

Markets Report

MC Webinar
July 27, 2026

Disclaimer: While materials are current at the time of publishing, applicable requirements may change. PJM Governing Documents control.

- 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 June, temperatures overall were in line with a typical level. The sum of Heating and Cooling Degree Days was at the historic average. ([Slides 7-8](#))
- Energy use was above the historic average for June. ([Slides 7-8](#))
- In June, uplift exceeded \$2.25M on 3 days. ([Slide 24](#))

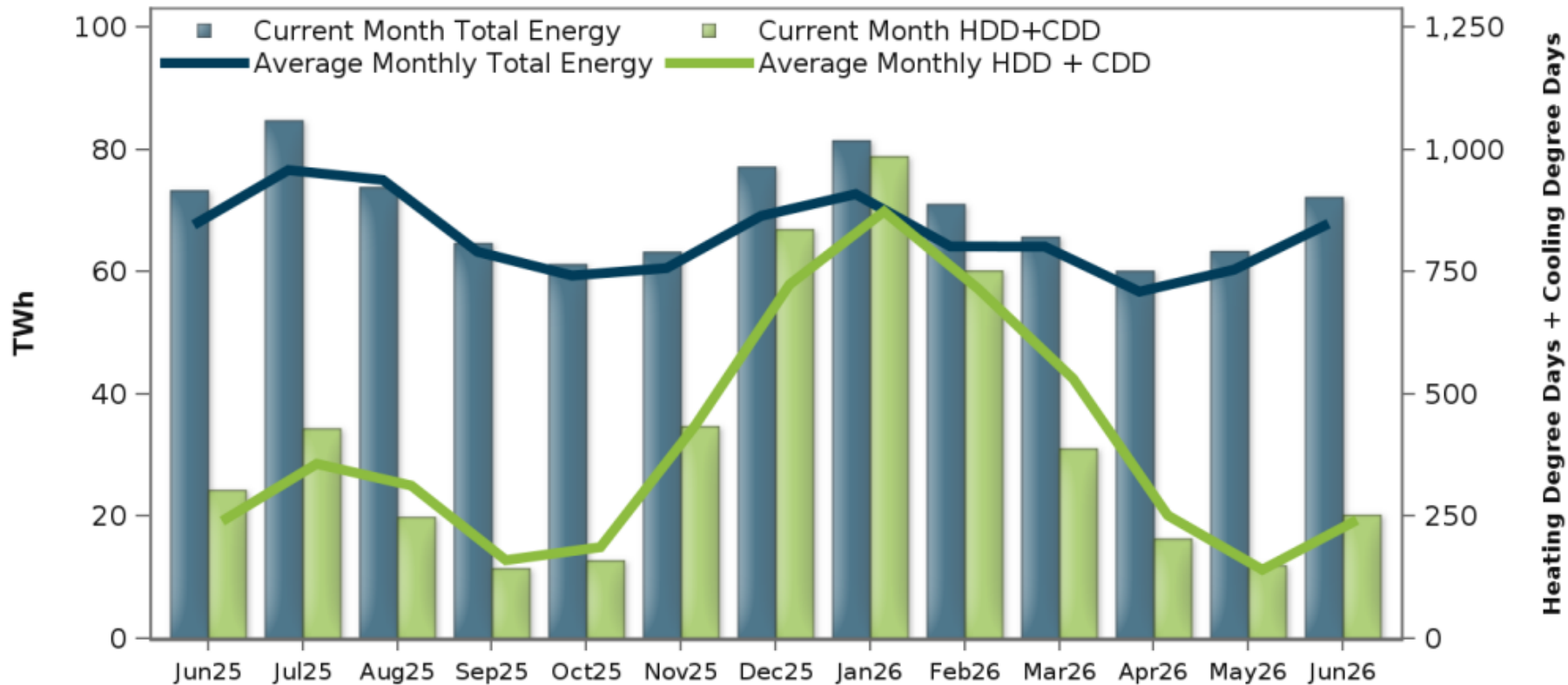
- Load-weighted average LMP for 2025 is \$70/MWh: ([Slides 32-33](#))
 - June 2026 was \$61/MWh, which is lower than June 2025 (\$68/MWh) but higher June 2024 (\$33/MWh).
- There were eight 5-minute intervals that experienced shortage pricing in June. ([Slide 31](#), Report Appendix)
- FTR revenue adequacy for the month of June is 100% and the 2026-2027 Planning Year is funded at 100%. ([Slides 48-51](#))
- Congestion values in 2026 are higher than those seen in 2025. ([Slide 49](#))
- Regulation and Synchronized Reserve market costs have generally tracked with energy prices over time, however, Regulation costs have seen increases since the implementation of Regulation Redesign – Phase 1. ([Slides 65-67](#))

- 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
- Monthly updates can be found in Excel format on the IMM's website:
 - 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.

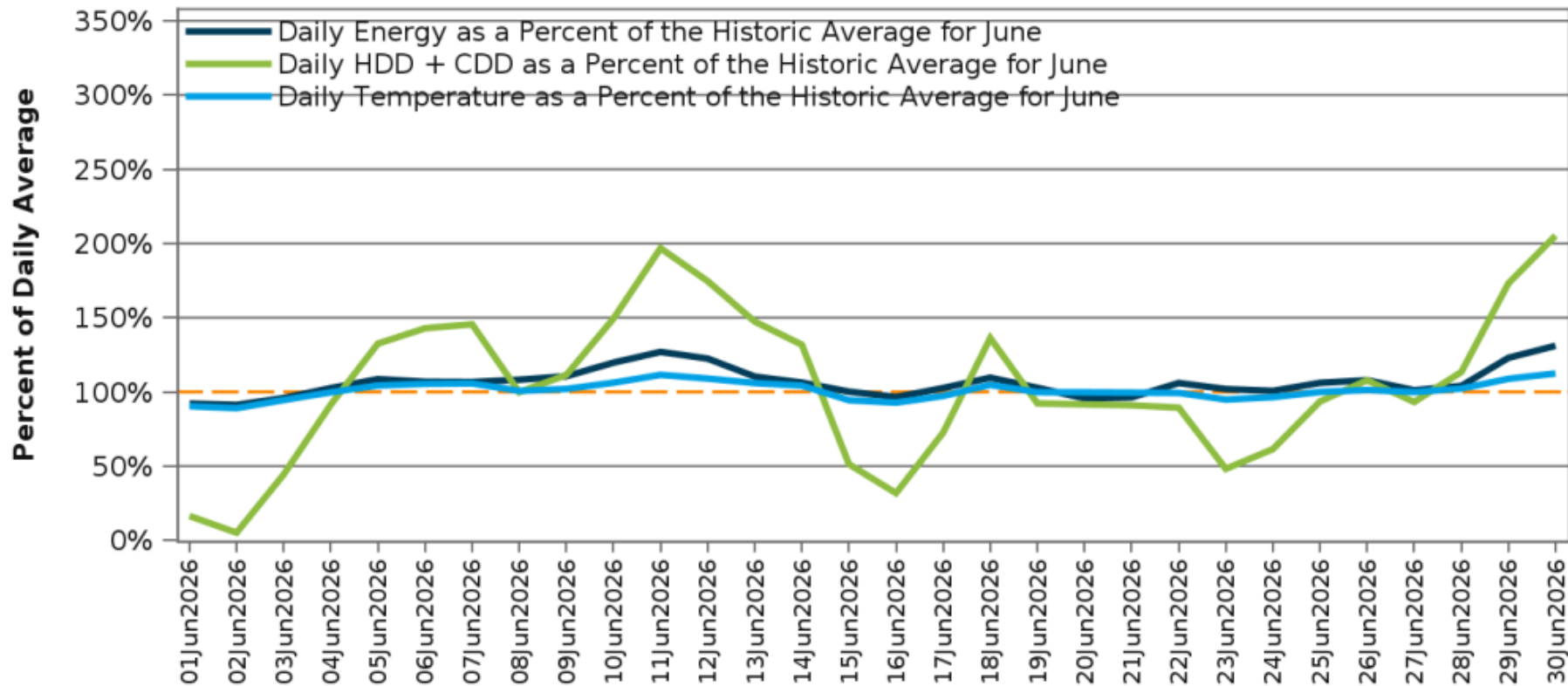
Market Conditions

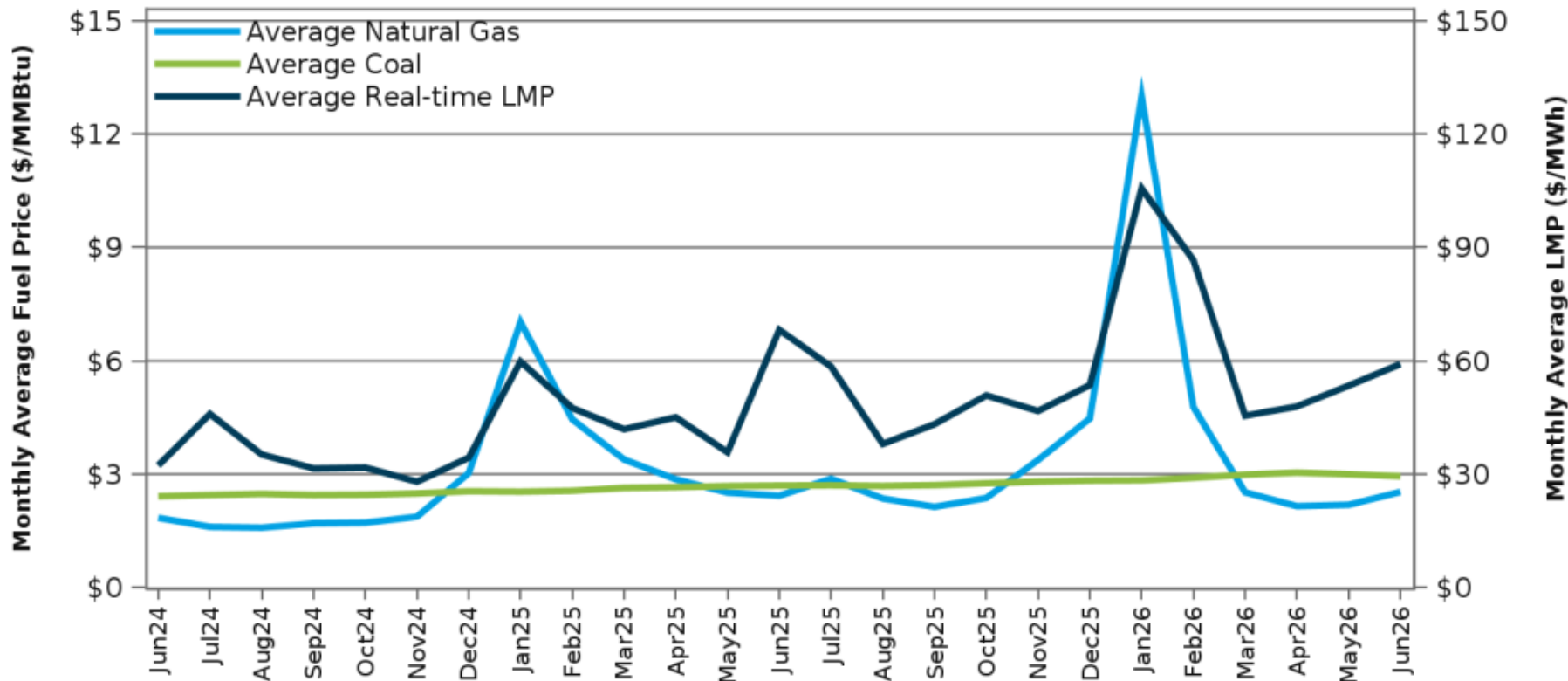
- The weather parameter shown in the following slide is a monthly sum of daily Heating Degree Days (HDD) and Cooling Degree Days (CDD).
- Degree days represent a deviation from a baseline temperature, in this case 60 degrees for HDD and 65 degrees for CDD. As temperatures get more extreme, colder or hotter, either HDDs or CDDs, respectively, will increase.
- Typically, winter months will only record HDDs, while summer months will only record CDDs. Shoulder months June 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

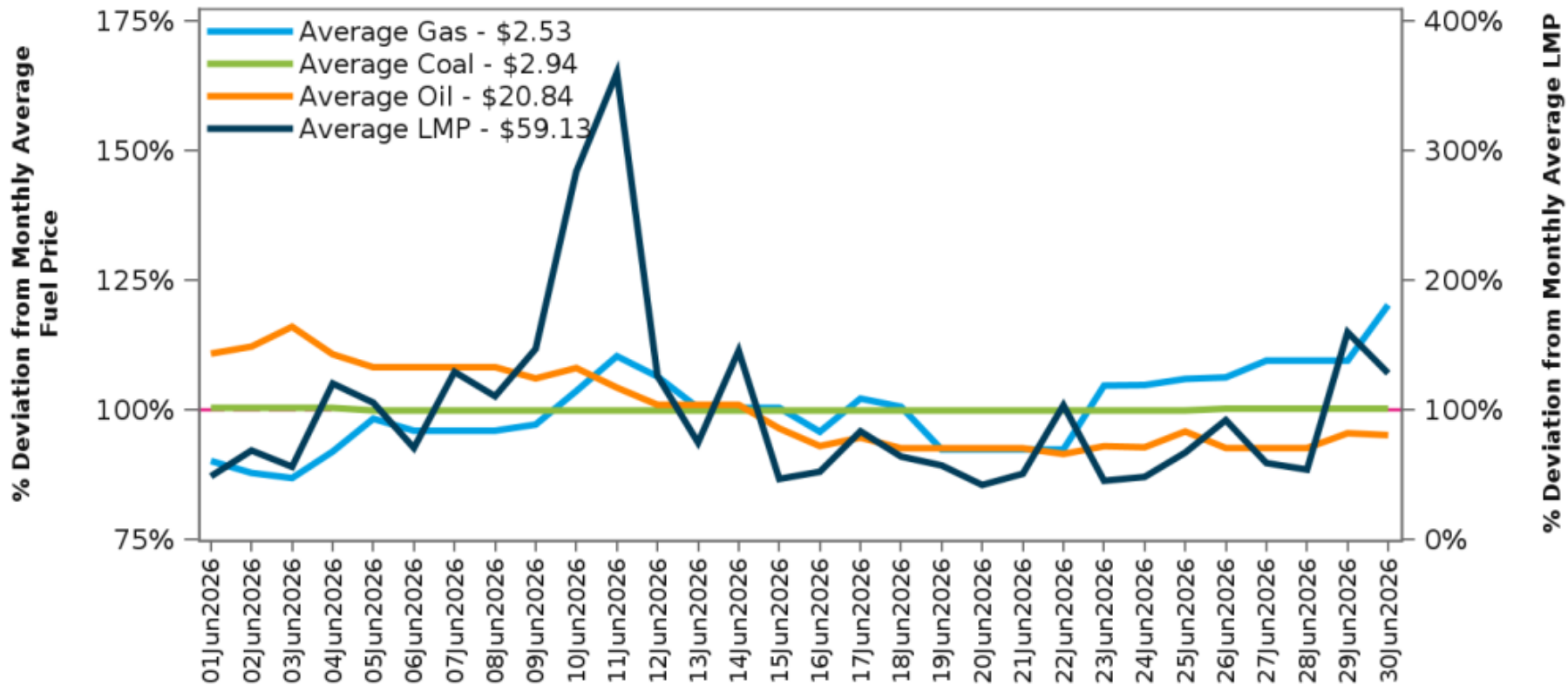


Historic Average Weather and Energy versus Current Month - Daily



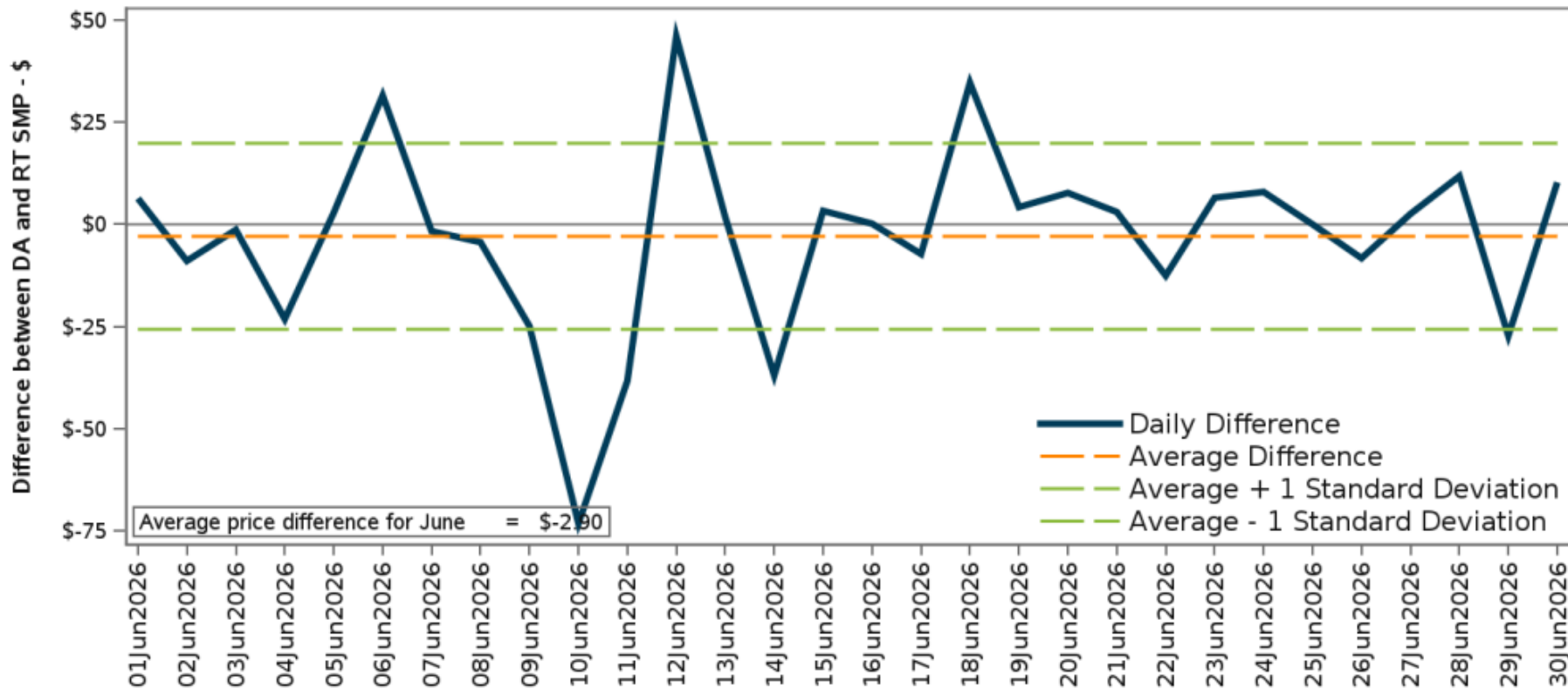


Fuel Price Source: S&P Global Platts



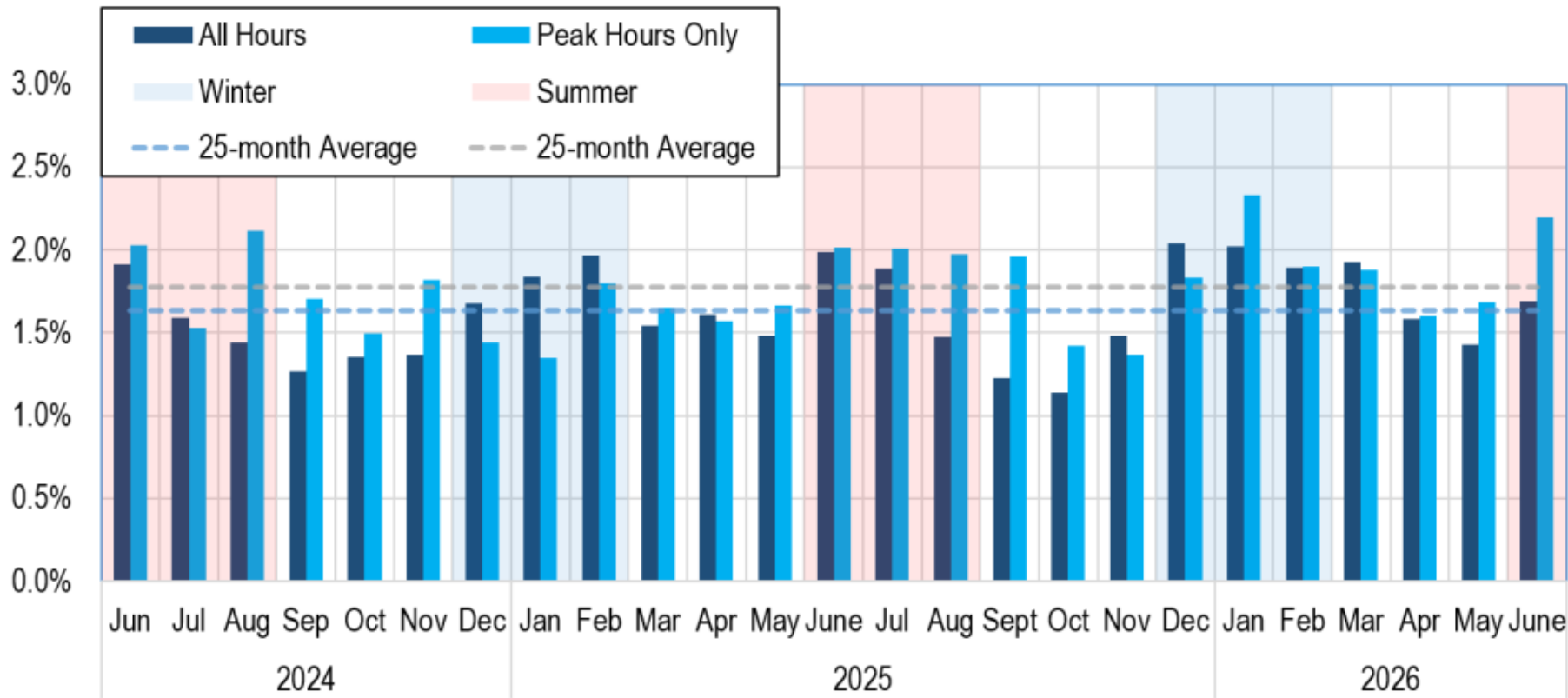
Fuel Price Source: S&P Global Platts

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

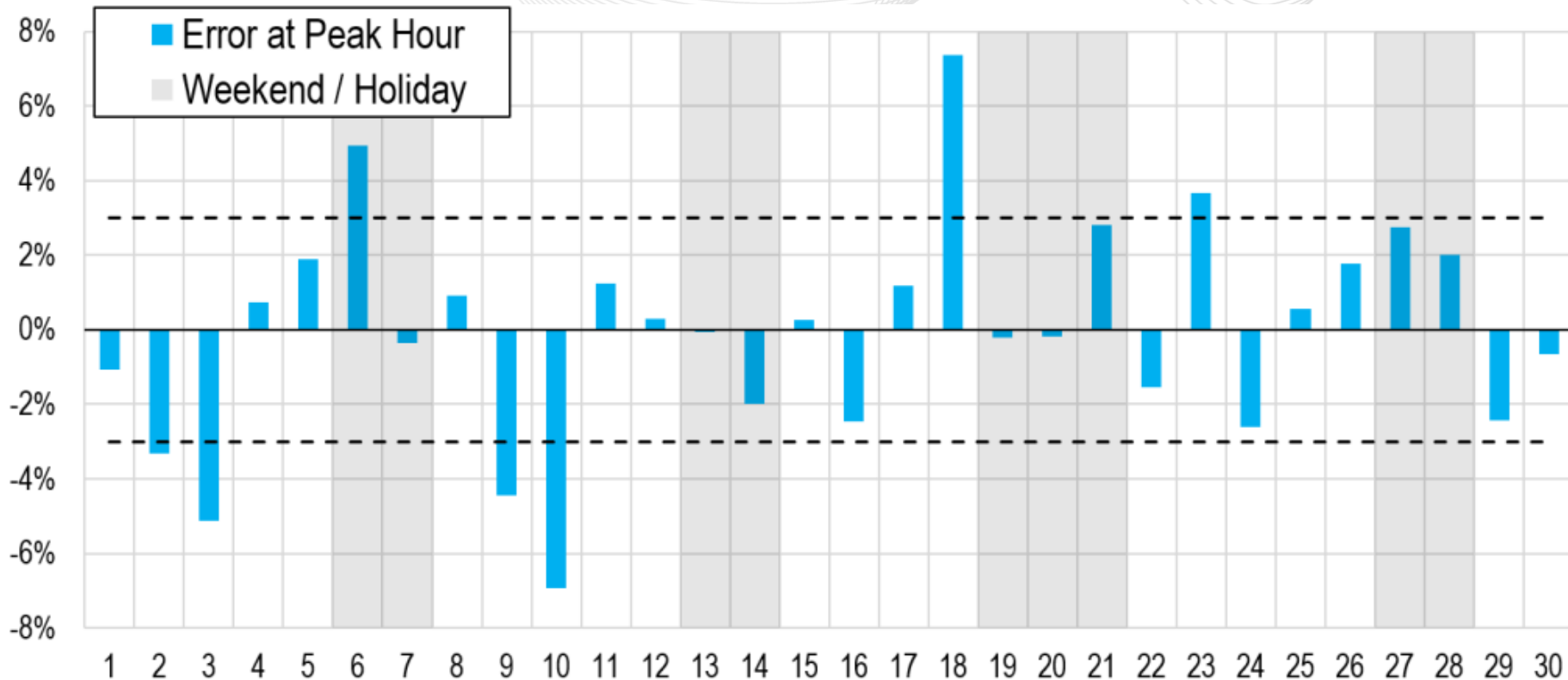


Positive values represent days when the DA daily average price was higher than RT. Negative values represent days when the DA price was lower.

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

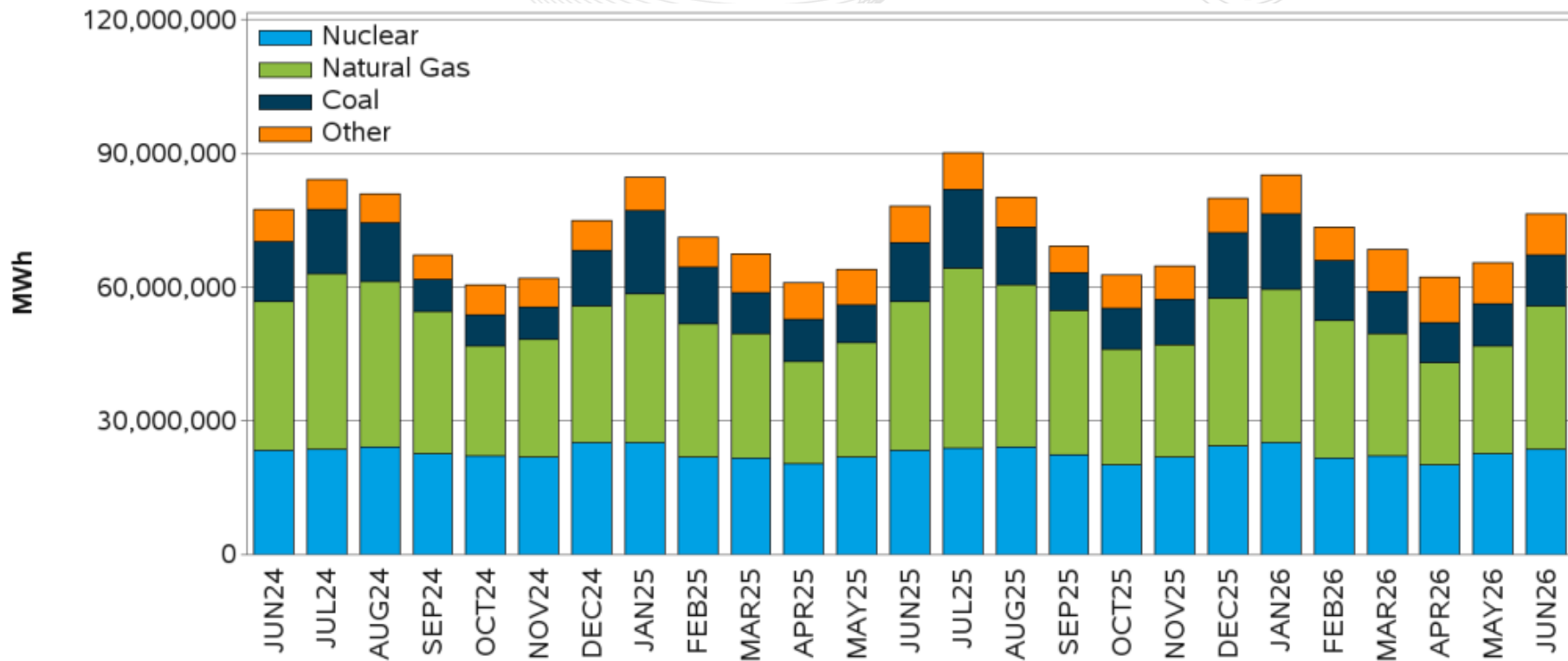


Load Forecast Error - June Daily Peaks, 10:00 Forecast

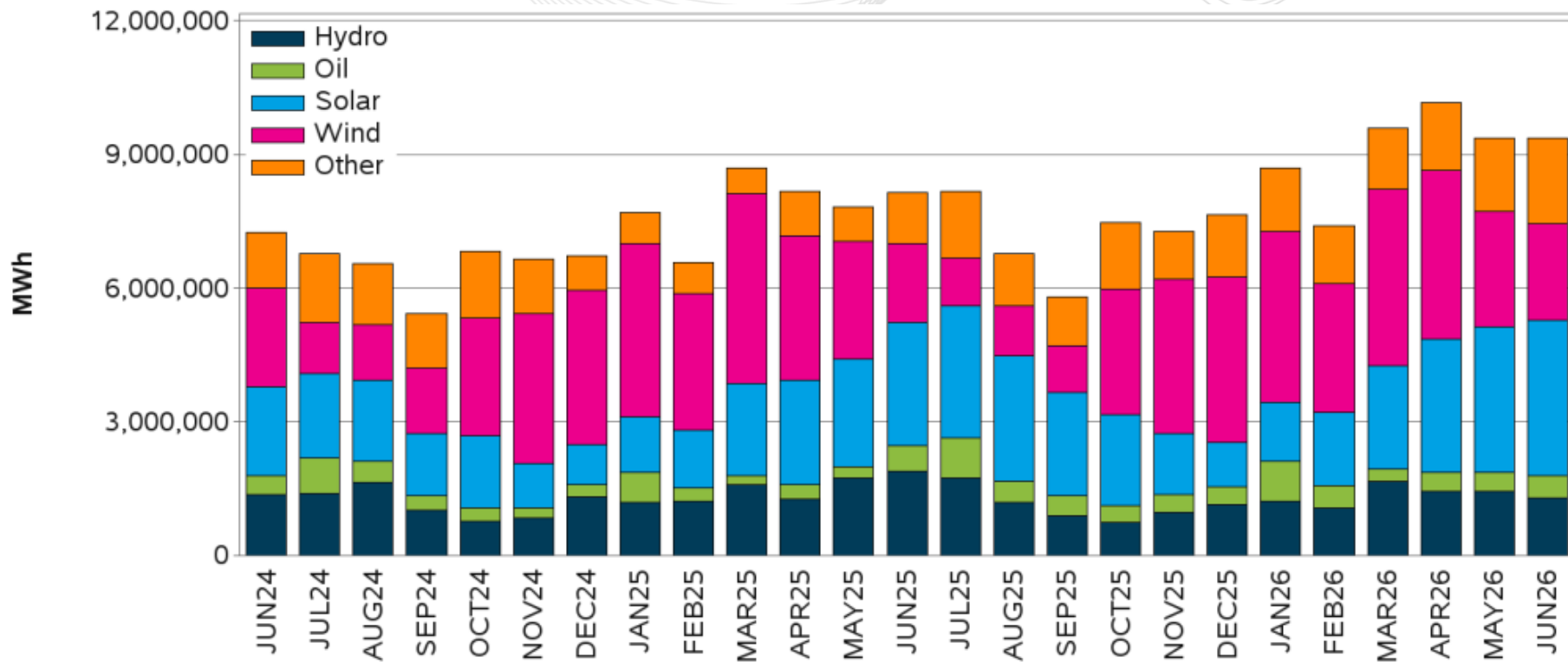


- PJM prepares a day-ahead load forecast at 10:00 am for use by our members.
- This forecast is not used to clear the day-ahead market and is not utilized for the reliability tools that run subsequent to the day-ahead market.

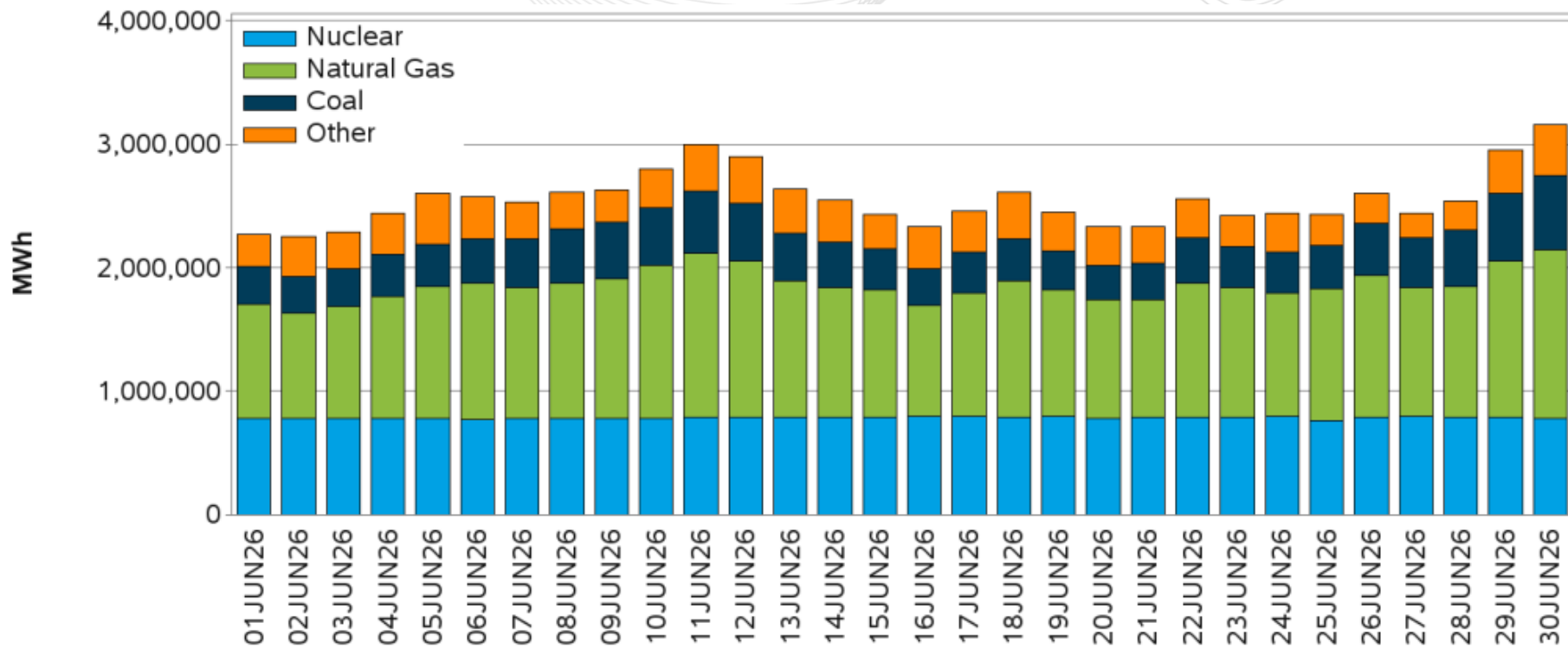
Missed day:	Reason
6/2/2026	Temperatures came in warmer across the RTO, leading to higher than expected temperatures and increased load.
6/3/2026	Temperatures came in hotter than forecast across the footprint, leading to increased load.
6/6/2026	Temperatures decreased, caused largely by the presence of thunderstorms, leading to low load.
6/9/2026	The weather came in less rainy and less cloudy than forecast in the Ohio Valley, leading to warmer temperatures and
6/10/2026	Hotter than forecast temps entering the day and leading up to the peak led to elevated load, but then thunderstorms in the
6/18/2026	Temperatures came in much cooler than forecast across the RTO, leading to lower load.
6/23/2026	Thunderstorms impacted the East much more than forecast, leading to cooler temperatures and suppressed load.



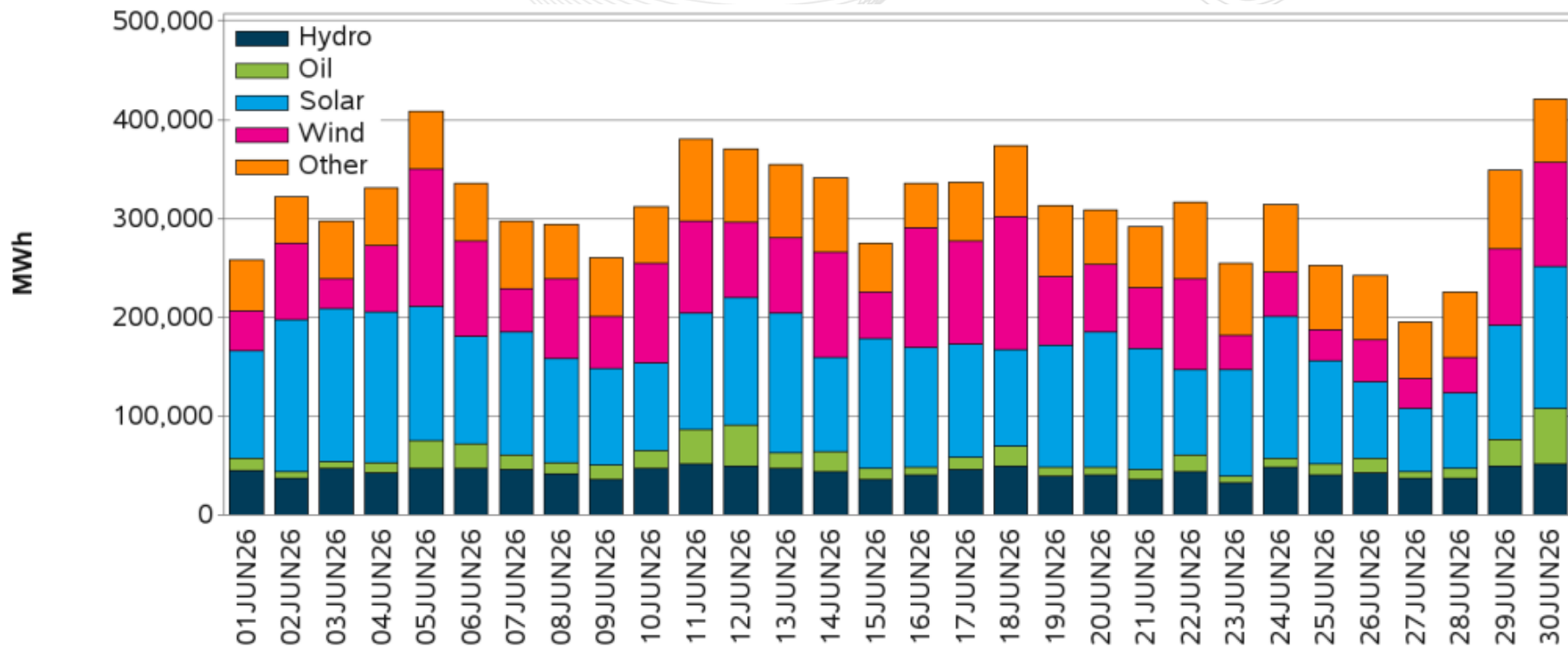
Other includes Hydro, Oil, Solar, Wind, and Other



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

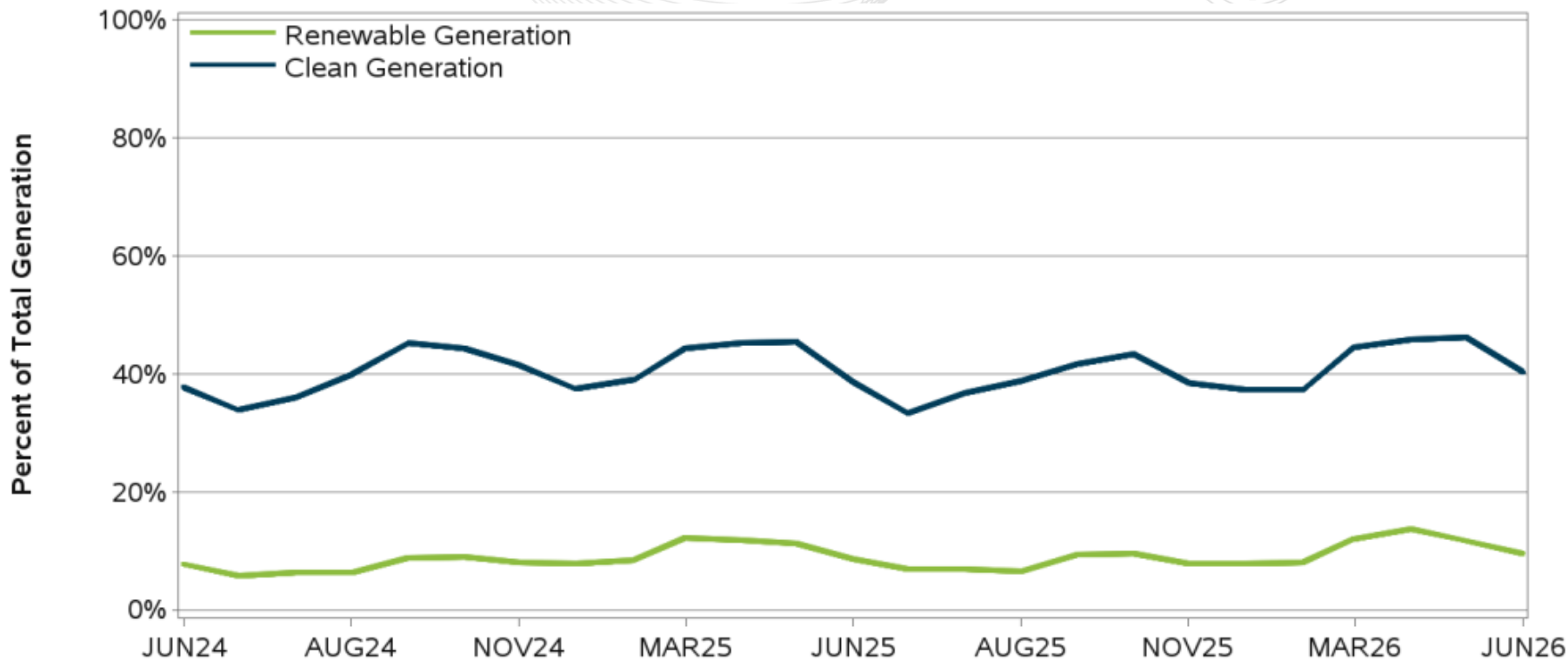


'Other' includes Hydro, Oil, Solar, Wind, and Other



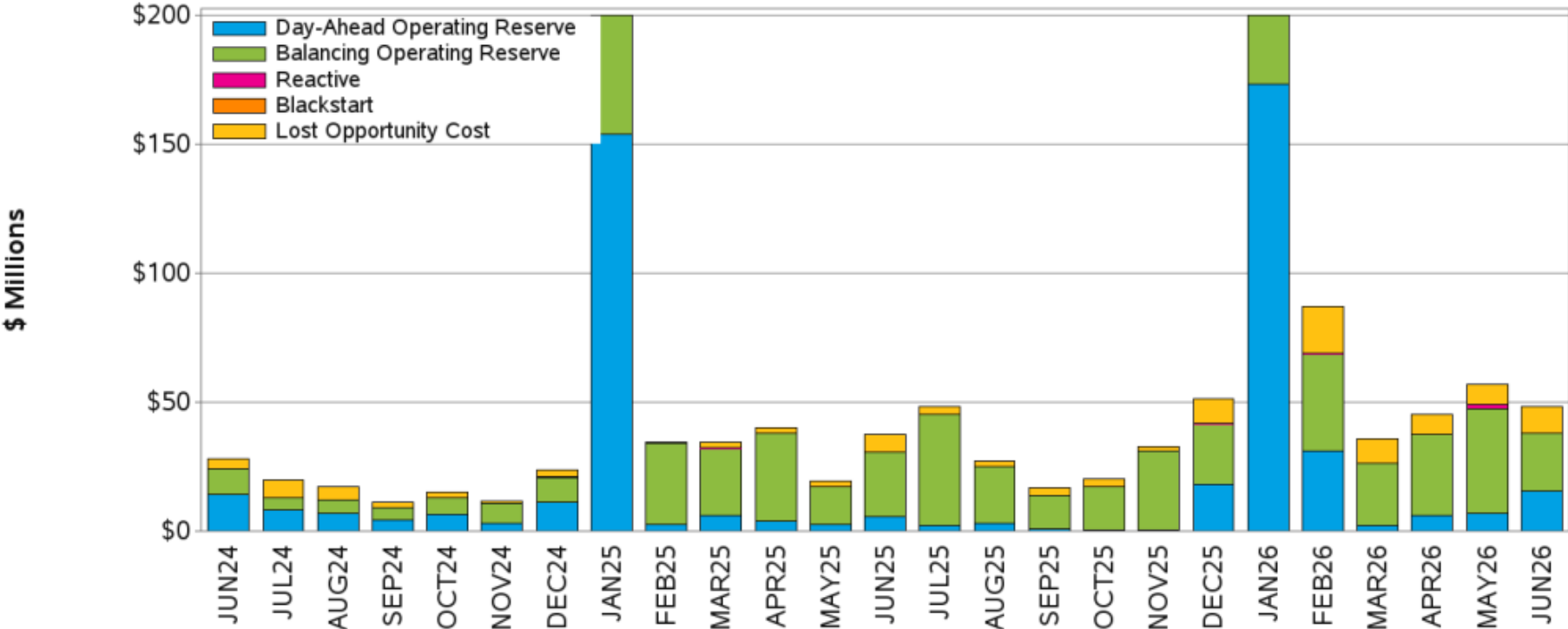
'Other' includes Flywheels, Multiple Fuels, Storage, and Other Renewables

Percent of Renewable and Clean Generation



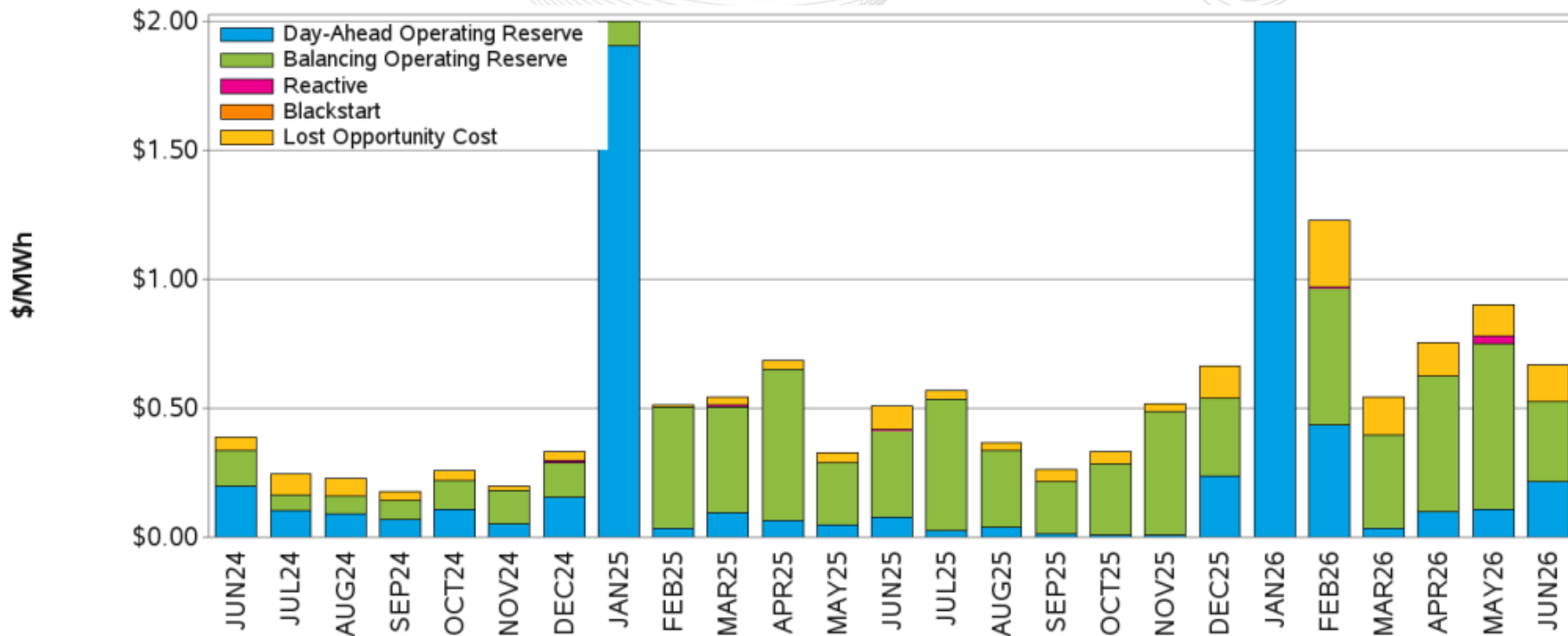
'Renewable' includes Wind, Solar, Hydro, and Other Renewables. 'Clean' includes Renewable and Nuclear.

Operating Reserve (Uplift)



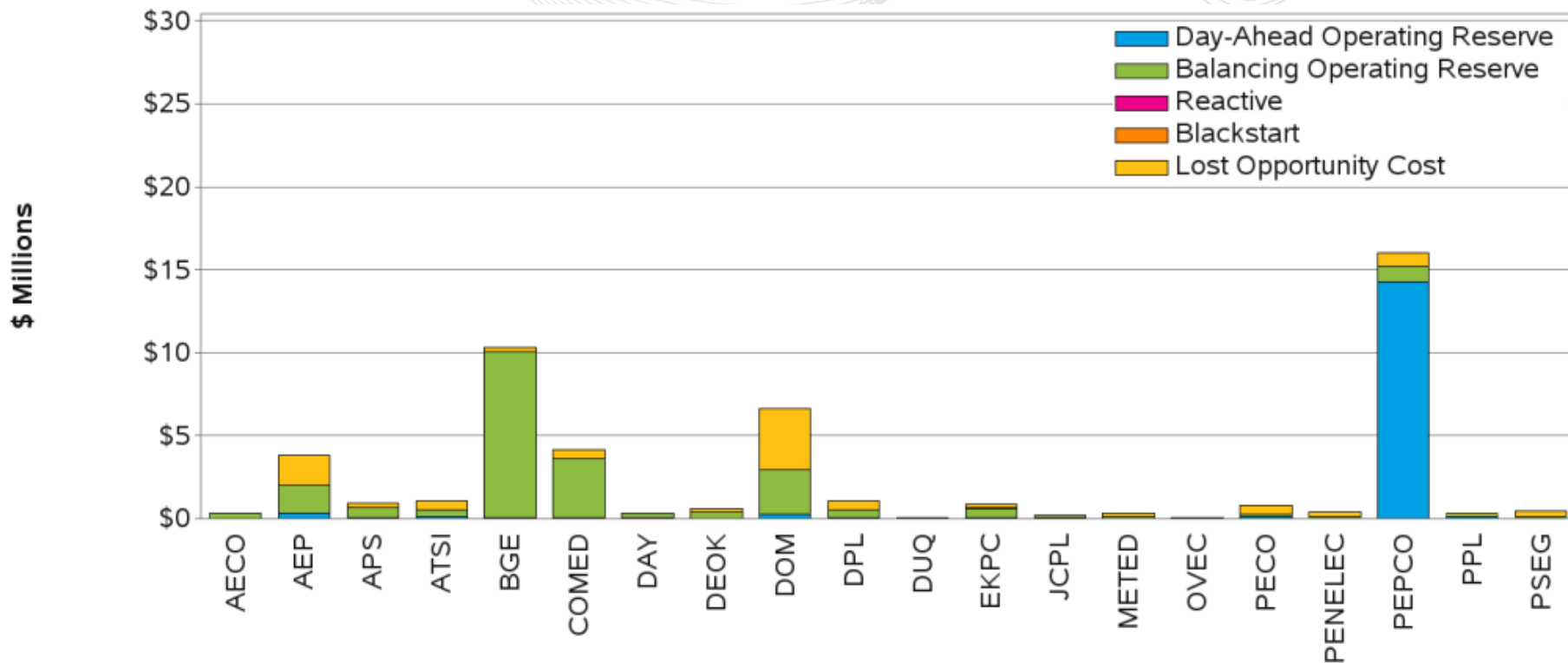
*Uplift for January 2025 totaled nearly \$400M. Please see previous reports or the report appendix for the breakout of costs.

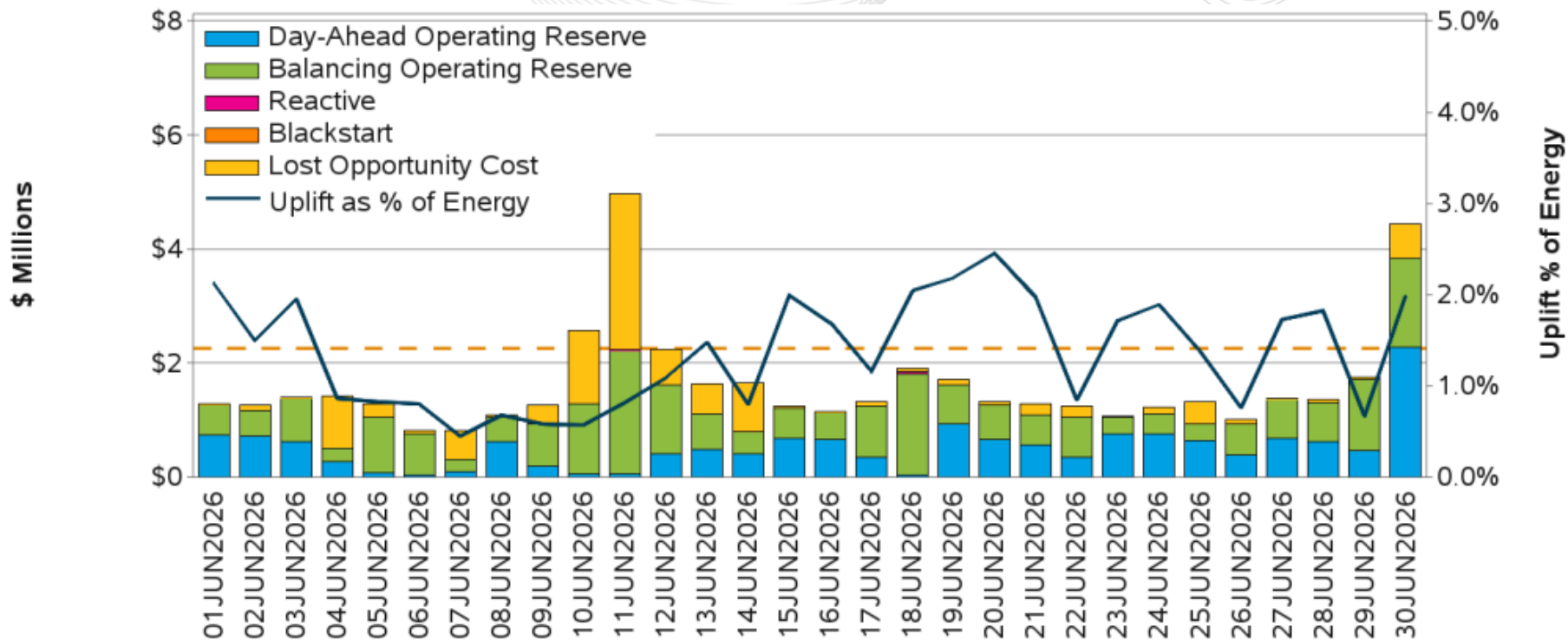
*Uplift for January 2026 totaled nearly \$850M. Please see previous reports or the report appendix for the breakout of costs.



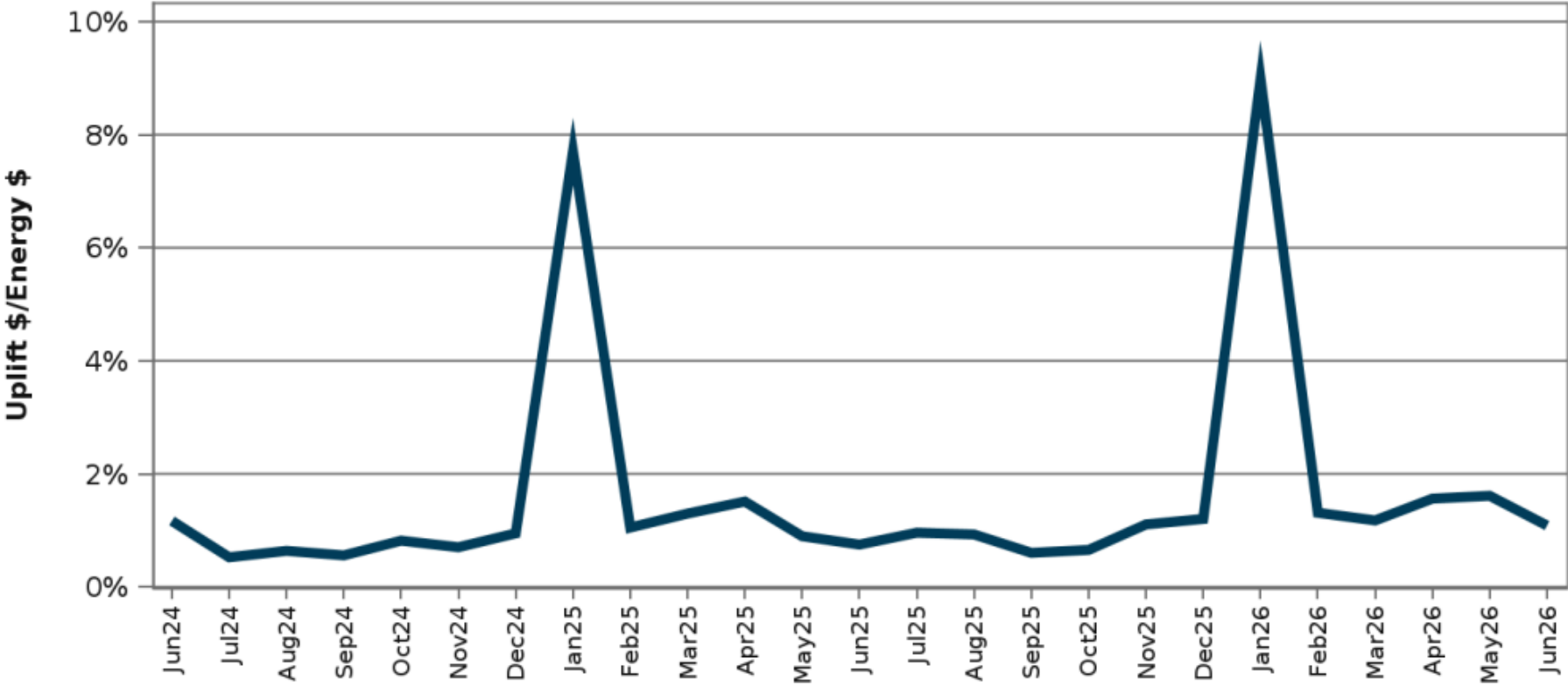
*Uplift for January 2025 totaled nearly \$5/MWh. Please see previous reports or the report appendix for the breakout of costs.

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

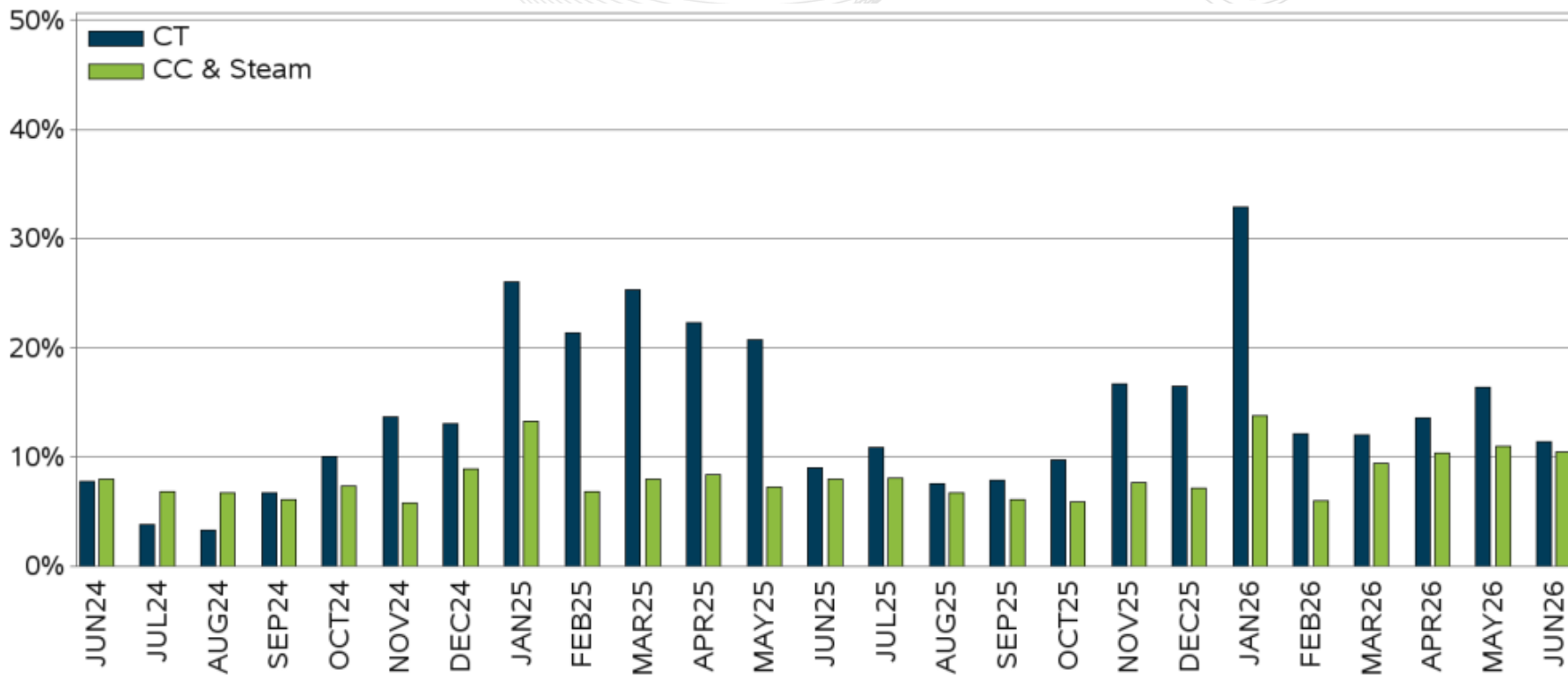




Monthly Uplift as a Percent of Energy Costs

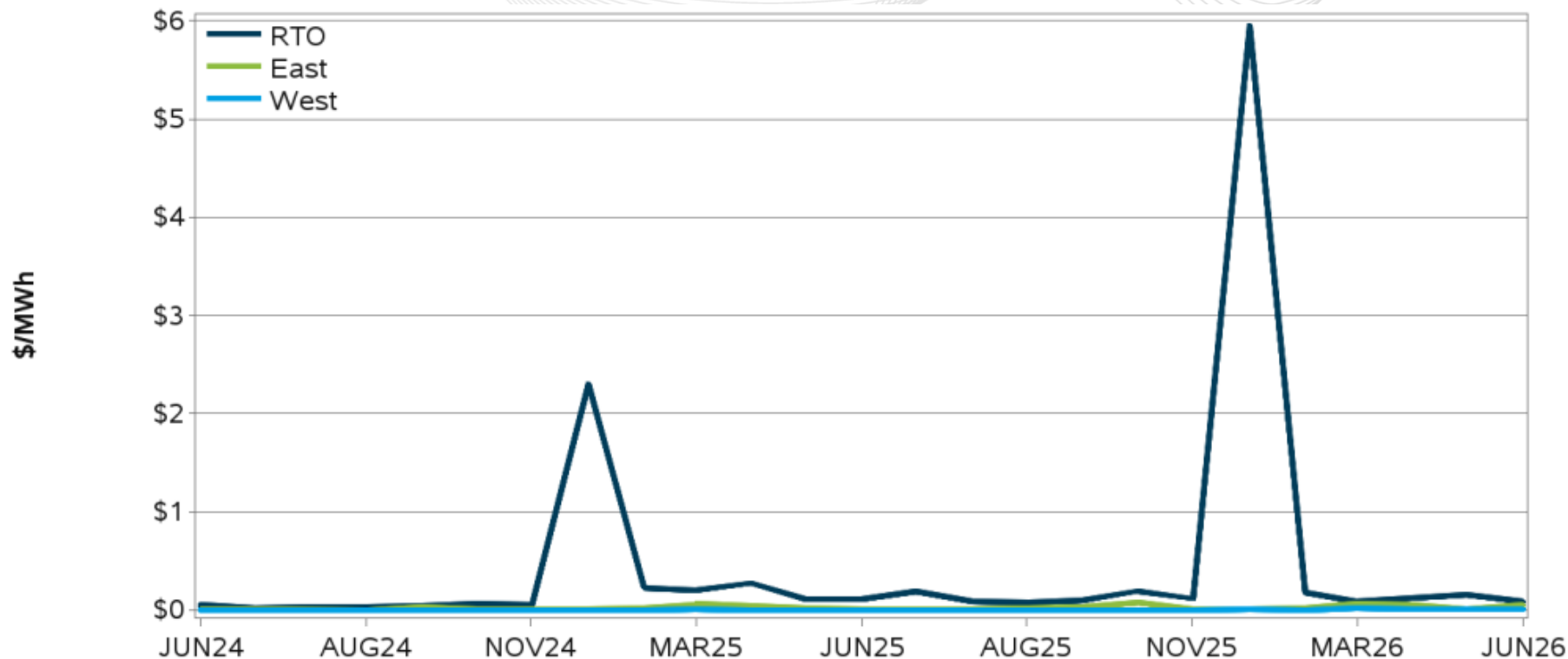


Percent of Total CT, CC and Steam Hours with LMP < Offer

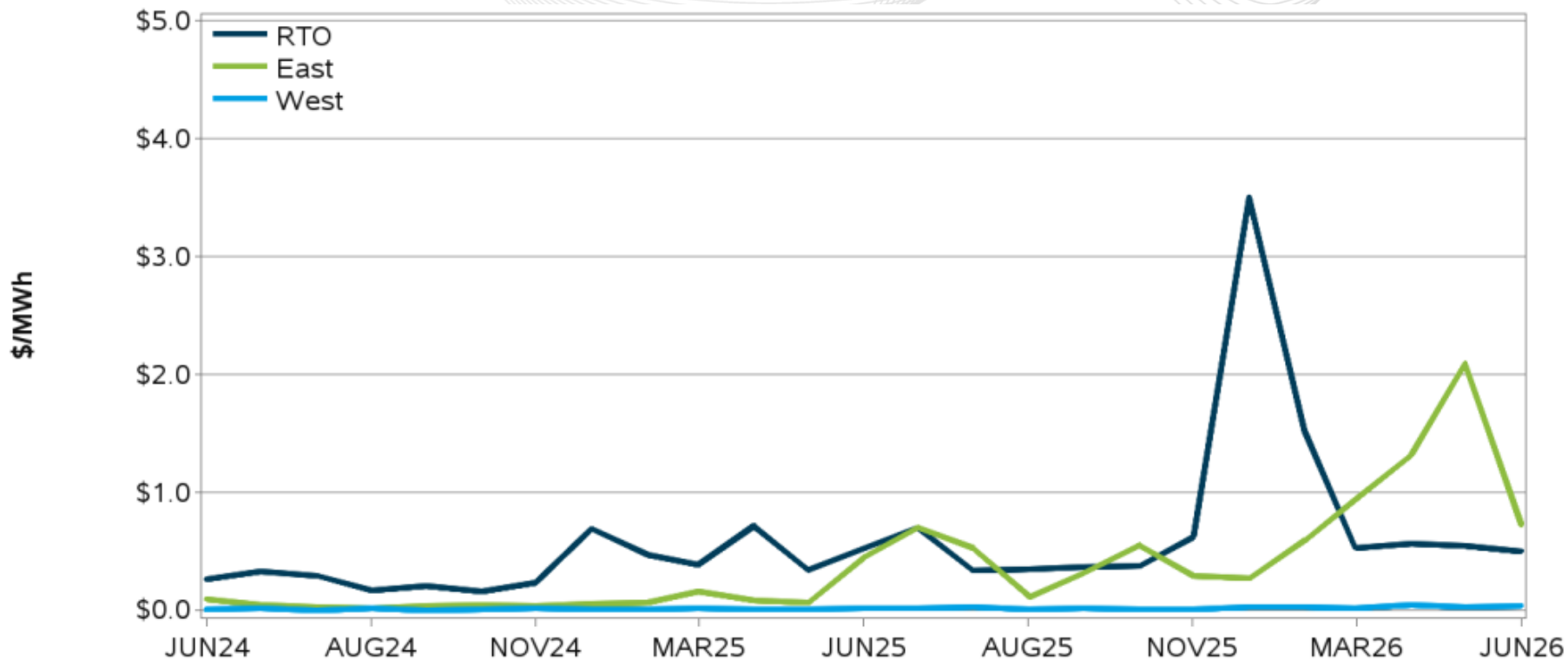


- Beginning in December 2008, the daily Balancing Operating Reserves (BOR) rate was replaced with six different BOR rates: RTO BOR for Reliability Rate, RTO BOR for Deviations Rate, East BOR for Reliability Rate, East BOR for Deviations Rate, West BOR for Reliability Rate, West BOR for Deviations Rate.
- 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

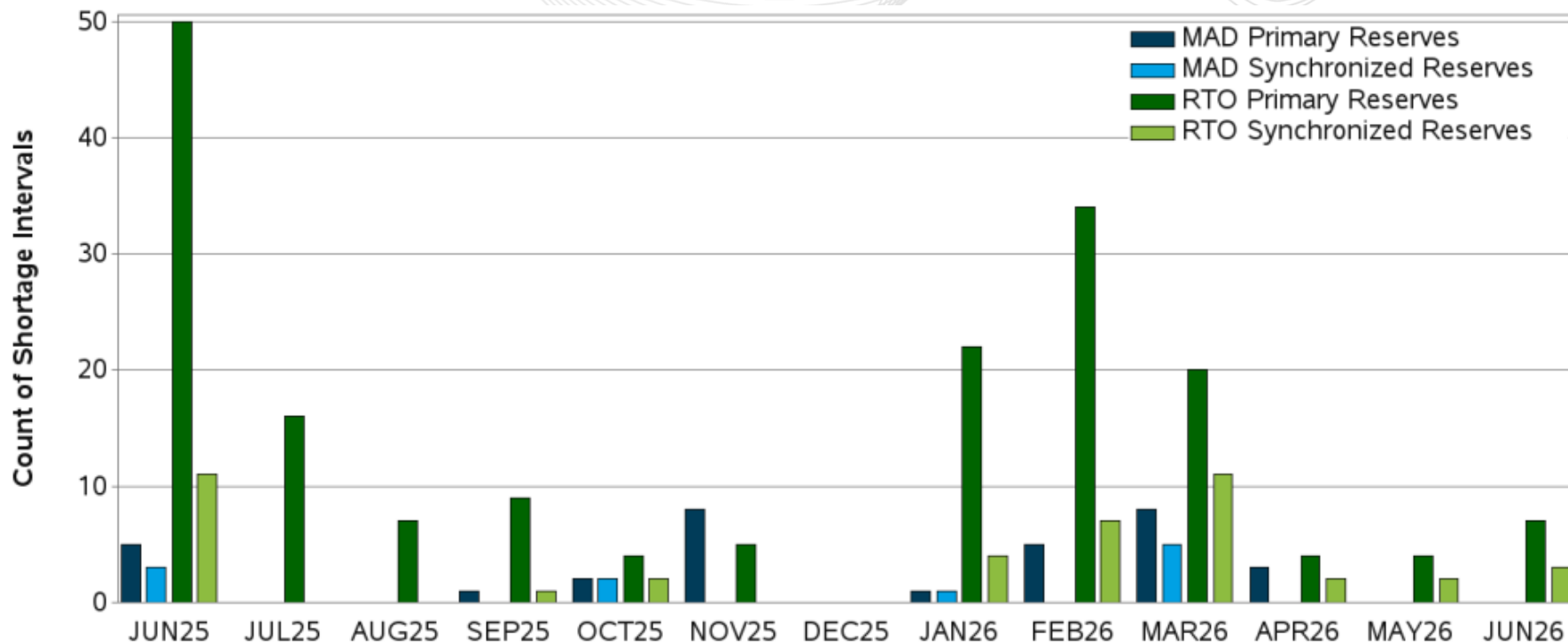


Deviations Balancing Operating Reserve Rates



Energy Market

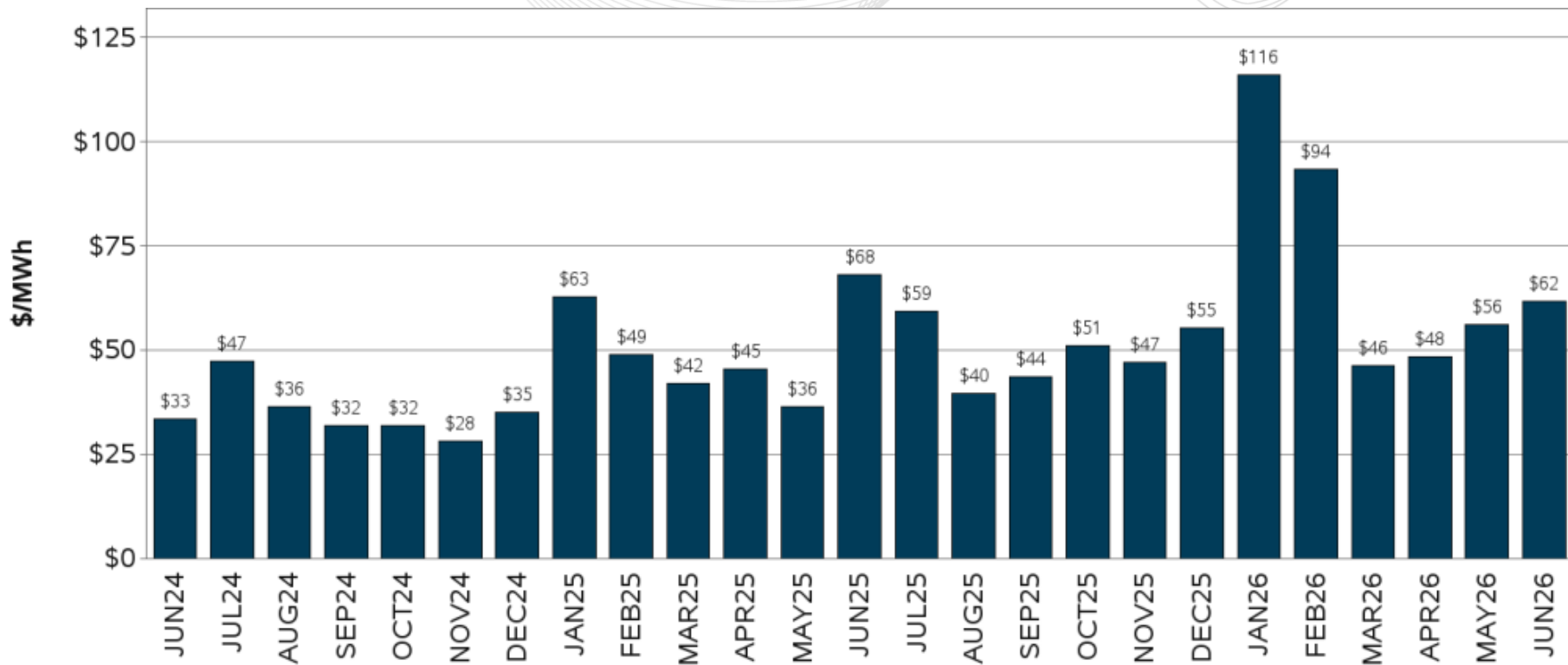
LMP Summary



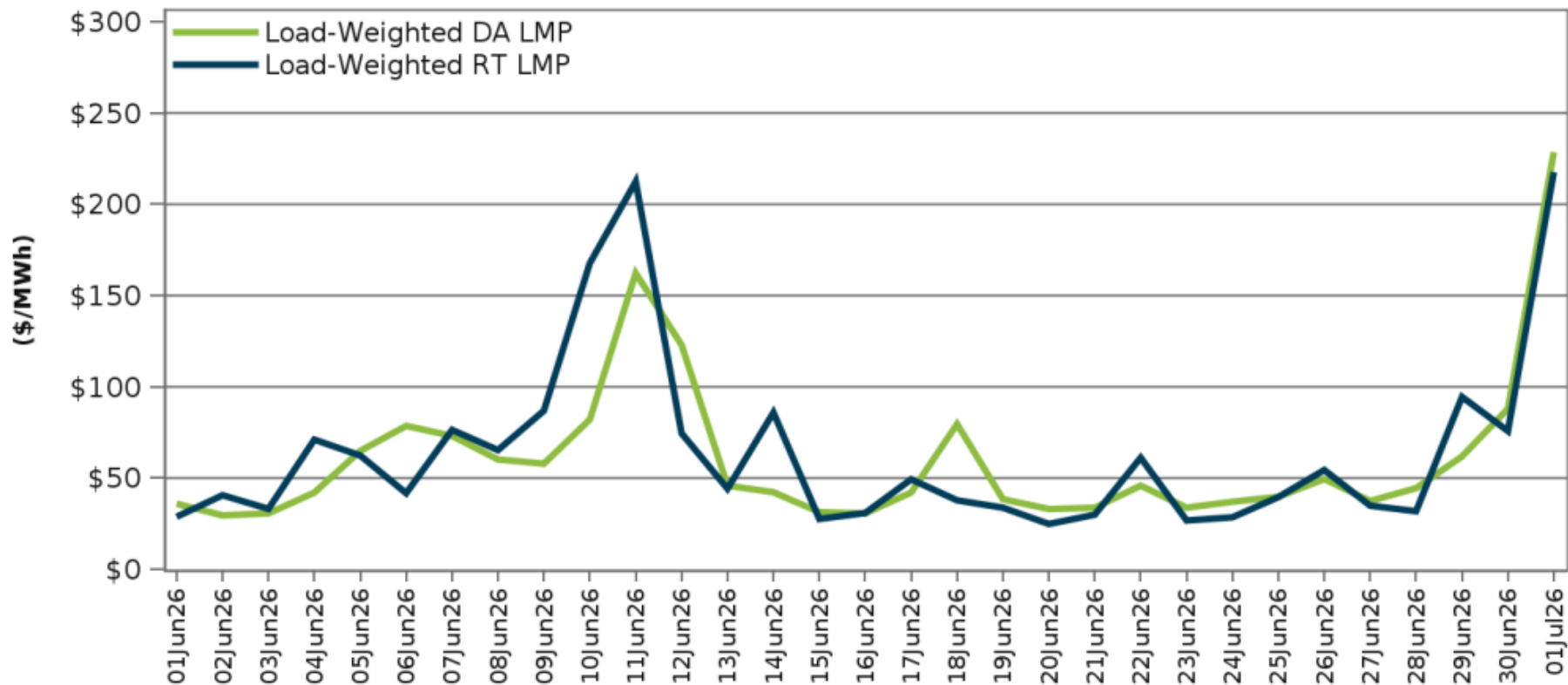
[Information on constraints and shadow prices can be found here](#)

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

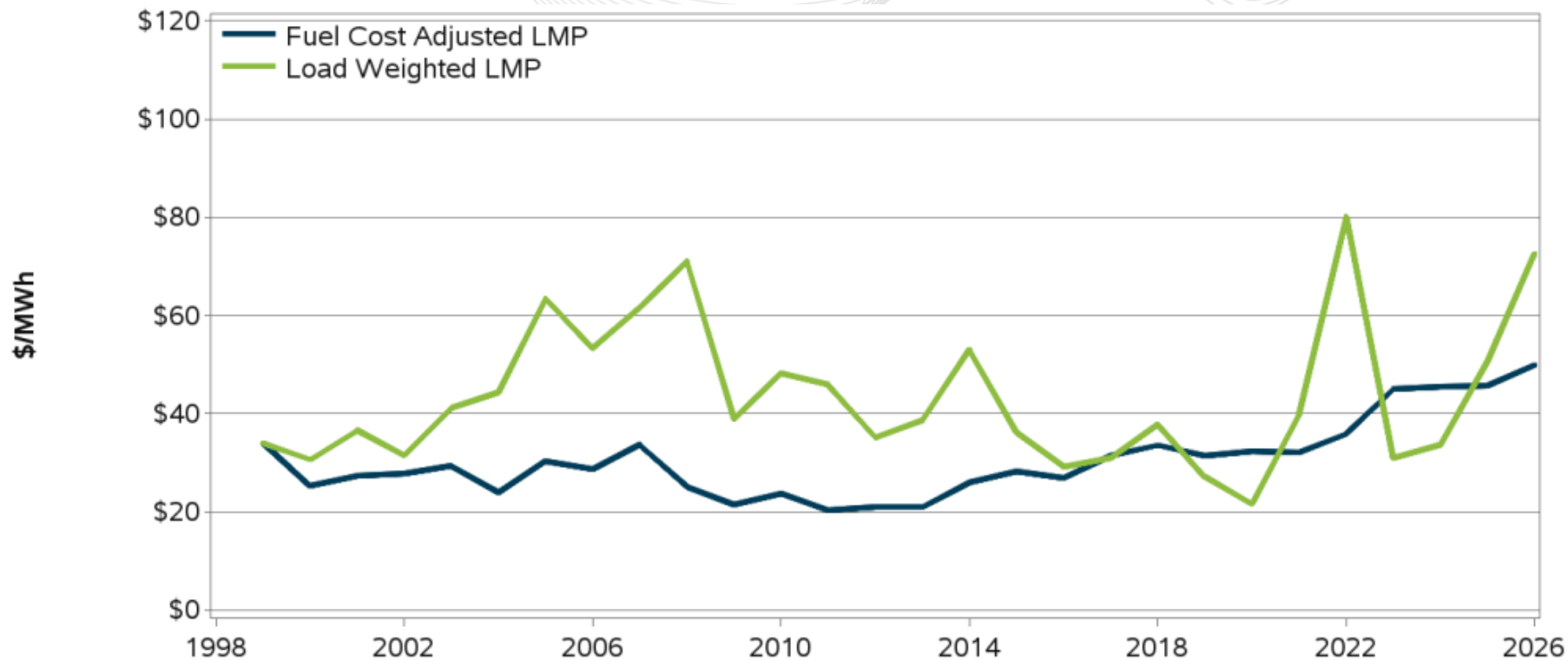
Monthly Load-Weighted Average Real-time LMP



Daily Load-Weighted Average DA & RT LMP



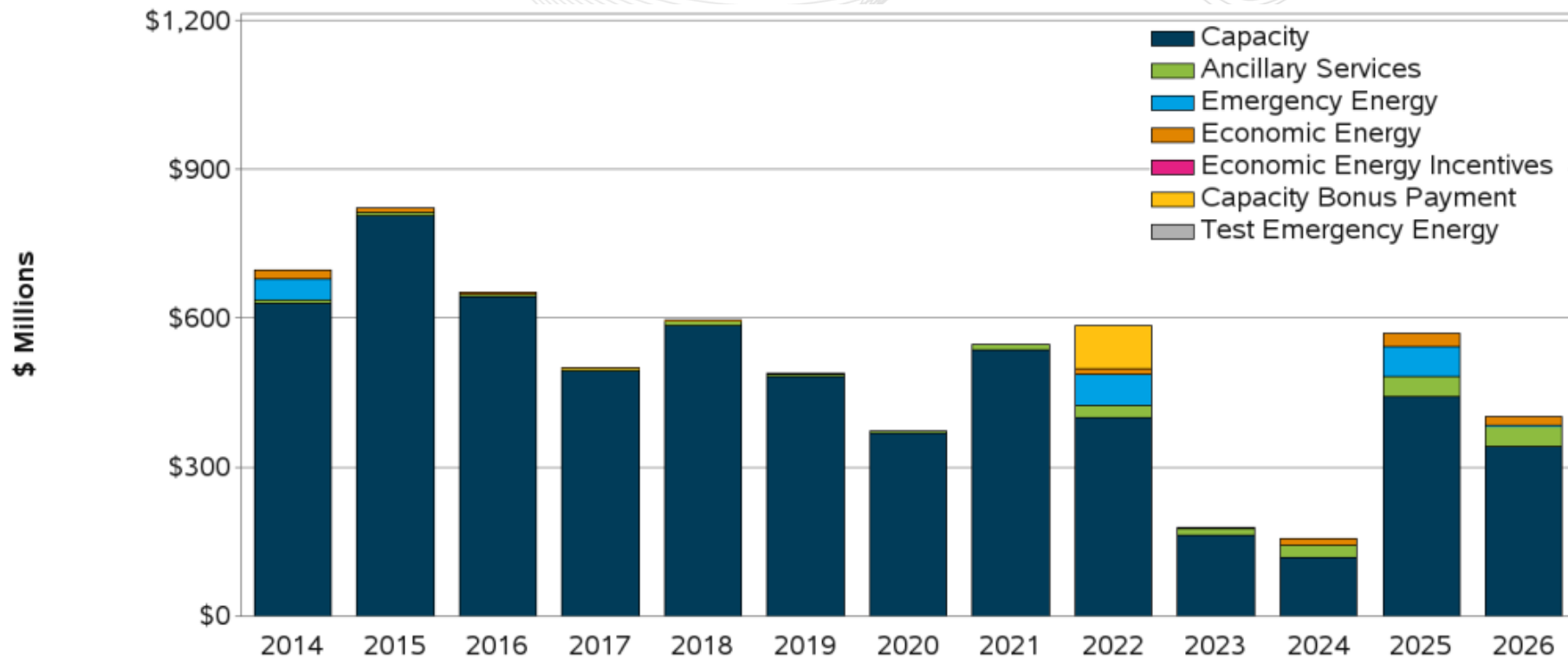
Fuel Cost Adjusted LMP (Referenced to 1999 Fuel Prices)

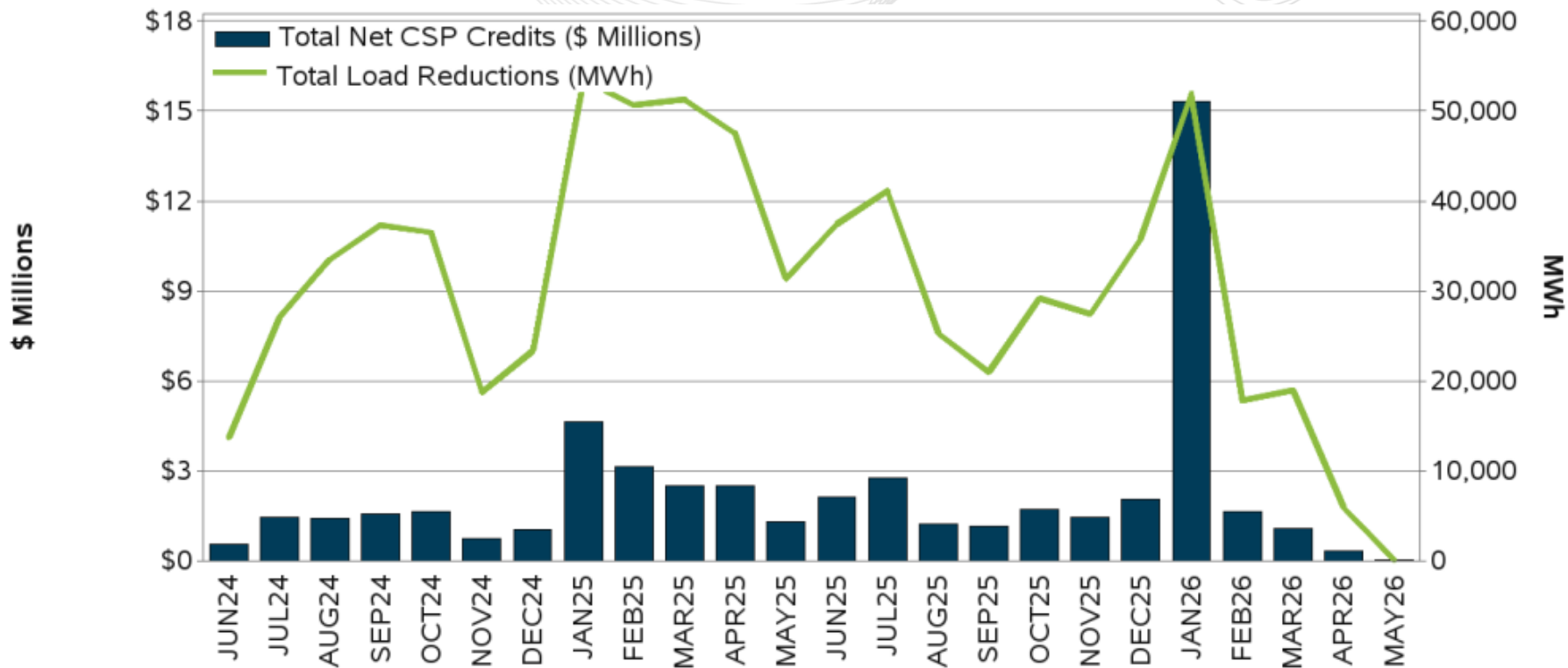


Energy Market

Demand Response Summary

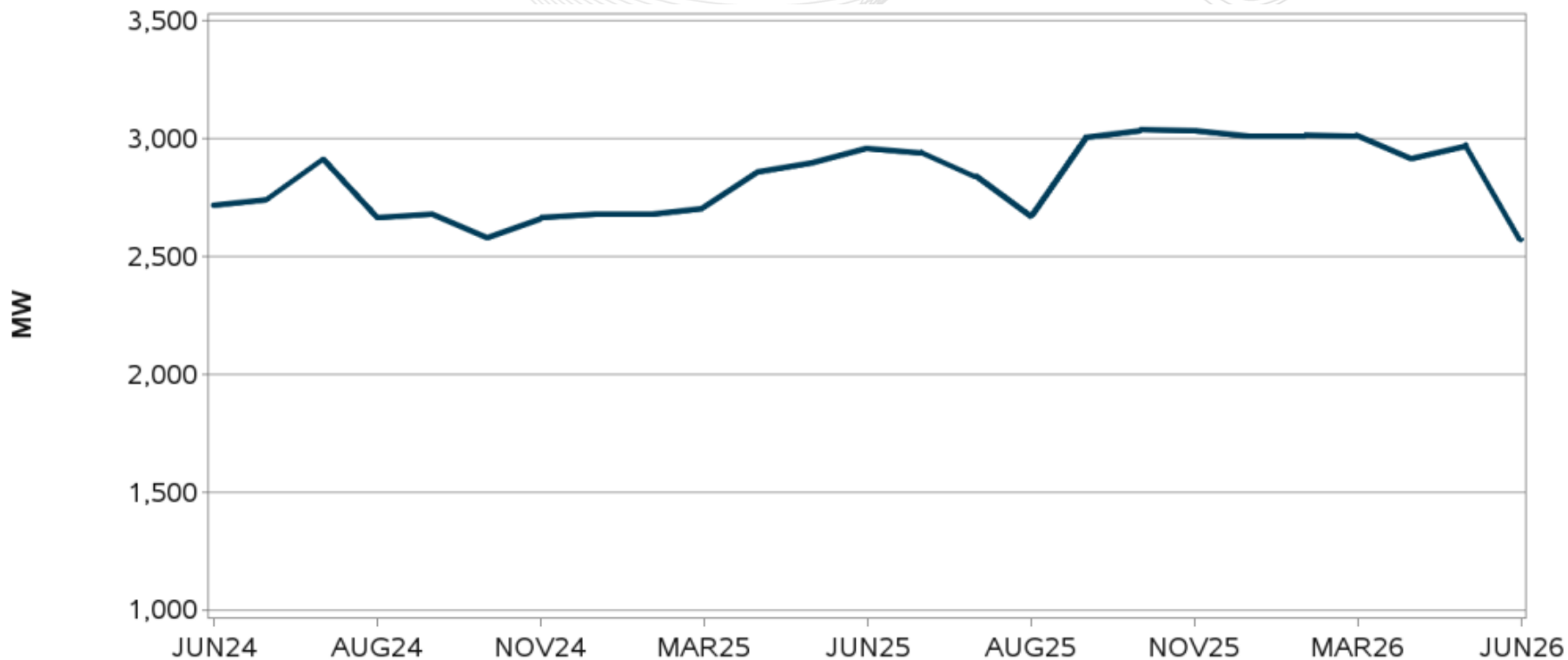
Demand Side Response Estimated Revenue





*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

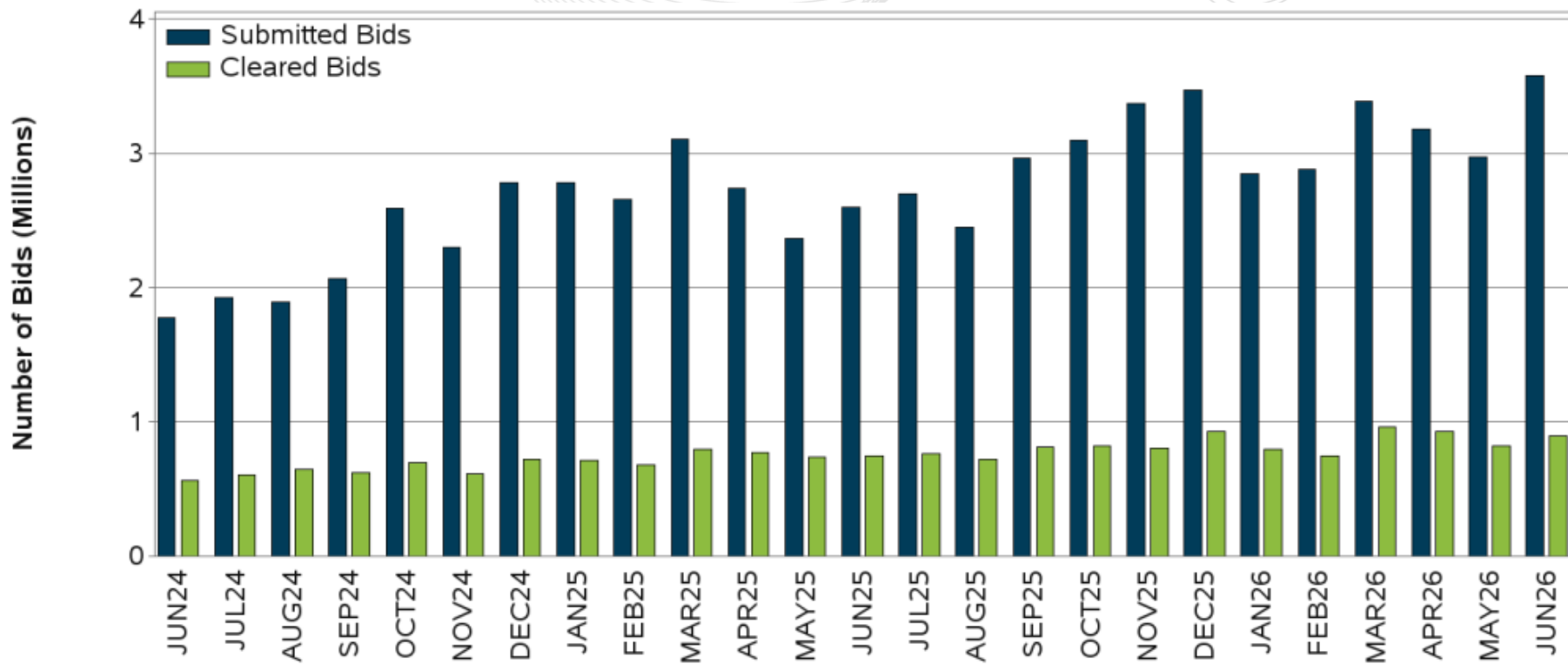


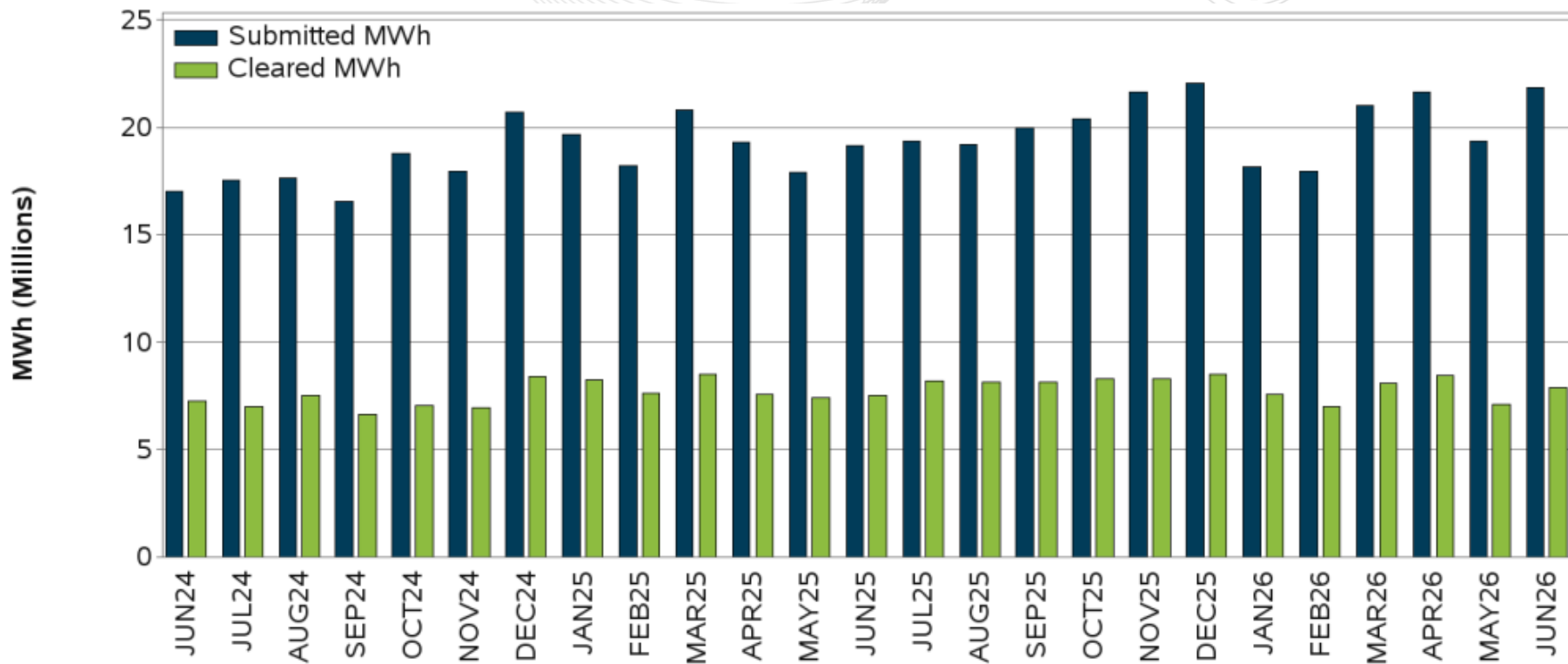
Energy Market

Virtual Activity Summary

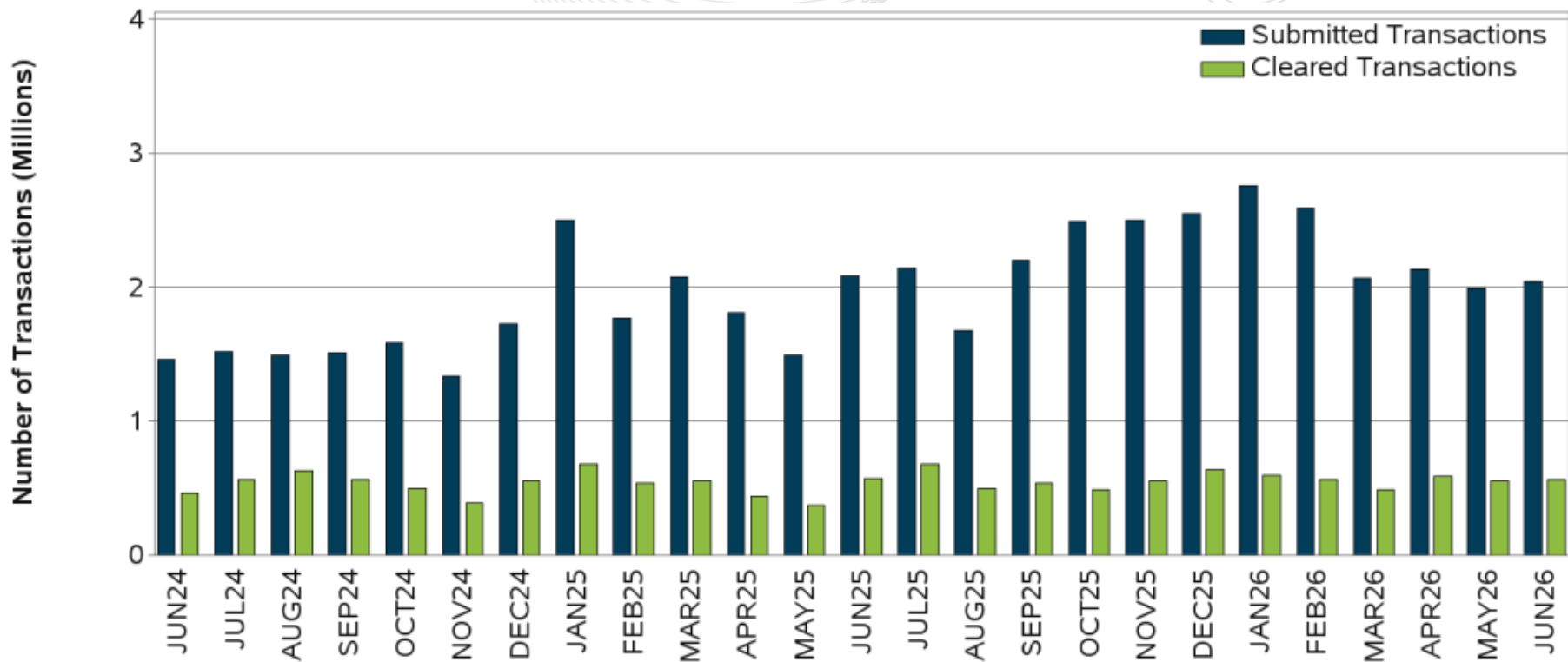
- The following six charts depict trends in submitted and cleared virtual and up-to-congestion transactions, in terms of number and volume, into the PJM Energy Market. The first two of these charts show the submitted and cleared increment and decrement bids (virtual transactions or virtuals) and they 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.

Virtual Bids (INCs & DEC)s - Total Number

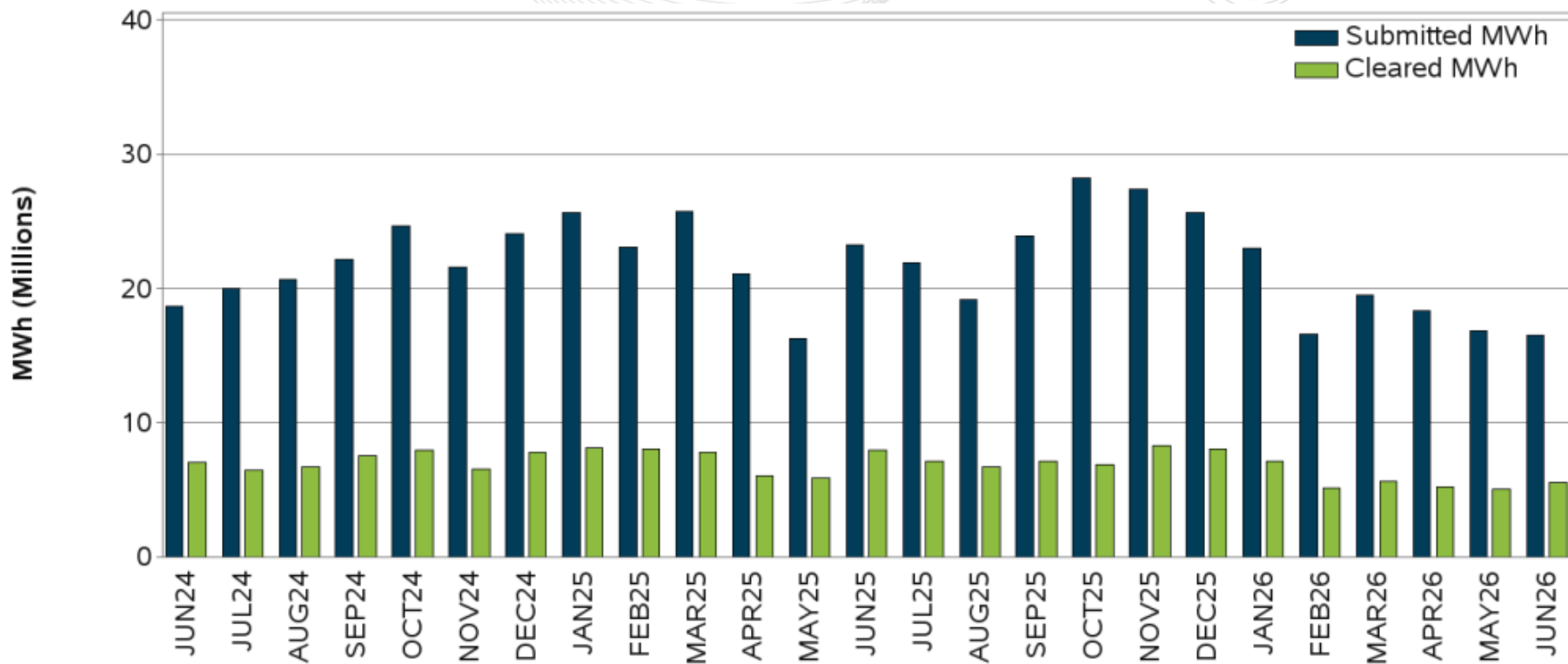




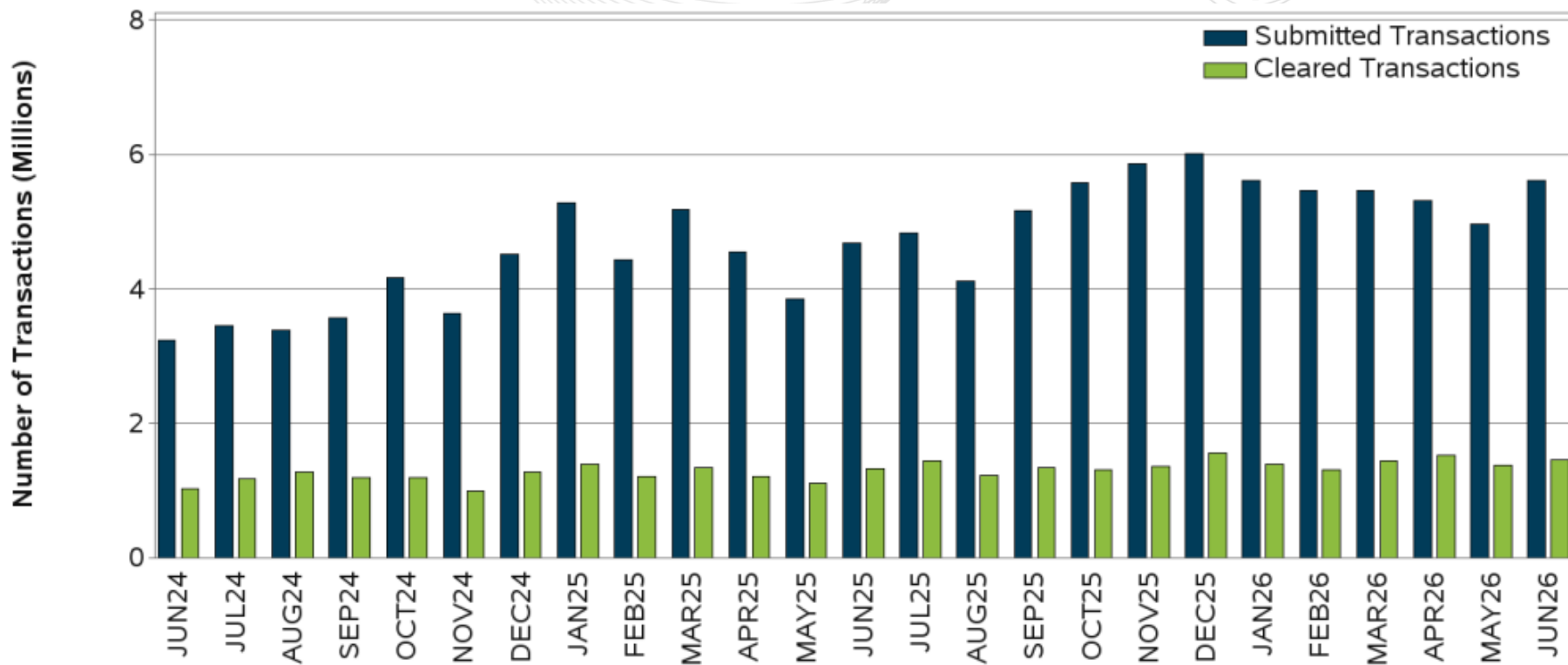
Up-To-Congestion Transactions - Total Number



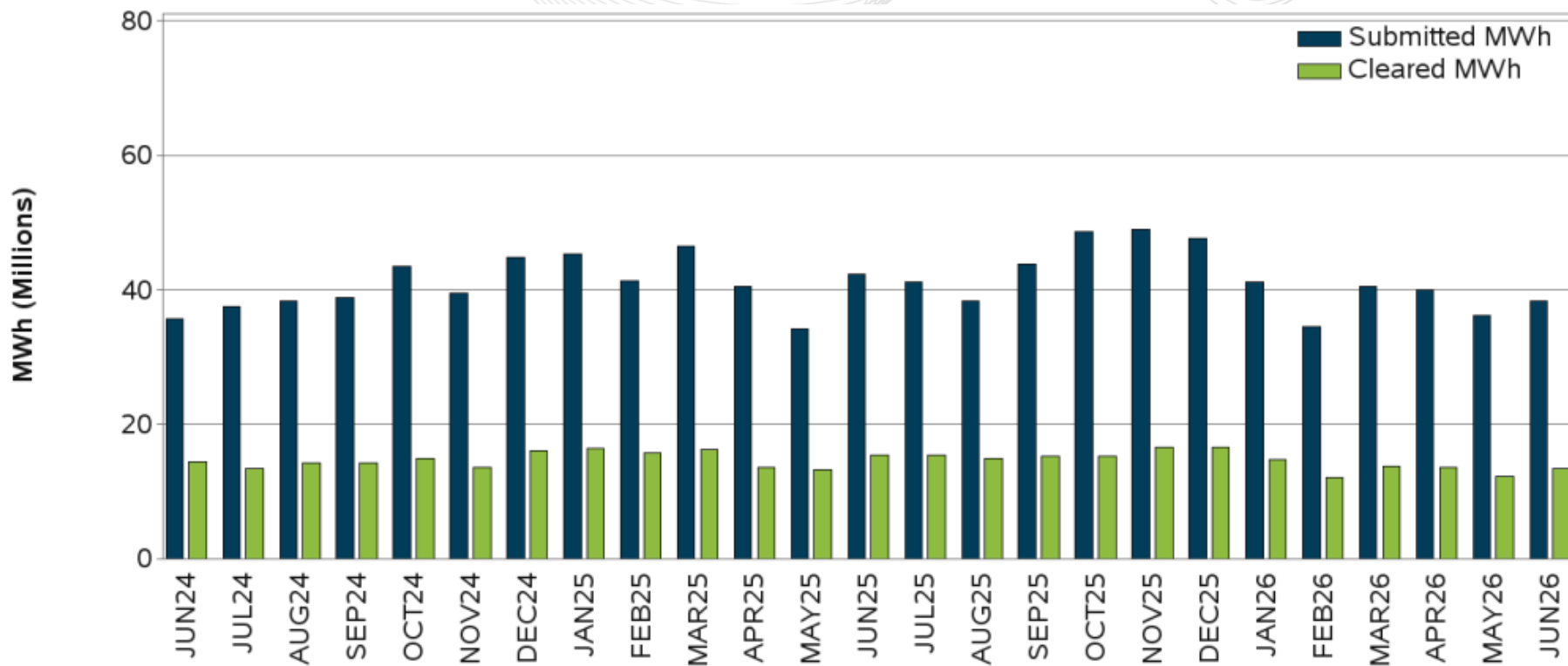
Up-To-Congestion Transactions - Total Volume



INCs, DECs and Up-To-Congestion Transactions - Total Number



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

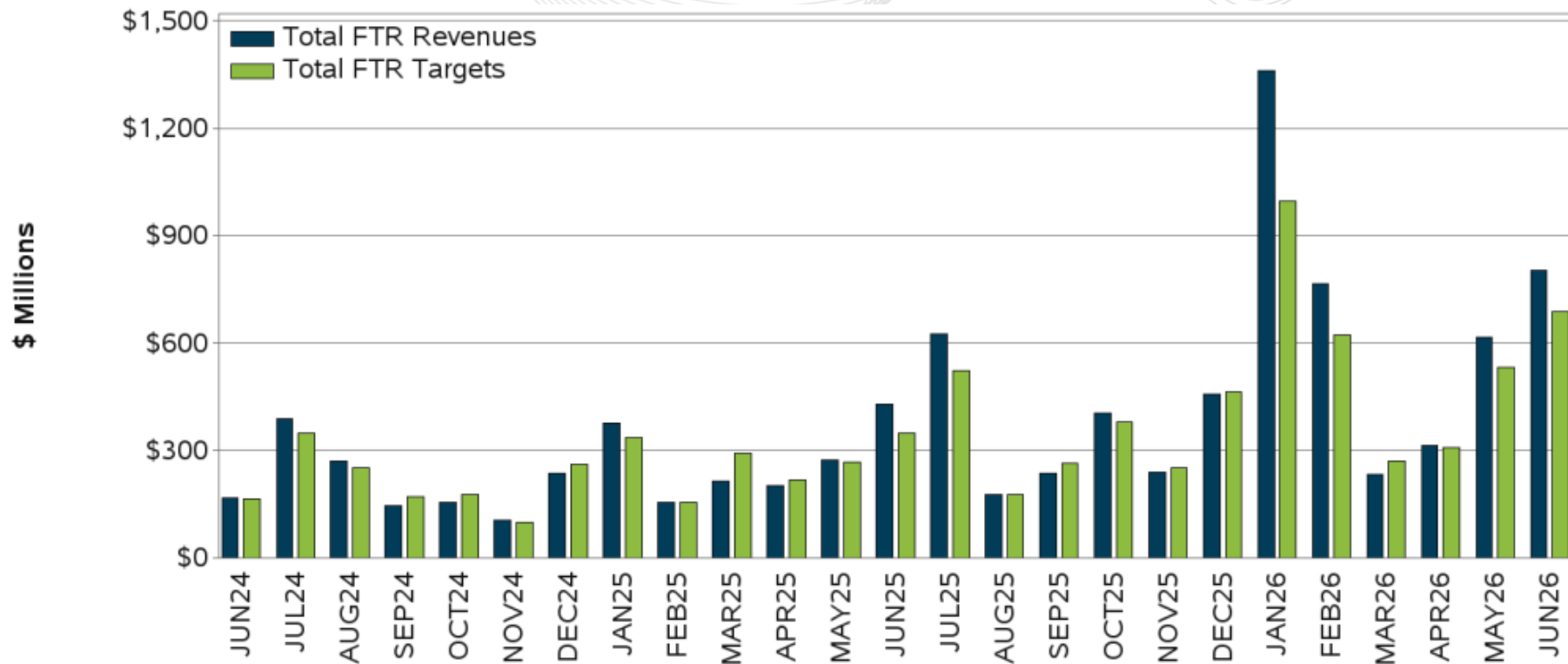


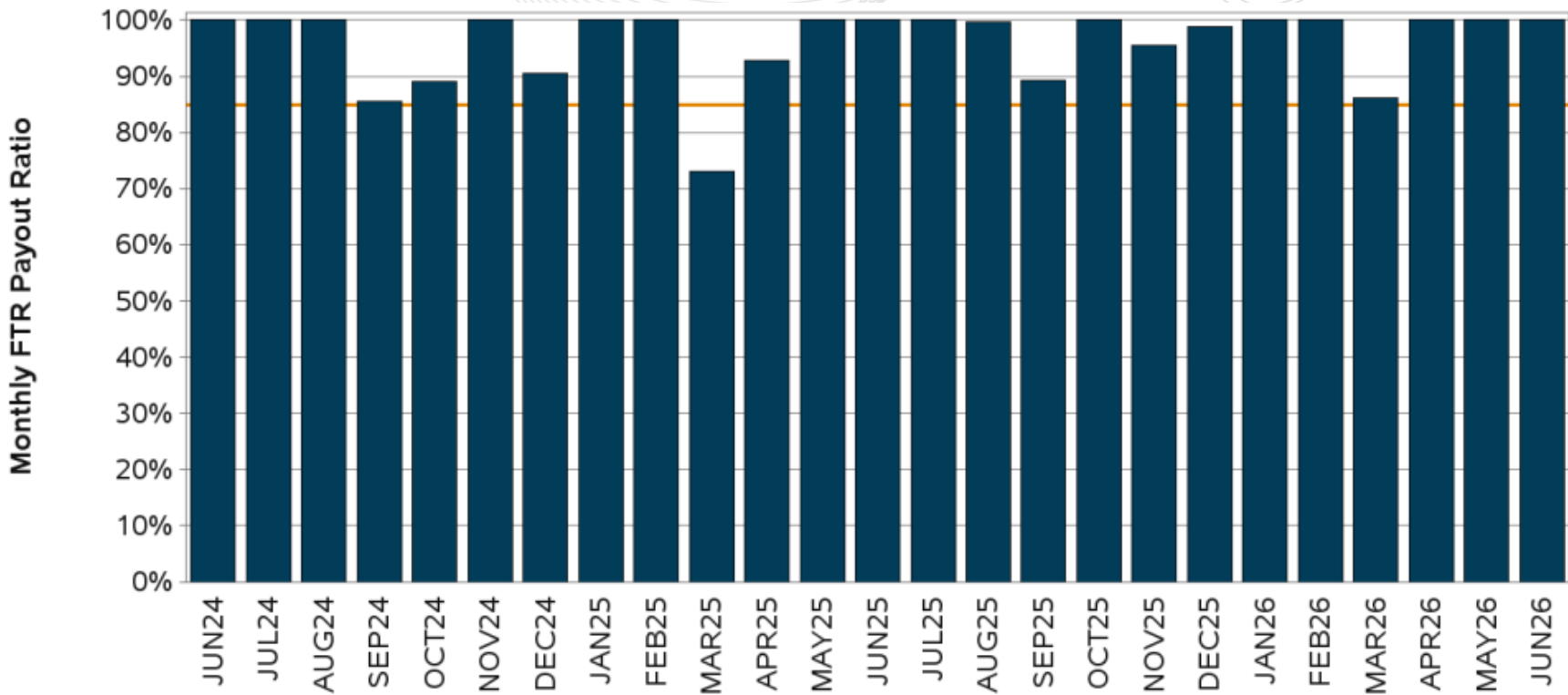
Energy Market

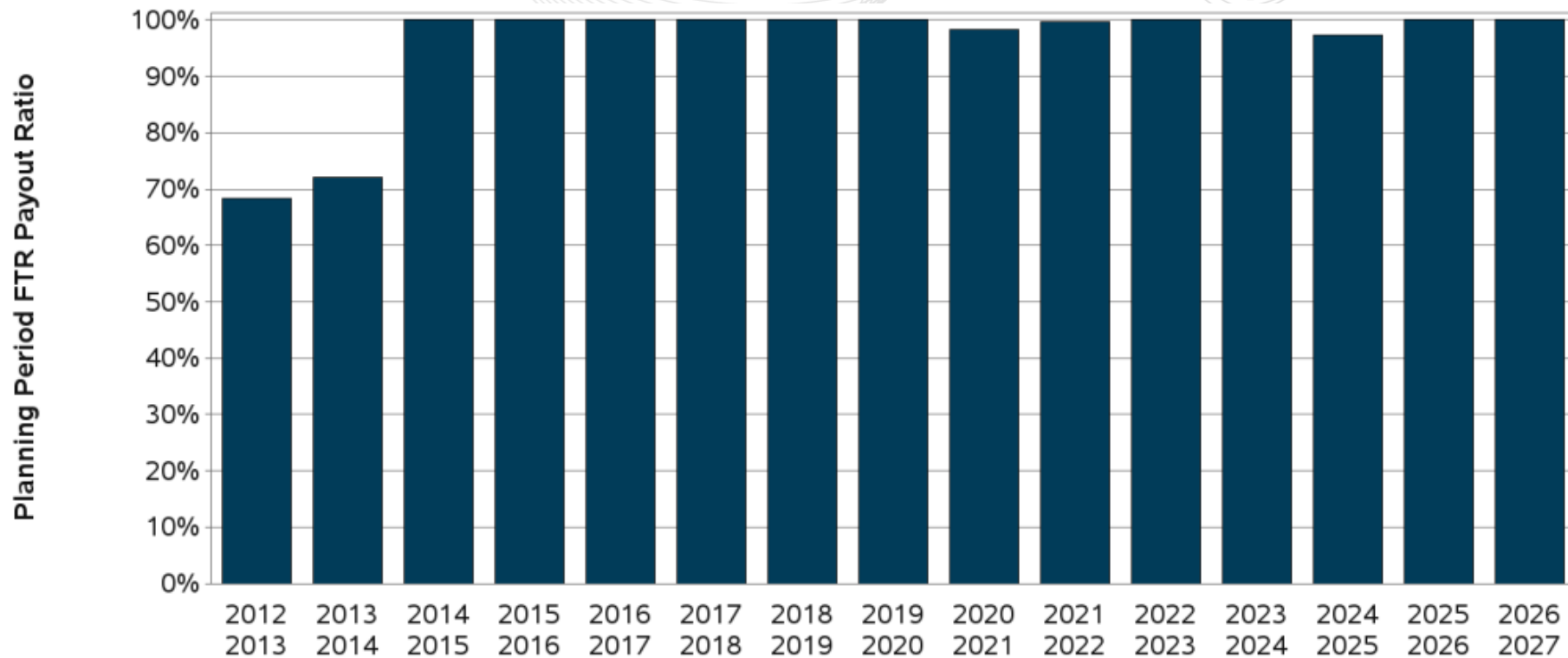
Congestion and FTR Summary

Period	Surplus / Underfunding	Payout Ratio
June 2026	\$115,136,963	100%
2026	\$673,107,873	100%
2026/2027	\$115,136,963	100%

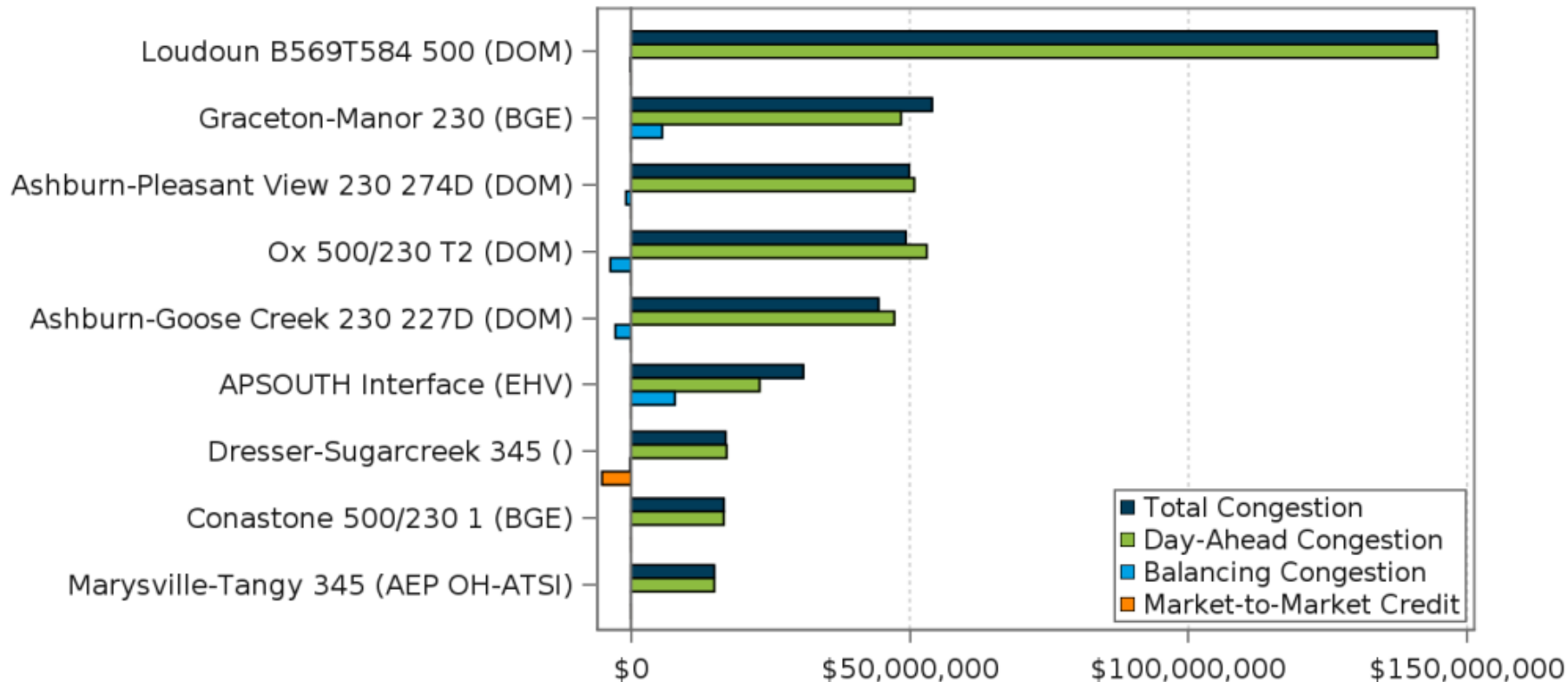
FTR Revenue vs. FTR Target Allocation





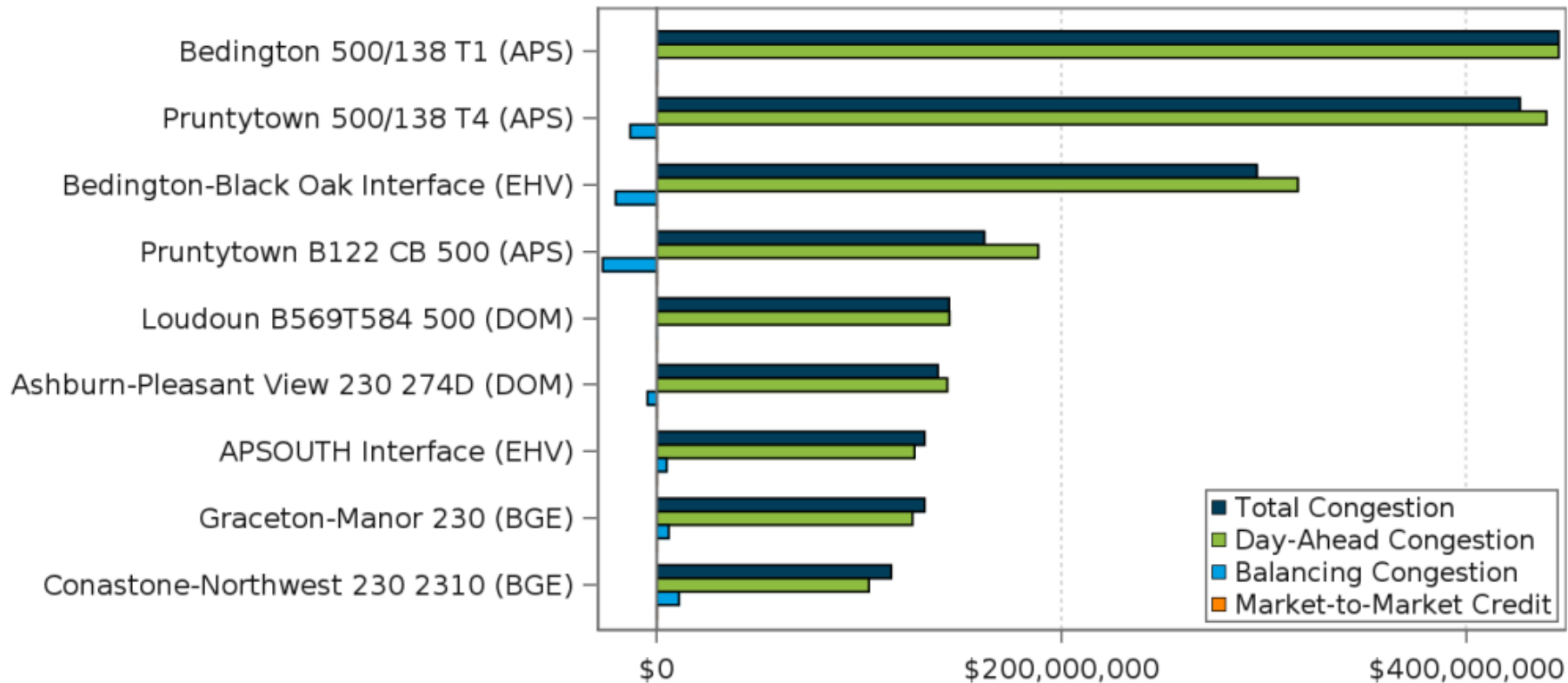


Ten Most Heavily Congested Transmission Facilities - Overall, June



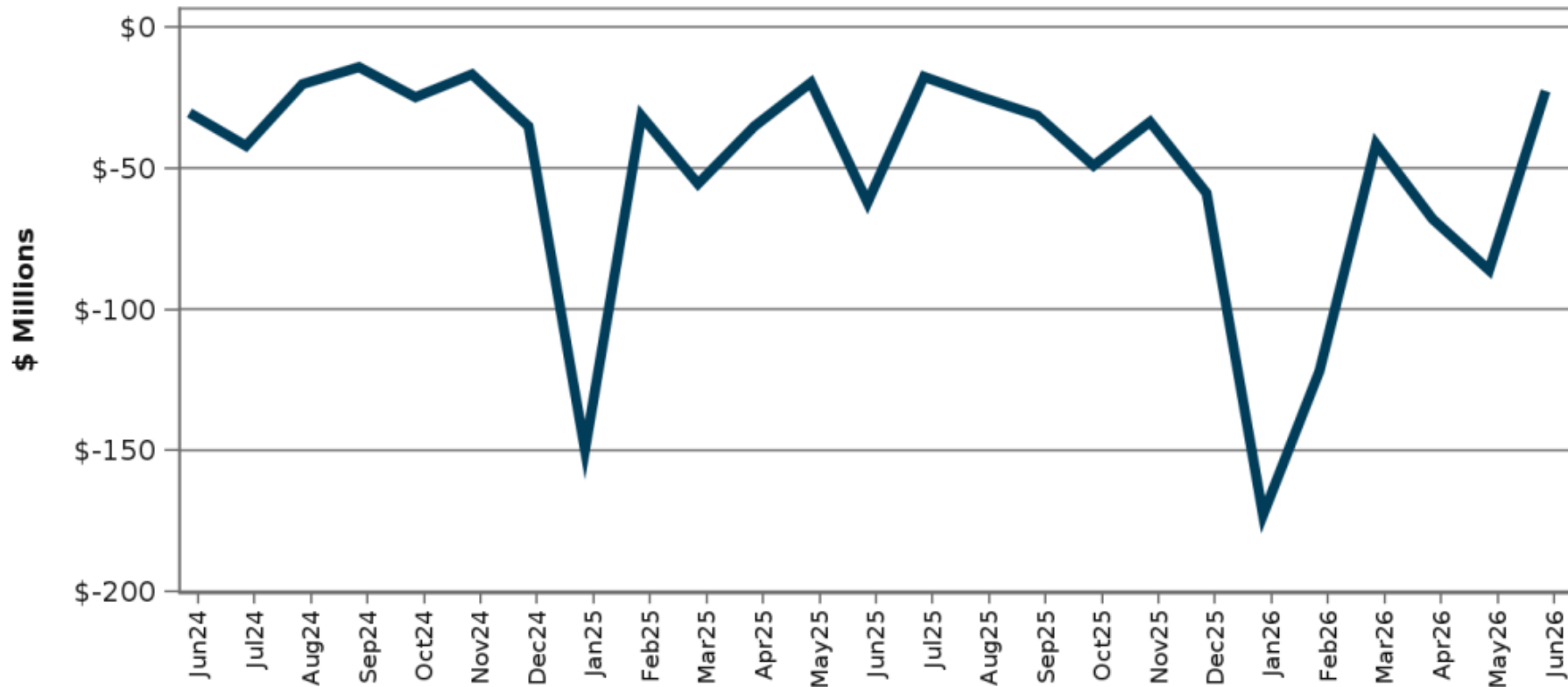
The ten most heavily congested facilities account for 89% of total congestion for June.

Ten Most Heavily Congested Transmission Facilities - Overall, 2026



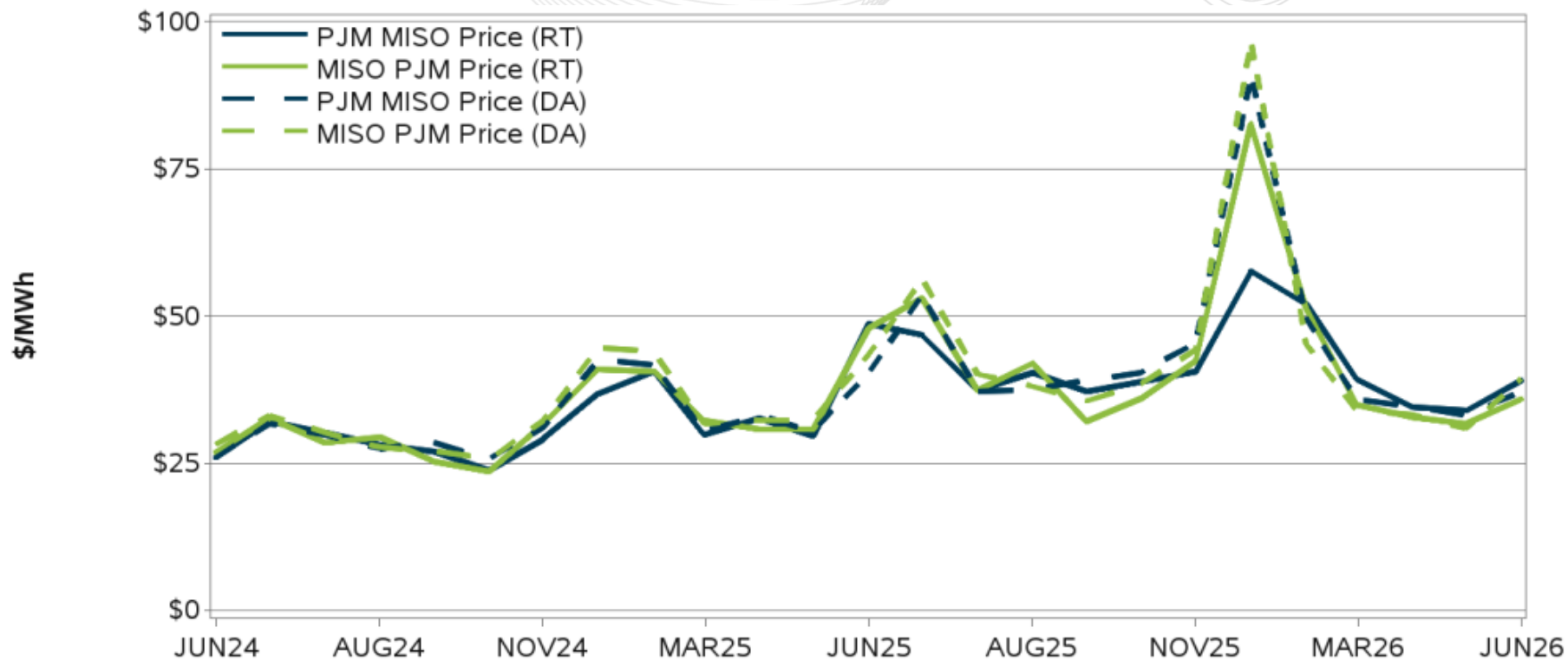
The ten most heavily congested facilities account for 62% of total congestion for 2026.

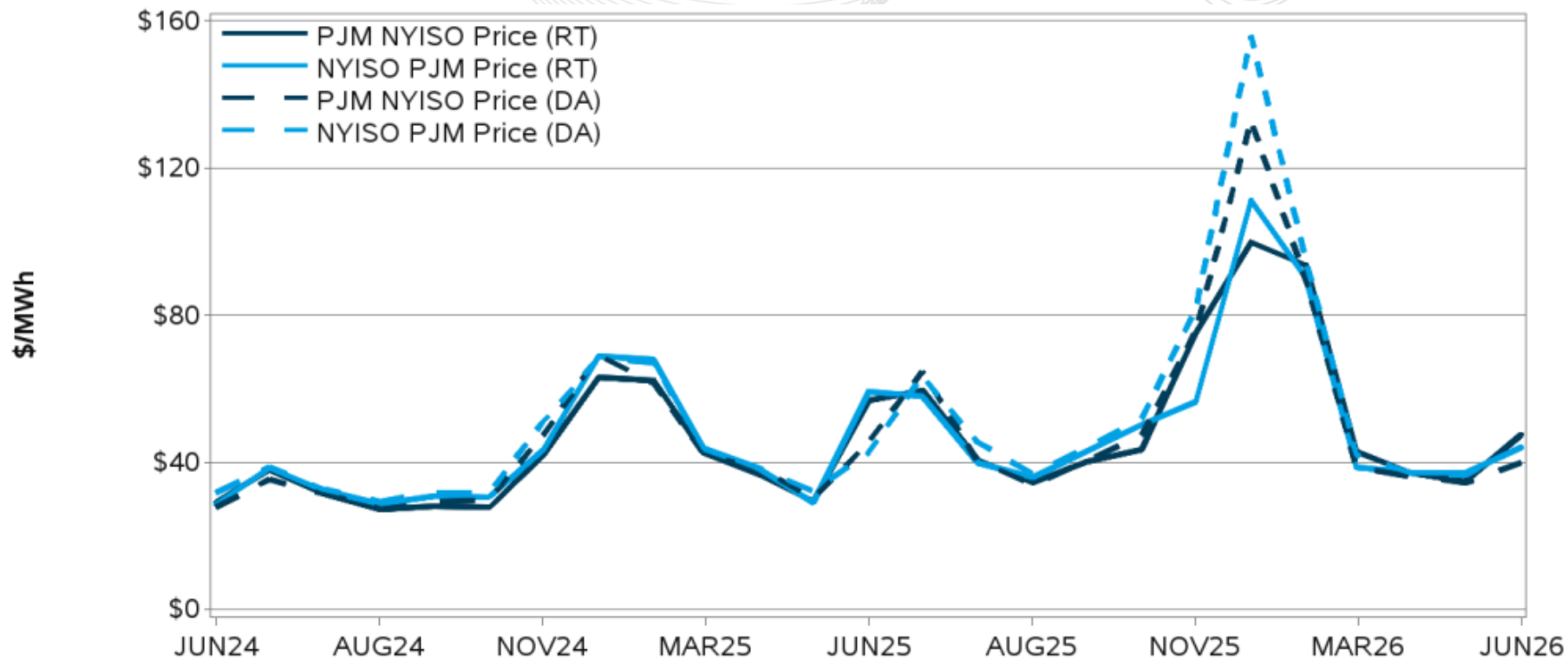
Balancing Congestion Charge Revenues (BLI 2215)



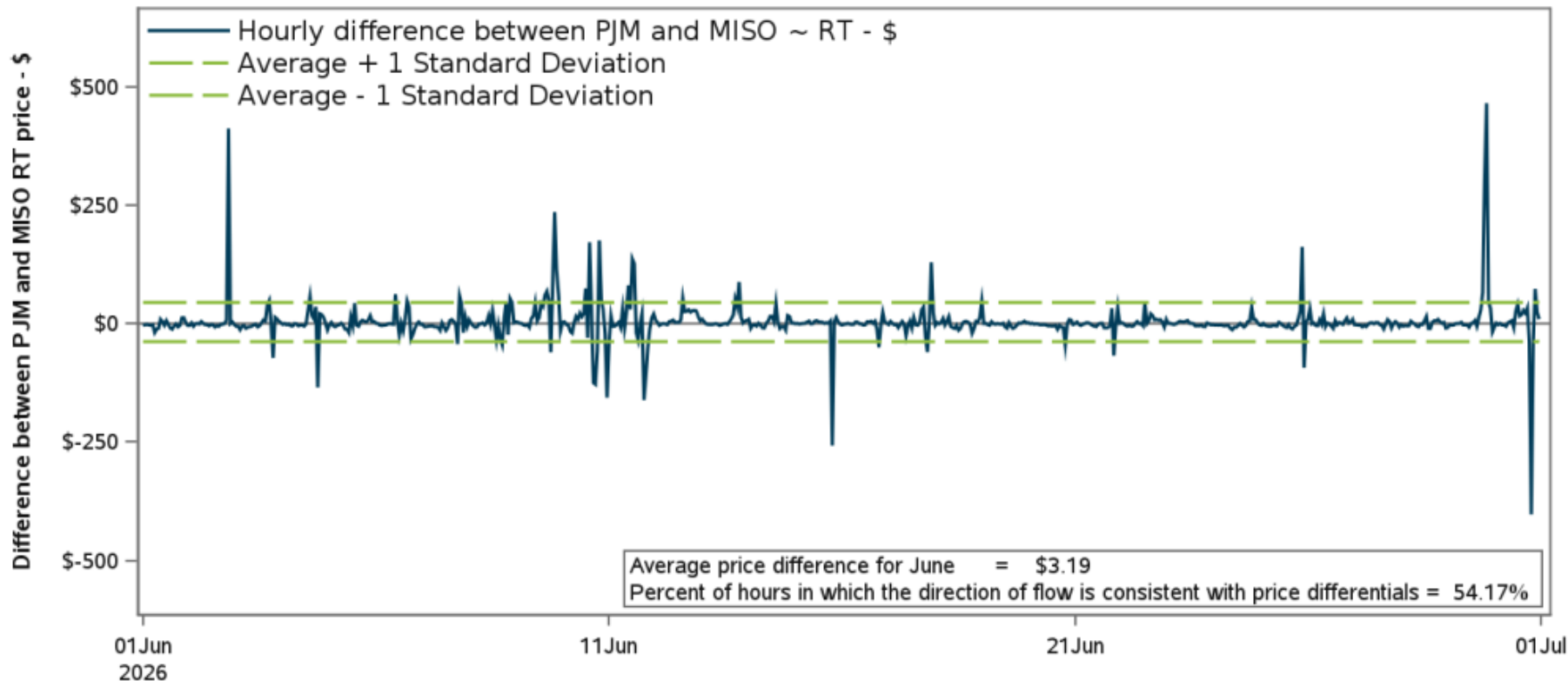
Energy Market

Interchange/Seams Summary



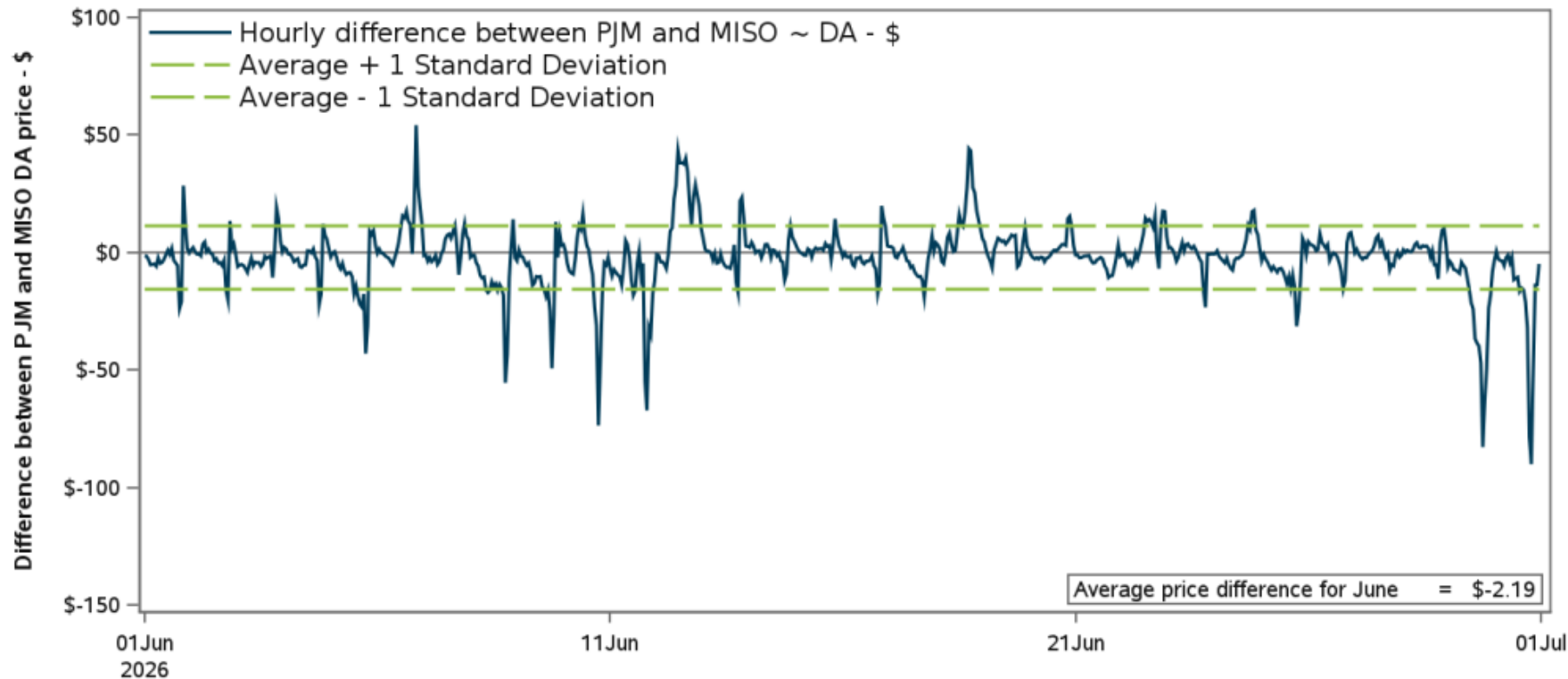


Hourly Difference Between PJM and MISO Real-Time Prices



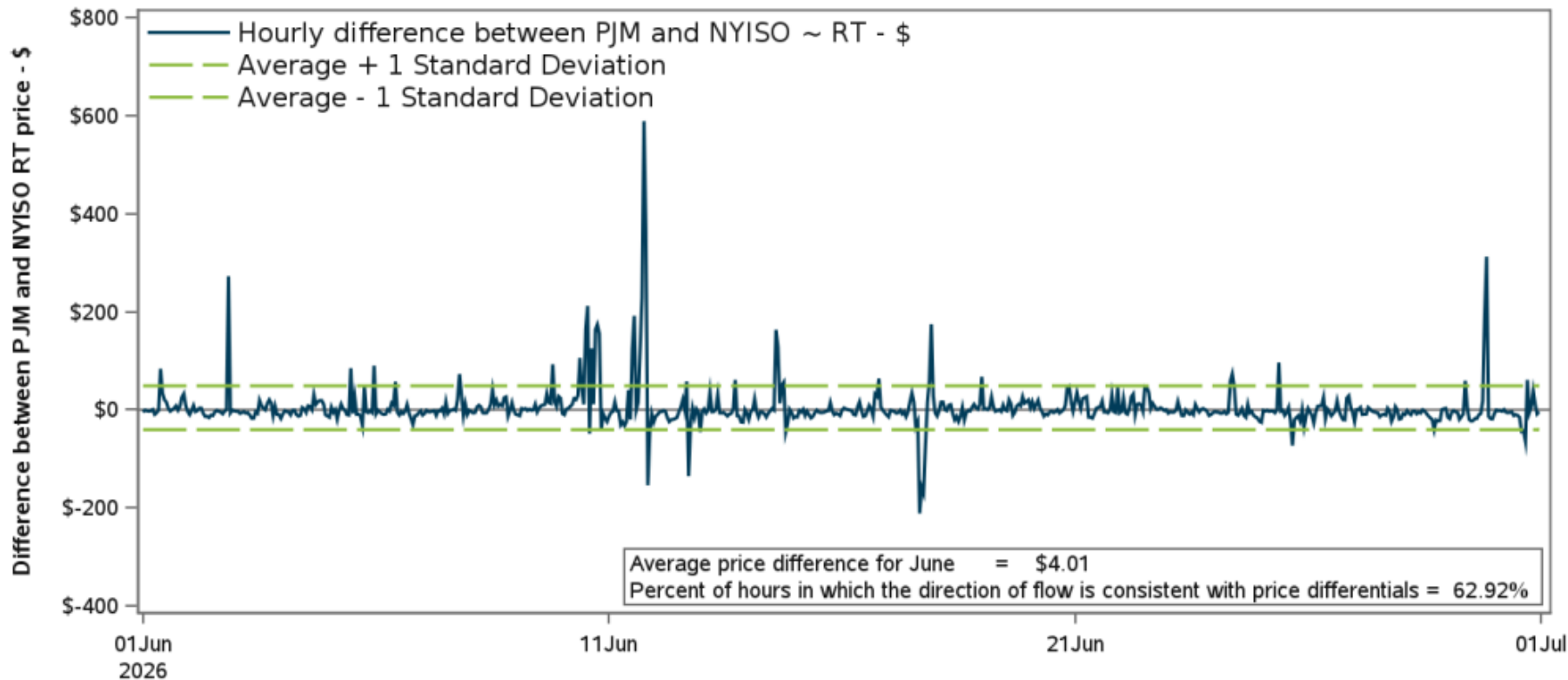
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and MISO Day-Ahead Prices



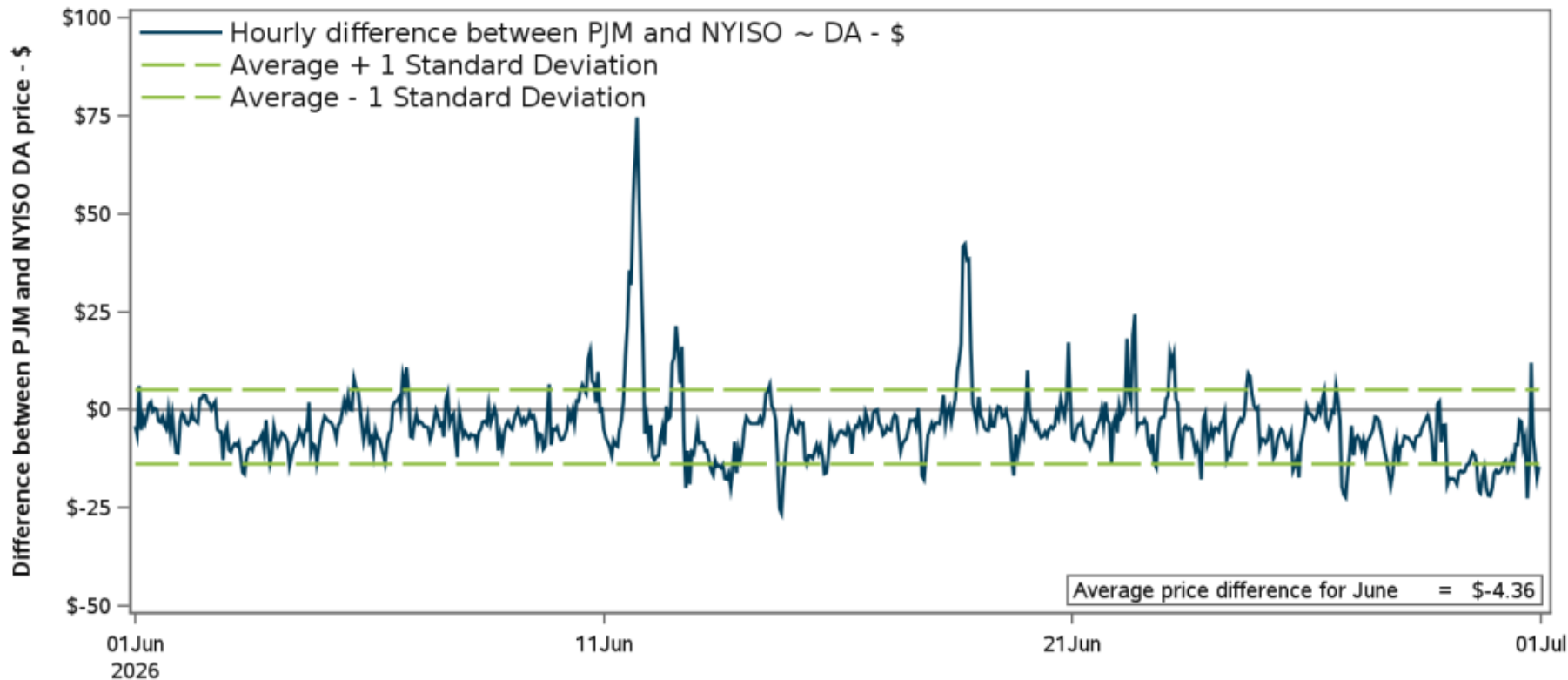
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and NYISO Real-Time Prices



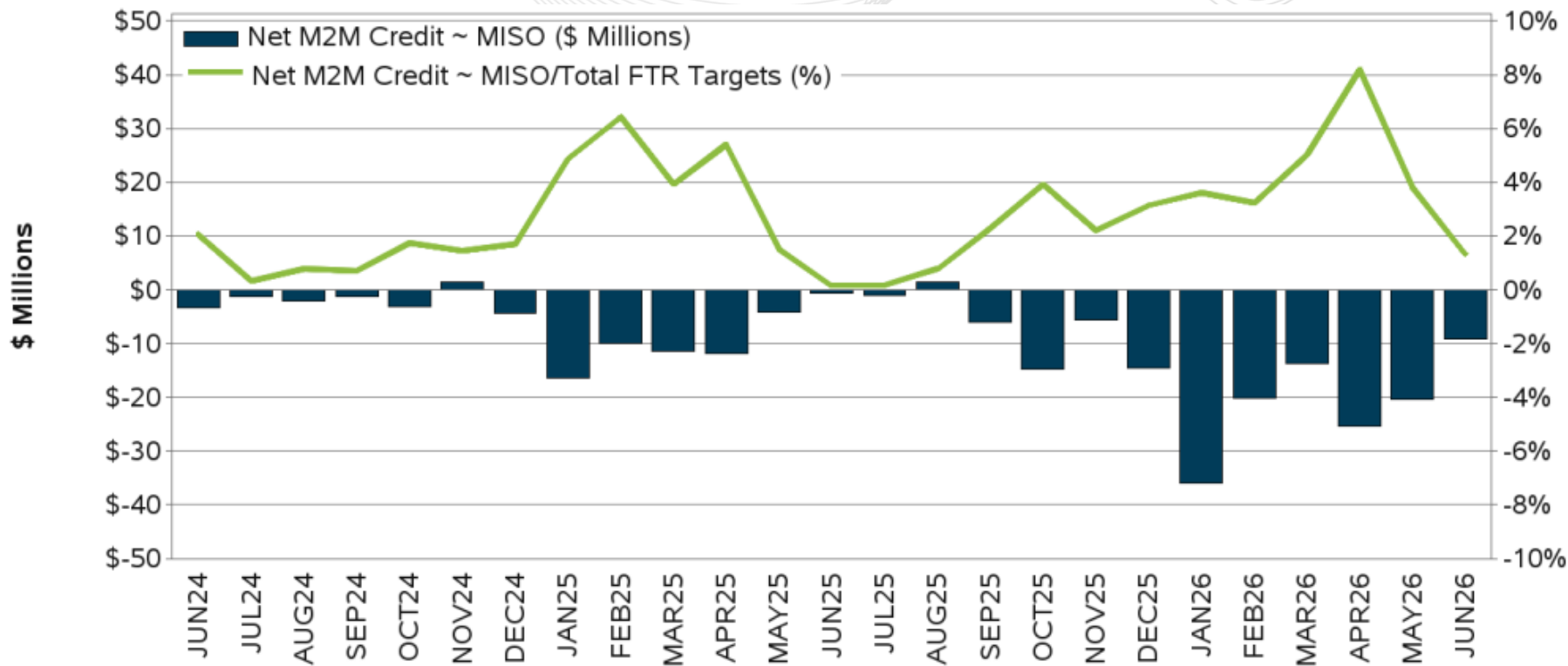
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and NYISO Day-Ahead Prices



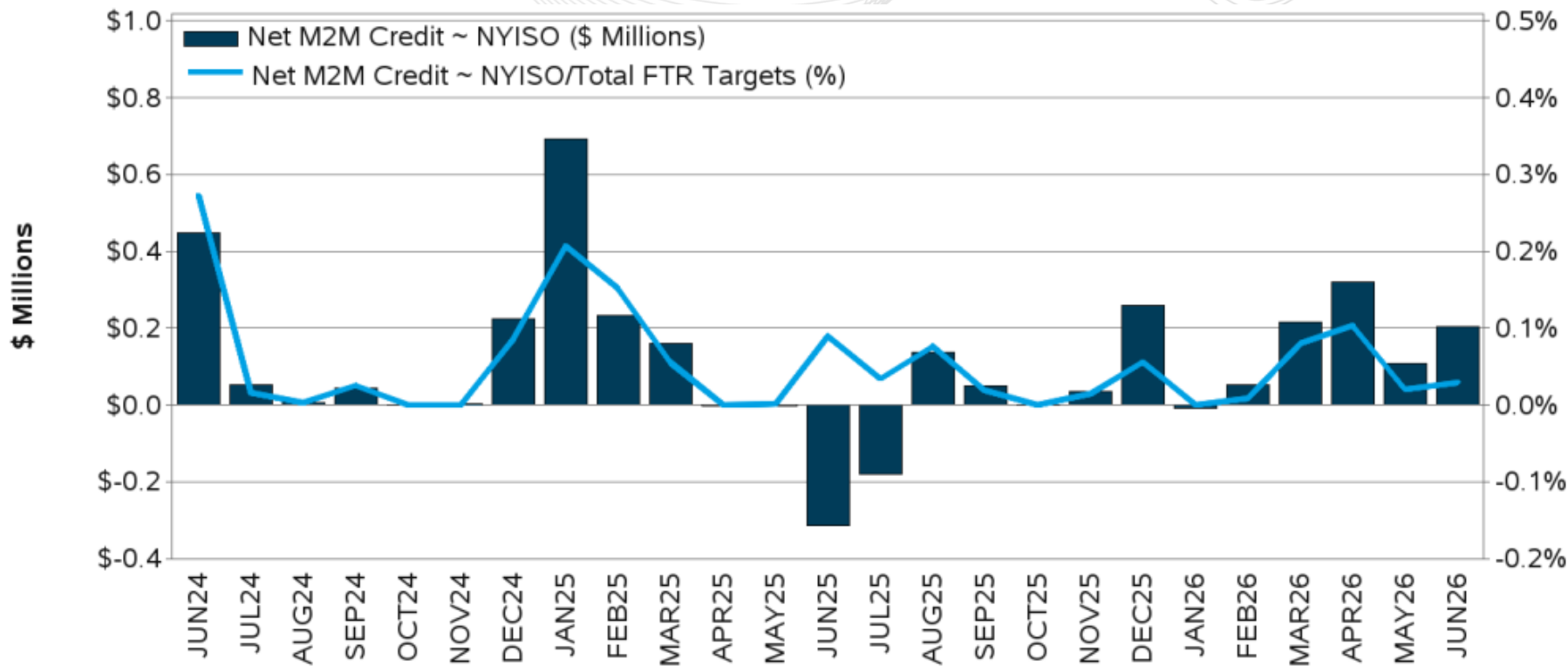
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

PJM-MISO Market-to-Market Coordination Settlement



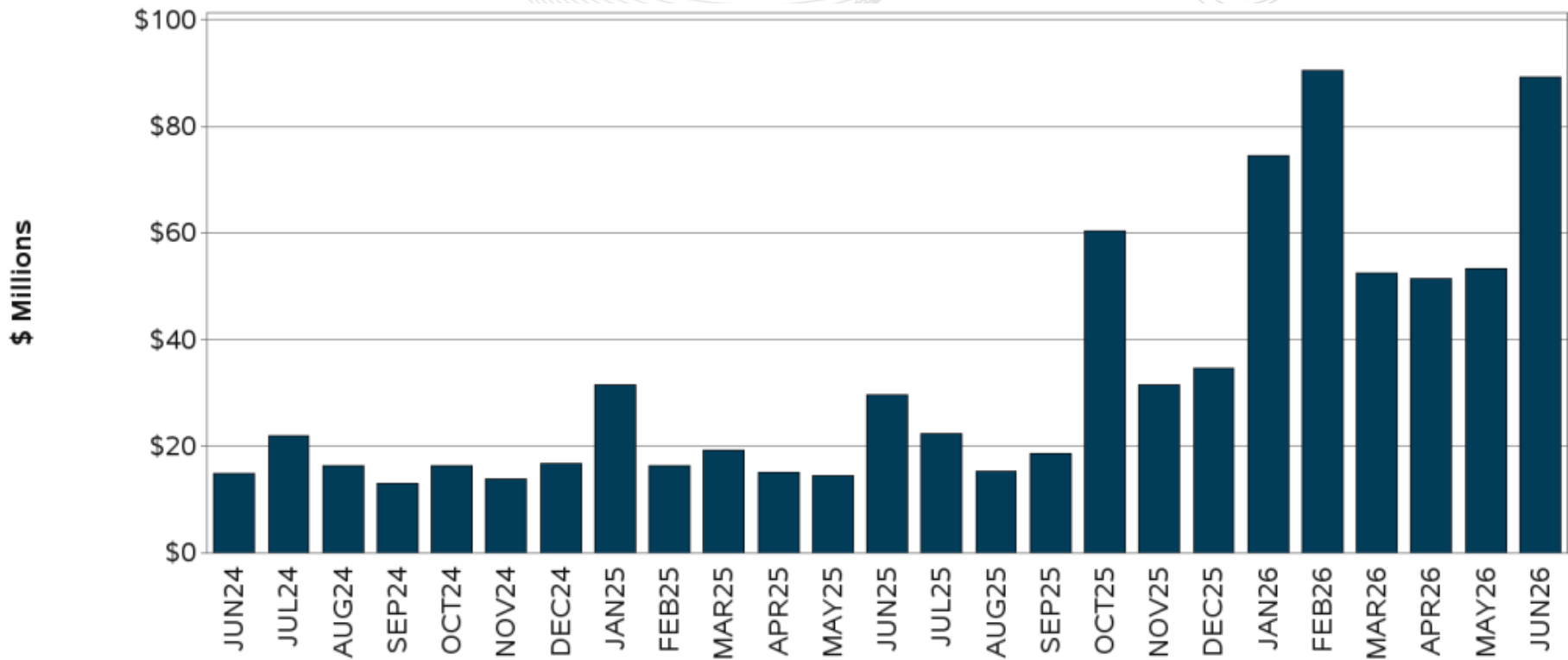
Negative M2M Credit represents PJM payment to MISO

PJM-NYISO Market-to-Market Coordination Settlement

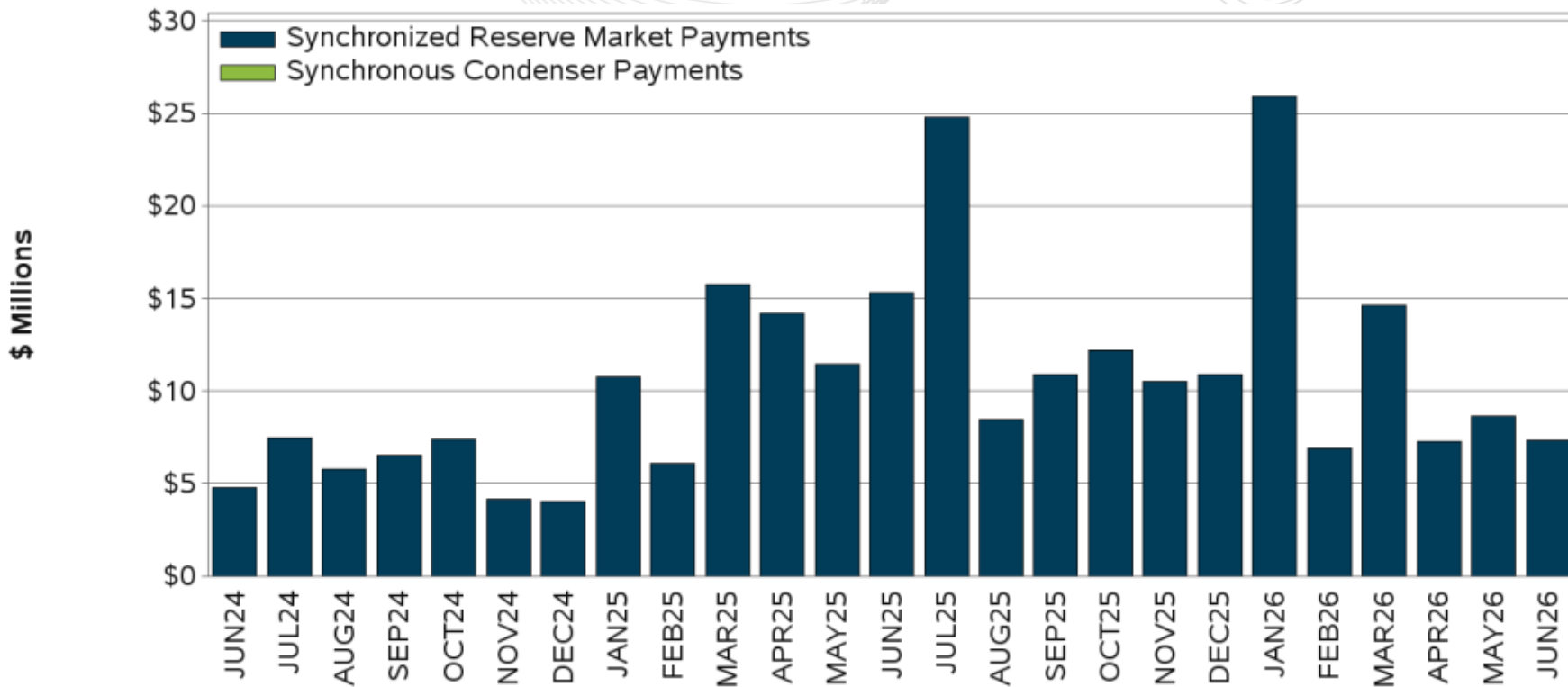


Negative M2M Credit represents PJM payment to NYISO

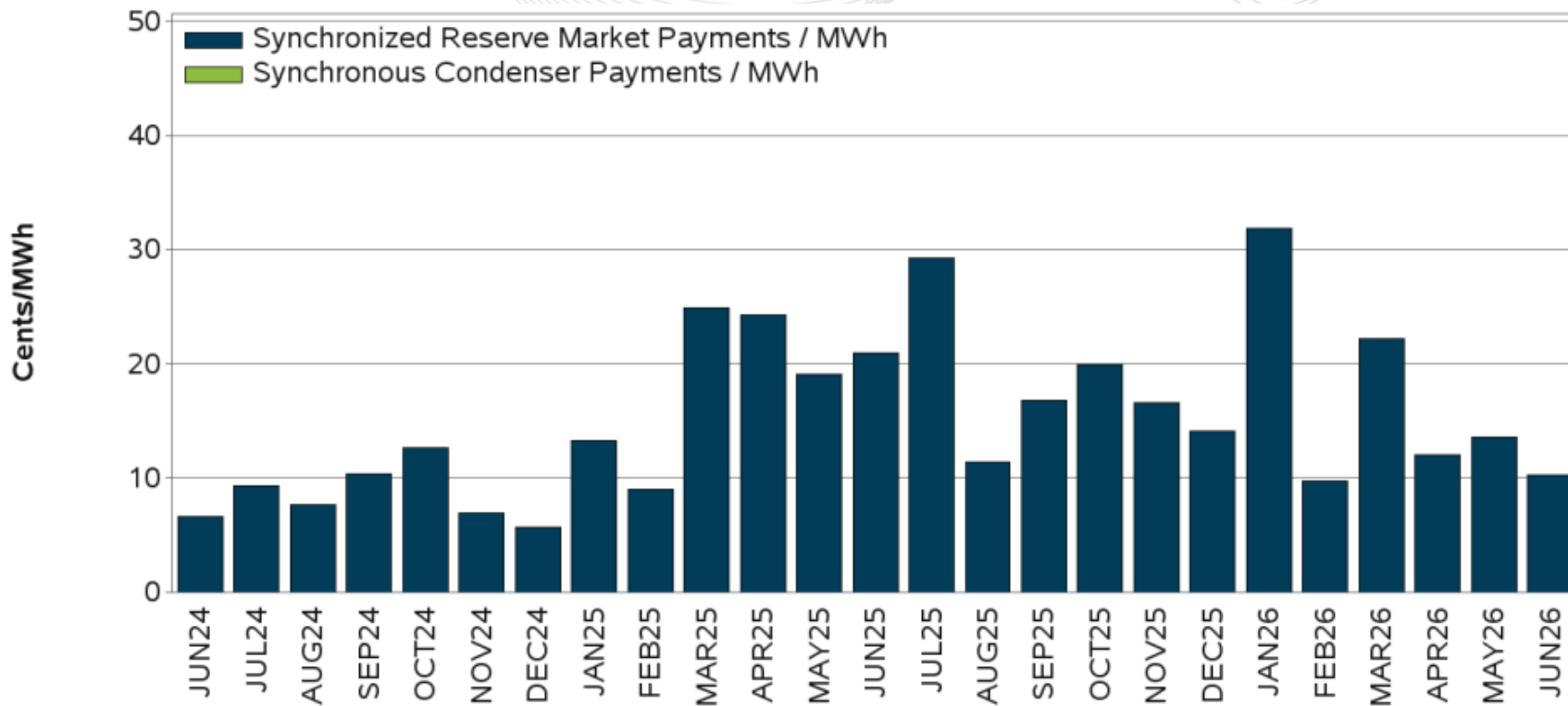
Ancillary Service Market Summary

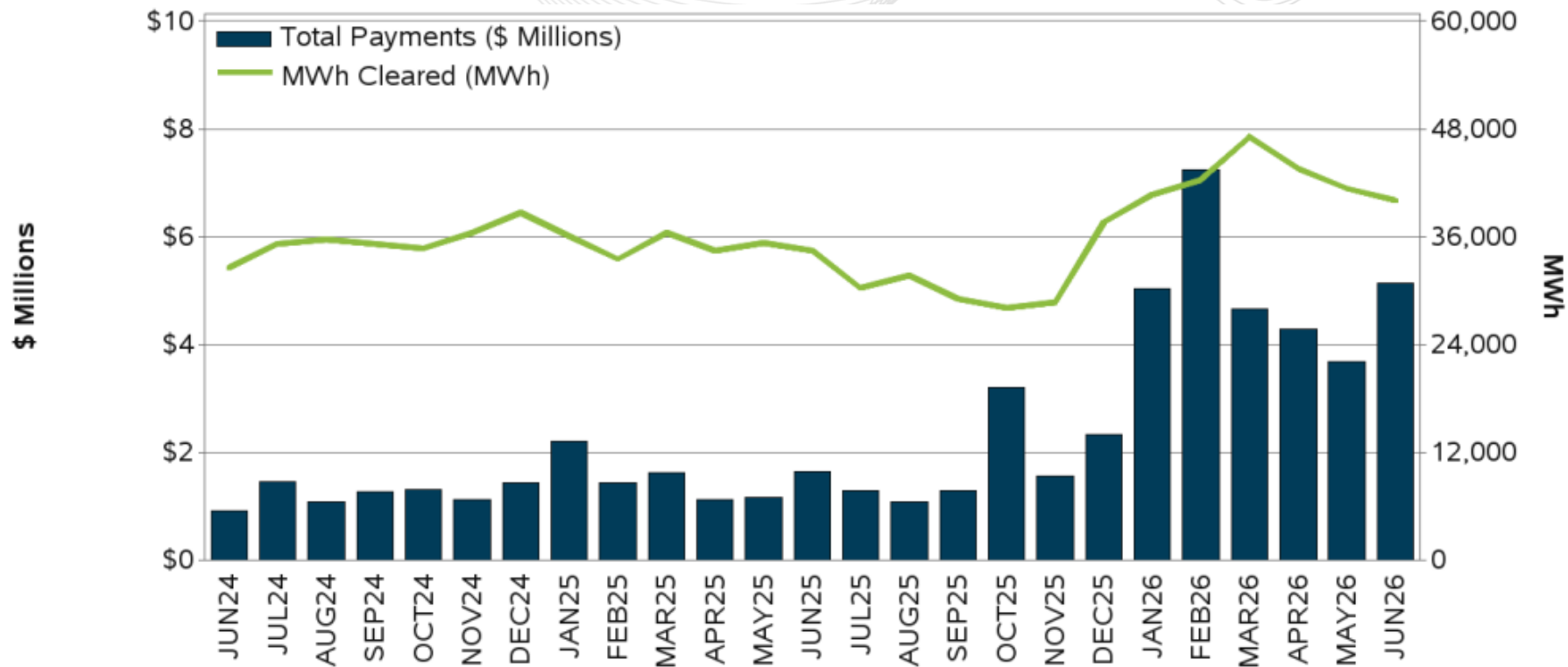


Synchronized Reserve and Synchronous Condenser Costs

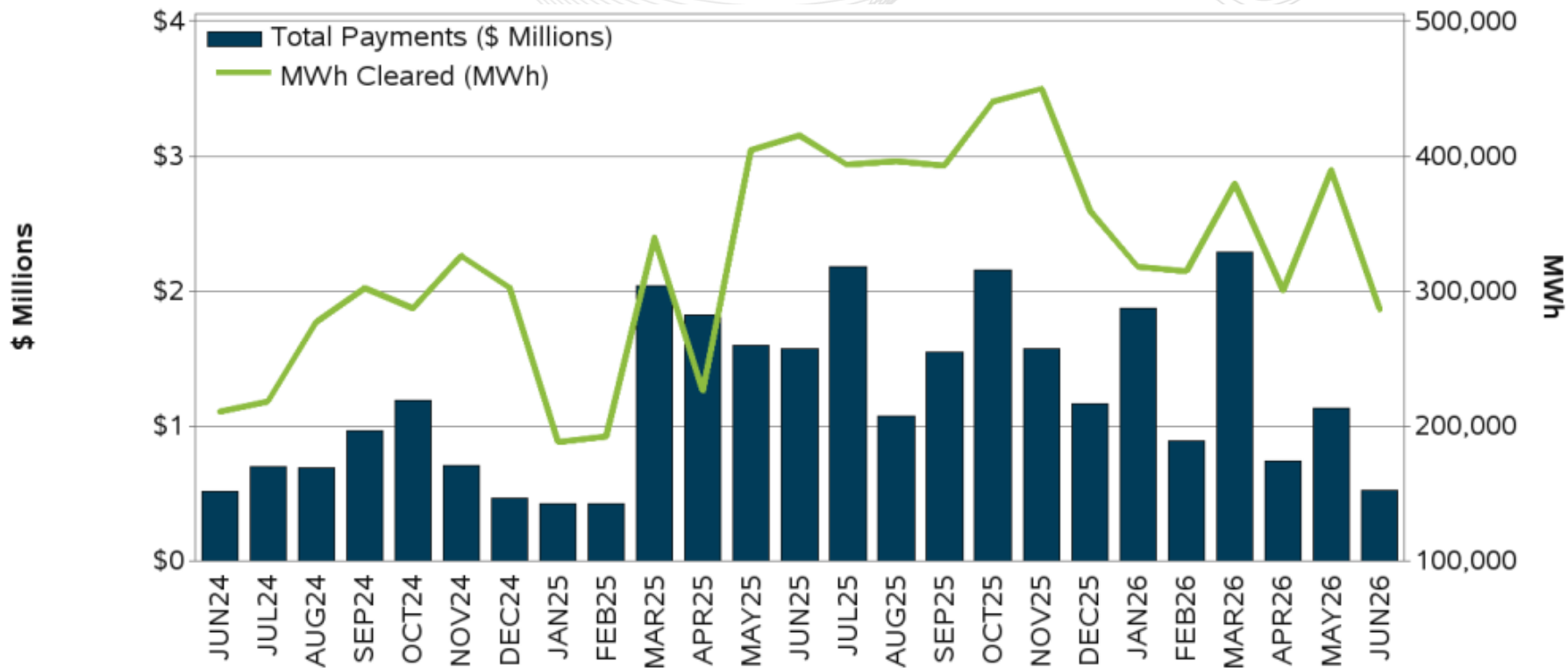


Load-Adjusted Synchronized Reserve and Synchronous Condenser Costs

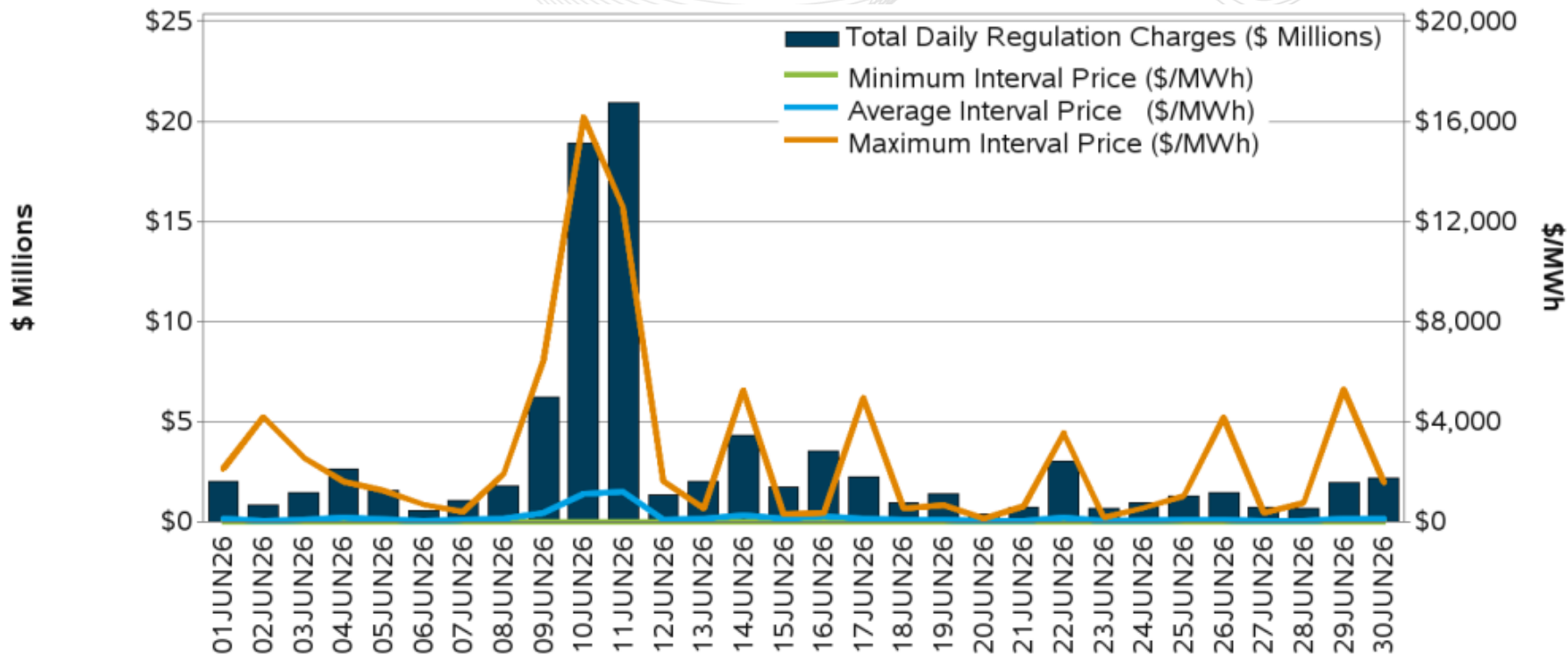




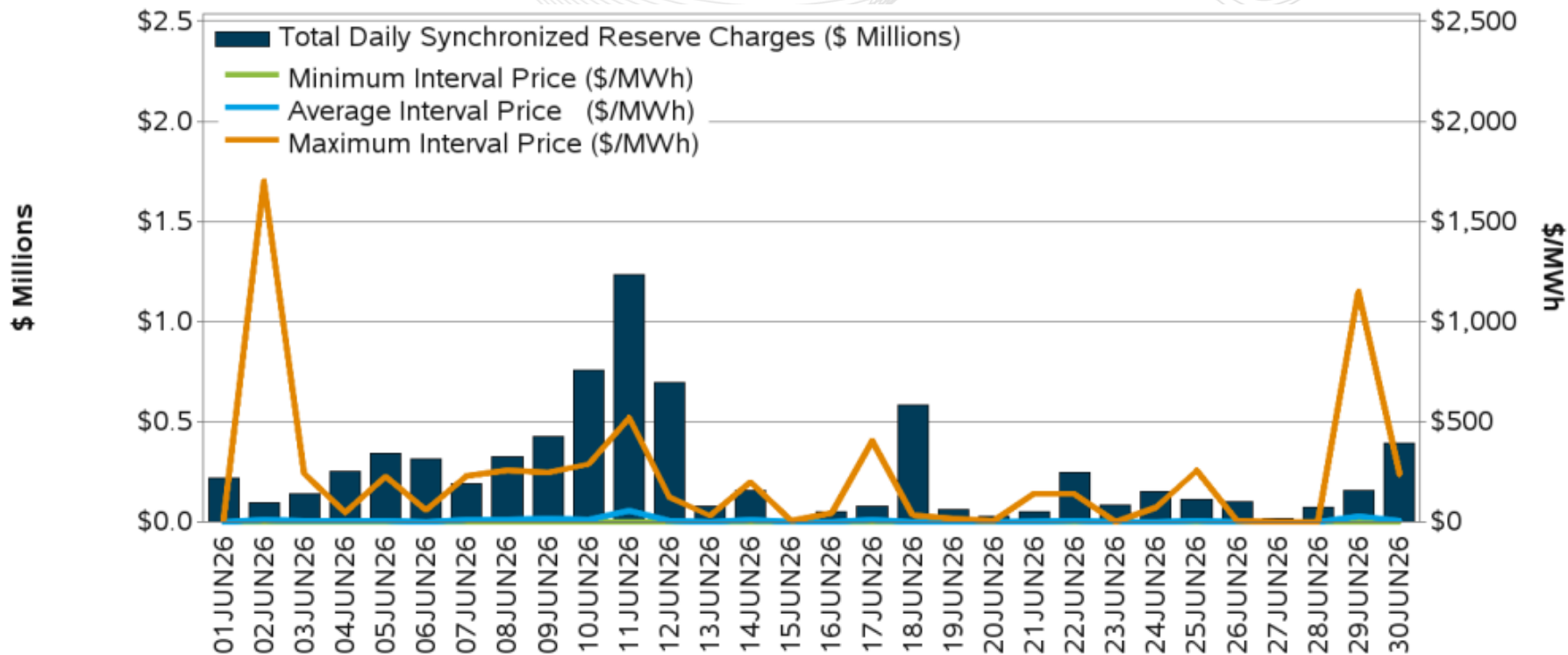
DR Participation in PJM Synchronized Reserve Markets



Regulation Market Daily Prices and Charges



Synchronized Reserve Market Daily Prices and Charges



Jennifer Warner-Freeman
Jennifer.Freeman@pjm.com



Member Hotline

(610) 666 – 8980

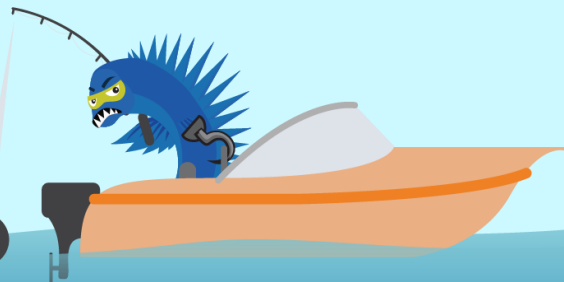
(866) 400 – 8980

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

Appendix

Performance Assessment Interval (PAI) Trigger Matrix

Condition 1 (Component A + Component B): Emergency Procedures and Primary Reserve Shortage (triggered from the latest approved Dispatch Run case on a 5-minute interval basis)

No Primary Reserve Shortage during Max Gen Action on 7/2

Emergency Procedures Issuance and Reserve Area		Primary Reserve Shortage Issuance (Reserve Area)			
		RTO	MAD Only	RTO and MAD	None
		RESOURCES ASSESSED:			
Voltage Reduction Warning and Reduction of Non-Critical Plant Load	RTO	Entire RTO	All MAD resources assessed	Entire RTO	No assessment
	MAD	No Assessment		All MAD	
Manual Load Dump Warning	RTO	Entire RTO		Entire RTO	
	MAD	No Assessment		All MAD	
Maximum Emergency Generation Action	RTO	Entire RTO		Entire RTO	
	MAD	No Assessment		All MAD	
Curtailment of Non-Essential Building Load and Voltage Reduction Warning	RTO	Entire RTO		Entire RTO	
	MAD	No Assessment		All MAD	

Deploy All Resources Action on 7/2 only called for BGE, PEPCO and DOMINION

Condition 2: Emergency Procedures

Emergency Procedures Issuance and Reserve Area		Resources Assessed
MAD	Deploy All Resources Action	MAD resources assessed
	Voltage Reduction Action	
	Manual Load Dump Action	
	Load Shed Directive	
RTO	Deploy All Resources Action	Entire RTO resources assessed
	Voltage Reduction Action	
	Manual Load Dump Action	
	Load Shed Directive	