

**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

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**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
COMMENTS ON THE PROPOSED  
FLEXIBLE CAPACITY PROCUREMENT FRAMEWORK**

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The California Independent System Operator Corporation (“ISO”) respectfully submits these comments on the California Public Utilities Commission (“Commission” or “CPUC”) Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework.<sup>1</sup>

In Phase 2 of this proceeding, the Commission adopted a flexible capacity procurement framework for its jurisdictional load serving entities.<sup>2</sup> The ISO supports that decision. It represents a significant and necessary step to ensure that sufficient flexible capacity is maintained on the system and is available to the ISO for reliable operation of the grid and achievement of the state’s policy objectives. The decision established a non-binding flexible capacity procurement target for the load serving entities for resource adequacy compliance year 2014 and an interim mandatory

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<sup>1</sup> The ISO submits these comments in accordance with the Ruling of the Administrative Law Judge dated February 18, 2014 that set February 24, 2014 as the date for the parties to file and serve comments on the Energy Division’s flexible capacity proposal.

<sup>2</sup> Decision 13-06-024, Docket R.11-10-023 (June 27, 2013).

procurement obligation for compliance years 2015 through 2017. The decision also identified next steps to consider refinements to the adopted flexible capacity framework, including developing counting rules, eligibility criteria, a must-offer obligation for certain resource types, and penalties and enforcement provisions applicable to load serving entities that are deficient in their flexible capacity procurement obligations.

In this phase of the proceeding, the Energy Division has submitted its proposed implementation details for flexible capacity procurement.<sup>3</sup> The proposal is the product of considerable staff effort and collaboration with the ISO to develop a framework that will address potential deficiencies of flexible capacity from resource adequacy resources and help ensure that needed flexible capacity will be available to the ISO to maintain grid reliability.

The ISO agrees with many aspects of the Energy Division proposal. In these comments, the ISO –

- clarifies its allocation methodology and assessment for backstop procurement,
- discusses the advantages of the CPUC aligning its proposed flexible capacity categories and counting provisions with the ISO defined flexible capacity categories,
- requests clarification about resource adequacy showings and validations,
- recommends retaining the maximum cumulative capacity categories (“MCC buckets”) for the next compliance year, and
- suggests next steps for the 2016 compliance year.

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<sup>3</sup> Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, Docket R.11-10-023 (February 7, 2014)

The ISO also requests that the Commission allow the opportunity for Parties to file reply comments and that it schedule a workshop in this proceeding to discuss the Energy Division's flexible capacity proposal. As discussed below, several significant aspects of the proposal call for further explanation or clarification. Discussing these areas and the parties' comments in a workshop and would be helpful to clarify the proposal and could reduce concerns about the proposed flexible capacity framework.

## **I. FLEXIBLE CAPACITY NEED AND ALLOCATION**

The Energy Division proposal discusses the ISO's current stakeholder initiative and draft final proposal to establish flexible resource adequacy criteria and a must-offer obligation.<sup>4</sup> There are several points in the Energy Division proposal that do not portray or fully align with what the ISO has proposed in its initiative. For example, the determination of procurement in each category and the allocation used for each load serving entity.

It is important that the ISO's proposal in its flexible resource adequacy criteria and must offer obligation be clearly described and understood in this proceeding. The flexible capacity allocation and backstop mechanism proposed in the ISO's initiative, in conjunction with the flexible capacity requirements under consideration in this proceeding, will provide the framework and opportunity for resources that are both able and willing to provide flexible capabilities needed for the ISO to reliably operate the grid and to have those capabilities appropriately valued and compensated.

The draft final proposal in the ISO initiative commits to provide to the CPUC and other local regulatory authorities (i) their proportion of the system flexible capacity

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<sup>4</sup> *Id.* at 4-5.

requirement as calculated by the ISO and (ii) the contribution of each of their jurisdictional load serving entities to the ISO's largest three-hour net-load ramp change each month based on the ISO's allocation methodology. The ISO's allocation methodology is consistent with cost causation principles for a product that is designed to address upward ramping needs.<sup>5</sup>

The local regulatory authority will then establish the flexible capacity allocation for each of its jurisdictional load serving entities. The information the ISO provides is intended for use by the local regulatory authority in allocating its flexible capacity requirement among its load serving entities. A particular local regulatory authority may decide to use a different allocation method for its load serving entities than the ISO used for the local regulatory authorities. However, a shortfall in flexible capacity requirement calculated by the ISO may be subject to backstop procurement, as discussed below.

The ISO will review the flexible capacity showings submitted by the scheduling coordinator of each load serving entity and will assess whether there is a deficiency, and if left uncured, a need for backstop procurement.

If the submissions show total flexible capacity in an amount equal to or greater than the system flexible capacity need calculated by the ISO, backstop should not be needed. Consequently, if the CPUC has fully allocated its proportion of the system flexible capacity need, and if each of its jurisdictional load serving entities has fulfilled its flexible capacity procurement requirement, there should be no risk of backstop procurement.

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<sup>5</sup> The ISO agrees that downward flexible capacity needs to address over-generation are a growing concern. However, at this time, the flexible capacity product that has been designed focuses on upward ramping capabilities. As such, cost causation should be assessed using a consistent measurement. Any allocations based on downward ramping needs can be addressed in greater detail at a later date.

If the submissions show a cumulative deficiency, the ISO will assess the adequacy of each load serving entity's flexible capacity showing based on the allocation methodology used by the respective local regulatory authorities and will assess the adequacy of the capacity in each flexible capacity procurement category. In the event the ISO determines that backstop procurement is necessary, even if the CPUC jurisdictional load serving entities have collectively met the flexible capacity procurement requirement, any individual load serving entity with a shortfall will be subject to backstop procurement costs for its proportionate share of the difference between the system flexible capacity requirement and the total flexible capacity listed in the showings.

In order for the ISO to assess whether the flexible capacity showings are deficient, the ISO must know the allocation methodology used by each local regulatory authority. This information is essential in the event that the CPUC elects to use a different allocation methodology than the ISO's. Accordingly, the ISO requests that Energy Division detail and publish the methodology in each annual resource adequacy proceeding for review by the parties and adoption by the Commission.

## **II. FLEXIBLE CAPACITY CRITERIA**

### **A. Flexible Capacity Categories**

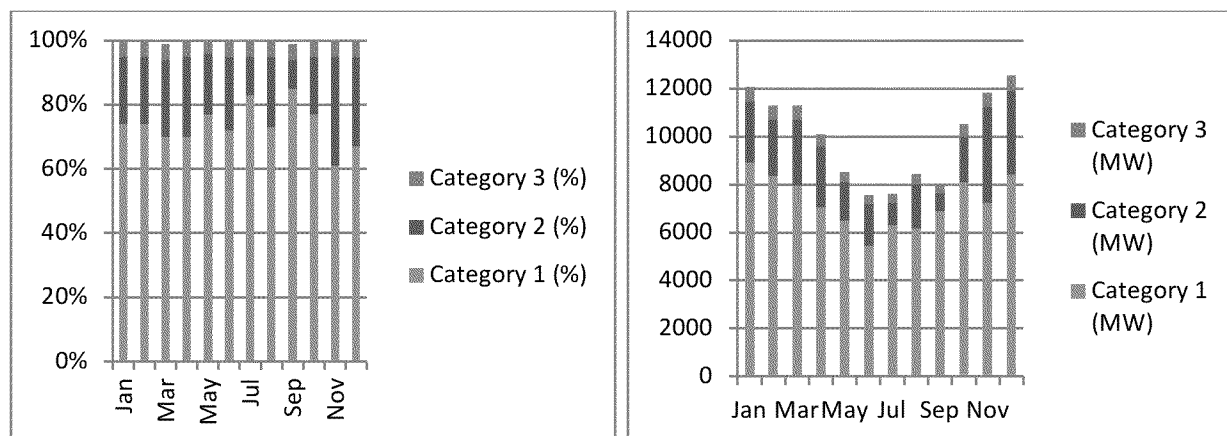
The availability requirements in the Energy Division's proposed flexible capacity categories, as shown on Table 2, appear to generally align with those proposed in the ISO's draft final proposal in the flexible resource adequacy criteria and must-offer obligation stakeholder initiative. However, the quantity of flexible capacity required in each category is different and the ISO believes that additional benefits will be gained by

also aligning these quantities.

The ISO has proposed that the percentage and quantity of flexible capacity would vary month-to-month according to the flexible capacity needs identified in the ISO's flexible capacity needs assessment. However, the Energy Division proposal would fix the percentage of each category across all months. The ISO explored this option in its stakeholder initiative. As discussed in the Draft Final Proposal, in that initiative, the ISO determined that even a fixed percentage would not lead to stable flexible capacity requirements, in terms of megawatts across the year. The ISO felt that there was not a significant benefit to using fixed percentages.

Additionally, the ISO believes that fixed percentage would lead to over procurement of flexible capacity in some months and under procurement in other months. For example, using the data provided in the previous resource adequacy cycle, the ISO calculated the needs for flexible capacity in each of the identified categories. The results for 2016 are shown below in Figure 1.

**Figure 1: System-Wide ISO Forecasted Flexible Capacity Category Requirements, 2016**



As these graphs show, category 1 flexible capacity can vary from between 61%-85%, which translates to a range of about 5,400 MW and 8,900 MW. Using fixed percentages could lead to excess procurement of category 1 flexible capacity resources in many months. Figure 2 further illustrates this.

Figure 2 shows the difference in category 1 flexible capacity procurement assuming that percentages are fixed at the highest percentage (the green line), lowest percentage (the red line), and the percentage identified by the flexible capacity requirements assessment. Fixing the percentages does not flatten the quantity of flexible capacity that would be procured.

**Figure 2**

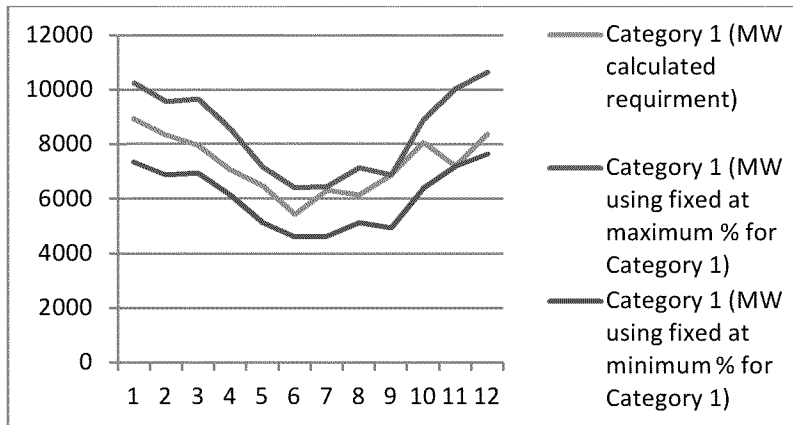


Figure 2 also shows that fixing the flexible capacity percentage will increase the probability of suboptimal procurement (i.e. either over-procurement or under-procurement) of category 1 flexible capacity procurement relative to the identified need. Months where the required amount of category 1 flexible capacity is below the fixed percentage shows an over-procurement, while months where the required amount of

category 1 flexible capacity is above the fixed percentage would lead to an increased possibility for backstop procurement. Based on this data, the use of monthly flexible capacity needs would also better serve to avoid over procurement or backstop for under procurement than a fixed yearly percentage for each flexible capacity category. The ISO encourages the Energy Division to allow the category percentages to be determined by the flexible capacity requirement assessment.

### **B. Proposed Exemption Below 25 MWs**

For purposes of allocating the flexible capacity requirement, the Energy Division proposal would “exempt LSE’s with a maximum monthly flexible obligation of less than 25 MW would be exempt from this requirement.”<sup>6</sup> The intent of this provision is not clear. The ISO interprets the proposal to mean that CPUC jurisdictional load serving entities with a monthly flexible obligation of less than 25 MW could show flexible capacity from any category and would not be bound by the limitations imposed on larger load serving entities. Other possible interpretations of this language are that the small load serving entities would be totally exempt from procuring flexible capacity and submitting showings, or that small load serving entities would be exempt but their share of the procurement obligation would be transferred to the larger load serving entities.

The ISO is concerned that the Energy Division proposal to exempt small load serving entities from the procurement limits could, again, lead to a misalignment of CPUC and ISO flexible capacity policies and increase the potential for backstop procurement. As noted above, the ISO will assess the need for backstop procurement based on collective assessments of the flexible capacity procurement categories. For

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<sup>6</sup> Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, p. 14.



instance, exempting small load serving entities from procuring some minimum level of category 1 flexible capacity and not limiting the amount of category 3 flexible capacity could lead to overall deficiencies in category 1 or 2 flexible capacity.

The ISO requests that the statement in the proposal be clarified. It would be helpful for the Energy Division to explain how its proposed exemption would be applied and how it would ensure sufficient quantities of each flexible capacity procurement category are satisfied. Further, the Energy Division should explain how this proposal aligns with the requirements that cost allocation mechanism resources with effective flexible capacity be available to the smaller load serving entities.<sup>7</sup>

### **C. Maximum Cumulative Capacity Categories**

The Energy Division proposal recommends eliminating the maximum cumulative capacity categories, i.e. the MCC buckets. The only explanation in the proposal for this recommendation is an expression of intent to “rely on the three flexible categories to manage use-limited resources.”<sup>8</sup> The proposal, however, does not otherwise explain or justify why the MCC buckets should be eliminated.

The ISO believes it would be appropriate to review the MCC buckets in the next resource adequacy proceeding to determine whether they should be modified or perhaps replaced. The ISO is concerned that a flash-cut elimination of the MCC buckets now, without considering the ramifications of that act, could lead to degraded quality of resource adequacy capacity and impair the availability of readily available resource adequacy resources. The ISO maintains that it would not be prudent to dismantle this structure without understanding its full impacts on the resource adequacy

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<sup>7</sup> Energy Division proposal “RA Implementation Staff Proposals” (January 16, 2014), p. 7.

<sup>8</sup> Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, p.16.

program or having a fully developed structure to ensure a comparable quality of resource adequacy resources.

### **III. DETERMINATION OF FLEXIBLE CAPACITY**

The Energy Division proposal suggests that the CPUC will calculate the flexible capacity for resources. The ISO maintains that the ISO must set minimum criteria for determining effective flexible capacity. If the CPUC elects less stringent criteria than those set by the ISO, then the ISO will validate those values against the minimum criteria or tests established by the ISO. If the flexible capacity values do not meet the ISO's minimum criteria as proposed by the ISO in the draft final proposal for the flexible resource adequacy criteria and must-offer obligation stakeholder initiative, then the ISO will reduce the flexible capacity to meet the minimum criteria and that value will become the effective flexible capacity used in the ISO's analysis of whether backstop capacity is needed.

### **IV. RA SHOWINGS AND VALIDATIONS**

The ISO requests additional explanation of the Energy Division's expectations as to how the current resource adequacy showings will change to incorporate flexible capacity procurement. Since the CPUC jurisdictional load serving entities also provide their resource adequacy plans to the ISO, it is important that the ISO understand the implications and structures of RA showings. For example, the Energy Division states that "[i]n order to avoid over procurement, an IOU must show flexible resources towards system targets and local RA targets when applicable."<sup>9</sup> However, in the "Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage

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<sup>9</sup> *Id.* at 10.

and Supply-Side Demand Response Resources” proposal, the Energy Division states that EFC could be greater than the NQC for a resource.<sup>10</sup> The ISO requests clarification as to how a resource with an EFC greater than NQC will be shown on resource adequacy and flexible capacity resource adequacy showings.

The ISO envisions that system/local showings will remain completely unchanged and the addition of the flexible capacity showing will be separate, perhaps on a separate spreadsheet in the resource adequacy template. The ISO would appreciate further information about the intended format and content of the flexible capacity showings from the Energy Division. In addition, the ISO is not certain how a resource with an effective flexible capacity value greater than its net qualifying capacity would be reflected on both the flexible and system/local RA showings. Clarification of these points will help the ISO and likely the load serving entities by limiting the potential for errors.

## **V. COUNTING FLEXIBLE CAPACITY**

The ISO seeks clarification about the requirements in the Energy Division proposal for flexible capacity sales by a resource. The proposal states that “[w]hen applicable, a resource must operationally reach Pmin before it can sell capacity as flexible.”<sup>11</sup> First, because this statement applies only to resources where the Pmin is not eligible to provide flexible capacity, Energy Division should clarify that this statement refers to resources with start times of greater than 90 minutes.

Second, and more importantly, it is not clear that such a requirement is necessary. While a longer start resources needs to be running at Pmin to fulfill its

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<sup>10</sup> Staff proposal on “Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources”, R.11-10-023 (January 16, 2014), p. 5.

<sup>11</sup> Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, p. 9.

flexible capacity obligation as proposed in the ISO's FRAC-MOO proposal, it is not clear that a resource should be required to sell the generic capacity associated with this Pmin before it can sell flexible capacity. If the resource does not sell the generic capacity associated with Pmin, it will still be subject to the flexible capacity must offer obligation for the quantity of flexible capacity identified on the resource adequacy showings.

## **VI. NEXT STEPS**

In its proposal, the Energy Division identifies four areas of the flexible capacity framework and resource adequacy program that it recommends be explored in the next resource adequacy proceeding for compliance year 2016 – 1) modifying the flexible capacity allocation methodology to reflect causation, 2) reforming and simplifying the resource adequacy program, 3) evaluating the characteristics and effectiveness of the three flexible capacity categories, and 4) exempting flexible resources from satisfying generic system resource adequacy requirements.

The ISO supports further review of all of these areas. It is important that the Commission periodically review the provisions of the resource adequacy program to determine whether their effectiveness has diminished or enhancements can be made in response to the significant transformation that California's electric system is undergoing as we move toward a cleaner, greener, and more diverse energy supply portfolio.

With regard to causation, the ISO encourages the CPUC to align flexible capacity allocation with causation. The ISO believes the allocation methodology proposed in its flexible resource adequacy criteria and must-offer obligation initiative reflects causation for the need for upward flexible capacity. Once a specified need for downward flexibility

as been identified and quantified, then the CPUC and ISO can reassess the causation and allocation factors.

The ISO also encourages the CPUC to review the resource adequacy program for possible improvement or comprehensive reform. The ISO urges caution that the goal of simplifying the compliance process is not achieved at the expense of the overall effectiveness of the program.

The ISO believes there may be merit to exempting flexible capacity resources from satisfying generic system RA requirements. This should be examined in the next resource adequacy proceeding and not delayed to a future time.

## **VII. CONCLUSION**

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

Respectfully submitted,

**By: /s/ Beth Ann Burns**

Roger E. Collanton

General Counsel

Anna A. McKenna

Assistant General Counsel

Beth Ann Burns

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom California 95630

Tel.: (916) 351-4400

Fax.: (916) 608-7222

[bburns@caiso.com](mailto:bburns@caiso.com)

Attorneys for the California Independent  
System Operator Corporation

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