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.	R.11-10-023 (Filed October 20, 2011)

COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON RESOURCE ADEQUACY AND FLEXIBLE CAPACITY PROCUREMENT JOINT PARTIES' PROPOSAL

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Pursuant to the December 6, 2012 Phase 2 Scoping Memo and Ruling of Assigned Commission and Administrative Law Judge (Scoping Memo and Ruling), with revised filing date issued by Administrative Law Judge (ALJ) Gamson in an email ruling dated December 19, 2012, the Division of Ratepayer Advocates (DRA) submits these comments on the "Resource Adequacy and Flexible Capacity Procurement Joint Parties' Proposal" (hereinafter "JPP," found at Scoping Memo and Ruling, Attachment A). Specifically, DRA's comments address the Scoping Memo and Ruling's "Questions on the Joint Parties' Proposal" (Scoping Memo and Ruling, Attachment B).[1] DRA's comments address only some of the 17 questions set forth in Scoping Memo and Ruling, Attachment B.

I. DISCUSSION

A. Reliability Risks

1. What is/are the most critical grid reliability risk/risks that should be evaluated and managed through the flexible capacity procurement initiative?

[1] The Joint Parties' Proposal was submitted by the California Independent System Operator (CAISO), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) (collectively, the Joint Parties). (See Joint Parties' Proposal, p. 3.)

A number of interacting policy goals have the potential to create reliability risks to California's electricity grid. The mix of renewable resources used to achieve the 33% Renewable Portfolio Standard (RPS) goal will have an impact on the magnitude of the potential flexible requirement set by this initiative. The decisions of generators to retire or retrofit power plants that use once-through cooling (OTC) technology will impact the pool of resources which can be used to balance the intermittency of renewable resources. However, how the RPS goal and OTC retirements will impact the reliability of California's electricity grid is uncertain. The assumptions of what the RPS resource mix will be and which OTC plants choose to retire, as well as the assumptions about load growth and the attainment of energy efficiency goals will have a significant impact on whether California will have any additional need for ramping in the next decade.[2] A critical risk that should be managed through the flexible capacity procurement initiative is the potential for all of these assumptions to underestimate or overestimate the need for flexibility. However, DRA recognizes that now is the time to start developing a framework for a flexible capacity product. It is necessary to get this framework right in order to have a developed flexible capacity market by the time it is truly needed.

2. ***This proposal attempts to address reliability risk by recommending that the CPUC establish a monthly interim flexible capacity obligation that is based on the ISO's identified flexible capacity needs.***

   a. ***Identify the key tasks required to implement this proposal. Propose the order in which they should be addressed, and discuss whether they should be taken up simultaneously or sequentially.***

No comment at this time.

   b. ***Can the difference between load and net-load be met partially by introducing curtailment provisions in renewable contracts (particularly solar resources)? What are the implications of doing so?***

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[2] http://www.caiso.com/Documents/Summary_PreliminaryResults_33PercentRenewableIntegrationStudy_2010CPUCLongTermProcurementPlanDocketNo_R_10-05-006.pdf, slide 27.

It is possible that renewable curtailment could provide a low cost method to reduce ramping constraints. By curtailing intermittent resources in anticipation of a decline of their production, such as when the sun sets and solar production declines, the ramping requirements of the electricity grid could be lessened due to the reduction in the upward slope of the ramping need over time. However, this option should be investigated within the Operational Flexibility study that is taking place in the Long Term Procurement Plan (LTPP) proceeding.[3] We must first determine the potential costs of this approach, by co-optimizing the amount of curtailment that would reduce ramping needs while at the same time limiting the impact of curtailment on investor-owned utility (IOU) RPS compliance. If renewable curtailment is not considered within the Operational Flexibility study as part of the LTPP, then it should be investigated as part of the current Resource Adequacy (RA) proceeding (Rulemaking (R.) 11-10-023).

c. What are other options to alleviate the underlying reliability risk(s) (e.g. modified bidding behavior, incentives within procurement programs to procure resources that reduce identified reliability risks)? What are the benefits and drawbacks of addressing reliability risk by developing a flexible capacity obligation for LSEs relative to the alternatives?

DRA concurs with the Joint Parties that the reliability risks to the grid should be minimized.[4] The data, noted in the JPP, points to changing load patterns as increasing the amount of renewable energy that needs to be integrated into the grid.[5] Prudent planning requires an examination of the specific capacity attributes that will be needed, as well as the timing and amount of these specific attributes. The JPP calls for new LSE obligations to purchase capacity with flexible attributes. However, the JPP provides no analysis of alternative solutions which may provide or reduce the need for flexible capacity.

This question seeks an exploration of alternatives to LSEs' flexible capacity obligations, and draws specific attention to the possibilities of exploring modified bidding

[3] http://docs.cpuc.ca.gov/efile/RULC/166780.pdf, LTPP 2012 Scoping Memo, pg. 10.

[4] Joint Parties' Proposal, p. 3

[5] Joint Parties' Proposal, p. 8

behaviors and incentives. DRA encourages full consideration of alternatives that may provide reduced reliability risks in more efficient or cost-effective ways. According to data in the JPP, a significant need for flexible capacity is not projected to occur prior to 2015.[6] Without an urgent need for compelling flexible capacity requirements in 2014, all reasonable options should be vetted in the stakeholder processes. The Operational Flexibility modeling effort will help clarify flexibility needs and timing. The study results from this modeling effort are scheduled to be released later in 2013. Additionally in 2013, both distributed generation and energy storage proceedings will continue and thereby offer updated information for stakeholder consideration in the RA proceeding. Alternate approaches to mandated LSE requirements, including consideration of the preferred resources' abilities to reduce load and provide flexible capacity, should be fully vetted in stakeholder processes.

d. In addition to addressing reliability risk, does the flexible capacity obligation have other market impacts?

No comment at this time.

e. How does this type of proposal, as compared to others, satisfy the Guiding Principles as set forth in the August workshop? (See Draft Guiding Principles in the Appendix to these questions)

Guiding Principle (GP) #10 includes a statement that the resource mix should result in the type and location of resources needed to provide grid reliability.[7] The issue of location should be clarified since the CAISO has stated at prior workshops that location is not an issue for flexible resources which serve to maintain system grid reliability.

B. Interim RA solution (Section 2)

3. The proposed flexibility procurement initiative institutes an interim RA solution for 2014-2017. What are the anticipated impacts of an interim approach on resource adequacy contracts? What factors should the CPUC consider in deciding whether an interim approach is appropriate?

[6] Joint Parties' Proposal, p. 8

[7] http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M031/K723/31723210.PDF, Attachment B, p. 6.

The interim JPP presents many potential issues, which the Joint Parties acknowledge will require further stakeholder processes to resolve.[8] Prior to adoption of this interim proposal, more information should be provided to parties, including all of the data and assumptions used in developing the proposal, potential cost impacts related to LSE procurement, market power mitigation measures required and their associated costs, estimated costs associated with modifying existing contracts, and an assessment of the ability of LSEs to readily contract with flexible providers in a way that benefits ratepayers.

Interim proposals have a tendency to make it difficult to install a significantly different approach at a later date. It will be very difficult for both LSEs and resource providers to enter into contractual agreements for capacity attributes and quantities which may be modified in only a few years. The impacts of regulatory uncertainty which naturally occur with interim policies may override the benefits of the simple patch in the interim proposal, and may therefore hinder rather than benefit the evolution of a permanent solution.

4. Should the flexible capacity start in 2014? Explain why or why not.

The data provided in the proposal indicates that the net load curve, which drives the need for flexibility requirements, is not predicted to deviate significantly until 2015.[9] In various forums,[10] the CAISO has indicated that it wants to use the 2014 RA compliance period as a way to make sure the program can be running effectively when needed in future years. Instead, it may be reasonable to spend more time getting the initial process improved and begin a flexible capacity program in 2015, rather than initiating a potentially flawed proposal for 2014. Ratepayers should not have to pay for excess flexible capacity in years in which it is not needed to balance the grid.

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[8] Joint Parties' Proposal, p. 5, 11, 24, 25

[9] See Joint Parties' Proposal, p. 4-5. ("As shown in Figure 1, the ISO will be managing a very different net load curve as soon as 2015….")

[10] CAISO comments during the December 20, 2012 conference call on Flexible Resource Adequacy Criteria are the most recent statement of this position.

C. Development of Eligibility and Needs Methodology (Section 3.1 and Section 3.2)

7. What process(es) or proceeding should be used to calculate capacity flexibility needs as load and supply change over time?

a. Currently the annual LCR process results in a determination of local capacity needs on an annual basis. Should flexible capacity needs be included within the LCR process, or should a separate but similar process be established to update flexible capacity needs? Please explain.

b. Who should determine flexibility needs annually– the ISO or some other third party?

Flexible capacity requirements should be integrated into the CPUC's year-ahead RA proceeding. Given that the annual Local Capacity Requirements (LCR) process is an integral part of the RA proceeding, it would be more efficient for the stakeholders if the flexible capacity requirements are incorporated into the LCR process rather than a separate process. Moreover, there is a potential overlap between the LCR process and the JPP regarding the impact of operational contingencies on grid reliability. The impact of contingencies on grid reliability is studied by the CAISO in the power flow assessments under the Local Capacity Technical Analysis, with results adopted as the LCR. Given these reasons, DRA recommends that a new flexible capacity process be incorporated into the CAISO's annual LCR study. At the same time, it is important to keep separate the assumptions used for LCR and those used for flexible capacity requirements. For example, a LCR study uses a 1-in-10 year summer peak load forecast, while the JPP suggests that "the ISO will determine the multi-hour ramp need using a 1-in-2 year load forecast and estimate the largest ramping need for each month."[11] DRA suggests that the interim flexible capacity requirements be determined by CAISO annually in an open stakeholder process, similar to the CAISO's LCT process, subject to CPUC's adoption in its annual RA proceeding. CAISO should be the place where flexible capacity requirements are determined, as CAISO has the resources necessary to conduct the study.

[11] http://www.caiso.com/Documents/ResourceAdequacyFlexibleCapacityProcurementJointParties Proposal-10-29-2012.pdf pg. 8.

All processes involving flexible capacity needs and requirements should be fully transparent to stakeholders.

D. Allocation of Flexible Capacity Requirements (Section 3.3 and Section 3.4)

8. The proposal recommends the CPUC allocate flexible capacity procurement obligations to LSEs based on each LSE's relative share of monthly system peak. Is this a suitable approach? Explain why or why not.

a. What other alternatives exist within CPUC jurisdiction that allows LSEs to demonstrate compliance of flexible capacity obligations? Please discuss the relative costs and benefits of different approaches. (Section 3.3)

Ideally, flexible capacity procurement obligations would be based on cost causation principles. A goal for this initiative should be to attempt to create incentives for existing resources to reduce their inflexibility and market signals for new resources to design products that will minimize variability. LSEs could also have incentives to procure resources that minimize variability and reduce ramping needs.

In the absence of a rigorous method to determine how much each resource contributes to the need for additional flexibility, the suggested use of the LSE's contribution to the system peak is an acceptable temporary solution. Any temporary solution adopted should sunset so that work to address cost causation will continue.

G. Flexible Counting Conventions (Section 5.3.2)

14. Joint parties evaluated three options for counting how a resource's flexible capacity quantity would satisfy a flexible capacity procurement obligation. The three options are: 1) Pro-rata Option: Pro-rata sharing of flexible and generic capacity; 2) Differentiated Capacity Option: Distinguish flexible capacity from generic capacity; and 3) Count-all Option: Count all capacity from "dispatchable" generators as flexible.

a. Which option do you think is better and why? (Section 5.3.2)

DRA supports the "Differentiated Capacity Option" as defined in the JPP is the most desirable Flexible Capacity convention.[12] While we agree that flexible capacity and

[12] Joint Parties' Proposal, p. 15.

generic capacity should be bundled, the capacity from Pmin to NQC must be distinguished and compensated differently when compared generic capacity. Without distinguishing between flexible capacity and generic capacity, ratepayers would be subject to the possibility of paying for flexible capacity that is generic capacity. Consequently, DRA opposes both the "Pro-rata" option and the "Count-all" option, as the application of these methods could result in over-procurement of flexible resources.

b. What would the impact(s) be on RA contracting for each approach?

No comment at this time.

c. What would be the impact of each approach on different types of resources, and particularly on preferred resources?

No comment at this time.

15. Please comment on the proposed counting conventions for –

a. Non-use limited thermal resources (Section 5.3.3.1)

i. The proposal states that resources with start-up times greater than 90 minutes would be eligible to offer flexible capacity between PMin and NQC. Is 90 minutes an accurate threshold for startup time? What resources would be at an advantage or disadvantage if this threshold was adopted?

No comment at this time.

ii. What would be the impact on flexible generators with slightly longer startup time (120 minutes – 180 minutes)?

No comment at this time.

b. Use-limited thermal resources (Section 5.3.3.3)

No comment at this time.

c. Multi-stage generation resources (Section 5.3.3.2)

No comment at this time.

d. Hydro resources (Section 5.4)

i. The ISO and SDG&E recommend that the ISO establish a baseline output for hydro resources using the average hydro

output over the previous five years. Is using an average output appropriate and what are the other approaches that can be adopted to calculate tis value?

The potential flexibility of hydro resources should be based on a forward-looking perspective. In light of climate change effects, which are now incorporated into the California Energy Commission's load forecast, a determination of the impact of climate change on hydro production and some sort of climate change adjustment seems prudent.[13]

e. Intertie resources (Section 5.5)

No comment at this time.

f. Any other resources for which counting conventions should be developed.

No comment at this time.

17. Should there be different qualitative and quantitative metrics of flexibility for demand response and storage resources?

a. Is so, what characteristics or criteria could be used to quantify flexibility for storage devices and demand response?

At this time, DRA does not have any suggestions about different metrics to use for demand response or energy storage, as those resources have unique ongoing proceedings that attempt to determine accurate metrics for cost effectiveness, which do or should include potential flexibility benefits.[14] However, as we transition to a low-carbon future, it is important to promote the participation of these resources in contributing towards addressing flexible capacity requirements. Requirements created in this proposal could serve as barriers to entry for these resource types, due to the nature of using metrics to determine eligibility that are based on technical terms which apply to conventional generation such as PMin and Net Qualify Capacity.

[13] See http://www.energy.ca.gov/business_meetings/2012_packets/2012-06-13/2012-06-13_Item_03_California_Energy_Demand_Forecast/CEC-200-2012-001-SF-V1.pdf, pg. 7.

[14] R.09-11-014; R.10-12-007.

b. What demand response programs or types are most suitable for flexible resource eligibility?

No comment at this time.

II. CONCLUSION

For the reasons discussed above, the Commission should adopt the recommendations presented in these comments.

Respectfully submitted,

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