



Stakeholder Comments Template

Flexible Ramping Product Refinements Initiative

This template has been created for submission of stakeholder comments on the draft final proposal and technical documents that were published on May 8, 2020. These materials can be found on the initiative webpage at:

<http://www.caiso.com/StakeholderProcesses/Flexible-ramping-product-refinements>.

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on June 2, 2020.

Submitted by	Organization	Date Submitted
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Please provide your organization’s overall position on the FRPR draft final proposal:

- Support
- Support w/ caveats
- Oppose
- Oppose w/ caveats
- No position

Please provide written comments on each of the revised straw proposal topics listed below:

PacifiCorp, Idaho Power Company and Puget Sound Energy (“Joint Parties”) submit the following comments to the California Independent System Operator Corporation (“CAISO”) on the Flexible Ramping Product (“FRP”) Refinements draft final proposal published May 8, 2020 (“Proposal”). The Joint Parties appreciate the opportunity to provide comments for the CAISO’s consideration.

1. Proxy Demand Response Eligibility:

No comments at this time.

2. Ramp Management between fifteen minute market and real-time dispatch:

The Joint Parties support the CAISO's proposal to hold 100% of the requirement in the buffer interval.

3. Minimum Flexible Ramping Product Requirement for BAA:

In the Proposal, the CAISO proposed (1) a simplified rule by enforcing a minimum requirement only when a balancing authority area is 60% of the system requirement, and (2) that a nominal requirement can be used in any balancing authority area if needed.

The Joint Parties understand that it will not be necessary once nodal procurement is implemented. However, the Joint Parties would like to better understand how the market optimization would change from hour to hour, should the minimum requirement be triggered in the CAISO's balancing authority area ("BAA"). For example, please provide additional information on the potential change in EIM transfers if a single hour triggers the minimum requirement, but all hours surrounding that hour are below the threshold. Does the CAISO anticipate a significant change in transfers relative to that specific hour, or would the necessary internal BAA requirement be implemented across all hours?

The Joint Parties would like to better understand the impact the minimum requirement trigger will have on the EIM diversity benefit. Please provide additional information on how the EIM diversity benefit may be impacted with both the nominal and minimum flexible ramping requirement for a BAA as well as the EIM footprint.

The CAISO states in the Proposal that a nominal portion of the non-pivotal BAA may be allocated to support a minimum requirement in each of the non-pivotal BAAs, and that the 10% used in the Proposal is for illustrative purposes only. The Joint Parties seek clarity regarding the percentage the CAISO intends to implement for this purpose. In addition, please explain the reasoning for needing to ensure a portion of the remaining requirement is procured locally in each of the non-pivotal BAAs wherein there is sufficient net import and export capability with adjacent BAAs, as well as the ability to set aside regulation reserves within each individual BAA for unexpected deviations.

4. Nodal Procurement:

The Joint Parties support the CAISO's nodal approach for procuring FRP.

5. FRP Demand Curve and Scarcity Pricing:

The Joint Parties are supportive of the proposed stepped scarcity pricing methodology that would be applied upon implementation of nodal FRP procurement.

6. Calculating FRP Requirements:

The Joint Parties generally support the CAISO's quantile regression proposal which incorporates forecasts for load, wind, and solar into the requirements calculation. However, during the stakeholder call, PacifiCorp suggested, and the Joint Parties agree, that the CAISO should explore adding an asymptotic component to the quantile regression methodology for load. In addition, the Joint Parties are generally supportive of the proposed design with respect to wind and solar with the caveat that the Joint Parties suggest that the "bounds" that are referred to on page 3 of Appendix C, be individually applied to load (L_q), wind (W_q), and solar (S_q), and then applied to the end result of net load (NL_q). The Joint Parties believe that applying the bounds in this manner would provide for a specified minimum uncertainty procured for wind and solar forecast error.

7. Additional comments:

Flexible Ramping Sufficiency Test. The Joint Parties understand that the CAISO intends to change the flexible ramping procurement requirements for a BAA that has failed the flexible ramping sufficiency test. In the current implementation, if a BAA fails the flexible ramping sufficiency test, the flexible ramping capacity that is procured is reduced by the amount of EIM transfers above the base transfer. The Joint Parties agree that an entity may not be able to recall 100% of this capacity, but certainly a significant portion of this capacity can be recalled. The amount of capacity recalled would be subject to ramping constraints of participating resources, which is information that the CAISO already uses to optimize participating resource dispatch and EIM transfers. Not counting the EIM transfers as a credit in the required flexible ramping capacity procurement could result in significant over-procurement of flexible ramping capacity within the BAA that failed the flexible ramping sufficiency test.

For example, if a BAA fails the flexible ramping sufficiency test and is exporting 300 MW, which accounts for the majority of the available flex within the BAA, would the BAA be required to continue to export the 300 MW of energy plus procure 300 MW of flex locally in the BAA? Alternatively, would the export transfer change, recognizing that the local flex within the BAA is supporting the 300 MW export and retract the transfer to support local flex procurement? Please provide additional clarification. Also, please provide information on the percent of intervals in which a BAA fails its flexible ramping sufficiency test in the up or down direction, but continues to import/export in that same direction. If this is a high percentage of the flexible ramping sufficiency test failures, this change will likely have a large

impact on a BAA's ability to procure locally 100% of the flexible ramping requirement for the BAA.

The CAISO notes the implications for the remaining entities that pass the test, however, the Joint Parties contend that if a portion of the credit is considered in the procurement requirements for the failing entity, this requirement is not necessarily directly added to the procurement of the entities that passed the flexible ramping sufficiency test. As the CAISO notes in the Proposal, procurement of the flexible ramping product is often driven by the EIM requirement due to the ETSR capacity within the EIM footprint. If one BAA fails the flexible ramping sufficiency test, it reasons that flexible ramping capacity in the market is procured from other BAAs. This procurement requirement though remains driven by the uncertainty within the footprint and the Joint Parties believe it is not directly increased by the transfer amount of the failing BAA if the transfer volumes count towards reduced procurement for that failing BAA. This is due to the initial procurement requirement for the passing BAAs not being predicated on specific transfer volumes from one BAA.

Further, in their previous comments on the CAISO's revised straw proposal, the Joint Parties requested that the CAISO confirm that it is not proposing to change how the net import capability/net export capability ("NIC/NEC") is applied in the flexible ramping sufficiency test.¹ The CAISO responded to this with only the statement in the Proposal that "the minimum requirement does not impact the flexible ramping resource sufficiency evaluation." However, during the May 29, 2020, Market Surveillance Committee call, the CAISO stated that it would have further discussions internally to determine the impacts to the resource sufficiency evaluation and would update the final proposal accordingly. The Joint Parties request that the CAISO provide details regarding how the resource sufficiency evaluation will be impacted, including revisions to specific EIM entity BAA flexible ramping sufficiency test requirements calculations and formulas.²

In addition, the Joint Parties again request correction of the inconsistency between the CAISO's Appendix B and its EIM BPM regarding treatment of transfers in the event that an EIM entity fails the flexible ramping sufficiency test.³ In both sections 1.1 Current FRP Procurement Implementation and 1.2 Proposed Enhancement of Flexible Ramping Product Refinements of Appendix B, the CAISO states:

An additional constraint is enforced for each BAA that has failed the FRU/FRD sufficiency test to limit its net transfer import/export below/above its net base transfer to prevent leaning on other BAAs in the EIM Area.

¹ See the Joint Parties' comments on the CAISO's revised straw proposal, at page 3.

² See formula in Section 11.3.2.1 of the CAISO's EIM business practice manual.

³ See the Joint Parties' comments on the CAISO's revised straw proposal, at page 2.

This is different than the current implementation as set forth in the CAISO's EIM BPM Section 11.3.2.1, which bounds transfers at the "lower of the base transfer for current hour or the optimal transfer at the last fifteen-minute interval of the current hour," and the "higher of the base transfer for current hour or the optimal transfer at the last fifteen-minute interval of the current hour," in the event of the flexible ramp up and down test failure, respectively. The Joint Parties request confirmation of which document will be revised. Does the CAISO intend to make this change in its EIM BPM or revise Appendix B?

Conclusion. The Joint Parties are generally supportive of the CAISO's objectives in this initiative and again urge the CAISO to ensure that all of the policy items currently in the stakeholder process for both the day-ahead and real-time markets are conceptually and technically aligned throughout. The Joint Parties appreciate the CAISO's consideration of these comments.