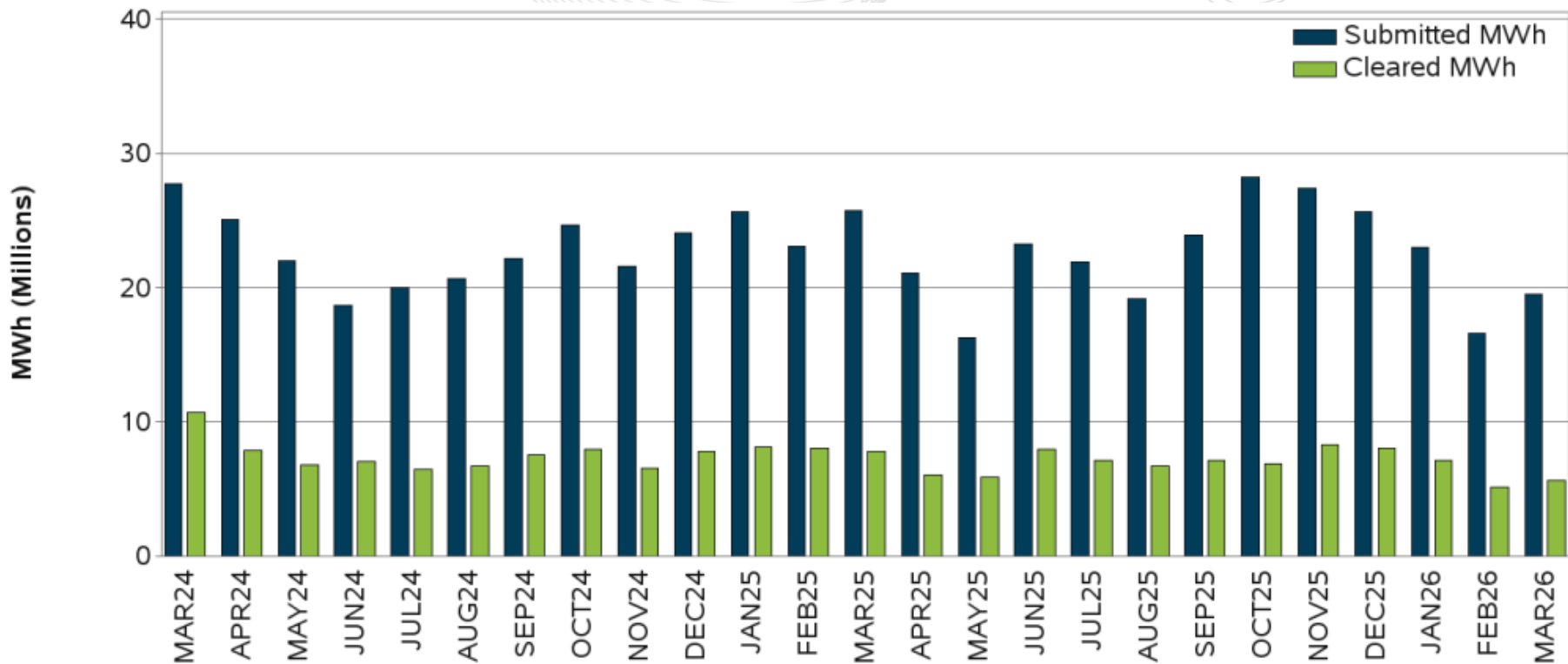




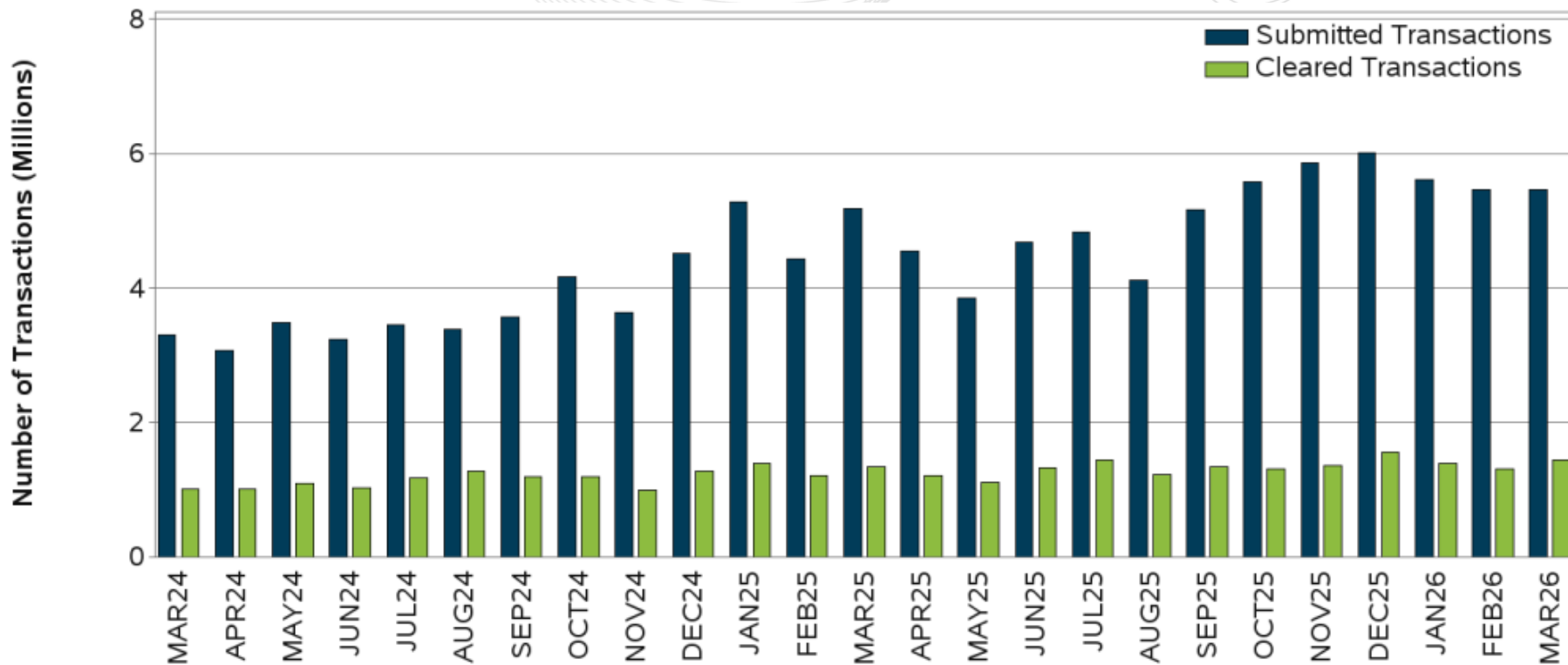
# Up-To-Congestion Transactions - Total Number



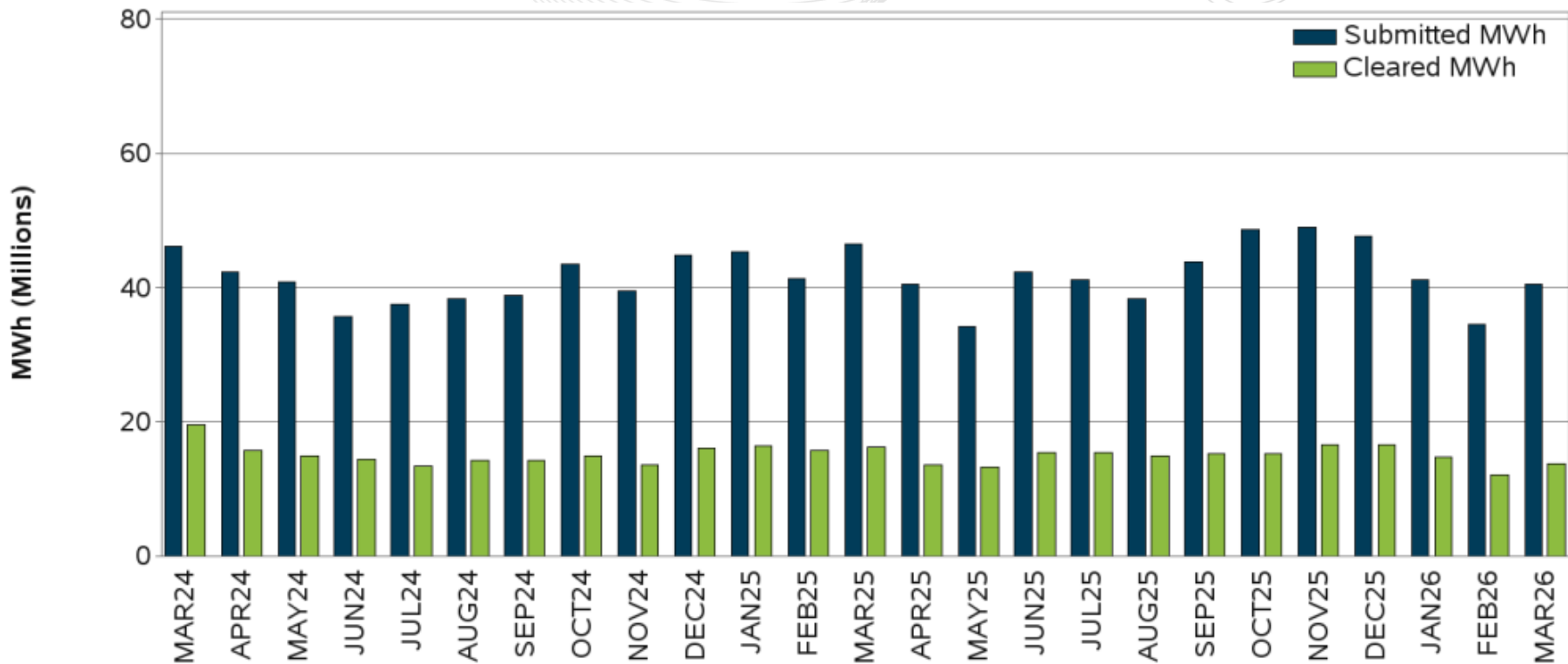
# Up-To-Congestion Transactions - Total Volume



# INCs, DECAs and Up-To-Congestion Transactions - Total Number



# INCs, DEC and Up-To-Congestion Transactions - Total Volume

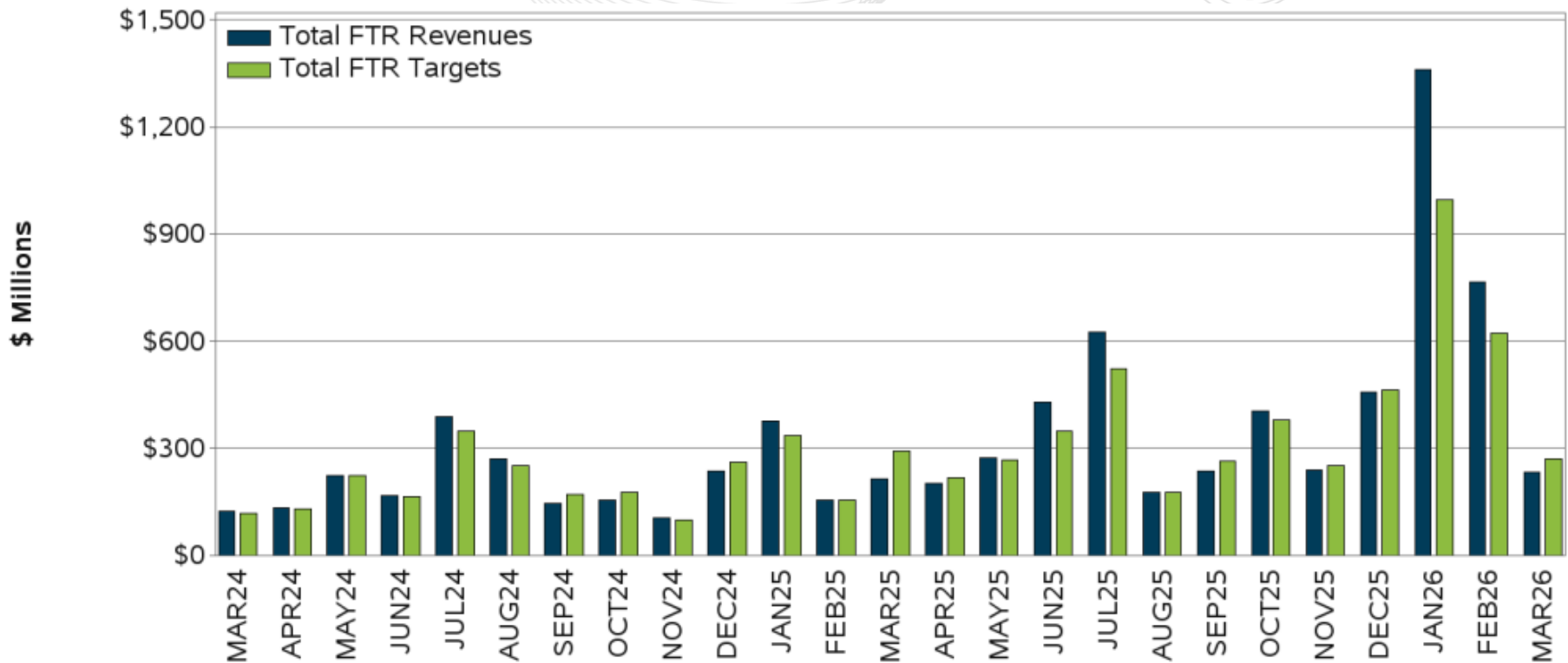


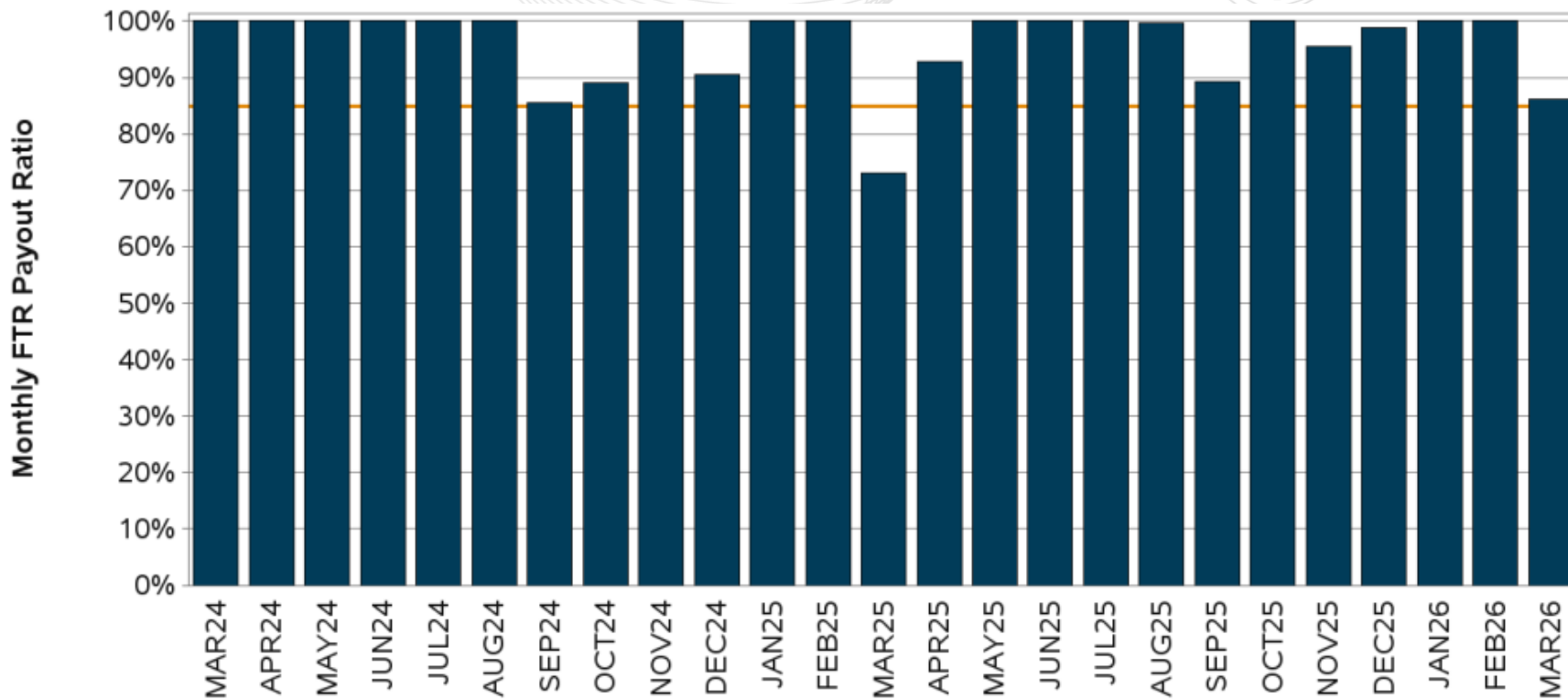
# Energy Market

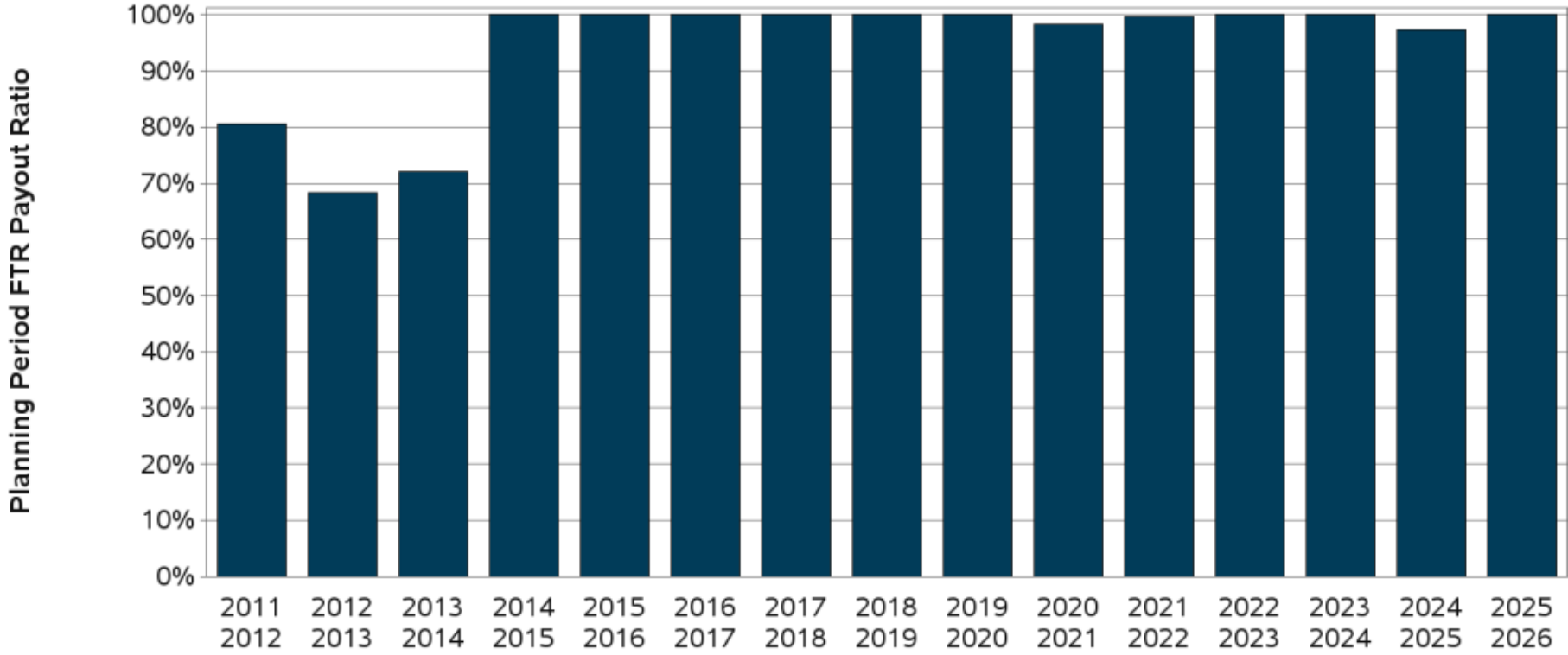
## Congestion and FTR Summary

Period	Surplus / Underfunding	Payout Ratio
March 2026	\$-37,467,475	86%
2026	\$468,037,239	100%
2025/2026	\$667,117,391	100%

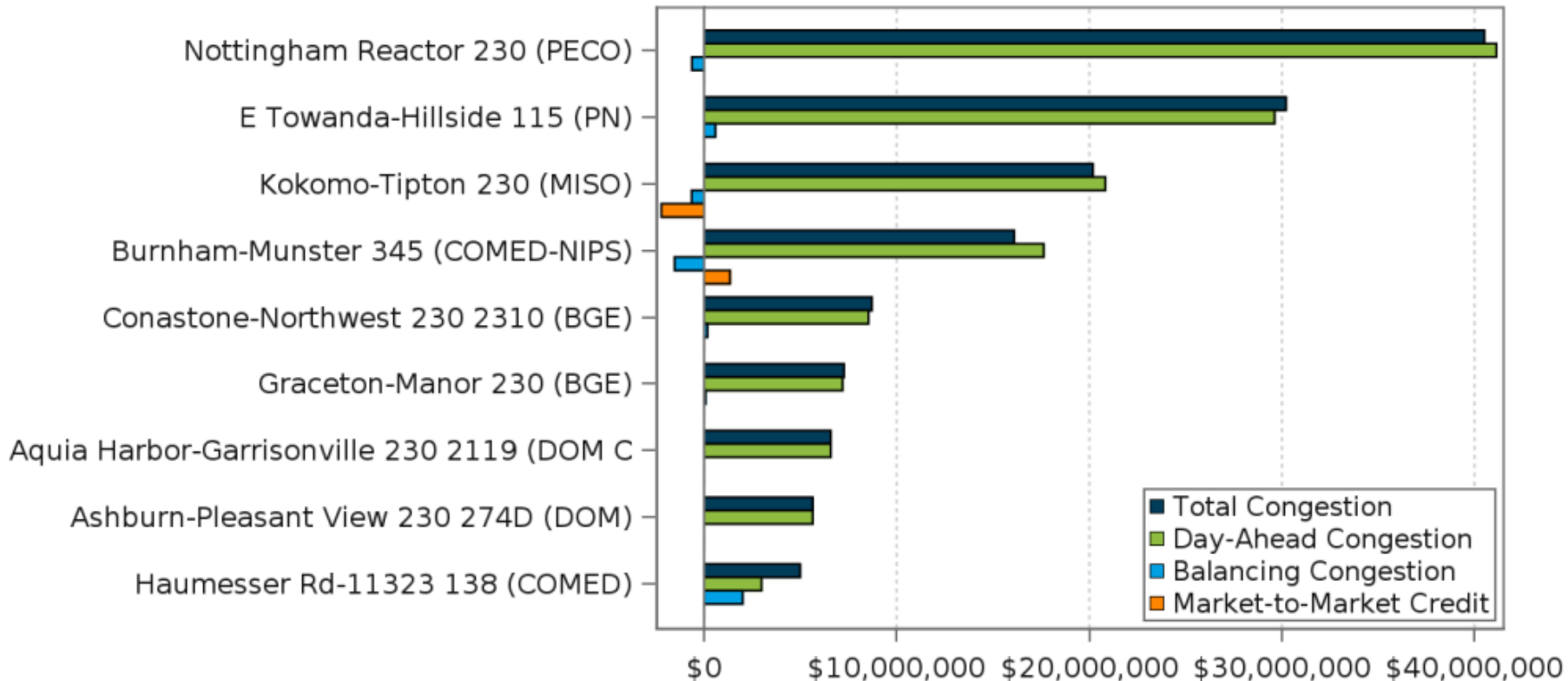
# FTR Revenue vs. FTR Target Allocation





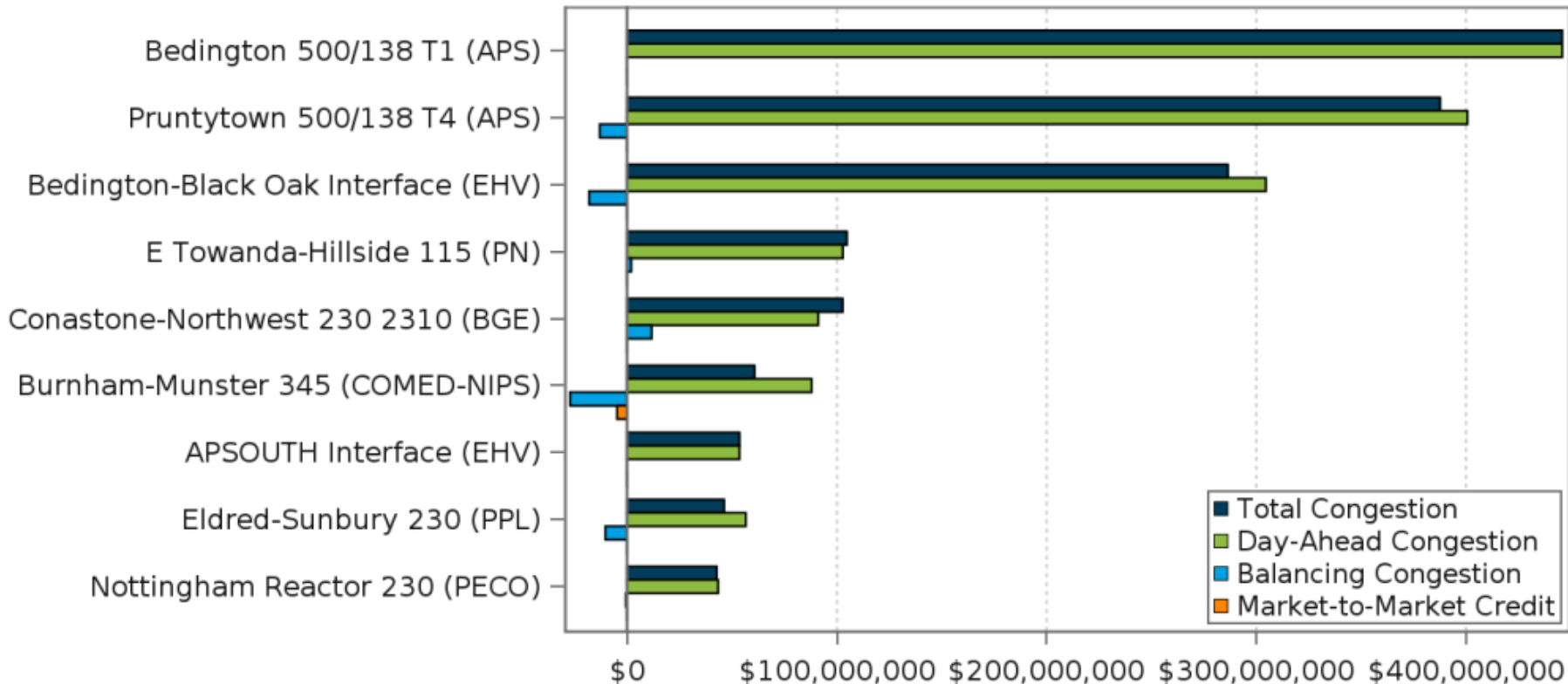


# Ten Most Heavily Congested Transmission Facilities - Overall, March



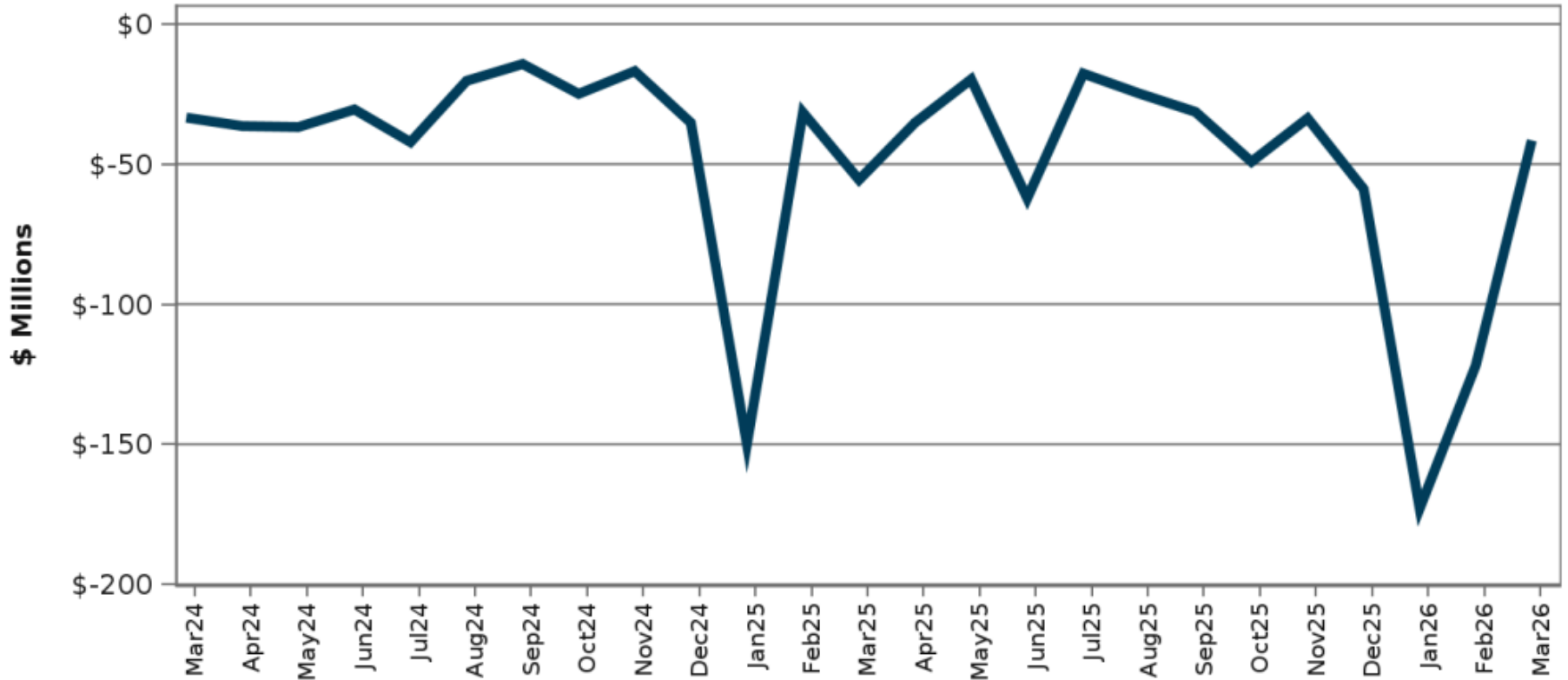
The ten most heavily congested facilities account for 96% of total congestion for March.

# Ten Most Heavily Congested Transmission Facilities - Overall, 2026



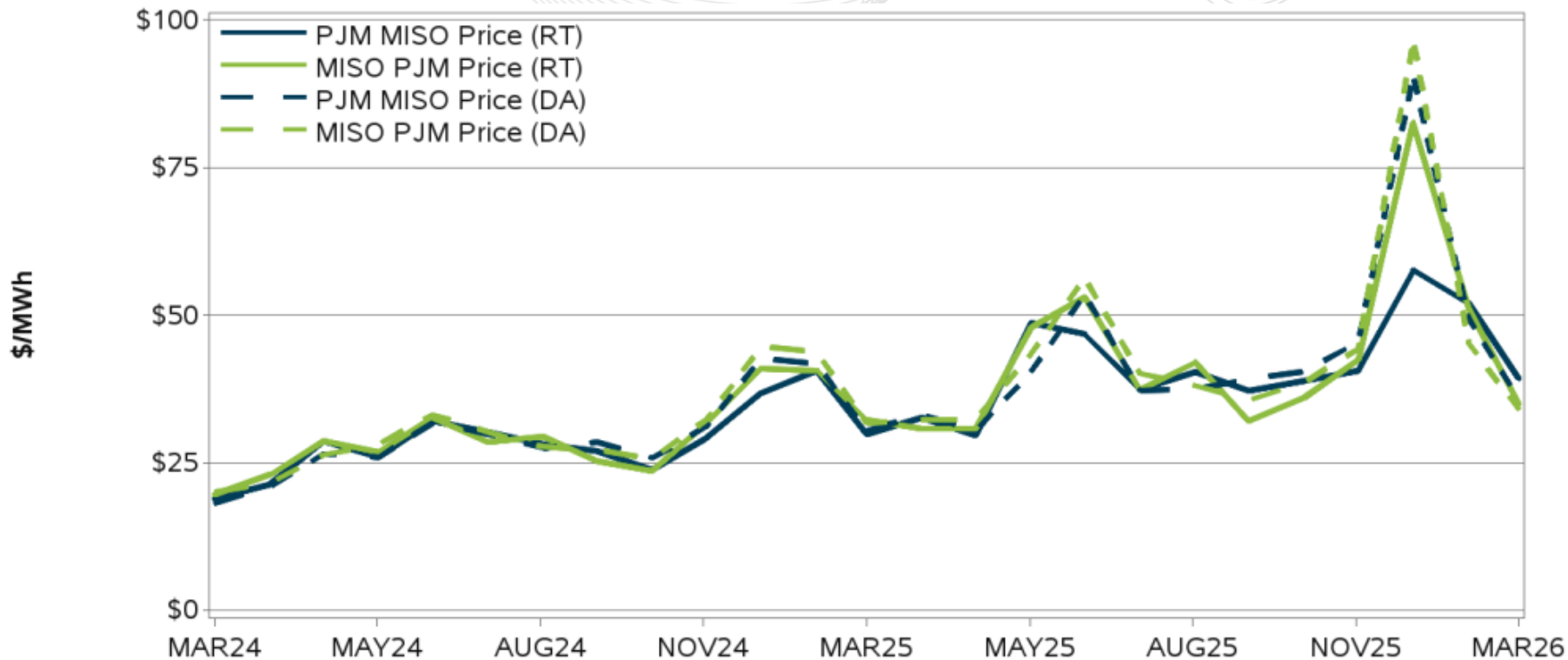
The ten most heavily congested facilities account for 84% of total congestion for 2026.

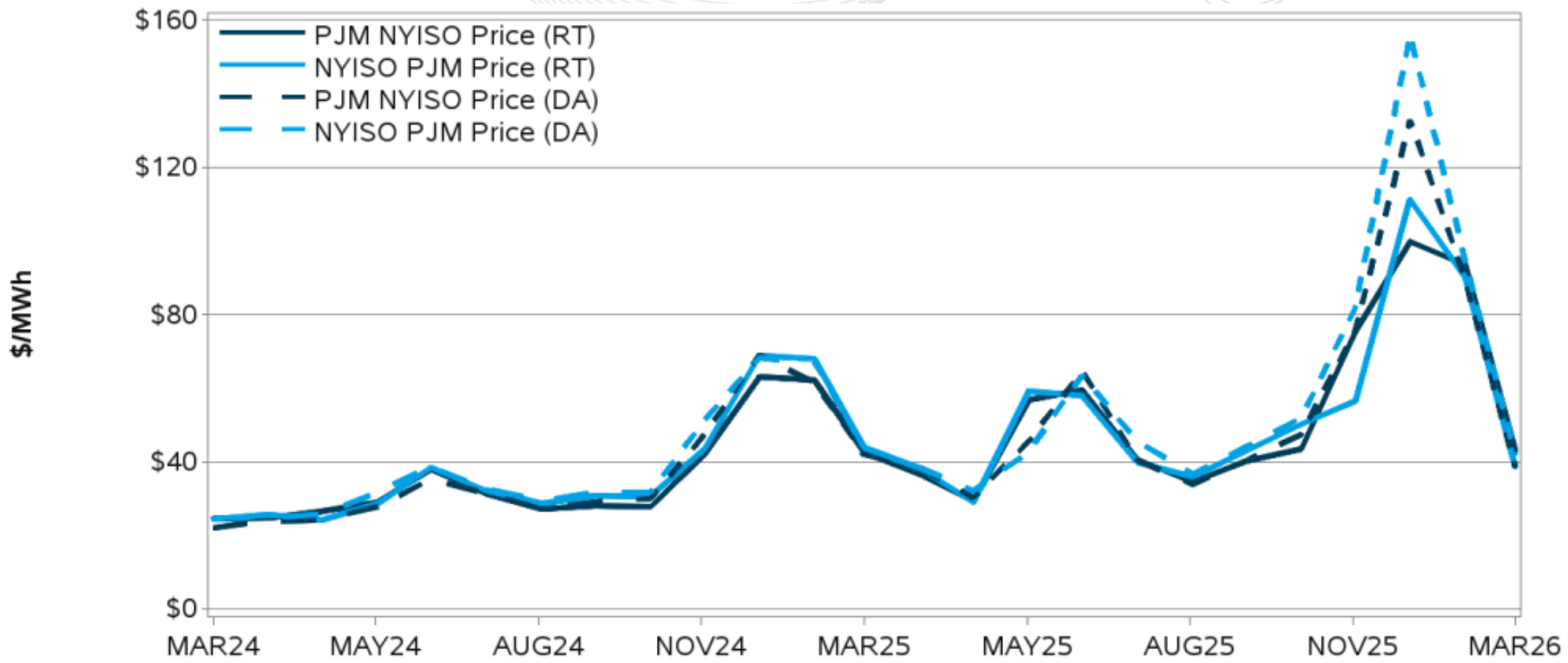
# Balancing Congestion Charge Revenues (BLI 2215)



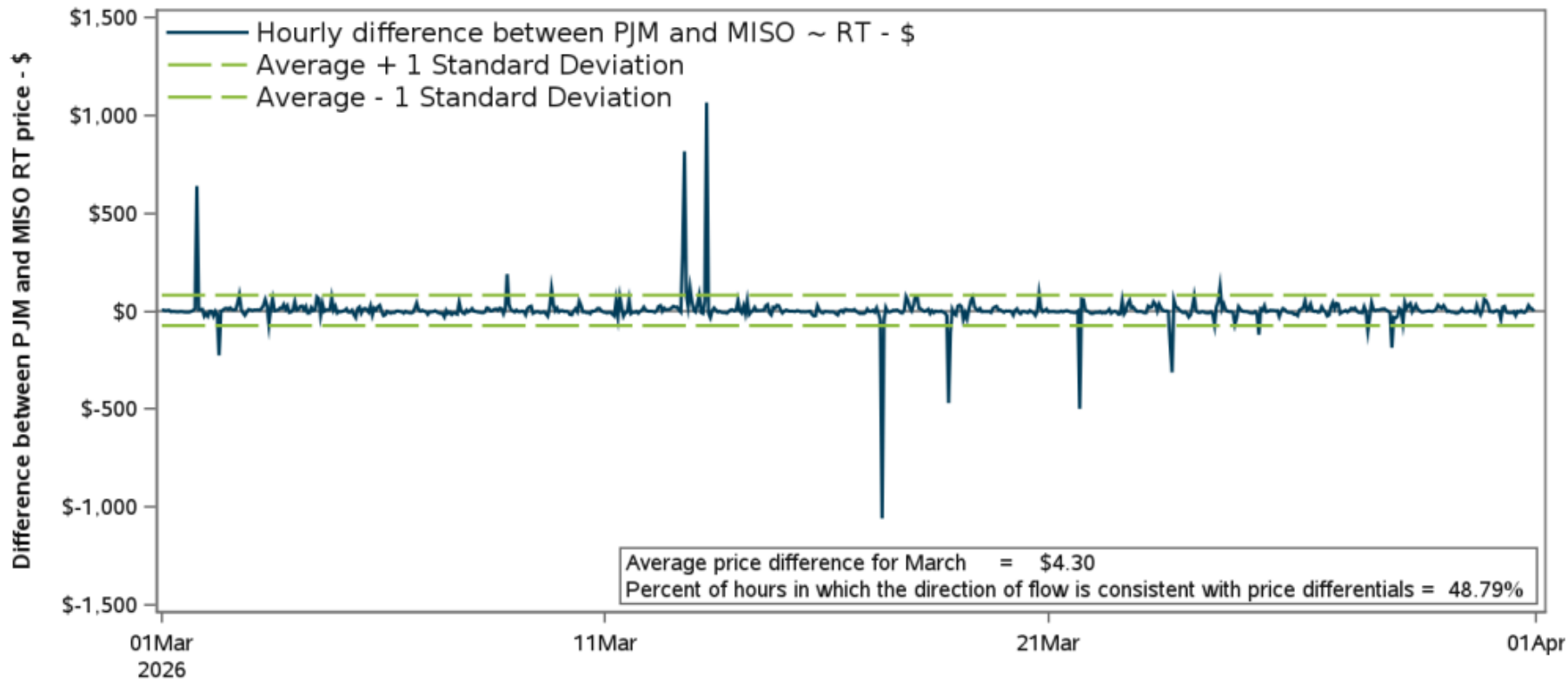
# Energy Market

# Interchange/Seams Summary



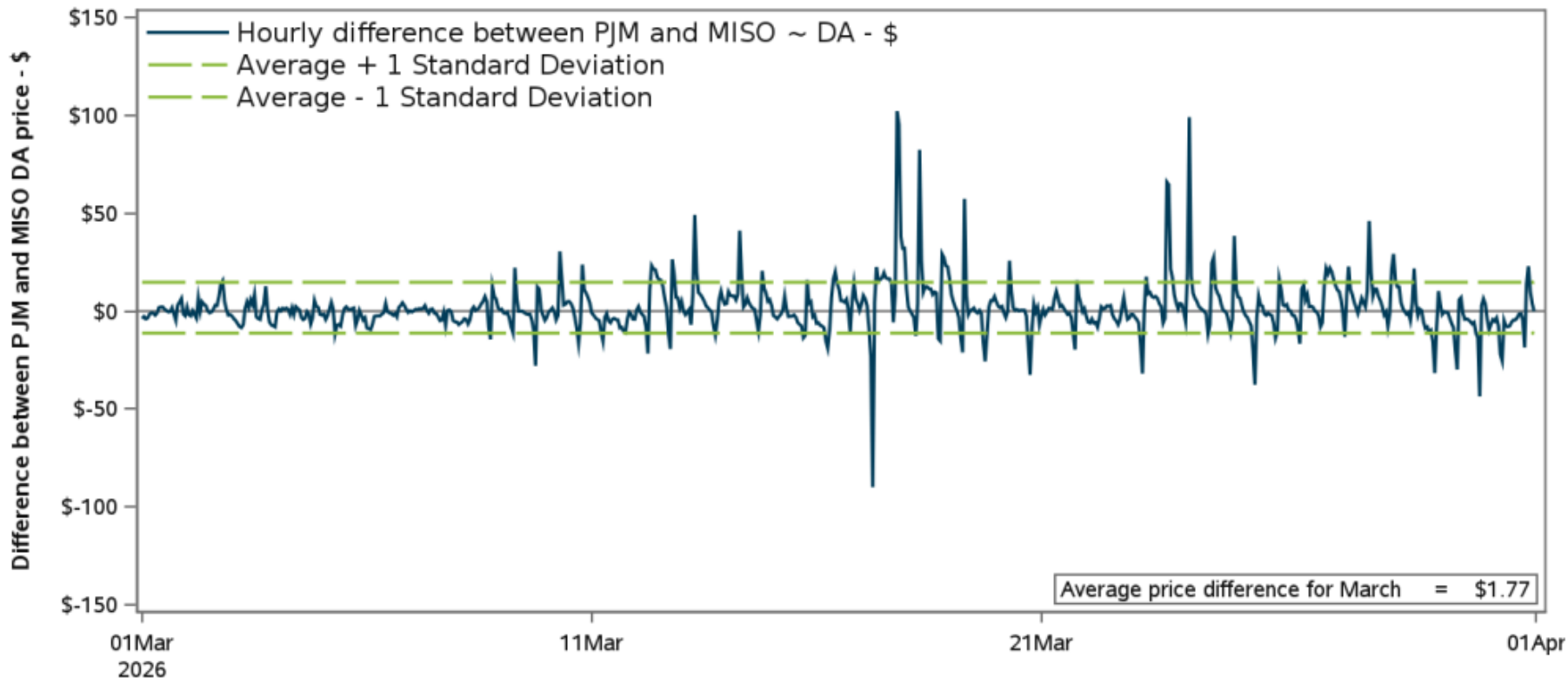


# Hourly Difference Between PJM and MISO Real-Time Prices



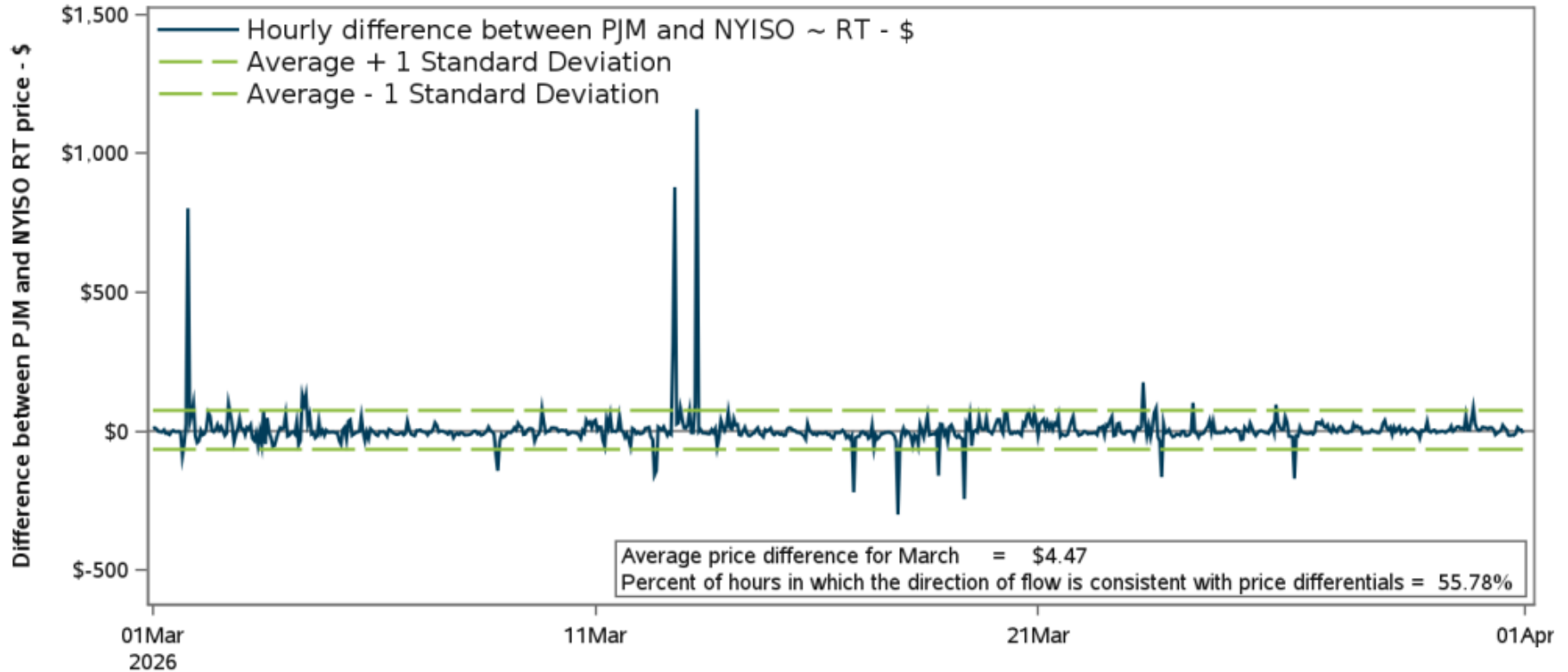
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

# Hourly Difference Between PJM and MISO Day-Ahead Prices



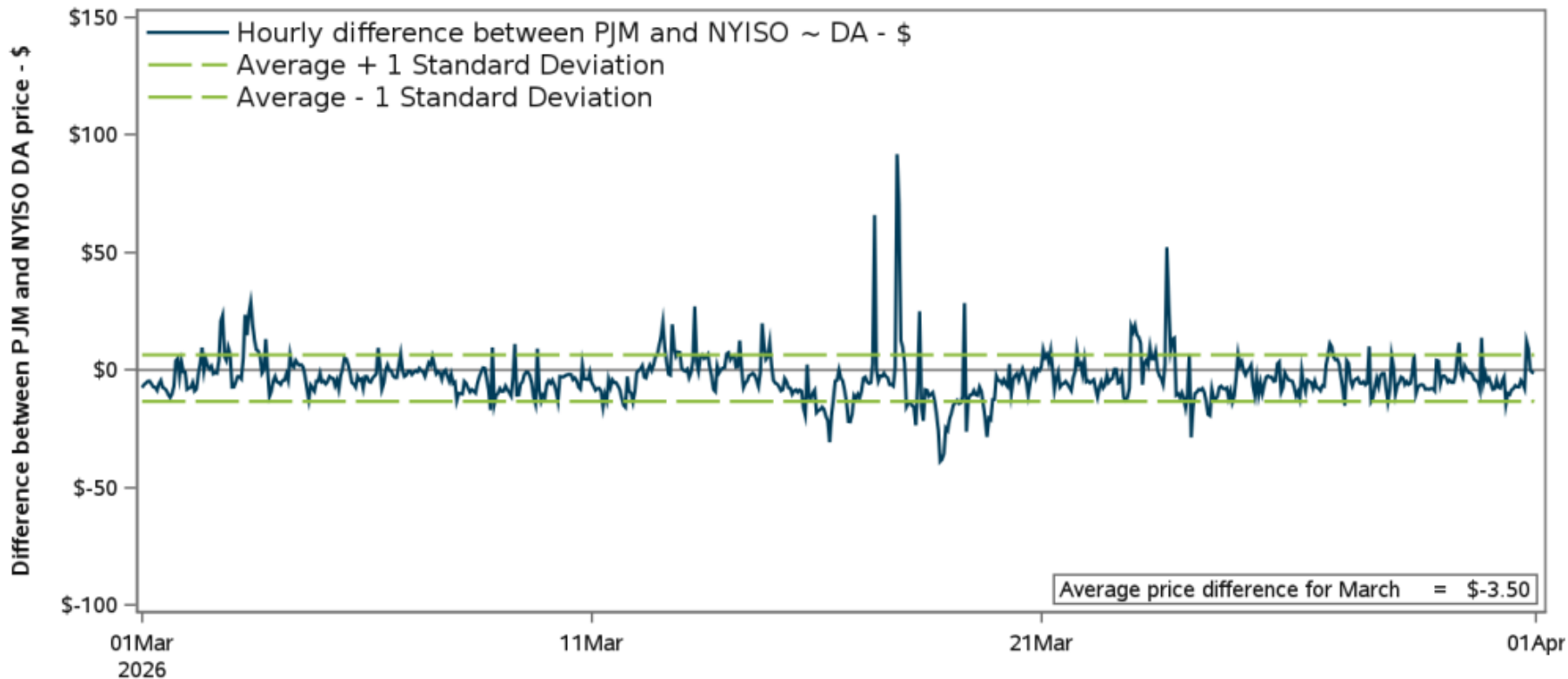
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

# Hourly Difference Between PJM and NYISO Real-Time Prices

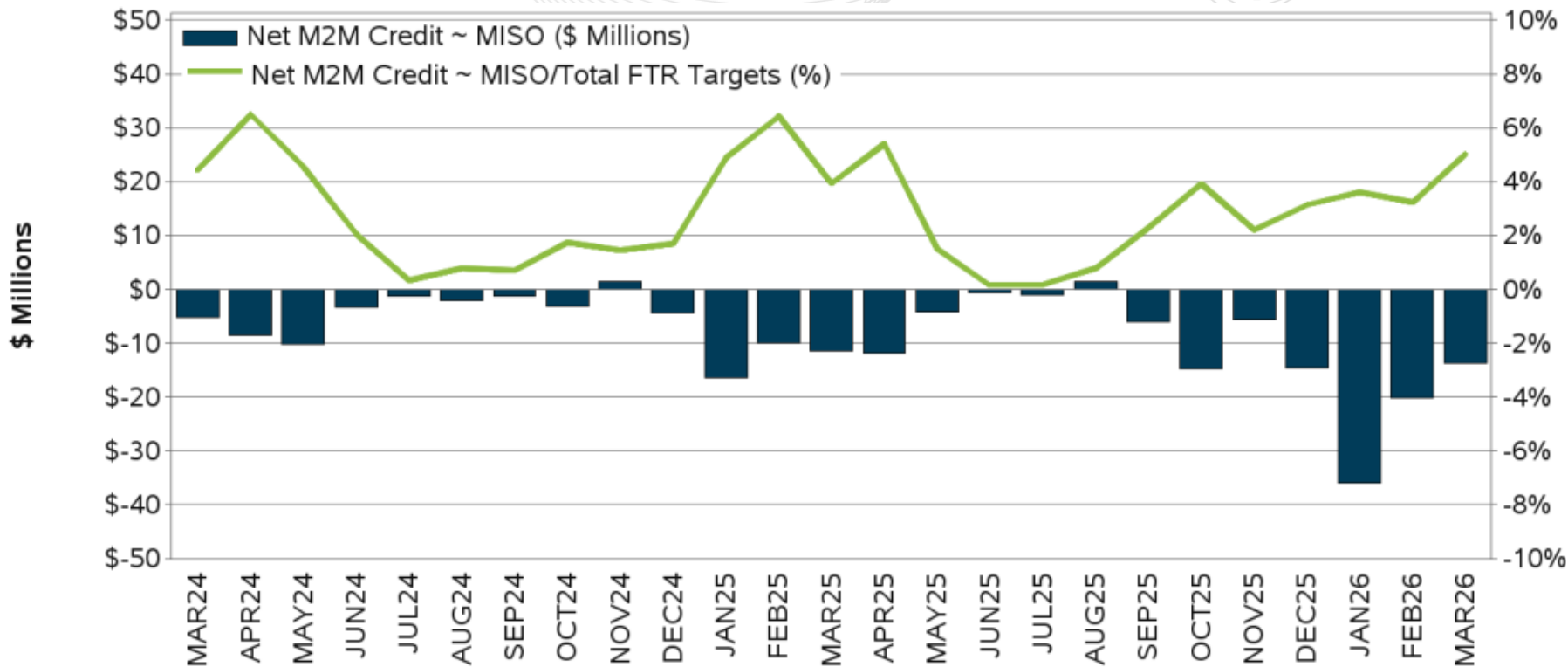


Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

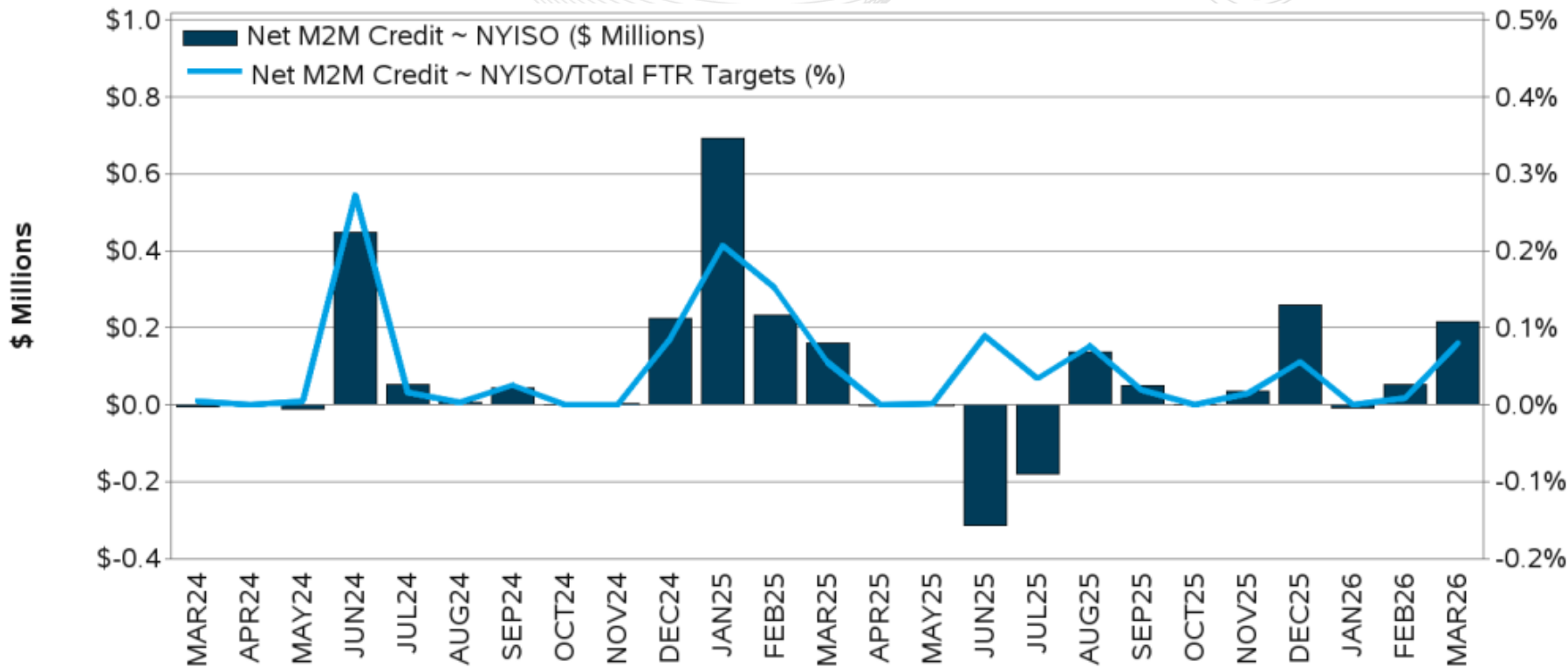
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Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

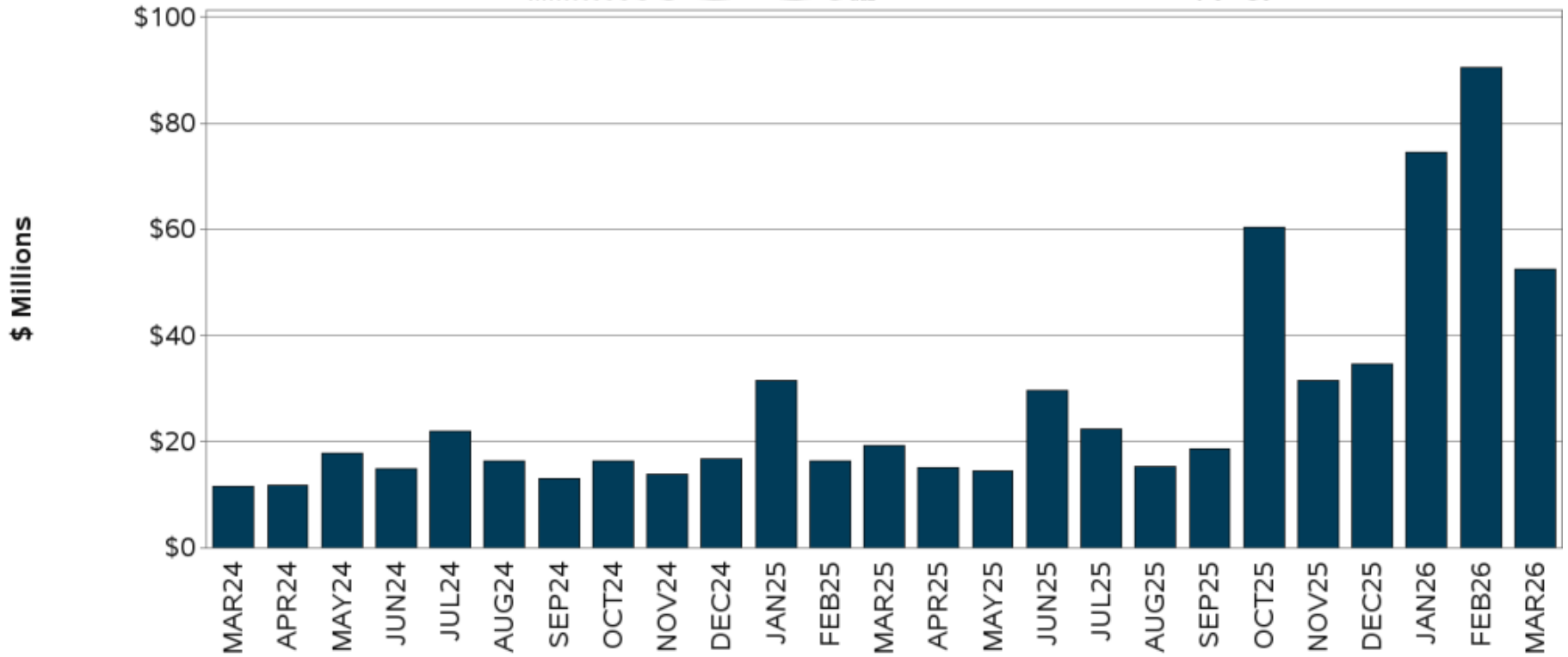


Negative M2M Credit represents PJM payment to MISO

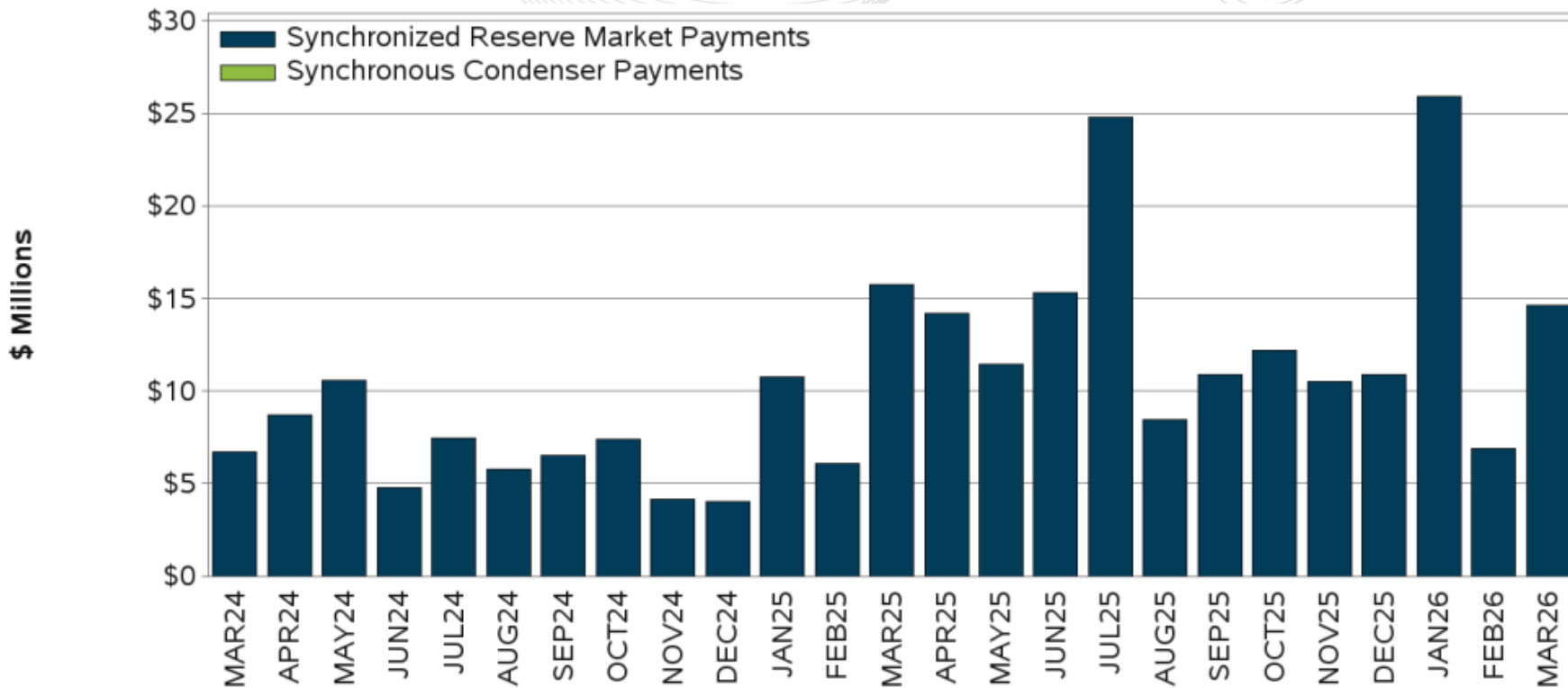


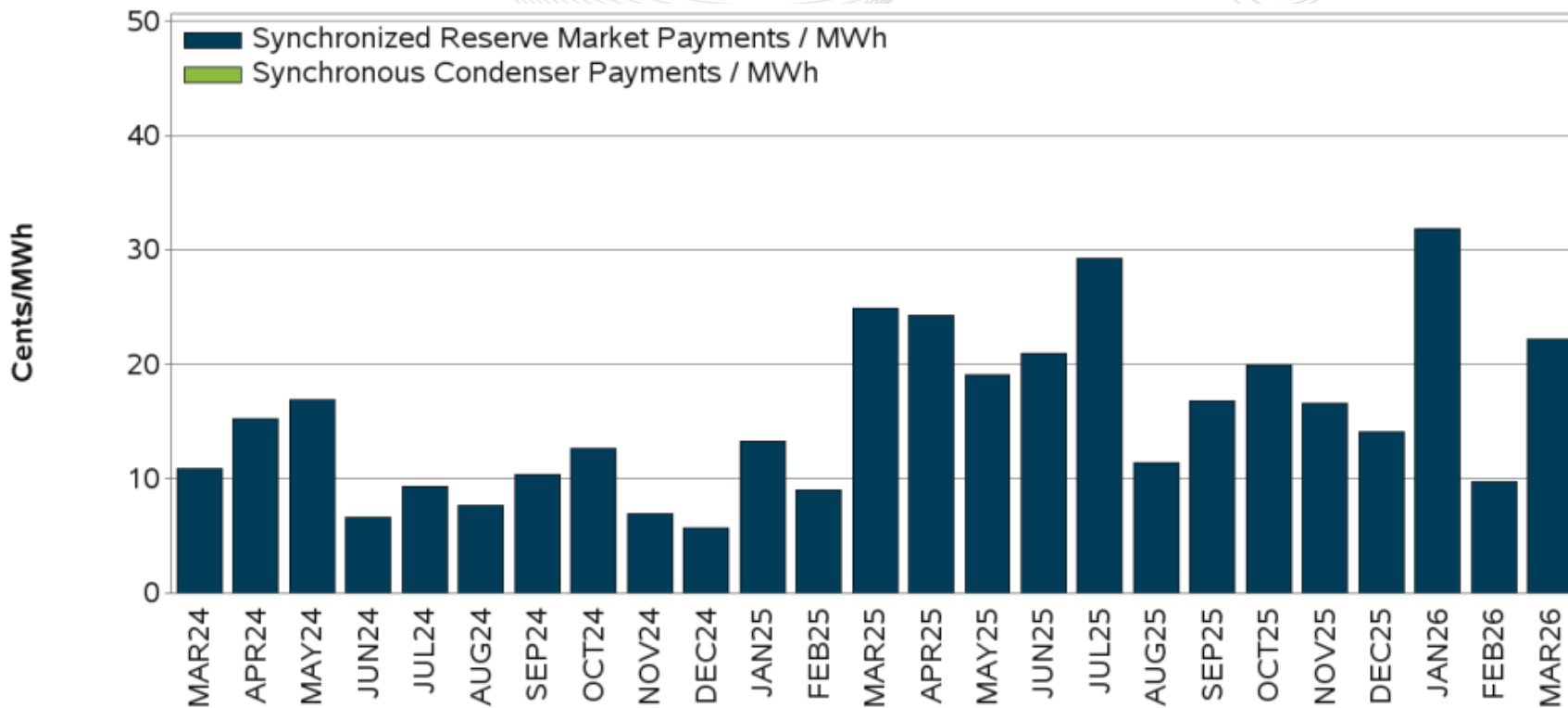
Negative M2M Credit represents PJM payment to NYISO

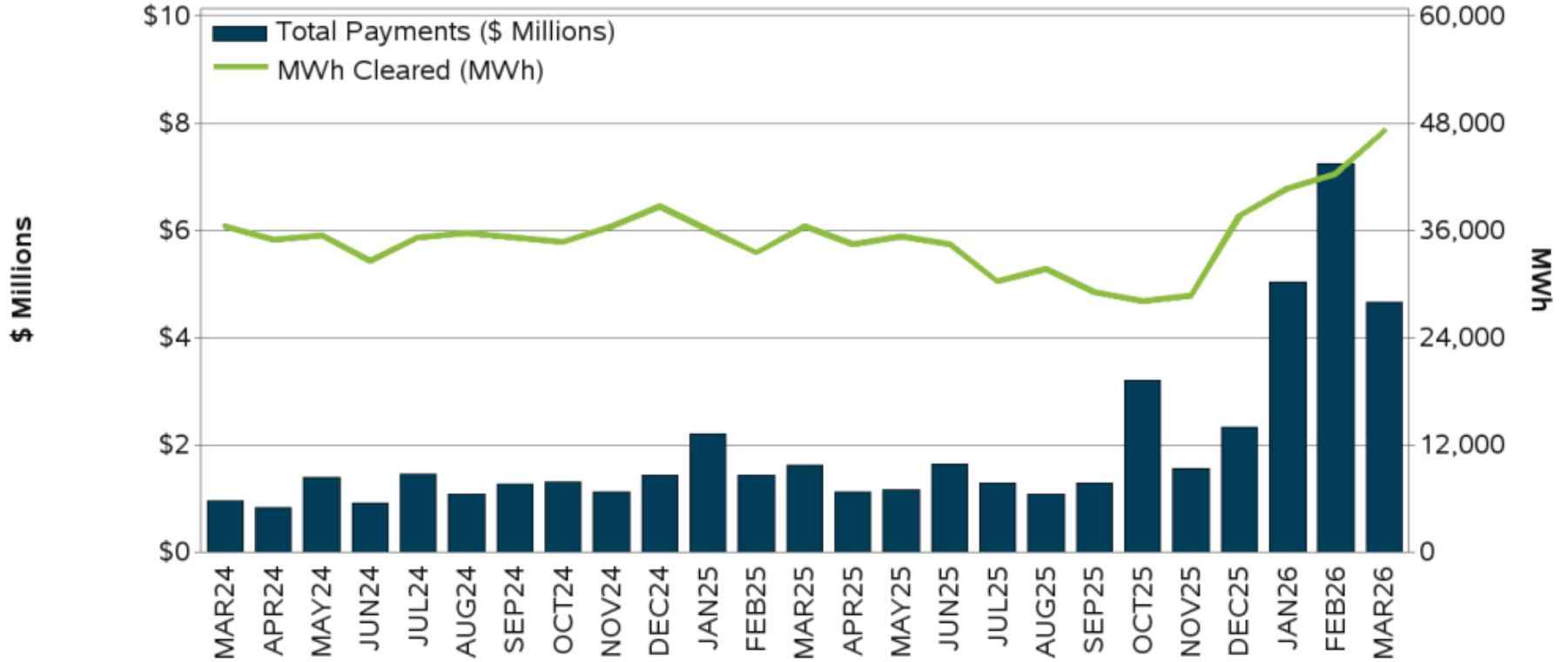
# Ancillary Service Market Summary



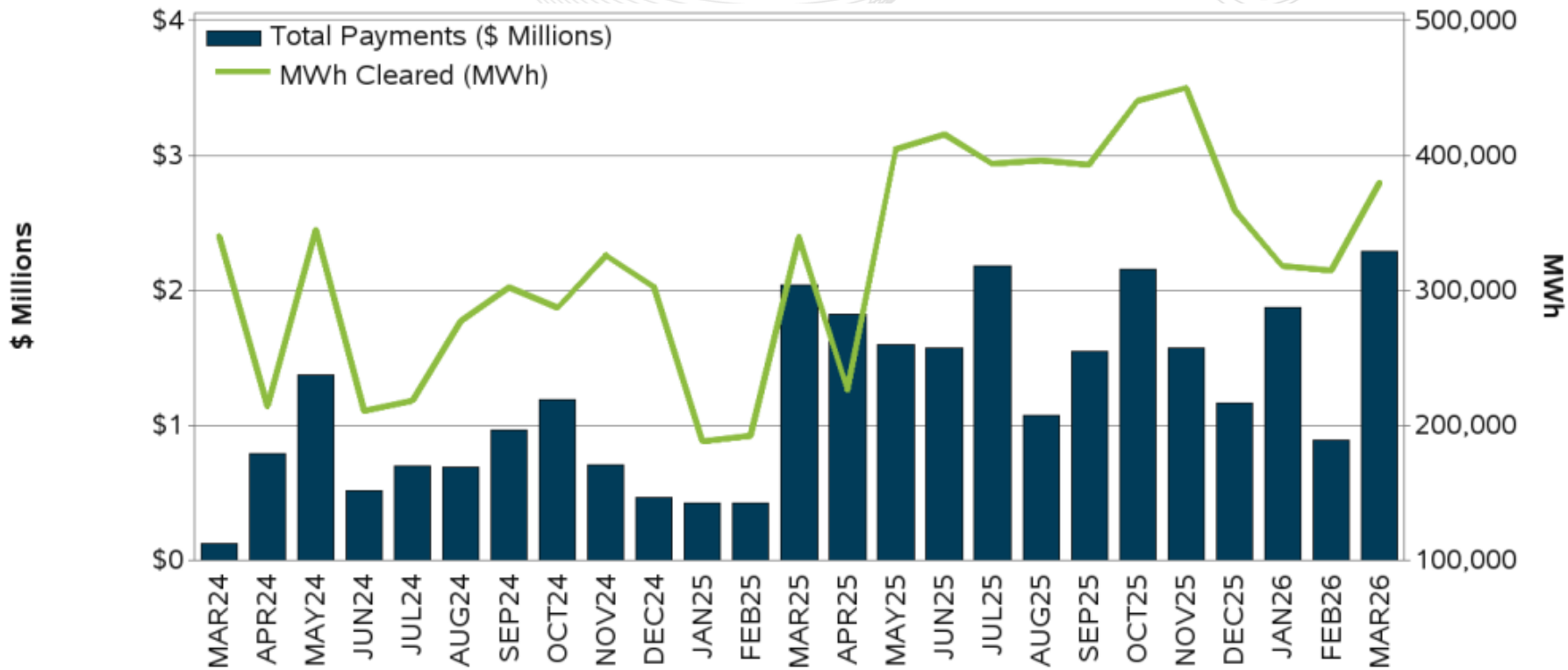
# Synchronized Reserve and Synchronous Condenser Costs

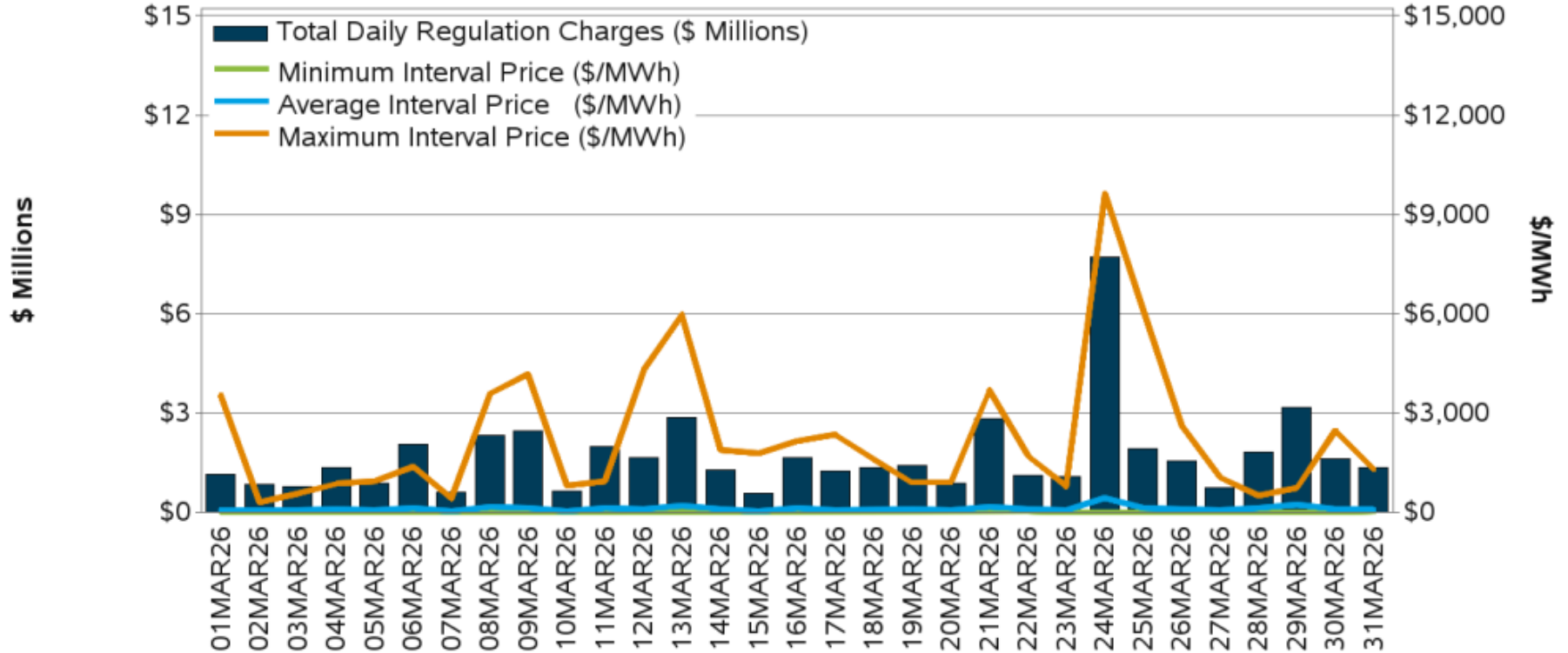




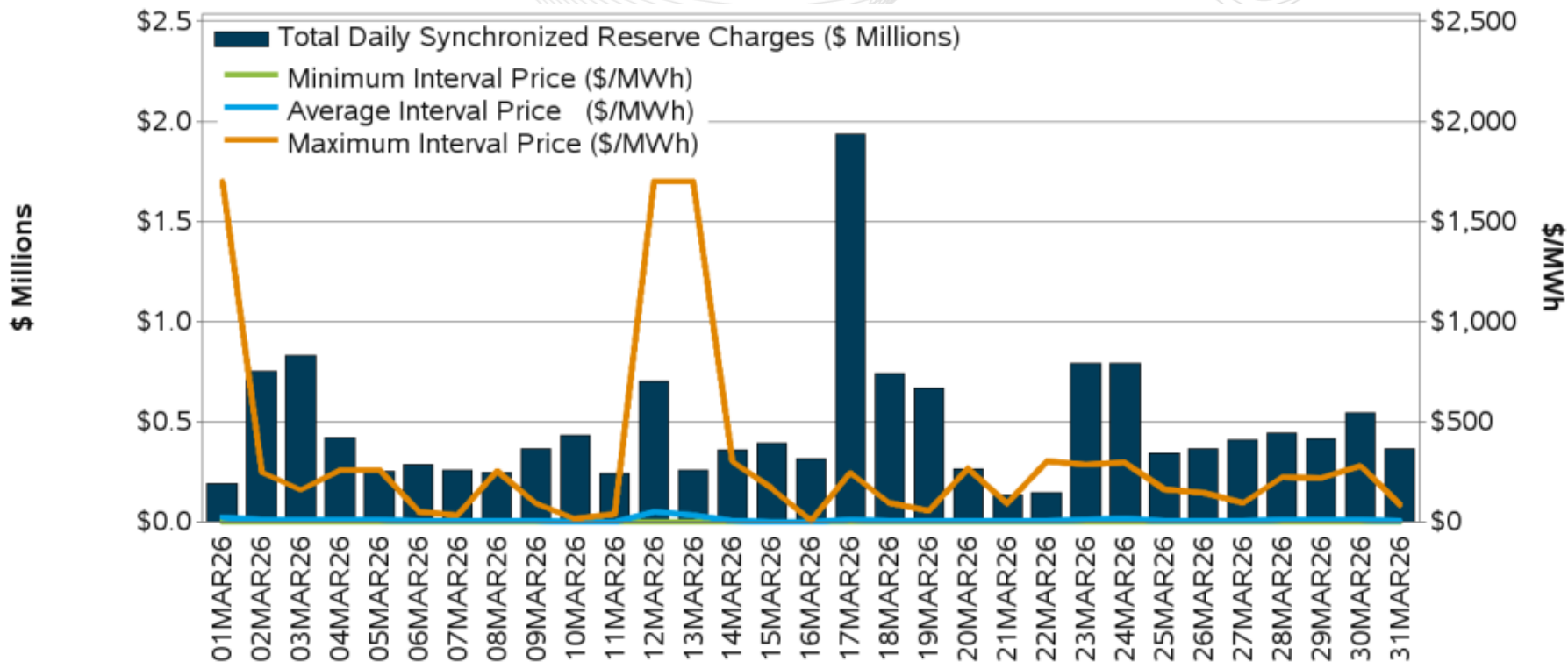


# DR Participation in PJM Synchronized Reserve Markets





# Synchronized Reserve Market Daily Prices and Charges



Jennifer Warner-Freeman  
Jennifer.Freeman@pjm.com



### Member Hotline

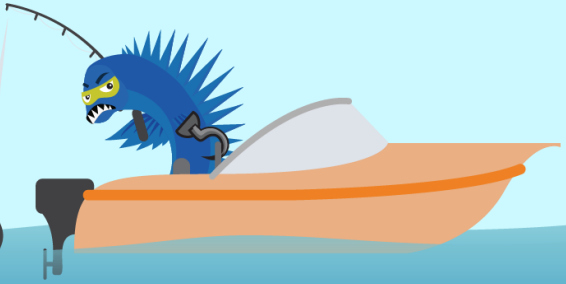
(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

**PROTECT THE  
POWER GRID**

**THINK BEFORE  
YOU CLICK!**



**BE ALERT TO  
MALICIOUS PHISHING  
EMAILS**



**Report suspicious email activity to PJM.  
Call (610) 666-2244 or email [it\\_ops\\_ctr\\_shift@pjm.com](mailto:it_ops_ctr_shift@pjm.com)**