August 23rd, 2012

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

RE: LSA comments on Flexible Ramping Products – Revised Draft Final Proposal

The Large-scale Solar Association (LSA) hereby submits these comments on the CAISO's August 9th document, Flexible Ramping Products – Revised Draft Final Proposal (Proposal) – the CAISO's latest version of the proposed Flexible Ramping Product (FRP) framework – and the discussion at the August 16th stakeholder meeting about the Proposal. Consistent with its earlier comments in this stakeholder process, LSA's remarks here address the cost-allocation portions of the Proposal.

Specifically, LSA recommends that the CAISO make the following revisions – explained in further detail in the remainder of this document – in the next Proposal version:

- **Coordinate implementation of any resource-specific FRP charges with Variable Energy Resource (VER) scheduling changes required by FERC.** The Proposal still includes use of a 15-minute energy profile produced by the CAISO's Forecast Service Provider (FSP) for FRP cost allocation, despite admissions that this framework must be reviewed (and perhaps replaced) shortly afterward. Instead, the CAISO should provide that 15-minute energy schedules/settlements will be used under the FRP framework, use the stakeholder process that it is already planning to work out the details of those changes immediately after the FRP effort is concluded, and provide for simultaneous implementation of both elements.

- **Require a solid demonstration of FSP accuracy for the proposed 15-minute resource-specific profiles before they are approved and used** as a basis for either decremental energy (DEC) bid dispatch or FRP charges, if the CAISO does not adopt LSA's above recommendation. The CAISO cannot show that use of FRP profiles for ratemaking is just and reasonable without such a demonstration. Aside from the fundamental unfairness of holding VERs accountable for third-party forecasts of unproven accuracy, VERs are unlikely to submit DEC bids (alone or in association with provision of FRP Down service) if such bids would put them at even greater risk for the accuracy of such forecasts – especially if, as proposed, they would also lose PIRP protection for the applicable intervals.

- **Incorporate a grandfathering element for resources with contracts where suppliers could not have anticipated the FRP cost-allocation proposal.** This grandfathering would apply to Power Purchase Agreements (PPAs) where the Load-Serving Entity (LSE) buyer is not the Scheduling Coordinator (SC) that were executed before the November 1st, 2011 date on which the CAISO's Straw Proposal was issued in this initiative. LSA agrees with SCE that this group is likely to be small, but the CAISO should conduct its own polling effort if it disagrees; it is the only party that can obtain those data, as Market Participants only have knowledge about their own contracts.

- **Eliminate FRP charges for schedule deviations in the direction that helps the CAISO manage the system.** While the CAISO's monthly aggregation of FRP metrics could help ensure that charges for deviations in the "right" direction are less than those for deviations in the "wrong" direction, there is no assurance that this will be the case, and LSA believes that these helpful deviations should not be charged at all.

LSA is very disappointed that the CAISO did not respond in the Proposal to many of the concerns or suggestions in LSA's comments on the last version of the Proposal. LSA's failure to repeat those arguments here does not imply any acceptance of the CAISO's proposals in those areas, and we request that the CAISO respond to those concerns in the next version of the Proposal. We do hope that the CAISO will more thoroughly review and consider LSA's comments in this submittal, and then explain its reasons in the upcoming Second Revised Draft Final Proposal for rejecting any of these recommendations.

Coordination with FERC-mandated scheduling changes for VERs

The Proposal persists in advocating use of a 15-minute energy profile produced by the CAISO's FSP for FRP cost allocation (and, as noted below, expands the use of this profile to also serve as a basis for measuring compliance with DEC bids), despite admissions in the Proposal (pp.41-42) that:

- Use of a generator-provided profile only has gaming potential because "there is no energy settlement impact of a resource's submitted expected energy output," and "the gaming concerns would be mitigated by the financial settlement of the expected energy;"

- Any methodology adopted here that does not include revising the energy settlement must be reviewed in conjunction with CAISO implementation of the 15-minute scheduling option required by FERC Order No. 764 in Docket No. RM10-11-000 ("Integration of Variable Energy Resources"), issued June 22nd; and

- The CAISO will soon be commencing another stakeholder process to address the FERC directive, in order to comply with the compliance requirements therein.

LSA does not understand why the CAISO insists on incurring the expense, effort, and complications of developing and implementing an FSP-provided profile when the framework will probably have to be significantly changed shortly afterward. Instead, in this initiative, the CAISO should provide for use of a generator/SC-provided 15-minute schedule as the basis for both VER DEC bidding and FRP cost allocation. The supplemental stakeholder process that the CAISO is already planning can then be used to develop the details of that approach, so the required more-granular scheduling and settlement can be implemented concurrently with the FRP framework.

Demonstration of FSP forecast accuracy

If the CAISO does not adopt LSA's strong recommendation to coordinate implementation of the FRP cost allocation and the FERC-mandated 15-minute energy scheduling timeline, and if it continues to propose use of an FSP-provided forecast as a baseline for both DEC bid settlement and FRP Down dispatch, then (at a minimum) the CAISO should require that the FSP demonstrate its ability to reasonably forecast at the required granularity level with an acceptable level of accuracy.

As noted in LSA's prior comments, FSP forecasting performance under the PIRP program does not provide any assurance of this ability. These forecasts may be more accurate when made closer to the time that they apply than the current PIRP forecasts, as the CAISO theorized on the August 16th conference call. However, accurate forecasting for 15-minute intervals, even closer to their binding applicability, may be considerably more difficult.

It is widely acknowledged that forecasting VER output over longer periods is less risky than doing so over shorter periods. For example, VER PPAs typically contain minimum production guarantees over 1-2 year periods, as such forecasts can be made based on longer-term wind or solar data for a site (or broader applicable areas) and engineering estimates. Similarly, PIRP netting is allowed over a one-month period, smoothing out hourly forecasting errors.

LSA sincerely hopes that the FSP is able to forecast accurately for 15-minute intervals, 37.5 minutes in advance, as provided for under the FRP proposal (and, now, the DEC bidding proposal). However, it is unreasonable to base FRP and DEC bidding settlements for VERs on the FSP's forecast without a demonstration of its accuracy in this timeframe.

The CAISO statement at the August 16th meeting that this unproven framework is "just an option," and that VERs can instead rely on the 10-minute settlement structure (based on hourly schedules) that has already been shown to be untenable for imbalance energy, is not a helpful or effective response. The so-called "optional" nature does not reduce the CAISO's responsibility to assure accuracy of this key measure.

<u>VER decremental bidding framework</u>

LSA is encouraged to see the CAISO finally address the ability for VERs in PIRP to offer DEC bids. LSA has strongly supported DEC bidding for PIRP resources and urged the CAISO to implement such a feature. However, LSA has some strong substantive concerns about the proposal as it is now designed.

The Proposal would: (1) allow VERs in PIRP to submit DEC bids, by themselves or in conjunction with FRP Down bids; (2) remove those resources from PIRP imbalance-energy protection in the intervals where the DEC bids are dispatched; and (3) measure compliance with those DEC bid dispatches by comparing metered generation in the applicable interval to 10-minute baseline amounts based on the resource-specific 15-minute FSP profiles.

LSA is concerned about the inclusion of such a significant market change in the very late stages of this initiative, where there appears to be little time for reasoned consideration. The CAISO has deferred this important feature in the past due to its potential complexity. LSA is not necessarily saying that the CAISO must delay implementing this change, but implementing it in an unworkable framework will not produce the results that the CAISO desires.

LSA is specifically concerned about the content and logistics of this framework. Specifically, LSA believes that the CAISO has not given adequate consideration to the following factors:

- **Loss of PIRP protection for Uninstructed Imbalance Energy (UIE) in intervals where DEC bids from PIRP resources are dispatched, combined with the strong reliance of this methodology on the accuracy of the FSP 15-minute forecast, would be a strong disincentive for VERs to submit such bids.** VERs are unlikely to give up PIRP protection if the profile used to measure their compliance with the DEC dispatch instructions has not been shown to be reasonably accurate, for their specific facility.

For example, VERs could risk additional imbalance charges if their production is below the PIRP forecast and FSP profile if this framework would charge them for DEC energy that they could not provide (e.g., when prices are negative), and they would also lose PIRP netting treatment for the imbalance. While the FSP profile would recognize their ramping activity in ramping hours (which the regular CAISO imbalance-energy framework does not), an inaccurate profile would not necessarily be an improvement.

- **The timing for these features is not compatible.** DEC bids are due to the CAISO by T-45 and are fixed for the entire hour, while the FSP profiles would not be available for the first 15 minutes of the hour until T-37.5, and even later for the later portions of the hour. How could a VER (or its SC) realistically be expected to submit a DEC bid when its compliance with that bid will be measured against a profile that it does not yet know?

The CAISO must give much more thought to the incentives and mechanics of this framework, to avoid offering an "option" that will not be feasible for VERs and, thus, will not provide the downward flexibility that the CAISO seeks.

Grandfathering for resources with contracts where the buyer is not the SC

As noted above, LSA recommends that the CAISO exempt PPAs executed before the November 1st, 2011 date that the CAISO's Straw Proposal was issued in this initiative, where the buyer is not the SC, from FRP charges.

As LSA has stated before, sellers under these contracts could not have anticipated these costs and have no realistic way to recover them. Moreover, many of their contracts require them to produce all the energy that they can, i.e., they cannot moderate their ramps or schedule deviations in order to manage their exposure to the new costs.

The ability to transfer FRP cost responsibility from the seller to the buyer does not mitigate this problem, because those sellers have no leverage to force their buyers to accept this responsibility. Likewise, any transitional mechanism to allow for "renegotiation" of contracts would not mitigate this problem either, because those sellers have no leverage to force their buyers to accept such contract revisions.

The CAISO continued to maintain on the August 16th conference call that it was open to including a grandfathering or transitional element in the FRP proposal; however, the CAISO said that it was hesitant to do so without knowing the magnitude of the potential exemptions.

The CAISO should understand that it is the only entity that can obtain these data, and it should not depend on other stakeholders to provide it. Market Participants, such as LSA members, only know about their own contracts and have no way to obtain information about contracts of other entities. If the CAISO wishes to gauge the extent of contracts meeting these criteria, it should conduct its own survey of generation owners, e.g., requiring a response by a date certain to qualify for the exemption (assuming that compliance with the criteria could be demonstrated at a later date, in coordination with FRP implementation).

FRP charges for helpful scheduling deviations

As stated in its prior comments, LSA still believes that the CAISO should not charge at all for schedule deviations in the "right direction" (that help the system by moderating net load ramps). The CAISO should encourage these deviations, and not send price signals to reduce them. For example, generation deviations in the upward direction in hours when net load is increasing help the system and should not be charged, and the same is true of deviations in the downward direction in hours when net load is decreasing.

In fact, because of the cost-sharing aspect of the cost allocation, it is possible that charges for deviations in the "right" direction will actually be higher per MWh than those in the "wrong" direction – i.e., if there are few deviations in that "right" direction, so the costs would be spread over few MWh. If only a few resources are helping the CAISO, it seems perverse for the CAISO to charge them more as a result.

The CAISO has not adequately explained its reasons for rejecting this suggestion. The proposed hourly FRP cost allocation granularity <u>might</u> increase the likelihood that FRP charges for deviations in the "right" direction will at least be lower than those in the "wrong" direction, but that is not certain. Likewise, the CAISO asserted at the August 16th meeting that the monthly aggregation of hourly costs and deviations would help ensure that charges for deviations in the "right" direction will be lower than those in the "wrong" direction, but the opposite could occur.

At a minimum, there should be a cap on charges for deviations in the "right" direction at the same level as deviations in the "wrong" direction for each hour. If the CAISO monthly/hourly cost-allocation methodology yields this result, then so much the better. If not, this rule would ensure that generators helping the CAISO manage its system are not penalized through charges that are higher than those to whose deviations harm the system.