



February 26, 2013

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

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

The Large-scale Solar Association (LSA) hereby submits these comments on the CAISO's February 5 document, FERC Order 764 Compliance/15-Minute Scheduling and Settlement: Revised Straw Proposal (Proposal) and the discussion about the Proposal at the February 12 stakeholder meeting (Meeting).

The Proposal contains the CAISO's revised approach to implementing FERC Order 764 (Order), issued June 22, 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 (which is already provided for under current CAISO tariff provisions).

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's comments focus on two main areas:

- **Elimination of PIRP for projects in advanced stages of development:** Consistent with its prior comments in this process, LSA continues to strongly support continuation of the Participating Intermittent Resources Program (PIRP) for projects with Power Purchase Agreements (PPAs) executed before year-end 2012, for the existing contract duration (same provisions as in the recent Technical Bulletins for "existing" resources). LSA provides this additional information in these comments in support of its position:
 - **Additional explanation**, with reference to specific provisions in executed PPAs;
 - **Responses to CAISO questions regarding PIRP continuation** at the February 12th meeting, for example supporting certain beneficial improvements to the program that LSA does not believe will cause the same concerns as the Proposal; and
 - **A potential alternative framework – perhaps in the nature of a settlement** – where Load-Serving Entities (LSEs) agree to not use necessary contract modifications related to the proposed PIRP changes to extract unrelated concessions from sellers, which could address most grandfathering situations.
- **Use of 5-minute schedule submissions:** LSA is concerned that, while the Proposal allows use of 5-minute forecasts/schedules to reflect expected intra-hour ramps, the method for constructing 15-minute schedules, and measuring 5-minute schedule imbalances from those schedules, would undercut the benefits of the greater granularity.

Instead, LSA proposes that the CAISO either measure imbalances from the 5-minute schedule submittals directly or net imbalances within each 15-minute interval.

Each of these positions is explained further below.

In addition, LSA is concerned that some of the CAISO's separate efforts, including the CAISO-PacifiCorp Memorandum of Understanding (MOU) regarding an Energy Imbalance Market (EIM), will be under development at the same time as the 15-minute market. LSA encourages the CAISO to explain the interaction of this initiative with those others, and to align its priorities and timelines with these other initiatives. The CAISO should determine whether it is worthwhile to move ahead now with this initiative or work collaboratively at a coordinated pace on a framework that would integrate all of these efforts into a better end-state.

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. The proposed provisions certainly move in the right direction in this respect, and LSA has strongly supported such changes.

However, LSA still has two major concerns about the elimination of PIRP in the Proposal, and the lack of a grandfathering element – related to contract changes and forecast accuracy.

- **Contract changes:** LSA's greatest concern is that PIRP elimination or adverse modification may require re-opening significant numbers of PPAs and could jeopardize those projects. Many of these PPAs were executed years ago, and developers have likely assumed significant financial and other commitments based on those contracts. There are two main reasons why contracts would have to be re-opened with the proposed PIRP changes:
 - **Explicit performance requirements for PIRP participation or certification:** These very specific provisions included in many executed PPAs, may:
 - Require the seller to obtain PIRP certification for the project;
 - Hold the seller responsible for charges for imbalances from forward schedules until the project obtains PIRP certification; and/or
 - Provide for reduced payments to the seller until PIRP certification is obtained.

Clearly, performance by sellers under such contracts is impossible if there is no PIRP program, and sellers may have to seek re-openers to address these changes.

- **More general contract reopener provisions:** These provisions allow re-openers specifically if PIRP is eliminated or substantially modified – or if less-specific “electric market design changes” occur that significantly impact one of the contract parties, which could include PIRP changes or elimination – in order to “reestablish the balance of benefits.” In these cases, the buyer could seek to re-open the contracts to obtain additional concessions from sellers to “make up” for the lost PIRP benefits.

LSA's concerns about these contract provisions are compounded by common buyer approaches when sellers request re-openers or waivers for purely administrative reasons, with no adverse consequences to buyers. Buyers often use such seller needs to extract additional but unrelated modifications adverse to sellers, using excuses like “the need to show some ratepayer benefit” when requesting CPUC approval of contract changes.

The CAISO has said that it is open to some grandfathering on a targeted basis and for a limited duration. As noted above, LSA's grandfathering proposal is exactly the same as that adopted by the CAISO (on its own initiative) for the distinction between "new" and "existing" resources under the recent Technical Bulletin methodology for Clusters 1-4. The CAISO rationale for adopting that distinction was to avoid disrupting PPAs that were already executed or well along in negotiation at the time of the policy change. The CAISO has yet to explain why that same rationale would not apply to this situation as well.

An alternative to PIRP grandfathering that could address most of these situations might be agreement by LSE buyers that they would not seek unrelated concessions for seller-requested re-openers to accommodate the proposed changes, or would not seek re-openers themselves under the PIRP/market-change provisions. However, such entities have notably refused to state in CAISO stakeholder meetings that they would not take such benign positions with PIRP modification or elimination, even where those buyers have strongly supported PIRP elimination in the Proposal.

Moreover, as noted below, grandfathering might still be needed for those relatively rare situations (mostly, though not solely, older contracts) where the seller is responsible for imbalances from forward schedule, at least until the increased forecast accuracy enabled by the new framework is demonstrated in actual operations.

In response to the questions that the CAISO posed at the January 12th stakeholder meeting, LSA does not believe that conversion of the current hourly PIRP format to 15-minute timing, or the additional option to submit decremental bids to PIRP self-schedules, would trigger the kinds of PPA re-openers discussed above. However, more substantive changes like elimination of monthly imbalance netting could well trigger those provisions.

- **Forecast accuracy:** The CAISO has still not addressed LSA's questions about whether the proposed framework would allow sufficient accuracy increases to warrant PIRP elimination. Under the current PIRP framework, the CAISO PIRP Forecast Service Provider (FSP) produces a plant-specific hourly forecast at T-90, allowing consideration by the Scheduling Coordinator (SC) whether to submit the FSP forecast as an hourly schedule (and therefore receive PIRP monthly netting treatment).

LSA understands that the CAISO plans to continue to offer CAISO FSP-provided forecasts, with both 5- and 15-minute granularity available. However, the CAISO would eliminate the current option for those using CAISO forecasts to decide whether to submit the FSP forecast as the schedule, i.e., the CAISO would automatically submit the forecast for VERs (or their SCs) selecting use of the CAISO service, without any decision other than a Master File election. This would allow the CAISO FSP forecast to be produced closer to real time, since the current 15 minutes now allowed for the schedule-submission decision would no longer be needed.

This proposal may allow for more-accurate forecasting for VER output. However, LSA has three concerns with this approach.

First, LSA does not know how many buyers (who are the SCs under most of its members' PPAs) use the option of not submitting the FSP forecast as the VER schedule – mainly because the buyers are not required to provide that information. The Proposal would place VERs (or their SCs) more at risk for imbalances from schedules (with elimination of PIRP monthly netting) but would give them less control over the schedule from which the imbalances are measured. This topic could be discussed further with LSEs, e.g., with respect to the potential contract re-openers discussed above (i.e., those that use the current framework to decide on PIRP scheduling might be more inclined to use the market PPA re-opener provisions discussed above.

Second, LSA is still concerned about whether the need to submit schedules by 37.5 minutes before each 15-minute interval – largely driven by the 20-minute intertie e-tag submittal rules and the CAISO market-model processing time – will result in a significant improvement in forecast accuracy, even without the extra 15-minutes no longer needed with this additional change. LSA would like to see implementation of the new framework, and study under actual market conditions (e.g., for one year), before any PIRP elimination decision is made, especially for those relatively few contracts where the seller is responsible for imbalances from forward schedules.

Finally, the additional unspecified certification (and potential suspension) rules for VER/SC use of a non-CAISO FSP forecast for scheduling make it impossible to assess whether that option will be viable. This is really the only option for resources for which the CAISO FSP forecast is not accurate, but until those requirements are specified, that alternative cannot be assessed.

Submission of 5-minute schedules

LSA's prior comments recommended that the CAISO allow optional submission of three 5-minute forecasts/schedules for each 15-minute scheduling interval, instead of the prior 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.

LSA appreciates the provision in the latest Proposal for 5-minute schedule submissions. However, the Proposal states that the CAISO would add 5-minute VER submittals (e.g., that reflect expected ramping) to get a 15-minute schedule, and then divide that 15-minute schedule total to derive average 5-minute figures from which imbalances would be calculated.

So, for example, a VER SC submitting 5, 10, and 15 MWh submittals for the three 5-minute intervals within a 15-minute interval, then following those exact 5-minute schedules in actual operations, would face the following situation:

SCHEDULING/SETTLEMENT ELEMENT	INT 1	INT 2	INT 3
Submitted 5-minute schedules	5 MWh	10 MWh	15 MWh
15 MM schedule (sum of submitted 5-minute schedules)	30 MWh		
5-minute Instructed Energy (15 MM schedule divided by 3)	10 MWh	10 MWh	10 MWh
Actual operation (same as 5-minute schedules)	5 MWh	10 MWh	15 MWh
Uninstructed Imbalance Energy	-5 MWh	0 MWh	+5 MWh

Thus, VERs submitting completely accurate 5-minute schedules that reflect expected ramping behavior would be exposed to imbalance-price risk for following exactly that submitted schedule in real time.

This result completely negates the rationale and increased accuracy from 5-minute submissions. While LSA does not understand why the CAISO would want to smooth out the accurate information it is provided, if the CAISO continues to include this feature (e.g., because of software limitations), then it must also consider mitigation of the inaccuracy impact on VERs/SCs of doing so, by either: (1) netting 5-minute imbalances in the 15-minute interval for those submitting 5-minute schedules; or (2) retaining PIRP monthly netting (see above).