



January 2, 2015

Submitted by Rachel Gold and Susan Schneider via email to the CAISO at FRP@caiso.com

RE: LSA comments on Flexible Ramping Products Incorporating FMM and EIM – Draft Final Proposal

The Large-scale Solar Association (LSA) hereby submits these comments on the December 4th Flexible Ramping Products Incorporating FMM and EIM – Draft Final Proposal (Proposal).

Consistent with its earlier FRP comments, LSA’s remarks here address the cost-allocation portions of the Proposal and reflect the CAISO’s responses to LSA’s submittal for the last version of the Proposal in June. LSA appreciates those earlier responses.

However, LSA continues to have several outstanding concerns that were not addressed in the Proposal. LSA recommends that the CAISO make the changes to the Proposal that are listed below and described further in the remainder of this document.

- **Revisit the FRP cost-allocation framework.** The FRP framework and cost allocation should be consistent with CAISO practices for reserve products and coordinated with California Public Utilities Commission (CPUC) procurement policies. As the FRP is a type of reserve or ancillary product intended to improve system operation, its cost should be allocated in the same manner as other such products.

MISO’s recent “Ramp Capability Service” filing treats its very similar service in exactly this fashion. If the CAISO’s FRP approach is fundamentally different, those differences may have to be resolved at the FERC level.

Even if the CAISO does not change its cost-allocation approach, LSA has sought, in several rounds of comments, the CAISO’s support for the principle that FRP costs (the first direct CAISO-market “integration costs”) should not effectively be imposed twice on generators, i.e., potentially both included in an “integration cost adder” in the CPUC-jurisdictional procurement process (effectively accounting for these costs through lower procurement prices) and then again imposed by direct allocation in CAISO markets.

The CAISO’s opinion could be an important element in CPUC consideration of such adders. LSA reiterates its request that the CAISO’s to address this issue by issuing a statement of principal on this point.

- **Clarify the benchmark for assessing FRP charges to Variable Energy Resources (VERs).** FRP charges for VERs should be assessed for deviations from 5-minute forecasts, not the 15-minute FMM schedule amounts divided by three. LSA understands from the CAISO’s response to its comments on the Revised Straw Proposal that this would be the case and requests a confirmation from the CAISO that this interpretation is correct.

If this is the CAISO's intent, the Proposal should explicitly so state. This clarification is needed to support the development of detailed tariff language that will be needed for the FERC filing. LSA has made this request before and again asks that the CAISO explicitly confirm in its Proposal the assurances it has given LSA in separate discussions on this important point.

- **Modify the proposed “deadband” for deviations before FRP charges are applied.** The threshold should be the greater of 3% or 5 MW per hour – the same threshold as the Uninstructed Deviation Penalty (UDP) – and not the lesser of the two. Otherwise, large projects would be subject to tighter tolerances (e.g., 1.7% for a 300 MW project) than the CAISO has found to be reasonable in the past.

Again, LSA has made this comment before, in stakeholder meetings and in written comments. The CAISO's written proposals, including most recently the Proposal, have yet to explain why different thresholds would be reasonable for the different applications, even though the rationale for the deadband is the same for both applications. LSA requests that the CAISO apply the same threshold or explain why different parameters are appropriate for the two applications.

Coordination with current practices and procurement framework

There are two major conceptual issues the FRP cost allocation should address – market cost allocation and treatment in resource procurement activities.

As a general issue, a ramping product is no different than Ancillary Service products, which contribute to the reliable and efficient operation of the system and the market. The FRP is one tool for reducing scarcity and out-of-market interventions, improving market price development and transparency, and generally helping the overall system operate more reliably and efficiently.

LSA's comments throughout the FRP stakeholder processes have consistently supported allocation of FRP costs consistent with Ancillary Services costs, which are allocated to load and exports. MISO's recent FERC filing for its Ramp Capability Product (2014-06-10 Docket No. ER14-2156-000) support this perspective. MISO's rationale is as follows:

- Ramp capability is needed for reliable system operations, like existing Operating Reserve products.
- The product will provide a net benefit to load and exports.
- The overwhelming majority of the need for the product is caused by changes in load and scheduled interchange transactions.
- Allocating the costs to transactions causing the need for the product would result in an overly complex rate design that would not be justified by expected costs or resulting shifts between entities.
- A cost-causative rate design may not provide proper incentives to reduce transactions that cause the need for the product.

The tremendous complexity of the proposed FRP cost allocation, and the CAISO's experience with ramping costs to date, certainly illustrate the correctness of MISO's concerns in this regard. The CAISO's December 2nd Q3 2014 Report on Market Issues and Performance shows that Flexible Ramping Constraint (FRC) costs were about \$5.3 million for the first half of 2014. Those costs are trending downward, totaling only \$0.6 million for the third quarter (p. 25), despite higher seasonal loads and higher levels of variable generation on the CAISO system.

The CAISO's responses to LSA's comments in this respect have consistently reflected the CAISO's apparent view that it does not consider FRP to be like a reserve product but more like an energy product. As noted above, conflicts and inconsistencies in the treatment of costs for the same product in different jurisdictions may have to be ultimately resolved by FERC.

However, if the CAISO persists in allocating FRP costs to generators (or their Scheduling Coordinators (SCs)), LSA seeks the CAISO's agreement that those costs should not be included in the integration-cost "adder" in the CPUC-jurisdictional resource procurement process. Such adders count against supply bids in the procurement process on the assumption that they are borne by ratepayers.

For example, the transmission-cost adder ensures that a cheaper energy bid from a project with high Network Upgrade costs is not selected over a more expensive bid that will cost ratepayers less overall. From the supplier's perspective, the transmission cost is "paid" once, through the procurement-process adder, since transmission costs are generally reimbursed.

Similarly, the CPUC has recently adopted an interim integration cost adder (Interim Adder) in the procurement process. The concept – as with transmission costs – assumes that operational costs to accommodate different supplier technologies and projects will ultimately be borne by ratepayers and, therefore, should be counted against supply bids.

As noted above, FRP will likely be the first separately identified CAISO "integration cost." The CPUC Interim Adder does not specifically include the FRP costs but adopts a generic amount for variable integration costs for wind and solar resources (presumably intended to cover the FRP, among other potential costs). If the CAISO then charges FRP costs to generators (or their SCs) directly, then the combination will effectively charge generators twice.

If the CAISO continues to propose allocation of FRP costs to generators (or their SCs) through CAISO-market settlements, LSA requests that the CAISO include in the next version of its Proposal a commitment to work with the CPUC (e.g., making filings in any CPUC proceeding where integration-cost adders or similar features are considered) to help ensure that FRP costs are not double-counted. This is an issue of fundamental fairness, and the CAISO should have no hesitation in making this straightforward statement.

Measurement of 5-minute deviations for FRP cost allocation

LSA understands from the CAISO's response to its last comments (and other discussions with the CAISO on this point) that real-time dispatch instructions to VERs would use 5-minute forecasts (and not 15-minute FMM schedules, divided by 3) to issue real-time Dispatch Instructions. Thus, the 5-minute forecast would set the benchmark for determining real-time Uninstructed Imbalance Energy (UIE) that would be used to allocate FRP charges, and a generator following the 5-minute forecast exactly would not be penalized through an FRP cost allocation for the forecast "smoothing" in the FMM scheduling process.

LSA requests that the CAISO explicitly confirm its interpretation above, including the applicability of this approach whether a VER submits self-schedules or economic bids. This confirmation is extremely important to ensure that the correct allocation method is included in the upcoming tariff-language development and thus should be included in the final Proposal document.

Tolerance threshold for FRP cost allocation

The Proposal retains the prior CAISO “tolerance band” feature, i.e., FRP charges would only apply for deviations exceeding the lower of 3% of capacity or 5 MW per hour (~0.42 MWh per 5-minute interval). This is, on the surface, the same tolerance band used for Uninstructed Deviation Penalties (UDP), which are included in the CAISO tariff but have not been activated.

However, the UDP tolerance band is set at the greater of the two metrics, while the FRP tolerance band is proposed to be the lower of the two metrics. LSA believes that the FRP tolerance band should be the same as the UDP tolerance band, for the reasons set forth below.

The 3% UDP tolerance-band was based on CAISO and stakeholder agreement that it would be unreasonable to expect large generation projects (not just variable resources, but gas-fired and other technologies also) to control their output with significantly greater precision than that. The 5 MW alternative was added to accommodate smaller projects, where 3% could constitute small fractions of a MW and even large percentage deviations would have little impact on the CAISO system. Thus, setting the UDP tolerance band at the greater of 3% of capacity or 5 MW recognized both practical output control limits and deviation impacts.

The proposed FRP tolerance band sets this reasoning on its head by setting the limits at the lower of the two metrics. Thus, any generation project above 167 MW would be charged for deviations greater than 5 MW, e.g., a 300 MW project would have a limit of only 1.7%. The greater the generator size, the lower the limit in proportion.

The Proposal does not explain why a 3% tolerance band is reasonable for large projects under UDP but a lower limit should apply for FRP. The CAISO response to LSA’s last comments indicated that the CAISO wants tighter tolerances because even 5 MW more of FRP procurement can increase costs. However, this is no different from the case with energy costs and UDP.

Thus, the CAISO has not explained the equity of applying different standards when the rationale for the deadband is exactly the same in both cases. LSA believes that the tolerance bands for both UDP and FRP should be based on the same metrics and applied in the same way, and if the CAISO has reason to believe otherwise, it should clearly explain them.