Stakeholder Comments Template

Submitted by	Company	Date Submitted
Danielle Mills Please fill in the name, e-mail address and contact number of a specific person who can respond to any questions about these comments.	American Wind Energy Association (AWEA) California Caucus or "ACC"	December 13, 2017

Please use this template to provide your comments on the FRACMOO Phase 2 stakeholder initiative Draft Framework Proposal posted on May 1, 2017.

Submit comments to InitiativeComments@CAISO.com

Comments are due December 13, 2017 by 5:00pm

The Draft Framework Proposal posted on November 20, 2017 and the presentation discussed during the November 29, 2017 stakeholder web conference may be found on the FRACMOO webpage.

Please provide your comments on the 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 related to operational needs.

Comments:

ACC appreciates the CAISO's evaluation of the drivers of flexible capacity needs. Generally, at a high-level, the two areas identified by the ISO appear to be reasonable categories to differentiate the drivers of flexible capacity needs. Breaking out the drivers into these two

categories may provide the market with better information about the types of resource characteristics that are required for reliably addressing the CAISO's flexible capacity requirements. ACC looks forward to continued dialog on the drivers of flexible capacity needs.

Quantification of the flexible capacity needs

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

Comments:

ACC appreciates the additional data provided by the CAISO and looks forward to continuing to review and analyze data related to flexibility needs caused by "uncertainty". It would be helpful for all stakeholders to better understand the uncertainty needs driven by resource outages, load forecast error, and the forecast error for each type of VER (e.g. uncertainty driven by solar, wind, geothermal, etc.). This type of data may be valuable for various Load Serving Entities to understand the impact of resource types on flexibility needs and may help illustrate the flexibility benefits provided by a diverse renewable resource portfolio.

Eligibility criteria and must offer obligations

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. Additionally, the ISO has identified a preliminary list of resources characteristics and attributes that could be considered for resource eligibility to provide each product. Additionally, the ISO is considering new counting rules for VERs that are willing to bid into the ISO markets.

Comments:

ACC appreciates the ISO's evaluation of how to treat VERs that economically bid into the day ahead market to help the ISO address net load ramps. At this time, ACC does not offer specific comments, but looks forward to continuing to work with the ISO on these issues and find ways to better manage the ISO's flexibility needs and utilize VERs to do so.

Equitable allocation of flexible capacity needs

Equitable allocation of flexible capacity needs is a critical element of a new flexible RA framework. The ISO seeks comments on potential allocation methodologies.

Comments:

ACC does not offer a specific methodology for allocation at this point in the stakeholder process. But, generally, the CAISO's allocation methodology should allocate in accordance with cost causation principles. Additionally, regardless of the CAISO's ultimate allocation

methodology, the data provided by the CAISO should be granular enough to support allocation methodologies not only at the Local Regulatory Authority (LRA) level but also at the LSE level. Earlier in these comments, ACC sought additional data on the "uncertainty" needs created by outages, load forecast error, and each type of VER forecast error. This type of information, for both "uncertainty" and net load ramps, would be valuable in assessing the load and resources that are driving the different types of flexibility needs and would be helpful in any allocation methodology that may ultimately be used by the CAISO.

Other

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

Comments:

[insert comments here]