**Hybrid Resources - Phase 1**

**Response to Stakeholder Comments on Draft Tariff Language and**

**Explanation of Additional Revisions since July 17, 2020 Stakeholder Call**

| **Tariff Section** | **Stakeholder Comment** | **CAISO Response** |
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| Draft Tariff Language | SCE welcomes the opportunity to comment on the proposed tariff language in this initiative, Pseudo-Ties of Shared Resources. In particular, SCE seeks clarification on para. 1.2.1.2 of the proposed tariff language1 that reads as follows: A Pseudo-Tie Generating Unit must transfer dynamically its ~~entire~~ output of its Real-Time Generation production into the CAISO Balancing Authority Area at the associated pre-determined CAISO Intertie.  A Pseudo-Tie Generating Unit must be permanently associated with a particular pre-determined CAISO Intertie.  Any dynamic transfers of Energy, and/or Energy associated with Ancillary Services will be subject to Congestion mitigation at the associated pre-determined CAISO Intertie.  The CAISO may, from time to time and at its discretion, allow for a change in such pre-established association of the Pseudo-Tie Generating Unit with a particular CAISO Intertie.  Any change to the designated path is subject to approval by all applicable transmission providers. SCE disagrees that the proposed tariff language cited above is representative of the situation where the entire output associated with the share of the resource that is pseudo-tied must be transferred dynamically to the CAISO Balancing Authority Area (BAA). The tariff language must capture that shares held by EIM and CAISO BAA entities must transfer dynamically their output to the CAISO BAA.  Further, SCE welcomes responses from the CAISO to the following questions, to enable interpretation of the proposed tariff language:  1. How does the proposed tariff language in Section 1 resolve the situation where a non-EIM entity has a share in the shared resource for which delivery of the generating output correspondent with that share is either made to the native balancing authority area (BAA) where the resource is located or another BAA other than an EIM BAA?
2. Will the portion of the shared resource owned by a non-EIM entity be required to have that share permanently associated with a particular pre-determined CAISO intertie?
 | Section 1.2.1.2 is an existing section of the CAISO tariff, not an addition, and continues to represent the baseline requirements for pseudo-tied generating units to the CAISO balancing authority area. Section 3 is entirely new and represents the incremental and unique requirements associated with pseudo-ties of shared resources. The previously proposed simple deletion of the word “entire”, as SCE notes, only partially addressed the relationship between section 1 and section 3 of Appendix N and potentially created an inconsistency. By relying upon the term “Pseudo-Tie Generating Unit” to relate the requirements in these two sections, the CAISO now recognizes that it is not appropriate to simply remove the word “entire”. It was not the CAISO’s intent to suggest that less than an entire share of a pseudo-tied resource could be dynamically transferred to the CAISO balancing authority area, or to suggest anything other than the current requirement that it be registered at a pre-determined intertie. Accordingly, the CAISO proposes to retain the entirety requirement in this section and to clarify the relationship between Section 1 and Section 3. The relevant sentence in section 1.2.1.2 now reads in its entirety as follows:“A Pseudo-Tie Generating Unit must transfer dynamically its entire output of its Real-Time Generation production into the CAISO Balancing Authority Area at the associated pre-determined CAISO Intertie, regardless of whether the Pseudo-Tie Generating Unit represents the entire Generating Unit that is Pseudo-Tied into the CAISO Balancing Authority Area in accordance with Section 1 of this Appendix N or only a share of a Generating Unit that is Pseudo-Tied into the CAISO Balancing Authority Area in accordance with Section 3 of this Appendix N.”The CAISO believes this should address SCE’s main concern, and that its further questions are appropriate to consider in the context of Section 3.1.3 as clarified in response to the Six Cities’ comments below. In any event, the CAISO welcomes additional feedback on whether all possible scenarios concerning the physical and virtual locations of each pseudo tie generating unit, whether representing an entire resource or a share of a resource, have been appropriately considered.  |
| App N, Section 1 | SCE disagrees with the proposed tariff language for Appendix N Section 1, para. 1.2.1.2. as drafted. The language does not capture the requirement that all output associated with shares of the pseudo-tied generating unit must be transferred dynamically to the CAISO BAA where those shares are owned by EIM entities or entities located in the CAISO BAA. The language in Section 1, para. 1.2.1.2 needs to be reconciled with the language in Appendix N, Section 3: Pseudo -Ties of Shared Resources to the California ISO Balancing Authority Area. | See the discussion above concerning the applicability of section 1.2.1.2. As noted, Section 1 of Appendix N contains the general provisions for pseudo-ties into the CAISO balancing authority area and, as stated in section 3.1.1, Section 3 of Appendix N adds provisions that specific for pseudo-ties of resources that are shares of a physical resource. Again, the CAISO welcomes additional feedback concerning the relationship between Section 1 and Section 3 of Appendix N to ensure consistency and clarity. |
| App N, Section 2 | SCE supports the tariff language as presented in Appendix N, Section 2: Pseudo-Ties of Generating Units out of the California ISO Balancing Authority Area. | N/A |
| App N, Section 3 | SCE supports the proposed draft tariff language in Appendix N, Section 3: Pseudo-Ties of Shared Resources to the California ISO Balancing Authority Area. | N/A |
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| Summary of your organization’s comments on the draft tariff language | Six Cities: [9922635\_1.docx](https://stakeholdercenter.caiso.com/StakeholderInitiatives/DownloadFile/bf23413f-bc45-456a-901e-ec43f0023638) | Six Cities submitted their comments in the form of red-lines to the draft tariff language, with questions and comments as shown in the attachment. Below the CAISO responds to these edits and comments. |
| App N, Section 1.2.2.5 | Six Cities: Does this provision [only one dynamic transfer signal per pseudo-tie] remain in because each share of a Pseudo-Tied shared resource registers as a separate Pseudo-Tie Generating Unit? | Yes, each share represents a separate market resource and has one dynamic transfer signal. In other words, each dynamically transferred share to the CAISO balancing authority area will be treated as a separate generating unit for purposes of compliance with the applicable CAISO tariff requirements. |
| App N, Section 2 | Six Cities: No Comments | N/A |
| App N, Section 3.1.3 | Six Cities: Does the highlighted language [a native share not pseudo-tied to CAISO must register as an EIM Resource] mean that all shares of a resource located in an EIM BAA must be either (1) pseudo-tied to the CAISO, or (2) registered as an EIM Resource? If so, what basis? If not, recommend clarifying the sentence. | The registration as an EIM resource is part of the market model for the EIM entity’s balancing authority area. EIM resources located in an EIM entity balancing authority area, whether participating or non-participating, must be registered in the market model for the CAISO to match each EIM entity balancing authority area’s supply and demand.Nonetheless, Six Cities’ comment does reveal that this section may have referenced requirements of third parties that are not appropriately included in the CAISO tariff given the requirement for an agreement between the CAISO and the native balancing authority area and the requirements associated with the EIM entity’s participation in the EIM. Accordingly, the CAISO proposes to revise this section so that it reads in its entirety as follows: “Each Generating Unit share must separately register with the CAISO as an independent Generating Unit according to the rules applicable to the CAISO Market in which it will participate. If a share is located in an EIM Entity Balancing Authority Area, a native share not Pseudo-Tied to the CAISO Balancing Authority Area must also register as an EIM Resource unless it is Pseudo-Tied to a Balancing Authority Area outside of the EIM Area.”The CAISO believes that this change clarifies the intent and addresses Six Cities’ comments. |
| App N, Section 3.2.2 | Six Cities: Proposed additional language highlighted: “The CAISO will review the allocation protocol according to the timelines and implementation details established in the Business Practice Manuals, and will approve the allocation protocol prior to participation in a CAISO Market by the shared Generating Unit as a Pseudo-Tie Generating Unit if the allocation protocol meets the requirements of this Section 3 of Appendix N and the Business Practice Manuals.” | The proposed addition highlighted in yellow is a reasonable clarification and will be included in the updated tariff language that will be posted. |
|  App N, Section 3.2.3 | Six Cities: How can the responsibility in the highlighted sentence [Each Scheduling Coordinator that represents a Generating Unit share that participates in a CAISO Market will remain individually responsible for compliance with the allocation protocol] be implemented if the protocol administrator has overall authority? | The scheduling coordinator appointed as the protocol administrator will have the overall responsibility to ensure the allocation protocol is administered correctly. In addition, each individual scheduling coordinator representing a share of a resource pseudo-tied to the CAISO balancing authority area, i.e., a generating unit, has the authority and responsibility to ensure that its complies with its duties as described by the allocation protocol, and that it submits the correct outage, bid, meter, and other data as described in the CAISO tariff. This shared responsibility is necessary to establish the new role of protocol administrator, while ensuring that all existing obligations for participation in the CAISO markets remain intact. If the participants desire for some other sharing of responsibilities, they are welcome to work that outside of the CAISO tariff.  |
| App N, Section 3.3.1 | Six Cities: Why is the highlighted sentence [Resource shares other BAAs that do not participate in a CAISO Market should also follow the allocation protocol’s telemetry process] necessary or appropriate for a share of a resource located in another BAA that is not participating in a CAISO Market, so long as CAISO has overall telemetry for the resource and telemetry for shares participating an CAISO Markets? | CAISO needs to know the dispatch for the entirety of the resource in order to understand the dispatch of the individual shares and ensure compliance with the allocation protocol. Since the CAISO does not otherwise know how non-participating balancing authority areas may dispatch their shares of the physical resource, the CAISO needs this data integrity assurance that the documented protocol is being followed.The CAISO welcomes additional feedback concerning this requirement. |
| App N, Section 3.4.2 | Six Cities: Why should a resource located in another BAA that is not participating in a CAISO Market have an SQMD plan? | This is similar to the telemetry requirement explained above. While all scheduling coordinators representing resource shares in the CAISO market must submit a SQMD plan as part of their market registration, the SQMD plan should remain common among all resource shares regardless of whether they participate in the CAISO markets. Otherwise, the CAISO may not be assured of accounting for the output of the resource in relation to the pseudo-tie generating unit participating in the CAISO markets. Following the SQMD plan across all resource shares ensures that meter data submissions to CAISO are correct and consistent with the allocation protocol. In reviewing the Six Cities’ comments on this section the CAISO identified a potential ambiguity concerning the reference to “their SQMD plan”, which it will clarify by referring to “the SQMD plan submitted by the associated Pseudo-Tie Generating Unit”.The CAISO welcomes additional feedback concerning this requirement. |
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| App N, Section 3 | DMM <http://www.caiso.com/Documents/DMMComments-Pseudo-TiesofSharedResourcesDraftTariffLanguage-Aug142020.pdf> | DMM suggests the following provisions as a way of allowing discretion over sharing protocols while still providing protection to ratepayers from extreme attribute sharing protocols that may inflate, or inequitably distribute, bid cost recovery:* Require public disclosure, and allow public vetting, of how key resource attributes will be split between the shared resources. These key attributes include telemetry, metered output, minimum output levels, minimum load costs, start-up costs, and maximum output levels.
* Provide the ISO express authority to revoke or modify the agreement if there is evidence of owner(s) using the shared resource protocol and plan to exploit the bid-cost recovery mechanism to benefit the resource owner(s) or to inequitably allocate bid cost recovery between BAAs.

The CAISO appreciates the benefits of transparency concerning key attributes of the allocation protocol, and appreciates DMMs understanding that some aspects or details included in the allocation protocol may be commercially sensitive. To balance these interests and respond to DMM’s comments, the CAISO proposes adding the following sentence to section 3.1.1: “The registration of the Pseudo-Tie Generating Unit must identify key attributes consistent with the allocation protocol methodology including the telemetry, metered output, non-negative values for minimum output, Minimum Load Costs, Start-up Costs, and maximum output levels consistent with the allocation protocol methodology.”To capture these key attributes in an appropriate manner, the CAISO will propose a change to Schedule 1 of the *pro forma* Pseudo-Tie Participating Generator Agreement included as Appendix B.16 to the CAISO tariff. The CAISO anticipates adding a simple table to reflect these key attributes for pseudo-ties of shared resources participating in the CAISO markets. These attributes may also be reflected in Schedule 1 of the associated EIM Participating Resource Agreement, if applicable, but the CAISO does not intend to propose changes to the *pro forma* EIM Participating Resource Agreement included as Appendix B.19 to the CAISO tariff that would require such information to be included. The CAISO welcomes feedback on this proposed approach to reflect the appropriate level of information to be published in the associated agreements. The CAISO also appreciates DMM’s concerns about the risks and potential consequences for a generating unit’s failure to follow its allocation protocol. Accordingly, the CAISO proposes to remove the prior language from section 3.2.2, and to reflect a more refined approach in new sections 3.2.4. The following is proposed as a new section 3.2.4: **3.2.4** If the CAISO finds that the Pseudo-Tie Generating Unit materially deviates from its allocation protocol, the CAISO will notify the responsible Scheduling Coordinator and will suspend the Pseudo-Tie Generating Unit’s participation in the CAISO Markets as a shared Generating Unit pursuant to this Section 3 of Appendix N pending a final determination of the CAISO’s finding(s). Within five business days of the CAISO’s notification, the Scheduling Coordinator must either: (1) object to the CAISO’s determination and seek resolution of the disputed facts through the CAISO ADR Procedures; (2) or admit to the CAISO’s findings. The suspension will remain in place until the dispute has been resolved. During the suspension period, the Pseudo-Tie Generating Unit may participate in the CAISO Markets as a System Resource, provided it has successfully registered as such with the CAISO, and meets all the requirements of a System Resource. If the Scheduling Coordinator admits to the CAISO’s findings or the CAISO ADR Procedures confirm the CAISO’s findings, the CAISO will terminate the agreement within 2 Business Days of the date on which either the Scheduling Coordinator admits to the CAISO’s findings in writing, or CAISO ADR Procedures have issued a final determination supporting the CAISO’s findings. If the CAISO ADR Procedure does not support the CAISO’s findings, the CAISO will reinstate the resource’s participation as a Pseudo-Tied resource consistent with the CAISO’s procedures and requirements for integrating such resources. The CAISO further appreciates DMM’s concerns about the risks and potential inequities that could result from a generating unit’s bid cost recovery pursuant to its allocation protocol. Accordingly, the CAISO proposes to include a new section 3.2.5, similar to section 3.2.4. The following is proposed as a new section 3.2.5:**3.2.5** If the CAISO finds that the Pseudo-Tie Generating Resource’s participation, even if consistent with the resource’s protocol is exploiting or may exploit the Bid Cost Recovery mechanism to benefit the resource owner(s) or is causing inequitable allocation of Bid Cost Recovery between the affected Balancing Authority Areas, the CAISO will notify the responsible Scheduling Coordinator and will suspend the Pseudo-Tie Generating Unit’s participation in the CAISO Markets as a shared Generating Unit pursuant to this Section 3 of Appendix N pending a final determination of the CAISO’s finding(s). The CAISO believes that these changes address DMM’s concerns and establish a just and reasonable approach to resolve issues in the event they materialize in practice.  |
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