California ISO | WESTERN ENERGY MARKETS

**Memorandum**

**To:** Western Energy Markets Governing Body
ISO Board of Governors

**From:** Anna McKenna, Vice President, Market Design and Analysis

Roger Collanton, Vice President, General Counsel, Chief Compliance Officer, and Corporate Secretary

**Date:** December 10, 2025

**Re:** **Briefing on Day-Ahead Market Enhancements and Extended Day-Ahead Market Tariff Revisions**

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***This memorandum is informational and does not require action by the Western Energy Markets Governing Body or the ISO Board of Governors.***

## EXECUTIVE SUMMARY

Management is developing tariff changes to further support implementation of the day-ahead market enhancements (DAME) and extended day-ahead market (EDAM) on May 1, 2026. These tariff changes clarify requirements and include additional details that build on the tariff provisions the Federal Energy Regulatory Commission accepted. In the process of developing implementation specifications, procedures, and practices needed to implement DAME-EDAM, Management and stakeholders identified the need for these tariff changes. The modifications will be included in an upcoming filing with the Federal Energy Regulatory Commission early next year. This memorandum provides a description of noteworthy elements of that forthcoming filing.

Management has reviewed each of the proposed modifications and considers them to fall within the authorizations to proceed with DAME and EDAM on May 17, 2023, and February 1, 2023, respectively. These authorizations were decided in a joint general session of the Western Energy Markets Governing Body and Board of Governors. This memorandum and associated presentation will ensure the Governing Body and Board of Governors have the opportunity to hear from stakeholders and engage with Management in a public forum, which will assist Management in moving forward with filing the associated tariff changes. This approach is prudent given the passage of time since approval of the underlying policy as well as stakeholder interest in the requirements supporting DAME-EDAM implementation. This approach also advances our objective for transparency, clarity, and certainty as the ISO and its stakeholders move forward with implementation.

The area of greatest stakeholder interest relates to intertie modeling and scheduling as the day-ahead market area expands to include new balancing areas and as the market continues to support balancing areas in the Western Energy Imbalance Market (WEIM) and the ISO balancing area. The tariff modifications include refinements to address market participant concerns with the prior implementation of modeling and pricing of schedules at intertie scheduling points for transactions between the ISO balancing area and non-EDAM balancing areas. Rather than modeling and pricing transactions at such locations using aggregate modeling locations to represent energy injections at interties as previously intended, the ISO as the Market Operator will price and model schedules at these intertie scheduling points as it does today. This will enable market participants to transition to EDAM without impacting existing commercial arrangements for transactions at the ISO balancing area interties. Management will work with stakeholders to determine when the market should transition to modeling and pricing the ISO balancing area intertie scheduling points using the aggregate modeling locations.

The settlement of congestion revenue rights (CRRs), only available in the ISO balancing area for the purpose of distributing congestion revenue collected in the day-ahead market, also received significant stakeholder interest. The tariff clarification Management proposes will ensure CRRs are settled in a manner consistent with existing policy, *i.e.* based on congestion revenues arising from ISO balancing area constraints. Some stakeholders opposed implementation of existing CRR policy as it pertains to EDAM congestion revenue. Management believes changes to this policy should be considered in the ongoing CRR initiative.

## BACKGROUND

For any major market initiative, particularly one with the scope of DAME-EDAM, it is typical to surface additional details and requirements during implementation work. Most of these details can be addressed through development and updates to business practice manuals, training materials and associated operating procedures. However, sometimes details and requirements necessitate tariff revisions because they implicate a rate, term, or condition of the underlying transmission service.

Management began gathering potential tariff changes earlier in the year as the business requirement specifications associated with DAME-EDAM implementation were developed and published for stakeholder comment. These tariff revisions include corrections of typographical errors, updates to cross references and terminology within the tariff, and further development of requirements previously included in the tariff. Management also identified market rules that require additional tariff changes to give effect to the design of DAME and EDAM.

Management published a matrix of proposed tariff revisions on November 4, 2025. The initial version of these tariff changes reflected the direction on intertie modeling and scheduling described in a technical paper published on that same day, which described the intertie modeling and pricing rules set forth in the tariff and associated rules for scheduling resource adequacy capacity at ISO balancing area interties. During the

November 5-6 workshops, stakeholders expressed concern with these modeling and scheduling rules. Management held another stakeholder workshop on November 14 to discuss an alternative approach to intertie modeling and pricing. Management received stakeholder comments on the initial draft tariff language on November 18 and held a tariff stakeholder call on December 3. Management will continue to work with stakeholders to address their comments and finalize the tariff changes, which Management plans to file early in 2026.

## TARIFF REVISIONS

Management intends to file the following tariff revisions in addition to others.

### *Updating how the market will model transactions at ISO intertie scheduling points and the boundaries of the EDAM market area*

The market currently models intertie transactions at ISO balancing area scheduling points as injections/withdrawals at the scheduling point location. Under EDAM, the ISO, as Market Operator, planned to model these injections/withdrawals from a source/sink based on a distributed set of resources or loads. For example, the Market Operator would model a non-resource specific import transaction supported by a set of resources within a balancing authority area at a distributed generation aggregation point. Absent identifying the source, the Market Operator planned to model the source to generic generation aggregation points. FERC accepted this modeling and pricing approach as set forth in Appendix C, section A.8 of the EDAM tariff.

With the introduction of EDAM, modeling of intertie schedules and associated intertie pricing locations must simultaneously account for transactions at the market area boundary in the day-ahead timeframe, which includes 1) external interties at the ISO balancing area boundary where the market permits economic bidding and 2) external interties with EDAM balancing area boundaries where the market generally does not permit broad economic bidding.

Modeling of schedules and economic bidding at EDAM transfer locations is not necessary under EDAM because resources within EDAM balancing areas are modeled at their physical location and submit bids in the market at their physical locations. In the real-time market, the modeling framework also accounts for transfers between WEIM balancing areas, including the ISO balancing area and EDAM balancing areas, and any interties that remain external to the expanded market area.

The proposed modeling change sought to more accurately model and price intertie transactions, including capturing the congestion impacts of intertie transactions at ISO scheduling points. To the extent that any of these transactions flow across EDAM balancing areas to reach an ISO scheduling point there will also be congestion and pricing implications on the EDAM balancing areas. The proposed modeling change was intended to help capture and more accurately price these impacts. The more accurately the market can model these resources in the day-ahead and real-time markets, and account for their

energy output, the greater the economic and reliability benefits the market solution can deliver.

As contemplated in the EDAM tariff, the ISO and stakeholders considered the implications of intertie modeling and pricing using aggregate modeling locations for schedules from non-resource specific system resources in the day-ahead timeframe. This modeling of intertie schedules at aggregate locations, rather than modeling as an energy injection directly at the intertie scheduling point, is consistent with how intertie transactions are modeled today at the interties of WEIM balancing areas. However, it is a new modeling structure at the ISO balancing area interties.

Market participants raised concerns with this aggregate location modeling approach because of possible impacts on existing commercial arrangements for transactions at the ISO balancing area interties. To address market participant and stakeholder concerns, on a transitional basis, Management intends to submit tariff revisions to model and price bids at ISO balancing area intertie scheduling points (scheduling points for energy exchanges with non-EDAM balancing areas) as injections at the applicable scheduling points. For schedules at the boundary of the EDAM market area that do not involve the ISO balancing authority area, the Market Operator will use aggregation points consistent with the current practice in the WEIM. At these intertie locations, the market will model and price the transaction at a default generator aggregation point in the relevant balancing area that sources the transaction. The revisions largely preserve current intertie scheduling and modeling practices for ISO interties and represent a reasonable compromise to implement EDAM and reflect the congestion impacts of intertie transactions.

This approach remains consistent with the direction of the Governing Body and Board of Governors that allows for resources located outside of the EDAM footprint to participate in the market. The approach allows market participants to continue to submit both economic bids and self-schedules at ISO balancing area scheduling points that are not in the EDAM market footprint. The approach also remains consistent with modeling of resources within EDAM and respects the current ISO rules for intertie modeling at interfaces between the ISO and non-EDAM Entities with which stakeholders have grown accustomed. The transition of additional ISO interties to EDAM transfer locations will force a transition of scheduling and modeling practices for transactions at those ISO interties. Management will work with stakeholders to consider when any remaining ISO balancing area intertie scheduling points should also transition to modeling and pricing based on the use of aggregate generation approach.

***Aligning resource adequacy rules for imports sourced from an EDAM balancing authority area***

Under the EDAM design, only physical resources from EDAM balancing areas may submit bids to support transfers between participating balancing areas at EDAM transfer locations. As EDAM entities join the market, ISO interties with those entities will transition to EDAM transfer locations. Load serving entities in the ISO balancing area are allowed to procure resource adequacy capacity from resources located outside the ISO balancing area using import capacity at a specific ISO intertie. Resource adequacy imports need not specify

specific physical resources and can be sourced from a portfolio of generators or other non-specific generating assets.

Management's proposed tariff revisions include rules that harmonize the ability to use unspecified resource adequacy imports using available import capacity at ISO interties that are also EDAM transfer locations. The tariff changes will include a set of rules that allow a scheduling coordinator that has shown a system resource on a resource adequacy supply plan and intends to utilize import capacity at an EDAM transfer location to reassign its system resource capacity prior to the day-ahead market when the resource(s) supporting that import is located in the EDAM area. The tariff also will provide that, on a transitional basis, market participants may continue to bid resource adequacy imports at ISO interties that are also EDAM transfer locations when those imports are sourced from outside the EDAM area. This will provide comparable treatment for how the market treats resource adequacy imports today. These reassignment rules, and the limited bidding capability at ISO interties that are also EDAM transfer locations, are appropriate to ensure the market models supply in an EDAM balancing area at EDAM resource locations and support California's resource adequacy program. The alternative would be to preclude system resources sourced from an EDAM balancing authority area providing resource adequacy capacity or accept lower quality modeling results. This alternative would unnecessarily limit the pool of resources to support resource adequacy imports and is at odds with the purpose of extending the day-ahead market to facilitate increased efficiency with greater trading opportunities.

### *Clarifying funding rules for CRRs*

CRRs are only funded based on congestion revenue collected in the day-ahead market. In 2018, Board of Governors approved and the ISO implemented rules that only fund CRRs based on the congestion revenue collected on the transmission constraints over which the CRR has modeled flow. Under the transitional EDAM congestion revenue allocation rules the Governing Body and Board of Governors approved on June 12, 2025, congestion revenue from parallel flow on transmission constraints in EDAM balancing authority areas created by transactions in the ISO balancing authority area are allocated to the EDAM balancing authority for further sub-allocation pursuant to its transmission tariff. When a CRR has modeled flow on an EDAM transmission constraint (*i.e.*, parallel flow) the ISO balancing area will not be allocated the congestion revenue on that constraint to fund the CRR. That is because those funds are instead allocated to the EDAM balancing authority whose schedules caused the parallel flow.

Earlier in the implementation process, Management had contemplated and shared with stakeholders that CRRs would be paid for the full contribution from EDAM constraints. Based on stakeholder and Department of Market Monitoring feedback, Management subsequently determined this approach was not consistent CRR funding policy in place since 2018. If the ISO were to proceed with fully funding the CRRs affected by EDAM parallel flow, any revenue deficiencies to fully find the CRRs could result in uplift to load serving entities. Therefore, Management proposes tariff revisions to clarify CRR funding contributions from EDAM constraints will be zero at the start of EDAM. This clarification is necessary to ensure all parties are on notice that the congestion revenue in this scenario is

set to zero dollars for purposes of the CRR settlement process. Otherwise, there could be a misimpression that the ISO is required to allocate the same congestion revenue to two places (*i.e.*, a CRR holder and an EDAM balancing authority). Future EDAM congestion revenue allocation policy development may result in the ISO balancing area receiving congestion revenue associated with transmission constraints outside the ISO balancing area. If this occurs, the existing CRR settlement would enable the ISO to settle CRRs taking into consideration the congestion revenue associated with the EDAM parallel flows.

***Clarifying rules for imbalance reserves and reliability capacity***

Management intends to file several clarifying edits to tariff provisions governing settlement of imbalance reserves and reliability capacity. First, Management will update the tariff to provide a more precise account of how resources will be charged for unavailable imbalance reserve awards. The changes are needed to clarify the interaction between the charges for unavailable imbalance reserves compared to the similar charges for unavailable flexible ramping product in the real-time market. Second, Management will update the tariff to provide a more precise statement of how holders of ETCs and TORs will be exempt from the allocation of costs from imbalance reserves and reliability capacity procurement. for schedules within their rights. These changes are consistent with settlement rules for ETC and TOR self-schedules set forth in tariff section 11.

***Clarifying that an EDAM transmission provider may not have sufficient firm transmission service available in all hours to meet the needs of all resources located in its balancing area and providing an opportunity for the EDAM transmission provider to adjust the applicable transmission service charge pursuant to its tariff to meet the needs of its customers***

The EDAM design requires that resources have sufficient transmission reserved under the respective transmission service provider's tariff to cover its market dispatch. Consequently, the transmission service provider will assess a transmission charge based on its daily or hourly firm transmission rate to resources located in an EDAM balancing area with a real-time dispatch that have not reserved transmission capacity associated with their schedule under the applicable transmission tariff through firm, conditional firm, or network integration service. However, situations may arise in which transmission customers cannot secure sufficient firm transmission from an EDAM transmission service provider to support their market awards in real-time. This clarification will allow the EDAM transmission service provider to develop rules applicable to their transmission customers to adjust this incremental firm transmission rate to a lesser charge, *e.g.,* considering the hourly non-firm rate sufficient, if the transmission customer is unable to procure sufficient firm transmission service to meet this requirement. The change would facilitate resources' participation in the market, which might otherwise not do so because they would face additional transmission charges. This will support participation in the market without undermining the revenue normally received by the transmission service provider.

***Providing the day-ahead contingency analysis tool to EDAM entity balancing area operators on a cost-of-service basis similar to the real-time contingency analysis tool***

At the request of several prospective EDAM entities, Management is developing a day-ahead contingency analysis tool that will be offered to EDAM entity balancing area operators on a cost-of-service subscription basis. This service is akin to the real-time contingency analysis tool that the ISO currently offers operators in other balancing areas and provides another opportunity for access to similar tools the ISO has available in managing its balancing area. This service will improve EDAM balancing area operation and is consistent with the overall objective of enhancing reliability through participation in the day-ahead market by balancing areas already participating in the WEIM.

## POSITIONS OF THE PARTIES

Management has received stakeholder comments and hosted a stakeholder meeting to discuss the tariff revisions. During this process, several stakeholder meetings were also held to discuss the planned intertie modeling and scheduling requirements for system resources providing resource adequacy capacity at EDAM transfer locations. Stakeholders expressed support for many of the proposed tariff changes that Management proposes to make and they offered valuable input and feedback on the proposed tariff revisions. Some stakeholders expressed concerns with the proposed intertie modeling, resource adequacy scheduling requirements. In response, the proposed tariff revisions preserve how the market models intertie scheduling points that are not EDAM transfer locations, limit the use of default generator aggregation points, and align scheduling requirements for system resources that seek to use intertie capacity at an EDAM transfer location to provide resource adequacy. These changes will help support the successful launch of EDAM as well as provide time for additional stakeholder discussions related to intertie modeling.