## Western Power Trading Forum comments on Flexiramp product proposal

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WPTF appreciates the opportunity to present these comments on the CAISO's flexiramp product proposal, based on its November 1, 2011 white paper and November 7, 2011 presentation and meeting discussions.

Our understanding of the proposal

We understand the CAISO is proposing to implement a new flexiramp (FR) market product including the following key design elements.

- o For FR, providers will bid, and the ISO will clear, in a manner very similar to the CAISO's current spinning and non-spinning reserve products. The CAISO will co-optimize across services, but regulation and contingency-only reserves will not be leveraged for the satisfaction of FR. The CAISO will set the market clearing price based on the bids and the resource's energy and ancillary service opportunity values ensuring that the unit will be compensated at a value at least equal it its bid and will be at least indifferent to providing FR, energy or ancillary services.
- The proposal suggests the CAISO will set procurement targets based on stochastic analysis of historical variability in certain types of energy production and consumption, seemingly focusing on production from typically variable resources. The CAISO does not plan to procure FR for certain types of imbalances such as those associated with generating facilities that are deployed based on energy schedules (e.g., real-time energy self-schedules). No specific regional procurement has been identified at this time.
- The CAISO would deploy other resources for needed ramp so as to maintain the ramping capacity of the procured FR. In these cases the CAISO would dispatch other dispatchable resources in a least cost fashion as it does today. If the CAISO becomes ramp constrained it would them use the FR capacity but only to the extent the ramping needs were driven by the sources for which the FR was procured (which the CAISO refers to as "realized uncertainty").
- The CAISO proposes to develop an allocation algorithm that attempts to emulate the relative drivers of the energy uncertainty and to update this allocation regularly (e.g., monthly).

WPTF would appreciate clarification from the CAISO where our understanding does not match the CAISO's current conception proposal. • CAISO proposal for a bid-based product is appropriate

WPTF commends the CAISO for proposing to implement a market based, bid-based product that captures the value of the service being provided. The CAISO's proposal includes many of the attributes WPTF has argued are important for the CAISO's use of FR, including being bid-based, clearing marginally and recognizing the value of the standby capacity of the resource whether or not a FR constraint (for example) is "binding". In most all respects WPTF finds the CAISO's proposal to include the critical design elements.

 Product should be based on a marginal clearing price with opportunity cost as proposed by the CAISO

As indicated above, WPTF supports the proposal to have a marginally clearing product, the value for which reflects both participant's bid and the opportunity cost. WPTF supports the CAISO perspective expressed during the meeting that the payment of a capacity element is warranted, somewhat counter to the views being expressed by the DMM, and that absent such a payment the product would fail to recognize the inherent value of the resource.

• Cost allocation – WPTF requests more info is needed on how proposed allocation maps to actual stochastically derived needs.

The CAISO has proposed to allocate costs in proportion to imbalances of those types for which FR is procured. However, there is not yet a clearly identified direct relationship between the need that drives procurement and energy imbalances as opposed to other characteristics which will likely be determined as the CAISO further considers its stochastic analysis approach. We ask that further discussion take place as this analysis progresses.

CAISO procurement policies need further detail and discussion

WPTF would like to revisit the procurement policies as the CAISO further considers how it will determine the variation for which FR is needed. Additionally, a number of parties raised the question of whether the ISO would procure for variation in operational ramping needs in addition to procuring simply for variability of RTD needs from RPTD forecasts. Finally, WPTF would benefit from more discussion of day-ahead vs. post-day FR procurement.

WPTF appreciates the CAISO's consideration on these issues and questions and looks forward to further discussion.