



June 7th, 2012

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

RE: LSA comments on CAISO Technical Workshop on Flexible Ramping Product

The Large-scale Solar Association (LSA) hereby submits these comments about the presentation at the CAISO's May 31st technical workshop on the proposed Flexible Ramping Product (FRP), and the stakeholder discussion at the workshop. LSA's comments address the allocation of FRP costs, including the proposal by the CAISO Department of Market Monitoring (DMM) in comments on the earlier Draft Final Proposal (Proposal).

LSA applauds the CAISO for making the difficult decision to step back from its ambitious FRP schedule and taking the time to review both the overall FRP framework and the specific program details. LSA agrees with the CAISO's efforts to slow down this process and consider changes to the Proposal.

On a larger policy level, LSA continues to believe that the CAISO should not implement an FRP cost allocation that differs from that of the current Ancillary Services methodology without considering the interaction with both the California Public Utilities Commission (CPUC) procurement process and future market-design changes.

Specifically, the CAISO should use the additional time to work with CPUC staff to determine how FRP would work with the CPUC procurement process. There may be a need to revise the CPUC procurement rules and/or the proposed FRP cost allocation so that the two do not conflict.

As LSA has noted before, the CPUC is considering inclusion of an integration-cost metric in its assessment of jurisdictional LSE procurement contracts. It would be double-counting for the CPUC to expect its jurisdictional LSEs to negotiate reduced long-term contract prices to VER resources because of potential integration costs and then for the CAISO to charge those same resources for the same costs through market mechanisms; such double-counting would not be consistent with the "cost causation" principle that CAISO seems to believe is most important.

Similarly, before charging integration costs such as FRP for individual generators, the CAISO should more seriously consider market-design changes that could both help the CAISO minimize integration costs (by reducing unexpected variability on the system) and allow Variable Energy Resources (VERs) to better control their exposure to such costs. These reforms include (but are not limited to): (1) scheduling closer to real time; and/or (2) more-granular scheduling, e.g., scheduling for less than an hour at a time and/or intra-hour schedule adjustments. As noted below, those changes would also address certain gaming concerns with the proposed reference-profile element of the design.

If the CAISO nevertheless proceeds with the allocation of FRP costs on a resource-specific basis, LSA continues to believe that it should do so on the following basis:

- **Allocate FRP costs to the SCs of the LSEs buying the resource output** (similar to proposals the CAISO has made in the past made regarding the Participating Intermittent Resources Program (PIRP)), instead of to generator Scheduling Coordinators (SCs). Allocation to LSEs based on the resources in their respective portfolios would be consistent with the CAISO's cost-allocation principles and (as noted above) the current CPUC procurement process, and it would still allow bilateral contract parties to determine the optimal responsibilities for resulting costs and risks.

The CAISO cost-allocation proposal would allocate costs to the party in the bilateral contracting process that is less able to either estimate or manage the risks or costs. The CAISO has admitted that it cannot estimate FRP costs, so it is not clear how individual generators are supposed to do this in the context of a bilateral contract negotiation. Certainly, LSEs (especially the large LSEs that account for the vast majority of bilateral energy contracting) are in a better position to estimate these costs than individual generators, and to manage those risks both in the contracting process and in actual operations with their diverse portfolios.

In many cases, the generator SC and the LSE SC are the same, and in those cases, this change to the allocation provisions in the Proposal may have less impact. However, in others – e.g., contracts executed before that became the standard model – those SCs may not be the same. Allocation of FRP costs to LSE SCs would also likely obviate the need for a grandfathering provision, since (as noted below) those generators would not be allocated these additional costs that they have no means to recover.

Even where the generator SC and LSE SC are the same, it is disingenuous for the CAISO to pretend that the decision here would not impact future bilateral contracting because the parties can just negotiate the details in the contract-negotiation process. Suppliers cannot finance a project with unbounded risk, and if the “default” allocation is to generators, generators will have to give concessions in the negotiating process in order to obtain this necessary protection by the LSE for the exposure.

- **Incorporate a grandfathering element for resources with contracts where the buyer is not the SC**, if costs are not allocated to the LSE SC as recommended above. Sellers under those contracts could not have anticipated these costs and have no realistic way to recover them, and their contracts do not allow them to control their ramps in order to manage their exposure to the new costs.

The ability to transfer FRP cost responsibility from one party to another in no way mitigates this problem, because these resources have no leverage to force their buyers to accept this responsibility. Even if they had such leverage, any significant contract change would likely have to be approved by the CPUC, and (even assuming that this could occur on an individual contract basis without another proceeding) such approvals can take nine months or more once the contract renegotiations are completed.

- **Revise the pricing formula to charge only for deviations that contribute to the CAISO’s FRP need** (i.e., are in the direction of the need), and not those that actually help (i.e., are in the opposite direction of the need). This would be consistent with several of the CAISO’s new cost-allocation principles, including “cost causation,” “incentivize behavior,” “accurate price signals,” and “manageable.”

The CAISO should not be sending price signals to reduce variability when that variability is helping the system, and when its reduction at that time would only increase the need for (and costs of) FRP procurement and dispatch. Instead, the CAISO should be encouraging deviations that would be helpful to the system, and such signals would also allow resources to limit their FRP cost exposure through such beneficial deviations.

LSA has made this suggestion before, and the CAISO explained its rejection of the idea only by citing vague “gaming” concerns. However, the CAISO has not explained these concerns, or whether adjustments to other parts of the Proposal could address them., as discussed below. It is hard to see how market participants could game a legitimate response to FRP price signals, and the CAISO should either explain itself or reverse its rejection of this element.

- **Provide for a substantial testing effort** – both in the near term, to ensure that the allocation method between major groups (load, internal generation, imports) is equitable, and in the implementation process, to ensure that the new “reference profile” concept and the other new elements in the Proposal are workable.

In particular, the CAISO should ensure that the methodology will allocate costs to the major groups, and market participants within those groups, roughly proportional to their contribution to the need for CAISO FRP procurement. For, example, if the CAISO determines that there could be an increase of 20% in FRP need due to VERs, but 80% of FRP costs would be allocated to VERs under the proposed allocation methodology, that result should lead the CAISO to reconsider the proposed methodology (e.g., as a violation of the “cost causation” cost-allocation principle).

LSA notes the concerns expressed by DMM in its comments on the Draft Final Proposal that submission of a reference profile for VERs, separate from its energy schedule, could allow gaming. For example, in hours when Downward FRP costs are expected to be higher than Upward FRP costs, DMM fears that VERs might submit unrealistically low profiles in order to minimize the chances that they would be above those reference levels and thus incur Downward FRP charges. DMM suggests that the CAISO instead construct the reference profiles.

LSA acknowledges the DMM’s concerns in this area but suggests deferring significant changes to this part of the proposal until the other parameters are better established. After all, the only reason that the reference-profile concept is even needed is the current inflexible CAISO scheduling and settlement system, and the best solution would be to make the market-design changes described above before imposing a resource-specific cost allocation, so that the energy schedule can be as flexible as the proposed reference profile. It would be extremely unfair for the CAISO to construct resource-specific profiles over which VERs have no control and then assess FRP costs to VERs based on those CAISO-constructed profiles.

Finally, the CAISO should provide additional empirical data on the scope of the potential need for FRP and its impacts (e.g., on real-time energy prices), using all its available simulation tools. To date, the load-following calculations in the CPUC-CAISO integration studies have provided information largely on a hourly time-step, without considering the effect of unit commitment on real-time dispatch. More information on sub-hourly patterns, possibly through more-detailed MarketSim analyses, could also be useful.