

## Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the FRACMOO Phase 2 stakeholder initiative Supplemental Issue Paper posted on November 9.

Submit comments to [InitiativeComments@CAISO.com](mailto:InitiativeComments@CAISO.com)

**Comments are due January 6, 2017 by 5:00pm**

The Supplemental Issue Paper posted on November 9 and the presentation discussed during the December 9 stakeholder web conference may be found on the [FRACMOO](#) webpage.

Please provide your comments on the Supplemental Issue Paper topics listed below and any additional comments you wish to provide using this template.

SDG&E appreciates the opportunity to comment on the ISO's supplemental issue paper to identify additional issues that should be considered for discussion.

The ISO identified six potential areas that it wishes to explore enhancements to the existing flexible capacity product. SDG&E believes the ISO should modify its scope for the following items for consideration

1. Add: Exclude curtailable or dispatchable renewable resources the Flexible Needs Assessment calculation for LSEs
2. Delete: Allocation of negative contribution of flexible capacity requirements
3. Delete: Assessment of flexible RA showings to meet all ramping needs

The ISO originally developed the flexible need due to the increased penetration of non-curtailable renewable resources. Since then, the market has changed significantly and parties have included curtailment provisions into those contracts. Likewise, the ISO's supplemental issue paper is identifying additional operational needs. With the knowledge gained over the past 2 years and changes to the contracts, SDG&E strongly recommends the ISO to review the flexible needs assessment to take into account these changes and come up with a holistic approach that also includes changes to the ISO energy markets.

Curtailable renewable resources effectively operate in the same manner as dispatchable generation by reducing the net ramp rather than providing the supply to meet the need itself. Curtailable renewable resources are already able to count as part of the supply. However, these resources are also part of the ISO's needs assessment unlike other non-dispatchable must-take resources. These resources include CHP, QFs and the pmin portion of long start resources as an example. The ISO should consider whether including such non-flexible resources in the assessment would incent behavior for how LSEs show resources as part of the Local/System RA portfolio. Separately, the ISO should also consider if curtailable renewable resources should be excluded from the net load calculation because the net load ramp does not consider any dispatchable resources as contributing to the net load ramp.

Discussing these topics may yield additional insights for how to resolve the flexible need and whether or not the net load ramp may look different from ones that are currently forecasted. SDG&E recommends the ISO to hold workshops to consider these topics.

### **Identified opportunity for enhancing flexible capacity product**

1. Ramping speed
  - a. Large single hour net load ramps

#### **Comments:**

While it is true that the largest single hour net load ramp is forecasted to grow over time, as penetration of renewable resources increases, the percentage of the single hour net load ramp as a portion of the three-hour net load ramp stays fairly flat. The ISO indicates it is concerned with utilizing slow ramping resources to meet such ramps has operational and environmental implications. SDG&E agrees that resources with high pmin and long start times do affect the net load. However, this is an issue of energy market optimization where energy prices can provide market signal curtail various types of generation or export more energy to optimally meet the actual loads. A capacity product only solution cannot resolve deficiencies in the energy market. Over-generation is not a reliability problem but an economic optimization problem. When there is sufficient market pressure on negative prices, resources will ultimately

shutdown in order to not generate at a loss. The ISO should not pre-judge or dictate which resources get to generate or not generate, but rather let the market forces make such determinations. When there are significant market signals for over generation, demand or exports could rise to take advantage of the lower price compared to the ISO constraining a certain type of resource from participating in the market due to RA rules.

- b. The transition from low net loads to steep ramps

**Comments:**

SDG&E recommends the ISO to provide further information on the make-up of the existing and future RA fleet after OTC retirements. Specifically, if fast start peakers are being portrayed as slow ramping resources while OTC resources are shown as fast ramping resources. Or in another form, what types of resources make up the ramp rate categories in Figure 1.

- c. Intra-hour variability

**Comments:**

The interim flexible program used a one size fits all type method which essentially averaged out the need. It seems that the ISO is identifying a more precise need for a 1-hour need in addition to the 3-hour need. SDG&E believes this warrants further discussion and wonders whether the capacity product may need to be changed to meet the more precise operational needs.

2. Cycle time and flexible capacity qualifications

**Comments:**

SDG&E does not believe changes are needed for cycle time or category qualifications. SDG&E believes that once Commitment Cost Enhancements Phase 3, if approved by FERC, is in effect, the opportunity cost adder would allow the ISO market software to optimize when resources will be dispatched throughout the year. Therefore, mostly all resources would qualify to meet the current category 1 requirement.

3. High minimum operating levels from both RA and flexible RA

**Comments:**

Please see SDG&E's comments regarding holistic solution approach and energy market optimization.

4. Most significant net load ramps occur on weekends or holiday weekdays

**Comments:**

SDG&E believes the ISO should consider only 2 categories of resources. With the opportunity cost adder and nature of work outages for use limited resources, there effectively is not a need to differentiate category 2 or 3 products. Considering the similarities of the must offer obligation, category 2 and 3 function the same as proposed by the ISO. However, if the ISO were to consider segmenting a 1-hour product and a 3-hour product, then it may make sense to change what resources can meet those segments.

5. Significant quantities of long start resources may limit the ISO's ability to address real-time flexibility needs

**Comments:**

Please see SDG&E's comments regarding holistic solution approach and energy market optimization.

6. There is currently no means in place for the ISO to assess the likelihood that the flexible RA showings will adequately meet all ramping needs

**Comments:**

SDG&E believes the ISO should delete this issue from its current scope for FRACMOO 2 as both the need and products are likely to change. SDG&E believes the ISO should first focus on clearly identifying the need, possible solutions available to meet the need and reviewing the results of showings before spending time on developing a complicated assessment methodology.

**Other comments**

Please provide any additional comments not associated with the topics above.

**Comments:**

SDG&E recommends the ISO removing the allocation of negative contributions from the scope. At this point, neither the market of LSEs nor the ISO is sophisticated enough to transact such "credits." This credit process is a solution in search of a problem and diverts efforts that should be spent on identifying real issues and solutions.

SDG&E also requests the ISO to provide a timeline on when it expects to discuss FRACMOO needs for regional expansion. This question was asked within the regional RA initiative, and the

response was that FRACMOO 2 would be the appropriate initiative. However, the ISO is not expanding the scope to consider any type of regional expansion and what that may do to the flexible needs. SDG&E believes this limits both the issues to be identified as well as the solutions may provide and would delay the regionalization plans. SDG&E urges the ISO provide a timeline on when it will consider a regional flexible RA initiative.

SDG&E strongly encourages the ISO to host workshops in the near future to discuss these topics in order to develop a comprehensive proposal to resolve the issues identified.