



California ISO

# Market performance update

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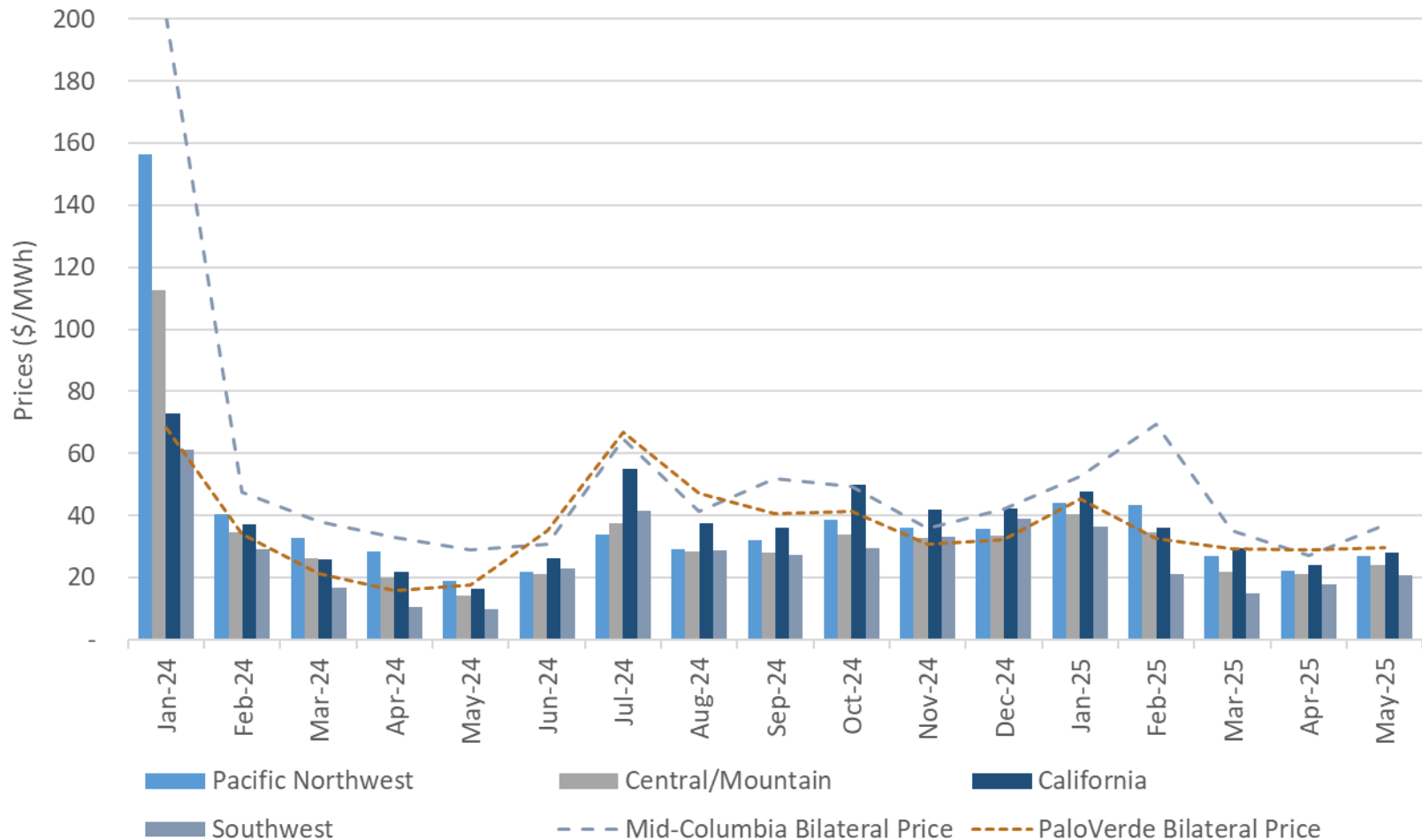
Director, Market Performance and Advanced Analytics

ISO Board of Governors

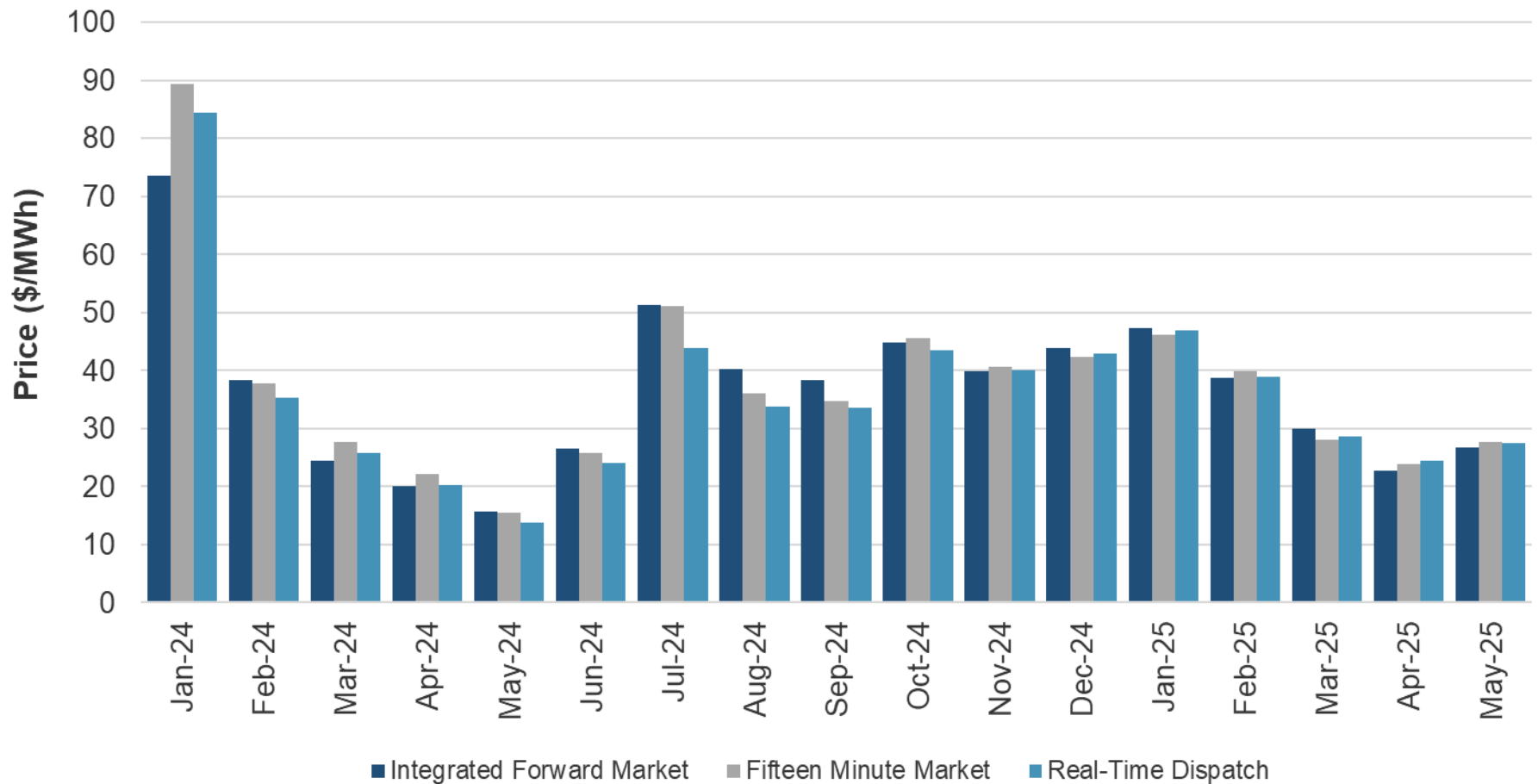
General Session

July 23, 2025

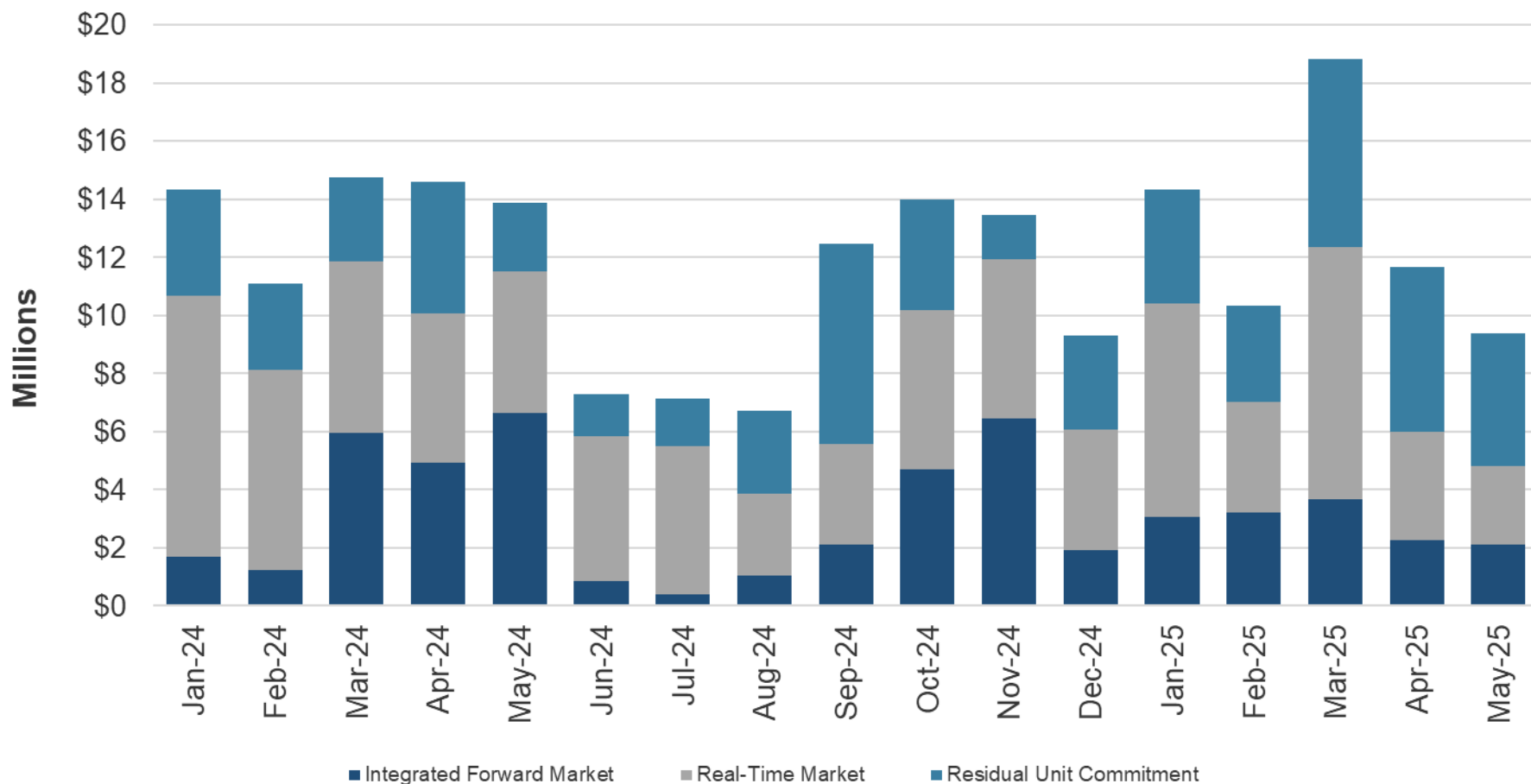
# Real-time prices in the western energy imbalance market remained low through spring 2025



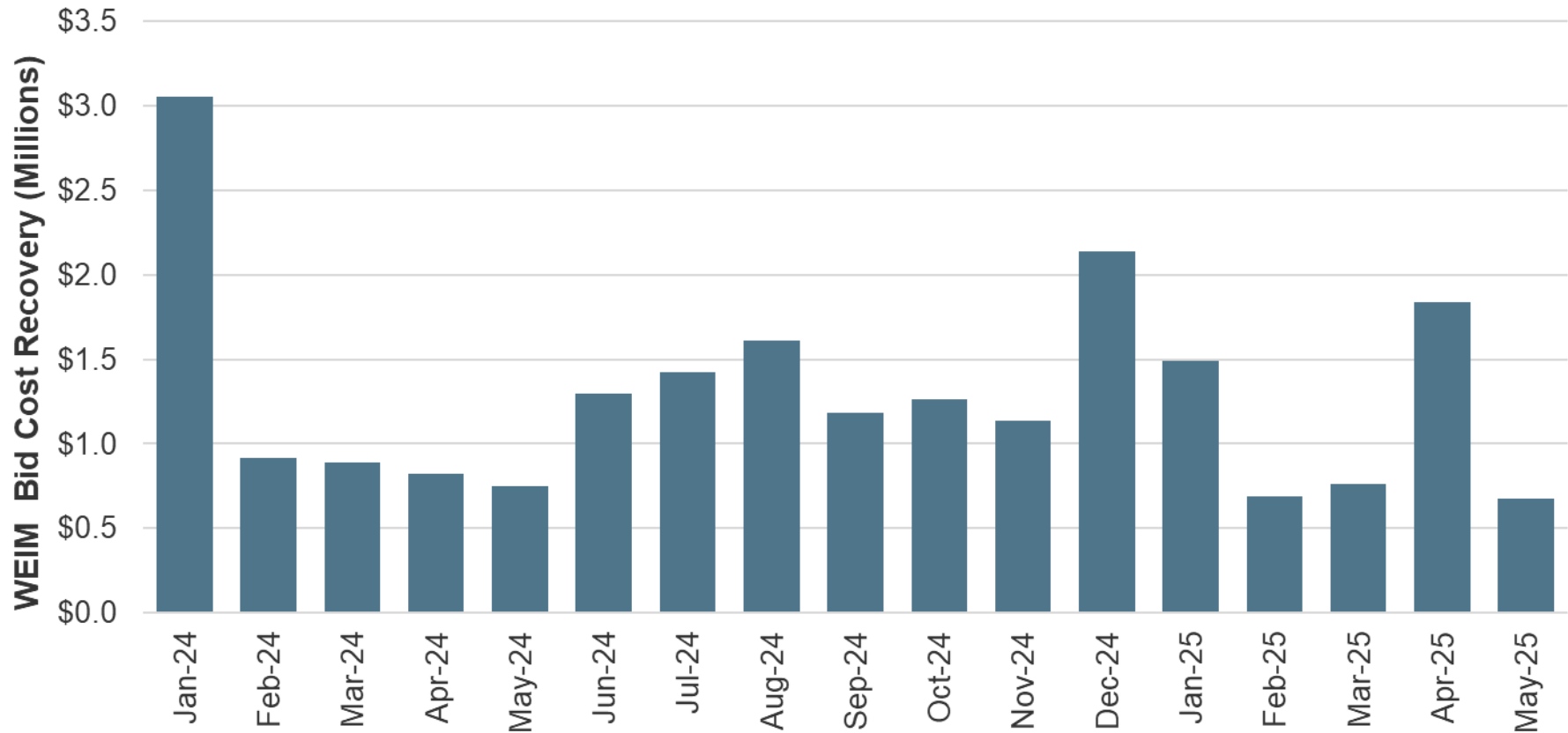
# ISO prices remained low through the shoulder months



## ISO bid cost recovery peaked in March largely from commitments of units to manage congestion

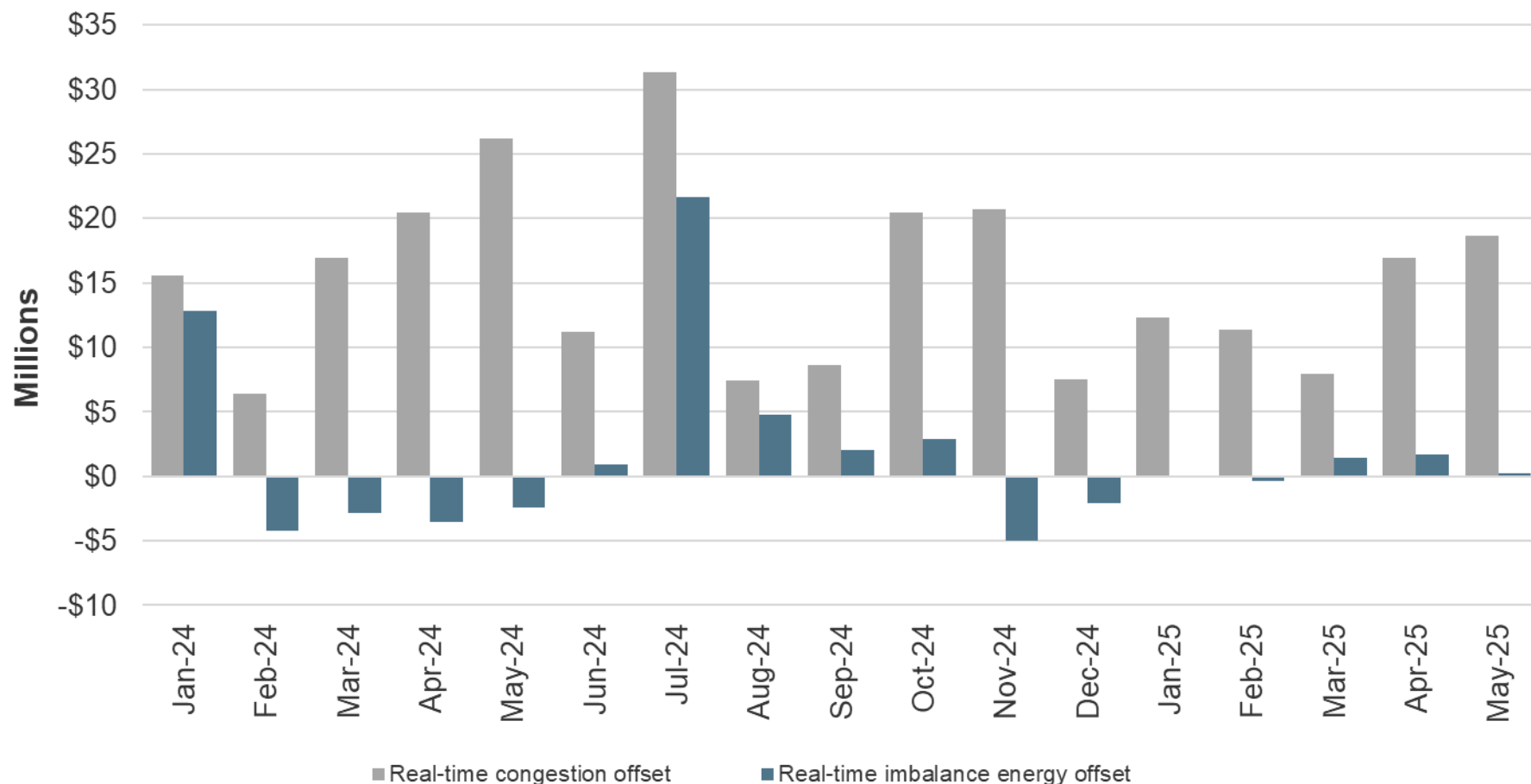


## Bid cost recovery for areas in the Western Energy Imbalance Market stayed low in recent months



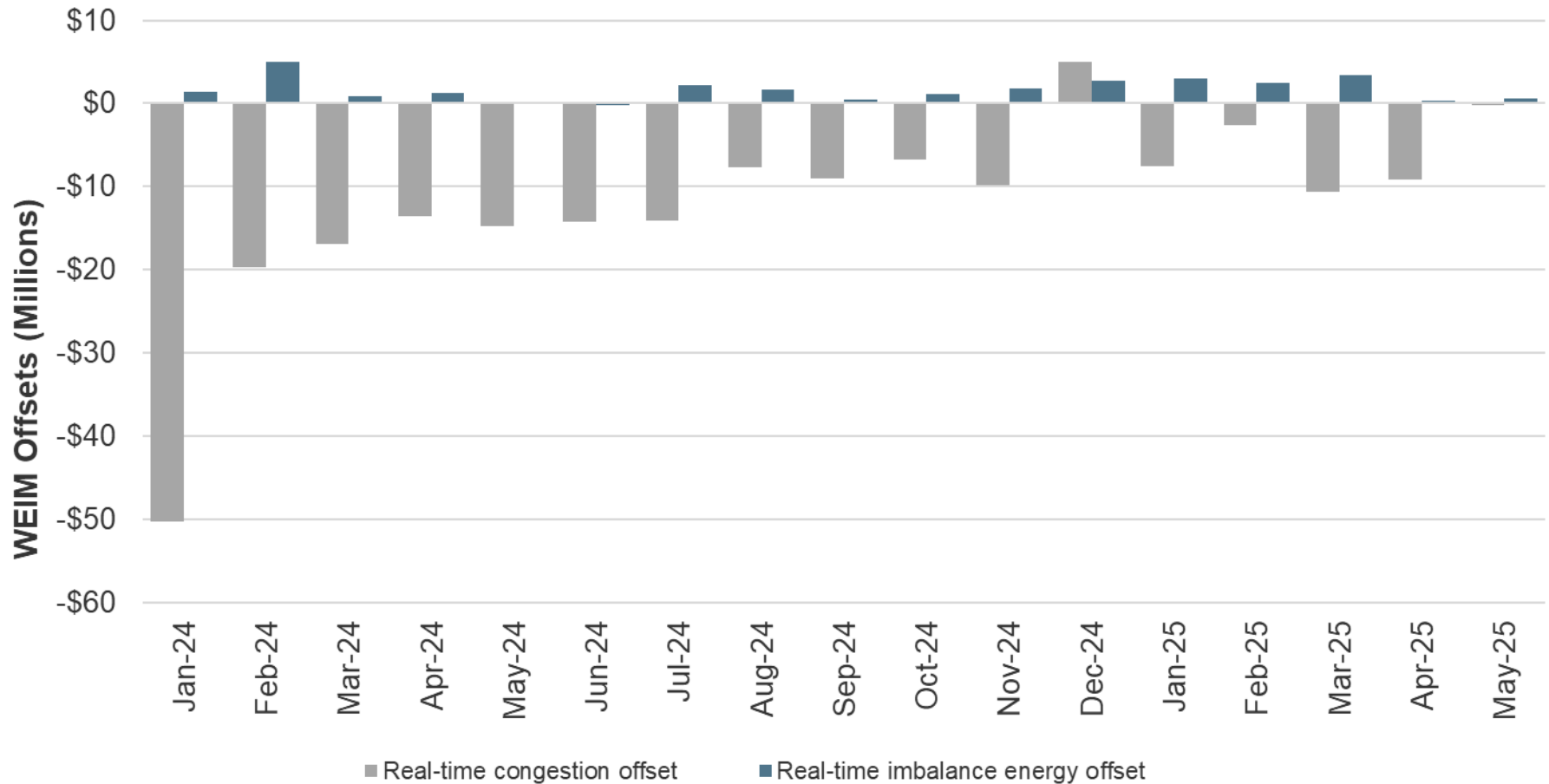
This trend does not include cost associated to the CAISO balancing area

# ISO real-time offsets remain within typical levels in recent months



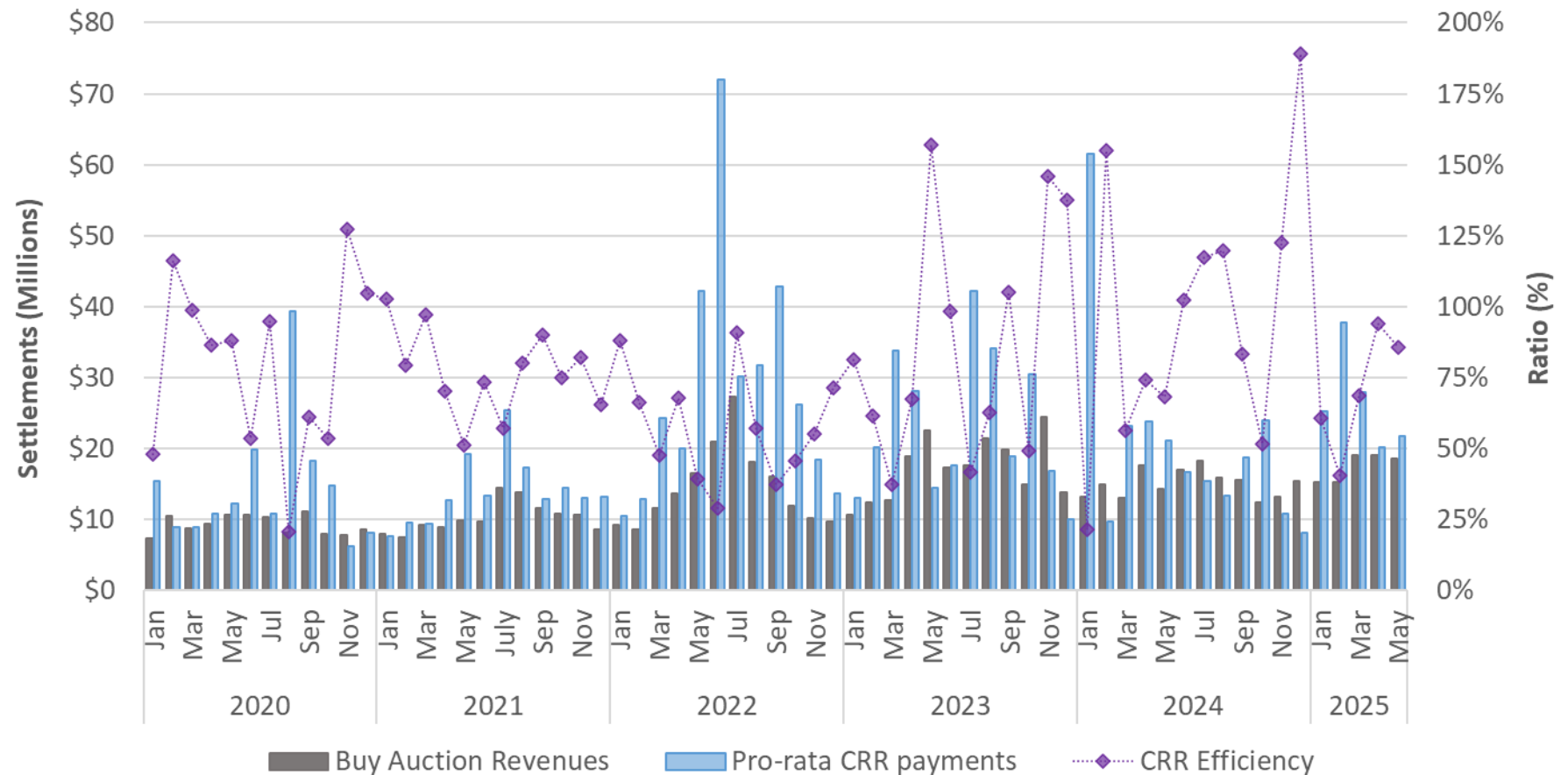
\*Both real-time congestion offsets and congestion revenue right surplus/shortfalls are allocated to measured demand

# Real-time offset costs in the imbalance market areas, excluding ISO, remain at low levels



A negative value represents a payment to the balancing area

# Auction efficiency for congestion revenue rights increased in recent months with milder congestion





## Enhancement to storage resource modelling

- The ISO identified that upward flexible ramping product awards were not factored into storage resource state of charge estimates.
- The ISO developed an enhancement to address this gap and discussed this with market participants in three different sessions.
- The enhancement was added to the real-time market on June 3. This enhancement accounts for upward flexible ramping product awards in the state of charge of batteries.
- This change is documented in the Market Operations Business Practice Manual section 7.8.2.5 and in the Market Operations Proposed Revision Request #1627.

# Enhancement to storage resource modelling

- The enhancement is working as intended based on the first three weeks of operational data.
- No significant changes to market results have been observed after the enhancement yet, but load is moderate.
- As summer conditions develop, ISO will continue to assess and report on the enhancement's performance.
- ISO presented an update on enhancement performance in the Market Performance and Planning Forum on June 26.