California ISO | WESTERN ENERGY MARKETS

Memorandum

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

From: Anna McKenna, Vice President Market Design and Analysis

Date: June 12, 2025

Re: **Decision on EDAM congestion revenue allocation**

This memorandum requires ISO Board of Governors and WEM Governing Body action.

EXECUTIVE SUMMARY

Management proposes transitional changes to the allocation of congestion revenues among balancing areas participating in the Extended Day-Ahead Market (EDAM). This proposal addresses a concern raised during PacifiCorp's tariff revision process to implement EDAM. Specifically, the concern is that EDAM balancing areas may not receive congestion revenues to provide a sufficient hedge for congestion costs for transmission customers exercising their firm point-to-point transmission rights reserved under the Open Access Transmission Tariff (OATT). A CAISO transitional solution, in lieu of the previously FERC approved EDAM design, we believe, is the best means to address the concern.

The proposed transitional change would, under limited circumstances, allocate a portion of day-ahead parallel flow congestion revenues to the EDAM balancing area where market participants have paid prices that include those congestion costs, rather than to the balancing area where the constraint occurs. In markets that span multiple balancing authority areas, a transmission constraint in one area can impact prices in another, resulting in "parallel flow" congestion revenue. The EDAM balancing area receiving the parallel flow congestion revenue can use it to manage the cost of congestion for those transmission customers exercising their eligible firm transmission rights.

The proposal includes a commitment to monitor the performance and impacts of this transitional change. It outlines the specific congestion-related metrics that will be monitored and how that information will be shared with stakeholders. Management will initiate the next phase of stakeholder processes ahead of EDAM's launch to explore near-term enhancements and a long-term design for congestion revenue allocation.

The near-term enhancements will focus on: (1) addressing the limited applicability of this approach to participants that, among other criteria, self-schedule their resources in the market, and (2) developing a treatment for congestion revenue rights within the

CAISO balancing area that is comparable to the treatment afforded to OATT transmission rights. The long-term discussion will take a more comprehensive look at how congestion revenues are allocated across the EDAM market footprint, with the goal of delivering a recommendation within 12 to 24 months.

This proposed change to congestion revenue allocation is a necessary transitional measure for EDAM, aimed at supporting transmission customers exercising their OATT transmission rights in delivering power without facing congestion cost risks they cannot effectively hedge. This proposed change directly advances the transition to EDAM, which will enable more effective and efficient dispatch solutions, obviates any reason to carve out transmission rights, and delivers benefits to all EDAM participants.

Moved, that the ISO Board of Governors and WEM Governing Body approve the EDAM congestion revenue allocation proposal as described in the memorandum dated June 11, 2025; and

Moved, that the ISO Board of Governors and WEM Governing Body authorize Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the changes proposed in this memorandum, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.

BACKGROUND

The Extended Day Ahead Market (EDAM) models all resources and the full capability of the transmission system within participating balancing areas, including flow-based transmission system constraints. This robust modeling enables optimal commitment and dispatch of a diverse resource fleet across interconnected transmission systems to serve demand within the market footprint. Transmission constraints are reflected in the market model and when they bind, can affect the congestion price component of locational marginal prices at pricing locations across the market footprint.

The market optimization software treats all demand and supply across the footprint as part of a single integrated market. Consequently, a transmission constraint in one EDAM balancing area can influence the congestion price component of the local marginal prices at pricing locations in neighboring balancing areas. Because of this price separation, amounts the market operator pays to suppliers will be less than amounts paid by market participants, resulting in congestion revenue or rents. The market operator must allocate these congestion revenues and remain revenue neutral and, under the EDAM design, distributes these revenues to the EDAM balancing areas. Each balancing area then further sub-allocates these revenues among their transmission customers under the terms of their FERC-approved tariffs.

The current FERC-approved EDAM design allocates these congestion revenues to the EDAM balancing area where the transmission constraint occurs. The balancing area receives all congestion revenues associated with the specific transmission constraint,

including those paid by market participants in a neighboring area due to parallel flow effects. This design, which is consistent with cost causation principles and provides incentives to minimize parallel flow, is currently in effect in the WEIM. Managing congestion caused by a transmission constraint is the responsibility of the balancing area where it occurs.

Earlier this year, PacifiCorp filed revisions to its OATT with FERC to participate in the EDAM. Commenters in the pending proceeding expressed concerns rooted in the EDAM design for congestion revenue allocation. A key concern was that the market operator may not allocate sufficient congestion revenues to the EDAM balancing area to support sub-allocation to transmission customers and protect them from congestion costs for exercising their firm OATT transmission rights. Consequently, the ISO committed to an expedited stakeholder initiative to evaluate potential mechanisms for allocating parallel flow congestion revenues.

The ISO promptly commenced this initiative, publishing an issue paper on EDAM Congestion Revenue Allocation on March 17, 2025, and subsequently releasing multiple proposal iterations and holding full-day stakeholder workshops. These efforts aimed to describe and ensure a common understanding of the existing FERC-approved EDAM design for congestion revenue allocation and to evaluate potential alternative approaches to allocation of parallel flow congestion revenues.

PROPOSAL

Management proposes a targeted change to how the market operator allocates parallel flow congestion revenues among EDAM balancing areas. This aims to enhance congestion cost protections for transmission customers exercising eligible firm transmission rights under the terms of the EDAM entity's OATT. In so doing, the proposal addresses concerns raised in the PacifiCorp proceeding and fulfills the ISO's commitment to find a solution.

Management proposes narrowly allocating day-ahead parallel flow congestion revenues associated with eligible OATT uses to the EDAM balancing area where market participants have paid market prices that include these congestion costs, i.e., where the congestion revenues are collected. This would be limited to parallel flow congestion revenue associated with submitted and cleared day-ahead balanced source and sink self-schedules associated with eligible firm transmission rights. This would enable the EDAM entity to further sub-allocate the congestion revenues received from the market operator to its transmission customers, providing them more complete protection from market congestion costs.

Any remaining parallel flow congestion revenues that are collected in an EDAM balancing area due to a transmission constraint in a neighboring EDAM balancing area will be allocated to the area where the constraint occurs, consistent with the current FERC-approved EDAM design.

With this proposed change, the allocation of congestion revenues in EDAM is as follows:

- **Internal Congestion Revenue**: An EDAM balancing area will continue to be allocated internal congestion revenues collected as a result of a transmission constraint within its balancing area, consistent with the current FERC-approved design.
- **Parallel Flow Congestion Revenues**: Under defined conditions, the market operator will allocate parallel flow congestion revenues to the EDAM balancing area where the congestion revenues are collected (not where the transmission constraint occurs). This allocation will be based on the exercise of eligible firm transmission rights reflected in submitted and cleared balanced self-schedules. Eligible firm transmission rights consist of long-term firm and monthly firm point-to-point and network integration transmission service rights, including conditional firm, as defined under the EDAM entity OATT.
- **Remaining Parallel Flow Congestion Revenues**: The market operator will allocate any remaining parallel flow congestion revenues to the EDAM balancing area where the transmission constraint occurred, consistent with the current FERC-approved design.

This would apply only in the day-ahead market. Management does not propose to modify the current method of congestion revenue allocation in the WEIM.

Unlike neighboring balancing areas, the CAISO does not offer point-to-point or network integration transmission service products to which parallel congestion revenue can be assigned. Instead, the CAISO distributes congestion revenue in its balancing area through financial congestion revenue rights that are not tied to the use of the system in the day-ahead market. Due to this inherent difference in how congestion revenue is allocated – and due to the specific functionality that will be used to implement the proposed design – this near-term proposal does not include a mechanism for the CAISO balancing area to be allocated similar parallel flow congestion revenues. This means that the congestion allocated to the CAISO balancing area would not include parallel flow congestion revenue collected in the CAISO balancing area driven by a transmission constraint in a neighboring EDAM area. However, relative to today, the CAISO balancing area will be allocated new additional congestion revenues, which will come from residual or remaining parallel flow congestion revenues collected in other EDAM balancing areas that are not associated with the exercise of firm rights in neighboring areas. Management will also explore potential congestion revenue rights modeling enhancements, through a separate process, to reduce the impact of parallel flows from neighboring EDAM balancing areas on the funding of released congestion revenue rights.

Management commits to initiating working groups before EDAM launches in 2026, to explore both near-term enhancements and development of a long-term, durable design. An important aspect of the evolution will be monitoring how the proposed congestion revenue allocation affects EDAM balancing areas and the CAISO balancing area. This insight will help guide future enhancements and shape a scalable design.

The ongoing stakeholder process will be as follows:

- **Re-engage stakeholder working groups before EDAM go-live:** The working groups will evaluate near-term enhancements and explore a spectrum of long-term design alternatives informed by market operational experience.
- **12- to 24-month stakeholder process:** During this period, the ISO will provide quarterly updates to the ISO Board of Governors and the Western Energy Markets (WEM) Governing Body on the status of the initiative, data and metrics from monitoring the current proposal, and timelines for implementing the various design options under consideration. By the end of this period, the ISO will present a refined proposal developed through stakeholder input.
- **Filing and implementation**: If the proposal is approved, the ISO will file it with FERC with the goal of implementing the new design in the third year of EDAM operations.

Management anticipates near-term enhancements can be implemented within, or shortly after, the first year of operations (2027). A key near-term enhancement would expand the allocation of congestion revenues from parallel flows for the exercise of eligible firm transmission rights beyond those self-scheduled, in a manner that better incentivizes economic bids and more efficient market behavior. A second key enhancement would establish reciprocal treatment for the CAISO balancing area by allocating parallel flow congestion revenue arising from a transmission constraint in a neighboring EDAM balancing area to support affected congestion revenue rights on the CAISO system. Management commits to a thorough stakeholder process to refine the proposal and present it to the ISO Board of Governors and WEM Governing Body within the first year of EDAM operations to enable prompt implementation.

STAKEHOLDER FEEDBACK

Management appreciates the extensive stakeholder engagement on this expedited initiative. The ISO published four papers for this initiative (an Issue Paper, Draft Final Proposal, Revised Draft Final Proposal, and a Final Proposal), and held three workshops to discuss the proposal. Stakeholders submitted a total of 69 sets of written comments, all of which helped inform and further refine this proposal.

The large majority of stakeholders broadly support, or do not oppose, the described proposal as an acceptable or reasonable compromise to support EDAM launch. They recognize it as responsive to the initial concerns raised and an improvement compared to the current design. Stakeholders underscored that the proposal is intended to be an interim solution, and expect that the ISO and stakeholders will continue to collaborate on near-term enhancements within the first year of EDAM operations, and work toward a durable long-term congestion revenue allocation design as noted above. Moreover, stakeholders support re-engaging in these discussions prior to the launch of EDAM in 2026.

Some stakeholders oppose the proposal for two primary reasons: either they (1) prefer a holistic, long-term design over interim measures, or (2) are concerned that the proposal could apply to OATT transmission rights established after EDAM launch. ISO Management believes there is enough support to evolve the design over time, including

within the first year of EDAM operations, informed by operational experience, analysis and stakeholder input.

With regards to whether the proposal should apply only to currently held transmission rights rather than those that may be acquired in the future, the ISO acknowledges the concern, but identifies several mitigating factors. First, as a practical matter, the ability to acquire new long-term firm transmission in the West is severely limited. Additionally, any attempt to "grandfather" certain OATT rights would need to also contend with the implications simply for future load growth. Finally, long-term design discussions will consider different frameworks for thinking about parallel flow between EDAM balancing areas, such as flow entitlements, that would move away from tying congestion revenue allocation to the specific exercise of firm transmission rights. Separately, a number of stakeholders also suggested establishing provisions that would enable carve out of transmission capacity from the market optimization as a way to mitigate exposure to congestion costs and allow for the transmission to be optimized in other markets. While this concept was considered as out of scope since it raises broader issues beyond this narrow initiative, the proposed design nevertheless obviates the need for broad carve out provisions from the market.

Throughout the initiative, the ISO sought to be responsive to stakeholder concerns raised within the different iterations of the proposal. One such concern that stakeholders expressed was that the proposed design may incentivize broad self-scheduling of generation across the EDAM footprint, thereby reducing market efficiency. The ISO describes in the final proposal why this incentive may not be widespread. To further address this concern, the ISO introduced consideration of a near-term enhancement within the first year of EDAM operations, which could reduce the self-scheduling incentive. Another stakeholder concern centered on the need to develop a treatment for congestion revenue rights that is comparable to that afforded OATT transmission rights in order to create parity for the CAISO balancing authority. The ISO responded with a plan to pursue this through a near-term enhancement within the first year of EDAM operations as well.

Stakeholders also sought clarity on how congestion revenue rights will be settled once EDAM goes live, when the footprint of the day ahead market will be larger than the congestion revenue rights market. The ISO clarified that the rules and intent behind these allocations and payments are unchanged due to EDAM. Because these questions on congestion revenue rights settlement and modeling in EDAM arise regardless of the congestion revenue allocation proposal, the ISO hosted a separate stakeholder workshop to clarify implementation of congestion revenue rights under EDAM and will continue these discussions with stakeholders.

Stakeholders highlighted the importance of closely monitoring congestion patterns across the EDAM footprint, the location and effect of transmission constraints on prices, the magnitude of allocated congestion revenues and patterns of self-scheduling in the market. In response to these requests, the proposal describes plans for detailed monitoring and regular forums through which the ISO would share this information with

market participants. This operational information will help inform further evolution of the design.

Another key area of stakeholder emphasis has been the need to establish a plan for continued engagement and transition to a long-term durable design on a defined timeline. Stakeholders want the ISO to ensure there is a forum for consideration of a long-term design for congestion revenue allocation as the EDAM footprint grows. To that end, the ISO has committed to re-engage stakeholders in working groups prior to launch of EDAM in 2026 to discuss both near-term and long-term design enhancements. The ISO's commitment is to bring forward a long-term design proposal for approval within 12-24 months. This timeline would enable implementation during the third year of EDAM operations.

The Market Surveillance Committee (MSC) expressed concern with aspects of the proposal and the potential adverse impacts, which are difficult to ascertain based on available information. The MSC also cautions against extending this approach into near-term enhancements and instead proceed with flow-based rights to address the need for hedges in neighboring participating areas. Management commits to further analysis and monitoring prior to implementation and for consideration of future enhancements in the stakeholder process commencing prior to the launch of EDAM.

CONCLUSION

Management proposes to modify the EDAM design to allow the market operator to allocate congestion revenues from parallel flows among EDAM balancing areas as outlined in this proposal. This re-allocation of additional congestion revenues can then be further distributed by EDAM entities under their OATTs to transmission customers with eligible firm transmission rights, helping to provide congestion cost protection and support a smoother transition into EDAM. Management also commits to working with stakeholders to explore both near-term enhancements and longer-term solutions.

Management recommends that the ISO Board of Governors and Western Energy Markets Governing Body approve the proposal as described in this memorandum.