



January 8th, 2013

Submitted by email to the CAISO at Order764@caiso.com

RE: Further LSA comments on FERC Order 764 Compliance/15-Minute Scheduling and Settlement: Straw Proposal

The Large-scale Solar Association (LSA) hereby submits these additional comments on the CAISO's October 23rd document FERC Order 764 Compliance/15-Minute Scheduling and Settlement: Straw Proposal (Proposal), based on the CAISO's December 14th written responses to LSA's (and other stakeholders') comments on the Proposal (Written Responses), and the materials and discussion about the Proposal at the December 18th stakeholder meeting (Meeting).

The Proposal contains the CAISO's initial approach to implementing FERC Order 764 (Order), issued June 22nd, 2012. The Order requires establishment of 15-minute scheduling to accommodate Variable Energy Resources (VERs) – e.g., solar and wind resources – and VER provision of meteorological and outage information.

LSA continues to support the CAISO's overall approach to addressing the Order, i.e.: (1) focusing on the 15-minute scheduling provisions; (2) using existing and already-planned software functionality where possible; and (3) deferring implementation of the Flexible Ramping Product (FRP) until after these provisions are in place.

LSA also commends the CAISO for providing the Written Responses to stakeholder comments on the Proposal. That document required a great deal of time and effort from CAISO staff, and LSA appreciates the staff's willingness to address each of the issues raised by stakeholders.

LSA also appreciates the CAISO's clarification, in response to LSA's earlier comments, that Scheduling Coordinators for VERs will be able to continue to utilize a CAISO Forecast Service Provider (FSP) forecast, adjusted to provide 15-minute granularity, and existing PIRP scheduling practices (whether or not the Participating Intermittent Resources Program (PIRP) is retained). As LSA noted, this option would retain many of the benefits of the current forecasting structure, e.g., automated scheduling practices, and additional accuracy from access to multiple projects with the same technology in the same geographical areas.

However, LSA has continuing concerns about the CAISO's responses to LSA's other earlier comments, in the Written Responses at the Meeting. LSA's primary concerns relate to the proposed elimination of PIRP and the lack of consideration (thus far) of a viable grandfathering proposal. LSA also seeks additional information about how an option to submit 5-minute schedules, instead of 15-minute schedules that would be divided by three to derive 5-minute schedules, would operate in scheduling and settlements.

Elimination of PIRP

LSA agrees (and has stated before) that, in general, more granular scheduling and settlement provisions, and schedule submission closer to real time, should reduce or eliminate the need for PIRP. LSA's prior comments stated that it is not clear without further analysis that reducing the schedule-submission deadline from 75 minutes to 37.5 minutes, and allowing 15-minute schedule changes in real time, will mitigate VER imbalance risks sufficiently to remove that significant protective element.

In response to these concerns, the CAISO simply repeats its contention that the scheduling changes will "substantially limit" VER risks, "consistent with the intent" of Order 764. The CAISO does state that it "will consider this request for analysis," but it is not clear how or when this request will be considered and what the response will be.

LSA's additional comments here cover two areas. First, LSA emphasizes the need for empirical analysis to support the CAISO's claims, rather than an assertion without clear evidence. Assuming that forecasts continue to be provided 15 minutes before schedules are due, the Proposal would move the binding VER forecast horizon from T-90 (for the current T-75 submission) to 52.5 minutes (for the proposed T-37.5 submission and intra-hour updates). It makes sense that this change would improve forecasting accuracy, but the degree of potential improvement is a critical determinant of whether PIRP would still be needed.

LSA understands that such analyses might be difficult to conduct, and somewhat speculative at this point, but suggests that the CAISO consider an alternative approach. The CAISO could simply retain PIRP with the implementation of Order 764 compliance changes, observe forecast-accuracy improvements that actually occur, and then make an informed decision about PIRP continuation based on the facts. There is very little risk in testing the CAISO's claims in actual operation, under the final structure that is adopted.

Second, LSA notes the comments of several other stakeholders (BPA, Citigroup Energy, PG&E, SCE, SDG&E, and SMUD) that the proposed 2.5 minutes allowed under the Proposal between CAISO schedule issuance and e-tag submittal for intertie transactions would be insufficient for that task. If the CAISO pushes the schedule-submission timeline back in response to these comments, that change would increase LSA's concerns about VER scheduling accuracy and the need for PIRP retention, and increase the need for advanced analysis or observation in actual operation of any accuracy improvements.

PIRP grandfathering and/or transition mechanism

The CAISO continues to equivocate about grandfathering and/or transition mechanisms if PIRP is eliminated. LSA was encouraged by the CAISO's statements in the Written Responses and in the Meeting that CAISO will "consider limited grandfathering provisions with an explicit expiration following full stakeholder discussion." However, the Written Responses also stated that "the CAISO prefers not to provide grandfathering."

LSA's prior comments suggested a specific grandfather provision based on the CAISO's recent provisions in Technical Bulletins (TBs) related to generator-interconnection study methodology. These provisions would award Resource Adequacy (RA) deliverability in

geographic areas impacted by the new methodology first to “existing” generation projects, i.e., those with Power Purchase Agreements (PPAs) executed by year-end 2012.

The CAISO selected this provision to avoid disrupting PPAs that were already executed or were in advanced stages of negotiation when the methodology change was made. LSA’s recommendation that the CAISO use this provision also for PIRP continuation was based on the same rationale. LSA’s comments explained that PIRP elimination would cause both financial and contractual problems that would be avoided through a reasonable grandfathering mechanism.

In LSA’s additional comments here, LSA requests that the CAISO: (1) Respond to its specific grandfathering proposal; and (2) if it does not accept this proposal, explain why avoiding disruption of contracts was more important for the wide-ranging TB changes than for the more limited PIRP issues.

Submission of 5-minute schedules

LSA’s prior comments recommended that the CAISO allow optional submission of three 5-minute forecasts for each 15-minute scheduling interval, instead of the current plan to accept 15-minute forecasts and divide them into three equal amounts, for purposes of calculating real-time imbalances (and, if 5-minute settlements will be used for FRP, for that purpose as well). Many VERs have fairly predictable ramps throughout certain operating hours, and use of 5-minute schedule submissions will both provide the CAISO with more accurate schedules and reduce imbalance (and FRP) charges to VERs.

The Written Responses stated that:

- Submittals of 5-minute forecasts will be allowed, and the 5-minute Real Time Dispatch software will use the 5-minute submittals; but
- The 15-minute Real Time Pre-Dispatch (RTPD) software that will be used in the 15-minute market has a 15-minute interval and will use the average of any 5-minute forecasts submitted.

LSA appreciates the CAISO’s apparent willingness to accommodate its suggestion to some degree but does not fully understand the CAISO’s responses. Specifically, LSA requests that the CAISO clarify how 15-minute and 5-minute settlements would work with 5-minute schedule submittals, for both imbalance energy and the proposed Flexible Ramping Product (FRP).