

Analysis of CRR Auction Participation

Bay Area Municipal Transmission Group (BAMx)

Congestion Revenue Rights Enhancements Meeting

May 12, 2025

Agenda

- ❑ Background/Methodology
- ❑ EQR/CRR Analysis Findings
- ❑ Conclusions
- ❑ Recommendations

Background/Methodology

- ❑ BAMx reviewed CRR Auction transactions and FERC Electric Quarterly Report (EQR) filings for 2024
 - Are CRR auction participants using CRRs as the financial equivalent of firm transmission?
- ❑ Analyzed all buy and sell auction CRRs transacted by each CRR Auction Holder
- ❑ Analyzed EQR transactions reported for the CAISO BAA and Hub transactions within or at the CAISO boundary (“CAISO Market Area”)
 - Excluded transactions at locations outside of CAISO
 - Identified CRRs bought/sold and EQR sales/purchases for each CRR Holder

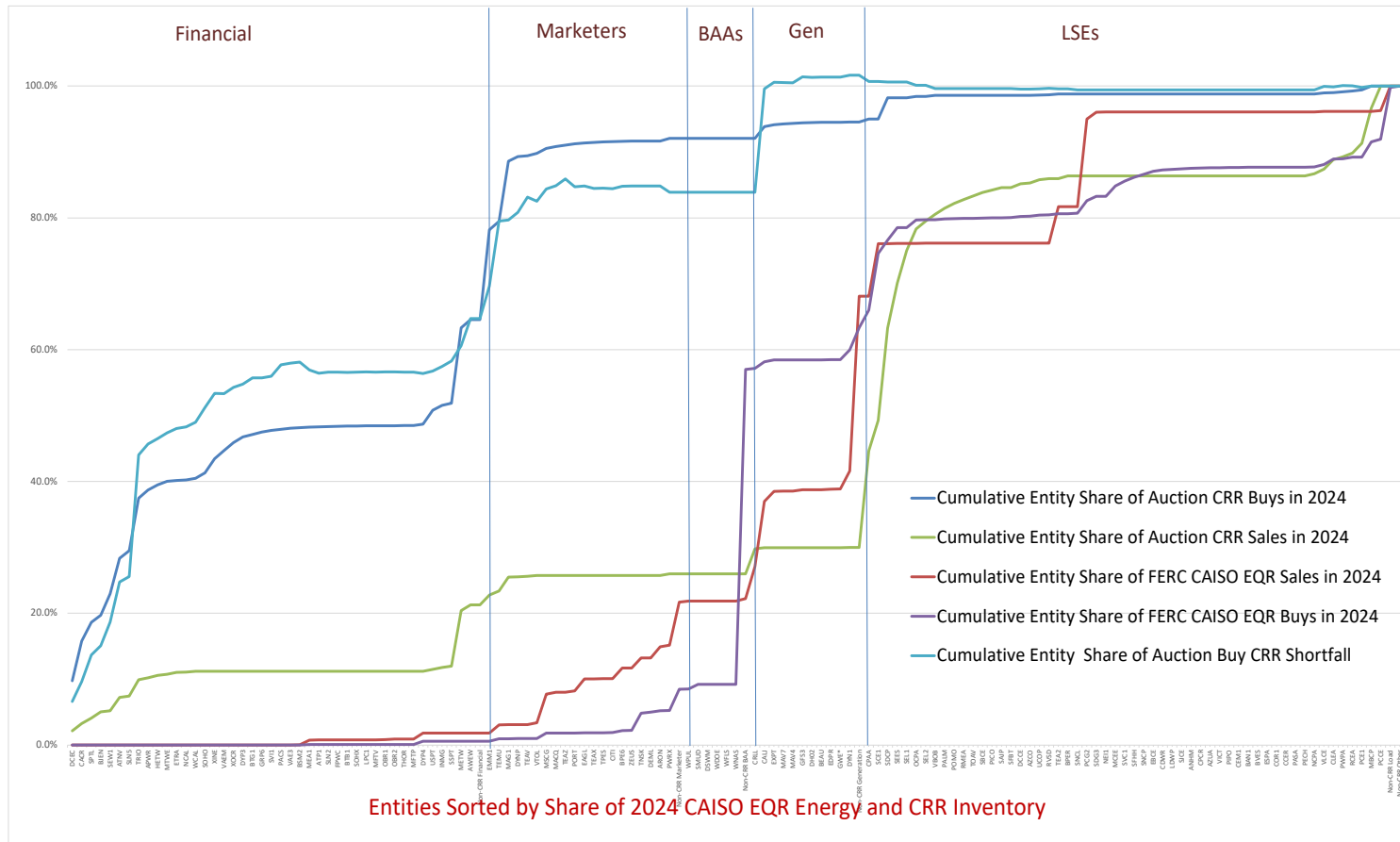
EQR/CRR Analysis Findings

- ❑ Approximately 240 Terawatt-hours (TWh) of CAISO CRRs were purchased in the CRR Auctions in 2024, and 58 TWh sold
 - For reference 183 TWh of CRRs were allocated by the CAISO to Load Serving Entities in 2024, and 43 TWh of those CRRs were sold in the auction (nearly $\frac{3}{4}$ of the auction sales)
- ❑ CAISO PTOs' filed gross load in aggregate for 2024 was approximately 205 TWh
- ❑ Approximately 468 TWh of EQR sales were reported in the CAISO Market Area in 2024

EQR/CRR Analysis Findings

- ❑ The distribution of auction CRRs is not linked to use of CAISO transmission
 - 90% of auction CRRs were purchased by entities representing less than 10% of physical EQR transactions
- ❑ Financial and Marketing entities tend not to participate as physical energy buyers or sellers
 - Those that do, tend to purchase significantly more CRRs than the reported physical EQR energy
- ❑ Some Marketing entities have comparable or greater physical EQR participation as their CRR participation
 - Lower impacts on CRR auction inefficiency than Financial entities, assuming average CRR offset

EQR/CRR Analysis Findings



- ☐ Cumulative entity position in auction CRRs, actual deliveries of energy recorded in FERC EQR, and share of auction shortfall
- ☐ Grouped by DMM entity type
- ☐ Financial entities have largest share of auction CRRs and auction shortfall, but minimal EQR participation

* CRR Shortfall Share assumes average CRR Offset of 20% applies to all CRR holders
 Source: BAMx 2025 analysis of FERC EQR and CAISO CRR data

EQR/CRR Analysis Conclusions

- ❑ Most financial and marketing entities do not appear to be using CRRs as the financial equivalent of firm transmission
 - Either do not participate in physical energy transactions and thus use no transmission or participate to a *di minimis* degree relative to their CRR market participation
 - Unlikely that the auction participation of most Financial and Marketing entities is having a material impact on the liquidity of the physical energy market, given their immaterial participation in the physical markets
 - Some marketing entities have physical EQR market participation aligned with or higher than their financial CRR participation
- ❑ Entities that do not use the transmission system for physical transactions, yet collect congestion revenues, reduce congestion revenue available to entities that use the transmission system

EQR/CRR Analysis Recommendations

- ❑ Review and update the entity type classifications applied to each entity
- ❑ Directly apply the CRR offset calculations for each entity, rather than using system averages
- ❑ Examine entity EQR and CRR transactions by location to better understand CRR usage for hedging
- ❑ Explore limiting the amount of the transmission made available in the Auction, similar to limitations on Allocation CRRs based on historical usage of the transmission system
- ❑ Explore whether a willing seller auction approach like that proposed by DMM could provide reasonable hedging opportunities for parties that use the transmission system