

## Comments on Flexible Ramping Product Supplemental: Foundational Approach

Submitted By	Company or Entity	Date Submitted
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Powerex appreciates the opportunity to provide these comments on the Flexible Ramping Product Supplemental: Foundational Approach (“Supplemental Proposal”) published on July 11, 2012. Powerex generally supports the CAISO’s Supplemental Proposal and views the proposal as responsive to stakeholder comments and concerns.

### *Ramping Need*

Powerex appreciates the CAISO’s description of the purpose and need for ramping within its market. Based on the three scenarios presented in the Supplemental Proposal, Powerex agrees with the CAISO conclusion that defining ramping need as the “real ramp” will align the CAISO’s acquisition of ramping with system conditions.

### *Flex Ramp Demand Curve*

Powerex believes there are two issues that the CAISO needs to consider further.

First, with the foreseeable increase in intermittent generation, historical data may not be indicative of the distribution of power balance violations and needs to be updated to take into account the future mix of generation resources.

Second, in many ways this ramping product can be viewed as a reliability service. Powerex notes that for Ancillary Services (“AS”) the CAISO acquires 100% of AS requirements in its Day-Ahead Market (“DAM”). Powerex suggests that as a reliability service, the CAISO may want to set a floor on the quantity of Flex Ramp acquired in its DAM to protect reliability. As the CAISO is aware, the DAM is its most liquid market and acquiring additional Flex Ramp in its Real-Time markets may, at times, lead to a potential shortfall and/or be less efficient.

### *Cost Allocation*

Powerex believes the CAISO’s proposal for cost allocation, especially for fixed ramps, is an improvement over past proposals. However, Powerex does not believe the CAISO proposal goes far enough. From a cost causation principle when the intertie ramp is aligned with the system ramp, the intertie ramp is generally reducing the CAISO’s overall need for ramp and therefore the total cost for the Flex Ramp service.

The CAISO’s proposal violates several of the CAISO’s cost allocation principles (Cost Causation, Incentivize Behavior, and Accurate Price Signals) and will discourage intertie participants from providing ramping service that reduces the overall Flex Ramp cost to the CAISO system. For example, if participant A has hourly schedules which are the same quantity

each hour, it will be allocated no Flex Ramp cost whatsoever. In contrast, if participant B has hourly schedules which change hour to hour, *reducing* overall CAISO Flex Ramp procurement costs in the majority of the intervals relative to participant A, participant B will be allocated:

- a) significant Flex Ramp costs during the intervals it is reducing overall Flex Ramp procurement costs to CAISO (i.e. it is still charged Flex Ramp costs in the opposite direction of the fixed ramp, without receiving credit for the reduction in Flex Ramp costs in the same direction of the fixed ramp); and
- b) substantial Flex Ramp costs in the intervals in which it is increasing overall Flex Ramp costs to CAISO.

In other words, a participant that has differing hour to hour schedules that provide substantial ramping benefits to CAISO (when the fixed ramp is aligned with system needs), and thereby reducing overall Flex Ramp procurement costs, will receive substantial allocated costs, while a participant that provides a flat block schedule across the day will be allocated no Flex Ramp costs whatsoever. The CAISO cost allocation proposal thereby *discourages* behavior that is beneficial to reliability and market efficiency and is inconsistent with cost causation principles.

Powerex believes the appropriate treatment of inertia ramp is as a variance *not* an uncertainty, and the provider should be provided with a “non-refundable credits” in the direction such variances help reduce CAISO’s Flex Ramp procurement costs. These “non-refundable credits” should be used to offset Flex Ramp costs within the same operating day.