



November 16th, 2012

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

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

The Large-scale Solar Association (LSA) hereby submits these comments on the CAISO's October 23rd document FERC Order 764 Compliance/15-Minute Scheduling and Settlement: Straw Proposal (Proposal) and the discussion about the Proposal at the October 30th 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's comments are summarized below and further explained in the rest of this document.

- **LSA supports 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 has concerns about some of these implementation details:**
 - Elimination of the Participating Intermittent Resource Program (PIRP), without: (1) a CAISO demonstration that the proposed 37.5-minute advance schedule submission will sufficiently mitigate imbalance-energy risk to warrant that step; or (2) consideration of adequate grandfathering and/or transitional mechanisms;
 - Maintenance of the 20-minute e-tag submission deadline, which prevents the CAISO from allowing schedule submission closer than 37.5 minutes before real time; and
 - Lack of additional options to mitigate implementation impacts – i.e., options to:
 - Submit three 5-minute schedules for a 15-minute interval (for this initiative and also FRP, if the latter will utilize 5-minute settlements), to better accommodate known ramping production levels; and
 - Utilize a forecast from the CAISO Forecast Service Provider (FSP), which would allow continuation of existing PIRP scheduling practices (whether or not PIRP is retained) and retain other benefits of the current forecasting structure.

LSA support for overall CAISO approach

LSA has strongly supported implementation of the Order 764 requirements for 15-minute scheduling before any implementation of the FRP framework, and we are gratified to see that the CAISO has adopted this sensible sequencing. This revised approach will avoid the need for the cumbersome and problematic submittal of “profiles,” potentially unrelated to energy schedules, for FRP cost allocation under the CAISO's latest FRP proposal.

Likewise, the CAISO's plan to use existing software capability is sensible, at least for the initial Order implementation. (However, as noted below, LSA believes that some changes would be warranted, soon after implementation if they are not feasible concurrent with it.)

LSA also agrees with the CAISO that the VER meteorological-data and outage information provisions are already in compliance with the requirements in the Order (and very likely exceed them). Thus, this initiative can focus on the 15-minute scheduling requirements.

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. However, 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. The CAISO should make that demonstration to support its proposal, instead of basing this element on its opinion.

In addition, the latest version of the Stakeholder Initiatives Catalog combines the "Transition Out of PIRP" initiative with this initiative, yet the Proposal contains no transitional mechanisms at all. LSA suggests incorporating the following mechanisms into the Proposal:

- **Grandfathering mechanism:** The CAISO dismissed consideration of such a mechanism at the Meeting, then stated that it might consider one if "all stakeholders" agreed to "bear the burden" that might result. The CAISO has incorporated grandfathering mechanisms in several market-design changes – e.g., Standard Capacity Product II and the PIRP Export Fee – without agreement of "all stakeholders."

The issue here should be whether such a provision would be just and reasonable, and LSA believes that it would. A reasonable grandfathering provision would avoid both:

- Financial issues, e.g., where the imbalance protection is needed by the scheduling party in a transaction, such as the supplier, and its removal would cause undue hardship; and
- Contractual issues, e.g., common PPA provisions requiring: (1) PIRP participation by suppliers and/or compliance with PIRP provisions; and (2) consultation by the parties, and potentially contract revisions to maintain the "balance of benefits," if PIRP is eliminated or significantly altered.

PPA revisions to address PIRP elimination would be costly and time-consuming. For example, CPUC approval of contract revisions is a 9-12 month process, and there is simply not sufficient time between the proposed September 2013 CAISO compliance filing and the Spring implementation for these contract revisions to occur.

Grandfathering projects with PPAs in effect, or in advanced stages of negotiation, would thus avoid the need to delay CAISO implementation of these changes.

A reasonable grandfathering provision would be the same as that used in the CAISO's recent Technical Bulletins (TBs) on generator-interconnection study methodology – e.g., applying to contracts executed by year-end 2012. The same rationale applied in the TBs – to avoid disrupting already-executed contracts, or those under negotiation – would apply here, and the CAISO should include this provision in its next Proposal version.

Proposed scheduling timeline

The CAISO stated at the Meeting that it could allow schedule submission closer to real time (and, within the operating hour, closer to the applicable binding interval) than the proposed 37.5 minutes if not for maintenance of the 20-minute e-tag submission provision. Even under the proposed timeline, some attendees expressed considerable concern that the 2.5 minutes allowed under this timeline between schedule issuance and e-tag submittal would be insufficient, and LSA expects that at least some of them will want more time – pushing the 37.5-minute schedule submission deadline even further.

LSA submits that the only way to resolve this problem – and reduce the still-considerable lead time that continues to exacerbate the above-stated concerns about PIRP elimination – is to reduce the lead time needed for e-tag submittal – preferably, to something like 10-15 minutes. LSA understands that this may require negotiations with adjacent Balancing Authority Areas (BAAs). The CAISO should attempt to negotiate this change with those BAAs, with implementation concurrent with (or soon after) implementation of 15-minute scheduling.

Options for mitigating impacts

LSA recommends that the CAISO consider two additional design elements to mitigate potential adverse impacts on market participants.

First, the CAISO should continue to offer the current FSP-provided forecast as an option for VER Scheduling Coordinators (SCs). The forecast timing and structure would have to be adjusted as appropriate for the new framework (e.g., posting of a 15-minute schedule by 49.5 minutes before the start of the applicable 15-minute interval (15 minutes before the 37.5-minute schedule submission deadline), or a rolling 5-minute forecast).

Today, VER SCs typically automate extraction of the FSP forecasts and submission of the forecast as the VER schedule. This option would allow those arrangements to remain in place.

Moreover, the FSP forecast features important economies of scale and accuracy elements, since the FSP has unique access to data from all of the VERs in every area of the CAISO system. These features likely facilitate more accurate forecasts than an individual developer, or a third-party forecaster with more limited data access, could produce.

Second, the CAISO should 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.