

Center for Energy Efficiency and Renewable Technologies
Comments on CAISO Flexible Ramping Products
Revised Draft Final Proposal, August 9, 2012

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The Center for Energy Efficiency and Renewable Technologies (CEERT) appreciates the opportunity to comment on the CAISO's Flexible Ramping Products Revised Draft Final Proposal of August 9, 2012. CEERT appreciates the prodigious effort put into development of this product by the CAISO, and would like to commend the CAISO for several key improvements to this latest iteration.

CEERT considers the CAISO proposal to include real-time self schedules in the fixed ramp category to be a major product improvement. Including real-time self schedules into the fixed ramp category not only provides a more realistic and holistic accounting of the respective system costs incurred by the various market participants, but more importantly, potentially creates a significant disincentive for self scheduling. As our prior comments have reflected, CEERT has significant concerns that self scheduling significantly reduces the overall flexibility of the generation fleet, and excessive reliance on self scheduling in the CAISO market represents a primary cause of the problem that the Flexible Ramping Product (FRP) is in fact designed to address. So while we are still concerned with the need for such a complex and potentially risky product (see comments below), CEERT appreciates that the development of FRP is moving in a direction that will help address some of the deficiencies of the existing CAISO market. Moreover, the addition of a "dispatchability flag" as proposed by the CAISO at a recent CPUC RA workshop¹ to classify RA resources would prevent resources from being able to self schedule if they also wanted to participate in FRP. Such a classification of RA resources and alignment with the FRP market mechanism clearly differentiates the value of those resources willing and able to provide flexibility to the CAISO system operator, and provides a mechanism by which to value such resources. And while we still have concerns that resources receiving RA capacity payments may be 'double dipping' by also receiving payments through FRP for the conventional and flexible capacity they provide to the system, respectively, the addition of this tag and alignment with the FRP market will provide a more transparent market mechanism that can be used to value these resources.

¹ R.11-10-023: RA Flexibility Workshop Flexible Capacity Procurement Proposal, presented by the Mark Rothleder, John Goodin and Karl Meeusen of the CAISO to the CPUC, August 13, 2012

CEERT is also encouraged by the addition of a mechanism to allow PIRP resources to participate in FRP by providing flexible ramping down capacity. Providing VERs with the ability to provide flexible ramping down acknowledges the role that effective and judicious use of curtailment can provide to the grid operator. However we are still concerned that the underlying problem associated with the participation of VERs in the CAISO's wholesale market is still not being addressed. Specifically, in order to economically bid into HASP, bids must be submitted 75 minutes before flow, which introduces unacceptable forecast error and the resulting Uninstructed Imbalance Energy (UIE) charges to VER resources. It is precisely this problem that PIRP is intended to address. Furthermore, binding FRP charges are based on bids submitted 37.5 minutes prior to the binding RTPD interval. While less onerous than the 75 minute forecast error resulting from economic HASP bids, the 37.5 minute FRP forecast error is still significantly larger, than, for example, the forecast error introduced by MISO's Dispatchable Intermittent Resource (DIR) program,² which has the ability to modify the binding schedule 10 minutes before flow. While we recognize the significant complexities within the CAISO market, we are curious why MISO is able to provide the capability to VERs to schedule so much closer to flow than the CAISO market. We look forward to seeing how the CAISO intends to comply with the 15 minutes scheduling requirement associated with the FERC Integration of Renewable Resources rulemaking, and hope that this results in providing VERs with the ability to schedule significantly closer to flow than is currently the case. Such a solution would not only obviate the need for PIRP, but would also provide significant additional opportunities for VERs to more effectively participate in the CAISO markets.

While we are encouraged by these significant improvements to the proposed FRP model, we still have significant concerns about the manner in which cost allocation may be implemented. Given the complexity of this model, specifically, given the manner in which myriad conversions can occur between flexible ramping, energy and other ancillary service products on multiple time scales, and given the complexities of choosing appropriate billing determinants for the respective categories, it is not unlikely that unforeseen arbitrage or overpayment mechanisms may still exist in the proposed cost allocation scheme that the CAISO has not yet considered. And it is practically guaranteed that any arbitrage opportunities that may exist will be exploited.

In particular, we believe that use of schedule deviations as the billing determinant for FRP allocation is not appropriate. We understand the benefit of accurate forecasting in removing uncertainty surrounding future dispatch periods and thus reducing the need for the CAISO to hold operating reserves. However that is only a portion of the problem that drives system need for FRP. Using this billing determinant presumes that perfect forecasting is *the* answer or that resources that perfectly forecast do not contribute to need for system ramp response. Clearly this is not the case. Although CEERT does not have a specific proposal for an alternate billing determinant at this time, it urges more thought and deliberation before adopting one which is at odds with the Cost Causation principles recently adopted by the CAISO Board.

² See

<https://www.midwestiso.org/Library/Repository/Meeting%20Material/Stakeholder/MS/2011/20110301/20110301%20MS/2011a%20DIR%20Implementation%20Update.pdf>

Because of the complexities of the FRP market and in particular, the challenges in developing the appropriate and efficient billing determinants, CEERT continues to urge caution in implementation of this model. Because of the inherent complexity of this model, CEERT strongly suggests that the CAISO take at least one full year to implement this model *without applying the cost allocation mechanism*, but rather simply assessing FRP costs to load. Such a 'breaking in' period will allow the CAISO as well as market participants the opportunity to 'kick the tires' and to develop confidence in and assurance that this model is in fact providing the CAISO with the right set of tools to manage ramping needs, and analyze the effects of various billing determinants on cost allocation.

Both the inclusion of real-time self schedules in the fixed ramp category and providing a mechanism for PIRP resources to participate in FRP reflect major improvements in the FRP model, and CEERT commends the CAISO for making these additions. Such improvements provide a strong disincentive for self scheduling thereby increasing overall grid flexibility, and encourage the judicious use of VER curtailment to manage oversupply conditions, respectively. However, CEERT still has significant reservations about the possibility of gaming this new and incredibly complex market product, and strongly suggests that if and when this market becomes operational, the CAISO considers delaying the implementation of any cost allocation mechanisms for at least one year while experience is gained by all market participants in the use of this new product.