

Stakeholder Comments Template

Submitted by	Company	Date Submitted
Laura Trolese, ltrolese@publicgeneratingpool.com , 360-513-6465	Public Generating Pool	January 6, 2017

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

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.

The Public Generating Pool (PGP) represents ten consumer-owned utilities in Oregon and Washington, three of which own and operate Balancing Authority Areas (BAA)s. PGP appreciates the opportunity to comment on the California ISO's Flexible Resource Adequacy and Must Offer Obligation Phase 2 (FRACMOO2) Supplemental Issue Paper dated November 8, 2016.

Identified opportunity for enhancing flexible capacity product

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

Comments:

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

Comments:

- c. Intra-hour variability

Comments:

2. Cycle time and flexible capacity qualifications

Comments:

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

Comments:

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

Comments:

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

Comments:

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:

Other comments

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

Comments:

PGP is pleased to see that the proposal to allow inertia resources to provide flexible capacity is still within the scope of the FRACMOO2 initiative. PGP strongly supports the extended participation of external resources to provide flexible resource adequacy (RA) capacity. However, PGP would like to reiterate that a requirement for external resources to be “resource specific”, as proposed in the 2015 FRAC MOO straw proposal, would limit external renewable hydro resources that operate as an integrated system from market participation, reducing the amount of flexible capacity that could be made available to the CAISO market. PGP encourages the ISO to explore other options for meeting its objectives of avoiding double-counting and verifying the quality and amount of flexible capacity a resource can provide that would allow external resources to offer flexible capacity from a “system resource”.

PGP also commends the ISO for assessing the current flexible RA showings in relation to the ISO’s forecasted flexible capacity need and considering enhancements to the flexible capacity product. The CAISO’s assessment of the flexible RA showings seems to indicate the flexible RA capacity need is more complicated than the highest 3-hour net load ramp. The ISO should further evaluate the impact of must run resources, renewable resources, and non-ramp period volatility to assess whether future modifications to the methodology for defining flexible RA is needed.

PGP believes there are many options for addressing the issues the ISO has identified in its Supplemental Issue Paper. At the stakeholder meeting held on December 9, 2016 by the ISO to discuss the FRACMOO2 Supplemental Issue Paper, both Powerex and the Western Power Trading Forum suggested the flexible capacity product could be defined the same way energy is dispatched in the ISO markets within the hour – i.e. sub 5-minute, 5-minute and 15-minute increments. This proposal seems promising and PGP encourages the ISO to further consider this proposal. PGP is also open to other solutions to the extent they meet the following objectives:

1. Products are defined that include the ability for 15-minute resources to participate,
2. Additional access for external resources to participate as system resources is enabled, and
3. Qualification criteria are modified to ensure that resources can perform within the time period needed to meet the ISO’s flexibility needs.

In addition to enhancing the flexible capacity product, PGP encourages the ISO to explore ways in which it can reduce the need for flexible capacity. To the extent the ISO's 3-hour net load ramp is highly predictable on a forward basis, the ISO could consider forward RA import commitments for shaped energy deliveries that mitigate the predictable changes in CAISO net load. This would relieve the need for flexibility to be met exclusively from real-time dispatchable resources. Forward planning and scheduling of shaped deliveries provides for better use of limited transmission availability to the CAISO and would also align with the operating practices and forward optimization of large, integrated hydro systems that exist in the Pacific Northwest, allowing California to benefit from significant additional flexibility that may not be available on a 15-minute basis due to the short lead time.

PGP strongly encourages the ISO to continue to explore ways in which the capabilities of intertie resources can be used to support flexible capacity needs of the CAISO, including 15-minute and 5-minute dispatchability of intertie resources and forward contracting for shaped energy deliveries.