

Response to Comments on Draft Tariff Language – Frequency Response

Tariff Section	Comment	CAISO Response
4.6.5.1	<p>PG&E comments ask whether this section of the tariff limited to generators covered by NERC’s definition of Bulk Electric System.</p> <p>In the listed exceptions to why a resource may inhibit governor controls, PG&E recommends the ISO change “environmental regulations” to “regulatory agency requirements.”</p> <p>PG&E prefers not to include specific requirements within the tariff for droop and governor setting and instead suggests the tariff refer to the technical document where the exact requirements can be found (i.e. WECC standards).</p>	<p>The CAISO’s proposed revisions to section 4.6.5.1 will apply to all participating generators with governor controls, including those participating generators with governor controls not covered by NERC’s definition of the Bulk Electric System.</p> <p>The CAISO will change the reference to “environmental requirements” to read “regulatory considerations”, which is consistent with NERC’s reliability guideline that recommends specific parameters for governors or equivalent frequency control devices, subject to legitimate technical, operational, or regulatory considerations that would prevent governors from achieving the governor settings.</p> <p>The CAISO Board of Governors authorized the CAISO to file tariff revisions to reflect these requirements in its tariff.</p>
4.6.5.1	<p>SCE recommends adding the highlighted language to the last sentence of the second paragraph of section 4.6.5.1:</p> <p>For each Generating Unit with governor controls, Participating Generators shall coordinate all plant control systems, locally or remotely controlled, so that they include frequency bias to ensure that each Generating Unit can respond immediately and</p>	<p>The proposed language may create some confusion in that if a generating unit responds in the same direction of frequency deviations, the response will not help arrest frequency deviations. The CAISO proposes to revise the referenced language to read:</p>

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	<p>automatically in proportion to <i>and the direction of</i> frequency deviations.</p>	<p>“For each Generating Unit with governor controls, Participating Generators shall coordinate all plant control systems, locally or remotely controlled, so that they include frequency bias to ensure that each Generating Unit can respond immediately and automatically in proportion to frequency deviations <i>to help restore frequency to scheduled value.</i>”</p>
11.34	<p>PG&E questions the need for this addition to the Tariff and recommends the CAISO remove section 11.34.1 as these details are covered in section 14.7. Alternatively, ISO should reference section 14.7 as part of section 11.34.1(a).</p>	<p>The CAISO is not proposing to use section 11.34 to allocate reliability based penalties covered in section 14.7. The CAISO is proposing instead to establish an invoicing framework for the cost of Transferred Frequency Response.</p>
11.34.2	<p>SCE comments that in section (a), the ISO should add specific language that it will provide supporting details to substantiate the total invoiced amount, including quantity, price, terms and conditions of the procured product, preferably on the same invoice instead of some outside notice.</p>	<p>The CAISO proposes to include the quantity and price of transferred frequency response in the scheduling coordinators’ settlement statements file(s). The terms and conditions of the procured product will be set forth in any contract for the procurement of transferred frequency response.</p>
11.34	<p>Six Cities questions the purpose of section 11.34. Six Cities request that the ISO clarify why this section is needed and explain why it is written in general terms if it is intended to only relate to Section 11.35.</p>	<p>Section 11.34 is intended to serve as a common invoice method that the CAISO could use to invoice specific changes. For purposes of this initiative, the CAISO only intends to invoice scheduling coordinators for charges associated with transferred</p>

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	<p>ISO should revise tariff language to clarify that Section 11.34 is limited to costs related to the procurement of Transferred Frequency Response; or is intended to be temporary and will become ineffective should the ISO no longer need to obtain Transferred Frequency Response.</p>	<p>frequency response. Based on discussions with stakeholders, the CAISO will eliminate section 11.34 from its proposed tariff changes and clarify the proposed invoicing process for transferred frequency response.</p>
<p>11.35.1; 11.35.2</p>	<p>SCE comments state that the CAISO proposes to calculate Transferred Frequency Response rate as the total procurement cost divided by Metered Demand. The Metered Demand as referenced in Section 11.20.4 is the sum of annual NERC/WECC Metered Demand for all Scheduling Coordinator for the calendar year two years prior to the NERC/WECC Charge Assessment Year. This seems to be a lag in charging for a product procured forward based on past metered demand quantity from prior years. What is the typical duration of the Transferred Frequency Response service? How frequently will the ISO be procuring it?</p>	<p>The CAISO acknowledges that this allocator reflects a prior period than the period for which the CAISO is procuring transferred frequency response but the CAISO believes the allocator represents a reasonable proxy for purposes of allocating the cost of transferred frequency response to demand. The use of the 2015 NERC/WECC metered demand as an allocator also is supported by NERC’s process for allocating to each Balancing Authority its share of the Interconnection Frequency Response Obligation. The data for calculating the 2017 balancing authorities’ frequency response obligation will be based on the data submitted in June 2016 for calendar year 2015. Therefore, CAISO proposes to use data from a comparable period for purposes of cost allocation. The CAISO proposes to procure transferred frequency response for a one year term. Phase 2 of the initiative will address any subsequent procurement of transferred frequency response or frequency response services.</p>

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42.2.1	Powerex recommends the ISO revise language to permit Scheduling Coordinator authorized to commit a BA-specific transfer of frequency response to participate in the contemplated competitive solicitation process.	The CAISO’s proposal would permit the CAISO to procure transferred frequency response from a balancing authority. The CAISO has modified its proposed language to allow for another entity to serve as an authorized seller on behalf of a balancing authority.
42.2.1	SCE recommends adding the highlighted language to the last sentence of section 42.2.1: “The CAISO shall select the bids that permit the CAISO to satisfy Applicable Reliability Criteria <i>at the lowest cost.</i> ”	The CAISO has incorporated language into section 42.2.1 to reflect that it will select bids that permit the CAISO to satisfy Applicable Reliability Criteria at the lowest cost and consistent with the seller’s capability to provide transferred frequency response.
42.2.1	Six Cities comments that the language proposed by the ISO is inconsistent with the Draft Final Proposal. Section 42.2.1 states that the ISO may “take such steps as it considers necessary to ensure compliance” with applicable reliability criteria. This language contemplates that there are options beyond procuring Transferred Frequency Response. Section 42.2.1 gives the ISO too much discretion to meet its obligation in any manner it chooses, including in ways that were not vetted through the Frequency Response Initiative stakeholder process.	The CAISO will clarify that this section only applies to the CAISO’s ability to contract for transferred frequency response. Under separate tariff authority, the CAISO to may rely on exceptional dispatches to respond to reliability concerns. In the event transferred frequency response cannot be contracted or is not approved by FERC, the CAISO would rely on this separate authority if it was deemed necessary to meet the Applicable Reliability Criteria.
42.2.1	The ISO provides no detail beyond that it will “solicit bids for contracts” and “shall select the bids that permit the CAISO to satisfy Applicable Reliability Criteria.” For example, the Draft Final Proposal states that “the ISO will select the RFP winner through a least cost	The CAISO has incorporated language into section 42.2.1 to reflect that it will select bids that permit the CAISO to satisfy Applicable Reliability Criteria at the lowest cost and

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	<p>evaluation consistent with the ISO’s tariff language in Section 42 which outlines if contracts are required . . . the ISO shall select bids enable [sic] ISO to meet applicable reliability criteria at the lowest cost.” Draft Final Proposal at 21 (emphasis supplied). However, no such language regarding this evaluation has been added to Section 42. Likewise, while the ISO stated it would include a solicitation process in the tariff (see Draft Final Proposal at 20), the draft tariff language only states that the ISO will solicit bids, not the process the ISO will use for doing so.</p>	<p>consistent with the seller’s capability to provide transferred frequency response.</p> <p>The CAISO will explain additional details regarding the specific procedural steps of any solicitation in a notice soliciting competitive bids.</p>
42.2.1	<p>In its draft final proposal, the ISO explained that it would evaluate offers for Transferred Frequency Response “based on its expectation of costs through committing additional generation on-line through exceptional dispatches.” Draft Final Proposal at 22. According to the ISO, it “can choose to not award a winner if all the offers are excessive” (id.), and, as described on the stakeholder call regarding the Draft Final Proposal, the ISO would find as excessive, and thus reject, any bids from external BAs that are higher than the cost of using exceptional dispatch to meet the frequency response obligation. The ISO’s proposed tariff language in Section 42.2.1 fails to include this metric for determining whether a bid is excessive, and it instead states only that “[t]he CAISO shall select the bids that permit the CAISO to satisfy Applicable Reliability Criteria.” This language neither reflects the concept outlined in the Draft Final Proposal for determining whether a bid is excessive, nor does it provide an objective measure for determining whether a bid is reasonable. Instead, it potentially obligates the ISO to accept one or more bids, and it fails to cap the acceptable cost at the cost of exceptional dispatch, as previously promised. This language creates the risk that the ISO may obtain Transferred Frequency Response at a</p>	<p>The CAISO has incorporated language into section 42.2.1 to reflect that it will select bids that permit the CAISO to satisfy Applicable Reliability Criteria at the lowest cost and consistent with the seller’s capability to provide transferred frequency response.</p> <p>The CAISO is proposing to make its authority to procure transferred frequency response permissive. The CAISO anticipates that it will file any contract for transferred frequency response as a non-conforming agreement for review and approval by FERC and provide a justification for the cost associated with procuring transferred frequency response in that filing.</p>

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	<p>cost that could be more than the cost of using internal resources for meeting the frequency response obligation.</p>	
42.2.1	<p>Six Cities comments that Section 42.2.1 states that the ISO will solicit bids for Transferred Frequency Response “[t]o the extent time permits.” The ISO should revise the tariff language to include a description of how the ISO will meet its obligation if time does not permit the use of a competitive solicitation process.</p>	<p>The CAISO will delete the language “to the extent time permits.” From section 42.2.1.</p> <p>The CAISO has incorporated language into section 42.2.1 to reflect that it will select bids that permit the CAISO to satisfy Applicable Reliability Criteria at the lowest cost and consistent with the seller’s capability to provide transferred frequency response.</p> <p>The CAISO will clarify that this section only applies to the CAISO’s ability to contract for transferred frequency response. Under separate tariff authority, the CAISO to may rely on exceptional dispatches to respond to reliability concerns. In the event transferred frequency response cannot be contracted or is not approved by FERC, the CAISO would rely on this separate authority if necessary to meet the Applicable Reliability Criteria.</p>
42.2.2	<p>Six Cities comments that the ISO should revise tariff Section 42.2.2 to clarify that it applies only to contracts for Transferred Frequency Response. To that end, the Six Cities recommend adding the words “for Transferred Frequency Response” after the word “contract” in the first line. With that revision, Section 42.2.2 will read as follows:</p>	<p>The CAISO will make Six Cities’ recommended change.</p>

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	<p>The costs incurred by the CAISO for any contract for Transferred Frequency Response under Section 42.2.1 are recovered from Scheduling Coordinators pursuant to Section 11.35.</p>	
Appendix A	<p>Six Cities comments that the ISO stated that it would refine its description of Transferred Frequency Response “to state that since [Transferred Frequency Response] is a compliance instrument there is no exchange of physical services between BAs.” Draft Final Proposal at 21. While this fact must be inferred from the definition of Transferred Frequency Response, given the confusion with this concept on the most recent stakeholder call regarding the Draft Final Proposal, the Six Cities request that the ISO include in the definition express language that Transferred Frequency Response is (a) a compliance instrument, and (b) does not involve a physical exchange of services between Balancing Authorities.</p>	<p>The CAISO will make Six Cities’ recommended change.</p>
Appendix A	<p>Powerex recommends the ISO revise language to permit any Scheduling Coordinator authorized to commit a BA-specific transfer of frequency response to participate in the contemplated competitive solicitation process and make other non-substantive changes.</p>	<p>The CAISO’s proposal would permit the CAISO to procure transferred frequency response from a balancing authority. The CAISO has modified its proposed language to allow for another entity to serve as an authorized seller on behalf of a balancing authority.</p>
Appendix K	<p>PG&E recommends that the ISO remove (from its Appendix K Part B language on AS certification requirements) any references to primary frequency response.</p>	<p>The CAISO’s current tariff requires resources with governor controls that are certified to provide spinning reserve to meet specific parameters for those governor controls. The CAISO’s changes clarify these parameters consistent with the proposed requirements in section 4.6.5.1.</p>

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Appendix K	<p>SCE recommends adding the following highlighted language in Part B 1.2 (e):</p> <p>For each Generating Unit with governor controls, Participating Generators shall coordinate all plant control systems, locally or remotely controlled, so that they include frequency bias to ensure that each Generating Unit can respond immediately and automatically in proportion to <i>and the direction of</i> frequency deviations.</p>	<p>The proposed language may create some confusion in that if a generating unit responds in the same direction of frequency deviations, the response will not help arrest the frequency deviation. The CAISO proposes to revise the referenced language to read:</p> <p>“For each Generating Unit with governor controls, Participating Generators shall coordinate all plant control systems, locally or remotely controlled, so that they include frequency bias to ensure that each Generating Unit can respond immediately and automatically in proportion to frequency deviations to help restore frequency to scheduled value.”</p>