

June 6, 2025

The Honorable Debbie-Anne A. Reese
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20246

**Re: California Independent System Operator Corporation
Docket No. ER25-____-000**

**Tariff Amendment to Enhance Subscriber Participating
Transmission Owner Market Scheduling Options**

Dear Secretary Reese:

The California Independent System Operator Corporation (CAISO) submits this amendment to its tariff to enhance the Subscriber Participating Transmission Owner (TO) tariff provisions and address potential implementation challenges identified since the Commission approved those tariff provisions in March 2024.¹ The CAISO proposes two enhancements: (1) to provide an option for subscribers of Subscriber Participating TOs' transmission facilities to convert their subscriber rights to congestion revenue rights; and (2) to temporarily suspend for two years the collection and allocation of amounts that result from non-subscribers' scheduling of import transactions on Subscriber Participating TO transmission facilities. This temporary suspension will allow the time for the CAISO to gather and analyze information about non-subscriber use of such transmission facilities following implementation, which is necessary for a reasonable assessment and evaluation of the results. These two sets of tariff revisions are targeted enhancements and do not modify the vast majority of the Subscriber Participating TO tariff provisions accepted by the Commission.

Stakeholders and the CAISO's Department of Market Monitoring (DMM) generally support the proposed enhancements. The CAISO respectfully requests that the Commission accept the tariff amendment effective August 6, 2025, *i.e.*, 61 days after the date of this filing.

¹ The CAISO submits this filing pursuant to section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Part 35 of the Commission's regulations, 18 C.F.R. Part 35. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO Tariff, and references herein to specific tariff sections are references to sections of the CAISO Tariff unless otherwise specified.

I. Executive Summary

The Commission approved the CAISO Tariff provisions implementing the Subscriber Participating TO model in March 2024. The CAISO designed the model with stakeholder input to enhance opportunities for constructing new transmission facilities in locations currently outside the CAISO balancing area to facilitate delivery of critically needed generating resources to customers in the CAISO. The first Subscriber Participating TO is expected to be SunZia Transmission, LLC (SunZia), which plans to begin commercial operations on its transmission facilities later in 2025.²

Under the Subscriber Participating TO tariff provisions accepted by the Commission, a Subscriber Participating TO's project is funded by project subscribers receiving service rights on the project. The project developer places its new transmission facilities under CAISO operational control and uses them to connect generation to the CAISO balancing area, without a decision to build the project in the CAISO's transmission planning process. Subscribers in the new transmission project are solely responsible for funding the project without the Subscriber Participating TO establishing a regional transmission revenue requirement to recover their costs from ratepayers through the CAISO's regional transmission access charge (TAC) and regional wheeling access charge (WAC). Other entities using the new transmission facilities—called non-subscribers—pay the regional TAC and WAC, and the CAISO compensates the Subscriber Participating TO for the non-subscribers' usage with access charge revenues it collects.

Under the Subscriber Participating TO model, the subscribers who pay for using the transmission facilities receive scheduling priority and entitlement rights consistent with existing transmission contract (ETC) rights. The ETC rights entitle the subscriber to a higher scheduling priority on the Subscriber Participating TO's transmission facilities than do self-schedules and economic energy bids submitted on those transmission facilities by non-subscribers. To allow the subscriber to receive this ETC treatment, the CAISO's market design functionality requires the subscriber to submit balanced self-schedules consisting of paired import and export transactions on the Subscriber Participating TO's transmission facilities. The ETC rights also give the subscriber a "perfect" financial hedge against transmission and congestion charges up to the pre-existing point on the transmission system where the Subscriber Participating TO's transmission facilities interconnect to the CAISO balancing area.

² SunZia's transmission system will consist of a 552-mile, bi-pole, 500 kV transmission line with a planned capacity of 3,021 MW that SunZia is constructing in New Mexico and Arizona. *SunZia Transmission, LLC*, 191 FERC ¶ 61,053, at P 5 (2025).

In November 2024, the CAISO initiated a stakeholder process to discuss potential enhancements to the Subscriber Participating TO market scheduling options. Although the existing Subscriber Participating TO market scheduling options are effective and are expected to work for all parties involved, the CAISO initiated that stakeholder process because the self-scheduling requirement could benefit from enhancements to mitigate implementation complexities identified by the CAISO. Reliance on self-schedules becomes inefficient under certain scenarios for non-contiguous portions of the CAISO balancing authority area because both an import and an export schedule must be submitted to differentiate between use of the Subscriber Participating TO's transmission facilities and use of the existing CAISO controlled grid. The requirement to import/export as described above also creates challenges if the adjacent balancing area were to join the CAISO's Extended Day-Ahead Market (EDAM), because the EDAM design does not allow an import/export pairing at an internal intertie or transfer point.

To mitigate these implementation complexities, the CAISO proposes to revise its tariff and add an option for subscribers to convert their subscriber rights on a Subscriber Participating TO's transmission facilities to congestion revenue rights (CRRs). This CRR conversion option will allow a subscriber to have one transaction from a supply source to a demand sink within the CAISO balancing area, instead of having to pair import/export transactions, which creates the identified complexities. The CAISO already provides a similar conversion option for Non-Participating TOs that have transmission ownership rights (TORs) on the CAISO controlled grid, and the CAISO proposes similar procedures applicable to subscribers that choose to exercise the CRR conversion option. Providing this option to subscribers will give them additional flexibility, which they can exercise—or choose not to exercise—based on weighing the potential advantages and disadvantages with respect to their own circumstances. In essence, a subscriber likely would consider whether the flexibility and efficiency from economic bidding combined with an associated CRR is preferable to the scheduling priority and “perfect” congestion hedge it would otherwise receive for balanced self-schedules.

Stakeholders and DMM generally supported the CAISO's proposed enhancements during the CAISO stakeholder process. Some stakeholders, however, raised a separate issue: that imports by non-subscribers using the Subscriber Participating TO's transmission facilities could result in non-subscriber usage payments to the Subscriber Participating TO that draw on funds collected through the regional TAC, thereby possibly reducing the regional TAC revenue available for allocation to the Participating TOs other than the Subscriber Participating TO. As the CAISO explained when the Subscriber Participating TO model was being developed and approved, this could occur because the amounts used to make those payments would not be offset by the corresponding WAC revenue charged to exports; however, the CAISO maintains

it would be unlikely given projected load growth. This tariff amendment filing proposes no changes to this existing Commission-approved mechanism and, as such, these concerns are beyond the scope of this proceeding.

Nonetheless, the CAISO believes the following element of the proposal addresses the stakeholders' concerns. Because no Subscriber Participating TO has completed the process for joining the CAISO, there is no empirical data regarding the amount of non-subscriber usage and therefore the payment amount to a Subscriber Participating TO. The CAISO believes, out of an abundance of caution, it is reasonable to provide time to gather data on whether the amount of non-subscriber usage would create significant issues for the collection of revenues available to pay other Participating TOs. To that end, the CAISO proposes in this amendment to revise its tariff to suspend temporarily for two years the collection and allocation—but not the calculation—of non-subscriber usage payment amounts for imports. The CAISO will also publish information annually regarding the calculated amounts, and it will initiate a stakeholder process to adjust the non-subscriber usage payment methodology if needed. If no further action is taken, the non-subscriber usage charge and payment for imports to the Subscriber Participating TO would resume.

II. Background

A. Components of the CAISO Market Design Relevant to this Tariff Amendment Filing

1. The Subscriber Participating TO Provisions of the CAISO Tariff

The CAISO administers day-ahead and real-time wholesale electricity markets³ and is the transmission service provider for facilities placed under its operational control within its balancing area.⁴ The CAISO Tariff includes provisions allowing owners of transmission facilities and rights to seek to join the CAISO balancing area as Participating TOs.

³ The day-ahead market consists of the market power mitigation process, the integrated forward market (IFM), and the residual unit commitment process. CAISO Tariff section 31. The real-time market consists of the hour-ahead scheduling process, the real-time unit commitment process, the short-term unit commitment process, the fifteen-minute market, and the real-time dispatch process. CAISO Tariff section 34.

⁴ By balancing area, the CAISO means a balancing authority area (BAA) as defined in the North American Electric Reliability Corporation (NERC) Glossary of Terms Used in NERC Reliability Standards (NERC Glossary of Term), available at https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf. The CAISO also uses the term balancing authority, consistent with the meaning in the NERC Glossary of Terms, when referring to the responsible entity that maintains balance within the balancing area.

In March 2024, the Commission issued an order accepting the CAISO's filing of an amendment to its tariff to implement the Subscriber Participating TO model.⁵ That model enables project developers to place transmission facilities they own under CAISO operational control and use them to connect generating resources to the CAISO balancing area, without those facilities being identified and selected to meet a transmission need through the CAISO's transmission planning process.⁶ Under the model, subscribers will fund the costs of a Subscriber Participating TO's transmission facilities, and revenue requirements for those transmission facilities will not be recovered through the CAISO's access charges. The Commission found the Subscriber Participating TO model "is consistent with Commission precedent regarding the development, operation, and cost recovery of merchant transmission facilities" and "is specifically designed to address the unique circumstances of parties outside of the CAISO BAA" that seek to deliver energy within that balancing area.⁷

The Subscriber Participating TO model allows the transmission owner to apply to join the CAISO balancing area as a Participating TO with transmission facilities and entitlements⁸ subject to encumbrances⁹ through subscription

⁵ *Cal. Indep. Sys. Operator Corp.*, 186 FERC ¶ 61,177 (2024) (accepting CAISO Tariff amendment filing effective December 21, 2023, as requested by the CAISO) (Subscriber Participating TO Order). A Subscriber Participating TO means a Participating TO whose transmission assets and entitlements were constructed, and for which the associated transmission capacity is subject to long-term contractual obligations, to deliver energy, capacity, and associated attributes to satisfy state, municipal, county, or federal policy requirements or directives. CAISO Tariff Appendix A, definition of Subscriber Participating TO.

⁶ See generally CAISO Tariff sections 4.3A *et seq.* and 26.1 *et seq.*, and CAISO Tariff Appendix F, Schedule 3.

⁷ Subscriber Participating TO Order at PP 45, 48.

⁸ As used in the CAISO Tariff, an entitlement means the right of a Participating TO obtained through contract or other means to use another entity's transmission facilities for the transmission of energy. CAISO Tariff Appendix A, definition of Entitlements.

⁹ As used in the CAISO Tariff, an encumbrance means a legal restriction or covenant binding on a Participating TO that affects the operation of any transmission lines or associated facilities and which the CAISO needs to take into account in exercising operational control over such transmission lines or associated facilities if the Participating TO is not to risk incurring significant liability. An encumbrance includes an existing transmission contract (discussed below) and other legal restrictions or covenants meeting the definition of an encumbrance entered into either before or after the CAISO operations date (March 31, 1998). CAISO Tariff Appendix A, definitions of Encumbrance and CAISO Operations Date.

A type of encumbrance relevant to this filing is a subscriber encumbrance, which means a legal restriction or covenant binding on a Subscriber Participating TO that affects the operation of transmission assets or entitlements of the Subscriber Participating TO used to provide subscriber rights and that the CAISO must take into account in exercising operational control over such transmission assets or entitlements. CAISO Tariff Appendix A, definition of Subscriber Encumbrance. Subscriber rights, in turn, mean the transmission service rights and obligations of a Subscriber Participating TO to transmission customers with contracts executed under the

agreements¹⁰ between subscriber(s)¹¹ and the transmission owner that ultimately will be administered pursuant to the transmission owner's tariff and the CAISO Tariff. The subscriber encumbrances ensure subscribers receive a higher scheduling priority than self-schedules and economic energy bids submitted by non-subscribers¹² that seek to obtain service on the Subscriber Participating TO's transmission facilities, using the CAISO market design functionality developed for encumbrances on the CAISO controlled grid to provide the prioritized scheduling rights that existing transmission contracts (ETCs) enjoy.¹³ The ETC rights embodied in the encumbrances also provide subscribers with a "perfect" financial hedge against transmission and congestion charges between the subscribers' generating resources and the point on the transmission system where the Subscriber Participating TO's transmission facilities interconnect to the "original CAISO balancing area" (*i.e.*, the footprint of the CAISO balancing area prior to the Subscriber Participating TO joining it)—called the "Subscriber Participating TO interconnection point" in this filing.¹⁴ The financial hedge exists because ETC rights guarantee their holder has fixed transmission capacity available, regardless of congestion levels.

Subscriber Participating TO's tariff. CAISO Tariff Appendix A, definition of Subscriber Rights. Subscriber rights are treated as existing rights, which mean the transmission service rights and obligations of non-Participating TOs or Subscriber Participating TOs under existing transmission contracts or subscriber encumbrances. CAISO Tariff Appendix A, definition of Existing Rights.

¹⁰ As used in the CAISO Tariff, a subscription agreement means a contract or other legal arrangement between one or more subscribers and a Subscriber Participating TO that includes the provision of a subscriber encumbrance to the subscriber. CAISO Tariff Appendix A, definition of Subscription Agreement.

¹¹ As used in the CAISO Tariff, a subscriber means an entity, or its designee, that has a subscriber encumbrance used to provide subscriber rights pursuant to a subscription agreement. CAISO Tariff Appendix A, definition of Subscriber.

¹² As used in the CAISO Tariff, a non-subscriber means an entity, or its designee, that schedules as a market participant on transmission assets or entitlements of a Subscriber Participating TO not being used by a subscriber exercising subscriber rights, including subscribers that schedule beyond their subscriber rights. CAISO Tariff Appendix A, definition of Non-Subscriber.

¹³ See Subscriber Participating TO Order at PP 4-5, 48 (finding that "CAISO's proposal to use encumbrances to provide the Subscriber P[articipating] TO's subscribers with scheduling priority on the Subscriber P[articipating] TO's transmission facilities is consistent with Commission precedent and appropriately recognizes the firm transmission rights of subscribers of merchant transmission facilities"). An ETC (sometimes also called an existing contract) means a contract which grants transmission service rights in existence on the CAISO operations date (including any contracts entered into pursuant to such contracts). Subscriber encumbrances are treated as ETCs even though they include legal restrictions or covenants meeting the definition of an encumbrance arising under a contract or agreement entered into after the CAISO operations date. CAISO Tariff section 16.2; CAISO Tariff Appendix A, definition of Existing Transmission Contracts (ETC) or Existing Contracts.

¹⁴ See Subscriber Participating TO Order at P 5.

Under the CAISO Tariff provisions the Commission accepted in March 2024, and currently in effect, the scheduling coordinator for the subscriber submits balanced self-schedules consisting of paired import and export transactions at the Subscriber Participating TO interconnection point for specified source locations (where power is injected into the transmission system) and sink locations (where the power is taken off the system) associated with a specific contract reference number (CRN), in accordance with the provisions of the CAISO Tariff regarding transmission rights and curtailment (TRTC) instructions applicable to ETCs.¹⁵ The approved tariff provisions do not allow the scheduling coordinator for the subscriber to economically bid into the market, but instead they only allow that scheduling coordinator to submit balanced self-schedules while utilizing ETCs.

Subscribers are solely responsible for funding the Subscriber Participating TO's project, and the Subscriber Participating TO is not allowed to establish a regional transmission revenue requirement to recover its costs from ratepayers through the CAISO's regional transmission access charge (TAC) and regional wheeling access charge (WAC).¹⁶ Non-subscribers that use the Subscriber Participating TO's transmission facilities pay the regional WAC (for non-subscriber exports and wheeling through transactions that use such scheduling points), and CAISO demand pays the regional TAC for non-subscriber imports that use scheduling points on those transmission facilities.

Under the approved CAISO Tariff provisions, the CAISO deducts from the regional TAC and WAC revenues it collects, and then provides to the Subscriber Participating TO, a non-subscriber usage payment amount¹⁷ calculated each month pursuant to a rate formula to compensate the Subscriber Participating TO for the non-subscribers' use. The rate formula consists of the volume of non-subscriber use multiplied by a non-subscriber usage rate.¹⁸ The Subscriber

¹⁵ See CAISO Tariff section 16.4 *et seq.*; CAISO Tariff Appendix A, definition of Contract Reference Number.

¹⁶ Although the regional TAC and the regional WAC are assessed to different parties, they share the same rate, which is called the regional access charge (or RAC) rate. See CAISO Tariff sections 26.1(a), 26.1.4, and 26.1.4.1; <https://www.caiso.com/market-operations/settlements>, at the links shown under the title "High Voltage Access Charge Rates" and the links for the same dates shown under the title "Wheeling Access Rates." The RAC is the charge used to recover the regional transmission revenue requirements of each Participating TO.

¹⁷ As used in the CAISO Tariff, a non-subscriber usage payment amount means an amount paid by a non-subscriber and provided by the CAISO to a Subscriber Participating TO for the non-subscriber's use of the Subscriber Participating TO's transmission assets and entitlements and subscriber encumbrances used to provide subscriber rights. CAISO Tariff Appendix A, definition of Non-Subscriber Usage Payment Amount.

¹⁸ As used in the CAISO Tariff, a non-subscriber usage rate means a component of the calculation of the non-subscriber usage payment amount. CAISO Tariff Appendix A, definition of Non-Subscriber Usage Rate.

Participating TO may file a non-subscriber usage rate for Commission acceptance and is required to ensure the non-subscriber usage rate never exceeds the applicable regional TAC (or identical regional WAC) rate. Non-subscriber usage payment amounts the CAISO provides to the Subscriber Participating TO are funded by regional WAC revenue received by the CAISO for the scheduling points that the Subscriber Participating TO added to the CAISO balancing area, and by regional TAC revenue received by the CAISO prior to allocating the regional TAC revenue to the Participating TOs other than the Subscriber Participating TO.¹⁹

The first Subscriber Participating TO is expected to be SunZia, which plans to turn over operational control of its transmission facilities in 2025.²⁰ The CAISO Board of Governors (CAISO Board) approved SunZia's application to become a Subscriber Participating TO in May 2024, conditioned upon SunZia executing the Transmission Control Agreement (TCA)²¹ and upon the Commission's acceptance of a transmission owner tariff for SunZia.

SunZia has already executed the TCA.²² SunZia filed a transmission owner tariff (SunZia TO Tariff) in October 2024. The Commission issued an order in April 2025 finding the non-rate terms and conditions of the SunZia TO Tariff to be just and reasonable and setting the methodology for calculating the non-subscriber usage rate under the SunZia TO Tariff for hearing and settlement judge procedures. The Commission accepted the SunZia TO Tariff, suspended it for a nominal period to become effective on the date on which operational control of SunZia's transmission facilities and entitlements will be granted to the CAISO, subject to refund and to the outcome of the hearing and settlement judge procedures.²³ SunZia's non-subscriber usage rate is currently subject to

¹⁹ Conversely, if the total regional TAC and WAC revenue contributed by transactions on the Subscriber Participating TO's transmission facilities exceed the total calculated non-subscriber usage payment amounts, then the excess amount will be added back to the RAC for allocation to the Participating TOs other than the Subscriber Participating TO.

²⁰ See *SunZia Transmission, LLC*, 191 FERC ¶ 61,053, at P 5.

²¹ The TCA is the agreement among the CAISO and Participating TOs that establishes the terms and conditions under which transmission owners place certain transmission facilities and entitlements under the CAISO's operational control, thereby becoming Participating TOs. The TCA describes how the CAISO and each Participating TO will discharge their respective duties and responsibilities with regard to the operation of those transmission facilities and entitlements.

²² See *Cal. Indep. Sys. Operator Corp.*, Commission letter order, Docket No. ER25-169-000 (Dec. 13, 2024) (accepting revisions to the TCA that included updates to reflect the provisions of the CAISO Tariff the Commission accepted in the Subscriber Participating TO Order and to include SunZia as a new Participating TO that will follow the Subscriber Participating TO requirements of the CAISO Tariff).

²³ *SunZia Transmission, LLC*, 191 FERC ¶ 61,053.

settlement discussions at the Commission.²⁴ The Commission has also accepted other filings to facilitate SunZia becoming a Subscriber Participating TO.²⁵

2. Congestion Revenue Rights

The CAISO market design includes congestion revenue rights, which are financial instruments market participants can acquire through a CAISO-administered allocation and auction process or through a secondary registration system.²⁶ CRRs correspond to paired source and sink points on the transmission system and are valued at the difference in the marginal cost of congestion between those source and sink points. A CRR has a designated megawatt (MW) quantity and a term (e.g., a season or a month).²⁷

The primary purpose of CRRs is to hedge congestion costs in the day-ahead market, allowing market participants to address day-ahead congestion risk. When transmission demand exceeds capacity, congestion occurs on the CAISO controlled grid and locational marginal prices vary depending on congestion levels. Congestion charges can change dramatically based on system conditions and patterns of supply and demand. As the Commission has recognized, CRRs give market participants a level of financial protection against the risks associated with unpredictable congestion charges in the day-ahead

²⁴ See Docket No. ER25-170.

²⁵ See *Cal. Indep. Sys. Operator Corp.*, 188 FERC ¶ 61,151 (2024) (accepting applicant participating transmission owner agreement (APTOA) between SunZia and the CAISO to govern SunZia's responsibilities and relationship with the CAISO until SunZia signs the TCA and the CAISO assumes operational control over the SunZia transmission facilities); *SunZia Transmission, LLC*, Commission letter order, Docket No. ER25-171-000 (Feb. 21, 2025, as corrected Feb. 27, 2025) (accepting large generator interconnection agreement (LGIA) among the CAISO, SunZia, and SunZia Wind South LLC); *SunZia Transmission, LLC*, Commission letter order, Docket No. ER25-172-000 (Feb. 21, 2025, as corrected Feb. 27, 2025) (accepting LGIA among the CAISO, SunZia, and SunZia Wind North LLC).

²⁶ See generally CAISO Tariff section 36 *et seq.*; see also <http://www.caiso.com/market/Pages/ProductsServices/CongestionRevenueRights/Default.aspx>. In order to hold CRRs, an entity must be a candidate CRR holder, which means the entity is registered and qualified by the CAISO to participate in the CRR allocation, the CRR auction, or the secondary registration system to become a CRR holder and is a party to a fully executed CRR Entity Agreement, and therefore must comply with the requirements for candidate CRR holders under the CAISO Tariff. See CAISO Tariff Appendix A, definition of Candidate CRR Holder.

²⁷ See CAISO Tariff sections 36.2 *et seq.* and 36.3 *et seq.*; *Cal. Indep. Sys. Operator Corp.*, 163 FERC ¶ 61,237, at P 34 n.66 (2018); *Cal. Indep. Sys. Operator Corp.*, 136 FERC ¶ 61,120, at P 2 (2011). There are two types of CRRs—CRR obligations and CRR options—and they are designated either for on-peak or off-peak hours. See CAISO Tariff sections 36.2 and 36.3.3.

market.²⁸ However, the design of the CRR product does not provide a hedge against congestion costs in the real-time market.

B. Reasons for Proposing Enhancements to the Subscriber Participating TO Market Scheduling Options

In November 2024, the CAISO initiated a stakeholder process to discuss potential enhancements to the ways in which subscribers can schedule their rights on Subscriber Participating TO transmission facilities in the CAISO's markets. In the issue paper that began the stakeholder process, the CAISO explained it believes the existing Subscriber Participating TO market scheduling options are effective and will work for all parties involved. However, the CAISO also believes the market scheduling options could benefit from enhancements to mitigate implementation complexities the CAISO identified regarding subscriber self-scheduling under the market design functionality described above,²⁹ and to avoid potential modeling issues once the CAISO's EDAM design is implemented in 2026.³⁰

In particular, the CAISO identified certain implementation complexities in honoring subscribers' rights by treating subscribed transmission facility capacity as an encumbrance or existing right through the use of ETC rights. Reliance on subscribers' self-schedules becomes inefficient under certain scenarios for non-contiguous portions of the CAISO balancing area, because the scheduling coordinator for a subscriber must submit both an import self-schedule and an export self-schedule at the Subscriber Participating TO interconnection point to differentiate between the subscriber's use of the Subscriber Participating TO's transmission facilities and the subscriber's use of the original CAISO controlled grid. This differentiation is required because the subscriber has a higher scheduling priority than self-schedules and economic energy bids submitted by non-subscribers on the Subscriber Participating TO's transmission facilities, but the subscriber does not have a higher scheduling priority or a financial hedge on the original CAISO controlled grid (unless the subscriber also has ETC rights there as well).

²⁸ See, e.g., *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,093, at P 2 (2014) ("CRRs are financial instruments that enable their holders to hedge variability in congestion costs. Entities acquire CRRs primarily to offset integrated forward market congestion costs reflected in the congestion component of locational marginal prices (LMPs).") (citations omitted).

²⁹ See *supra* section II.A.1.

³⁰ See Subscriber Participating TO Market Scheduling Option Issue Paper, section 2.2 (Nov. 13, 2024) (Issue Paper). The Commission-approved EDAM design will provide the opportunity for balancing areas in the West that currently take part in the CAISO's Western Energy Imbalance Market (WEIM) also to participate voluntarily in the CAISO's day-ahead market. See *Cal. Indep. Sys. Operator Corp.*, 185 FERC ¶ 61,210 (2023).

The requirement for a subscriber to submit an export self-schedule at the sink location where the Subscriber Participating TO's transmission facilities terminate and the need to import the energy back into the original CAISO balancing area to serve CAISO demand located beyond the Subscriber Participating TO interconnection point presents challenges. In these circumstances the self-scheduling requirement is not only burdensome on the scheduling coordinator and other entities included in the process, but it also precludes the generating resources from bidding economically in the CAISO market because they must self-schedule and become price-takers. The self-scheduling requirement also raises an implementation obligation to nominate resource adequacy on a generating resource that is expected to export out. Although all of this remains workable, this is an unconventional setup within the CAISO markets that will increase manual effort necessary to manage the additional complexities and associated procedures.

The requirement to import/export as described above also creates challenges if the adjacent balancing area were to join EDAM, because the EDAM design does not allow an import/export pairing at an internal intertie or transfer point within the EDAM area.³¹ Therefore, a subscriber would be unable to submit an ETC import schedule or bid at an EDAM transfer point in the same manner it does today. Instead, the subscriber would have to rely on the market to optimally dispatch counterflow energy to effectuate a transfer in the import direction.

In addition to the aforementioned implementation complexities the CAISO identified, stakeholders raised a separate issue during the stakeholder process regarding the non-subscriber usage rate being assessed to imports by non-subscribers. These stakeholders expressed concern that imports by non-subscribers using the Subscriber Participating TO's transmission facilities could result in non-subscriber usage charge payments to the Subscriber Participating TO that draw on funds collected through the regional TAC, thereby possibly causing the non-subscriber usage payment amounts to reduce the regional TAC revenue available for allocation to the Participating TOs other than the Subscriber Participating TO. This stakeholder concern included opposition to the non-subscriber usage payment mechanism as applied to subscribers who would now have an allocation of revenue associated with the converted CRRs.

³¹ See CAISO Tariff section 33.18 *et seq.*

C. The CAISO Stakeholder Process and CAISO Governing Board Approval to Submit this Tariff Amendment Filing

The CAISO initiated the stakeholder process that ultimately resulted in this tariff amendment filing by posting the Issue Paper for stakeholder review on November 13, 2024.³² The CAISO held a meeting with stakeholders regarding the Issue Paper, during which the CAISO gave a presentation and considered stakeholder input. The CAISO also provided an opportunity for stakeholders to submit written comments on the Issue Paper and the presentation to the CAISO. Over the next several months, the CAISO posted a straw proposal, then a draft final proposal, and ultimately a final proposal³³ for stakeholder review, each time holding a meeting with stakeholders afterwards to discuss the posting and providing an opportunity for written stakeholder comments. The CAISO Board authorized the CAISO to submit this tariff amendment filing at its meeting held on May 22, 2025.³⁴

On May 14, 2025, the CAISO posted draft revisions to its tariff to implement the Final Proposal. The CAISO held a meeting with stakeholders to discuss the draft tariff revisions and provided an opportunity to submit written comments and discussed those comments and its response with stakeholders in a meeting before it posted the final version of the tariff revisions.

Stakeholders generally supported the enhancements contained in this tariff amendment filing in the stakeholder process. In addition, DMM provided a memorandum to the CAISO Board (DMM Memorandum) stating that it also generally supports the enhancements, subject to DMM's monitoring of non-subscriber use and any related market impacts after a Subscriber Participating TO turns over operational control of its transmission facilities to the CAISO.³⁵

³² See the materials posted on the CAISO website page regarding the stakeholder process for the initiative on Subscriber Participating TO scheduling options, <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Subscriber-participating-transmission-owner-market-scheduling-options>.

³³ The Final Proposal is included as Attachment C.

³⁴ See <https://www.caiso.com/about/governance-committees>. Prior to the May 22, 2025 meeting, Neil Millar, the CAISO's Vice President, Transmission Planning and Infrastructure Development, provided a memorandum to the CAISO Governing Board (Board Memorandum) regarding the changes now proposed in this tariff amendment filing. The Board Memorandum is contained in Attachment D to this filing and is also available on the CAISO website at <https://www.caiso.com/documents/decision-on-subscriber-participating-transmission-owner-market-scheduling-options-memo-may-2025.pdf>. At the May 22 meeting, the CAISO also gave a presentation to the CAISO Board (Board Presentation) regarding the proposed changes. The Board Presentation is available at <https://www.caiso.com/documents/decision-on-subscriber-participating-transmission-owner-market-scheduling-options-presentation-may-2025.pdf>.

³⁵ The DMM Memorandum is available at <https://www.caiso.com/documents/dmm-comments-subscriber-participating-transmission-owner-market-scheduling-options-may-2025.pdf>.

III. Proposed Tariff Revisions

A. Option to Convert Subscriber Rights to CRRs

As explained above,³⁶ the CAISO initiated the stakeholder process to enhance the Subscriber Participating TO market scheduling options because it identified implementation complexities related to the self-scheduling of imports and exports of subscribers' generating resources at the Subscriber Participating TO interconnection point. To mitigate these complexities, the CAISO proposes to revise the CAISO Tariff to add the option described below for subscribers to convert subscriber rights on a Subscriber Participating TO's transmission facilities to CRRs on those transmission facilities.³⁷ This CRR conversion option will avoid a subscriber's having multiple transactions from a supply resource outside the original CAISO balancing area to serve demand within the original CAISO balancing area. Exercising the conversion option will also give the subscriber the ability to economically bid (rather than having to self-schedule using its subscriber rights as ETCs), thereby enabling non-subscribers to compete for use of the Subscriber Participating TO's transmission facilities and simplifying CAISO operations. Providing this conversion option will address the unique circumstances of subscribers, consistent with the Commission's findings when it accepted the Subscriber Participating TO tariff provisions.³⁸

The CAISO already provides a similar option to Non-Participating TOs³⁹ that have TORs that are part of the CAISO controlled grid. Non-Participating TOs can convert all or a portion of their transmission rights to CRR options. This option allows the non-participating transmission owners within the CAISO balancing area to release transmission that would otherwise be unavailable to

³⁶ See *supra* section II.B.

³⁷ The CAISO notes that at the start of the stakeholder process it considered a potential alternative approach for mitigating the complexities described above. See Issue Paper, section 3.2. However, based on stakeholder feedback and additional internal discussions, the CAISO declined to proceed with discussion of the potential alternative, which is not relevant to the Commission's review of this tariff amendment filing. "Pursuant to section 205 of the FPA, the Commission limits its evaluation of a utility's proposed tariff revisions to an inquiry into 'whether the rates proposed by a utility are reasonable—and not to extend to determining whether a proposed rate schedule is more or less reasonable to alternative rate designs.'" *Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44 n.43 (2012) (quoting *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984)). Therefore, "[u]pon finding that CAISO's Proposal is just and reasonable, [the Commission] need not consider the merits of alternative proposals." *Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44.

³⁸ See Subscriber Participating TO Order at P 48.

³⁹ A Non-Participating TO means a transmission owner that is not a party to the TCA or the holder of transmission service rights under an ETC that is not a Participating TO. CAISO Tariff Appendix A, definition of Non-Participating TO.

the market on a periodic basis in advance of the trading month, which makes more transmission available for market use. In return, the Non-Participating TO gets the congestion revenue associated with the transmission rights or ETC rights that were released in the day-ahead market. The Commission authorized this conversion option in an order approving revisions to the Amended Operating Agreement between the CAISO and PacifiCorp and the Congestion Revenue Rights Exchange Agreement between the CAISO and the Transmission Agency of Northern California.⁴⁰ The Commission should grant a similar conversion option to subscribers on Subscriber Participating TO facilities.

Specifically, the CAISO proposes to allow subscribers to release subscriber rights they hold for use by the CAISO in exchange for CRRs to effectuate a conversion as provided below. Except as provided below, the converted CRRs will be administered in accordance with CAISO Tariff section 36 in the same manner as other CRRs.⁴¹ The procedures for this CRR conversion option for subscribers are based upon the CAISO's existing procedures for converting to merchant transmission TORs and specify:

- A subscriber must register and qualify as a candidate CRR holder to convert subscriber rights to CRRs or to acquire CRRs in the secondary registration system. Once a subscriber is a CRR holder, all rights and obligations pertaining to a CRR holder will apply to the subscriber.⁴²
- On a quarterly basis at least 10 calendar days prior to the release of the full network model (FNM)⁴³ for the first month of each quarter, a subscriber may instruct the CAISO to release all or a portion of the subscriber rights it holds for administration under the CAISO Tariff.⁴⁴

⁴⁰ See *Cal. Indep. Sys. Operator Corp.*, 142 FERC ¶ 61,246 (2013); *Cal. Indep. Sys. Operator Corp.*, 170 FERC ¶ 61,069 (2020).

⁴¹ New CAISO Tariff section 4.3A.9. The CAISO also proposes to revise CAISO Tariff section 16.2 to state that subscriber encumbrances may be converted to CRRs in accordance with these new tariff provisions.

⁴² New CAISO Tariff section 4.3A.9(a)(1).

⁴³ The FNM means a computer-based model that includes all CAISO balancing area transmission network (load and generating unit) busses, transmission constraints, and intertie busses between the CAISO balancing area and interconnected balancing areas. CAISO Tariff Appendix A, definition of Full Network Model.

⁴⁴ New CAISO Tariff section 4.3A.9(a)(2). The subscriber conversion instruction must specify: (i) the CRR source and CRR sink, which must be associated with an eligible and registered individual pricing node (PNode), an aggregate PNode or a scheduling point on the Subscriber Participating TO's transmission facilities, (ii) the direction of the subscriber rights, (iii) the MW quantity of subscriber rights, and (iv) the time duration by quarter in consecutive full-quarter increments. *Id.* The releases are quarterly based on the design of the CAISO's new CRR software system.

- The Subscriber Participating TO must submit updated TRTC instructions commensurate with the release of subscriber rights by a subscriber, which in total cannot exceed the subscriber rights on the Subscriber Participating TO's transmission facilities. The subscriber rights and the associated TRTC instructions must reflect releases by quarter for a minimum of one quarter and remain unchanged for the entire quarter and any subsequent quarters specified in the conversion instructions.⁴⁵
- Upon conversion of subscriber rights, the associated CRRs will be released for both on-peak and off-peak time periods and will not be available for a CRR allocation or CRR auction. Once subscriber rights have been converted, the CRR Holder may transfer its CRRs using the secondary registration system for the full duration that the rights have been released.⁴⁶
- The CAISO will make available all released subscriber rights for use by market participants in accordance with the CAISO Tariff consistent with the subscriber rights as provided in the TCA, subject to any restriction necessary to honor any associated subscriber encumbrance consistent with the TRTC instructions and associated details submitted by the Subscriber Participating TO. The CAISO will account for a reduction in subscriber rights equal to the quantity of CRRs granted following the quarterly election process. Subscriber rights converted to CRRs will lose their status as an ETC throughout the entire time they have been converted to CRRs.⁴⁷

After subscriber rights have been converted to CRRs using the procedures described above, the subscriber's converted CRRs will be administered and settled as CRR options when a congestion price difference in the integrated forward market—which the CAISO performs as part of the day-ahead market—exists between the CRR source and CRR sink. No congestion settlement will be made for real-time market congestion differences between the CRR source and CRR sink.⁴⁸ For each constrained flowgate or intertie, subscriber CRRs will not be subject to CRR underfunding allocation and will be derated hourly based on the ratio of the operating transfer capability (OTC) (*i.e.*, the total transfer capability (TTC)⁴⁹ as reduced by the constraint) and the TTC

⁴⁵ New CAISO Tariff section 4.3A.9(a)(3).

⁴⁶ New CAISO Tariff section 4.3A.9(a)(4).

⁴⁷ New CAISO Tariff section 4.3A.9(a)(5).

⁴⁸ New CAISO Tariff section 4.3A.9(b)(1).

⁴⁹ TTC means the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected transmission systems by way of all transmission

(absent the OTC reduction) of the flowgate or intertie and the direction associated with the CRR source to CRR sink combination derived from the subscriber rights.⁵⁰

Exercising this option to convert from subscriber rights (*i.e.*, ETC rights) to CRR rights will allow the subscriber to bid economically and compete with non-subscriber resources, thus increasing market efficiency and avoiding the import-export complexities described above. It will also allow the subscriber to participate in EDAM without having to rely on the market to optimally dispatch counterflow energy to effectuate a transfer in the import direction.

However, exercising the CRR conversion option involves certain tradeoffs for the subscriber. Using subscriber rights as ETC rights gives the subscriber higher-priority scheduling and a “perfect” financial hedge against congestion on the Subscriber Participating TO’s transmission facilities in both the day-ahead market and the real-time market, whereas converting subscriber rights to CRR rights means losing the scheduling priority and receiving a hedge against congestion on those transmission facilities only in the day-ahead market. On the other hand, when using subscriber rights, the subscriber is a price-taker and must use a balanced import and export to self-schedule.

Subscribers will need to weigh these potential advantages and disadvantages with respect to their own circumstances in deciding whether to exercise the conversion option. Including the conversion option in the CAISO Tariff will give subscribers additional flexibility in deciding how to schedule on the Subscriber Participating TO’s transmission facilities. Regardless of whether a subscriber exercises the conversion option, the CAISO will not charge the subscriber for its transmission usage on the Subscriber Participating TO’s transmission facilities because the subscriber has already paid to develop those transmission facilities.

B. Two-Year Suspension on Collecting and Allocating Non-Subscriber Usage Payment Amounts

As noted above,⁵¹ some stakeholders raised a concern during the stakeholder process that imports by non-subscribers using the Subscriber Participating TO’s transmission facilities could result in non-subscriber usage charge payments to the Subscriber Participating TO that draw on funds collected through the regional TAC, thereby possibly causing the non-subscriber usage

lines or (paths) between those areas under specified system conditions. CAISO Tariff Appendix A, definition of TTC.

⁵⁰ New CAISO Tariff section 4.3A.9(b)(2).

⁵¹ See *supra* section II.B.

payment amounts to reduce the regional TAC revenue available for allocation to the Participating TOs other than the Subscriber Participating TO.

The CAISO has given due consideration to these stakeholders' concern. Because no Subscriber Participating TO has completed the process for joining the CAISO, there is no empirical data yet regarding the amount of non-subscriber usage and therefore the potential non-subscriber usage payment amounts to Subscriber Participating TOs. The CAISO believes that, out of an abundance of caution, it should provide time to gather data on whether the amount of non-subscriber usage is in fact a cause for significant concern. To that end, the CAISO proposes to revise the existing CAISO Tariff section on cost recovery from non-subscribers to suspend temporarily for a two-year period the collection and allocation—but not the calculation—of non-subscriber usage payment amounts for imports.

Specifically, under the tariff revisions, for a two-year period the CAISO will calculate non-subscriber usage payment amounts for import schedules at a scheduling point on the Subscriber Participating TO's transmission facilities, but it will not collect such amounts or allocate them to the Subscriber Participating TO in accordance with the CAISO Tariff.⁵² The two-year period will commence on the commercial operation date of the last generating unit interconnected to a Subscriber Participating TO's transmission facilities on which that last generating unit is entitled to schedule using subscriber rights, and include the period from the date on which the CAISO accepts operational control of the Subscriber Participating TO's transmission facilities (*i.e.*, the first date on which a non-subscriber schedule could be accepted at the Scheduling Participating TO's scheduling point). This two-year suspension provision will apply only to the first Subscriber Participating TO that turns over operational control of its transmission facilities and any subsequent Subscriber Participating TO that turns over operational control of its transmission facilities during this period. However, the suspension of non-subscriber usage payment amounts will terminate for all Subscriber Participating TOs upon expiration of the two-year period associated with the first Subscriber Participating TO that turns over operational control of its facilities.⁵³ During this entire period, the CAISO will publish annually the amount of import schedules and the non-subscriber usage payment amount that would have resulted absent application of the suspension provision.⁵⁴ After this period and absent any further amendment, the CAISO would resume the collection and payment for non-subscriber import schedules.

⁵² Revised CAISO Tariff section 4.3A.7.2 (cross-referencing CAISO Tariff Appendix F, section 15.1). The referenced section 15.1 in CAISO Tariff Appendix F addresses payments by non-subscribers for use of Subscriber Participating TO transmission facilities.

⁵³ At this time there is one Subscriber Participating TO, TransWest Express, LLC, planned for commercial operation in 2029.

⁵⁴ Revised CAISO Tariff section 4.3A.7.2.

The two-year suspension period for collection and allocation of non-subscriber usage payment amounts for imports will give the CAISO time to gather operational data and determine whether the amount of the non-subscriber usage is likely to have a significant impact on the revenues available for other Participating TOs or other unanticipated consequences. If it turns out to be a significant concern, the suspension period will provide the CAISO sufficient time to conduct a stakeholder process to develop with stakeholders an appropriate adjustment to the non-subscriber usage payment methodology. After the two-year period ends, either the non-subscriber usage payments attributed to imports will resume automatically, unless a revised methodology is approved based on the outcome of the stakeholder process and Commission approval of such revised methodology.

IV. Effective Date

The CAISO requests that the Commission accept the CAISO Tariff revisions contained in this filing effective August 6, 2025, *i.e.*, 61 days after the date of this filing. Granting this effective date will allow the tariff revisions to go into effect before the first Subscriber Participating TO turns over operational control of its transmission facilities to the CAISO, which is planned in September of 2025.

V. Communications

Correspondence and other communications regarding this filing should be directed to:

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VI. Service

The CAISO has served copies of this filing on the California Public Utilities Commission, the California Energy Commission, and all parties with scheduling coordinator agreements under the CAISO Tariff. In addition, the CAISO has posted a copy of the filing on the CAISO website.

VII. Contents of this Filing

Besides this transmittal letter, this filing includes the following attachments:

Attachment A	Clean CAISO Tariff sheets to implement this amendment
Attachment B	Red-lined CAISO Tariff sheets to implement this amendment
Attachment C	Final Proposal
Attachment D	Board Memorandum

VIII. Conclusion

For the reasons set forth in this filing, the CAISO respectfully requests that the Commission issue an order accepting this CAISO Tariff amendment effective August 6, 2025.

Respectfully submitted,

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Attachment A – Clean Tariff

Enhance Subscriber Participating Transmission Owner Market Scheduling Options

California Independent System Operator Corporation

June 6, 2025

Section 4

* * * * *

4.3A.7 Cost Recovery and Usage Costs for Subscriber Participating TO Transmission Facilities

4.3A.7.1 Amounts from Subscribers

A Subscriber Participating TO must recover costs of its transmission assets and Entitlements and Subscriber Encumbrances used to provide Subscriber Rights solely from Subscribers pursuant to Subscription Agreements. Subscribers that Self-Schedule using CRNs on the transmission assets and Entitlements will not pay Access Charges for such use.

4.3A.7.2 Amounts from Non-Subscribers

A Subscriber Participating TO may receive Non-Subscriber Usage Payment Amounts for use by Non-Subscribers of transmission assets and Entitlements and unscheduled Subscriber Rights pursuant to Section 15 of Schedule 3 of Appendix F. The Subscriber Participating TO will be responsible for obtaining FERC approval of the Non-Subscriber Usage Rate that is a required component of the calculation of Non-Subscriber Usage Payment Amounts. For a two-year period, Non-Subscriber Usage Payment Amounts will be calculated for import Schedules at a Scheduling Point on the Subscriber Participating TO's transmission facilities but not collected or allocated to the Subscriber Participating TO in accordance with CAISO Tariff, Appendix F, Section 15.1. The two-year period will commence upon the Commercial Operation Date of the last Generating Unit interconnected to the Subscriber Participating TO's transmission facilities on which that last Generating Unit is entitled to schedule using Subscriber Rights, and will include the period from the date that the Subscriber Participating TO turns over Operational Control of its transmission facilities to the CAISO to the commencement of the two-year period. This exception will apply to the first Subscriber Participating TO that turns over Operational Control of its transmission facilities and any other Subscriber Participating TO that may turn over Operational Control of its transmission facilities during this period, provided it will end for all Subscriber Participating TOs upon the expiration of the two-year period. During this entire period, the CAISO will publish annually the amount of import Schedules and the Non-Subscriber Usage Payment Amount that would have resulted absent this Section 4.3A7.2.

4.3A.7.3 Transmission Revenue Requirement

- (a) A Subscriber Participating TO may not seek FERC approval of a Transmission Revenue Requirement for the original costs or any subsequent incurred costs for transmission assets and Entitlements and Subscriber Encumbrances used to provide Subscriber Rights or receive revenue for such transmission assets and Entitlements from the Regional Access Charge, even after all Subscriber Encumbrances on the transmission assets and Entitlements terminate. This Section will not prevent a Subscriber Participating TO from obtaining FERC approval of the Non-Subscriber Usage Rate.
- (b) A Subscriber Participating TO may seek FERC approval of a Transmission Revenue Requirement for additions and upgrades to its transmission assets and Entitlements undertaken to facilitate an interconnection or pursuant to Section 24, unless such additions or upgrades are for the benefit of Subscribers in the use of their Subscriber Rights. Upon FERC approval, any reference in the CAISO Tariff to a Participating TO's Revenue Requirement or Transmission Revenue Requirement will be read as a reference to the Subscriber Participating TO's rates or revenue requirement as approved by FERC. A Subscriber Participating TO may receive revenue from the Regional Access Charge only with respect to generator Network Upgrades or Network Upgrades identified and approved in the Transmission Planning Process under Section 24 and Section 25 and in Appendix DD for existing Participating TOs that are not used to provide Subscriber Rights.

4.3A.8 Access to Available Transmission Capacity of a Subscriber Participating TO

The CAISO will make transmission capacity on Subscriber Participating TO facilities available for the purpose of: (1) scheduling Subscriber Rights transactions consistent with the Subscription Agreement, a Subscriber Participating TO's TRTC Instructions, and the CAISO Tariff; and (2) scheduling transactions for Market Participants in accordance with the CAISO Tariff, provided such use does not conflict with Subscriber Rights. The transmission capacity of a Subscriber Participating TO that is not subject to an Encumbrance as of the date of the Subscriber Participating TO's application to become a Subscriber Participating TO will not be treated as Subscriber Rights, and the CAISO will be the provider of

transmission service pursuant to the CAISO Tariff for the use of this available transmission capacity. To the extent Subscribers do not schedule their Encumbrance in the Real-Time Market, the transmission capacity underlying the Encumbrance will be available for use in the CAISO Markets in accordance with Section 16 of the CAISO tariff.

4.3A.9 Subscriber Participating TO Conversion of Subscriber Rights to CRRs

Subscribers may release Subscriber Rights they hold for use by the CAISO in exchange for CRRs to effectuate a conversion as provided below. Except as provided below, the CRRs created by the conversion of Subscriber Rights will be administered in accordance with Section 36 in the same manner as other CRRs. Additional details about the associated timelines, procedures, and characteristics of this conversion and the treatment of CRRs generally are set forth in the Business Practice Manuals.

(a) CRR Conversion Procedures

- (1) A Subscriber must register and qualify as a Candidate CRR Holder in order to convert Subscriber Rights to CRRs or to acquire CRRs in the Secondary Registration System. Once a Subscriber is a CRR Holder, all rights and obligations pertaining to a CRR Holder shall apply to the Subscriber.
- (2) On a quarterly basis at least 10 calendar days prior to the release of the Full Network Model for the first month of each quarter, a Subscriber may instruct the CAISO to release all or a portion of the Subscriber Rights it holds for administration under the CAISO Tariff. The Subscriber conversion instruction must specify: (i) the CRR Source and CRR Sink, which must be associated with an eligible and registered individual PNode, an aggregate PNode, or a Scheduling Point on the Subscriber Participating TO's transmission facilities, (ii) the direction of the Subscriber Rights, (iii) the MW quantity of Subscriber Rights, and (iv) the time duration by quarter in consecutive full-quarter increments.
- (3) The Subscriber Participating TO must submit updated TRTC Instructions commensurate with the release of Subscriber Rights by a Subscriber, which in total must not exceed the Subscriber Rights on the Subscriber Participating TO's transmission facilities. The Subscriber Rights and the associated TRTC Instructions must reflect releases by quarter for a minimum of one quarter and remain unchanged for the entire quarter and any

subsequent quarters specified in the conversion instructions.

- (4) Upon conversion of Subscriber Rights, the associated CRRs will be released for both on-peak and off-peak time periods and will not be available for a CRR Allocation or CRR Auction. Once Subscriber Rights have been converted, the CRR Holder may transfer its CRRs using the Secondary Registration System for the full duration that the rights have been released.
- (5) The CAISO will make available all released Subscriber Rights for use by Market Participants in accordance with the CAISO Tariff consistent with the Subscriber Rights as provided in the Transmission Control Agreement, subject to any restriction necessary to honor any associated Subscriber Encumbrance consistent with the TRTC Instructions and associated details submitted by the Subscriber Participating TO. The CAISO will account for a reduction in Subscriber Rights equal to the quantity of CRRs granted following the quarterly election process. Subscriber Rights converted to CRRs will lose their status as an Existing Contract throughout the entire time that they have been converted to CRRs.

(b) Converted CRR Characteristics

- (1) CRRs created by the conversion of Subscriber Rights will be administered and settled as CRR Options when a Congestion price difference in the Integrated Forward Market exists between the CRR Source and CRR Sink. No Congestion settlement will be made for Real-Time Market Congestion differences between the CRR Source and CRR Sink.
- (2) For each constrained flowgate or Intertie, CRRs created by the conversion of Subscriber Rights will not be subject to CRR underfunding allocation and will be derated hourly based on the ratio of the operating transfer capability (OTC) (*i.e.*, the TTC as reduced by the constraint) and the TTC (absent the OTC reduction) of the flowgate or Intertie and the direction associated with the CRR Source to CRR Sink combination derived from the Subscriber Rights.

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Section 16

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16.2 Treatment of Subscriber Encumbrances

Subscriber Encumbrances shall be treated as Existing Contracts even though they include legal restrictions or covenants meeting the definition of an Encumbrance arising under a contract or agreement entered into after the CAISO Operations Date. Subscriber Encumbrances may be converted to CRRs in accordance with Section 4.3A.9.

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Attachment B – Redline Tariff

Enhance Subscriber Participating Transmission Owner Market Scheduling Options

California Independent System Operator Corporation

June 6, 2025

Section 4

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4.3A.7 Cost Recovery and Usage Costs for Subscriber Participating TO Transmission Facilities

4.3A.7.1 Amounts from Subscribers

A Subscriber Participating TO must recover costs of its transmission assets and Entitlements and Subscriber Encumbrances used to provide Subscriber Rights solely from Subscribers pursuant to Subscription Agreements. Subscribers that Self-Schedule using CRNs on the transmission assets and Entitlements will not pay Access Charges for such use.

4.3A.7.2 Amounts from Non-Subscribers

A Subscriber Participating TO may receive Non-Subscriber Usage Payment Amounts for use by Non-Subscribers of transmission assets and Entitlements and unscheduled Subscriber Rights pursuant to Section 15 of Schedule 3 of Appendix F. The Subscriber Participating TO will be responsible for obtaining FERC approval of the Non-Subscriber Usage Rate that is a required component of the calculation of Non-Subscriber Usage Payment Amounts. For a two-year period, Non-Subscriber Usage Payment Amounts will be calculated for import Schedules at a Scheduling Point on the Subscriber Participating TO's transmission facilities but not collected or allocated to the Subscriber Participating TO in accordance with CAISO Tariff, Appendix F, Section 15.1. The two-year period will commence upon the Commercial Operation Date of the last Generating Unit interconnected to the Subscriber Participating TO's transmission facilities on which that last Generating Unit is entitled to schedule using Subscriber Rights, and will include the period from the date that the Subscriber Participating TO turns over Operational Control of its transmission facilities to the CAISO to the commencement of the two-year period. This exception will apply to the first Subscriber Participating TO that turns over Operational Control of its transmission facilities and any other Subscriber Participating TO that may turn over Operational Control of its transmission facilities during this period, provided it will end for all Subscriber Participating TOs upon the expiration of the two-year period. During this entire period, the CAISO will publish annually the amount of import Schedules and the Non-Subscriber Usage Payment Amount that would have resulted absent this Section 4.3A7.2.

4.3A.7.3 Transmission Revenue Requirement

- (a) A Subscriber Participating TO may not seek FERC approval of a Transmission Revenue Requirement for the original costs or any subsequent incurred costs for transmission assets and Entitlements and Subscriber Encumbrances used to provide Subscriber Rights or receive revenue for such transmission assets and Entitlements from the Regional Access Charge, even after all Subscriber Encumbrances on the transmission assets and Entitlements terminate. This Section will not prevent a Subscriber Participating TO from obtaining FERC approval of the Non-Subscriber Usage Rate.
- (b) A Subscriber Participating TO may seek FERC approval of a Transmission Revenue Requirement for additions and upgrades to its transmission assets and Entitlements undertaken to facilitate an interconnection or pursuant to Section 24, unless such additions or upgrades are for the benefit of Subscribers in the use of their Subscriber Rights. Upon FERC approval, any reference in the CAISO Tariff to a Participating TO's Revenue Requirement or Transmission Revenue Requirement will be read as a reference to the Subscriber Participating TO's rates or revenue requirement as approved by FERC. A Subscriber Participating TO may receive revenue from the Regional Access Charge only with respect to generator Network Upgrades or Network Upgrades identified and approved in the Transmission Planning Process under Section 24 and Section 25 and in Appendix DD for existing Participating TOs that are not used to provide Subscriber Rights.

4.3A.8 Access to Available Transmission Capacity of a Subscriber Participating TO

The CAISO will make transmission capacity on Subscriber Participating TO facilities available for the purpose of: (1) scheduling Subscriber Rights transactions consistent with the Subscription Agreement, a Subscriber Participating TO's TRTC Instructions, and the CAISO Tariff; and (2) scheduling transactions for Market Participants in accordance with the CAISO Tariff, provided such use does not conflict with Subscriber Rights. The transmission capacity of a Subscriber Participating TO that is not subject to an Encumbrance as of the date of the Subscriber Participating TO's application to become a Subscriber Participating TO will not be treated as Subscriber Rights, and the CAISO will be the provider of

transmission service pursuant to the CAISO Tariff for the use of this available transmission capacity. To the extent Subscribers do not schedule their Encumbrance in the Real-Time Market, the transmission capacity underlying the Encumbrance will be available for use in the CAISO Markets in accordance with Section 16 of the CAISO tariff.

4.3A.9 Subscriber Participating TO Conversion of Subscriber Rights to CRRs

Subscribers may release Subscriber Rights they hold for use by the CAISO in exchange for CRRs to effectuate a conversion as provided below. Except as provided below, the CRRs created by the conversion of Subscriber Rights will be administered in accordance with Section 36 in the same manner as other CRRs. Additional details about the associated timelines, procedures, and characteristics of this conversion and the treatment of CRRs generally are set forth in the Business Practice Manuals.

(a) CRR Conversion Procedures

- (1) A Subscriber must register and qualify as a Candidate CRR Holder in order to convert Subscriber Rights to CRRs or to acquire CRRs in the Secondary Registration System. Once a Subscriber is a CRR Holder, all rights and obligations pertaining to a CRR Holder shall apply to the Subscriber.
- (2) On a quarterly basis at least 10 calendar days prior to the release of the Full Network Model for the first month of each quarter, a Subscriber may instruct the CAISO to release all or a portion of the Subscriber Rights it holds for administration under the CAISO Tariff. The Subscriber conversion instruction must specify: (i) the CRR Source and CRR Sink, which must be associated with an eligible and registered individual PNode, an aggregate PNode, or a Scheduling Point on the Subscriber Participating TO's transmission facilities, (ii) the direction of the Subscriber Rights, (iii) the MW quantity of Subscriber Rights, and (iv) the time duration by quarter in consecutive full-quarter increments.
- (3) The Subscriber Participating TO must submit updated TRTC Instructions commensurate with the release of Subscriber Rights by a Subscriber, which in total must not exceed the Subscriber Rights on the Subscriber Participating TO's transmission facilities. The Subscriber Rights and the associated TRTC Instructions must reflect releases by quarter for a minimum of one quarter and remain unchanged for the entire quarter and any

subsequent quarters specified in the conversion instructions.

(4) Upon conversion of Subscriber Rights, the associated CRRs will be released for both on-peak and off-peak time periods and will not be available for a CRR Allocation or CRR Auction. Once Subscriber Rights have been converted, the CRR Holder may transfer its CRRs using the Secondary Registration System for the full duration that the rights have been released.

(5) The CAISO will make available all released Subscriber Rights for use by Market Participants in accordance with the CAISO Tariff consistent with the Subscriber Rights as provided in the Transmission Control Agreement, subject to any restriction necessary to honor any associated Subscriber Encumbrance consistent with the TRTC Instructions and associated details submitted by the Subscriber Participating TO. The CAISO will account for a reduction in Subscriber Rights equal to the quantity of CRRs granted following the quarterly election process. Subscriber Rights converted to CRRs will lose their status as an Existing Contract throughout the entire time that they have been converted to CRRs.

(b) Converted CRR Characteristics

(1) CRRs created by the conversion of Subscriber Rights will be administered and settled as CRR Options when a Congestion price difference in the Integrated Forward Market exists between the CRR Source and CRR Sink. No Congestion settlement will be made for Real-Time Market Congestion differences between the CRR Source and CRR Sink.

(2) For each constrained flowgate or Intertie, CRRs created by the conversion of Subscriber Rights will not be subject to CRR underfunding allocation and will be derated hourly based on the ratio of the operating transfer capability (OTC) (i.e., the TTC as reduced by the constraint) and the TTC (absent the OTC reduction) of the flowgate or Intertie and the direction associated with the CRR Source to CRR Sink combination derived from the Subscriber Rights.

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Section 16

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16.2 Treatment of Subscriber Encumbrances

Subscriber Encumbrances shall be treated as Existing Contracts even though they include legal restrictions or covenants meeting the definition of an Encumbrance arising under a contract or agreement entered into after the CAISO Operations Date. Subscriber Encumbrances may be converted to CRRs in accordance with Section 4.3A.9.

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Attachment C – Final Proposal

Enhance Subscriber Participating Transmission Owner Market Scheduling Options

California Independent System Operator Corporation

June 6, 2025



California ISO

Subscriber Participating TO Market Scheduling Option Final Proposal

April 24, 2025

Prepared by: Riddhi Ray
James Lynn
Deb Le Vine

Subscriber Participating TO Market Scheduling Option Final Proposal

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1. Introduction

On March 12, 2024, the Federal Energy Regulatory Commission (FERC) accepted the California Independent System Operator Corporation (CAISO) tariff amendment for a new transmission development model, the Subscriber Participating Transmission Owner (Subscriber Participating TO).¹ This model establishes alternative opportunities for the construction of new transmission not addressed in the CAISO transmission plan in locations outside of the original CAISO balancing authority area. Specifically, the Subscriber Participating TO model provides the CAISO and interested project developers the option to develop and deliver resources that will satisfy state, municipal, county, or federal policy requirements or directives, including California's energy policy goals. The Subscriber Participating TO model enhances inter-regional transmission resilience, deliverability, and resource adequacy, while providing customers with the benefit of new transmission facilities under the operational control of the CAISO. Having the costs to construct these new transmission facilities paid by subscribers of the projects, instead of being incorporated into the CAISO's transmission access charge funded by transmission ratepayers, while providing the subscribers with an entitlement and Subscriber Participating TO the opportunity to recover revenue for use by non-subscribers are the primary distinguishing features of this model.²

Under the Subscriber Participating TO model, the developer will place the new transmission facilities under CAISO operational control and connect generation to the CAISO balancing area, without a decision to build the project being made through the CAISO's transmission planning process. In exchange, the subscribers who pay for use of the facilities receive scheduling priority and entitlement rights that are consistent with Existing Transmission Contracts (ETCs) for energy scheduled from that generator to internal CAISO demand or CAISO balancing authority area (CAISO BAA) interconnection point, whichever is the exit point of the Subscriber Participating TO transmission facilities. The entitlement rights provide the subscriber with a higher scheduling priority than other self-schedules and economic energy bids that utilize the Subscriber Participating TO transmission facilities. In addition, these entitlement rights also provide the subscribers with a financial hedge against congestion and transmission charges between the generation and the interconnection point to the original CAISO Balancing Authority Area.³

¹ The FERC order accepting the Subscriber Participating TO proposal is available on the CAISO website at: <https://www.caiso.com/documents/mar12-2024-orderacceptingproposedtariffrevisions-subscriberparticipatingtransmissionownermodel-er23-2917.pdf>

² These and other features of the underlying Subscriber Participating TO model accepted by FERC are outside the scope of this stakeholder initiative.

³ The original balancing authority area footprint was established as of FERC approval of the Subscriber Participating TO amendment to the CAISO tariff on March 12, 2024. The original footprint may change overtime with addition of transmission facilities or balancing authority

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The CAISO published an Issue Paper on November 13, 2024 describing certain implementation complexities with the existing ETC model, and proposing alternative market scheduling options to mitigate some of the identified issues. The CAISO published the straw proposal on January 16, 2025 providing additional details on the Congestion Revenue Right (CRR)/economic bidding option, outlining reasons for no longer proceeding with the Unbalanced ETC option, and describing the current implementation of the Subscriber Participating TO model through various numerical examples. The CAISO presented the straw proposal on a stakeholder call on January 27, 2025, and received most stakeholder comments by February 10, 2025. The CAISO notes that there were some comments that were submitted after the comment deadline, and the CAISO decided to extend the Draft Final Proposal posting date by one week to March 14, 2025 in order to consider those comments. The CAISO discussed the Draft Final Proposal with stakeholders on March 21, 2025 and received comments on the Draft Final Proposal by April 9, 2025, which have been reflected in this Final Proposal.

The CAISO is now publishing this Final Proposal to include the comments received on the Draft Final Proposal but is not proposing any permanent changes in the Final Proposal. However, the Final Proposal does include a two-year period during which the non-subscriber usage associated with imports at a Subscriber Participating TO intertie will not be included in any non-subscriber usage payments to the Subscriber Participating TO. The CAISO will gather and report on non-subscriber usage during this timeframe.

2.Subscriber Participating TO Model Implementation

2.1 Current Implementation Issues

The CAISO had identified certain implementation complexities as explained in the Issue Paper, which included the requirement to submit an export schedule at the sink portion of the Subscriber Participating TO transmission system, and potentially require the subscriber to import back the energy into the CAISO BAA to serve CAISO demand. This creates the need for the scheduling coordinators of the Subscriber Participating TO generation to export the generation out and then have to submit corresponding import schedules back into the CAISO BAA in order to serve demand internally within the CAISO BAA.

While, the current model remains workable, it creates certain inefficiencies, which, the CAISO believes could be mitigated through the option proposed in this Final Proposal.

areas. The scheduling priority and financial hedge provisions would be extended beyond the interconnection point if the subscriber has additional transmission rights under Existing Transmission Contracts (“ETC”) from the CAISO BAA interconnection point to their load aggregation point, but otherwise, the scheduling and financial rights end at the end of the Subscriber Participating TO transmission interconnection point to the CAISO BAA.

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By providing the subscriber a CRR/economic bidding option, it allows the subscriber to have one transaction from source to demand sink in the CAISO BAA.

In addition, this requirement to import/export also created challenges if the adjacent BAA were to join EDAM, because the subscriber would be unable to submit an ETC import schedule or bid at an EDAM transfer point in the same manner it does today, the Subscriber would have to rely on the market to optimally dispatch energy to counterflow and effectuate a transfer in the import direction. The CAISO discussed these complexities with stakeholders on November 20, 2024, January 27, 2025, and March 21, 2025, and proposed alternatives to mitigate them, as further described in this Final Proposal. In addition to the complexities discussed, stakeholders raised a number of questions regarding non-subscriber usage, CRR settlement, and impact of WEIM and EDAM rules. This Final Proposal further clarifies the implementation of the CRR/economic bidding option, proposes reporting requirements on the Subscriber Participating TO, and provides a path for monitoring the implementation of the Subscriber Participating TO model and consideration of necessary future changes.

3. Proposed Enhancement

3.1 CRR/Economic Bidding Option

Background

The CAISO further clarified in the Draft Final Proposal the process for Subscribers to exchange their ETCs for CRR Options using a process already in place for certain entities that wish to exchange TORs for CRR Options. These CRR Options would be granted solely for the Subscriber Participating TO transmission path, and would terminate at the interconnection point of the Subscriber Participating TO transmission path with the current CAISO BAA. The CAISO also provided additional clarity regarding subscriber registration, treatment of interconnected generation for subscriber and non-subscriber usage, and interplay of EDAM and WEIM transfer rules with scheduling on Subscriber Participating TO transmission facilities.

Stakeholder Feedback

Pattern and the CAISO Department of Market Monitoring (DMM) generally supported the adoption of the CRR/Economic Bidding option as an enhancement to the available market scheduling options available on Subscriber Participating TO transmission facilities. The CPUC raised questions and concerns with the non-subscriber usage charges as well as wheeling transactions. SCE raised concerns with allowing the provision of non-subscriber usage charge and CRRs to Subscriber Participating TOs to coexist, and proposed a redesign of CRRs. Salt River Project indicated support of the CAISO's acknowledgement that the usage the Arizona Entitlements by CAISO market participants remain subject to the Salt River Project's OATT, business practices and

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transmission service agreement. Both SCE and CPUC also raised questions around application of EDAM access charge for Subscriber Participating TOs.

Proposal

Subscriber Participating TO CRR Conversion Process

The CAISO describes the ETC to CRR conversion process below, which will be applicable to all Subscriber Participating TOs. This process is based on the existing Transmission Ownership Right (TOR) to CRR conversion process described in the CAISO Business Practice Manual for CRRs⁴. The CAISO has further clarified that the ETC to CRR nomination process shall be available on a quarterly basis only, based on the design of the CAISO's new CRR software system.

The following describes the CRR nomination process:

1. The ETC holders of the Subscriber Participating TO will be able to nominate conversion of ETC to CRRs every quarter by following the process described below. The specific type of CRR Options that will be provided to ETC holders are called MT_TOR CRRs.
2. ETC holders may nominate a portion of transmission capacity as CRRs at least 10 days before the published release date of the Full Network Model to be used in CRR allocations for the first month of the applicable quarter. This calendar is posted on the CAISO website. The amount of CRRs must remain unchanged for the quarter.
3. CAISO will reduce the encumbered transmission capacity of the Subscriber Participating TO transmission system by the MWs nominated for CRRs.
4. The nominated CRRs must specify the following:
 - a. Source and sink restricted to the Subscriber Participating TO transmission system. The CRR nomination could be for a single direction, e.g. CRRs could be nominated from IPP to Harry Allen and ETCs reserved in the opposite direction – from Harry Allen to IPP.
 - b. The ETC MWs that are being released as CRR Option MWs
 - c. The time duration of the CRR nomination by quarter.
 - d. Upon nomination, the CRRs will be released for both on-peak and off-peak time periods.
5. The CRR source must be an individual Pnode, aggregate Pnode or Scheduling Point. The CRR MWs in cumulative cannot exceed the transmission line capability.

⁴ Business Practice Manual for Congestion Revenue Rights

<https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Congestion%20Revenue%20Rights>

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6. The Subscriber Participating TO must submit updated TRTC instructions to CAISO to update the CRR registration commensurate with the release of transmission encumbrance through CRR nomination.

MT_TOR CRR Characteristics

1. The CRRs will only provide IFM congestion hedge to the extent there is any difference in congestion price between source and sink of the CRR, and shall not provide any RTM congestion hedge, consistent with the CRR design today.
2. The CRRs will be settled based on all schedules on the transmission path, (i.e. subscriber and non-subscriber awards). The settlement of the MT_TOR CRRs are generally consistent with how CRR Options are settled in the market today except for the difference noted in (4), and the CAISO is not proposing any changes to this market settlement model to distinguish between subscriber and non-subscriber schedules. By converting ETCs to CRRs, the CRR holders will only receive congestion revenue in IFM for all market schedules from the CRR source to sink; not the scheduling priority or the TAC exemption.
3. With this option, the transmission capacity nominated for CRRs will no longer be subject to ETCs and will be open for scheduling in all CAISO markets. This scheduling will be subject to any restrictions of use based on bilateral contracts between Subscriber Participating TO and non-CAISO transmission service providers that are providing entitlement rights to the Subscriber Participating TO as described later in this Final Proposal.
4. In addition, the MT_TOR CRRs are not subject to CRR underfunding allocation. This is because of the key difference between MT_TOR CRRs and CRRs awarded through the allocation or auction. The CRRs awarded through the allocation or auction are always settled at the awarded MW value, whereas the MT_TOR CRRs can be derated hourly based on the ratio of the operating transfer capability (OTC) and the total transfer capability (TTC) of the particular flowgate/intertie constraint and flowgate/intertie constraint direction that was associated with the source to sink combination of the original ETC from which the CRR holding was converted from.

SCE had proposed in its stakeholder comments that instead of allowing both non-subscriber usage payments and CRRs to be granted to the Subscriber Participating TO, the CAISO should only allow CRRs. SCE did recognize that the current CRRs do not provide the same type of congestion hedge as ETCs, essentially not providing any congestion hedge in the CAISO Real Time Market. SCE proposed that the CAISO redesign CRRs to allow them to provide both IFM and RTM congestion hedge to the subscribers. The CAISO appreciates the solution proposed but will not be pursuing this change at this time. The change proposed is a fundamental restructuring of how CRRs

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work today across the CAISO BA, and would require significant policy, tariff, and software system changes to implement, and is not within the scope of this narrowly focused policy initiative.

Limit Non-Subscriber Scheduling at Certain Export and Import Scheduling Points

The CAISO recognizes that there may be certain restrictions that exist on Subscriber Participating TO entitlements due to limitations established by the OATTs of the non-CAISO transmission service providers. For example, any imports into the CAISO BAA by non-subscribers at Pinal Central would be restricted to non-subscribers that are transmission customers of the transmission service providers that provide the transmission rights over their systems that SunZia represents as entitlements under the Transmission Control Agreement. In this circumstance (or others), the CAISO intends to work with the respective Arizona entities to ensure that only CAISO market participants that are eligible to use the Pinal Central to Palo Verde entitlement rights are able to schedule at Pinal Central to Palo Verde. The CAISO is currently working through the various implementation details on transmission scheduling with the Arizona entities, which includes discussing such restrictions. In order to implement such limitations, only certain SCs will be allowed to schedule at these scheduling points, by limiting the number of SCIDs that can schedule at Pinal Central. The list of SCIDs can be determined based on discussions with parties to the transmission service agreements, i.e. SunZia the Subscriber Participating TO and the Arizona transmission entities, Salt River Project, Western Area Power Administration, and Tucson Electric Power Company.

Subscriber Registration

A market transaction for exports and imports on the Subscriber Participating TO transmission path scheduled without using an ETC is considered a non-subscriber schedule and is subject to those tariff rules, i.e. exports are charged WAC and both exports and imports are counted as non-subscriber usage. Under the CRR option, the subscribers will be free to exchange ETCs for CRRs and schedule using economic bids. Without ETCs, their market awards appear no different than the market awards of non-subscribers that are scheduling imports and exports on the Subscriber Participating TO transmission path.

To address this issue, the CAISO proposes that subscribers must register in CAISO Masterfile, export and import system resources on Subscriber Participating TO transmission scheduling points. If the subscriber schedules using these export and import system resources and receives market awards, the CAISO settlement system will recognize these market transactions and will exempt them from the WAC specific charges. It will also exclude the associated awards from inclusion in the non-subscriber usage payment amount that will eventually be used to pay the non-subscriber payment amount to the Subscriber Participating TO.

This specific arrangement requires the CAISO to setup export and import system resources in a customized manner, as well as the subscribers to limit themselves to

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only using these export and import system resources. This also means subscribers cannot submit export or import market transactions not associated with these export and import system resources without counting as non-subscriber usage. If the subscribers don't utilize these export and import system resources, they will be charged the WAC and be counted as non-subscriber usage. If the subscriber does not schedule using the correct export and import system resources and is treated as non-subscriber usage, the CAISO will not accept any market settlement disputes to remedy such charges.

In its comments on the Draft Final Proposal, the CPUC raised several questions on the treatment of subscriber schedules through exports, imports and internal generation. The CAISO is responding to the comments in the points below:

- Subscribers can submit import/export schedules as intertie transactions as well as bids on interconnected generation. How these schedules are submitted is dependent on the types of resources the subscriber is intending to bid in the CAISO market. For e.g. the import/export schedules can only be submitted in support of intertie resources and cannot be used for interconnected generation such as, the wind generation connected to the SunZia or Transwest Express transmission facilities.
- Subscriber usage on interconnected generation is measured by the registered subscriber capacity while for import/export resources it is measured by their registration as subscriber resources. This is further clarified in Appendix A.
- The CAISO has provided an illustrative discussion of potential non-subscriber usage in Appendix A of the Final Proposal.
- The CAISO's proposal allows for any non-subscriber usage attributed to imports on the Subscriber Participating TO line to be funded through TAC that is eventually paid by CAISO load. The CAISO is not adopting permanent mechanisms to prevent this attribution since it is supported by its approved tariff, but is proposing a two-year temporary suspension of imports contributing to non-subscriber usage payments as described in Section 3.2.⁵
- The CAISO is not proposing any changes based on issues identified in its CRR enhancement initiative, nor is it proposing to change market participation rules in EDAM. EDAM relies on optimized transfers and not scheduled imports and exports, and a change to that structure is a fundamental shift in EDAM policy, which the CAISO is not considering at this time.
- The CPUC raised questions about proposing changes to low priority and priority wheel through penalty parameters. The CAISO is not proposing any changes to penalty parameters of wheel through on Subscriber Participating TO transmission, since any such changes would need to be applied to the market as a whole and not just specific transmission facilities. The CAISO does want to

⁵ FERC further affirmed the non-subscriber usage rate in the SunZia TO Tariff order ER25-170 dated April 17, 2025.

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clarify the implementation of priority wheel through transactions on Subscriber Participating TO transmission by using the scenario below:

Pinal Central will be a new scheduling point on SunZia transmission which will have Available Transfer Capability (ATC) that can be allocated to priority wheel through. The ATC will be reduced by the transmission capacity required to serve native load⁶, which in this case is the RA attributed to the SunZia wind resources as shown in RA supply plans submitted by LSEs. The native load reservation for LSEs will not be at Pete Heinrich since that is not an intertie, but will be reflected at Pinal Central since the generation at Pete Heinrich also utilizes the scheduling capacity at Pinal Central. The same mechanism applies will apply to TransWest Express as well.

Non-Subscribe Usage Payment Calculation

For any non-subscriber export schedules at a Subscriber Participating TO scheduling point, the aggregate value of the exports across the entire trade month will be used to calculate the portion of the non-subscriber usage payment which will be charged to the WAC revenue bucket collected from exports at that Subscriber Participating TO scheduling point. The non-subscriber usage payment amounts will follow the same timeline as Transmission Revenue Requirement (TRR) payments today, which are paid to Participating TOs on a monthly basis. While the CAISO will account for the non-subscriber usage in each market run and trade date, the payment will be based on the summation of all non-subscriber usage over a given trade month and the effective non-subscriber usage rate for the given trade month. The non-subscriber generation will be measured using meter data while import and export schedules will be measured using submitted e-tags. The CAISO will post the effective non-subscriber usage rates on the CAISO website similar to how the High Voltage Access Charge and Wheeling Access Charge are posted today.

For any non-subscriber import schedules at a Subscriber Participating TO scheduling point, the aggregate value of the imports across the entire calendar month will be used to calculate the portion of the non-subscriber usage payment that will be charged to the TAC revenue bucket collected from CAISO BAA demand. For any wheeling transactions, which consist of a paired import and export transaction, the CAISO will calculate the non-subscriber usage for both the import and export transactions, if they are scheduled at a Subscriber Participating TO scheduling point. For e.g. on the TransWest Express system, a wheeling transaction from IPP to Harry Allen Substation will result in the import at IPP being considered non-subscriber usage as IPP is a Subscriber Participating TO scheduling point, but not the export at Harry Allen Substation, since Harry Allen Substation is not the Subscriber Participating TO scheduling point. The non-subscriber charge used in such calculations shall be specific (and potentially different) for each Subscriber Participating TO scheduling point based

⁶ The Wheel Through Priority process and transmission capacity reservation for native CAISO Load is defined under Section 23 of the CAISO Tariff.

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on the Subscriber Participating TO's FERC filed rates, but applicable to both imports and exports at that scheduling point.

In its comments submitted on the Draft Final Proposal, SCE raised concerns with using individualized netting against WAC for non-subscriber usage attributed to imports and exports. The CAISO would like to take this opportunity to further clarify its proposed implementation. The calculation of non-subscriber usage rate at any Subscriber Participating TO scheduling will include the aggregation of all imports and exports at the scheduling point across the trade month. The non-subscriber usage payment created by the total aggregate of export schedules will be paid from the total WAC collected at the scheduling point, with any excess being included in the collective WAC bucket for non-Subscriber Participating TOs. Only the non-subscriber usage payment attributed to imports at the scheduling point, to the extent it happens, will be paid through TAC and will not be charged to WAC.

Subscriber Interconnected Generation

There is a key difference between the treatment of subscriber usage on import/export schedules and Subscriber Participating TO interconnected generators. While for import and export schedules, the subscriber treatment is dependent on whether the export or import system resources have been registered as exempt from WAC and non-subscriber usage calculations, for Subscriber Participating TO interconnected generators the treatment is dependent on the level of subscriber MWs associated with the generator. Regarding any non-subscriber usage of Subscriber Participating TO interconnected generator, the CAISO has included in its implementation a new data field in Master File called subscriber capacity. This will be a MW value per generator resource ID that will identify the MW level of subscriber capacity on a generator. Generally, if the Subscriber Participating TO transmission is fully subscribed and the off-takers are receiving rights to the entire capacity of the generator through PPAs or RA contracts, then the generator resource ID subscriber capacity shall be equal to its registered PMax in Master File. When calculating non-subscriber usage, the CAISO will compare the subscriber capacity MW with the market award received by the generator, and if the market award is higher than the subscriber capacity, then the delta will be counted as non-subscriber usage. But in the cases of fully subscribed generators, there will be zero non-subscriber usage attributed to them.

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EDAM Access Charge Calculation

In the Straw Proposal, the CAISO described the treatment of subscriber and non-subscriber usage under EDAM, based on the most recent tariff filings accepted by FERC governing the CAISO BAA participation in EDAM. This section reiterates that discussion in light of additional comments raised on this subject since that time.

Under EDAM, there will be transfer points established between EDAM BAAs, including the CAISO and its adjacent EDAM BAAs. These transfer points will have BA to BA transfers in the DAM similar to the BA to BA transfers between WEIM BAAs in FMM and RTED. These EDAM transfers are not considered as export or import schedules between the EDAM BAAs, and so are not charged any WAC unlike how export schedules are charged today. In addition, since these EDAM transfers are not an export or import schedule, they will not be included in the non-subscriber payment amounts that are funded through WAC or TAC similar to how WEIM transfers are treated today, but will be subject to a different cost recovery mechanism as described below.

While there will be no WAC charged for EDAM transfers, there may be other cost recovery mechanisms available to the Subscriber Participating TOs under the EDAM rules. In our recent tariff filing⁷, the CAISO proposed to allow Subscriber Participating TO transmission to be considered as either existing or new transmission, similar to the transmission built by other PTOs, and accounted for accordingly. As this tariff filing was approved, the Subscriber Participating TO transmission will be eligible to recover EDAM access charge revenues for non-subscriber usage of their transmission. If the Subscriber Participating TO transmission is placed in service prior to the adjacent BAA joining EDAM, then the transmission will be considered as existing transmission and would be eligible for recovery under the EDAM access charge based on historical schedules of non-subscriber usage on that intertie. The CAISO proposes that import and export schedules submitted without a WAC and non-subscriber payment exemption shall count as historical non-subscriber schedules for purposes of calculating the EDAM access charge. If the Subscriber Participating TO transmission is placed in service after the adjacent BAA joins EDAM, then the Subscriber Participating TO transmission will be considered as new transmission and will recover their non-subscriber usage payments through the EDAM access charge based on estimated schedules of non-subscriber usage.⁸

The SCE and CPUC raised questions on how EDAM access charges will be calculated on the Subscriber Participating TO transmission, primarily due to the lack of historical usage of the transmission prior to EDAM go-live. The CAISO would like to clarify that the EDAM access charge based recovery of non-subscriber usage charge is only applicable when the adjacent BA to the Subscriber Participating TO transmission has joined EDAM, and not concurrent with the implementation of EDAM. Salt River Project

⁷ FERC Docket No. ER25-437 EDAM Access Charge in CAISO Balancing Authority Area

⁸ See the EDAM access charge provisions in CAISO Tariff sections 33.26 and 26 for more information concerning the EDAM access charge and how it will apply in the CAISO BAA. These tariff provisions will be effective on May 1, 2026.

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has not made any indication of joining EDAM, so the EDAM access charge treatment will very likely not be applicable to SunZia in 2026. LADWP and NV Energy have indicated their intent to join EDAM, which will result in usage of the EDAM Access Charge calculation for TransWest Express which is expected to come online in 2029/2030. The CAISO expects to gain experience of the application of the EDAM access charge by that time, and can provide additional clarity on the implementation mechanics in the future.

WEIM Transfers

If the adjacent BAA at the scheduling point is a WEIM balancing area, than post-HASP that scheduling point is considered a transfer point and any incremental awards in FMM and RTED are considered a WEIM transfer. WEIM transfers are not considered an export or import schedule and therefore are not charged WAC nor are they counted towards non-subscriber usage payment amount; *i.e.*, they fall under the WEIM “reciprocity” rules. This is because the tariff language filed regarding calculating of non-subscriber usage payment specified using import and exports schedules in the calculations for non-subscriber usage payment amount and not WEIM transfers which are treated as a different kind of market transaction today.

3.2 Non Subscriber Usage Reporting and Design

Background

The CAISO proposed in the Draft Final Report to proceed with the Subscriber Participating TO design as currently proposed, and allow for a two year operational observation window supplemented by annual reporting of non-subscriber usage on the Subscriber Participating TO transmission facilities.

Stakeholder Comments

The CAISO received stakeholder comments from SCE and CPUC that raised concerns with the proposed non-subscriber usage payment reporting requirement and two-year operational period. CPUC proposed a more frequent reporting requirement of non-subscriber usage payment and SCE opposed the two-year operational observation window.

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Proposal

As noted in the stakeholder comments section, stakeholders have raised questions and concerns with the non-subscriber usage payment reporting, consideration of an import hurdle rate, changes to the CRR design, as well as the proposed two-year assessment window proposed in the Draft Final Proposal.

The CAISO has considered these comments and is proposing the following:

While the CAISO appreciates the need for more granular reporting non-subscriber usage, the CAISO still believes that an annual reporting mechanism is reasonable in terms of providing a more complete picture of the total non-subscriber usage payment made to the Subscriber Participating TO. An annual period will normalize any seasonal variations, and provide a more balanced picture of the total non-subscriber usage on the transmission line. While the CAISO continues to propose the annual reporting, the CAISO will monitor the non-subscriber usage payment on a periodic basis to identify any significant or immediate concerns that may be materially detrimental to reliability or market efficiency or increase ratepayer harm.

Certain stakeholders had raised questions regarding the need to explore some type of hurdle rate/bid adder for any non-subscriber imports on the Subscriber Participating TO transmission facilities, in order to include the transmission charges in the market optimization for energy bids. While the CAISO appreciates the questions and ideas raised, the CAISO will not be pursuing this proposal at this time. As described in the Draft Final Proposal, the inclusion of a hurdle rate or import bid adder raises significant questions regarding price formation, enforcement, bid insertion, market settlement etc. which would require significant stakeholder input, and is well beyond the scope of this initiative.

The CAISO continues to propose the two-year operational window as a compromise to the immediate redesign of the proposed enhancement of allowing CRRs in exchange of ETCs. The CAISO proposes to proceed with the Subscriber Participating TO design as currently proposed in this Final Proposal, allow the SunZia transmission and generation to be fully operationalized in the CAISO market by mid-2026, and allow at least 2 years of operational experience to calculate the actual level of non-subscriber usage on the SunZia line. If CAISO observes that there is a significant level of non-subscriber usage on the SunZia transmission line that is being charged to CAISO demand and receives input from stakeholders that a review of the Subscriber Participating TO non-subscriber usage rate and payment amount mechanisms are required, it will propose a new policy initiative to re-examine the non-subscriber usage rate and payment amount mechanism within a reasonable timeframe.

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However, given the concern raised by stakeholders with the non-subscriber usage payment and their perceived potential for double payment and loss of TAC revenue,⁹ the CAISO proposes to revise the Draft Final Proposal to include a two-year period commencing upon the latest commercial operation date of the generating units interconnected to the Subscriber Participating TO's transmission facilities, during which the non-subscriber usage charge for imports would be calculated but not paid to the Subscriber Participating TO. With respect to the concern of loss of TAC revenue, because there is not any empirical data as to the amount of non-subscriber usage and therefore the payment amount to the Subscriber Participating TO, the ISO will gather and report data concerning non-subscriber usage. The two-year period will allow the CAISO time to gather sufficient data and determine there is significant non-subscriber usage on the Subscriber Participating TO transmission facilities. If this is a significant concern, the two-year period provides the CAISO sufficient time to have a stakeholder process to adjust the non-subscriber usage payment based on usage data. After the two-year period this provision will sunset and the non-subscriber usage payments attributed to imports will resume.

4. WEM Governing Body Role

This initiative proposes certain ISO tariff amendments to enhance the opportunities for transmission developer to become a Participating TO. ISO staff believes that these proposed ISO tariff changes will go to the Board of Governors only and that the Western Energy Markets (WEM) Governing Body will have no role in the decision. Under the new rules, the Board and the WEM Governing Body have joint authority over any proposal to change or establish any CAISO tariff rule(s) applicable to the EIM Entity balancing authority areas, EIM Entities, or other market participants within the EIM Entity balancing authority areas, in their capacity as participants in EIM. This scope excludes from joint authority, without limitation, any proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid.

Charter for EIM Governance § 2.2.1. None of the tariff rule changes currently contemplated in this initiative would be “applicable to EIM Entity balancing authority areas, EIM Entities, or other market participants within EIM Entity balancing authority areas, in their capacity as participants in EIM.” The proposed tariff rules would be applicable “only to the CAISO balancing authority area or to the CAISO-controlled grid.” Accordingly, the matters scheduled for approval in May 2025 fall outside the scope of joint authority. The WEM Governing Body also has an advisory role that extends to any proposal to change or establish ISO tariff rules that would apply to the real-time market but are not within the scope of joint authority. This initiative, however, does not propose changes to real-time market rules.

⁹ The CAISO does not agree with this stakeholder concern. Having the CRR option does not result in double payment as the ETC option provides a perfect hedge for congestion in the day-ahead and real-time markets for the subscriber whereas if the subscriber uses the CRR option they would give up the benefits of the ETC option and instead be given a CRR for the day-ahead market but pay congestion for both the day-ahead and real-time markets. Therefore, only the day-ahead congestion is hedged.

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This proposed classification reflects the current state of this initiative and may change as the stakeholder process moves ahead. Stakeholders are encouraged to submit a response to the EIM classification of this initiative as described above in their written comments, particularly if they have concerns or questions.

5. Stakeholder Engagement

The initiative is posted on the CAISO's initiative webpage here: [California ISO - Subscriber participating transmission owner market scheduling options \(caiso.com\)](https://www.caiso.com/initiatives/subscriber-participating-transmission-owner-market-scheduling-options)

The proposed schedule for this initiative is as follows:

DATE	EVENT
1/17/2025	Publish Straw Proposal
1/27/2025	Stakeholder meeting on Straw Proposal
2/10/2025	Comments due on Straw Proposal
3/14/2025	Publish Draft Final Proposal
3/21/2025	Stakeholder meeting on Draft Final Proposal
4/4/2025	Comments due on Draft Final Proposal
4/24/2025	Publish Final Proposal
5/22/2025	Board of Governors Meeting

Appendix A – Transmission Usage

Matrix of Different Types of Transmission Usage

	Interconnected generation	Import/Exports	WEIM transfers
Non-Subscriber Usage	Non-subscriber usage on interconnected generation is the difference between metered generation in excess of the associated subscriber MW	Non-subscriber usage on import or export transactions is equal to adjusted e-tags, if the import or export resource is not associated with subscribers.	Not applicable
Subscriber Usage	Subscriber usage on interconnected generation is the metered generation that is less than or equal to the associated subscriber MW	Subscriber usage on import or export transactions is equal to adjusted e-tags, if the import or export resource is associated with subscribers.	Not applicable
Other	Not applicable	Not applicable	All WEIM transfers are considered neither as subscriber or non-subscriber usage.

Discussion on Non-Subscriber Usage

As an example using the SunZia transmission project, any flows from Pinal Central to Palo Verde will be limited to 2131MW. The SunZia wind generation has total gross MW output of approximately 3500 MWs, which at a 40% capacity factor will generate a maximum of 12,264 GWh. The total feasible energy flow from Pinal Central to Palo Verde is 18,667 GWh, which uses gross production of 2131 MW at a 100% capacity factor. If 75% of the maximum SunZia wind generation, which equates to 9,198 GWh, is able to flow from Pinal Central to Palo Verde, this leaves approximately 9,469 GWh of energy flow availability on the Pinal Central to Palo Verde transmission path during a given year. SunZia subscribers will continue to have the ability to submit subscriber imports at Pinal Central to utilize any available capacity on this line. Even assuming that the SunZia subscribers use up to 75% of the remaining capacity which equates to 7,102 GWh, this leaves 2,367 GWh of remaining energy flow on the path which could

Subscriber Participating TO Market Scheduling Option Final Proposal

potentially count as non-subscriber usage. Utilizing the filed non-subscriber usage charge for Pinal Central to Palo Verde of \$7.6/MWh, this could equate to \$18 Mn of non-subscriber usage payments to SunZia over a year. While this is a substantive amount, the CAISO believes that a significant portion of this non-subscriber energy will likely serve the growing CAISO demand thus giving direct benefits to ratepayers who will ultimately pay for the non-subscriber usage rate. Another point to note is that Palo Verde will also be a scheduling point between Salt River Project and CAISO, and this existing scheduling point will continue to be an alternative to CAISO market participants to schedule on instead of Pinal Central, which would also contribute towards reducing non-subscriber usage for SunZia. The CAISO requests that stakeholders consider these assumptions and the associated nuances, while evaluating the CAISO's proposal to gain more operational experience with the implementation of SunZia prior to contemplating any change to the non-subscriber usage charge and payment mechanism. Nevertheless, the true level of non-subscriber usage will not be known until the Subscriber Participating TO line has been placed in service and operated for a substantive amount of time.

Attachment D – Board Memorandum

Enhance Subscriber Participating Transmission Owner Market Scheduling Options

California Independent System Operator Corporation

June 6, 2025

Memorandum

To: ISO Board of Governors
From: Neil Millar, Vice President, Transmission Planning and Infrastructure Development
Date: May 14, 2025
Re: **Decision on subscriber participating transmission owner market scheduling options**

This memorandum requires ISO Board of Governors action.

EXECUTIVE SUMMARY

Management requests the ISO Board of Governors' approval of a new enhancement to the subscriber participating transmission owner (Subscriber PTO) model, to be made available to subscribers. The enhancement addresses complexities and inefficiencies created by the Subscriber PTO model's current reliance on "existing contract rights" market software, which limits subscriber use of the transmission to self-schedules. It will enable the subscriber to economically bid, and enables other non-subscriber users to compete for use of the transmission by allowing the subscriber to release their transmission entitlement in exchange for receiving the financial congestion revenue rights. This option provides the subscribers the ability to maintain the rights they are entitled to while simplifying operations.

Management recommends the following motion:

Moved, that the ISO Board of Governors approves the proposed subscriber participating transmission owner market scheduling options, as described in the memorandum dated May 14, 2025; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposal, 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.

DISCUSSION AND ANALYSIS

On March 12, 2024, the Federal Energy Regulatory Commission accepted the ISO's tariff amendment for the Subscriber PTO model, a new transmission development model.¹ This model establishes alternative opportunities for the construction of new transmission not addressed in the ISO's transmission plan in locations outside of the original ISO balancing authority area. Specifically, the Subscriber PTO model provides the ISO and interested project developers the option to develop and deliver resources that will satisfy state, municipal, county, or federal policy requirements or directives, including California's energy policy goals. The Subscriber PTO model enhances inter-regional transmission resilience, deliverability, and resource adequacy, while providing customers with the benefit of new transmission facilities under the operational control of the ISO. Under this model, subscribers of the capacity on the facilities owned by a Subscriber PTO pay the costs to construct these new transmission facilities, rather than incorporating the costs into the ISO's transmission access charge, which is funded by transmission ratepayers. The subscribers receive an entitlement and the Subscriber PTO may recover revenue for use by non-subscribers.²

Under the Subscriber PTO model, the developer will place the new transmission facilities under ISO operational control and connect generation to the ISO balancing authority area. This will occur without a decision to build the project through the ISO's transmission planning process.³ In exchange, the subscribers who pay for use of the facilities receive scheduling priority and entitlement rights, which are existing transmission contracts for energy scheduled from that generator to internal ISO demand or ISO balancing authority area interconnection point, whichever is the exit point of the Subscriber PTO transmission facilities. The entitlement rights provide the subscriber with a higher scheduling priority than other self-schedules and economic energy bids that may seek to utilize the Subscriber PTO transmission facilities. In addition, these entitlement rights also provide the subscribers with a financial hedge against congestion and transmission charges between the generation and the interconnection point to the original ISO balancing authority area.⁴

¹ The FERC order accepting the Subscriber PTO proposal is available on the ISO website at: <https://www.caiso.com/documents/mar12-2024-orderacceptingproposedtariffrevisions-subscriberparticipatingtransmissionownermodel-er23-2917.pdf>

² These and other features of the underlying Subscriber PTO model accepted by FERC are outside the scope of this stakeholder initiative.

³ If the decisions were made through the transmission planning process, then the Subscriber PTO would have been eligible to be a PTO and have its transmission revenue requirement recovered through the ISO transmission access charge.

⁴ The original balancing authority area footprint was established as of FERC approval of the Subscriber PTO amendment to the ISO tariff on March 12, 2024. The original footprint may change overtime with addition of transmission facilities or balancing authority areas. The scheduling priority and financial hedge provisions would be extended beyond the interconnection point if the subscriber has additional transmission rights under existing transmission contracts from the ISO balancing authority area interconnection point to their load aggregation point, but otherwise, the scheduling and financial rights end at the end of the Subscriber PTO transmission interconnection point to the ISO balancing authority area.

Under the existing approved design of the Subscriber PTO model, subscribers of the capacity on facilities owned by a Subscriber PTO will receive both a scheduling priority and a financial hedge against congestion and transmission access charges over the Subscriber PTO facilities up to the point of interconnection between the Subscriber PTO transmission line and the original ISO balancing authority area. These subscriber rights are eligible for treatment as existing transmission contracts under the ISO tariff, defined by the entitlement rights and modeled as an encumbrance using the existing transmission contract model between a specified source location(s) and sink location(s) associated with a specific contract reference number.

Current Implementation Issues

The ISO has identified certain implementation complexities in honoring the subscribers' rights by treating subscribed capacity as an encumbrance or existing right through the use of existing contract rights. Reliance on self-schedules becomes inefficient under certain scenarios for non-contiguous portions of the ISO balancing authority area because both an import and export schedule must be submitted to differentiate between the Subscriber PTO facility use and use of the existing ISO controlled grid (the subscriber has high priority scheduling rights on the Subscriber PTO facilities, but does not have high priority scheduling rights on the existing ISO transmission facilities). These complexities include the requirement to submit an export schedule at the sink location where the Subscriber PTO transmission system terminates and potentially require the subscriber to import the energy back into the existing original ISO balancing authority area to serve ISO demand that is located beyond the terminus of the Subscriber PTOs transmission. This creates the need for the scheduling coordinators of the Subscriber PTO generation to create export schedules for the generation out and then have to submit corresponding import schedules back into the ISO balancing authority area to serve demand internally within the ISO balancing authority area. Besides being burdensome, this self-scheduling requirement precludes the generation from bidding economically in the ISO market as the resource must become a price taker. It also raises an implementation obligation of having to nominate resource adequacy on a generation resource that is expected to export out, which although workable is an unconventional setup within the ISO market.⁵ The current model remains workable but creates these inefficiencies.

For other existing non-participating transmission owners that have transmission rights that are part of the ISO controlled grid today, the ISO has allowed those parties, through operating agreements, to convert all or a portion of their transmission rights to congestion revenue rights options. This allows the non-participating transmission owners within the ISO balancing authority area to convert transmission that would

⁵ The ISO anticipates clarifying that load serving entities will have access to the maximum import capability associated with their subscriber rights until the load serving entities no longer need the allocation; *i.e.*, until the delivery network upgrades are completed. ISO tariff, Appendix DD 8.9.1(b).

otherwise not be available to the market to be released on a periodic basis in advance of the trade month, which makes more transmission available for market use. In return, the party gets the congestion revenue associated with the transmission rights or existing contract rights that were released in the day-ahead market.

Similar to what has been done for other transmission owners that are not participating transmission owners, the ISO believes applying this concept to a subscriber could mitigate the inefficiencies discussed above by providing the congestion revenue rights options that allow the subscriber to have one transaction from source to demand sink in the ISO balancing authority area. In addition, the requirement to import/export creates challenges if the adjacent balancing authority area were to join the extended day-ahead market (EDAM), because the subscriber would be unable to submit an import schedule or bid at an EDAM transfer point in the same manner it does today, and would have to rely on the market to optimally dispatch energy to counter flow to effectuate a transfer in the import direction.

The ISO proposes an option for the subscriber to forego the scheduling priority and congestion hedging benefits of exercising their rights through the submission of a self-schedule, and instead receive congestion revenue rights options. This opportunity will allow the subscriber to bid economically and compete with non-subscriber resources, thus increasing efficiency and avoiding the import-export challenges because the rights would no longer be encumbered by the subscriber. This opportunity also entails certain downsides for the subscriber. While the subscriber that relinquishes its existing contract rights for congestion revenue rights would get congestion revenue to the extent the Subscriber PTO line is congested, they only get the payments for congestion associated with the day-ahead market and not the real-time market, absent a significant overhaul of the ISO's congestion revenue rights product. In addition, the subscriber is giving up their priority scheduling right in both the day-ahead and real-time market, and the congestion hedge in real-time. In either option, however, the subscriber is not charged for the transmission usage on the Subscriber PTO facilities.

The ISO proposes to provide the subscriber the opportunity to exchange their existing transmission contract rights under the current model for congestion revenue rights options. The subscriber may also not make this election and retain their existing contract rights under the existing Subscriber PTO model. The congestion revenue rights options would be granted solely for the Subscriber PTO transmission path, and would terminate at the interconnection point of the Subscriber PTO transmission path with the current ISO balancing authority area. Instead of being hedged for congestion under the current Subscriber PTO model, they would be charged and paid for congestion on the Subscriber PTO line. This offers the subscribers an ability to exchange their existing transmission contract rights for congestion revenue rights options, similar to the process allowed pursuant to a few specific existing arrangements with third party transmission owners in the ISO balancing area and would be more efficient and suitable than requiring the subscribers to participate in the merchant

congestion revenue rights allocation process. The existing transmission contract to congestion revenue rights option conversion process does modify the ability of the subscribers to submit economic bids versus self-scheduling thereby allowing the market to make more economic decisions.

The advantage of using existing transmission contracts is priority scheduling in the day-ahead and real-time markets; a hedge on congestion in both the day-ahead and real-time markets and waiver of the transmission access charge for use of the Subscriber PTO transmission, because the subscriber has already paid to develop such transmission. When using the existing transmission contracts option, the subscriber is a price-taker and in some instances, the subscriber may need to use a balanced import and an export to self-schedule their subscriber rights. Whereas the subscriber's advantage of converting their existing contract right to congestion revenue rights options is that they can bid into the market, but the congestion is hedged solely in the day-ahead market and grants them the similar transmission access charge waiver.

POSITIONS OF THE PARTIES

Three parties supported the proposal and two opposed it. The two parties opposing the proposal are opposing the non-subscriber usage payment that was not an element of this initiative and was approved by FERC in the original proceeding. The parties in opposition also raised concerns with the payment of non-subscriber usage under specific scenarios, while at least one party opposed the entire non-subscriber usage payment mechanism because the subscribers would now have an allocation of revenue associated with the congestion revenue rights.

Non-Subscriber Usage Rate Concerns

Two stakeholders raised concerns regarding the non-subscriber usage payment that FERC approved in the underlying Subscriber PTO proceeding, though it was not an element of this initiative.⁶ In that proceeding, FERC approved that the Subscriber PTO could establish a non-subscriber usage rate no greater than the wheeling access charge and that rate would apply to both imports and exports solely on the Subscriber PTO transmission system. The concern raised in this initiative is largely with respect to the non-subscriber usage rate being assessed to imports that are not subscribers of the transmission. These stakeholders are concerned that non-subscriber imports will result in payments to the Subscriber PTO that draw on money collected through the transmission access charge, and therefore amounts to pay the non-subscriber usage payment could reduce the revenue available for the other participating transmission owners.

⁶ Id. at 1

Because there is not any empirical data as to the amount of non-subscriber usage and therefore the payment amount to the Subscriber PTO, the ISO is proposing that for a two-year period commencing upon the final commercial operation date of the last generating units connected to the first Subscriber PTOs transmission system,⁷ the non-subscriber usage charge for imports would be calculated but not paid to the Subscriber PTO. The two-year period will allow the ISO time to gather data and determine whether the amount of non-subscriber usage is cause for significant concern. If this is a significant concern, the two-year period provides the ISO sufficient time to conduct a stakeholder process to adjust the non-subscriber usage payment. After the two-year period, this provision will either sunset and the non-subscriber usage payment attributed to imports will resume or will be changed according to the outcome of the stakeholder process.

Because the Subscriber PTO model is so new, the ISO does not know if the concerns expressed will rise to the level of concern articulated by stakeholders. Therefore, the ISO agreed in the final stakeholder proposal to publish an annual report of the total non-subscriber usage payments. If there are substantial inequities, the ISO will initiate a stakeholder process to address any issues that arise. In recent discussions with the concerned stakeholders, the ISO believes this two-year monitoring and reporting period will alleviate stakeholder concerns and allow us to address the issue if necessary based on market data.

CONCLUSION

Management recommends approval of the additional option for subscribers to relinquish their subscriber rights for congestion revenue rights. To the extent the subscriber relinquishes such rights, then the congestion revenue rights option available to the subscriber will allow it to economically bid in the market, avoid the complexities of scheduling imports and exports at the end of the Subscriber PTO line and be compensated for congestion using congestion revenue rights which otherwise would have been hedged only when scheduling their transmission right using balanced source and sink.

⁷ This is the first time a non-subscriber schedule could be accepted at a Subscriber PTO scheduling point.



ISO Board of Governors

May 22, 2025

General session

Decision on subscriber participating transmission owner market scheduling options

Motion

Moved, that the ISO Board of Governors approves the proposed subscriber participating transmission owner market scheduling options, as described in the memorandum dated May 14, 2025; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposal, 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.

Moved: Governor Borenstein

Second: Governor Eto

ISO Board of Governors Action: Passed Vote Count: 5-0	
Borenstein	Y
Eto	Y
Galiteva	Y
Leslie	Y
Schori	Y