

Western Power Trading Forum on the CAISO's Proposed Revision Request 1334
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The Western Power Trading Forum

The Western Power Trading Forum (WPTF) is a California nonprofit, public benefit corporation. It is a broad-based membership organization dedicated to enhancing competition in Western electric markets while maintaining the current high level of system reliability. WPTF supports uniform rules and transparency to facilitate transactions among market participants. The membership of WPTF and the WPTF CAISO Committee responsible for providing these comments include CAISO and EIM entities, load serving entities, energy service providers, scheduling coordinators, generators, power marketers, financial institutions, and public utilities that are active participants in the California market, other regions in the West, and across the country.

Summary

WPTF thanks the CAISO for this opportunity to provide comments on the Proposed Revision Request (PRR) 1334. Through PRR 1334, the CAISO is proposing changes to the Stored Energy Management for Non-Generator Resources in the Real-Time Market. Specifically, the CAISO is proposing to ensure NGR resources providing regulation have enough state-of-charge to continuously deliver the awarded regulation for at least 30-minutes. Currently, the CAISO ensures NGR resources have sufficient stored energy to maintain 15-minutes of continuous dispatch of its awarded regulation in the 15-minute market and 5-minutes of continuous dispatch in the 5-minute market. While we understand the operational concern this proposed change is trying to address, WPTF is concerned that it will introduce unintended consequences and strongly encourages the CAISO to consider a more market-based approach.

Detailed Comments

WPTF appreciates the CAISO continually thinking about how to best manage storage resources within the market, especially as it relates to the challenges of managing the resource's state-of-charge (SOC). While we understand the intention behind this PRR, WPTF is concerned with the practical implications this change may have in the market and believes an alternative solution is feasible.

WPTF has two main concerns with the proposed changes on how the market will manage the state-of-charge (SOC) in real-time for resources providing regulation under the NGR model. First, we are concerned that the proposed change will, in some cases, run counter to the CAISO's minimum state of charge requirement recently filed at FERC. Second, WPTF is concerned that the PRR will unnecessarily cause a resource to charge/discharge to ensure it has sufficient SOC to provide 30 minutes of regulation up/down even though less than 30 minutes of the trade hour for which the resource is providing that regulation remains.

Regarding the first concern, the CAISO recently filed tariff revisions at FERC that will require resources under the NGR model to ensure it has sufficient SOC in real-time to meet its day-ahead energy schedule. Practically speaking, this will result in the market charging a resource (potentially uneconomically) in real-time to reach a minimum state of charge by the end of a certain hour such that it can then support its day-ahead discharge schedule starting the following hour. WPTF is concerned that the proposed change in this PRR will potentially run counter to the proposed MSOC for resources providing regulation down in the hours prior to its day-ahead discharge schedule.

For example, take a 100 MW, 400 MWh battery resource with an energy schedule of 100 MWs from HE 17- HE 20. Under the MSOC proposal, this resource will need to be fully charged by the end of HE 16. Assume in HE 16 it has a 0 MW energy schedule but providing 100 MWs of regulation down. Based on this PRR, it is WPTF's understanding that the market will ensure the resource has more than 50 MWh of charging capability remaining throughout the entire HE 16. In other words, this PRR will not allow the resource to be more than 75% charged in HE 16. However, the MSOC proposal will require the resource to be 100% charged by the end of HE 16. WPTF is unclear how these two constraints will be satisfied by the market optimization under this scenario.

To WPTF's second concern, we would like to better understand the rationale for ensuring 30 minutes of continuous dispatch for regulation especially in the second half of the trade hour when less than 30 minutes remain. Take for example the same 100 MW, 400 MWh resource but assume it is providing 100 MWs of regulation up in HE 14 and nothing in HE 15. Based on this PRR, the resource will be required to have at least 50 MWh of stored energy through the entire HE 14 to support its regulation up award. If the market is now in the last 15-minute interval of HE 14, the maximum regulation up dispatch signal the resource could possibly be called to provide in that trade hour would require 25 MWhs of stored energy (100 MWh dispatch for regulation up but for only one 15-minute interval). WPTF questions why it is necessary to require 50 MWh of stored energy in this case. The same is true for the RTD market; once the market is at the 7th 5-minute interval in HE14, the required amount of stored energy per this PRR will exceed the maximum amount of energy that could possibly be required based on the regulation up dispatch.

WPTF appreciates the CAISO adjusting as necessary to help market participants better manage the resource's SOC, especially in real-time. The deployment of regulation and its impact on the SOC is an issue known today. WPTF wonders if a more market-based approach is feasible. Today when the market is awarding regulation to storage resources in the day-ahead market, it does not adjust the SOC in the next IFM trade hour to account for any assumed deployment of the regulation award even though it's known in real-time that some of the regulation award will likely be called upon for energy and thus alter the actual SOC. One potential solution the CAISO could consider is when awarding regulation in the day-ahead market, adjust the SOC in the

following trade hour based upon the amount of awarded regulation in each trade hour and a deployment rate.