

Stakeholder Comments Template

Submitted by	Company	Date Submitted
<p>Please fill in the name, e-mail address and contact number of a specific person who can respond to any questions about these comments.</p> <p>Mohan Niroula</p> <p>Mohan.niroula@water.ca.gov</p> <p>916-574-0712</p>	<p>Please fill in here</p> <p>California Department of Water Resources (CDWR)</p>	<p>Please fill in here</p> <p>05/17/2018</p>

Please use this template to provide your comments on the FRACMOO Phase 2 stakeholder initiative Second Revised Draft Framework Proposal posted on April 27, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due May 17, 2018 by 5:00pm

The Second Revised Draft Framework Proposal posted on April 27, 2018 and the presentation discussed during the May 3, 2018 stakeholder meeting may be found on the [FRACMOO](#) webpage.

Please provide your comments on the Second Revised Draft Framework Proposal topics listed below and any additional comments you wish to provide using this template.

Identification of ramping and uncertainty needs

The ISO has identified two drivers of flexible capacity needs: General ramping needs and uncertainty. The ISO also demonstrated how these drivers were related to operational needs.

Comments:

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No comments.

Definition of products

The ISO has outlined the need for three different flexible RA products: Day-ahead load shaping, a 15-minute product, and a 5-minute product.

Comments:

No comments.

Quantification of the flexible capacity needs

The ISO has provided data regarding observed levels of imbalances, in addition to previous discussion of net load ramps.

Comments:

No comments.

Eligibility criteria, counting rules, and must offer obligations

The ISO has identified a preliminary list of resource characteristics and attributes that could be considered for resource eligibility to provide each product. Additionally, the ISO has proposed new EFC counting rules for VERs and storage resources that are willing to provide flexible RA capacity.

Comments:

Removal of Start Up Time (SUT) limitation: CDWR supports removal of SUT as an eligibility criterion for providing flexible RA capacity because this change would allow more capacity to be available for flexible RA.

Must Offer Obligation (MOO) time frame: CAISO is proposing to modify MOO to be day-ahead only. Would this modification apply to all RA types or only to the flexible RA? CDWR's understanding is that, under CAISO's proposal, a resource that received an award in the DAM for its RA capacity would not be required to submit an RTM bid for that capacity. If a resource receives no award in the DAM for its RA capacity, would such a resource still be required to submit an RTM bid? If a resource receives a partial award for its capacity, would such a resource be required to submit an RTM bid for the capacity that did not receive a DAM award? Currently, Participating Load offers contingency non-spin in the DAM and offers load drop energy bid in the RTM for the award it received in the DAM. Will these Participating Load actions be impacted by the change proposed by CAISO in terms of scheduling in the DAM and RTM? Also, will the proposal to modify the MOO to be day-ahead only apply to all resources, including use-limited resources?

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24-hour Resource Adequacy Availability Incentive Mechanism (RAAIM): CAISO's proposal states at page 29: "More specifically, because the flexible RA capacity is to ensure the ISO can efficiently shape day-ahead market awards and address uncertainty, the ISO proposes to apply a 24 hour AAH for flexible RA capacity".

A 24-hour MOO coupled with a potential for a 24-hour RAAIM penalty could be very stringent for use-limited resources and could severely impact the willingness of such resources to provide RA due to potentially high penalties. There is no reason to discourage use-limited resources which otherwise could have provided RA with reasonable certainty to meet CAISO's critical reliability needs during key periods. For generic RA, CAISO has not demonstrated that the existing 5-hour window of RAAIM assessment (which captures the CAISO system coincident peak) is not sufficient to incentivize availability. Without a demonstrated need to impose a 24-hour RAAIM assessment, CAISO risks an adverse impact on the participation of use-limited resources in the provision of generic RA as well as in the provision of flexible RA.

CAISO links the RAAIM issue with the Day Ahead Market Enhancement (DAME) revised straw proposal. The DAME revised straw proposal states at page 25:¹ "Resources Adequacy (RA) resources have additional penalties to provide economic incentives for availability of RA capacity. The Resource Adequacy Availability Incentive Mechanism (RAAIM) determines whether or not a resource provided bids to meet an RA obligation. Flexible RA capacity, this means providing an economic bid for this capacity. However, as noted in imbalance reserve bidding section above, unless RA resources obtain a day-ahead schedule, an ancillary service, or an imbalance reserve award, the RA resource will no longer have a real-time must offer obligation. This means that a resource will have met all of its RA must offer obligations through participation in the day-ahead market. This allows the ISO to simplify the RAAIM calculations. RAAIM will now only consider compliance with day-ahead must offer obligations. The only additional consideration the ISO may need will depend on the final determination between penalties and disqualification of resources attempting to provide imbalance reserves. Specifically, if the ISO determines it is necessary to disqualify resources from providing imbalance reserves, then the ISO would set any disqualified flexible RA capacity as zero percent available for all days it is disqualified and has not offered replacement capacity for the flexible RA capacity."

It is not clear from the CAISO statement above whether a 24-hour RAAIM assessment will apply to generic RA as the reference is made only to flexible RA. If a 24-hour RAAIM assessment will apply to generic RA also, it would mean that, for any RA capacity to not be penalized, it must be able to offer 24 hours a day. This requirement will be very challenging for use-limited resources and, due to uncertainty, would discourage such resources from providing RA capacity. This

¹ CAISO Revised Straw Proposal on DAME, Page 25, RAAIM changes:

<http://www.caiso.com/Documents/RevisedStrawProposal-DayAheadMarketEnhancements.pdf>

could lead to the reduction in available RA in the resource pool and could potentially lead to higher costs of maintaining grid reliability.

Equitable allocation of flexible capacity needs

The ISO has proposed a methodology for equitable allocation of flexible capacity requirements. The ISO seeks comments on this proposed methodology as well as any alternative methodologies.

Comments:

Flexible RA product obligation allocations: CAISO's proposal does not provide a detailed calculation method for allocation of the 5-minute and 15-minute products. In order for the stakeholders to understand the proposed methodology, please provide detailed calculation methods for allocations with examples in an excel spreadsheet format.

For the allocation of Day Ahead Load Shaping Product (DALs), CAISO proposes to continue the existing flexible RA allocation methodology. CDWR supports some aspects of this proposal, in particular summation of load, wind, and solar in which negative load ramp nets against the obligation caused by solar and wind 3-hour ramps. However, CDWR recommends two changes in allocation of DALs associated with LSE's 3-hour load ramp. First, as the DALs portion of flexible RA is classified as being associated with "certainty" portion of flexible RA need, it is logical to allocate flexible RA based on an LSE's "average monthly 3-hour load ramp" caused by LSE's 3-hour load ramp, instead of LSE's five 3-hour load ramps coincident with CAISO system top five net load ramps during the month. This would prevent anomalous allocation results associated with top five net load ramps; otherwise, some LSEs may receive abnormal allocations under the existing method even with a single event of ramping. The monthly average 3-hour load ramp would represent the general load ramping trend of the LSE during the month with certainty. Second, CDWR believes that loads that are managed in response to price signal and CAISO economic dispatch or CAISO reliability dispatch to consume energy to mitigate overgeneration (causing 3-hour load ramps to increase as a result) should be exempt from flexible RA allocation.

Next Steps

The ISO is currently planning to issue a draft final framework on June 6, 2018. However, given the schedule change in the CPUC's RA proceeding, the ISO will not release a draft final framework until July 10, 2018. The ISO seeks stakeholder input regarding next steps that

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should be taken to further enhance the ISO's framework. Options include, but are not limited to, another full iteration or working groups.

Comments:

No comments.

Other

Please provide and comments not addressed above, including any comments on process or scope of the FRACMOO2 initiative, here.

Comments:

a) CAISO's proposal states at page 4ⁱ: "The ISO's overall flexible capacity need will therefore be defined as: Maximum Forecasted **3-Hour ramp** (including reconstituted renewable curtailments) + ½ Max (MSSC, 6% of the monthly expected peak load) + ε"

Under the existing FRAC MOO requirements, the overall flexible capacity need is determined based on the Maximum Forecasted 3-hour **net** load ramp. Please clarify whether the "Maximum Forecasted 3—hour ramp" term used in the proposed formula is the correct term that CAISO intends to apply for determination of the overall flexible capacity need.

b) Based on observation during overgeneration hours, CDWR's experience indicates that generic RA resources are unnecessarily required to offer supply of energy even though energy prices are negative. CAISO should consider whether it would be prudent to relax MOO for generic RA resources (and therefore exempt them from RAAIM) during overgeneration hours. Such resources could move generation from an overgeneration period to a higher demand period and therefore help the overall grid reliability.

ⁱ <http://www.aiso.com/Documents/SecondRevisedFlexibleCapacityFrameworkProposal-FlexibleResourceAdequacyCriteriaMustOfferObligationPhase2.pdf>