

Western Power Trading Forum Comments on Frequency Response Issue Paper

Carrie Bentley, Resero Consulting for WPTF, 916-217-1571, cbentley@resero.com

January 11, 2017

WPTF appreciates the opportunity to provide these brief comments on the Frequency Response Issue paper posted on December 15, 2016. It is clear the CAISO has put a lot of work into considering the CAISO's frequency response needs and different ways it could be provided. We provide the following brief comments below.

Generally, WPTF supports the consideration of a frequency response market product that is an additional co-optimized ancillary service. A new frequency response market product may overlap with other current ancillary services- spinning reserves and regulation- and therefore the requirement and provision of these services would need to be reconsidered holistically. WPTF understands that it is no small challenge to rethink the CAISO's ancillary service products and that other ISOs, such as ERCOT, went to considerable effort to evaluate the costs and benefits of a revised ancillary services framework that included a frequency response ancillary service product. A simplified first step may be to consider adding a *primary* frequency response product, which would not overlap with the current ancillary service products provision of secondary and tertiary response and so perhaps be easier to implement.

The CAISO indicated they were likely to propose a market product in the straw proposal and specifically sought stakeholder feedback as to “whether the current market design or tariff requirements produce effective price signals and compensations for sufficient frequency response capability and provision.”¹ WPTF believes that the important aspect of this question relevant to a market product is whether the market design is producing effective price signals for frequency response provision.

There is likely to be sufficient frequency response capability in the CAISO fleet today and going forward.

The CAISO currently has sufficient capability in its resource fleet to meet BAL-003-1 requirements, and with appropriate incentives and perhaps the addition of a frequency response market product, Transferred Frequency Response (TFR) from a different balancing area would not be necessary to meet the CAISO's Frequency Response Obligation under the BAL-003-1 standard.² The need for using TFR was because there were insufficient incentives (and no market mechanism) to ensure this capability is readily available in the event of a frequency response event. It is WPTF's understanding that the decision by the CAISO to move forward with a TFR design had to do with cost and an immediate need to meet his standard- not lack of capability in the CAISO fleet.

Additionally, the FERC NOPR on Essential Reliability Services and the Evolving Bulk-Power System—Primary Frequency Response issued November 17, 2016 will likely lead to a FERC Order requiring all technologies, both synchronous and non-synchronous, to have the capability

¹ http://www.caiso.com/Documents/IssuePaper_FrequencyResponsePhase2.pdf, page 21.

² <https://www.ferc.gov/CalendarFiles/20160916183725-ER16-1483-000.pdf>

to provide primary frequency response as a condition of interconnection. Therefore, wind and solar resources interconnecting in the future will be able to provide primary frequency response capability and it is unlikely the aggregate ability of the CAISO fleet to provide frequency response will degrade.

The current market design does not produce effective price signals and compensations for sufficient frequency response provision.

WPTF believes that the primary issue with the current market design is that it fails to ensure the most efficient resources provide primary frequency response. This is due to the current design's lack of explicit requirement or payment for frequency response provision. An optimal market design would (1) ensure there are sufficient resources synchronized to the grid at any point in time during a reliability event to in aggregate meet BAL-003-01, and (2) fairly compensate resources for their provision. Resources can provide primary frequency response at different costs and at different efficiencies. This should be accounted for in the market design by allowing compensation to reflect the value of the service performed.

WPTF looks forward to reviewing the CAISO straw proposal proposing a market product and appreciates the extensive background material provided in the issue paper.