

Center for Energy Efficiency and Renewable Technologies
Comments on Flexible Ramping Products
Second Revised Draft Final Proposal
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Submitted by:	Company	Date Submitted
David Miller david@ceert.org 916-340-2638	Center for Energy Efficiency and Renewable Technologies	December 3, 2012

The Center for Energy Efficiency and Renewable Technologies (CEERT) appreciates the opportunity to comment on the CAISO's Flexible Ramping Products Second Revised Draft Final Proposal of October 24, 2012. We commend the CAISO for continuing to make substantive improvements to FRP, but continue to have considerable reservations as to the necessity of introducing this complex new market, especially when the existing flexible ramping constraint could provide much of the same functionality to the grid operator. For this reason, we first and foremost support the CAISO in developing and implementing their FERC order 764 compliance process prior to doing anything more to improve FRP. The faster energy scheduling that will be adopted under FERC Order 764 compliance will increase the efficiency of existing balancing services and may make FRP unnecessary. But perhaps most importantly, CEERT strongly encourages the CAISO to closely examine current self scheduling practices among the IOUs, and to provide a full accounting of the extent of and economic incentives for existing self-scheduling practices. Such an analysis will provide a more complete analysis of the reasons for self-scheduling and mechanisms for extracting more flexibility from the existing generation fleet. It is essential that such an analysis be completed before doing any more to improve FRP.

FRP is designed to ensure that sufficient ramping capability is available to the CAISO to efficiently meet load in real time. The main issue that FRP addresses is not that there is insufficient physical ramping capability in the existing fleet to meet load – that is a separate issue that Long Term Procurement Planning and backstop procurement processes address – but rather that the grid operator does not have the ability to economically dispatch a sufficiently deep stack of existing resources for certain intervals. FRP provides a financial incentive for resources to offer their existing flexible capabilities to the grid operator in real time rather than continuing to self schedule many of these resources.

As the CAISO has developed FRP, many significant improvements have been made to this model. Such improvements taken together will have the effect of increasing the efficiency of FRP procurement. For example, the recent proposal by the Market Surveillance Committee to eliminate the real time capacity bids for FRP will remove a host of competing and inconsistent market incentives; the use of a two settlement system with economic buy back will enable efficient allocation of flexible ramping capability in the day ahead market without compromising the ability of the resource to provide energy in the real time market; eliminating the ability of

regulation to participate as flexible ramping removes a potential double payment; and combining IFM and RUC into a single integrated Day Ahead Market (iDAM) will improve market efficiency by enabling the procurement of flexible ramping capacity in those units needed by RUC through a co-optimized solution. In general, CEERT supports these enhancements to FRP.

Despite and perhaps because of these improvements to FRP, we still have some major concerns: What if FRP becomes so efficient that the potential financial incentives for participating in FRP decrease to the point where there is little benefit to move away from self-scheduling practices? In this case the main rationale behind FRP will have been defeated. Presumably FRP bids reflect true operational costs of providing this service and so the bid price of FRP does not necessarily reflect the system need for this service but rather the operational cost of this service. An FRP offer is essentially an offer to ramp with the capabilities of a given generator - something that has always been provided for free in the past for units that clear the market. So there is very little operational cost for doing this, and an offer of \$0 should be expected for most hours. So if FRP clears at \$0 then it does not provide a meaningful incentive to move away from self-scheduling practices, and if it clears at a higher price then it provides a windfall for doing what an economically bid generator would already be providing. In this case, if FRP procurement becomes so efficient, there may be little economic incentive provided to resources for this service.

FRP is a proposed market mechanism to provide financial incentives or disincentives to resources above and beyond energy payments, existing energy capacity payments or ancillary service charges. Given the uncertainty in the cost this market, and given the uncertainty of participation in this market due to increasing efficiencies in FRP, it may make sense to take a step back and try to examine the underlying problem, namely, why are so many resources within the CAISO dispatch stack engaged in self-scheduling practices? What is the makeup of those resources that engage in self-scheduling across all IOUs? And more specifically, what are the existing economic incentives that prevent these resources from economically participating in the CAISO markets? What would be the threshold of FRP payments that could alter this behavior? CEERT would like to encourage the CAISO to provide a look at the nature of this underlying problem before assuming that this complex FRP product will have the desired effect of incentivizing participation in FRP.

Recently, the CAISO proposed a plan for developing their compliance with FERC Order 764. FERC order 764 encourages markets to provide for 15 minute or faster scheduling. A 15 minute energy market will increase the efficiency of procuring balancing resource, and offering the ability of resources to schedule closer to flow in this new market will also reduce forecast errors, which will have the additional effect of further reducing renewable integration costs. For this reason, CEERT is in full support of first implementing a 15 minute scheduling market before rolling out FRP. Developing this proposed 15 minute market prior to FRP may significantly reduce the need for procurement of ramping capability, and will undoubtedly decrease the overall cost of the FRP market.

CEERT continues to be encouraged by progress being made on the FRP. However, we still have significant reservations about whether FRP will be able to solve the underlying problem associated with excess participation by resources in self-scheduling practices. We are very concerned that the CAISO has to date not adequately examined the underlying cause of excess reliance on self-scheduling practices, and that without understanding the true nature of this problem, FRP or any other complex process may not solve this problem. And if the purpose of FRP is to provide the grid operator with additional flexible ramping capability, then we are unclear why the existing flexible ramping constraint could not be enhanced to include flexible ramping down, thereby providing the same functionality as FRP in a less complex manner. In addition, CEERT still has significant reservations about whether the proposed billing determinant and cost allocation methodology will adversely affect Variable Generation (VG) resources, or whether unforeseen gaming opportunities in this exceedingly complex model could be exploited at great expense to utility customers. We are encouraged by the CAISO moving first towards a 15 minute energy scheduling market as we believe this may reduce the overall costs of obtaining needed operational flexibility, and perhaps make implementation of FRP unnecessary.