

Comments of Pacific Gas & Electric Company Frequency Response Straw Proposal

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) appreciates the opportunity to submit comments on the California ISO's frequency response straw proposal, which was posted on October 12th and discussed (during a stakeholder call) on October 19th. Working with the ISO and other stakeholders, PG&E will continue to strive for high standards of grid reliability at an affordable cost for its customers.

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A. Summary of PG&E Comments

- PG&E supports the ISO's proposal to develop a frequency response forecasting tool
- PG&E supports the ISO's proposal to procure additional frequency response capability in order to ensure NERC compliance. However, PG&E is hesitant to support any specific procurement solution that combines spinning reserves with frequency response. On that note, PG&E also questions the ISO's performance-related proposal to require spinning reserve-certified resources to provide frequency response
- PG&E recommends that the ISO consider procuring frequency response reserves from other Western Interconnection balancing authorities, if this is the most effective solution
- PG&E supports all of the ISO's proposals related to tariff and interconnection revisions, although PG&E would like to better understand the exemption process
- PG&E supports the ISO's proposal to clarify its authority to treat day-ahead procured operating reserves as contingency only in the real-time market
- PG&E conceptually supports the ISO's proposal to allocate non-compliance penalties to those resources that fail to provide frequency response in line with their obligation
- For the long-run, PG&E recommends that the ISO explore frequency response requirements for asynchronous generators

B. Frequency Response Standard

PG&E greatly appreciates the time the ISO took to better explain the technical requirements associated with NERC BAL-003-1. At this time, PG&E does not have any outstanding questions related to the new NERC requirements.

C. Frequency Response Drivers

PG&E supports the ISO's desire to better understand the factors driving frequency response performance.

D. Addressing Real-Time Deficiencies

PG&E supports the ISO's proposal to develop a frequency response forecasting tool, which will provide the ISO with better visibility of both the system need and system capability to provide primary frequency response.

PG&E also supports the ISO's proposal to procure additional frequency response capability in order to ensure NERC compliance. However, PG&E is hesitant to support any specific procurement solution that combines spinning reserves with frequency response, as PG&E is concerned that such a combination will have unintended consequences. PG&E looks forward to working with the ISO and other stakeholders on the details of other solutions.

PG&E recommends that the ISO consider procuring frequency response reserves from other Western Interconnection balancing authorities, if this is the most effective solution. For example, Bonneville Power Administration (BPA) has stated that it has "more frequency response reserves than it needs to meet its own obligations under the new standard" and is proposing to sell reserves to other balancing authorities. Further analysis would be needed by the CAISO to understand all the implications of procuring frequency response outside of its balancing authority area

E. Tariff and Interconnection Revisions

PG&E supports all of the ISO's proposals related to tariff and interconnection revisions. More specifically, PG&E supports the ISO's proposal to clarify requirements around governor settings for participating synchronous generators with governors. PG&E would like to better understand, however, the rules and process for exempting certain units that physically cannot provide primary frequency response.

F. Preserving Operating Reserve Headroom

PG&E supports the ISO's proposal to clarify its authority to treat day-ahead procured operating reserves as contingency only in the real-time market, regardless of the resource's election.

G. Performance Requirements

PG&E questions the ISO's proposal to require spinning reserve-certified resources to provide frequency response. More specifically, PG&E is concerned that certain types of generators, while able to provide spinning reserves, will not be able to provide primary frequency response.

H. Allocation of Non-Compliance Penalties

PG&E conceptually supports the ISO's proposal to allocate non-compliance penalties to those resources that fail to provide frequency response in line with their obligation. However, PG&E requests additional details related to this proposal, so that the proposal can be adequately evaluated.

I. Phase 2 – Long Term Approaches

For the long-run, PG&E recommends that the ISO explore frequency response requirements for asynchronous generators. With modern inverter technology, asynchronous resources will be increasingly able to provide primary frequency response, and so PG&E recommends that the ISO ultimately work with NERC and WECC to explore such requirements. This is particularly important for the ISO, given that asynchronous resources in California are displacing synchronous resources for large portions of the day.