

July 5, 2017

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER17-1432-_____**

**Tariff Amendment to Implement Generator Interconnection
Driven Network Upgrade Cost Allocation Recovery Initiative
Response to Deficiency Letter**

The California Independent System Operator Corporation (“CAISO”) submits this filing in response to the letter dated June 5, 2017 from the Office of Energy Market Regulation requesting additional information about the CAISO’s tariff revisions in this proceeding.

I. Introduction

On April 18, 2017, the CAISO submitted a tariff amendment to ensure that the CAISO’s transmission rate design effectively balances the costs of generator-interconnection-driven network upgrades with commensurate benefits for transmission owners. The CAISO proposed to create a new class of transmission owner—the Certified Small Participating Transmission Owner (“CSPTO”)—whose low-voltage, generator-interconnection-driven network upgrade costs will be allocated regionally instead of to that transmission owner alone. A transmission owner would be eligible for CSPTO status if it meets three criteria:

1. The transmission owner maintains annual gross load at or below 2,000 GWh;
2. The transmission owner is located in an area where there is significant interest in developing new generating facilities that can support municipal, county, state, federal, or other renewable portfolio standards; and
3. The transmission owner is not subject to a renewable portfolio standard or comparable directive.¹

¹ Proposed Section 26.7.1 of the CAISO tariff.

The CAISO also proposed to memorialize that Valley Electric Association (“VEA”) meets the CSPTO criteria.

II. CAISO’s Response to the Deficiency Letter

On June 5, 2017, the Commission’s Office of Market Regulation issued a deficiency letter requesting additional information to process the CAISO’s tariff revisions. The CAISO provides the following responses to the Commission’s questions.²

- 1. CAISO’s second criterion is that a potential Certified Small Participating Transmission Owner (“CSPTO”) must be located in an area with “significant interest” in renewable development. CAISO states that it refrained from a specific numerical gauge of such interest as this would not “account for all circumstances that would meet the purpose of the standard.” Please explain what factors CAISO would use to determine whether a CSPTO was located in an area with “significant interest” in renewable development. Please describe the characteristics of a participating transmission owner that would be denied CSPTO status because they fail to meet the second criterion.**

There are a number of factors the CAISO would consider in determining whether a CSPTO is located in an area with “significant interest” in renewable development. While the CAISO cannot provide an exhaustive list, there are certain factors that the CAISO would expect to consider in making this determination in most instances. These include: (A) the capacity of renewable resource interconnection requests relative to the load of the interconnecting transmission owner; (B) the transmission owner’s relative share of interconnection requests; and (C) independent data on the availability of renewable resources in the area. Based upon the CAISO’s examination of whether there was significant interest in the VEA service territory, the CAISO believes that these factors are the most relevant in determining that generation development has significant regional benefits, such that a local allocation would be not be reasonable (where the transmission owner meets the other two CSPTO criteria). The CAISO explains each factor in detail below.

² Footnote 11 of the Commission’s June 5, 2017 deficiency letter instructed the CAISO to submit the instant filing using Type of Filing Code 180 – Deficiency Filing. As such, a tariff record must be included with the filing. Consistent with the Commission’s directive, the CAISO is submitting one unchanged tariff record – proposed CAISO tariff Section 26.7.1.

A. Capacity of renewable resource interconnection requests relative to load of the interconnecting transmission owner.

The capacity of renewable interconnection requests relative to the load of the interconnecting transmission owner is perhaps the most determinative factor in determining whether there is significant interest in a potential CSPTO area because these data points elucidate the likely beneficiaries of the proposed development. As the CAISO stated in its transmittal letter, the 25 requests in the CAISO's interconnection queue for renewable generation to interconnect to the VEA service area comprise 3,952 MW of new capacity (including 3,742 MW of solar). These figures dwarf VEA's peak system demand of 135 MW, highlighting the proposed generators' intended regional beneficiaries.

These figures are especially relevant in light of the third CSPTO criterion: whether the transmission owner has its own policy requirement driving renewable procurement. A transmission owner that is subject to a renewable portfolio standard ("RPS") would have a significant interest in renewable development in its footprint: a requirement to replace conventional generation with renewable generation. However, a transmission owner without an RPS requirement—such as VEA—would not have similar urgency or need to do this. For this reason, this factor clearly evinces that the intended beneficiaries of the renewable generation are regional rather than local.

B. The transmission owner's relative share of interconnection requests.

The transmission owner's relative share of interconnection requests is another important factor in determining whether there is significant interest in a potential CSPTO area. As the CAISO stated in its transmittal letter, although VEA only represents 0.27% of CAISO gross load, proposed generation interconnecting to the VEA system from the most recent interconnection request window comprised 8.5% of capacity and 6% of total interconnection requests. In other words, despite its relatively small service area, customer base, expected load growth, and transmission system, numerous generators are attempting to interconnect to VEA—significantly more than needed to serve VEA load. This logically evinces that the beneficiaries of the generation and their corresponding upgrades are regional, not VEA alone.

C. Independent data on availability of renewable resources.

Independent data on the availability of renewable resources in or near a transmission owner is a useful measure in determining whether there is significant interest in a potential CSPTO area. This factor essentially works as a neutral check on the other factors. As the CAISO stated in its transmittal letter, VEA is based in Pahrump, Nevada, which is immediately adjacent to Death

Valley. The region receives more solar radiance than anywhere in the country.³ With these data points, the CAISO is confident that the significant interest in developing solar generation that interconnects to VEA is justified.

- 2. Please explain how a CSPTO will annually certify, or CAISO will otherwise know, that the CSPTO meets the “significant interest” standard. For example, if there are no new interconnection applications in the CSPTO’s footprint during that year, does that constitute a lack of significant interest or would it require some span of successive years of no new interconnection requests before reaching such a determination? If a CSPTO fails to meet the significant interest standard in a given year and loses its status, could it reapply in the following year? If so, what would it need to show as proof of “significant interest”?**

A. Annual Certification

The CAISO tariff has a number of annual compliance provisions, including certifying continued compliance with certain tariff requirements.⁴ The CAISO foresees implementing the CSPTO annual certification tariff provision similar to how it has implemented others: the CAISO will propose Business Practice Manual (“BPM”) revisions that explain the specific process for annual CSPTO certification with all three CSPTO criteria:

1. The transmission owner maintains annual gross load at or below 2,000 GWh;
2. The transmission owner is located in an area where there is significant interest in developing new generating facilities that can support municipal, county, state, federal, or other renewable portfolio standards; and
3. The transmission owner is not subject to a renewable portfolio standard or comparable directive.⁵

³ See, e.g., National Renewable Energy Laboratory, U.S. Solar Resource Maps, available at <http://www.nrel.gov/gis/solar.html>.

⁴ See, e.g., Section 4.9.10.1 of the CAISO tariff (MSS Operators required to provide ten-year demand forecasts on an annual basis); Section 10.3.7.5 (Scheduling Coordinator Metered Entities required to affirm annually that they have completed a self-assessment and comply with their SQMD Plan); Section 12.1(b) (Market Participants required to provide annually a certified statement regarding risk management, training, and employing sufficient personnel); Section 24.4.6.3.3 (Participating Transmission Owners required to report annually the amount of net investment in LCRIFs); Section 8.9.3 of Appendix DD (Interconnection Customers required to provide annually an affidavit stating that they continue to meet TP Deliverability requirements).

⁵ Proposed Section 26.7.1 of the CAISO tariff.

The CAISO expects the annual certification provisions will (1) establish the date by which the CSPTO must provide its certification; (2) require that the CSPTO affirm that, to the best of its knowledge, it continues to meet each of the three criteria for CSPTO status; and (3) require the CSPTO to affirm that it is not the load-serving entity procuring generation proposing to interconnect to its low-voltage system. The CAISO contemplates providing a list of all new interconnection requests to the CSPTO service area so that the CSPTO can affirm that it is not the load-serving entity procuring that generation. If it is, the CSPTO may have to include any low-voltage generator-interconnection driven network upgrades in its Local Transmission Revenue Requirement pursuant to the CAISO's proposed exemption (discussed in Question 3(b), below).

Importantly, the "significant interest" criterion was not the principal driver for requiring annual certification. The CAISO included the annual certification provision principally to ensure that the CSPTO's status regarding the third CSPTO criterion—RPS or similar policy requirements—does not change without the CAISO being aware of the change. Compliance with the first and second criteria is simple for the CAISO to track itself through its interconnection queue, planning processes, involvement with public utility commission proceedings, and load profiling. However, tracking all public policy developments to ensure continued compliance with the third criterion is more challenging. This is especially true for a rural cooperative like VEA that is essentially self-governing. If the CAISO were to have several CSPTOs in the future, keeping track of all of their public policy requirements could be difficult. As such, the CAISO believed it was prudent to have the CSPTO annually certify that it continues to comply with the CSPTO criteria. The CAISO included all three criteria—and not just the third—as a backstop to its own verification.

B. Maintaining "Significant Interest"

No new interconnection applications in the CSPTO's footprint during a single year likely would not be sufficient cause for a transmission owner to lose its CSPTO status. As discussed below, lack of *new* interconnection applications over a span of successive years may be more determinative, but that determination would depend on the specific facts and circumstances. New interconnections take years to be studied and constructed, so the CAISO contemplates CSPTO classifications generally to span several years at least. Importantly, however, if a relatively high number of *existing* interconnection customers withdrew their interconnection requests, that would likely be cause for determining there is not "significant interest" in an area and a CSPTO should lose its status.

Generation developers weigh a variety of factors in choosing a point of interconnection, but two are relatively critical: available deliverability capacity and the ability to avoid triggering new and costly transmission upgrades. For example, if the

CAISO approves a new transmission line in its transmission planning process, the next interconnection request window will see a very high number of interconnection requests proposing to interconnect to the new line because developers know that there will be available capacity, and as such they will neither trigger costly new upgrades they have to finance nor face the risk of insufficient deliverability capacity. In the next year, however, the CAISO will see far fewer new interconnection requests to this same transmission line because developers know that the previous year's interconnection cluster has priority for capacity and points of interconnection.

The same logic is true of any cost-efficient point of interconnection, and as such, a lack of new interconnection requests to an area in subsequent years is a relatively poor indicator of interest. By contrast, a relatively high number of interconnection customer withdrawals would indicate that an area is not a cost-efficient place to interconnect, and that any "significant interest" was premature or overestimated.

Additionally, through the annual TP Deliverability affidavit,⁶ the CAISO can track whether interconnection customers proposing to interconnect to a CSPTO continue to be chosen for power purchase agreements or procurement shortlists. If the CAISO observed a significant decline in procurement interest, that would be a factor in concluding that the CSPTO may no longer meet the second CSPTO criterion, especially when combined with a relatively high level of interconnection customers withdrawing from the queue.

C. Losing and Reapplying for CSPTO Status

The only requirements to be a CSPTO are those the CAISO included in its tariff revisions, namely, the three CSPTO criteria. The CAISO did not include any provisions to further limit CSPTO eligibility. If the CAISO believed that reverting a CSPTO to its prior status were warranted, the tariff would require the CAISO to follow the same two-step process to make a CSPTO: A CAISO stakeholder process, then a § 205 filing with the Commission to remove the transmission owner's name from the CSPTO list. In both steps the CSPTO and stakeholders would have an opportunity to comment on whether they agree with the CAISO's determination, and the Commission would ultimately adjudicate.

Assuming the Commission approved reverting a CSPTO to a non-CSPTO, there is nothing in the CAISO's proposal that would prevent the CSPTO from re-applying to be a CSPTO as soon as it believes that its facts and circumstances have changed. The transmission owner would then be subject to the same CSPTO criteria, stakeholder process, and (third) § 205 filing to regain CSPTO status.

⁶ See Section 8.9.3 of Appendix DD to the CAISO tariff.

3. **CAISO's third criterion states that a potential CSPTO must not be subject to a renewable portfolio standard. CAISO further explains that "a transmission owner may satisfy this criterion where: (1) it has already fulfilled its renewable portfolio standard or comparable municipal, county, state, or federal directive, or (2) it has already sufficiently contracted with resources that have achieved commercial operation or will achieve commercial operation within a year that will fulfill its renewable portfolio standard." CAISO also proposes to exclude certain CSPTO network upgrade costs from the CSPTO cost allocation to the extent they are used to serve the needs of the CSPTO. CAISO further proposes that a CSPTO must annually affirm that it continues to meet the criterion.**
 - a. **Please explain the rationale for treating those with no renewable portfolio standard the same as those which have such a standard but have already met it.**

The purpose of the CAISO's proposal is to align costs commensurate with benefits. The CAISO's proposed tariff revisions view a transmission owner with no RPS the same as a transmission owner that has fulfilled its RPS requirement because neither transmission owner has a need to procure new renewable resources. In other words, for both transmission owners, incremental resources would be procured by a different load-serving entity. As such, the CAISO does not believe that the interconnecting transmission owners would be the *sole* beneficiaries such that their ratepayers should be allocated *all* of the costs of the network upgrades to support incremental generation for another load-serving entity simply because of the location and voltage of the interconnection. These interconnecting transmission owners' ratepayers will still shoulder their proportionate share of the cost of these network upgrades because the upgrade costs will be included in the CAISO's regional transmission revenue requirement, which is recovered from *all* CAISO ratepayers (including the CSPTO's ratepayers) according to their respective gross load.

As the Commission's letter recognizes, the CAISO included tariff language to exempt network upgrades from CSPTO treatment whenever the CSPTO itself actually is the procuring entity.

- b. **Please explain how CAISO will enforce these provisions and provide specific examples of how these provisions would apply in different scenarios.**

In their role as load-serving entities, CSPTOs could have reasons to procure new generation apart from RPS requirements. CSPTOs' resource adequacy or reserve requirements could increase, existing generators could retire necessitating the procurement of replacement generation, or more cost-

efficient generation could become available. In any of these cases, CSPTOs likely would issue a Request for Offer to begin a competitive procurement process. A vertically integrated utility may develop its own generation. In any case, the new generation would be required to follow the CAISO's interconnection process. The CAISO would therefore be able to determine whether new generators interconnecting to a CSPTO were responding to the CSPTO's own procurement efforts. As explained above, the CAISO also anticipates listing all proposed interconnection requests in the CSPTO's annual compliance affirmation. The CSPTO must then affirm that it is not the off-taker for each interconnection request to its low-voltage system. If the CSPTO is the off-taker for the request, then the costs for resultant network upgrades would remain in the CSPTO's Local Transmission Revenue Requirement.

- c. CAISO states, “where a [CSPTO] meets these criteria but its own procurement triggers the need for network upgrades on its low-voltage system, the cost of those network upgrades will remain in its low-voltage/local transmission access charge.” Does this mean that a transmission owner will remain eligible for CSPTO status if it relies on new generation that interconnects to its low-voltage transmission facilities to meet a renewable portfolio standard, but that those specific low-voltage upgrades associated with this generation will not be subject to CSPTO rate treatment? In that instance, would all other interconnection-driven low voltage network upgrades on the CSPTO's low-voltage facilities not driven by the CSPTO's need to meet a renewable portfolio standard continue to flow into the CAISO regional transmission access charge?**

The CAISO is uncertain whether this question pertains to new generation needed to meet the CSPTO's own RPS requirements or the CSPTO's non-RPS requirements. The CAISO will address each hypothetical.

If the CSPTO “relies on new generation that interconnects to its low-voltage transmission facilities to meet [the CSPTO's] renewable portfolio standard,” the answer to the first question would be No. If the CSPTO itself becomes subject to an RPS or similar public policy, it would fail the third criterion for CSPTO status, and the CAISO would conduct a stakeholder process and submit tariff revisions to the Commission proposing to revert the CSPTO's status. If the Commission agreed and approved the revision, then the CAISO's proposed tariff language states that all Local Transmission Facility costs that would have been included in the transmission owner's Local Transmission Revenue Requirement but were instead included in the Regional Transmission Revenue Requirement because of its CSPTO status, but were not recovered while the transmission owner was a CSPTO, will revert to recovery through, or otherwise

be included in, the transmission owner's Local Transmission Revenue Requirement.

On the other hand, if the CSPTO procures its own generation for another purpose (*e.g.*, to replace retiring units or to procure units to support local reliability), and it still meets all of the CSPTO criteria, then those generator-interconnection-driven network upgrade costs on its low-voltage system would be included in its Local Transmission Revenue Requirement.⁷ All other generator-interconnection-driven network upgrade costs on its low-voltage system—those necessitated by other load-serving entities' procurement—would remain in its Regional Transmission Revenue Requirement because of its CSPTO status.⁸

4. CAISO states that a “CSPTO is not the sole beneficiary of generator-interconnection-driven network upgrades on its low-voltage system, and therefore should not bear *all* of those upgrades’ costs.” Please explain how CAISO transmission customers will benefit from low voltage interconnection network upgrades in Valley Electric’s service territory.

All CAISO transmission customers benefit from generator-interconnection-driven network upgrades on VEA's low-voltage transmission system in at least two ways. First, VEA's low-voltage system offers generation developers a cost-efficient point of interconnection for generators intended to meet California RPS requirements. If these generators cannot interconnect to VEA's low voltage system, (*e.g.*, if VEA withdrew from the CAISO because VEA ratepayers could not withstand the costs of these upgrades), then developers will be left with more expensive points of interconnection, likely on a different transmission owner's high-voltage system. CAISO transmission customers would therefore have to pay more for the same generation were it not for the VEA low-voltage system. Second, CAISO transmission customers benefit from the generation the low-voltage network upgrades enable. Generator-interconnection-driven network upgrades generally have no other purpose and provide no other benefit than to enable the reliable interconnection of the generator. Customers, of course, benefit from these generators in myriad ways such as the power they provide, greater competition in the energy markets, and fulfillment of public policy goals.

⁷ See Proposed Section 26.7.3 of the CAISO tariff.

⁸ See Proposed Section 26.1(g) and 26.7 of the CAISO tariff.

III. Conclusion

The CAISO's respectfully requests that the Commission accept this filing as submitted.

Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 5th day of July, 2017.

/s/ Grace Clark
Grace Clark