

## Western Power Trading Forum comments on Flexible Resource Adequacy Criteria and Must-Offer Obligation Phase Two Supplemental Issue Paper

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WPTF appreciates the opportunity to provide these comments on the ISO's FRAC MOO Phase 2 Supplemental Issue Paper posted on November 8, 2016 and call held on December 9, 2016.

WPTF believes that any FRAC MOO 2 proposal must address the following issues on some level in order to ensure long-term reliability. The proposal must:

1. Address net load ramping requirements.
  - a. Ensure the CAISO has adequate capacity under a must-offer obligation to meet energy market day-ahead and real-time ramping requirements.
  - b. Ensure the CAISO does not lean on reserves or neighboring BAs to meet forecasted ramping requirements.
  - c. Ensure the CAISO does not rely on voluntary real-time bilateral and imbalance markets to meet forecasted ramping requirements.
2. Address any over-generation concerns that cannot be resolved in the energy market and enhance incentives for economic and physical resource flexibility.
  - a. Provide incentives for all resources, including wind and solar, to economically offer into the energy market and make reasonable investments into increasing physical flexibility.<sup>1</sup>
  - b. Provide incentives for all load serving entities to sign contracts that encourage economic offers rather than self-schedules, particularly with imports and renewable resources, and reduce barriers impeding this contracting<sup>2</sup>.
  - c. Provide incentives for entities outside the CAISO to offer flexible decremental RA at the CAISO interties and address seams issues with adjacent transmission service providers for facilitating these transactions<sup>3</sup>.

The first issue is a direct reliability issue. The CAISO must have sufficient capacity at its disposal (ie. firm committed capacity that is contractually obligated to dispatch at the CAISO's request regardless of economics) to meet ramping requirements in order for the grid to operate reliably under normal forecasted daily ramping scenarios. WPTF appreciates the ISO's December 9, 2016 presentation<sup>4</sup> on these issues; however, the discussion raised a number of additional questions:

- The CAISO indicated there may be times in the future when they "drop below acceptable CPS1 levels (i.e. lean on other BAAs for help maintaining system

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<sup>1</sup> Physical flexibility could include lowering start-up times, increasing ramp rates, reducing minimum load, etc.

<sup>2</sup> For example, through the Regional Integration initiative, the CAISO and stakeholders have become more aware of the inefficiencies of the current Maximum Import Capability allocation process and the potential for those inefficiencies to block cost-effective external resources from providing flexible capacity.

<sup>3</sup> This could include reducing or eliminating measured demand charges for certain export transactions if the holistic cost-benefit of doing so was positive for California ratepayers.

<sup>4</sup> <http://www.aiso.com/Documents/AgendaandPresentation-FlexibleResourceAdequacyCriteriaMustOfferObligationPhase2-SupplementalIssuePaper.pdf>

frequency)” and states they wish to “ensure a portfolio of resources is available to mitigate the frequency and magnitude of instances of such violations”. WPTF asks that the CAISO explain how they manage to the NERC CPS1 standard in current operations and clarify what level of “mitigation” they currently find acceptable, as well as what level they would target in the future.

- WPTF requests the CAISO explain how it is able to “lean” on other BAAs given there is an explicit resource sufficiency check in the EIM that prevents the CAISO BAA from importing through the EIM when it fails its capacity test.
- To the extent voluntary bilateral spot market imports made through the day-ahead and intertie fifteen-minute-market are included in the CAISO’s long term forecasted intra-day and intra-hour ability to meet net load ramps, WPTF would like to better understand how the CAISO assesses the “firmness” of these imports on a forward basis when the resources backing these imports are not currently under a flexible RA contract and are not required to submit eTags (i.e. establish a firm physical contract to deliver) prior to the operating hour under current rules.

Exploring these questions and the overall reliability framework associated with managing variable energy resources is critical to being able to develop sensible market design policies and to support adequate contracting with and payment for flexible ramping resources. Given efforts undertaken by the CAISO to bolster system reliability following the September 08, 2011 southwest power outage event, it is critical that the CAISO take all necessary action to ensure future grid reliability in the presence of known and forecastable system conditions and requirements.

The second issue on over-generation is only indirectly a reliability issue. Over-generation can to some extent be addressed through renewable and self-schedule curtailments. Manually intervening in the energy market, however, is inefficient, less reliable, and will lead to increased renewable integration costs. Therefore, WPTF believes the need for incremental ramping capability should be resolved by the flexible RA product requirement and over-generation concerns should be primarily addressed through changes to energy market rules and the overall flexible RA product design.

Finally, the supplemental issue paper does significant amounts of work to define the CAISO’s operational needs and illustrates that the current requirement is not incenting increased flexibility within LSE procurement. Based on this work, WPTF has the following observations:

- It appears that the three hour ramping requirement is insufficient to alter LSE procurement. WPTF supports changing the ramping requirement or resource capacity that count toward the requirement, or both, if it wants a meaningful flexible RA product.
- There are different day-ahead and real-time ramping needs and it might make sense to address these with two separate flexible RA products with different must-offer hours than currently set and different must-offer hours than each other.
- While the decision to base the requirement on net load that included dispatchable renewable resources made sense because of the lack of history of renewables economically offering into the energy market, times have changed. After three years renewable resources are consistently economically offering into the day-ahead and real-time and each Market Performance and Planning Forum the CAISO has shown an increasing amount and percentage of renewable capacity economically offering and

being economically dispatched.<sup>5</sup> LSE's should be encouraged to continue to sign contracts that encourage economic bidding by renewable resources.<sup>6</sup>

- Energy market rule changes will be needed to address over-generation concerns. Anything done with the RA rules will either enforce these rules or provide contrary incentives. Additionally, WPTF supports FRAC MOO holistically assessing the need for flexibility and considering lowering the bid floor or making other simple changes that could increase flexibility at the same time the new flexible RA requirement is implemented.
- The current flexible RA product does not distinguish well enough between flexible resources and therefore is not providing any sort of price signal to the market. WPTF believes that maintaining and incentivizing flexibility from the fleet is imperative to reliably integrating renewable resources and therefore the CAISO should consider modeling the flexible requirement after the local requirement- and have a fixed annual value.

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<sup>5</sup> [http://www.caiso.com/Documents/Agenda-Presentation-MarketPerformance-PlanningForum\\_Sep20\\_2016.pdf](http://www.caiso.com/Documents/Agenda-Presentation-MarketPerformance-PlanningForum_Sep20_2016.pdf), pgs. 33-35.

<sup>6</sup> WPTF strongly disagrees with the CAISO's argument that it doesn't matter what side the renewable resource shows up on- the flexible demand requirement or flexible supply. At the most basic level, renewables' nameplate capacity is included in the demand requirement and renewables' Effective Flexible Capacity is counted as supply, so even assuming every other concern was addressed, there will always be a gap.