BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Oversee The Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local Procurement Obligations.

Rulemaking 11-10-023 (Filed October 20, 2011)

COMMENTS OF THE CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON ENERGY DIVISION WORKSHOP REPORT

April 11, 2012

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Pursuant to the Administrative Law Judge's (ALJ's) Ruling issued in this proceeding on March 23, 2012 (March 23 ALJ's Ruling), the Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Comments on the Energy Division Resource Adequacy (RA) Workshop Report attached to that ruling. These Comments are filed and served pursuant to the Commission's Rules of Practice and Procedure, the March 23 ALJ's Ruling, and the ALJ's Ruling of March 30, 2012, sent by electronic mail to the service list, extending the due date for these Comments to April 11, 2012.

I. CEERT POSITION ON ENERGY DIVISION AND CAISO PROPOSALS

The March 23 ALJ's Ruling offers parties the opportunity to comment on the Energy Division's Workshop Report for Resource Adequacy workshops held on January 26 – 27, 2012 ("Workshop Report"). Parties are also permitted to address "all topics addressed in presentations and/or in the transcripts of the January workshops."

In the Workshop Report, the Energy Division not only summarizes the presentations and discussions at the January workshops, but also proposes additional modifications to the manner in which RA requirements should be defined in order to reliably serve net load (load minus Variable Energy Resource (VER) generation). CEERT has reviewed these proposals and is

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¹ March 23 ALJ's Ruling, at pp. 1-2.

encouraged to see significant progress being made by Energy Division staff in developing a revised Maximum Cumulative Capacity (MCC) bucket structure that may provide the proper allocation of resources to the CAISO in order to reliably serve load. For CEERT, this proposal is consistent with the policy framework for the RA program, as stated by the Workshop Report as follows:

"The policy framework of the CPUC's Resource Adequacy program guides resource procurement by requiring that Load Serving Entities (LSEs) procure capacity so that it is available to the CAISO when and where needed."²

The CAISO has also made certain proposals that it states are required because "[f]lexible capacity must support ISO operational needs and align with existing market structures." While CEERT clearly recognizes the need to ensure sufficient flexible capacity is available to the CAISO in order to reliably serve load, CEERT has significant concerns with the nature of the market structures to which the CAISO refers. Such market structures include the Flexible Ramping Product (FRP) recently proposed by the CAISO, as well as the associated backstop procurement. It is CEERT's position that the CAISO's approach, reflected in its new, proposed FRP, does not solve the real problem of ensuring that sufficient flexible ramping capacity is available to serve load and, instead, represents the opportunity to extract a double payment from California utility customers for a service for which they are already paying.

CEERT has specifically voiced these concerns in its comments to the CAISO on its

Flexible Ramping Capacity Cost Allocation initiative. Given the relevance of those comments

here, CEERT restates those comments in part as follows:

"CEERT does not believe that the CAISO has sufficiently demonstrated the need for the FRP. California utility customers already pay a significant premium to

http://www.caiso.com/Documents/DraftFinalProposal-FlexibleRampingProduct.pdf

² Workshop Report, at p.5

³ CAISO Flexible Capacity Requirement, CAISO Presentation to CPUC RA Workshop, March 30, 2012, at p. 3.

⁴ CAISO Flexible Ramping Products (Draft Final Proposal (April 9, 2012)

generation resources in the form of capacity payments. The purpose of these capacity payments is to ensure that sufficient resources are available in real time to reliably serve load. The costs associated with the proposed FRP will not reduce existing capacity payments, but may instead represent an additional premium that will ultimately be borne by utility customers. CEERT has significant concerns that costs associated with the FRP are not easily calculated and in fact will not be known until after the FRP market is operational. FRP is a brand new product that has never been tested or even simulated, so the charges that such a market will incur are completely unknown at this time. In addition, the uncertainty and risk that these additional costs will add to the procurement of VERs will not only impede development of new resources but will greatly increase system costs that will ultimately be paid by utility customers. Existing Power Purchase Agreements (PPAs) will also be exposed to ex post costs that may compromise original contractual terms. We also have grave concerns that given its significant complexity, the FRP will be vulnerable to gaming opportunities or unintended consequences that will expose developers and utility customers to additional and unacceptable risk."5

While CEERT recognizes the need for the CAISO to manage the increasing variability of net load as VER penetration increases, CEERT does not believe that the CAISO has demonstrated that its proposed FRP is responsive or appropriate to that need. The problem in real-time is not a shortage of dispatchable resources, but a thin, real-time dispatch stack caused by self-scheduling of otherwise dispatchable resources. FRP does nothing to reduce the incentive for dispatchable resources to self-schedule. In fact, it could actually increase self-scheduling by encouraging "withholding" of capacity by generators in pre-dispatch, with the intent of offering that capacity in real-time in order to be paid a premium to solve a problem (lack of capacity) that the generators created in the first place.

While the CAISO's FRP is not the answer, the Energy Division's proposed approach does appear to offer an adequate mechanism for ensuring sufficient resources are available to the CAISO in real time to meet load *if* resources receiving RA payments are also required to

⁵ CEERT Comments on the California ISO Cost Allocation Guiding Principles, Draft Final Proposal and the Flexible Ramping Product Cost Allocation, Straw Proposal of March 19, 2012, at p. 1.

economically dispatch in the CAISO markets. On this point, the following portion of CEERT's comments on the CAISO's FRP is also relevant:

"Within the CAISO BA, only around 10% of all energy products are economically bid into the market. Therefore there is not a robust 5 minute dispatch stack to serve load. It might therefore be argued that the CAISO has been compelled to develop a more complex market structure (Real Time Pre Dispatch – RTPD) precisely because of its shallow dispatch stack. Why not instead just develop a deeper 5 minute dispatch stack based on capacity that utility customers are already paying for? For example, if resources accepting capacity payments were required to bid economically, then there would be a much deeper 5 minute dispatch stack that could potentially manage grid variability more efficiently than an FRP. Clearly the CPUC's RA and LTPP processes will need to evolve in conjunction with ongoing modeling efforts by the CAISO in order to ensure an evolving generation stack with the appropriate operational characteristics. And naturally, as VER penetration increases, and as demand side management resources mature, the fleet of resources and the nature of these capacity payments could co-evolve. And unlike FRP, such a system is significantly less complex and hence more transparent. As ramping needs evolve, so too will our understanding of the grid and our ability to ensure that such operational characteristics show up in real time, with transparent payment for such services. We invoke Occam's razor here: Why develop a complex solution such as the FRP with its concomitant cost, uncertainty and lack of transparency when a simpler and highly functional energy service market, with some form of the FRC enhancement to handle those rare 'extreme ramping events,' already exists?"6

Moreover:

"...a modified and integrated Resource Adequacy (RA) and Long Term Procurement Process (LTPP) at the California Public Utilities Commission (CPUC) will serve the same function with less complexity and with reduced cost and risk. We therefore question the very need for the FRP product. The CAISO needs to clearly demonstrate the need for the FRP and provide realistic estimates of expected costs and uncertainties in procurement and utility customer exposure before continuing in the development of this new market product."⁷

Because of the importance of ensuring sufficient resources are available to serve load, the Commission's RA process must be coordinated not only with its LTPP proceeding, but also with CAISO forecasted needs. Without a multi-year coordination among these various processes, the risk that resources will be insufficient to meet load may increase and may lead to the CAISO

⁶ <u>Id</u>., at p. 2 ⁷ <u>Id</u>., at p. 2

invoking its flexible ramping backstop procurement. Such an eventuality would represent a failure of the overall RA process, with the cost and consequences of such a failure being borne by utility customers. This is not an acceptable outcome of this process.

CEERT also supports the Energy Division's proposal to include demand response (DR) resources in the new MCC buckets. A procurement process designed to incentivize development of retail and wholesale DR resources furthers the Commission's "loading order," which starts with a preference for cost-effective energy efficiency and DR resources before procurement of generation resources.

In fact, on that point, CEERT believes that energy efficiency resources should also be incorporated into the MCC buckets. If the purpose of the RA process is to incentivize development of resources to meet load, then energy efficiency, like demand response, certainly can meet this requirement, and both should be incentivized to do so through appropriate capacity payments. Again, such an approach is not only consistent with and furthers the "loading order," but also ensures that load will be met in an environmentally preferred, least cost manner to the benefit of California energy consumers.

CEERT does note that the Energy Division's proposal may require further refinement. The granularity of the operational characteristics defining the various buckets and the size of the buckets will undoubtedly have to be adjusted based on experience. It is entirely possible that other disincentives for dispatchable resources to self-schedule will have to be adopted. If the inherent flexibility is built into the surge of replacement resources that will be constructed over the next few years, there will be time to make these adjustments. However, it is imperative that at least the architecture of the ultimate solution be decided soon and that these criteria be applied in California Energy Commission (CEC) siting decisions.

Although there may be time to address and design real-time operational details, near-term work is required to provide a comprehensive approach to RA reform. In particular, while the CAISO is developing a framework for classifying its flexible ramping needs using a system with three buckets, the Commission is using four buckets. Specifically, the CAISO defines its flexible ramping capacity requirements in terms of a maximum continuous ramping (over multiple hour timescales), load following (over 10 minute timescale), and regulation (over second timescales), while the Commission's bucket structure is based on whether a resource is dispatchable or not, as well as on the resource's contractual hours of operation (broken into two possibilities).

Clearly, the two approaches have the same purpose, namely to quantify the operational characteristics of resources needed to reliably serve load. However, the Commission's approach is designed for planning and procurement of resources, while the CAISO's approach is more suitable for operational purposes. CEERT recommends that the Commission and the CAISO work together to reconcile and unify these two approaches and to do so as part of this proceeding.

II. CONCLUSION

For the above reasons CEERT supports the Energy Division's proposal to modify the RA process to incorporate Energy Division's proposed MCC bucket structure, subject to revision by CAISO input. CEERT also encourages the Commission to develop a multi-year, forward-looking RA approach that is coordinated with its LTPP proceeding and can also be modified as CAISO requirements and forecasting experience evolve. Such an approach will provide a transparent and efficient basis for ensuring resource adequacy and, if resources receiving RA

payments are required to economically bid into the CAISO market, enable the CAISO to meet load reliably without the need for its proposed FRP.

Respectfully submitted,

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