

Comments of Powerex Corp.
Flexible Ramping Product

Submitted by	Company	Date Submitted
Mike Benn 604-891-6074	Powerex Corp.	September 3, 2014

Powerex appreciates the opportunity to provide these limited comments on the Flexible Ramping Product Revised Straw Proposal published on August 13, 2014. As previously stated, Powerex strongly supports the need and general concept of this product. Powerex's prior comments addressed the proposal's failure to allocate the costs of the Flexible Ramping Product consistent with cost causation. In particular, Powerex observed that the fixed ramps of import and export schedules may be either in the same direction as net load movement or may be in the opposite direction as net load movement. The potential for imports and exports to either increase Flexible Ramping Product costs or reduce those costs was not reflected in the CAISO's cost allocation proposal, which would only impose charges—and would never provide any credits—for interchange ramps.

In the Revised Straw Proposal, CAISO maintains a design in which intertie fixed ramps are allocated Flexible Ramping Product costs and do not receive credits. Powerex remains deeply concerned that such an approach will harm market efficiency both by (1) failing to charge costs to the activity that causes it, and (2) by failing to provide a price signal to activity that can efficiently reduce those costs.

CAISO clearly recognizes that increased imports during periods of increasing load will reduce the operational need to procure Flexible Ramping Up capacity:

“Assume that load was ramping up 200 MW, fixed ramps were ramping up 50 MW and there was no supply category movement, the procurement target for flexible ramping up would be 150 MW and the flexible ramping down requirement would be zero.”¹

Under CAISO's example, the Flexible Ramping Up (FRU) requirement can be reduced by reducing the upward ramp of load or by increasing the ramp of imports. An efficient design would provide appropriate financial incentives to both activities: loads would face a financial incentive to *reduce* their upward ramp while imports would face a financial incentive to *increase* theirs. CAISO proposes something different, however. Despite recognizing that the imports in this example reduce the FRU requirement by 50 MW—and hence reduce FRU procurement costs—CAISO does not propose to credit importers for those reduced costs. Instead, CAISO proposes to pass those cost reductions to loads in the form of being allocated a smaller total FRU procurement cost.

A simple example illustrates this problem. Assume that the price of FRU is \$2/MW. Under CAISO's example, it would procure 150 MW at a total cost of \$300, and this cost would be

¹ Revised Straw Proposal at pg. 35.

entirely allocated to load. Now consider if imports increased by 60 MW instead of by 50 MW. CAISO's FRU requirement would be 140 MW, and would cost \$280, which would be allocated to load. Even though the lower costs are the result of an *increase in import ramp*, under CAISO's proposal it is *load* that receives the \$20 benefit. The converse is also true: if imports instead increased by only 40 MW, CAISO's FRP requirement would be 160 MW, and would cost \$320, which again would be allocated to load in this example. Despite the change in FRU procurement costs being driven by changes in import ramp, it will be load that bears the financial consequences. CAISO's proposal breaks the essential link between the activity driving costs (*i.e.*, the level of imports ramps) and the financial responsibility for those costs. As a result, the incentive for efficient behavior will be lost.

The above example focuses on the first level of cost allocation proposed by CAISO: the assigning of FRU or FRD costs among three different "categories", namely "load", "supply" and "fixed ramps". But this category-level allocation is not the only way in which the proposal violates efficient cost allocation principles. Once each category's cost responsibility is established, that cost is further sub-allocated among the SCs with activity in that category. For example, the "fixed ramp" category will be allocated the cost of the Flexible Ramping product in the direction opposite to its 5-minute movement. If aggregate interchange ramps are decreasing (*i.e.*, a 5-minute to 5-minute reduction in net imports or an increase in net exports), then the "fixed ramp" category will be allocated a share of Flexible Ramping Up costs. But CAISO does not provide details of how the total FRU cost allocated to intertie ramps will be charged to the individual SCs within that category. Details regarding the sub-allocation of category-level costs to individual SCs is necessary to more fully evaluate CAISO's proposal.

Powerex requests that CAISO specifically explain its proposal for an interval in which aggregate loads are increasing but aggregate imports are decreasing; that is, both aggregate intertie ramps and aggregate load ramps have "negative movement" and both categories increase the need for Flexible Ramping Up capacity:

1. Please confirm that intertie "fixed ramps" will be assigned a share of the cost for FRU in this example.
2. Will an individual SC whose imports are *increasing* be charged for FRU?
 - a. If so, please explain how an import with "positive movement" would cause CAISO's FRU costs to increase in this example.
 - b. Please confirm that, all else equal, an import with "positive movement" would reduce CAISO's FRU requirement in this example.
 - c. If confirmed, please explain why an import with "positive movement" should not receive a credit for its contribution to reducing FRU costs, consistent with the CAISO's cost allocation principles of cost causation and efficient price signals.
3. Will an individual SC whose imports are *increasing* be charged for Flexible Ramping Down capacity?
 - a. Please confirm that, all else equal, an import with "positive movement" could increase CAISO's FRD requirement
 - b. If the individual SC will not be charged, please explain why an import with "positive movement" should not be charged for its contribution to higher FRD costs, consistent with the CAISO's cost allocation principles of cost causation and efficient price signals.

Powerex is concerned that CAISO's proposal, if adopted, will result in the worst possible incentives. Activities that reduce total FRP costs will not have any incentive to do so, while the activities that increase total FRP costs will escape paying a share of those costs.

Beyond failing to provide rational incentives for desirable behavior and rational incentives to reduce undesirable behavior, CAISO's proposal will also introduce significant uncertainty regarding the FRP charges that intertie participants will be exposed to. The highly unpredictable nature of these FRU and FRD charges (at the time that energy offers are due in the IFM and real-time markets) means they cannot simply be incorporated into participant offers in the CAISO markets. The logical and inevitable result of this approach will be for market participants to seek to reduce their hour-to-hour ramps in both the IFM and real-time markets. In other words, CAISO's proposed FRP cost allocation may inadvertently lead intertie schedules to be more uniform from hour to hour, even if changes in intertie schedules would actually reduce CAISO's FRP costs, and provide other efficiency enhancing benefits. In particular, Powerex requests that CAISO address the following concerns in its next round of stakeholder discussion in this initiative:

1. Will participants be exposed to Flexible Ramping Product charges any time they submit economic (*i.e.*, price-sensitive) intertie bids in the IFM?
2. Will participants be exposed to Flexible Ramping Product charges any time they submit hourly economic (*i.e.*, price-sensitive) intertie bids in the real-time market?
3. Will participants be able to reduce their exposure to Flexible Ramping Product charges through submission of self-schedules in the IFM or RTM that minimize hour-to-hour changes in the scheduled quantity?
4. Will participants be able to reduce their exposure to Flexible Ramping Product charges through submission of multi-hour intertie block bids in the IFM?
5. Are there any other ways that participants can continue to participate in the CAISO's IFM and real-time market without being exposed to FRP costs?

The unintended consequence of encouraging participants to minimize all hour-to-hour changes to IFM and real-time intertie schedules could be entirely avoided under a cost allocation that followed cost causation principles. CAISO employs such an allocation for charging the cost of contingency reserves, for example, and explained the merits of such an approach in its recent filing at FERC (which Powerex strongly supported). Powerex requests that CAISO explain why a similar approach is not appropriate for the recovery of FRP costs.

Powerex also notes that CAISO now appears to exempt certain 15-minute import and export schedules from being allocated any FRP costs at all. CAISO explains that "10-minute ramp will be excluded from the requirement determination similar to start-up and shutdown instructions to internal generation."² Powerex requests that CAISO more clearly identify which specific import and export schedules would be excluded, and provide a fuller explanation of the proposed exclusion. Specifically, Powerex asks that CAISO address the following questions:

1. Will all 10-minute intertie ramps be excluded from the determination of FRP requirements?
2. What is the basis for this exclusion?
3. For 10-minute intertie ramps that increase total FRP costs, but who will not be allocated any of those costs, how will those costs be recovered?
4. Why does CAISO not propose a similar exclusion of 20-minute intertie ramps from being allocated FRP costs?

² Stakeholder Comment Matrix at 55.