

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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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:

No comment.

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:

1. CAISO should address any potential overlap between the proposed five-minute flexible capacity product and current regulation and flexible ramping requirements

CAISO previously stated that it proposes to include regulation as part of the five-minute flexible capacity need. The ISO currently is exploring the options for how much overlap to account for between the two requirements. It is not necessary to cover the maximum range of uncertainty between real-time dispatch (RTD) and actual load. Instead, the ISO is currently focused on options that reflect the quantities of market procurement of regulation.¹

¹ CAISO FRACMOO2 Revised Flexible Capacity Framework, January 31, 2018, p. 22.

In the Second Revised Straw Proposal, CAISO does not discuss whether or how regulation is included as part of the determination of five-minute flexible capacity need. Instead, CAISO explains that it will define the need for five-minute flexible RA capacity on the “expected need for the flexible ramping product uncertainty requirement.”² The language in the Revised Straw Proposal and Second Revised Straw Proposal indicates potential overlap between CAISO’s proposed definition of and requirements for a five-minute flexible capacity product and existing regulation and flexible ramping energy requirements. It is not clear whether CAISO’s proposal will lead to double payments or over-procurement of resources to provide the same services. CAISO should clarify how the proposed five-minute capacity product and the current definition for regulation and flexible ramping resources will overlap or differ. To the extent that there is overlap between the proposed five-minute capacity product and existing regulation and flexible ramping resources, CAISO should explain how it will prevent potential double payments or over-procurement.

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:

1. CAISO should explain why the five minute capacity need is the same in every month.

CAISO explains that it will define the need for five minute flexible RA capacity as the “expected need for the flexible ramping product uncertainty requirement.”³ CAISO shows that historically, the flexible ramping product reached 1,000 megawatts (MW) in every month⁴ so its estimate of five minute flexible RA capacity is 1,000 MWs in every month. It seems unlikely that the five-minute capacity need is exactly 1,000 MWs in every month while CAISO’s estimate of the Day-Ahead (DA) load shaping and fifteen-minute capacity needs vary by month. CAISO should provide its calculations for the five minute capacity need determination and explain why it results in a need of 1,000 MWs in every month to demonstrate that there is not an error in the calculations.

2. CAISO should update its assessment of historical flexible RA using proposed flexible RA requirements and counting rules.

CAISO previously provided an assessment of historical flexible RA that compared the need under the proposed RA requirements and the MWs available and shown to determine any

² CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 19.

³ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 19.

⁴ Ibid.

potential deficiency.⁵ CAISO has since revised its proposed methodology for determining need and counting rules, so it should update its analysis to inform stakeholders of the potential impact of its proposal.

3. CAISO should clarify its proposed formula, including details of its proposed use of a variable that differs from existing North American Electric Reliability Corporation (NERC) requirements.

CAISO proposes the following formula to calculate the flexible RA requirement:

Maximum Forecasted 3-Hour ramp + $\frac{1}{2}$ Max(MSSC,⁶ 6% of the monthly expected peak load) + $\frac{1}{2}$

CAISO has not addressed ORA's previous recommendation to clarify its use of "6% of the monthly expected peak load" in this equation. CAISO proposes to use this value to approximate the new NERC standard for calculating Contingency Reserves.⁷ However, CAISO has not explained why an approximation is more appropriate to use instead of the actual NERC standard or provided its calculation of both values to demonstrate their approximate equivalence.

CAISO states that Spinning Operating Reserves is approximately 50% of the Contingency Reserve Requirement.⁸ In response to comments from the Department of Market Monitoring, CAISO explained that it proposes to use half the total reserve requirement to "include only contingency reserves and not operating reserves."⁹ However, CAISO currently does not divide the contingency reserve portion of its flexible capacity requirement by half.¹⁰ CAISO should explain this difference in calculation for current flexible capacity needs and clarify its proposal for calculating flexible capacity needs.

4. CAISO has not justified its 100% year-ahead showing for Flexible RA.

CAISO has not changed its proposal to require procurement of 100% of the monthly flexible capacity needs for the year-ahead showings¹¹ and has not addressed ORA's previous

⁵ CAISO FRACMOO2 Revised Flexible Capacity Framework, January 31, 2018, p. 45.

⁶ MSSC: Most Severe Single Contingency.

⁷ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 18. The new NERC requirement is the greater of either the amount of Contingency Reserve equal to the loss of the MSSC or the amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation. CAISO states that "6% of the monthly expected peak load is approximately equivalent to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation."

⁸ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 18.

⁹ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 38.

¹⁰ Draft Flexible Capacity Needs Assessment for 2019, p. 4.

¹¹ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 22.

comments on this proposal.¹² As previously stated, the current 90% year-ahead showing allows load-serving entities (LSEs) flexibility to adjust for the increasing load migration resulting from the establishment of new Community Choice Aggregators (CCAs) and the expansion of existing CCAs. A 100% year-ahead showing would very likely lead to over-procurement that would unnecessarily increase ratepayer costs. CAISO should first demonstrate that a 90% year-ahead showing is insufficient to meet reliability needs before adopting a 100% year-ahead requirement.

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:

1. CAISO should clarify its proposed requirements for demand response.

CAISO contemplates exceptions to its proposed 24 hour DA must offer obligation for variable energy resources (VERs) and demand response (DR). VERs and DR would be allowed to offer the lower of their shown Effective Flexible Capacity (EFC) values or their forecasted output so they can still be counted towards meeting flexible capacity needs and their bidding reflects their actual capabilities. ORA supports these exceptions to allow these preferred resources to provide flexible RA. ORA requests that CAISO discuss further how it proposes to calculate the EFC for DR and how it would determine what a DR resource would need to bid in each hour.

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:

1. ORA supports allocation based on causation to provide appropriate signals for procurement and management of load.

ORA supports CAISO's proposal to "maintain its current practice of allocating flexible capacity requirements based on an LRA's [Local Regulatory Authority] jurisdictional LSEs' contribution to the requirement."¹³ Allocation based on causation will provide appropriate signals to LSEs by connecting an LSE's load and portfolio of resources to its flexible RA

¹² ORA Comments on Revised Flexible Capacity Framework, February 21, 2018, pp. 6-7.

¹³ CAISO FRACMOO2 Second Revised Flexible Capacity Framework, April 27, 2018, p. 34.

requirement. This could help LSEs determine how to shape their load, wind, and solar profiles to minimize flexible RA requirements and associated costs.

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

Comments:

- 1. ORA supports another full review of the next iteration of the proposal before submission to the CPUC.**

ORA has requested further clarification from the CAISO on its proposal in the above comments. CAISO also discussed gaps in its current proposal, such as how curtailments will be included in its analysis. CAISO should address these issues in another iteration of the proposal to ensure that the design of CAISO's proposed flexible RA requirements will be effective. This revised proposal should be distributed to stakeholders for review. CAISO should not wait until the draft final proposal to produce new aspects of the proposal; such delay would limit stakeholder feedback and opportunities to address all issues of the proposal.

Other

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

Comments:

No comment.