

Stakeholder Comments Template

Flexible Resource Adequacy Criteria and Must-Offer Obligation Straw Proposal, December 13, 2012

Submitted by	Company	Date Submitted
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This template is for submission of stakeholder comments on the topics listed below, covered in the Flexible Resource Adequacy Criteria and Must-Offer Obligation straw proposal dated December 13, 2012, and issues discussed during the stakeholder meeting on December 20, 2012. The ISO will also review comments filed with the CPUC in R.11-10-023¹ that respond to the questions asked on the Joint Parties' Proposal per the CPUC's December 4, 2012 Scoping Memo.² Therefore, the ISO has not included questions in this template that have already been asked by the CPUC. However, stakeholders that have not submitted comments to the CPUC may include comments regarding those questions at the end of this document.

Please submit your comments below where indicated. Your comments on any aspect of this initiative are welcome. If you provide a preferred approach for a particular topic, your comments will be most useful if you provide the reasons and business case.

Please submit comments (in MS Word) to fcp@caiso.com no later than the close of business on January 9, 2013.

As indicated in our December 26, 2012 comments in R.11-10-023, Calpine supports the CAISO and CPUC's efforts to develop flexible capacity procurement obligations. Even though Calpine advocates a more thorough overhaul of the resource adequacy program, including the introduction of explicit multi-year forward procurement obligations and a centralized capacity market to mediate such obligations, Calpine recognizes the addition of flexible capacity procurement obligations to the current RA program as a positive step in the direction of aligning RA procurement with the CAISO's reliability requirements. Calpine's primary concerns with the Joint Parties' Proposal, described in more detail in our December 26, 2012 comments in R.11-10-023, are: 1) the proposal may understate reliability requirements; 2) the proposal may over-count comparatively inflexible and/or use-limited resources such as steam units and CTs while

¹ The record for R.11-10-023 can be found at http://delaps1.cpuc.ca.gov/CPUCProceedingLookup/f?p=401:56:1171820792119401::NO:RP,57,RIR:P5,PROCEEDING_SELECT:R1110023.

² The Scoping Memo can be found at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M031/K723/31723210.PDF>.

undercounting relatively flexible resources that are not generally use-limited such as CCGTs; and 3) the proposal may provide perverse or limited incentives to upgrade existing resources.

The remainder of these comments addresses the specific questions on which the CAISO requested feedback following its December 20, 2012 workshop. In particular, Calpine believes that backstop procurement of flexible capacity warrants compensation that exceeds the current CPM compensation because the provision of flexible capacity entails additional operational and financial costs and risks. In addition, Calpine recommends that the CAISO attempt to minimize distortions to clearing prices in selecting which resources to procure using any prospective flexible capacity backstop procurement mechanism.

1. The ISO has outlined the basic considerations and assumptions that it proposes (in conjunction with the “Joint Parties”) for the flexible capacity needs assessment for 2104. Please provide any general comments/questions/clarifications regarding the needs assessment.

The CAISO has not explained clearly the methodology that it proposes to use to establish need. Calpine requests that the CAISO provide clear documentation for its proposed methodology, actual values for a historical year or projections of the minute-by-minute data that would be used to establish need for a reference year, estimates of monthly need for the same reference year, and an inventory of the capacity and its underlying flexibility that the CAISO believes is available to satisfy need in the same reference year. To the extent that estimates of the flexible capacity of specific resources are deemed confidential, Calpine requests that the CAISO make estimates of the potential supply of flexible capacity available in some aggregated form.

2. The ISO proposes to allocate flexible capacity procurement obligations to LRAs based on the LRAs contribution to forecasted monthly system peak. Is this the appropriate allocation methodology? What other allocation methodology could be considered?

As discussed in Calpine’s December 26, 2012 comments in R.11-10-023, in the near term, and in the interest of simplicity, flexible capacity obligations should be allocated to LSEs based on peak load share, just as system RA requirements are allocated. Eventually, flexible capacity costs should be allocated to the loads and intermittent resources that create flexibility needs. With respect to resources, flexibility costs could be allocated directly to intermittent resources themselves or to the LSEs to which they are contracted.

3. The ISO proposes to include default tariff provisions for LRAs that do not set flexible capacity procurement obligations. The default level would be the flexible capacity requirement established in the ISO’s flexible capacity assessment. Are there other considerations that should be included in the default provisions?

Calpine believes that it is appropriate to apply uniform flexible capacity procurement requirements to all LRAs. To the extent that CPUC flexible capacity procurement obligations are based on the CAISO's flexible capacity assessment, other LRAs flexible capacity procurement obligations should be based on the CAISO's flexible capacity assessment as well.

4. The ISO is proposing a year-ahead and 12 monthly showings demonstrating that an LSE has procured sufficient quantities of flexible capacity for each month, with 90 percent of the total flexible capacity obligation be shown in the year-ahead showing and 100 percent in the month-ahead showing. Are these the right levels? Are there any other attributes that should be included in these showings?

It is unclear how prospective flexible capacity procurement obligations might interact with the CAISO's new scheduled outage replacement rules. For example, could a resource used to demonstrate compliance with a flexible capacity procurement obligation in a month take an outage in that month? Will outage requests for resources used to meet flexible capacity procurement requirements be considered differently than outage requests for other resources? Some coordination between outage scheduling and month- and year-ahead flexible capacity procurement showings may be warranted.

5. The ISO is proposing new backstop authority in the system is deficient in the total amount of flexible capacity required. Are the triggers for issuing a backstop procurement designation sufficient? What else should the ISO consider?

The CAISO's proposed triggers for backstop procurement seem generally reasonable. As discussed below in the response to question 7, under the Joint Parties' Proposal it is unclear how collective flexible capacity procurement could arise absent some LSE failing to fulfill its individual requirement, i.e., the proposal contains no analog to the local RA rules according to which local RA procurement may satisfy all LSE-specific local RA procurement obligations but fail to satisfy sub-area requirements, or, due to the aggregation of local areas, fail to secure all required capacity in every local area.

6. The ISO is proposing to use the current CPM rate in procuring backstop flexible capacity. Are there additional considerations in the use of this rate?

Compensation should reflect the fact that the sale of flexible capacity entails additional performance requirements above and beyond those associated with the provision of generic RA capacity. In particular, it should reflect the additional costs/reduced profits to which suppliers expose themselves by submitting to CAISO dispatch and associated bid cost recovery (BCR) rules, which allow the netting of losses in one period against profits in another period for the purposes

of calculating any required BCR compensation. To the extent that BCR becomes more granular, i.e., to the extent that profits and losses are not aggregated across multiple intervals, hours, and markets for the purpose of calculating BCR compensation, the appropriate premium for submitting to CAISO dispatch may be reduced.

7. The ISO proposes to allocate costs for backstop procurement designations to all LSEs that are deficient in their flexible capacity showings. Is cost allocation for backstop correct? If not, what other options should be considered

It is appropriate to allocate backstop procurement costs to the LSEs that are deficient. Based on Calpine's understanding of the Joint Parties' Proposal, under the proposal, it would be mathematically impossible for collective deficiencies of flexible capacity procurement to arise in instances in which all LSEs have satisfied their own procurement mandates. If Calpine's understanding is incorrect, and collective deficiencies in the absence of individual LSE deficiencies are possible, then a broader allocation of backstop procurement costs associated with curing such collective deficiencies may be warranted.

8. Are the ISO's proposed criteria for determining selecting resources to procure for any flexible backstop procurement designation correct?

The CAISO proposes to consider operating characteristics such as Pmin and ramp rate in selecting resources for flexible capacity backstop procurement. It is unclear, however, how the CAISO plans to consider such characteristics. Calpine is concerned that undue reliance on units with long start times may lead to lower reliability or higher costs. Reliance on units with long start times may lead to lower reliability because long-start units may not be able to respond to ramps that are unanticipated in the day-ahead (or further forward) time frame. Alternatively, reliance on units with long start times may lead to higher costs by necessitating the operation of such units at minimum load to ensure their availability to respond to changes in real-time operating conditions. The resulting minimum load costs could increase BCR costs. In addition, operating resources at minimum load may depress clearing prices and undermine the economics of other resources, potentially necessitating additional capacity or other compensation to maintain their availability. Calpine encourages the CAISO to consider explicitly all elements of the costs associated with the procurement of resources with different operating characteristics, including potential uplift costs and impacts on clearing prices.

9. The ISO has put forth a proposed counting convention for hydro resources. PG&E presented an alternative approach. Please comment on the relative merits of each proposal? Does your organization have any additional suggestions to enhance either proposal?

Calpine has two primary concerns regarding the PG&E proposal. First, with respect to the timing of RA procurement, hydro conditions for the subsequent delivery year will not be known at the time that most year-ahead RA procurement is completed, i.e., in the summer and fall of the year proceeding the delivery year. Consequently, flexible RA counting of hydro resources based on projections of hydro conditions may turn out to be wrong. Second, it is not obvious that six hours of energy for each MW of flexible capacity is sufficient to support the CAISO's reliability requirements. One potential means of addressing both issues is strong ex post performance requirements, e.g., penalties for resources that fail to provide energy or Ancillary Services during periods in which the CAISO system is ramp-constrained. Such penalties would provide incentives for the scheduling coordinator of a hydro resource to ensure that the capacity of the resource is available to the CAISO when it is really needed, regardless of the assumptions about hydro conditions that determined the counting of the resource or any artificial limit on the number of hours in day in which the resource is assumed available to provide energy.

In addition, in the event that the CAISO allows the specification of daily energy limits for specific resources, Calpine would like more information about how clearing prices would be determined when energy limits bind. Calpine believes that it would be important for energy limits to be reflected in clearing prices.

While they have not been discussed to the same extent as the hydro counting conventions, some of Calpine's concerns about the counting of hydro resources towards flexible capacity requirements apply equally to other energy-limited resources.

10. Beyond the three issues identified by the ISO, are there any other issues the ISO needs to consider in Stage Two of this stakeholder initiative and why?

The CAISO's proposed scope for Stage Two of the stakeholder initiative seems generally reasonable.

11. Are there any additional comments your organization wished to make at this time?

Calpine has no additional comments at this time.

12. Please feel free to respond to any comments already submitted to the CPUC in R.11-10-023 as they apply to the ISO straw proposal or the Joint Parties proposal.

Calpine will respond to comments in R.11-10-023 in that proceeding.