

**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)	Rulemaking 11-10-023
Local Procurement Obligations.)	
_____)	

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
REPLY COMMENTS ON PHASE 1 WORKSHOP ISSUES**

In accordance with the Phase 1 Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge (“Scoping Memo”) dated December 27, 2011, the Administrative Law Judge’s Ruling Seeking Comment dated March 23, 2012, and the extension of time for filing comments discussed at the workshop and granted by the Administrative Law Judge on March 30, 2012, the California Independent System Operator Corporation (“ISO”) respectfully submits to the California Public Utilities Commission (“Commission” or “CPUC”) its reply to the comments filed by other parties on the resource adequacy issues designated by the Scoping Memo to be addressed in Phase 1 of this proceeding and the proposals discussed at the workshops held on January 26 and 27, 2012 and March 30, 2012.

I. SUMMARY

The ISO’s initial comments in this proceeding focused on the ISO’s flexible capacity proposal and the need for the Commission to modify the resource adequacy program to ensure that the ISO has sufficient flexible capacity available to manage the operational needs and maintain the reliability of the electric grid as it undergoes

significant transformation. Many of the comments by the other parties acknowledge that the electric system transformation is occurring and agree that the resource adequacy program should be modified to reflect the evolving characteristics and needs of the grid. Where the comments diverge, however, is over the timing in which the changes should be considered and implemented.

As discussed in these reply comments, it is imperative that the Commission act now and adopt the ISO's proposal in this proceeding to create the framework for incorporating flexible capacity into the resource adequacy program. Specifically, the ISO recommends that the Commission:

- Approve the ISO's three flexible capacity categories and the advisory targets the ISO has proposed for 2013;
- Find that either a companion track or new resource adequacy proceeding should be launched in Summer 2012 to directly address the nature and implementation of a flexible capacity requirement for resource adequacy compliance year 2014; and
- Require that load-serving entities show all resource adequacy resources procured at the 90% level for each of the twelve months of 2013.

There is nothing in the comments of the other parties that should dissuade the Commission from taking these initial crucial steps to accommodate the increasing integration of renewable resources and maintain the reliability of the grid in the future. Failing to act now could leave the ISO short on flexible capacity when it is needed.

The ISO's reply comments additionally discuss several issues and arguments raised in the other parties' comments, as follows:

- TURN's suggestion that the Commission conduct an assessment of the system flexibility requirements should be rejected in favor of the Commission and the ISO continuing to work collaboratively in determining and understanding what the reliability needs are of the ISO controlled grid.
- AReM is incorrect that a twelve-month showing is unnecessary. The twelve-month showing is required so that the ISO and CPUC can begin to appropriately assess the fleet's flexible capability for the future design and planning needs for the resource adequacy program.
- Contrary to the argument of AReM and EnerNOC, flexible capacity should be procured as resource adequacy capacity, not ancillary service capacity.
- CLECA is mistaken that the ISO can plan on the availability and participation from non-resource adequacy resources for flexibility needs. The ISO cannot reasonably rely on non-resource adequacy resources that have no obligation to bid or be available to the ISO.
- CLECA misunderstands that resource adequacy and its associated capacity payment are distinctly different from the capacity payments earned in the ISO market for the sale of ancillary services.
- The CPUC rounding convention should be changed to match the ISO's methodology that calculates the resource adequacy obligation of each load serving entity to the second decimal place without rounding.
- The Commission should deny CAC's request that the net qualifying capacity of combined heat and power resources be based on deliveries during system peak hours, excluding weekends and holidays.

II. FLEXIBLE CAPACITY PROCUREMENT

A. Address Flexible Capacity Now

The ISO's initial comments in this proceeding stressed the need for the Commission to modify the resource adequacy program to ensure that the ISO has sufficient flexible capacity available to manage the operational needs and maintain the reliability of the electric grid as it undergoes significant transformation. The once-through-cooling policy will likely reduce the number of flexible resources. Intermittent resource additions will displace flexible capacity in meeting resource adequacy obligations. As more energy is provided by renewable resources, the revenue stream for traditional, flexible resources will be diminished and those resources may retire prematurely, or forego planned maintenance or equipment improvements due to revenue insufficiency, unless there are enhancements to the resource adequacy program.

Many of the parties to this proceeding acknowledge that this transformation is occurring and agree that change to the resource adequacy program is needed. For example, the comments of Pacific Gas and Electric Company ("PG&E") state that "[t]he current planning reserve margin framework, standing, alone, can no longer be viewed as adequate to ensure CAISO system reliability on an operating basis. Integration of generation from intermittent renewable sources of power will require that some amount of "flexible capacity" be available to the CAISO grid in order for the CAISO to operate it reliably."¹ San Diego Gas & Electric Company ("SDG&E") recommends structural reform of the resource adequacy program that includes a goal to "generate sufficient

¹ PG&E Post-Workshop Comments, p. 3.

long-term (i.e., multi-year) resource certainty for the CAISO, including the procurement of resources with “flexible” operating attributes....”² The comments of the Independent Energy Producers Association (“IEP”) argue that “[t]he current annual approach to RA requirements is insufficient to develop new flexible resources to meet increasing variability of the system or to maintain existing resources that require longer-term commitments to justify upgrades to increase their ability to operate flexibly in response to the needs the CAISO has identified . In short, the evolving needs of the California grid require a multi-year forward, flexible capacity assessment and a forward procurement obligation.”³ The Division of Ratepayer Advocates (“DRA”) also recognizes that “the electric system is rapidly evolving, including consideration of issues such as increasing renewable penetration, Once Through Cooling retirements, and the expansion of Distributed Generation.”⁴

Despite widespread recognition of the challenges involved in successfully transforming California’s electric system to a green and more diverse energy supply portfolio, some parties prefer that the Commission defer consideration of resource adequacy reform, rather than begin to put the framework in place that is needed to maintain flexible capacity. The ISO disagrees with deferring this matter.

As the system operator for a majority of the state, the ISO is responsible for maintaining grid reliability and doing so in a cost-effective manner. This is increasingly difficult given the significant transformation that the electricity grid is undergoing. In order to fulfill this responsibility, the ISO’s analysis shows that significant quantities of flexible capacity are needed in the resource fleet to respond to changing grid conditions.

² SDG&E Opening Comments, p. 2.

³ Comments of IEP, p.3.

⁴ Comments of DRA, p.6.

The ISO has presented a proposal to address this transformation that is derived from actual data, is needs based, and is reasonable. The ISO has provided reports on the integration of renewable resources on its website and in CPUC proceedings which clearly demonstrate an increased need for flexible resources as more intermittent renewable resources are interconnected. Additionally, California's policy of eliminating once-through cooling will likely lead to the retirement of significant amounts of flexible generation. The ISO's flexible capacity framework provides the only appropriate and effective method for ensuring that the needed flexible capacity will be available to the ISO during the relevant operational time periods.

It is imperative that the Commission act now and adopt the ISO's proposal in this proceeding to create the framework for flexible capacity to be considered in the resource adequacy program. Failing to act now could leave the ISO short on flexible capacity when it is needed. PG&E agreed with this in its comments on the preliminary scoping memo recently issued in the Commission's Long-Term Procurement Plan ("LTPP") proceeding. PG&E's comments in that proceeding urge the Commission to address this issue here, rather than in the LTPP process because addressing system need questions, first with respect to local capacity requirements and then with respect to flexible capacity requirements, will be more than enough to occupy the LTPP over the next two years.⁵ SDG&E believes that "merely waiting to open Phase 2 of the instant proceeding is insufficient. Phase 2 will not open until late this fall, and this delay concedes valuable time that could otherwise be spent productively working towards a

⁵ PG&E Comments, R.12.03-014.

solution....”⁶ In addition, TURN believes that “the Commission must not wait until next year’s annual RA policy review to address this issue again. Rather, the Commission should begin addressing possible flexible capacity needs and policies in the very near future with the goal of assessing if such requirements should be imposed for the 2014 RA compliance year.”⁷

The ISO disagrees with the suggestion of Southern California Edison (“SCE”) that operating attributes for renewable integration should be determined in the 2012 LTPP proceeding. The ISO believes the LTPP proceeding already has sufficient issues to address and resolve. The Commission should adopt the ISO’s proposed flexible capacity categories in this proceeding, and then establish a single, focused resource adequacy proceeding as the ISO and other parties have requested in their comments to determine the appropriate requirements for the flexible capacity categories for the 2014 compliance year.

As discussed in the ISO’s initial comments on workshop issues, the CPUC should, at a minimum, establish the flexible capacity framework in 2013 to set the proper trajectory for a flexible capacity requirement in 2014. The ISO urges the Commission in this proceeding to:

- Adopt the ISO’s three flexible capacity categories and the advisory targets the ISO has proposed for 2013;
- Find that either a companion track or new resource adequacy proceeding should be launched in Summer 2012 to directly address the nature and implementation of a flexible capacity requirement for resource adequacy

⁶ SDG&E Opening Comments, p. 5.

⁷ TURN Comments, p. 3.

compliance year 2014; and

- Require that load-serving entities show all resource adequacy resources procured at the 90% level for each of the twelve months of 2013.

The ISO is not proposing that an explicit procurement obligation be adopted in this proceeding. The issue of how the flexible capacity framework will be turned into an express requirement is a core discussion for the next resource adequacy proceeding to be developed to address flexible capacity needs.

B. The ISO Has The Experience And Is Well Positioned To Assess The Flexibility Needs Of The System

TURN's comments suggest that the Commission should conduct "a detailed assessment of what system flexibility requirements will be and then – and only then – determine if it needs to take any additional steps to help meet such system needs, whether in RA dockets or other proceedings." TURN does not believe that "the Commission can reasonably conclude yet what system flexibility requirements are and what, if any, changes to the RA program will be a reasonable means for meeting such requirements."⁸

The ISO disagrees with TURN's suggestion. Determining the reliability needs of the ISO controlled grid, including the need for flexible capacity, is the responsibility and a core competency of the ISO. The ISO is uniquely situated and has the special expertise to perform such studies. Additionally, system reliability and operational needs and concerns, which the ISO manages, extend beyond just CPUC jurisdictional load-serving entities; it must take into consideration non-jurisdictional load-serving entities as well. Hence, this matter must be addressed in a holistic manner that considers the

⁸ TURN Comments, p. 2.

reliability and operational requirements for the entirety of the ISO controlled grid. The Commission should dismiss TURN's recommendation, and instead, continue to work collaboratively with the ISO in determining and understanding what the reliability needs are of the ISO controlled grid.

C. A Twelve-Month Showing Is Required So That The ISO And CPUC Can Begin To Appropriately Assess The RA Fleet's Flexible Capacity Capability For Future RA Program Design And Planning Needs

AReM claims that it "does not understand how the CAISO can 'assess' procurement of flexible capacity, when no such defined categories have been defined and adopted by the Commission."⁹ The ISO has clearly outlined how it would assess flexibility, including the formulas for making this assessment based on data provided. The ISO believes that its proposed three categories of flexible capacity accurately portray the flexibility the system needs. It should not be overly burdensome for load serving entities to submit a 12-month showing to better enable the ISO and CPUC to assess the flexibility of the 2013 resource adequacy fleet for program design and planning purposes.

D. Flexible Capacity Should Be Procured As Resource Adequacy Capacity, Not As Ancillary Service Capacity

In their comments, AReM¹⁰ and EnerNOC¹¹ blur the distinction between resource adequacy and resource operation. For instance, EnerNOC questions "why the existing [ISO market] products are insufficient to meet CAISO's need." AReM states "... the CAISO should use existing and new ancillary service market products to obtain the flexibility it needs."

⁹ AReM Comments, p. 6.

¹⁰ AReM Comments, pp. 6-7.

¹¹ EnerNOC Comments, p. 7.

A primary ISO need is the assurance that there are sufficient resources, including flexible resources, available day-to-day to reliably operate the grid. The existing ISO day-ahead and real-time energy and ancillary service markets do not provide this kind of “resource adequacy” assurance because they are merely daily products. The fact that the ISO has an ancillary services and imbalance energy market is irrelevant for purposes of meeting the ISO’s operational and reliability needs if there are insufficient resources to provide those services and meet all needs.

Incorporating this requirement into the resource adequacy program will ensure that sufficient flexible resources are available to meet the ISO’s reliability and operational needs, especially as the ISO seeks to reliably integrate an increasing number of variable energy resources on its system. Consequently, just as EnerNOC relies on forward capacity payments to sustain its demand response operations, so do other resources require “installed capacity” or resource adequacy capacity payments to sustain their operations so that they can be viable and available for dispatch. The ISO cannot rely solely on its energy and ancillary service markets to assure resource adequacy.

E. CLECA’s Comments Lack Foundation

CLECA is mistaken that the ISO can plan on the availability and participation from non-resource adequacy resources for flexibility needs. CLECA remarks that “non-RA resources do bid into the market.”¹² However, CLECA fails to mention that non-resource adequacy resources have no obligation to be bid or be available for dispatch by the ISO. Hoping that non-resource adequacy resources bid and are available in the

¹² CLECA Comments, p. 5.

market is not a reasonable strategy for planning purposes nor for ensuring system reliability, especially when once-through-cooling rules and diminishing revenue for traditional generators are expected to reduce the level of non-resource adequacy capacity available to be procured. The ISO cannot reasonably rely on non-resource adequacy resources that have no obligation to bid or be available to the ISO.

CLECA also appears to be confused about the fundamental structure of the resource adequacy program. CLECA posits “[c]ould a resource be paid for RA plus ramp?”¹³ The CPUC’s resource adequacy program ensures that sufficient installed capacity exists that can be relied upon in real-time when and where it is needed. Resource adequacy and its associated capacity payment as planning reserve margin is distinctly different from the capacity payments earned in the ISO market for the sale of ancillary services. Resource adequacy resources have always had the opportunity to earn both resource adequacy capacity payments and ancillary service capacity payments. The ISO does not envision this changing for flexible capacity resources.

III. ROUNDING CONVENTION

In Decision 06-06-064¹⁴, the Commission, inter alia, adopted a rounding convention where a fractional local resource adequacy requirement allocated to a load serving entity was rounded to a whole number. The convention would round up a fractional obligation of 0.50 or more to the next, higher whole number and round down a fractional obligation of 0.49 MW or less to the next, lower whole number.

¹³ CLECA Comments, p. 6.

¹⁴ Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission’s Resource Adequacy Requirements Program, Decision 06-06-064 (June 29, 2006).

In Decision 07-06-029¹⁵, the Commission clarified the rounding convention adopted in the earlier decision. The Commission approved an uncontested proposal that maintained the rounding convention for the local resource adequacy requirement and extended the rounding convention to the system resource adequacy requirement (after demand response is subtracted and the planning reserve margin is added).

In this proceeding, the Energy Division suggests that the rounding convention be changed so that resource adequacy requirements and compliance determinations will be rounded to the 0.5 MW level instead of the 1.0 MW level in current use. The Energy Division suggests this change in order to reduce the discrepancies that have been occurring between the calculations of the Energy Division and those of the ISO. The ISO's software calculates values to the second decimal place and does not use any rounding procedure.

Although the Energy Division's proposal to round to the 0.5 MW level will reduce the magnitude of the discrepancies between the Energy Division and ISO calculations, the ISO believes that the proposed change does not go far enough. There will still be differences in the values calculated. It is the ISO's experience that in every year, in every TAC area, there is residual capacity in the range of 1 MW to 6 MW that the CPUC did not allocate to a jurisdictional load serving entity due to the rounding convention. The ISO has found that even these small differences can be problematic in verifying the allocation of resource adequacy obligations and compliance by load serving entities.

Moreover, when the CPUC's allocation methodology does not fully allocate the total sum of each jurisdictional load serving entity's proportionate share of the resource

¹⁵ Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission's Resource Adequacy Requirements Program, Decision 07-06-029 (June 21, 2007), p. 47.

adequacy requirement, the ISO is required by Tariff Section 40.3.2(c) to then allocate the difference to all scheduling coordinators for CPUC jurisdictional load serving entities. The allocation of the residual capacity draws questions and complaints from those scheduling coordinators and jurisdictional load serving entities about why procurement of the additional capacity is necessary if they have already procured the amount of resource adequacy capacity that the CPUC initially allocated.

The ISO accordingly recommends that the rounding convention be changed to match the ISO's methodology that calculates the resource adequacy obligation of each jurisdictional load serving entity to the second decimal place without rounding. SCE agrees that consistency is preferable and that the ISO's more granular approach will provide greater accuracy.¹⁶

IV. CAC PROPOSAL

In its comments, the Cogeneration Association of California ("CAC") requests that the Commission clarify that the net qualifying capacity of a combined heat and power resource will be determined based on deliveries during system peak hours, excluding weekends and holidays.¹⁷ The ISO opposes this request. The ISO agrees with the Energy Division that the proposal would be administratively burdensome and provide no significant benefit to the resource adequacy program.¹⁸ Further, as the ISO discussed during the workshops, a system peak can occur during a weekend, which would distort the calculation of net qualifying capacity for these resources.

¹⁶ SCE Post-Workshop Comments, p. 14.

¹⁷ Comments of CAC, p. 3.

¹⁸ Energy Division Proposal, pp. 7-8

V. CONCLUSION

For the foregoing reasons, the ISO respectfully requests that the CPUC issue an order consistent with the ISO's proposal.

Respectfully submitted,

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