

**Comments of Powerex Corp. on  
Frequency Response February 4, 2016 Draft Final Proposal**

<b>Submitted by</b>	<b>Company</b>	<b>Date Submitted</b>
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Powerex appreciates the opportunity to provide comments on CAISO's February 4, 2016 Frequency Response Draft Final Proposal. CAISO's Draft Final Proposal outlines steps that CAISO plans to take to ensure that CAISO has sufficient primary frequency response capability to comply with Reliability Standard BAL-003-1 (Frequency Response and Frequency Bias Setting). As part of Phase 1 of its initiative, CAISO plans to take a number of short-term steps designed to ensure that CAISO is able to comply with its obligations under BAL-003-1 when enforcement of the standard begins on December 1, 2016, including conducting a competitive solicitation process to procure transferred frequency response sourced from external Balancing Authorities ("BA"). These measures are intended to afford CAISO and stakeholders with additional time to consider appropriate long-term solutions, such as implementation of a new frequency response product, as part of Phase 2 of this initiative.

Powerex strongly supports CAISO's decision to proceed with a competitive solicitation process to procure transferred frequency response sourced from external BAs to meet CAISO's short-term needs. Not only will this mechanism permit CAISO to meet its primary frequency response obligations while CAISO works with stakeholders to develop long-term solutions, but it will help ensure that CAISO is able to do so on a least-cost basis. CAISO's proposed competitive solicitation process enables the participation of scheduling coordinators that are authorized to transfer frequency response from specific BAs across the Western Interconnection, each of which will have an incentive to submit a competitive offer to assume a portion of CAISO's frequency response obligation. Additionally, CAISO's proposal to evaluate submitted offers based on its expectation of the cost of meeting its frequency response obligations by committing additional in-state generation will ensure that any arrangement for frequency response sourced from an external BA offers a lower-cost solution than other available options.

Turning to Phase 2 of this initiative, Powerex notes that the development of long-term solutions will need to be consistent with any actions FERC ultimately taken in response to FERC's February 18, 2016 Notice of Inquiry ("NOI") on primary frequency response.<sup>1</sup> Like this initiative, FERC's NOI seeks comments on what steps should be taken to ensure that there is sufficient primary frequency response capability to safeguard reliability in the long-term, including the manner in which primary frequency response capability should be compensated and whether ISOs and RTOs should create a distinct market-based primary frequency response product.<sup>2</sup>

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<sup>1</sup> *Essential Reliability Services and the Evolving Bulk-Power System—Primary Frequency Response*, 154 FERC ¶ 61,117 (2016).

<sup>2</sup> *Id.* at P 54.

Given the significant parallels between the issues being considered by FERC and those that would need to be considered by CAISO as part of its Phase 2 efforts, it would be advisable for CAISO to pursue Phase 2 of this initiative in a deliberate manner that takes into account any FERC actions on primary frequency response.

Once CAISO commences Phase 2 of this initiative, Powerex encourages CAISO to consider continuing the use of a forward procurement mechanism for transferred frequency response beyond Phase 1. Although the competitive solicitation process set out in the Draft Final Proposal is intended to be an interim measure, Powerex believes that CAISO should consider making the proposed competitive solicitation process a permanent feature of CAISO's framework for ensuring compliance with Reliability Standard BAL-003-1. This would provide CAISO with two complementary tools to ensure least-cost compliance with the standard: (1) reducing its primary frequency response obligation through transfers sourced from other BAs; and (2) meeting its remaining obligation by optimizing the commitment of internal generating units.

Powerex further suggests that CAISO consider establishing a one-year forward procurement process for internal resources. This would provide direct comparability between the cost of forward procurement of frequency response from internal resources and the cost of forward procurement of transferred frequency response sourced from external BAs. It would also allow CAISO to "lock in" its ability to comply with Reliability Standard BAL-003-1, and to contribute to the reliability of the Western Interconnection, on a forward basis, rather than deferring such commitments until the day-ahead or real-time markets.

Powerex also strongly supports the development of a discrete primary frequency response product procured and compensated through CAISO's day-ahead and real-time markets, similar to the Flexible Ramping Product.<sup>3</sup> Providing primary frequency response requires committing generating units at levels that preserve "headroom" to increase output in the event that frequency drops below prescribed deadbands. Preserving this "headroom" may entail an opportunity cost to the generator, as it will forego using that capacity to sell energy or other products. Defining a primary frequency response product that is procured and compensated through the day-ahead and real-time markets would be consistent with CAISO's approach to the Flexible Ramping Product, ancillary services, and its proposed compensation for corrective capacity under the contingency modeling enhancements.

The above elements would give CAISO the market-based tools to comply with Reliability Standard BAL-003-1 across a range of planning and operational timeframes. The forward procurement mechanism would ensure in advance that there are sufficient resources with the capability and obligation to provide the headroom necessary to meet primary frequency response needs. In the day-ahead and real-time markets, CAISO could then re-allocate the headroom among all qualified internal generating units—including those without a forward

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<sup>3</sup> Powerex Corp., Comments on Primary Frequency Response Straw Proposal (Nov. 2, 2015), *available* at <http://www.caiso.com/Documents/PowerexCommentsFrequencyResponseStrawProposal.pdf>.

obligation—to ensure it is carried in a co-optimized, least-cost manner. This is analogous to the re-optimization of ancillary services procured in the day-ahead market that CAISO currently performs in its real-time market.

Collectively, the combination of competitive forward solicitation processes and a formal market-based frequency response product will help CAISO meet its reliability obligations on a least-cost basis while providing efficient short-term and long-term price signals to encourage resource owners to take steps to enhance their primary frequency response capabilities. At the same time, it will ensure that the owners of resources providing frequency response service will receive just and reasonable compensation for the valuable role that they play in safeguarding system reliability.