



California ISO

WESTERN ENERGY MARKETS

Market Performance Update

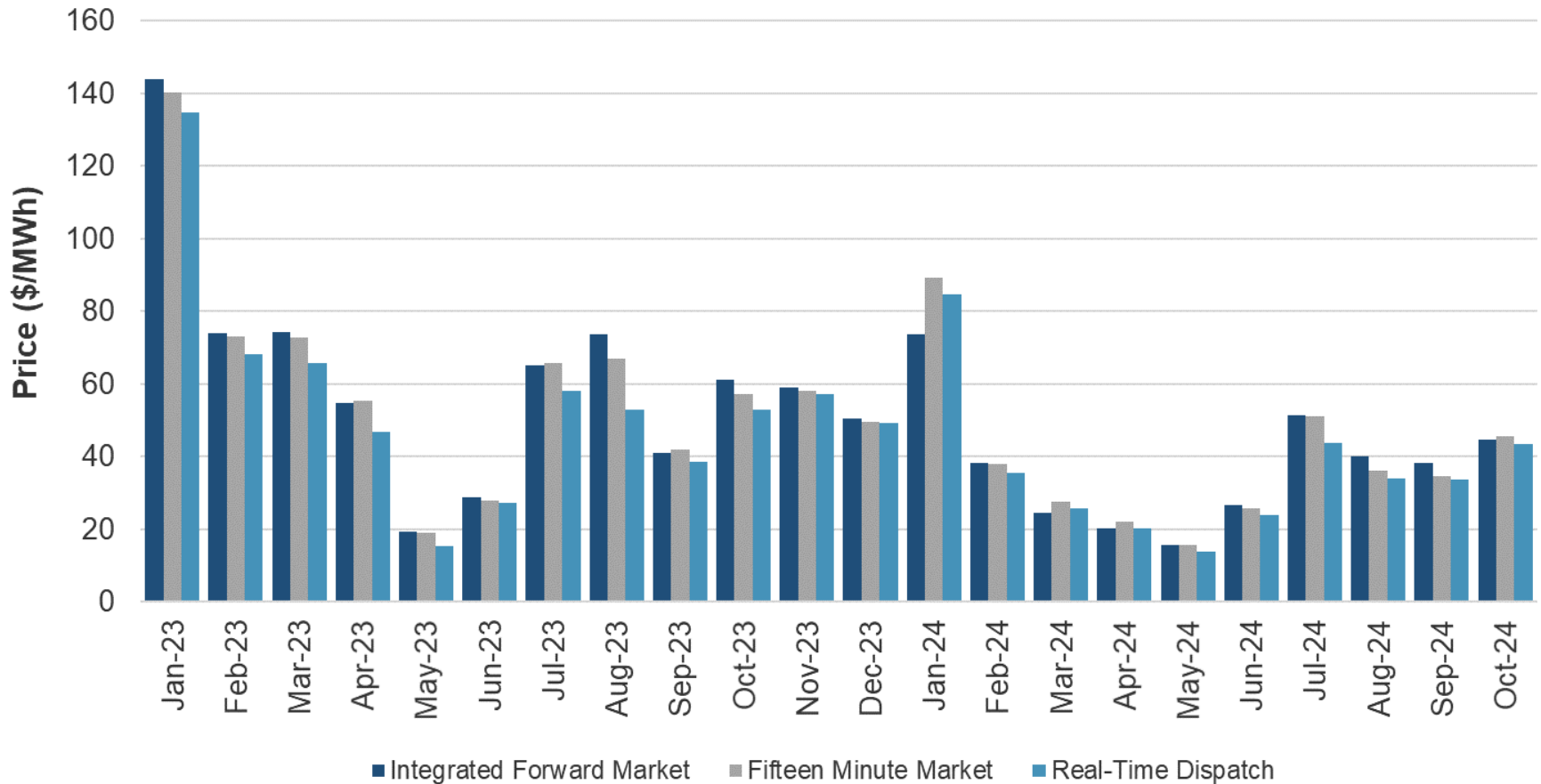
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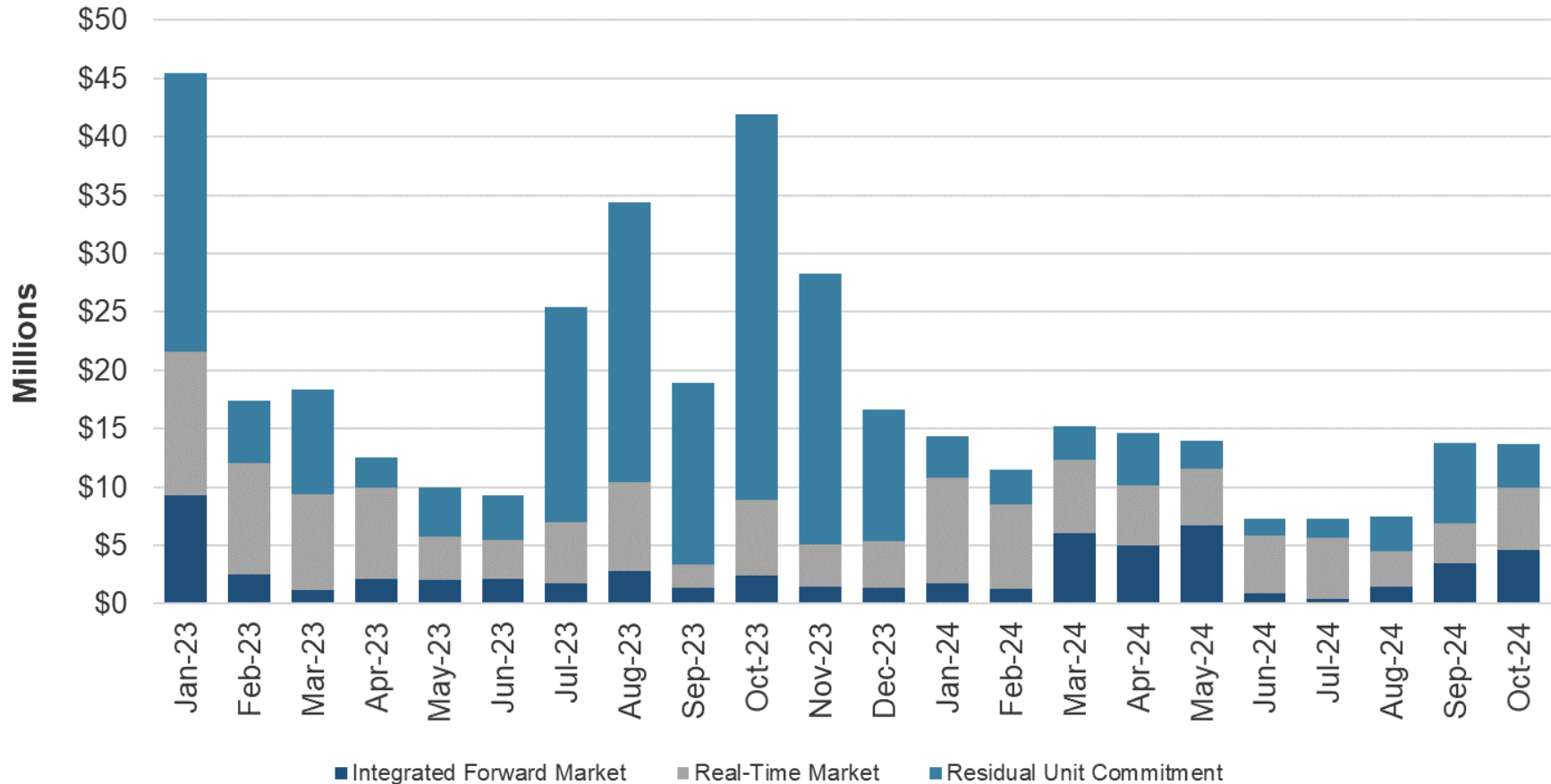
Joint ISO Board of Governors and WEM Governing Body Meeting
General Session

December 18, 2024

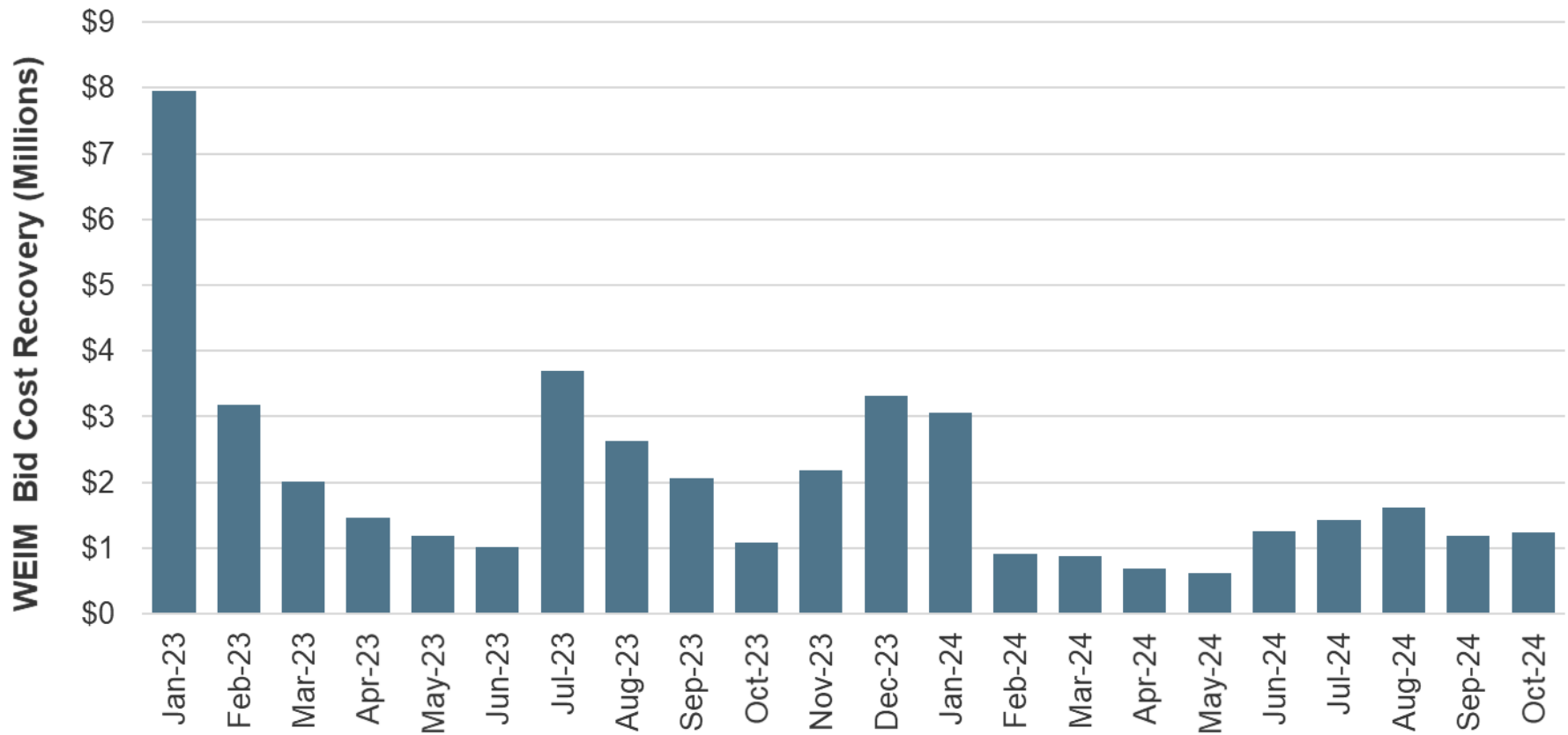
CAISO prices remain stable as winter conditions progress



CAISO bid cost recovery stay within lower range in recent months

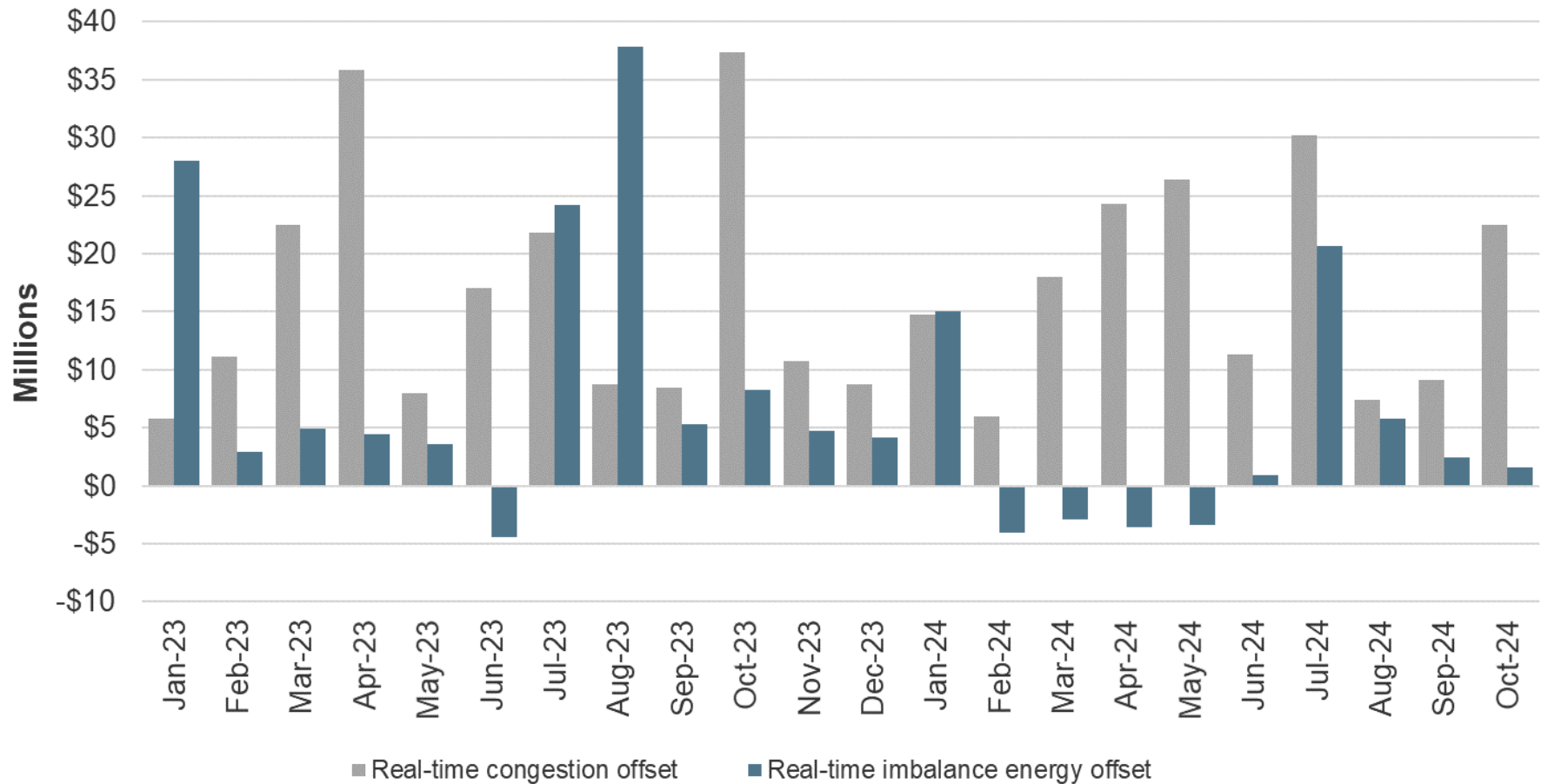


Bid cost recovery for areas in the western energy imbalance market stayed within lower range in recent months



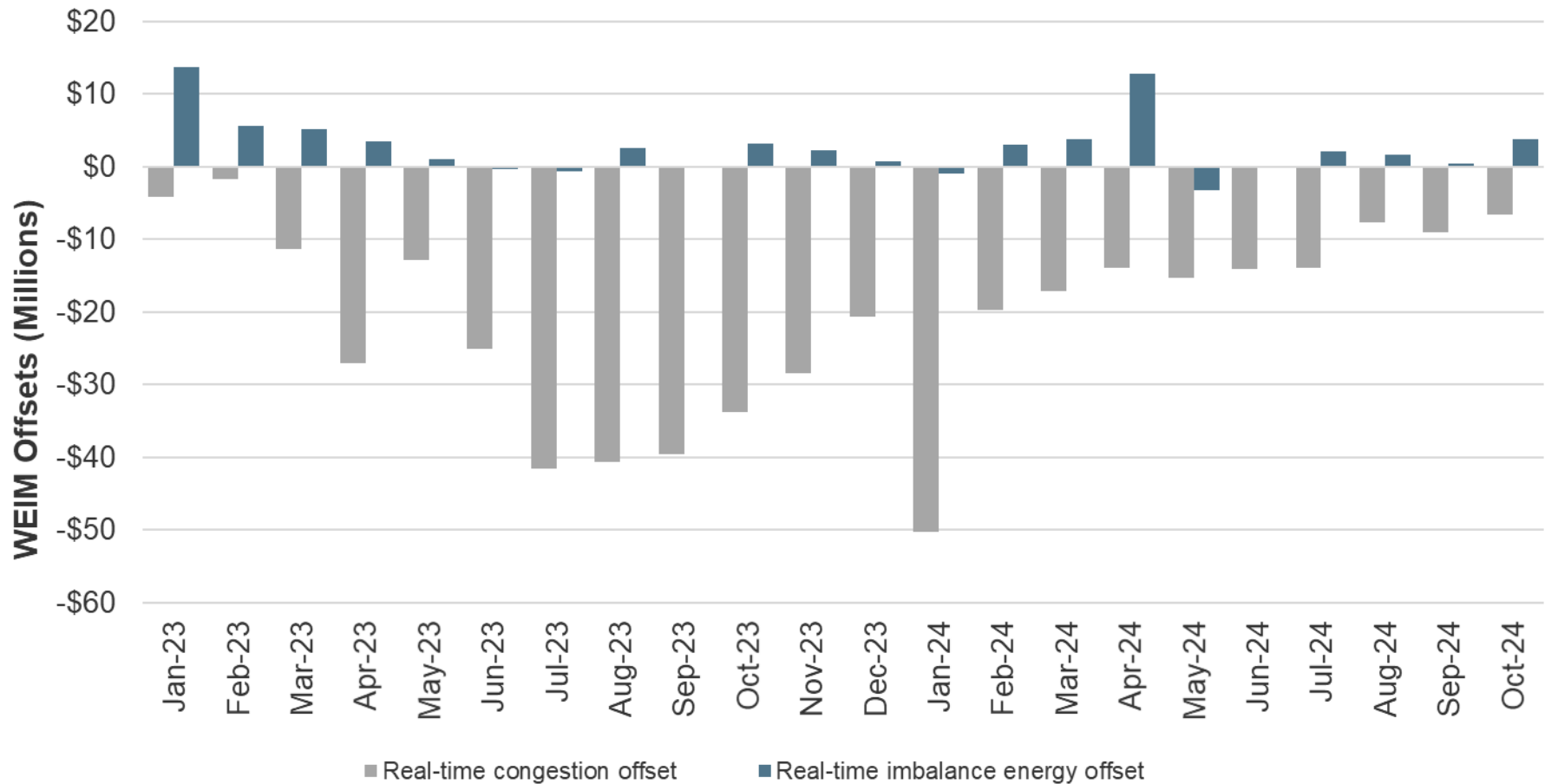
This trend does not include cost associated to the ISO balancing area

CAISO real-time offset costs subsided as summer conditions ended



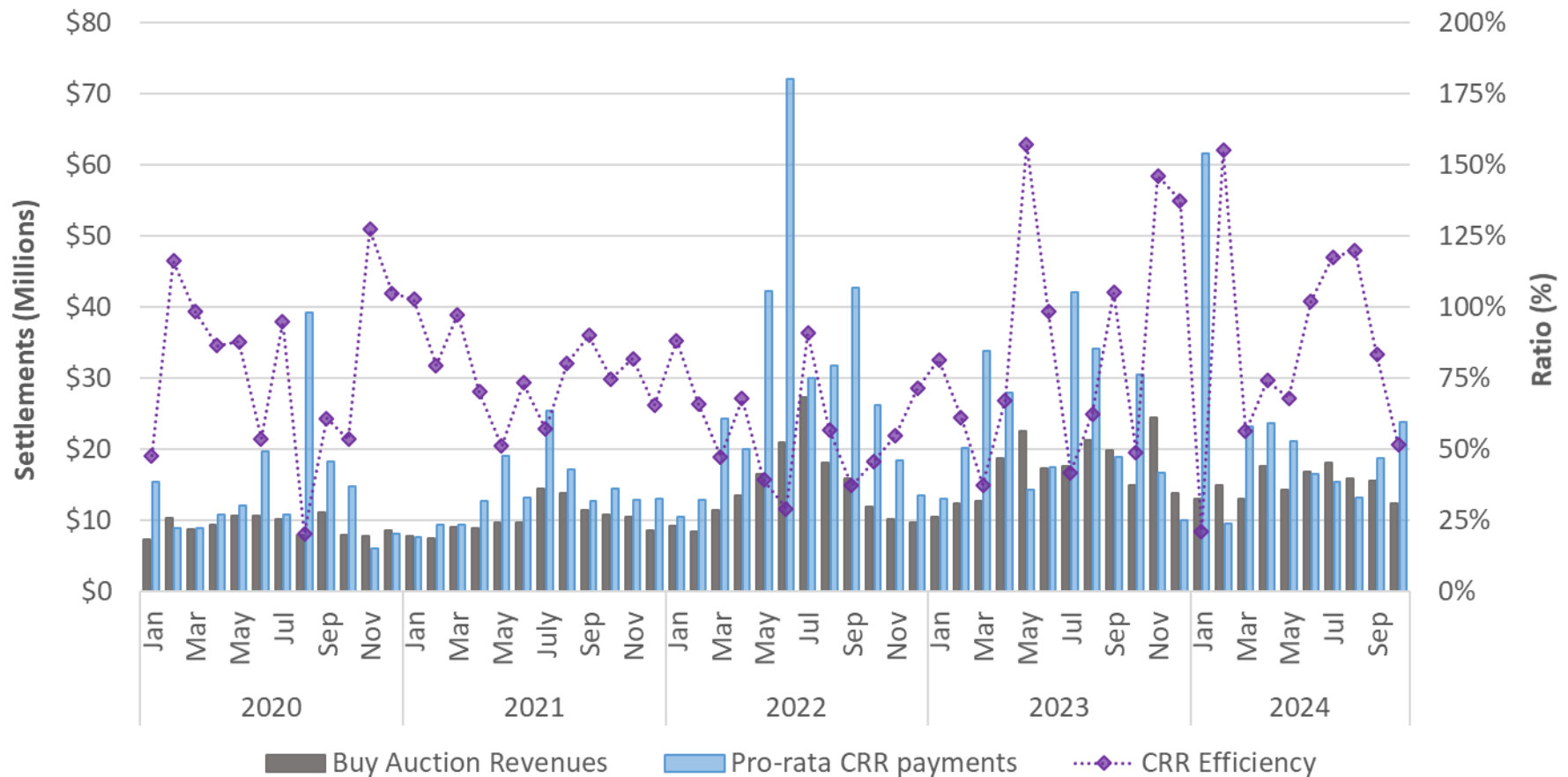
*Both real-time congestion offsets and congestion revenue right surplus/shortfalls are allocated to measured demand

Real-time offset costs in the imbalance market areas, excluding CAISO, continued a declining trend



A negative value represents a payment to the balancing area

Auction efficiency for congestion revenue right markets largely change based on congestion trends



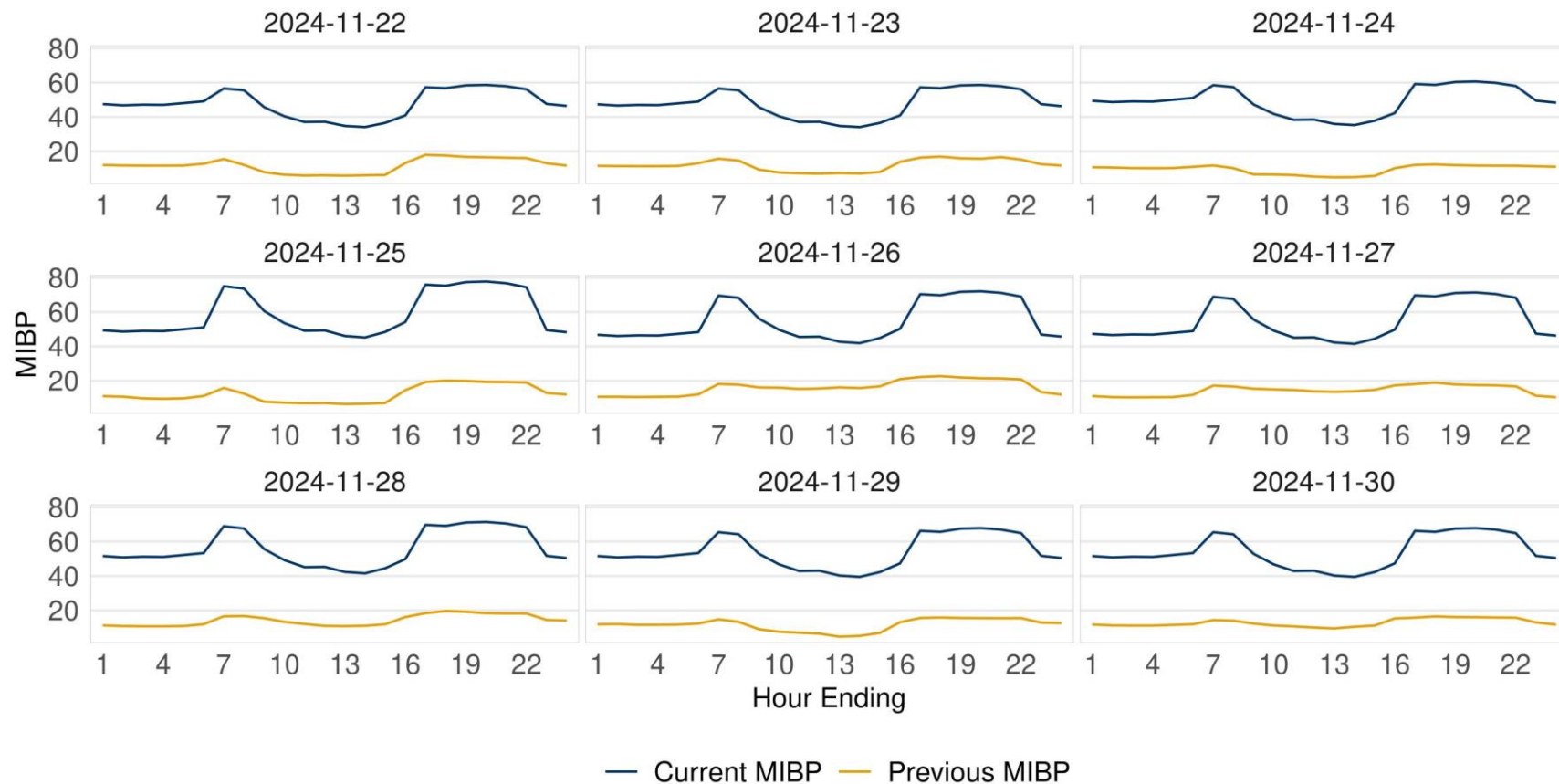
Update on new logic to calculate the maximum import bid price implemented on November 14, 2024

- FERC Order No. 831 (2016)¹ directed ISOs/RTOs to allow cost-verified energy bids above \$1,000/MWh up to \$2,000/MWh
 - The max import bid price is calculated to screen import/virtual supply bids above \$1,000/MWh based on prevailing energy prices outside of the ISO area using two main bilateral power hubs: Mid-C, Palo Verde
 - Bilateral power prices are published in multi-hour blocks (on-peak and off-peak)
 - The max import bid price uses shaping factors to translate hub prices, which are published in multi-hour blocks, into an hourly prices to conform with ISO hourly prices
- Completed a stakeholder process that led to improvements to the shaping factor

In the most recent stakeholder process about bid caps, the CAISO committed to further enhance the logic of the maximum import bid price

- The ISO held a workshop on May 28 about the current logic of the max import bid price, and presented analysis and discussed potential improvements to the shaping factor
- The analysis explored the implications of the current logic and a targeted enhancements using historical performance during high-priced days
- Stakeholders provided feedback regarding the formulation and application of the shaping factor logic
- The enhancement identified was to change the calculation by using one consistent reference of a high-price day in the different components of the shaping factor formula
- The enhancement was implemented on November 14, 2024

The new shaping factor logic has not had any material impact yet since prices are fairly low, as is typical this time of the year



The new logic produces higher prices than previous logic but it still fairly below the \$1,000 bid cap