Stakeholder Comments

Frequency Response Straw Proposal

Submitted by	Company	Date Submitted
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The following are Southern California Edison's (SCE) comments on the California Independent System Operator's (CAISO) October 12, 2015 Straw Proposal[1].

The CAISO proposes to:

1. Aggregate data on governor settings for Integrated Forward Market (IFM) committed generation and use this data to estimate the need for Primary Frequency Response (PFR) capability. CAISO will then procure additional spinning reserves as necessary for adequate system frequency response (FR). CAISO may also exceptionally dispatch (ED) specific units for FR.
2. Require generators to provide minimum governor performance, droop settings by technology type and dead band, and limit the use of outer-loop controls that may override governor response. The CAISO will populate such information in the Master File.
3. Give the CAISO authority to treat Day-Ahead Market (DAM) procured operating reserve as contingency-only reserves in the Real-Time Market (RTM), regardless of the Scheduling Coordinator's election.
4. Require spinning reserve-capable resources to tune their governors to CAISO specified response levels, in order to meet CAISO FR performance expectations.
5. Consider additional allocation of BAL-003-1 non-compliance penalties, beyond that currently defined in the tariff, to under-performing resources.

[1] http://www.caiso.com/Documents/StrawProposal_FrequencyResponse.pdf

6. Consider long-term approaches toward meeting FR through conventional generation and variable energy resources (VERs), utilizing either a market constraint or market product.

The CAISO Does Not Provide Enough Information For Thorough Stakeholder Analysis

Analysis of existing generation capabilities and whether/how spinning reserves can meet FR requirements are not presented

SCE agrees with the CAISO that there is an established requirement for FR as outlined in section 4.1 of its proposal. Clearly, the CAISO-measured result failed the FR obligation in the 2013-14 dataset. However, as stakeholders stated on the October 19, 2015 conference call, procuring additional spinning reserves and setting arbitrary resource performance specifications may not rectify a failure to meet a standard. In its prior comments, SCE requested that the CAISO determine the need based on the existing resource mix and its ability to supply FR. The CAISO Straw proposal does not demonstrate any such analysis. In order for stakeholders to form a position on the issue, CAISO must provide a meaningful assessment of FR needs post-IFM, based on current FR ability and associated detail on proposed remedies (*e.g.*, how spinning reserve capacity will be used to enhance FR, interaction with regulation services, etc.).

The CAISO proposal to treat all DA operating reserves as contingency-only can lead to uneconomic solutions and RTM price spikes under tight supply conditions

The proposal to treat all DA operating reserves as contingency-only, regardless of the Scheduling Coordinator's election, can lead to uneconomic solutions and RTM price spikes, which would result in higher market costs. Under the CAISO proposal, some or all of the otherwise economically dispatchable non-contingent operating reserves would no longer be included in the RTM energy bid stack, even if the total operating reserve remained above the requirement.
The CAISO should evaluate the trade-off between the impact to the RTM price volatility and the potential benefit to FR. To the extent that designating operating reserves as contingent-only can be demonstrated to provide FR benefit, the CAISO should apply this only to hours with PFR deficiencies.

Understanding individual resource control response is a prerequisite to determining FR ability

SCE does not support the CAISO proposal to require spinning reserve-capable resources to tune their governors to CAISO specified settings. NERC has learned that coordinating Automatic Generation Control (AGC) with each resource's Distributed Control System (DCS) is essential to providing desired FR[2]. In other words, the CAISO's dispatch must consider each resource's own FR algorithm for appropriate response. NERC emphasizes the importance of AGC and DCS coordination, and while NERC provides an advisory maximum of ± 36 mHz governor deadband setting[3], there is understanding that AGC and DCS coordination are essential to guarantee FR. Thus, CAISO should seek to ensure this coordination.

SCE does not support a market product for FR needs

SCE does not support consideration of another CAISO market product. Additional market products will not guarantee a solution to the issue. SCE recommends the CAISO consider using a market constraint and determine whether the CAISO's FR needs are met with that constraint. However, quantifying the ability of the existing generation mix to supply FR is a prerequisite for any longer-term actions.

[2] https://www.serc1.org/docs/default-source/outreach/communications/resource-documents/serc-transmission-reference/201505---st/primary-frequency-response.pdf?sfvrsn=2 and http://www.narucmeetings.org/Presentations/NARUCNYC-SSC-EandER_Sunday-%20final.pdf

[3] http://www.nerc.com/pa/rrm/bpsa/Alerts%20DL/2015%20Alerts/NERC%20Alert%20A-2015-02-05-01%20Generator%20Governor%20Frequency%20Response.pdf