

Memorandum

To: ISO Board of Governors

From: Neil Millar, Vice President Infrastructure & Operations Planning

Date: July 12, 2023

Re: Decision on the Subscriber Participating Transmission Owner Model

This memorandum requires ISO Board of Governors action.

EXECUTIVE SUMMARY

The California Independent System Operator Corporation developed a new Subscriber Participating Transmission Owner (“PTO”) model for development of generation and transmission from outside of the ISO balancing area, which will facilitate delivery of critically needed resources to the ISO. This model can enable new transmission lines outside of the ISO balancing area for developers who want to build and place their transmission facility or facilities under ISO operational control and use those transmission facilities to connect generation to the ISO balancing area without a decision in the Transmission Planning Process.¹ The transmission project connecting to such generation, financed through the FERC-approved subscriber process, would be outside of the transmission revenue requirement of the ISO’s transmission access charge.²

- This model enables development of out-of-state renewable generation identified in the CPUC’s Final Decision Ordering Supplemental Mid-Term Reliability Procurement,³ the CPUC resource portfolios used in the ISO’s 2023-2024 Transmission Planning Process, and aligns with the longer-term requirements set out in the scenario provided by the CEC and the CPUC to the ISO for the ISO’s 20-Year Transmission Outlook released in May 2022.

¹ If the Transmission Planning Process identifies a transmission project to be built, consistent with Section 24 of the ISO tariff, it would be competitively bid if the criteria for competitive solicitation are met and the costs would be included in the ISO’s transmission access charge.

² The Subscriber PTO Model would be used solely for a transmission project that is paid for by subscribers and is outside the ISO balancing area to be studied and incorporated into the ISO controlled grid. The access charge consists of two components, the transmission access charge that is assessed to load and the wheeling access charge that is assessed to exports and wheel-through transactions

³ CPUC Decision (D.) 23-02-040 adopted on February 23, 2023.

- The Federal Energy Regulatory Commission (“FERC”) has established policies supporting the development of transmission projects, including high-voltage direct current transmission projects capable of transmitting power over long distances through an approach where subscribers agree to fund such transmission projects in exchange for long-term transmission service rights.

Approval of the Subscriber PTO Model by the ISO Board will provide non-ISO transmission developers the fundamental rules by which they will interconnect to the ISO controlled grid and participate in the Transmission Planning Process and Generator Interconnection and Deliverability Allocation Process. This model will also establishes an accounting mechanism for purchases of the subscriber generation with pre-paid rights to deliver the supply to load in the ISO and for non-subscribers that may use the Subscriber PTO facilities when the capacity is not used by purchasers of the subscriber generation.

Establishing these rules is critical to support the ISO’s ability to meet the CPUC’s portfolio requirements incorporated in the Transmission Planning Process and the state’s energy policy goals. The ISO Board approved TransWest Express, LLC as an applicant participating transmission owner in December 2022 to bring 1,500 MW of Wyoming wind to the ISO and while they have broken ground on the transmission project, they need this policy in place to be able to market their project. The subscribers need the knowledge of how the ISO will treat the transactions on the line and what additional revenue the transmission owner may receive from non-subscriber use of the transmission project in the ISO’s market.

Moved, that the ISO Board of Governors approve the ISO’s proposal for the Subscriber PTO Model as detailed in the memorandum dated July 11, 2023, 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

Subscriber PTO Model Framework

The Subscriber PTO Model provides an option for a project to move forward depending on whether the subscriber or subscribers⁴ to the project can contract their resources to be delivered to the ISO balancing area (e.g., through contracts with California load serving entities). Comparable projects can similarly move forward under this same model. This allows the load serving entities or other contracting parties to determine the most economic and best fit for their own portfolios.⁵

This model enables development of out-of-state renewable generation and the new transmission facilities required to reach the CPUC portfolio identified resource locations. These portfolios call for out-of-state wind generation that requires new transmission to reach the ISO border: 1,000 MW from Idaho, 1,500 MW from Wyoming, and 2,328 MW from New Mexico. These volumes build on the amounts provided as part of the ISO's 2022-2023 Transmission Planning Process, and match the values that the ISO used to size the transmission needed from the ISO border to load centers in the 2022-2023 plan. In addition, the model will facilitate the delivery of needed resources to the ISO, which are complementary with FERC's subscriber-funded transmission approach.

The Subscriber PTO Model would be used for new transmission lines outside of the ISO balancing area whose developers want to build and place their transmission facility(ies) under ISO operational control and use those transmission facilities to connect generation to the ISO balancing area without a decision to approve the transmission facility(ies) in the Transmission Planning Process.⁶ The combined project, financed through the FERC-approved subscriber process, would be outside of the transmission revenue requirement of the ISO's access charge. The Subscriber PTO Model is a potential win-win arrangement for the ISO, California load serving entities and project sponsors.

Use of Encumbrances

Since subscribers of the Subscriber PTO project are ultimately financing the full cost of the transmission facilities, the Subscriber PTO will include in their application to become a

⁴ Subscriber is defined as an entity, or its designee, that has a subscriber encumbrance used to provide subscriber rights pursuant to a subscription agreement. The subscription agreement is defined as a contract or other legal arrangement between one or more subscribers (i.e. generating facilities) and a Subscriber PTO that includes the provision of a subscriber encumbrance to the subscriber. The subscriber would then provide the subscriber rights to the off-takers of generation from their facilities.

⁵ The Board conditionally approved TransWest Express LLC as a Subscriber PTO pending the outcome of this initiative.

⁶ If the Transmission Planning Process identifies a transmission project to be built, consistent with Section 24 of the ISO tariff, it would be competitively bid if the criteria for competitive solicitation were met.

Participating TO an encumbrance on the transmission facilities. This encumbrance represents the Subscriber Rights in the market, which the ISO will honor using its existing functionality developed for encumbrances on the ISO controlled grid, thereby providing subscribers with the same treatment on the Subscriber PTO transmission facilities as any other encumbrance the ISO administers under the Transmission Control Agreement.⁷ This treatment provides the Subscriber Rights holder a scheduling priority for the contract path and exempts a Subscriber Rights holder from transmission service charges, bid cost recovery allocation, offsets and Integrated Forward Market congestion allocation similar to all existing contracts and transmission ownership rights in the ISO balancing area.

Transmission Costs

The ISO will assess the transmission access charge for non-subscriber imports using the Subscriber PTO scheduling point(s), assess the wheeling access charge for non-subscriber exports, and wheel-through transactions using the Subscriber PTO scheduling point(s). The Subscriber PTO will be allowed to develop a non-subscriber usage rate that does not exceed the ISO's then existing transmission rates approved by FERC, which would be recovered from non-subscriber use of the Subscriber PTO transmission facilities.

Non-Subscriber Usage Rate

A separate non-Subscriber usage rate is appropriate under the unique circumstances of the Subscriber PTO Model. Consistent with cost causation and open access principles, the ISO believes non-subscribers cannot use the project of a Subscriber PTO for free. On the other hand, including any costs of a Subscriber PTO's transmission facilities in the transmission revenue requirement for the transmission access charge or wheeling access charge would be contrary to a fundamental design principle of the Subscriber PTO Model, which allows these projects to move forward without funding through a transmission revenue requirement by all ISO customers. The evolving intent of this principle was to exclude the cost to build the Subscriber PTO's transmission facilities.⁸ Because the Subscriber PTO is not including the transmission revenue requirement for the original build of its transmission facilities or ongoing costs of its transmission facilities in the transmission revenue requirement for the transmission access charge, the Subscriber PTO should be entitled to cost recovery if a Scheduling Coordinator other than a subscriber uses the project.

The ISO will collect the transmission access charge for imports or the wheeling access charge for exports and wheel-through on the Subscriber PTO scheduling points from Scheduling Coordinators that do not have a right to schedule their use under the

⁷ Encumbrances on the ISO controlled grid generally consist of contracts entered into by the transmission owners prior to the ISO, sometimes referred to as existing transmission contracts or ETCs.

⁸ The proposal was to exclude the cost of network upgrades on existing Participating TOs transmission facilities to interconnect the Subscriber PTO's transmission facilities. These additional network upgrade costs do benefit ISO ratepayers and are appropriately recovered through the access charge.

encumbrance recognized by the market (i.e. non-subscribers). If the Subscriber PTO facility had not been built, this additional revenue would not have been collected. The Subscriber PTO will develop a non-subscriber usage rate in accordance with the ISO tariff and the Subscriber PTO's transmission owner tariff that will be approved by FERC. Any updates to the non-subscriber usage rate will also need to be approved by FERC. The Subscriber PTO will notify the other Participating TOs and Approved Project Sponsors similar to the regulatory requirements of all other Participating TOs when it makes a FERC rate filing for the non-subscriber usage rate. This non-subscriber usage rate will be deducted from the revenue collected via the access charge.

Future Network Upgrades

If a new generator in the future were to connect to the Subscriber PTO transmission facilities, the ISO will evaluate the generating facility as it does any other potential generation projects interconnecting to the ISO controlled grid through the ISO's generator interconnection process consistent with the ISO tariff.

For any future network upgrades required by the generator interconnection process or Transmission Planning Process that are not part of the original build, the Subscriber PTO will develop a FERC-approved transmission revenue requirement that will be incorporated into the ISO's access charge.

Termination of the Subscriber Encumbrance

The ISO and Subscriber PTO will memorialize the original-build costs and a schedule of depreciation as well as the initial subscriber term. At the end of the Subscriber Encumbrance term, the decision whether or not to continue the Subscriber Encumbrance will be determined based on the applicable regulatory requirements at that time and the Subscriber PTO's intentions for the future of its transmission facilities. The Subscriber PTO will not include in the ISO's access charge its transmission revenue requirement for the original build cost of the Subscriber PTO transmission facilities.

Transmission Cost Allocation

The Subscriber PTO will have its own TAC Area. This mechanism allows the ISO to provide the special rate treatment discussed in this proposal. Similar to other Existing Contract Rights holders, the subscribers have already paid for the cost of transmission and congestion and the ISO will apply the Existing Contract ISO tariff provisions. Provided the subscriber uses a balanced schedule, it will be excluded from transmission costs, bid cost recovery allocation, offsets and integrated forward market congestion allocation associated with the Subscriber PTO facilities. If the subscriber already purchased ancillary services, it will also not pay those charges.

Non-subscriber imports to load will pay the transmission access charge and non-subscriber exports and wheel-trough transactions will pay the wheeling access charge. The Subscriber PTO will receive revenue commensurate with its non-subscriber usage rate and the non-subscriber use of its transmission facilities. Any congestion revenue received on the Subscriber PTO transmission facilities will be used first to provide protection from the congestion costs that would otherwise accrue and then to reduce congestion costs for congestion revenue rights holders, if applicable.

Generator Interconnection Process and Subscriber PTO Project Interconnection

To study the interconnection of a new transmission line, both the transmission line interconnection points and generation injection must be known. The interconnection process will also provide the deliverability network upgrades if upgrades for the Subscriber PTO project exist in the Transmission Planning Process for purposes of meeting the out-of-state resource portfolios established by the CPUC.⁹ The Subscriber PTO will have the first option to acquire the additional deliverability made possible by the delivery network upgrades, up to the amount of deliverability included in the CPUC out-of-state resource portfolio requirement. The Subscriber PTO transmission facilities will become part of the Generator Interconnection and Deliverability Allocation Procedure base case, and available for other generator interconnection, once the ISO has been notified that the project is being built. Such notification should include:

- A signed Applicant Participating TO Agreement with the ISO;
- A signed generator interconnection agreement with subscriber resources; and
- A notice to proceed to the ISO, which confirms that interconnection studies and construction have begun.

Future non-subscriber generator network upgrades identified in the generator interconnection process would also be financed upfront and reimbursed consistent with the ISO tariff. The Participating TOs will be allowed to recover such costs in a transmission revenue requirement developed for such network upgrades, consistent with the ISO tariff. In the case of the Subscriber PTO, it will be allowed to recover the costs of future non-subscriber generator network upgrades identified in the generator interconnection process in a transmission revenue requirement, which will be developed for such network upgrades, consistent with the ISO tariff.

Transmission Planning Process and Transmission Issues

⁹ "Out-of-state" is a term used by the CPUC, but the ISO clarifies that this model addresses resource and transmission development that is outside of the ISO balancing area. In some cases, in-state resources may still be outside of the ISO balancing area.

The Subscriber PTO transmission facilities will become part of the Transmission Planning Process base case once the ISO has been notified that the project is being built, and meets the criteria outlined above.

Deliverability

The ISO is willing to extend Subscriber PTO services to projects that may not be contiguous with the existing ISO balancing area, *i.e.*, when the resources and transmission facilities are connected with a balancing area other than the ISO. In this circumstance, the Subscriber PTO must have sufficient contract rights across the intermediary balancing area to reach the ISO balancing area. This arrangement in turn requires the Subscriber PTO or its off-takers to have sufficient maximum import capability rights to bring the generation into the existing ISO balancing area. It is important to maintain the maximum import capability requirement because there remains an intermediary balancing area and maximum import capability is the current mechanism for delivery of resources from outside the ISO balancing area to meet the resource adequacy requirement.

Existing maximum import capability will have priority over Subscriber PTO projects. For expanded or incremental maximum import capability resulting from planned upgrades for integrating out-of-state resources over new transmission, as required by the CPUC provided resource portfolio, Subscriber PTO projects will have first priority up to the amount of deliverability included in that resource portfolio requirement.

Similar to any other generating facility seeking to interconnect to the ISO controlled grid, full or partial capacity deliverability status for a generator seeking to interconnect to the ISO controlled grid via a Subscriber PTO project is contingent upon all pre-cursor transmission projects, and reliability and deliverability network upgrades specified in the generator interconnection agreement are required to be constructed and energized. If any required upgrade mentioned above is not yet in-service, a generating facility can obtain “Interim Deliverability” status if the annual net qualifying capacity deliverability study determines that the generating facility can have deliverability during the next resource adequacy cycle, in advance of completion of all upgrades.

POSITION OF THE PARTIES

The ISO had an extensive stakeholder process consisting of six separate meetings and papers, which started in August 2022 and culminated with the final proposal presented to stakeholders on June 29, 2023. The ISO received comments from 10 stakeholders regarding the Subscriber PTO Model Revised Draft Final Proposal. The following stakeholders provided comments: ACP-California, California Community Choice Association, CPUC Energy Division, CPUC Public Advocates Office, Golden State Clean

Energy, Joint Commenters¹⁰, LS Power, NextEra Energy Resources, Southern California Edison Company and TransWest Express. All stakeholders except Joint Commenters support development of the Subscriber PTO Model, some strongly, with a few stakeholders having some concerns and one opposition on particular elements of the proposal. Attached is a stakeholder matrix outlining the concerns.

MANAGEMENT RECOMMENDATION

Management has concluded that implementing the Subscriber PTO model consistent with the elements discussed above is appropriate to meet California's future renewable needs and recommends that the ISO Board of Governors approve the proposal.

¹⁰ The Joint Commenters include the Bay Area Municipal Transmission group, which consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power ("BAMx"); the Northern California Power Agency, and the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (the Six Cities").

APPENDIX A – STAKEHOLDER MATRIX

Stakeholder	Stakeholder Comments	ISO Response
Joint Commenters, SCE and Cal CCA	Believe model is detrimental to the ISO transmission customers if network upgrades on existing Participating TO transmission facilities are recovered through the ISO's access charge. Because the Subscriber PTO transmission facilities were not approved through the Transmission Planning Process, then the upgrades to the existing Participating TO system, if needed, should not be recovered through the existing Participating TO transmission revenue requirement.	The ISO believes that Section 24 of its tariff requires generators within the ISO balancing area to finance network upgrades upfront and then be reimbursed over a five-year period once they achieve their commercial operation date. In addition, FERC recently approved the ISO's request to implement similar reimbursement for generators that are in an affected system. ¹¹ There is no reason to treat differently a Subscriber PTO generator that is within the ISO balancing area.
Joint Commenters	If the off-takers are not ISO entities then the funding should be consistent with the long-term firm transmission service for entities – i.e. absent the request for long-term firm transmission by an external entity, the transmission would not have been built.	Subscriber PTO is not similarly situated. The Subscriber PTO project is within the ISO BAA and the projects are specifically to meet the CPUC resource portfolios for resources outside the ISO BAA.

¹¹ *Tariff Amendment to Implement Interconnection Process Enhancements filed January 26, 2023 (FERC Docket No. ER23-941)*

Stakeholder	Stakeholder Comments	ISO Response
SCE	If the transmission facility is already fully paid for by subscribers then why should they be allowed to collect a usage rate for non-subscriber use of the line.	The ISO believes that the subscribers paid for their use of the line; if they are not using it, FERC open access and cost causation principles support the non-subscriber paying for using the transmission facilities
SCE	Strongly opposes allowing Subscriber PTOs to receive a usage rate that would deprive existing Participating TOs from recovering the wheeling access charge they would have received.	Subscriber PTO will add additional scheduling points to the ISO balancing area and thereby bring in more revenue than existed prior to the interconnection of its transmission facilities. In addition, the existing Participating TOs will continue to recover a wheeling charge for all exports from their facilities, including where the Subscriber PTO interconnects with the ISO balancing authority area. Thus, it is only fair that they receive that revenue as part of the compensation for non-subscribers using the transmission facilities. In addition, the existing Participating TOs will still receive the wheeling charge from their existing scheduling points.