

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the presentation and discussion from the stakeholder web conference held on October 19, 2015.

Submit comments to InitiativeComments@caiso.com

[Comments are due November 2, 2015 by 5:00pm](#)

CLECA's comments are below, with ISO's issues in italics.

Frequency Response Standard

The ISO believes the straw proposal and its accompanying technical appendix covers the standard's requirements for compliance purposes. The ISO is endeavoring to provide sufficient information to stakeholders for effective evaluation of the ISO's proposal. The ISO seeks comments on whether any unresolved questions on the standard and the ISO's obligation still exist.

Comments: Based on the discussion on the last stakeholder call, CLECA believes that there are many outstanding issues.

1. How does the use of spinning reserve for primary frequency response (PFR) affect the co-optimization of the ancillary services and energy markets? What is the impact of the fact that regulation up counts as spinning reserve? If it is used for PFR, could it result in shortages of regulation up?

2. How will the use of spinning reserve for PFR affect spinning reserve market prices?
The response to initial stakeholder positions says that frequency response costs may be priced in the spinning reserve unit's bid to ensure adequate competition. How will this affect the market clearing price for units providing PFR in addition to spin vs. those providing just spin? Will there be any analysis of the costs attributed to frequency response? Will these just be related to opportunity costs?
3. How accurate will the headroom look-ahead be on a per-resource and an aggregate basis? Will estimates of available per-resource headroom for providing PFR be sufficiently accurate to justify penalizing generators for a share of penalties for non-performance?
4. We have informed the CAISO of the existence of under-frequency relays (UFRs) at customer sites installed via utility demand response programs. The current triggers for these UFRs could be adjusted to better meet PFR requirements under BAL-003-1. How will the CAISO evaluate the role that such UFRs could play and how much capability could exist for providing PFR? If the utilities change the triggers on the devices, the customers should, of course, be allowed to decide whether they want to continue to have them and the incentives they receive will have to be reviewed.
5. What is the liquidity in the spinning reserve markets and how often would spin be required to provide PFR?
6. If the CAISO continues to pursue its Phase 1 approach and will be collecting data on sources of PFR, what data will be collected about alternative sources of PFR like storage, renewables with smart inverters, load, etc. so that they can be considered in Phase 2?

Frequency Response Drivers

Several factors contribute to the primary frequency response performance of participating generators having governors. The ISO discusses some of the main drivers of PFR performance in Section 4.2 of its straw proposal. These factors include (1) magnitude of frequency deviation, (2) amount of synchronous on-line capacity providing sustained PFR, and (3) headroom available from that connected on-line capacity.

The ISO is evaluating what additional data points would need to be included in its Masterfile or through other mechanisms to facilitate a market tool or product to be designed. The ISO seeks comments on what factors influence a generators ability to provide PFR in the event of a frequency disturbance and the pieces of information necessary to estimate expected PFR.

Comments: If designing a product, please make it technology-neutral and allow it to include demand- and supply-side resources.

Phase 1, addressing real-time deficiencies

Section 6.2 of the straw proposal discusses Phase 1 of the initiative which will enact the five steps to ensure it is capable of meeting the requirement at that time. The first step discussed in section 6.2.1 is to develop “look-ahead” tools to assess the PFR capability of the system at various time horizons in the future based on current system conditions. If the look ahead indicates an anticipated deficiency of PFR the ISO can take actions to address the deficiency.

The ISO seeks comments on its proposal for addressing real-time PFR deficiencies for 2017 compliance period.

Comments: Based on the information provided to date, it is not clear that the CAISO has the ability or resources to develop sufficient tools to perform such a “look-ahead” analysis in the near future with a sufficient degree of accuracy to assure compliance or to support penalties for resources that provide PFR at a different level than the CAISO has estimated.

Phase 1, tariff and interconnection revisions

Section 6.2 of the straw proposal discusses Phase 1 of the initiative which will enact five steps to ensure it is capable of meeting the requirement at that time. The first step discussed in section 6.2.2 is to revise the tariff to include requirements for all participating synchronous generators

with governors, not just those providing spinning reserves, to set governors to specified droop settings and deadbands, and to not override governor response through outer-loop controls or other mechanisms.

The ISO seeks comments on the tariff revisions it is proposing to help the ISO ensure sufficient frequency responsive headroom and whether other revisions should be considered.

Comments: No comment at this time.

Phase 1, ISO's practice of preserving operating reserve headroom

Section 6.2 of the straw proposal discusses Phase 1 of the initiative which will enact five steps to ensure it is capable of meeting the requirement at that time. The first step discussed in section 6.2.3 is to revise the tariff to clarify the authority of the ISO to designate any reserve not previously identified as Contingency Only by a Scheduling Coordinator (SC) as Contingency Only reserves.

Comments: No comment at this time.

Phase 1, performance requirements

Section 6.2 of the straw proposal discusses Phase 1 of the initiative which will enact five steps to ensure it is capable of meeting the requirement at that time. The first step discussed in section 6.2.4 is to include frequency response performance requirements for resources with governor control and frequency responsive capacity available.

The ISO will continue to develop the details of a proposed performance requirement and seeks comments from stakeholders on an appropriate performance requirement.

Comments: No comment at this time.

Phase 1, allocation of BAL-003-1 non-compliance penalties

Section 6.2 of the straw proposal discusses Phase 1 of the initiative which will enact five steps to ensure it is capable of meeting the requirement at that time. The first step discussed in section 6.2.5 is considering provisions for allocating any non-compliance penalties associated with BAL-003-1, should they be imposed on the ISO, to resources that should have provided more PFR than they actually delivered during frequency events.

The process discussed in ISO tariff section 14.7 applies to an allocation of any reliability-based penalty. The ISO seeks comment on how it could apply these tariff provisions to BAL-003-1 compliance and whether it should explore additional tariff provisions beyond those set forth in section 14.7 to impose responsibility for penalties on any resource that fails to provide primary frequency response for which it has an obligation to provide.

Comments: It is not clear how the CAISO will determine what PFR a resource should have provided at any given time unless that resource has bid a certain amount into a market for a specific PFR product based on the resource owner's own knowledge of its particular operating conditions, etc. Under such a circumstance, the resource would make a commitment to provide a certain level of PFR and could be penalized for failure to perform. However, if the CAISO is only estimating what a resource can provide, it is not fair to penalize a resource for a failure to meet the CAISO's approximation of its possible performance.

Phase 2, long-term approaches

Phase 2 of the initiative will evaluate if a market constraint or product is better suited to competition for frequency response capability (Section 6.3 of straw proposal). Such market-based mechanisms could not be designed, approved and implemented by December 1, 2016, and therefore the ISO will need to consider them in a second phase of this initiative.

Comments: Any long-term approach should be technology neutral. In order for resources other than generators with governors to provide PFR, they will need to know with some precision what service they will be asked to provide, what the compensation will be, and what the impacts on the market will be. After considering the challenges of using a market constraint, including a lack of transparency as to how the market model would accommodate the use of spin to provide PFR, we continue to believe that a product would be better suited to 1) acquiring PFR from all resources, including renewable resources, storage, and load and 2) providing compensation.