Markets Report

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Executive Summary

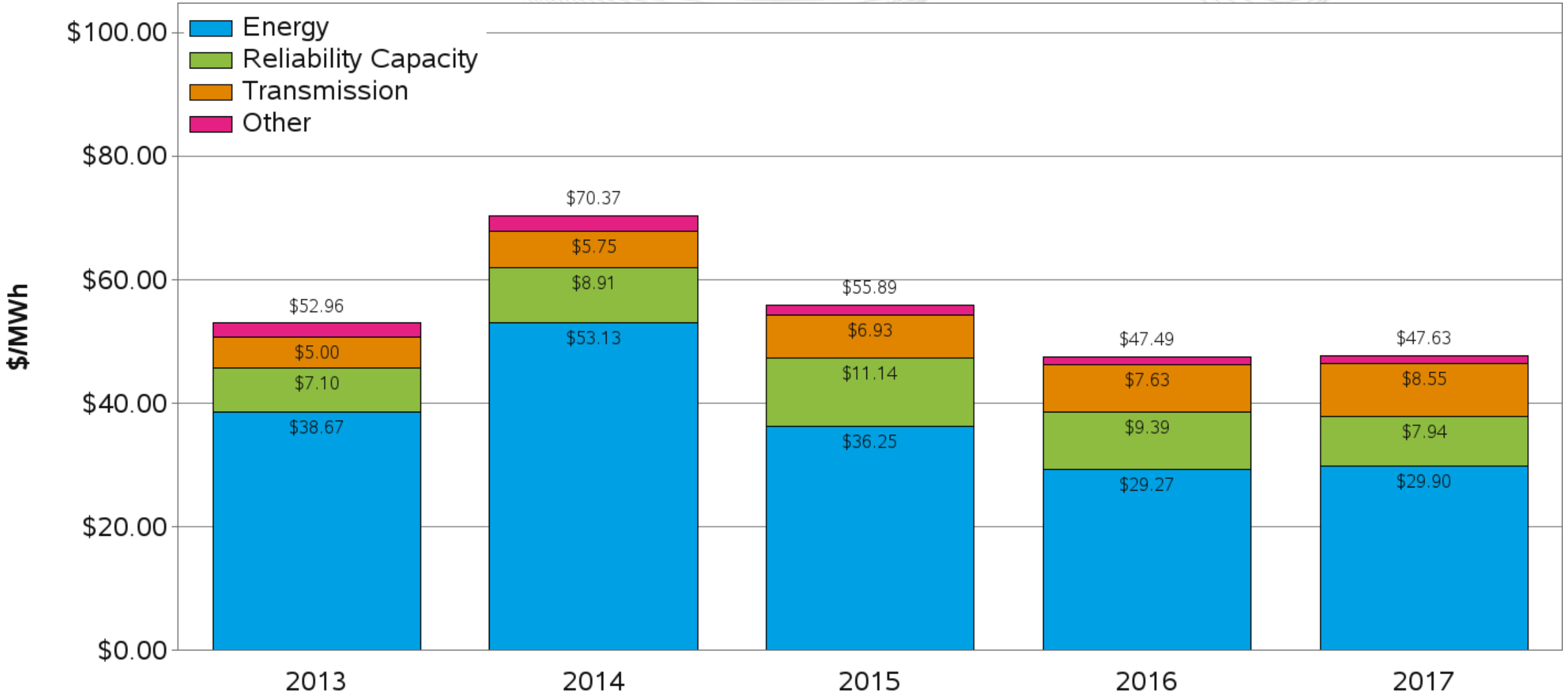
- PJM Wholesale Cost through June 2017 was $47.63/MWh, up from full-year 2016 costs of $47.49/MWh. (Slides 5 & 6)
- Operating Reserve cost contribution to wholesale energy costs remains at its lowest level in the 2011-2017 time period. (Slide 6)
- Load-weighted average LMP for 2017 was $29.90/MWh: (Slide 18)
  - June 2017 was $28.3/MWh, which is slightly lower than June 2016 ($28.51) but also in line, seasonally, with June 2015 ($32.2).
- In June, the sum of Heating and Cooling Degree Days was about equal to its historic average, indicating normal weather. Energy use also in line with its historic average. (Slides 16-17)

Executive Summary

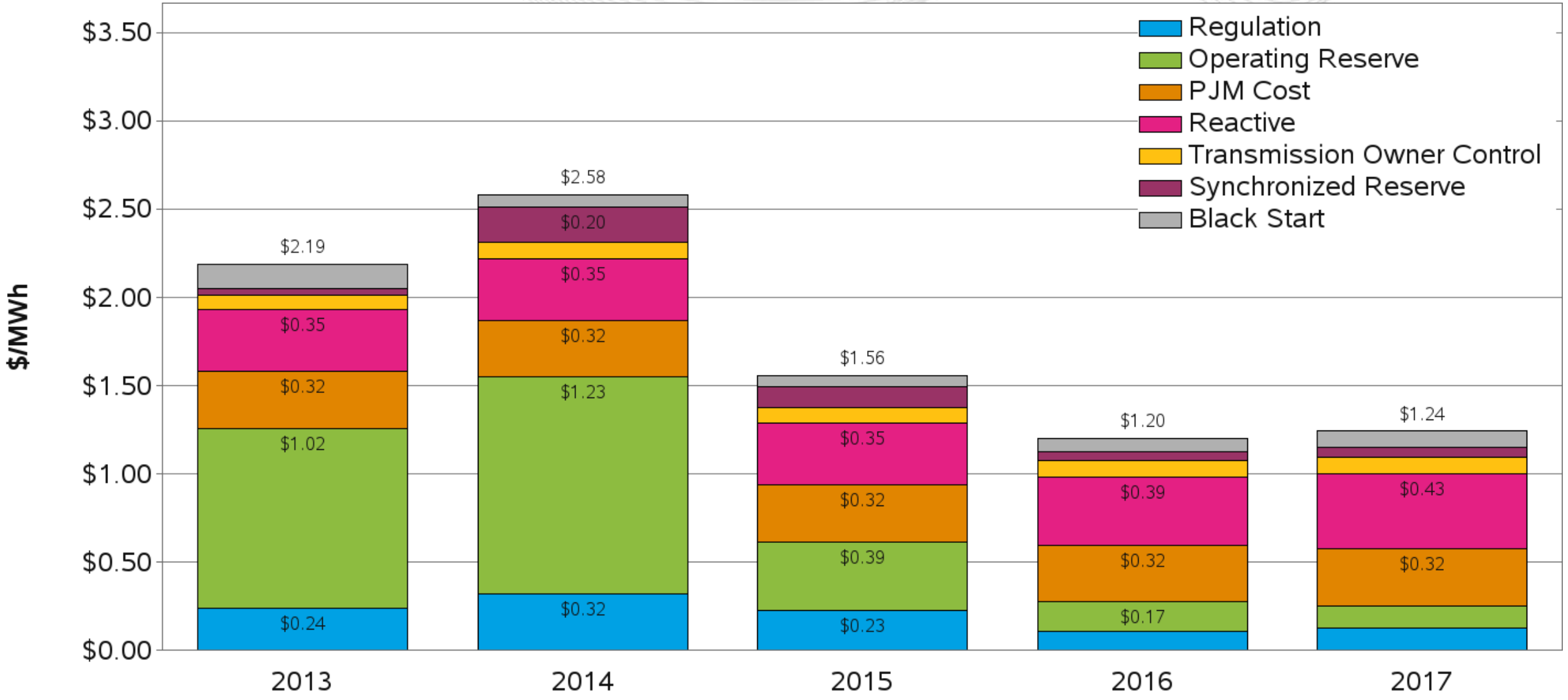
- In June, the calculation of FTR surplus was changed to no longer include Balancing congestion and Market to Market payments.
- FTR revenue adequacy for the month of June is 100% and thus, the 2017-2018 Planning Year starts off fully funded. Likewise, the 2016-2017 Planning Period finished at the end of May also fully funded. (Slides 33-36)
- June 2017 experienced congestion levels similar to June 2016. While this level is still below the recent historic average, it is higher than the most recent seven months. (Slide 33)
- Regulation and Synchronized Reserve market costs have generally tracked with energy prices over time. (Slides 49-51)

Markets Report

PJM Wholesale Cost

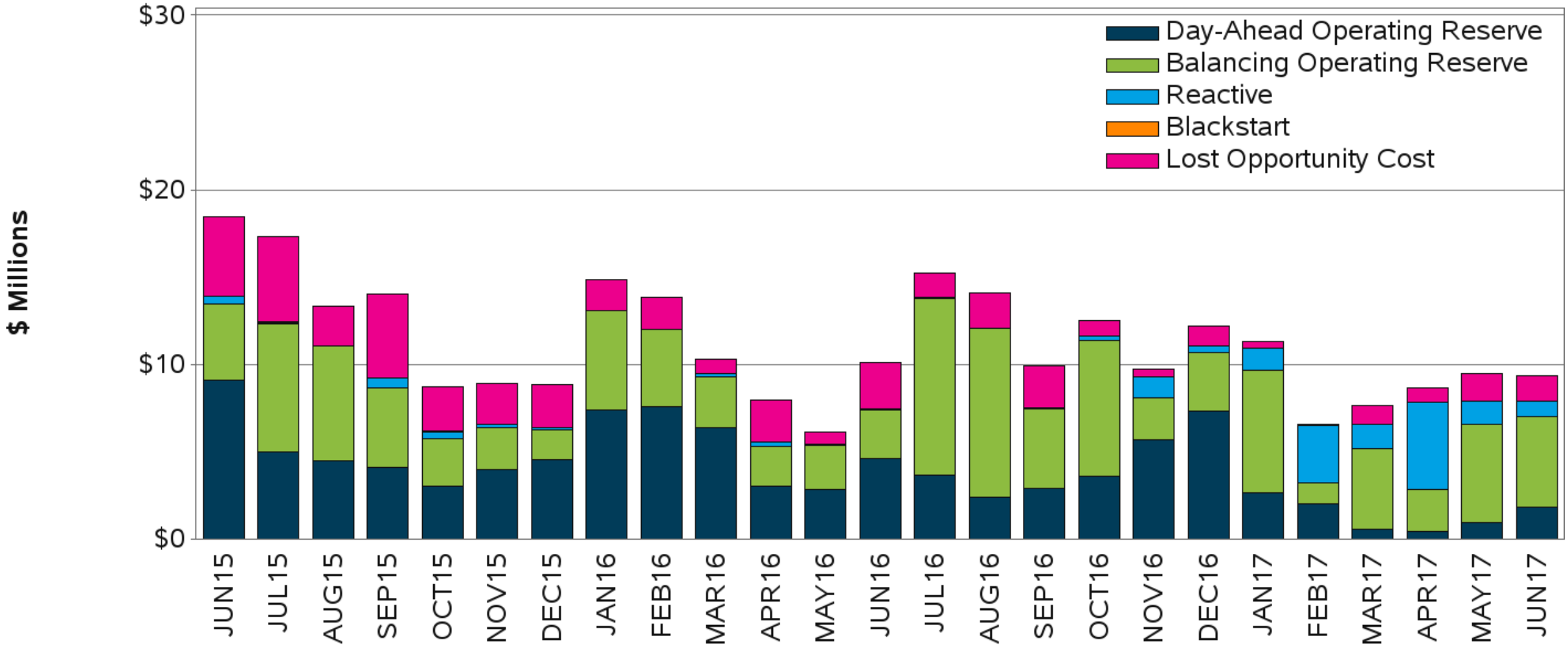


PJM Wholesale Cost - Other

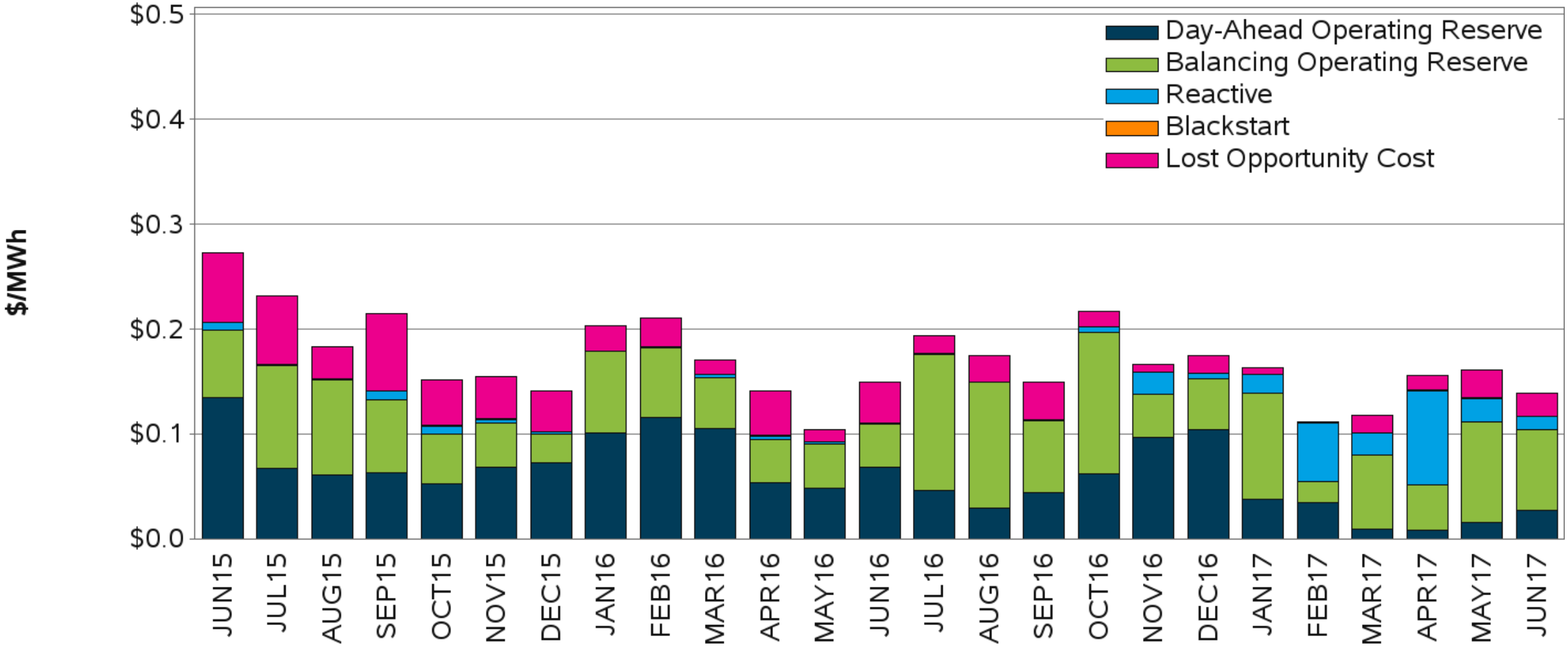


Operating Reserve

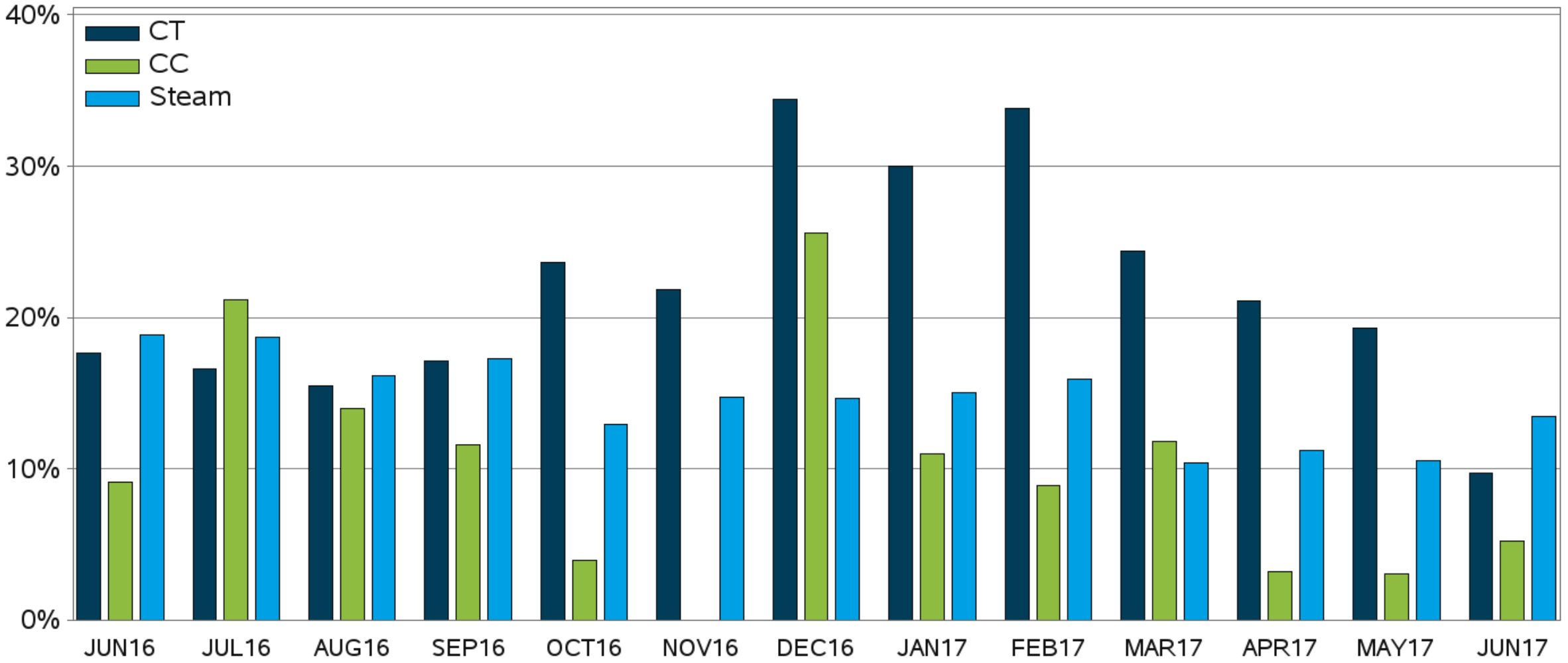
Monthly Uplift



Monthly Uplift - $/MWh Load



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

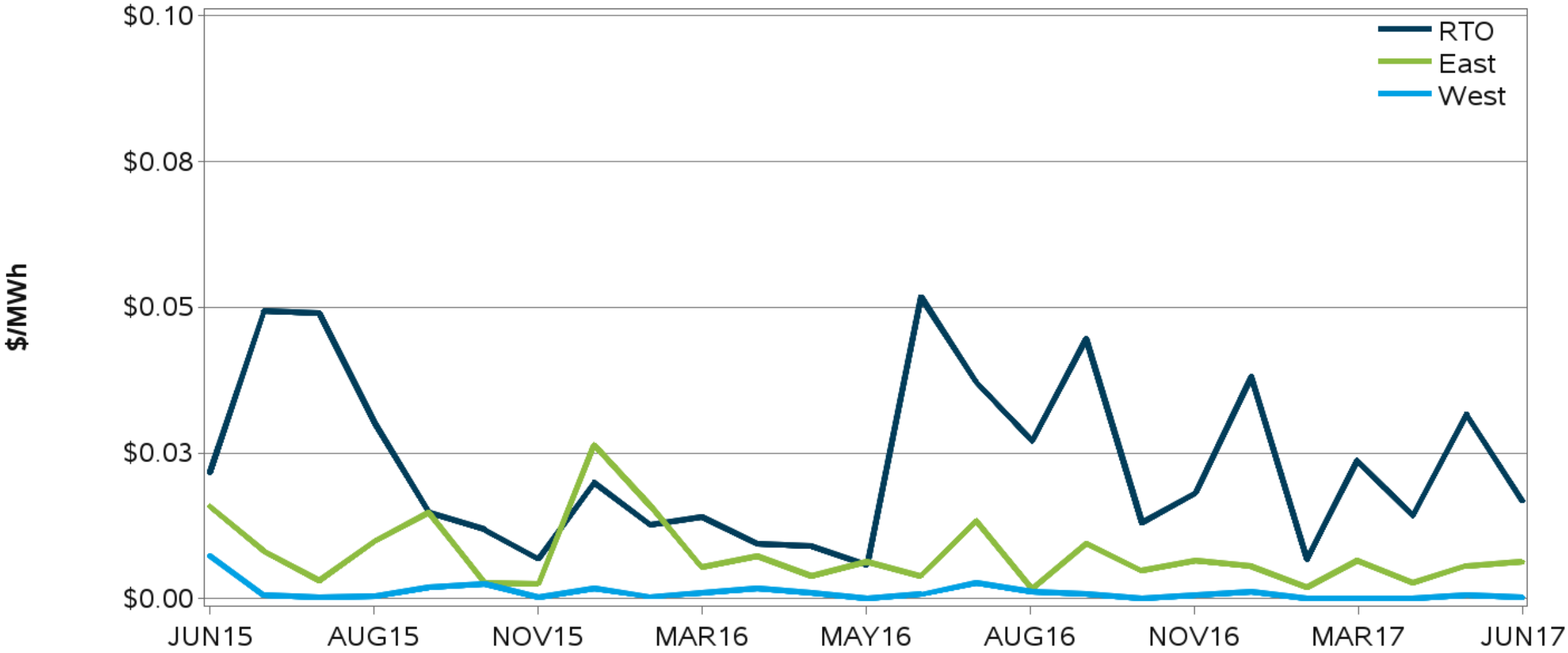


Balancing Operating Reserve Rates

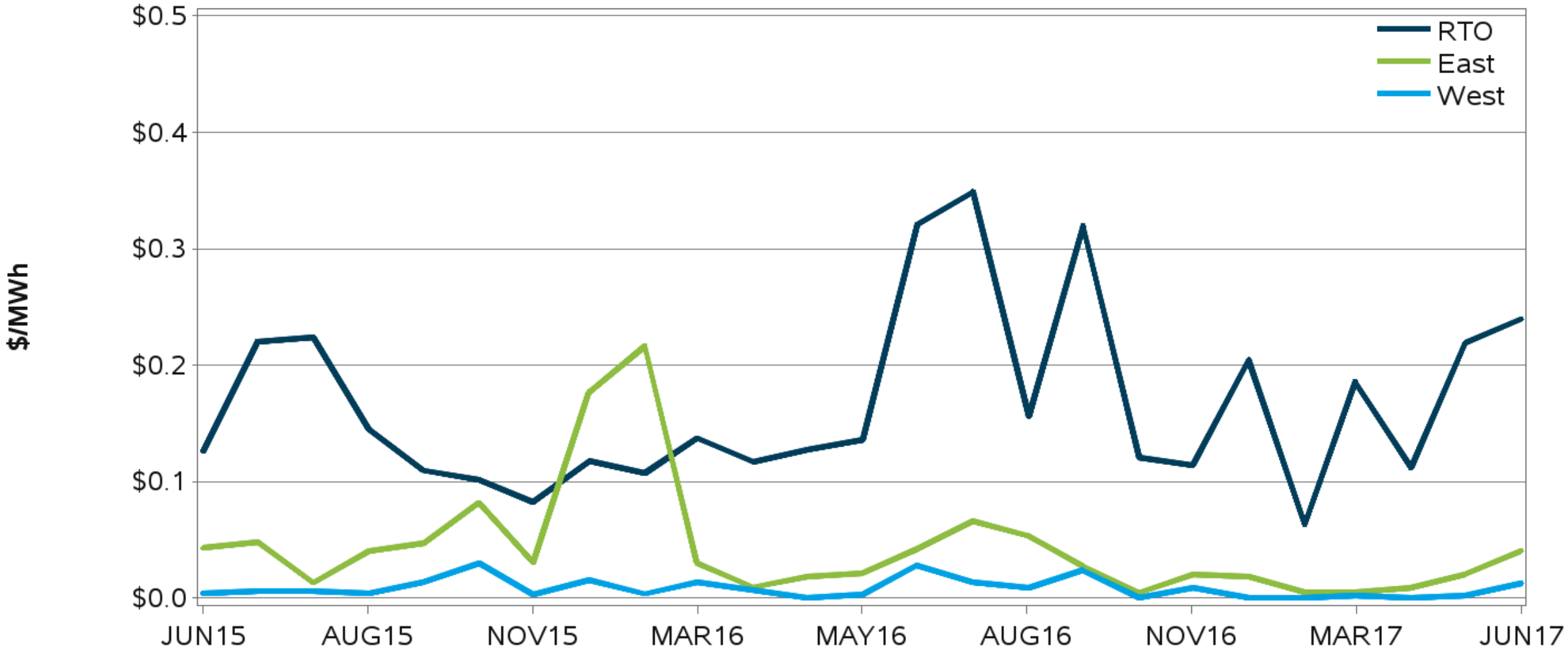
- Beginning in December 2008, the daily Balancing Operating Reserves (BOR) rate was replaced with six different BOR rates: RTO BOR for Reliability Rate, RTO BOR for Deviations Rate, East BOR for Reliability Rate, East BOR for Deviations Rate, West BOR for Reliability Rate, West BOR for Deviations Rate.

- 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



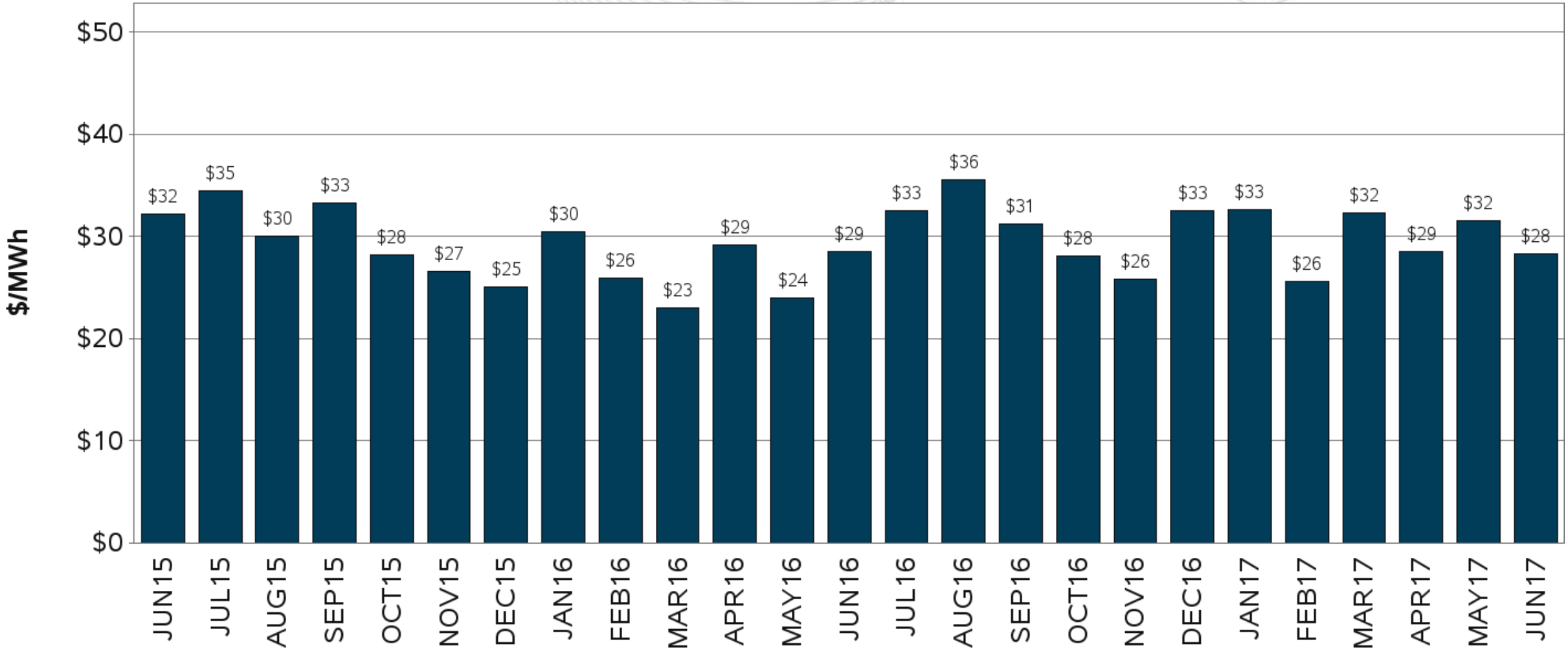
Deviations Balancing Operating Reserve Rates



Energy Market

LMP Summary

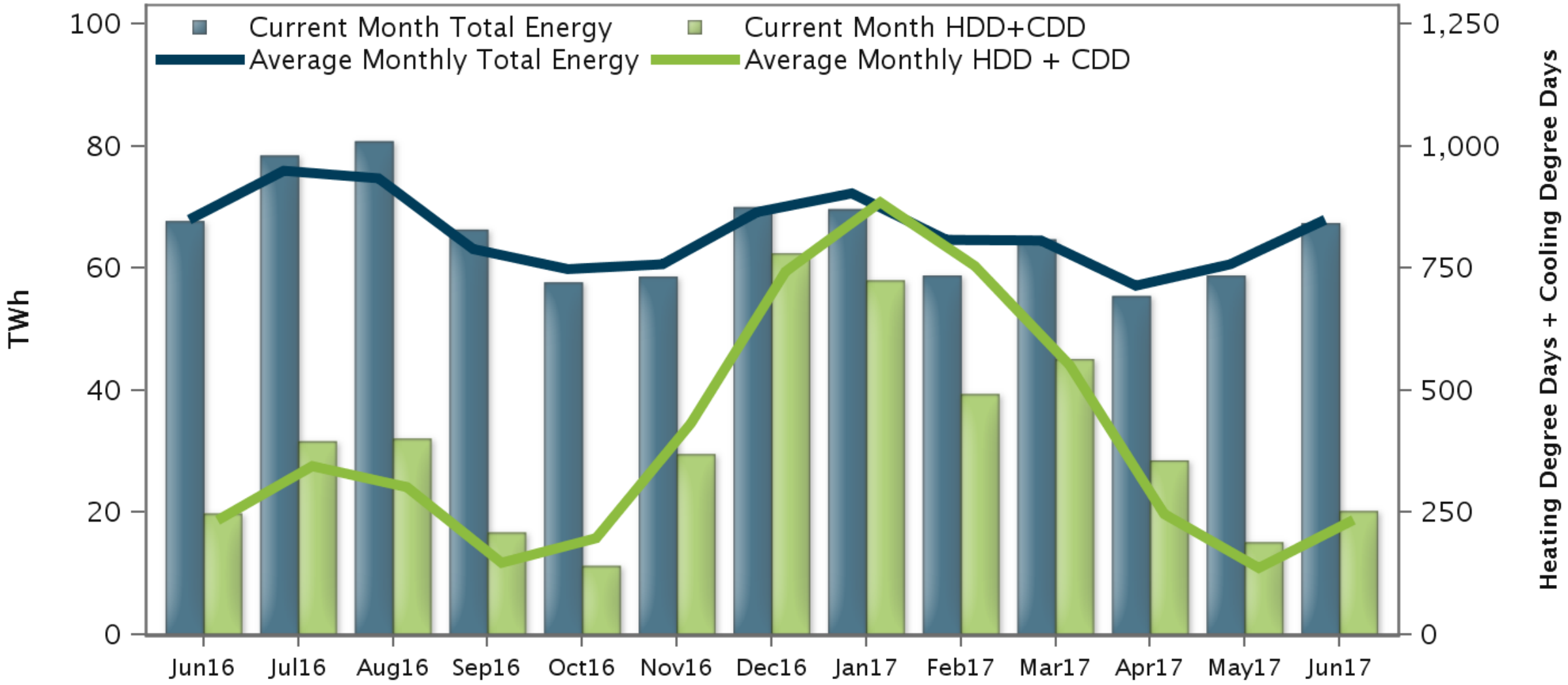
Load-Weighted Average LMP



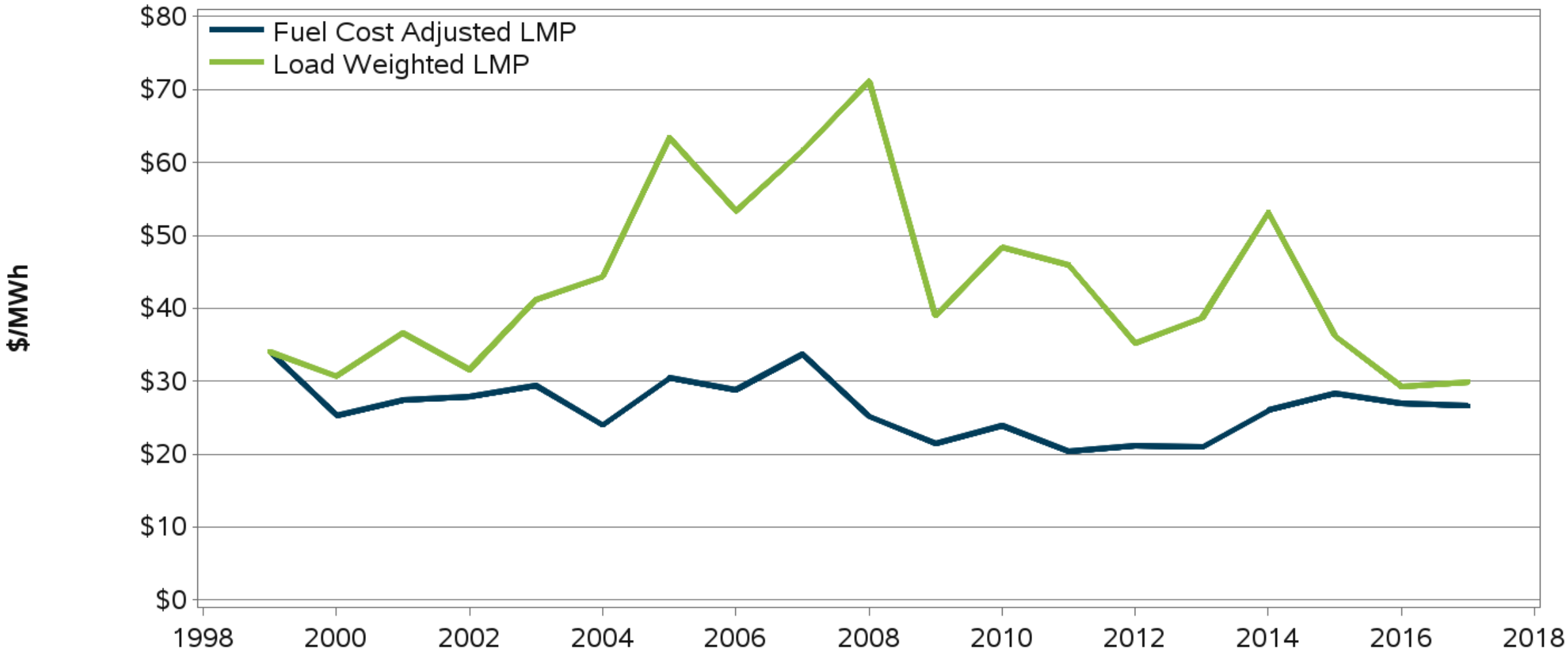
Heating and Cooling Degree Day Calculation

- 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, 2016. Averages include load data for all of TO zones in the current RTO footprint.

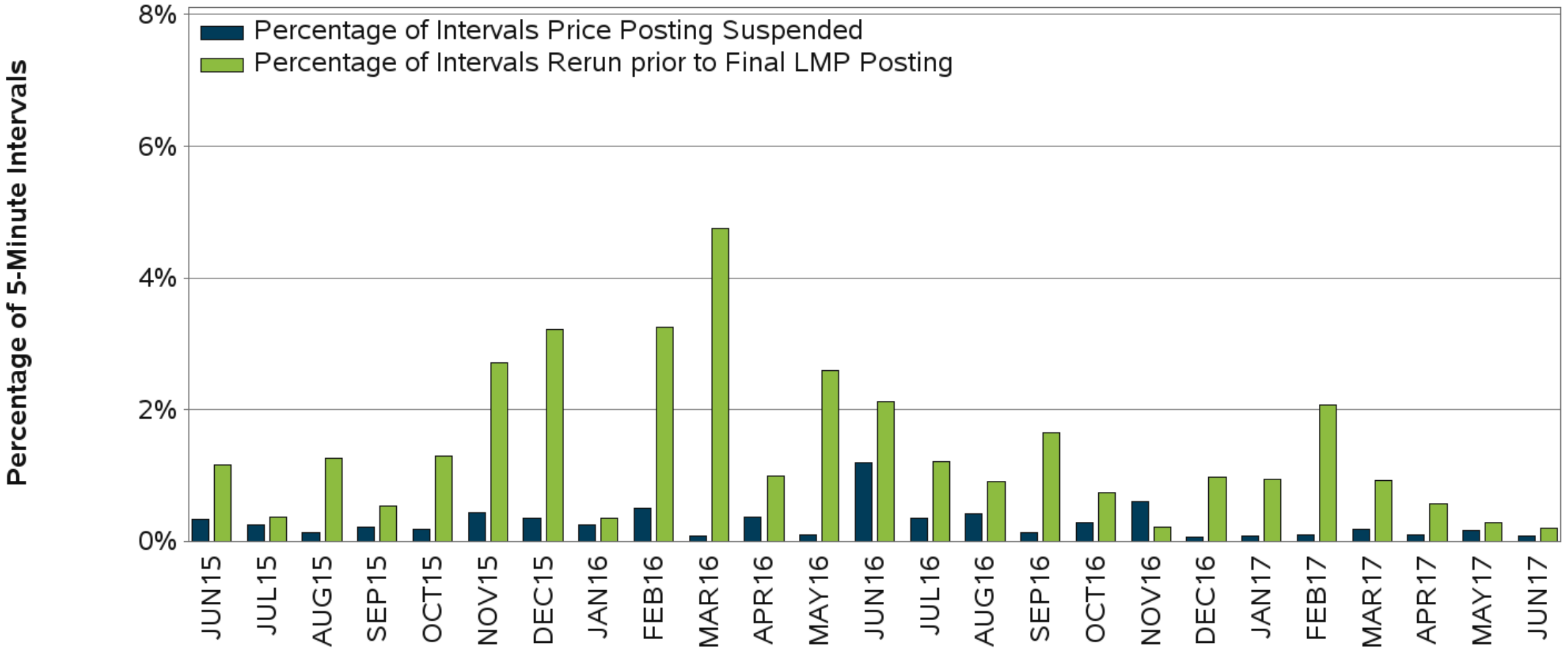
Historic Average Weather and Energy versus Current Month



Fuel Cost Adjusted LMP (Referenced to 1999 Fuel Prices)



LMP Price Posting Suspensions and Reruns

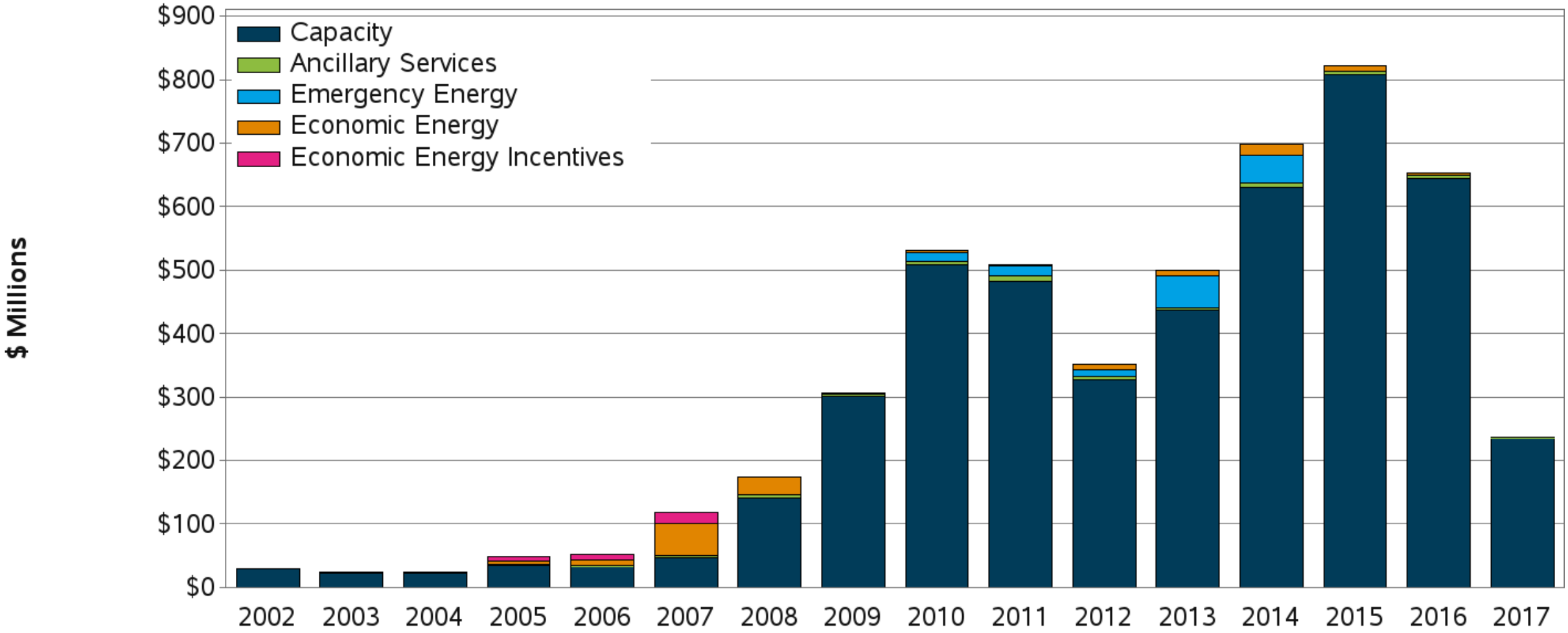


In September 2014 the method for calculating LMP re-run intervals was changed to only include intervals that actually impacted LMP.

Energy Market

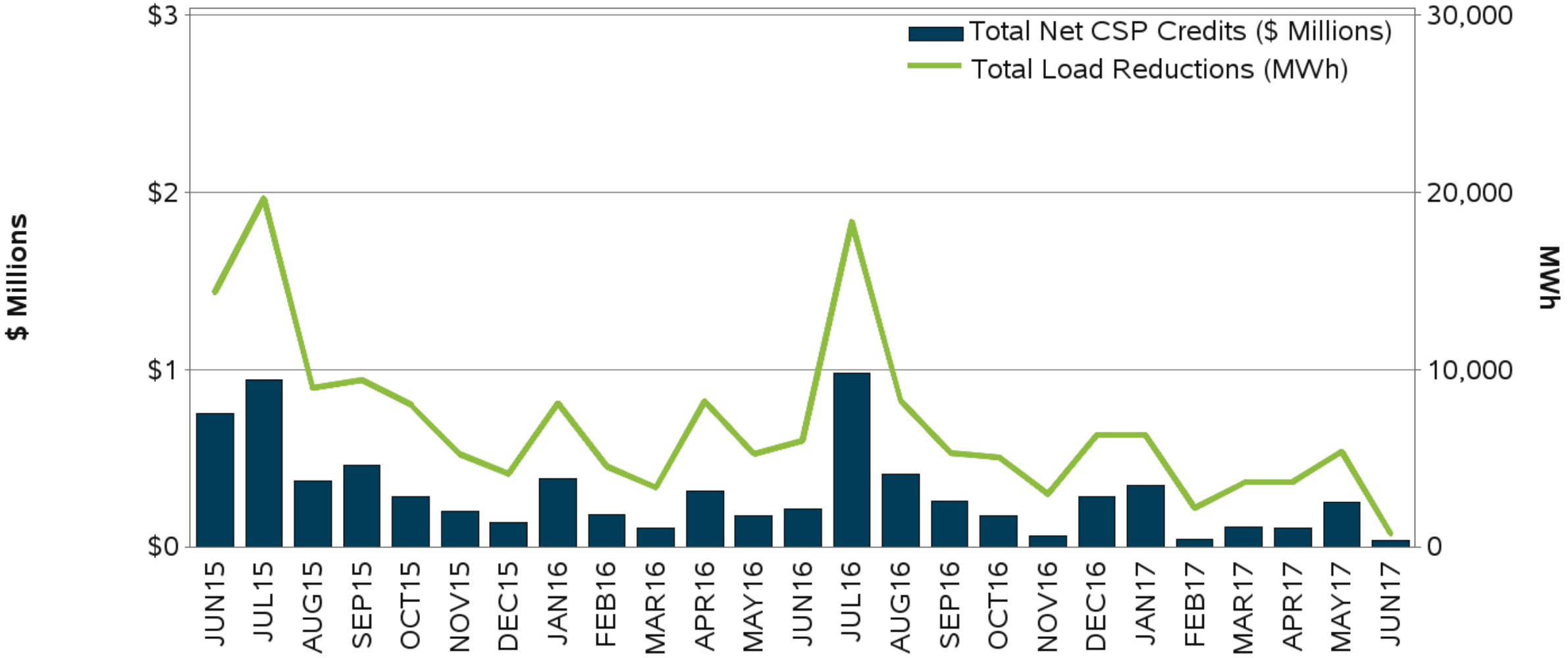
Demand Response Summary

Demand Side Response Estimated Revenue



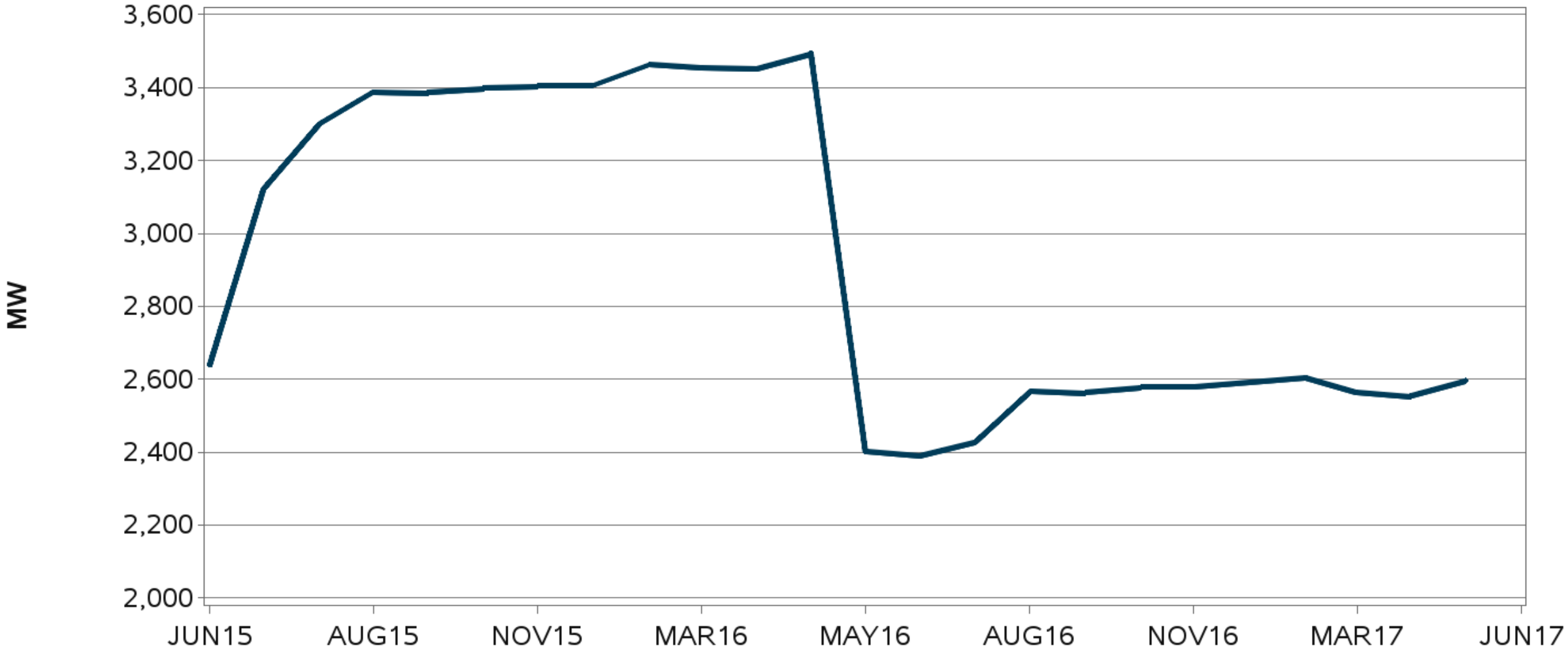
Capacity revenue prior to RPM implementation on 6-01-2007 estimated based on average daily ALM capacity credits and weighted average daily PJM capacity market clearing price.

Economic Demand Response Activity



*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



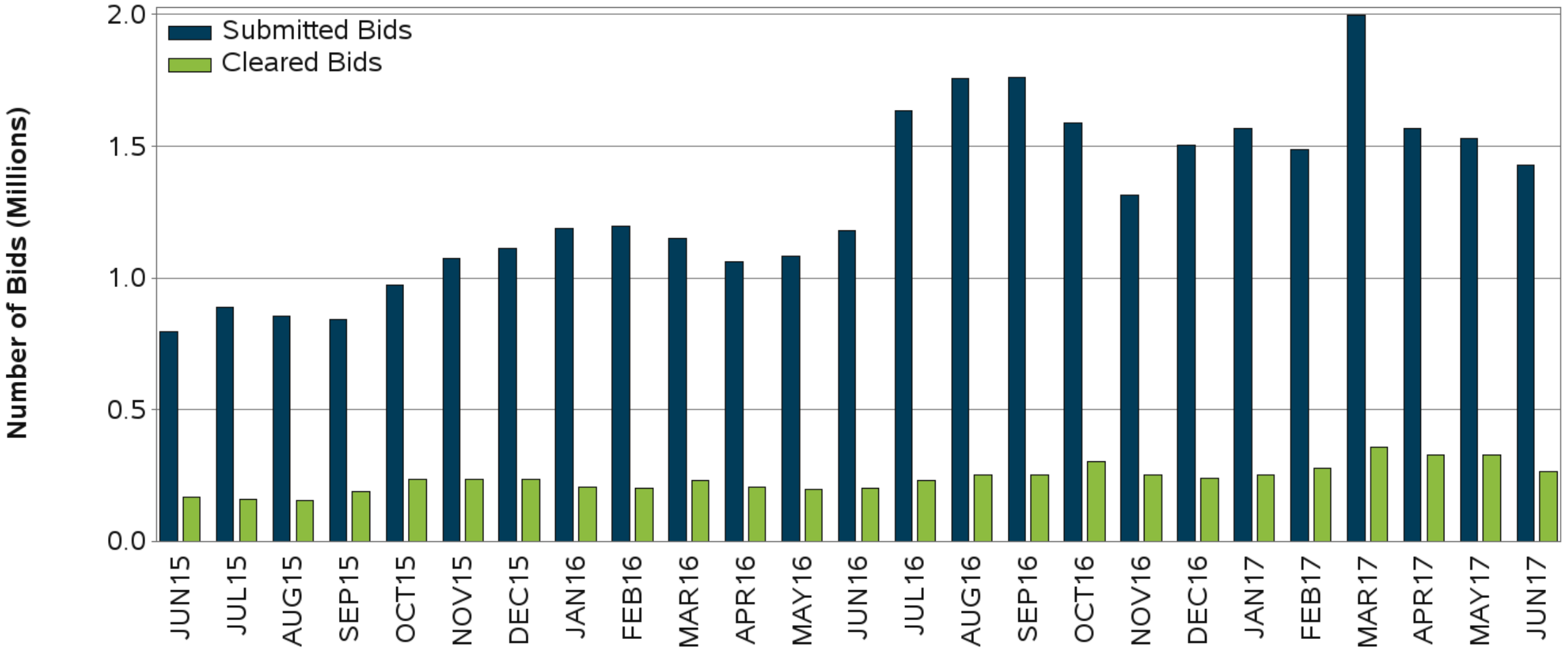
Energy Market

Virtual Activity Summary

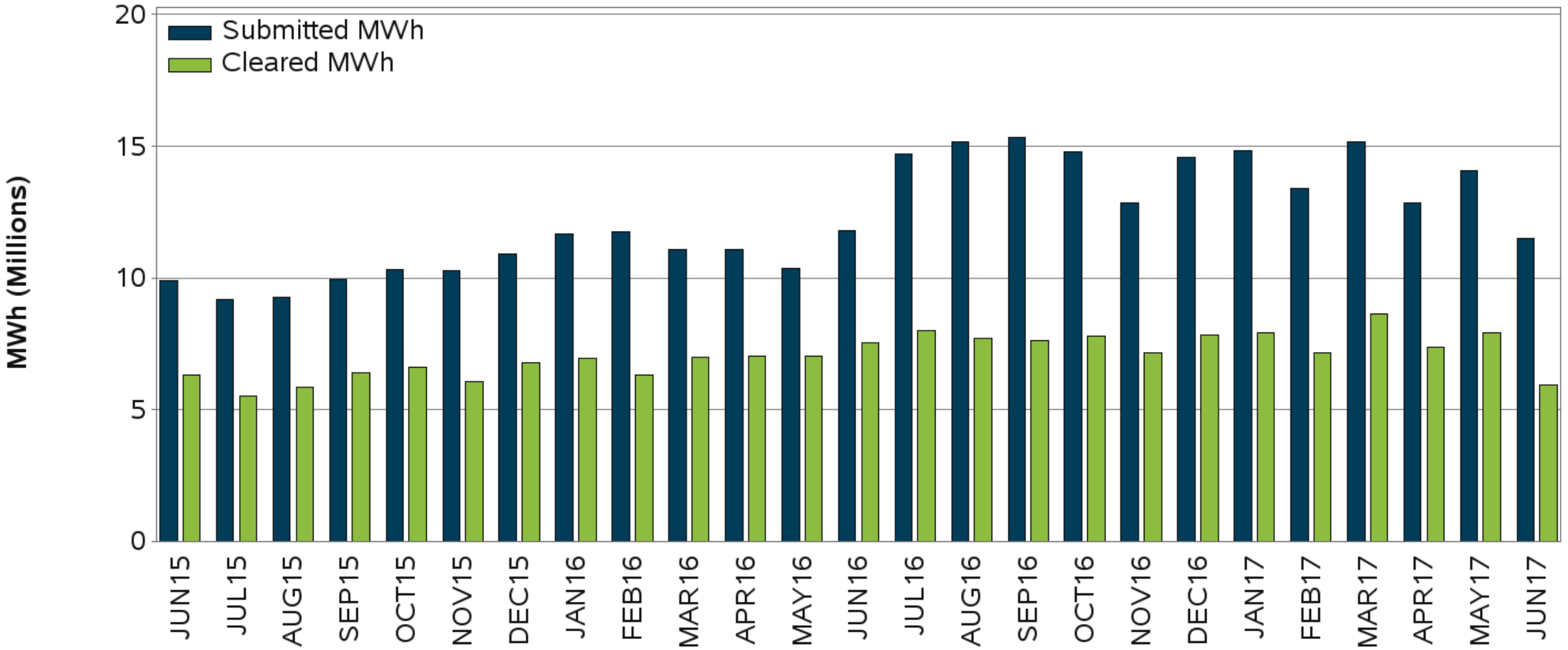
INCs, DECs and Up-To-Congestion Transactions

- 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.

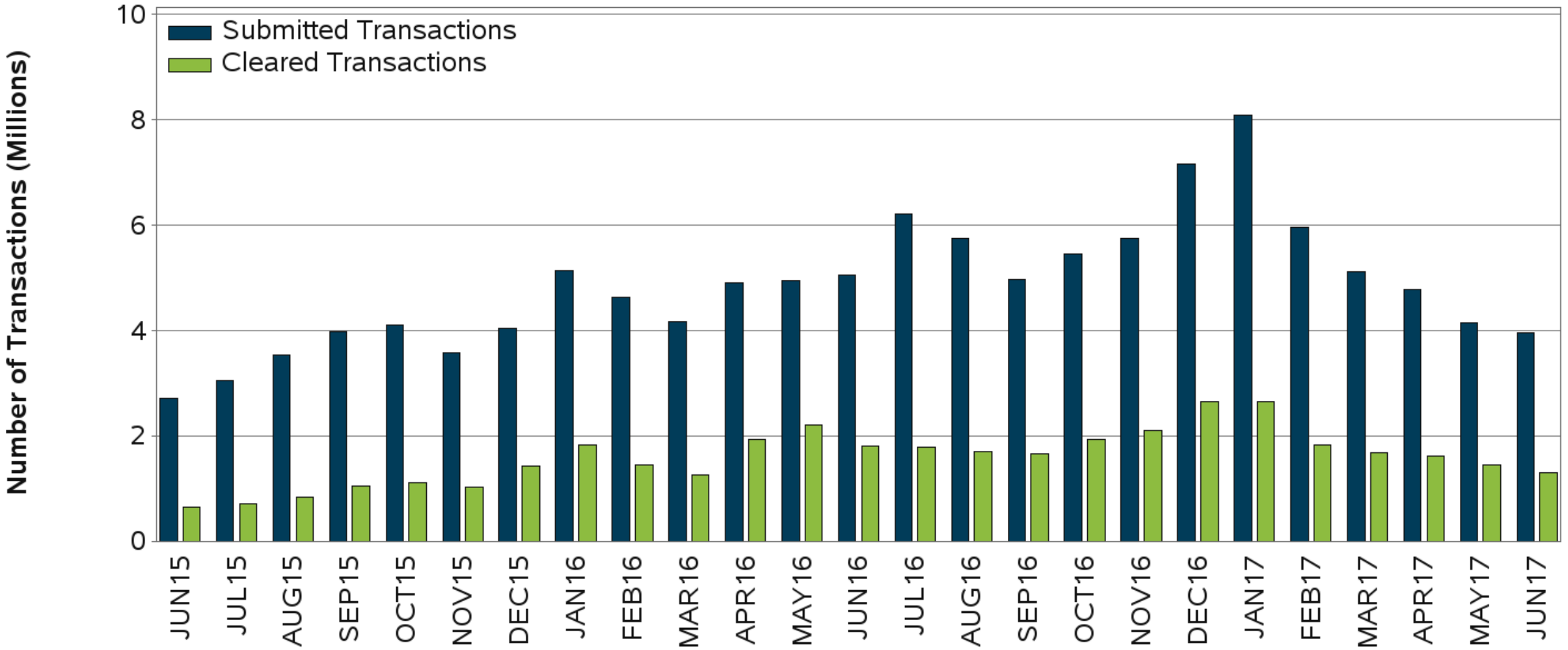
Virtual Bids (INCs & DECs) - Total Number)



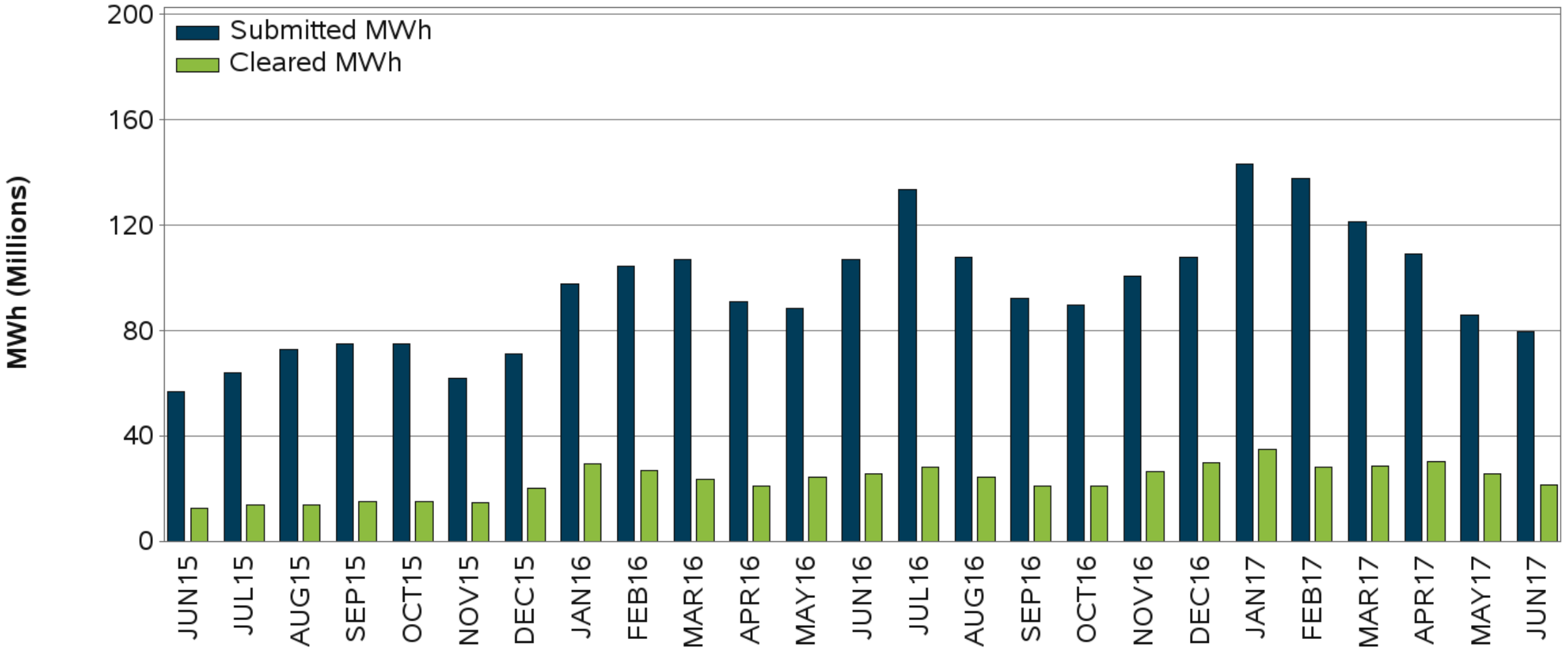
Virtual Bids (INCs & DECs) - Total Volume



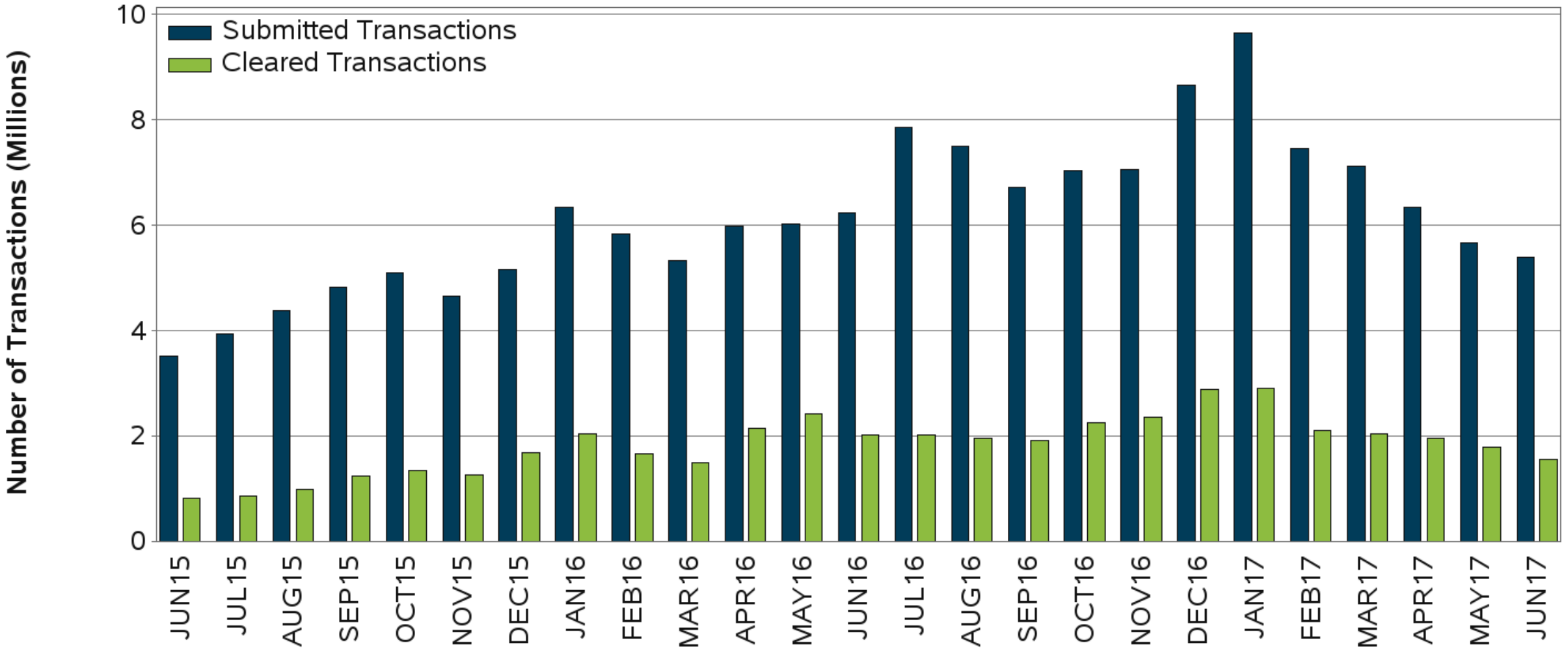
Up-To-Congestion Transactions - Total Number



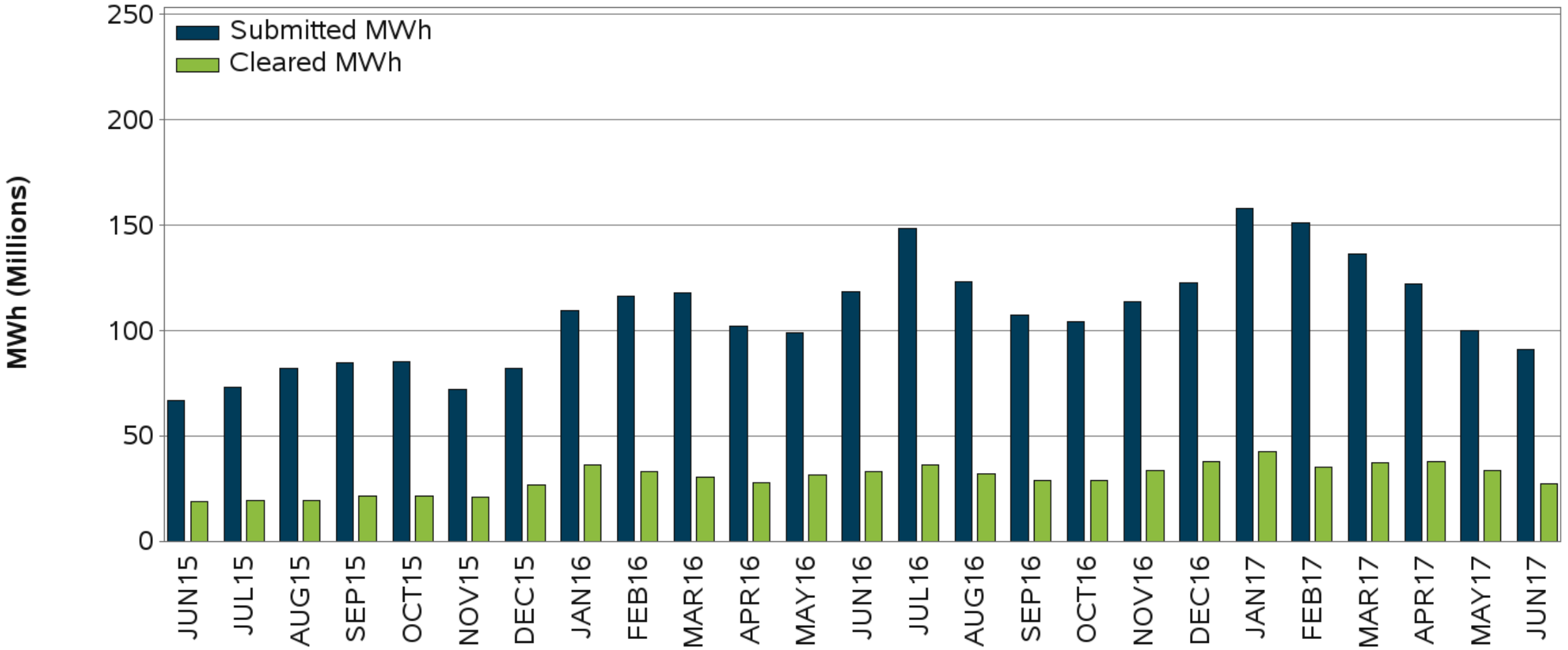
Up-To-Congestion Transactions - Total Volume



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



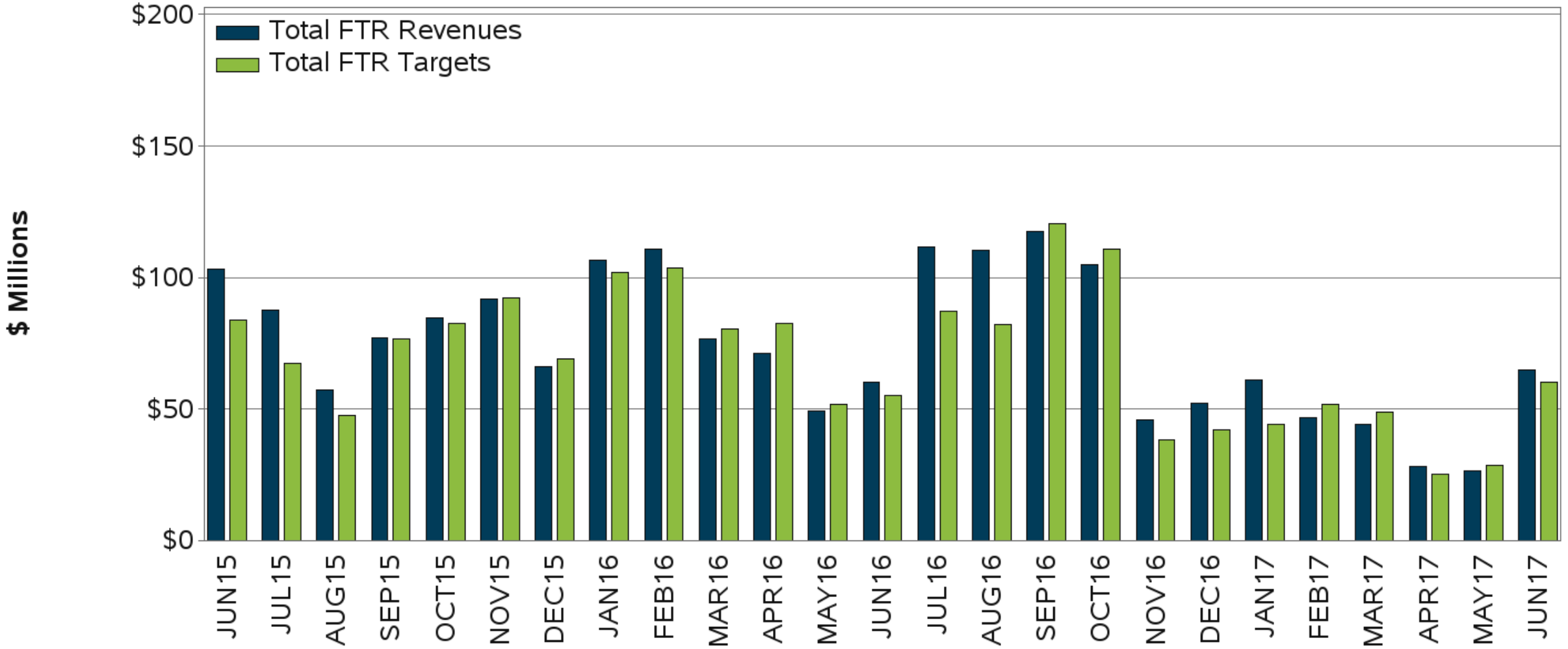
INCs, DECs and Up-To-Congestion Transactions - Total Volume



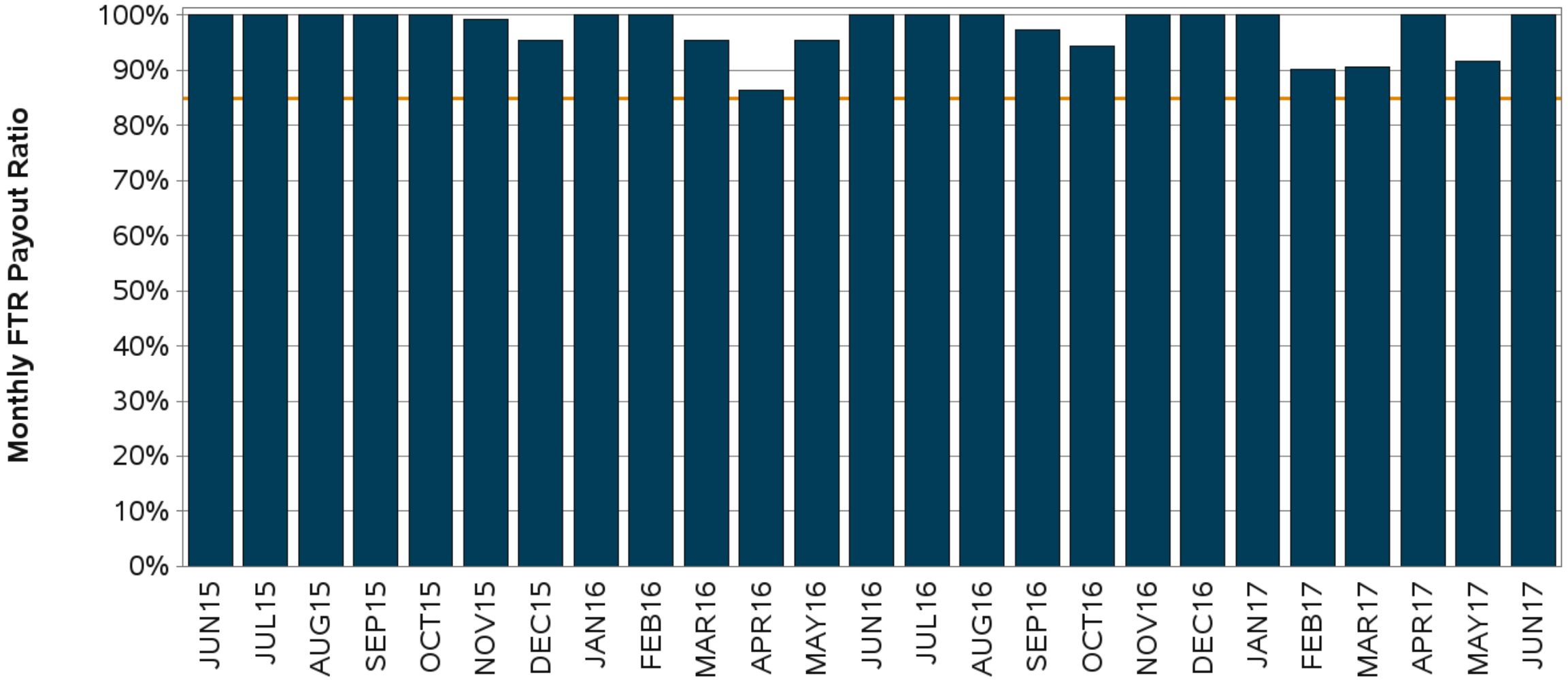
Energy Market

Congestion and FTR Summary

FTR Revenue vs. FTR Target Allocation



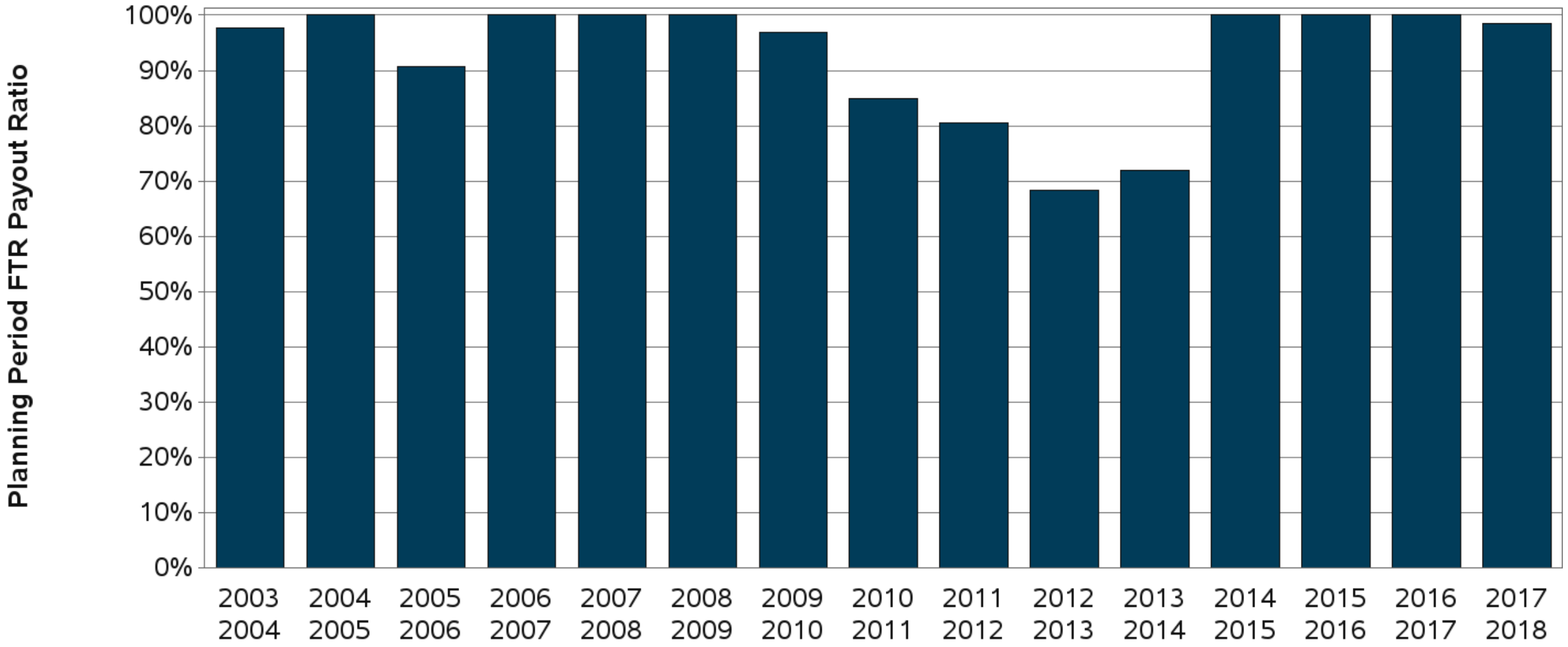
Monthly FTR Payout



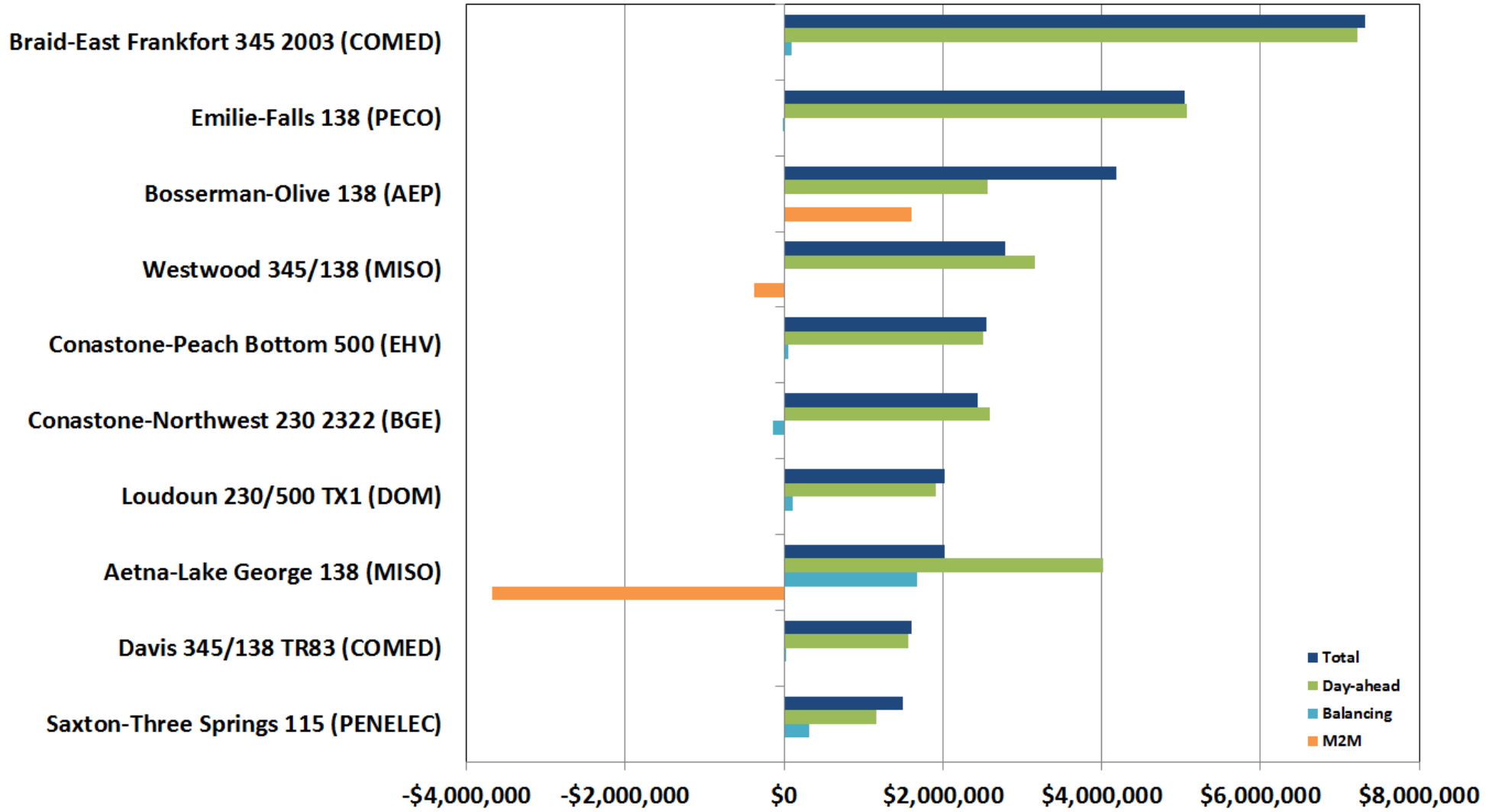
FTR Funding

Period	Surplus / Underfunding	Payout Ratio
June, 2017	$4,694,409	100%
2017	$54,136,106	100%
2017/2018	$4,694,409	100%

Planning Period FTR Payout



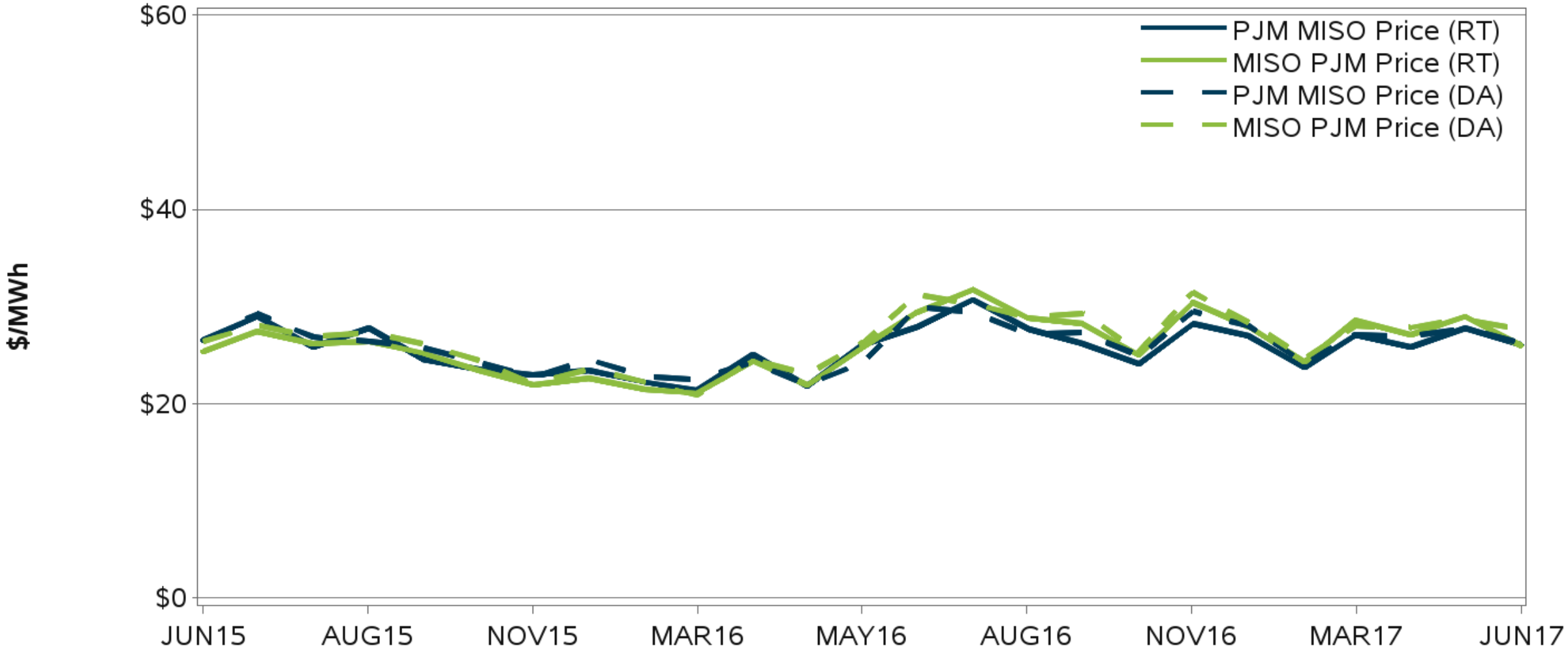
Ten Most Heavily Congested Transmission Facilities - Overall, June



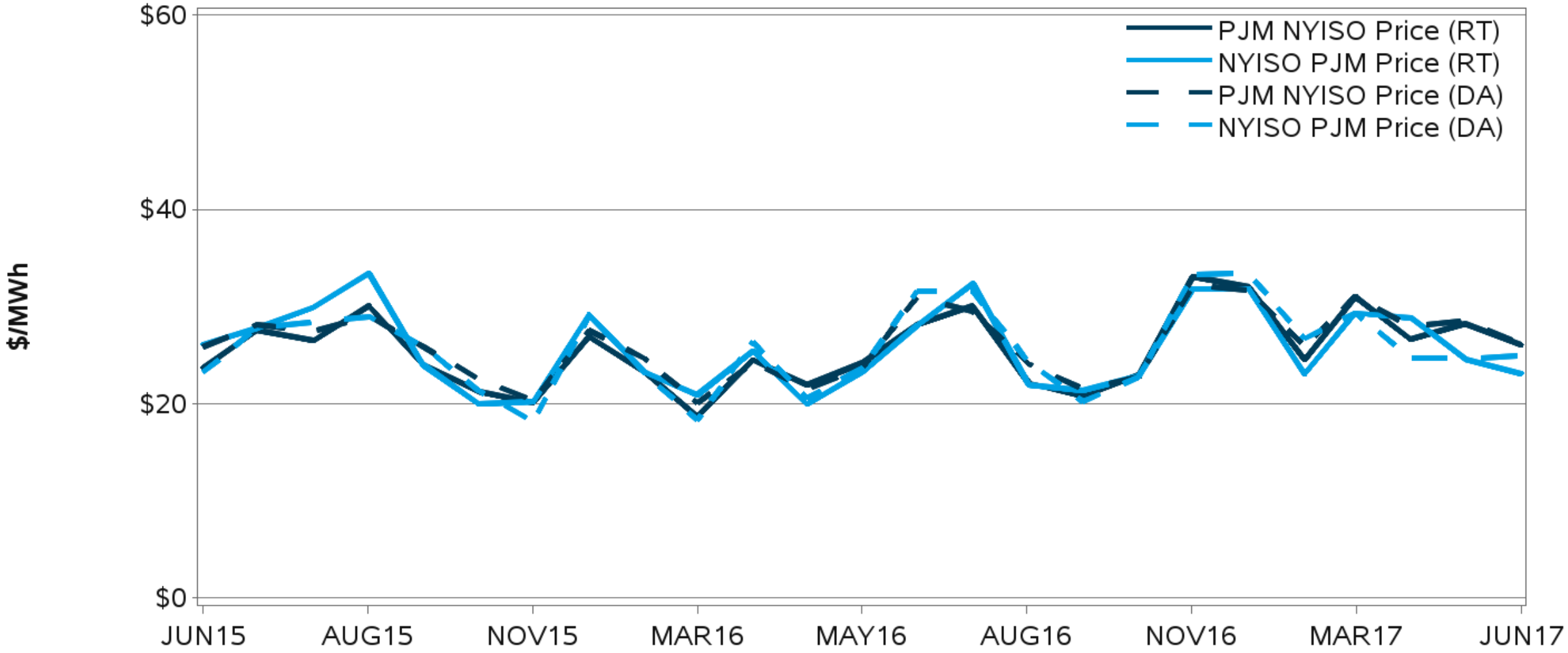
Energy Market

Interchange/Seams Summary

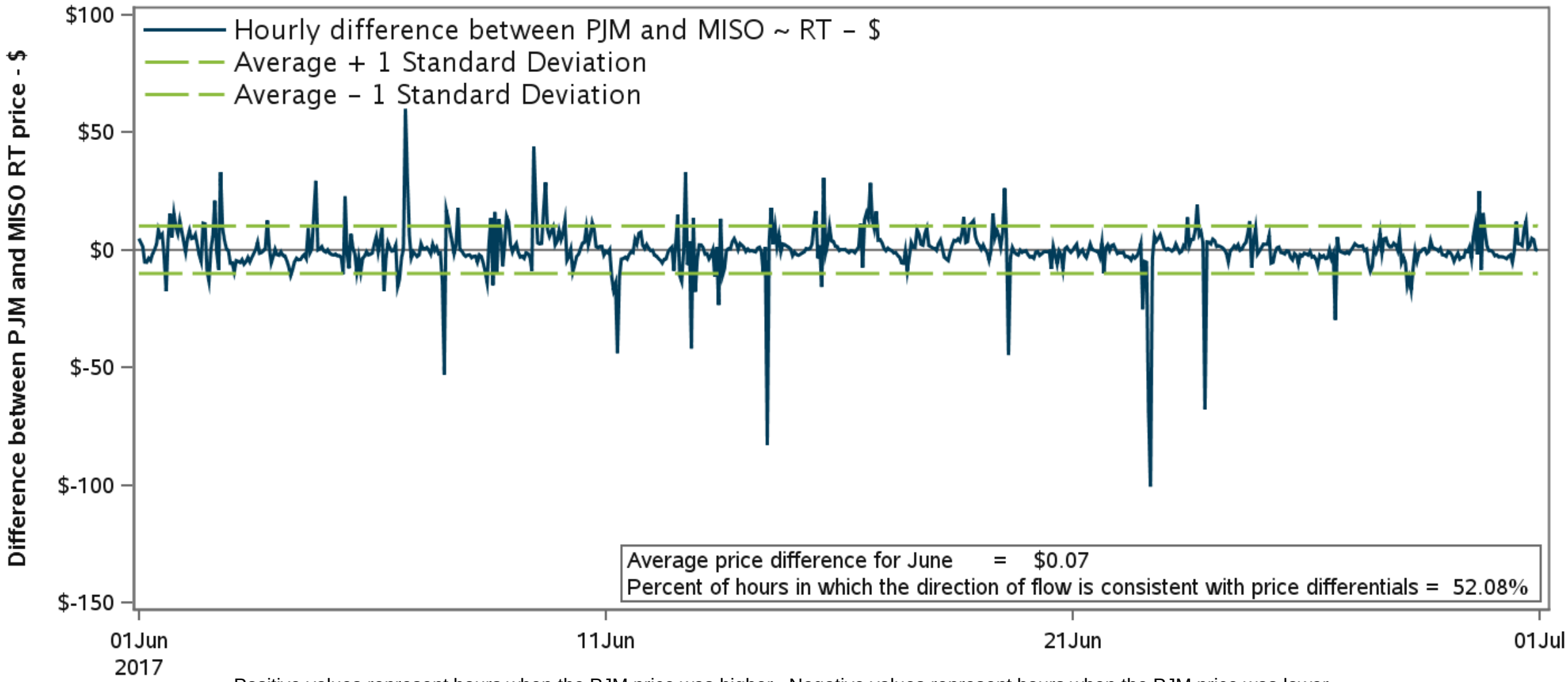
Monthly Average MISO Interface Pricing



Monthly Average NYISO Interface Pricing

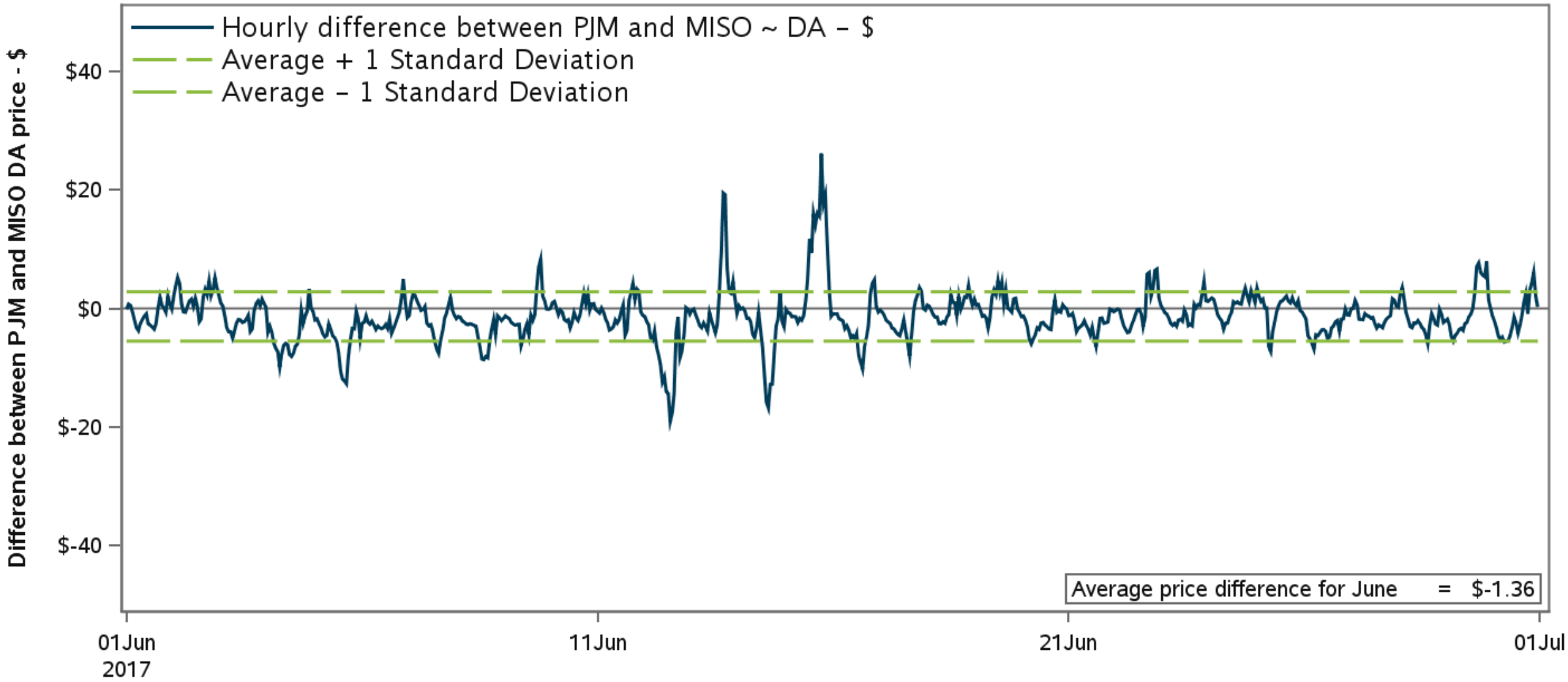


Hourly Difference Between PJM and MISO Real-Time Prices



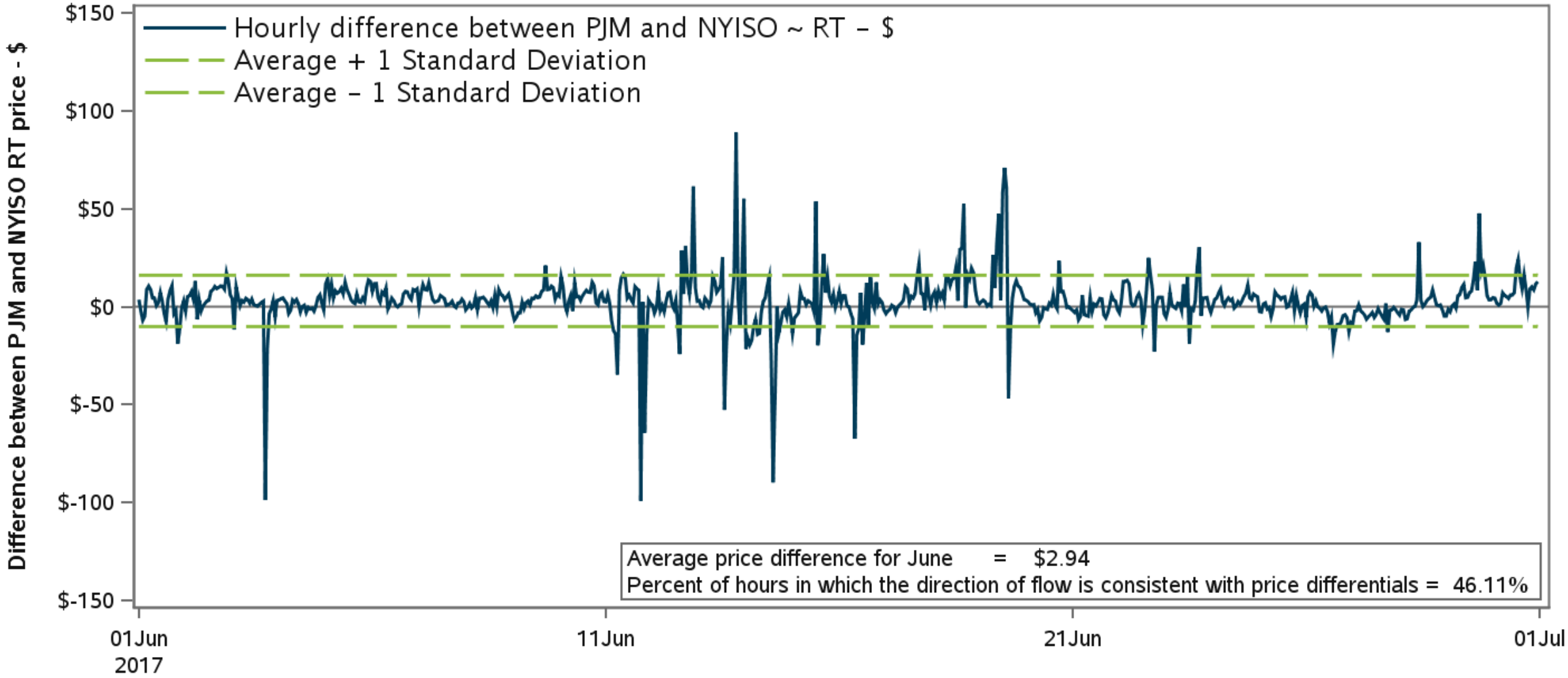
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and MISO Day-Ahead Prices



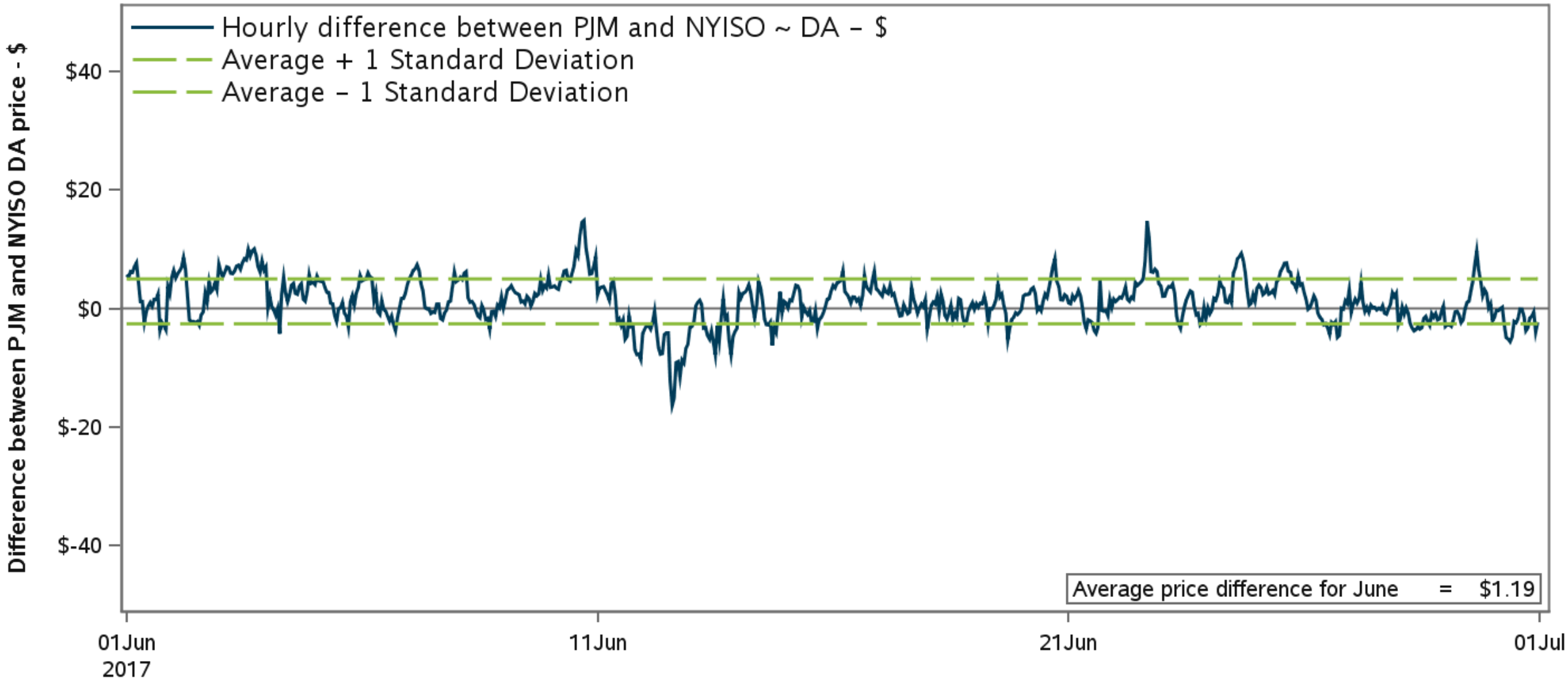
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and NYISO Real-Time Prices



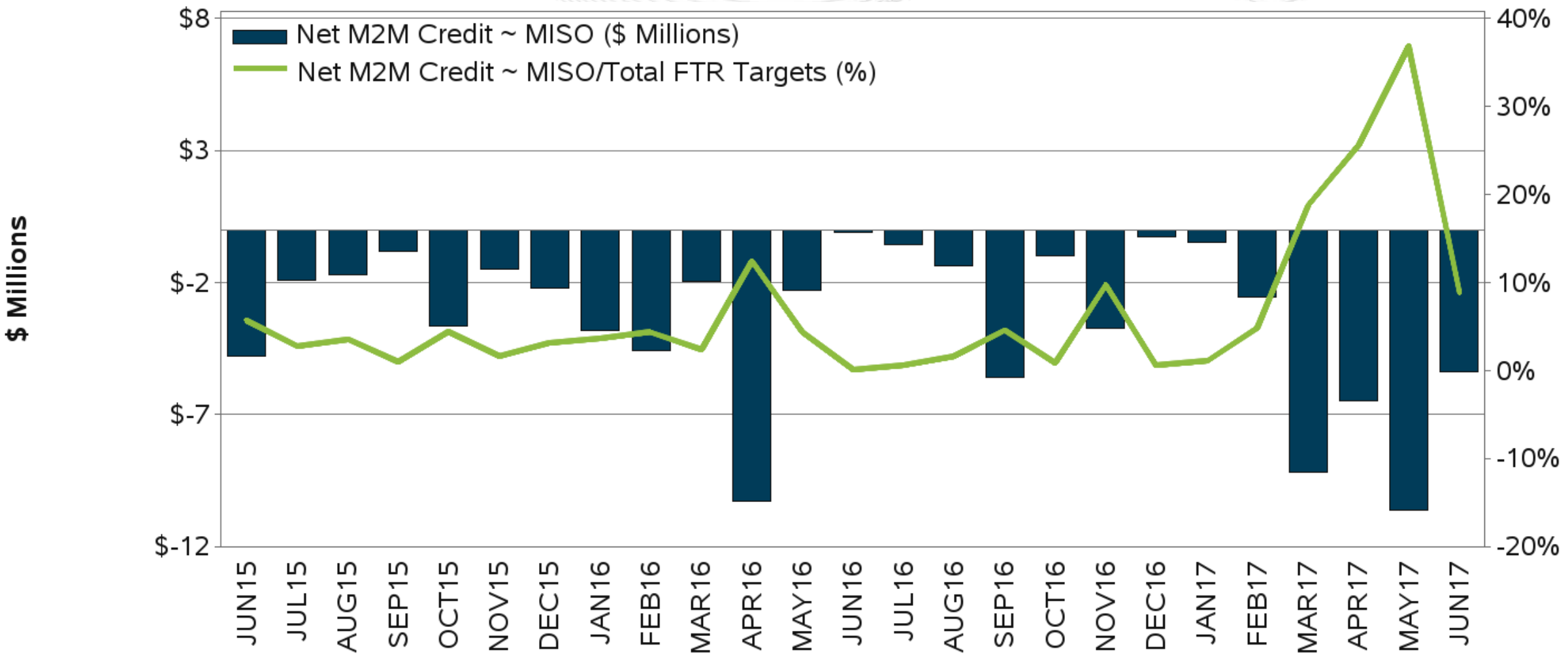
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

Hourly Difference Between PJM and NYISO Day-Ahead Prices



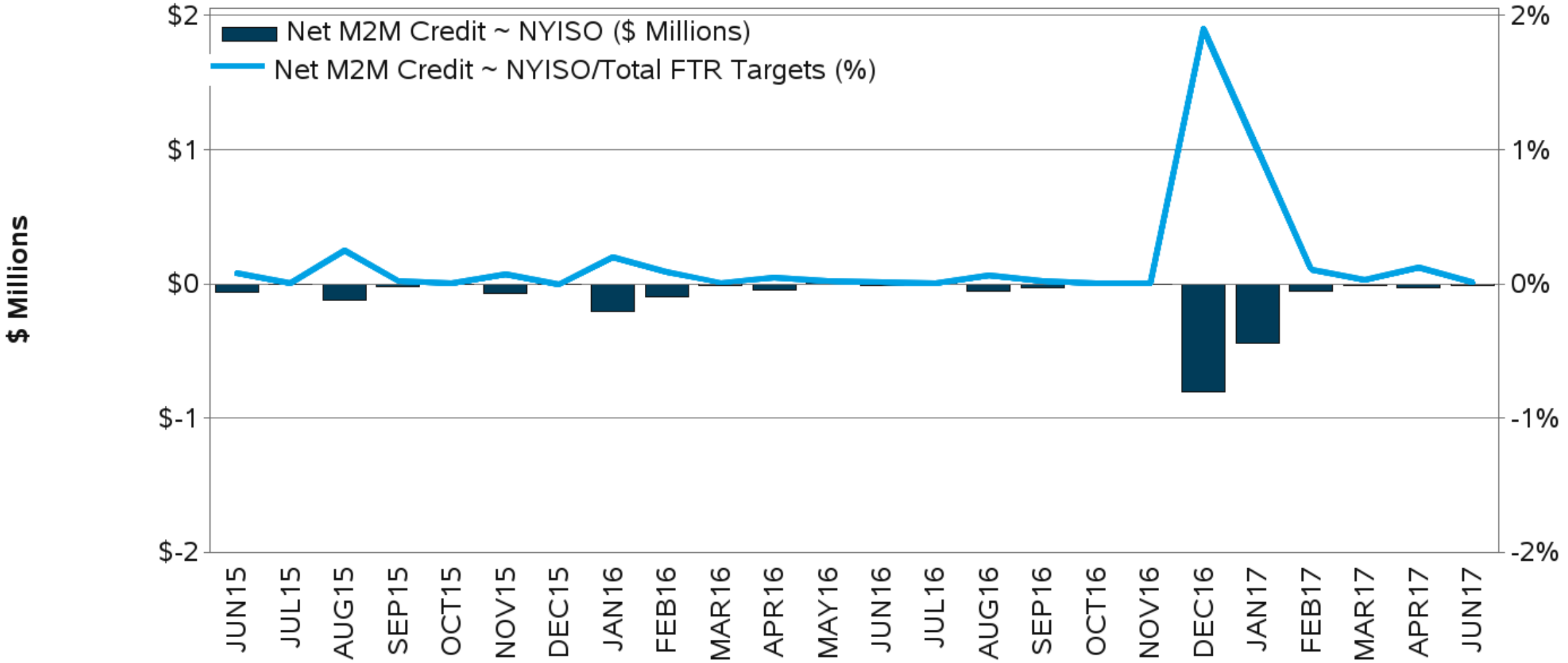
Positive values represent hours when the PJM price was higher. Negative values represent hours when the PJM price was lower.

PJM-MISO Market-to-Market Coordination Settlement



Negative M2M Credit represents PJM payment to MISO

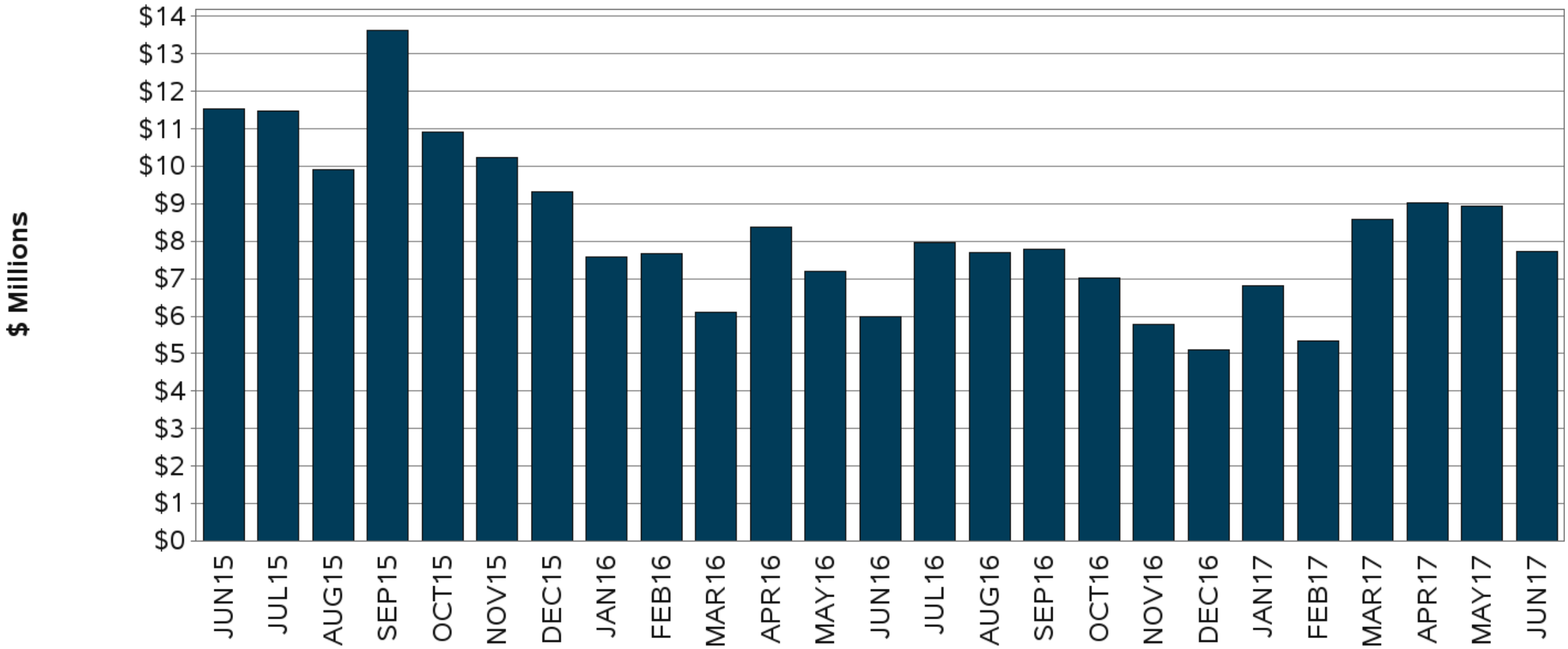
PJM-NYISO Market-to-Market Coordination Settlement



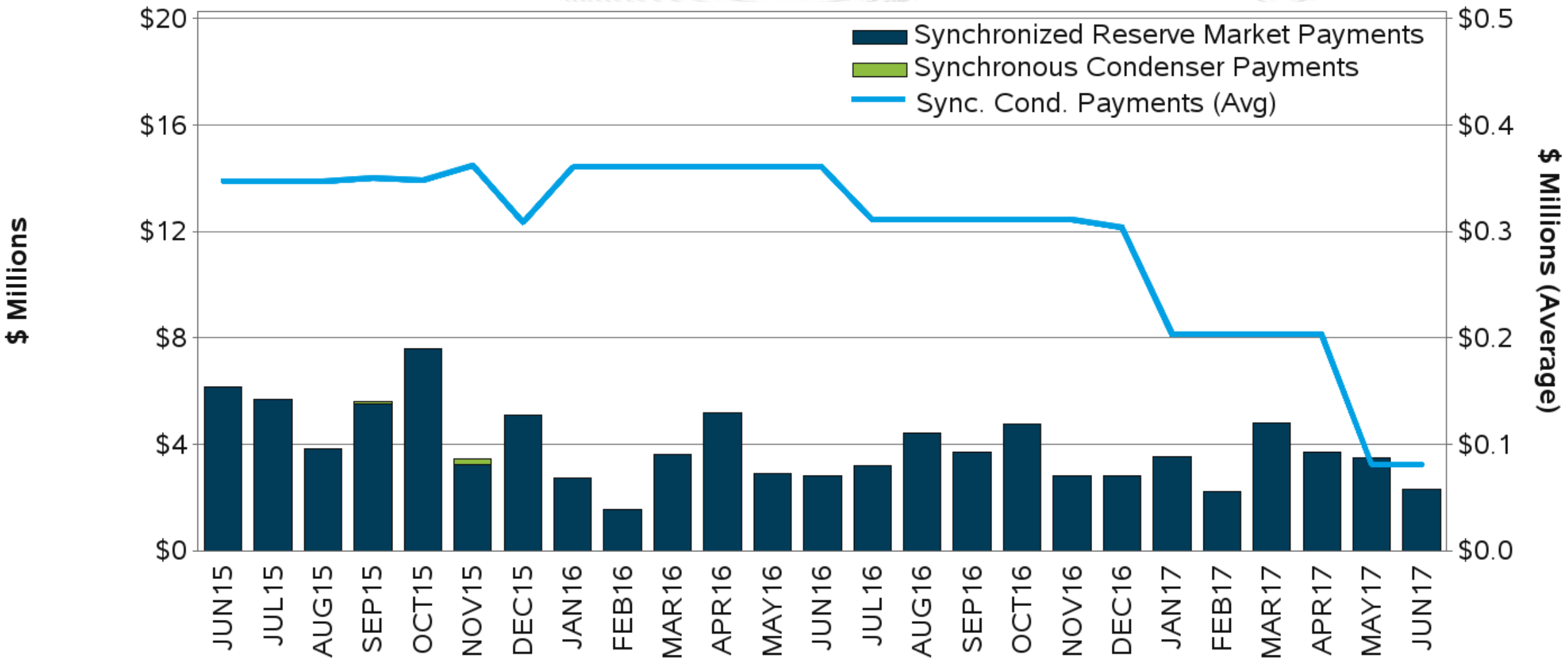
Negative M2M Credit represents PJM payment to NYISO

Ancillary Service Market Summary

Regulation Costs

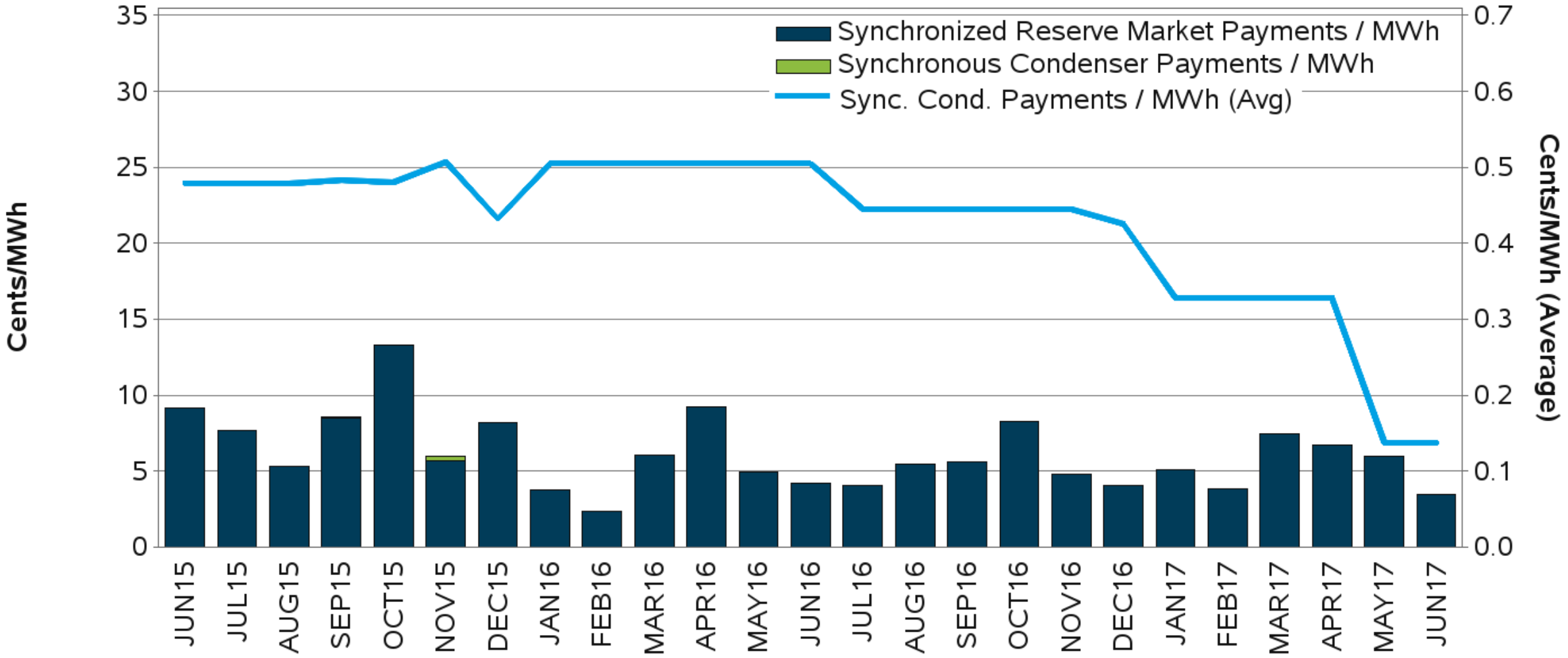


Synchronized Reserve and Synchronous Condenser Costs



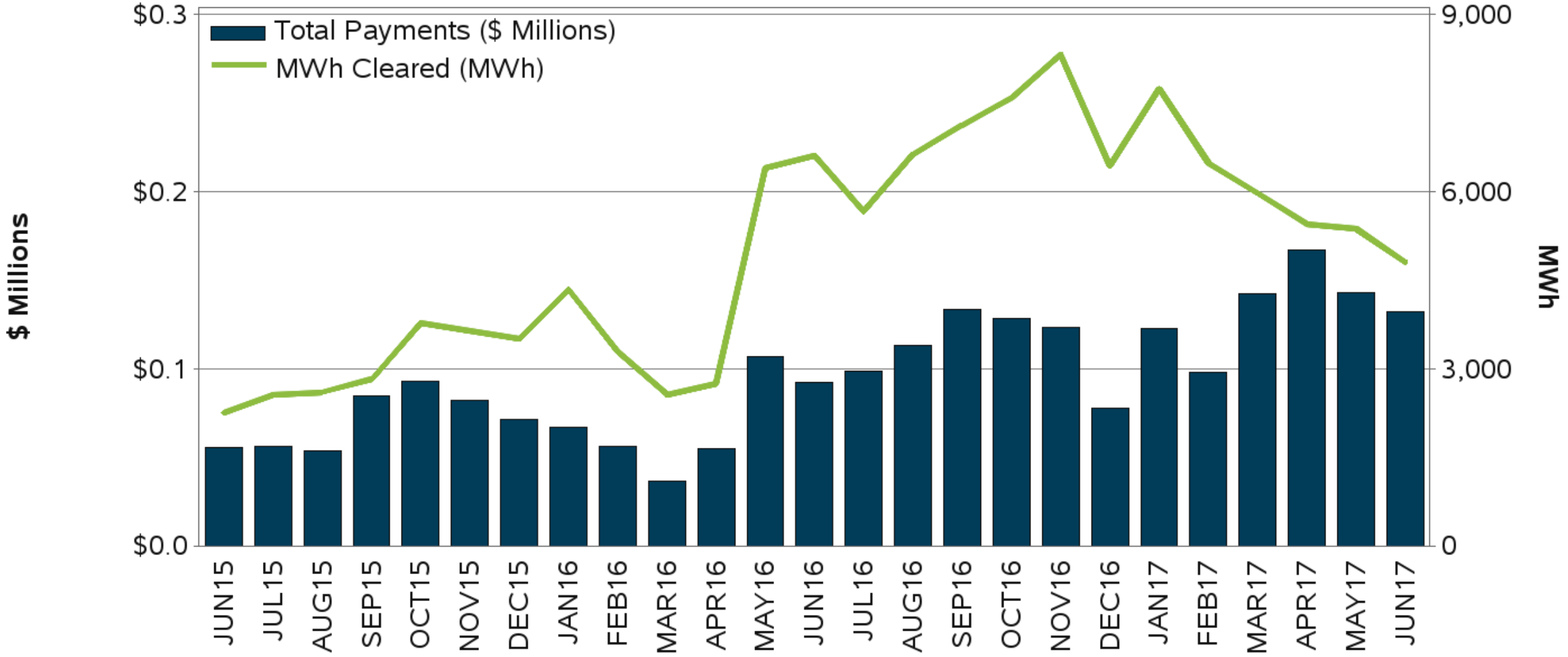
Average Synchronous Condenser Payments equals the 36-month rolling average plus one standard deviation.

Load-Adjusted Synchronized Reserve and Synchronous Condenser Costs

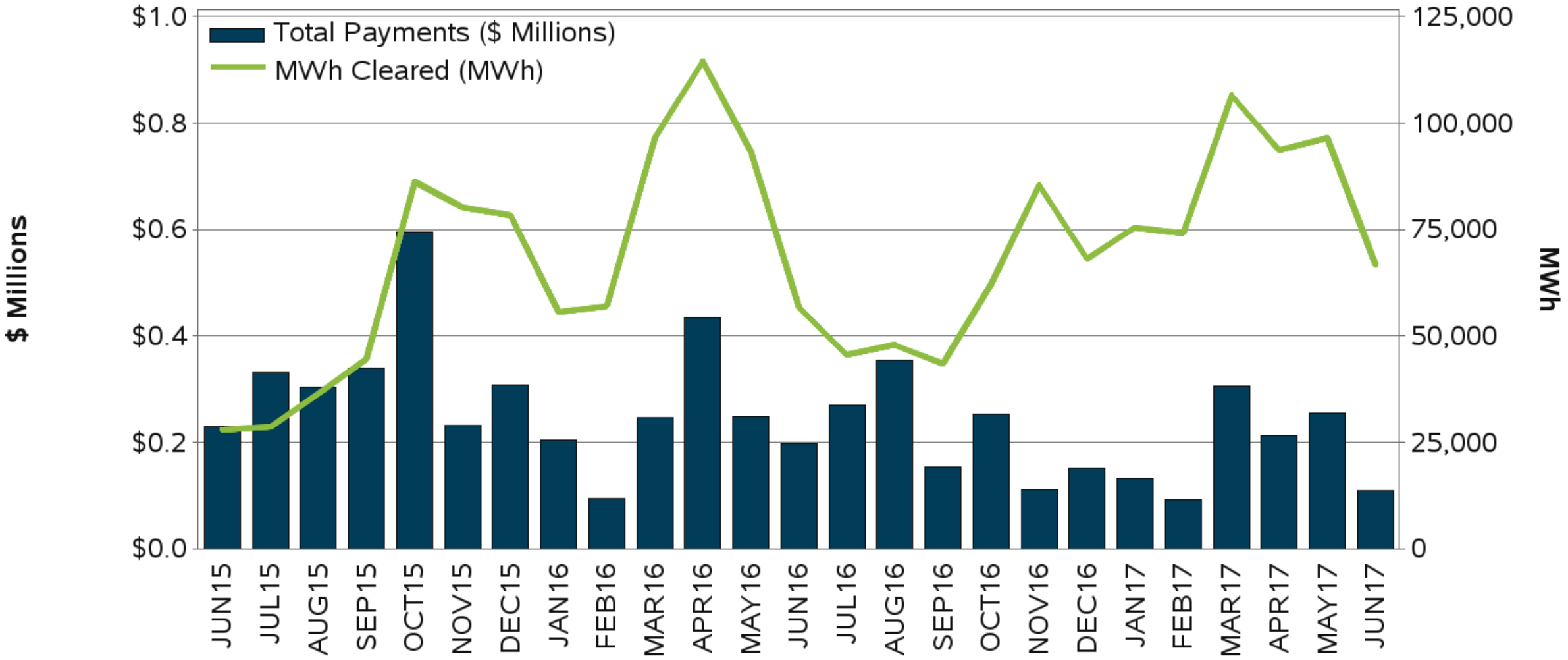


Average Synchronous Condenser Payments equals the 36-month rolling average plus one standard deviation.

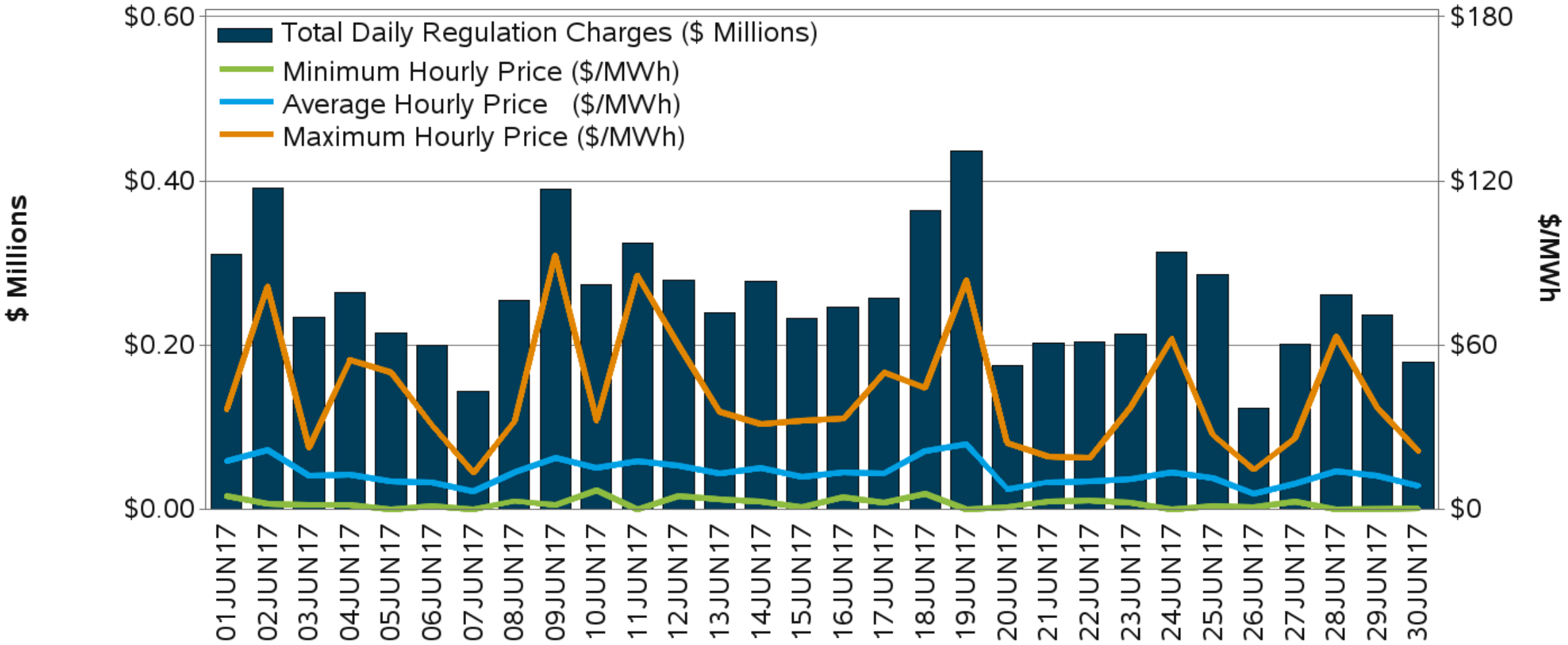
DR Participation in PJM Regulation Markets



DR Participation in PJM Synchronized Reserve Markets



Regulation Market Daily Prices and Charges



Synchronized Reserve Market Daily Prices and Charges