

**Comments of Calpine Corporation on  
Revised Straw Proposal  
RIMPR Phase 2  
Renewables Integration  
Market Vision & Roadmap**

**Dated: Aug 29, 2011**

**Comments submitted: September 21, 2011**

Summary

Calpine generally supports the new structure and focus of this RIMPR Phase 2 Straw Proposal. In particular, the Revised Straw Proposal (RSP) focuses on time-sequenced and necessary changes to the existing markets, rather than substantial and structural changes suggested in the earlier draft.

We explicitly support the development of a bid-based flexibility product and encourage the CAISO, as is suggested in the RSP, to acquire this product on a forward basis. We see no reason to delay such discussions to the long term, and encourage the CAISO to implement forward procurement in the 2012-2013 timeframe. We offer several targeted comments on the design and substance of the new product.

Specific Comments:

P28. Calpine agrees that a mid-term, bid-based flexibility product should include DA procurement. This capacity could be co-optimized with energy and other ancillary services

P28. Calpine appreciates the need for the CAISO to use the "ISO's best judgment" to determine the amount of flexi-ramp that it might acquire in the DA markets. While we would prefer that procurement guidelines be objective, Calpine is not concerned with this use of discretion. Indeed, just as with varying amounts of Regulation, temporal differences create varying needs on an hourly basis.

P29. Calpine appreciates the CAISO acknowledgement that one of the "main purposes of the flexi-ramp product" is to avoid "spurious price spikes."

P29. Calpine will not object to reasonable incorporation of Flexi-ramp revenues in bid Cost Recovery calculations.

P30. Our initial view is that delivery time period for flexi-ramp should be 10 minutes. This would most likely allow co-optimization of FR and other A/S on similar terms.

P31. Since FlexiRamp capacity is likely to be dispatched, Calpine agrees that the underlying energy bids must be provided and included in the procurement of FR.

P31. Calpine does not agree, at this point, that energy bids behind awarded FlexiRamp capacity be frozen. Further discussions are needed.

P32. The CAISO offers that it should acquire FR capacity to manage the expected range of real-time variability as represented by a 95 percent confidence level. Calpine believes this confidence level leaves the CAISO markets susceptible to too many “tail” events. Indeed, Calpine agrees with the CAISO at P10, where it says:

“The ISO is keenly interested in identifying and resolving lower probability operating conditions under a 33 percent RPS that will make it difficult for the ISO to balance supply and demand in real time.”

P33. Calpine is not convinced that the CAISO’s proposed approach to allocating the costs of the procurement of a new Flexi-ramp product is appropriate. As the CAISO indicates in 7.2.2.3 of the Revised Straw Proposal, Flexi-ramp would be procured on an ex ante basis based on load and scheduled/forecasted VER generation. In 7.2.2.4 of the Revised Straw Proposal, the CAISO proposes to allocate the costs of Flexi-ramp procurement based on ex post deviations from schedules. The link between the ex ante conditions that will determine the volume of procurement and ex post deviations from schedules is not clear. For example, especially if more granular scheduling for intermittent resources is introduced—as the CAISO has proposed in 7.2.4 of the Revised Straw Proposal, a VER could have a schedule that reflects wide swings within an hour and follow its schedule perfectly but in a manner that still requires the availability of significant amounts of complementary flexible capacity. Relatedly, Flexi-ramp would provide insurance against swings in load and VER generation. If the ex post deviations that Flexi-ramp is designed to accommodate do not materialize, then the costs of Flexi-ramp should not be socialized, as the CAISO proposal effectively implies, but instead should be allocated to the loads and resources associated with the risks that Flexi-ramp is intended to hedge.

P41. Calpine agrees with the CAISO’s identification of the need for long-term price signals to encourage the retention and expansion of the operationally flexible capacity that will be required for renewable integration in 2015 and beyond if not sooner. Consequently, Calpine strongly supports the CAISO’s proposal to begin a stakeholder process this year to develop a long-term forward market for flexible capacity.

Thanks for considering our comments.