

Flexible Resource Adequacy Criteria and Must-Offer Obligation Straw Proposal, July 25, 2013

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 revised straw proposal on July 25, 2013, and issues discussed during the stakeholder meeting on August 1, 2013.

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 August 15, 2013.

1. The ISO has proposed a process by which an annual flexible capacity requirement assessment would be conducted. Please provide any comments or questions your organization has regarding this proposed process.

[San Francisco has no comment at this time.](#)

2. The ISO has outlined a methodology to allocate flexible capacity requirements to LRAs. It is based on one possible measurement of the proportion of the system flexible capacity requirement to each LRA and calculated as the cumulative contribution of the LRA's jurisdictional LSE's contribution to the ISO's largest 3-hour net load ramp each month. Please provide comments regarding the equity and efficiency of the ISO proposed allocation. Please provide specific alternative allocation formulas when possible. The ISO will give greater consideration to specific allocation proposals than conceptual/theoretical ones. Also, please provide information regarding any data the ISO would need to collect to utilize a proposed allocation methodology. Specifically,
 - a. Over the course of a day or month, any of the identified contributors to the change in the net load curve may be positive or negative. How should the ISO account for the overall variability of a contributor over the month (i.e. how to account for the fact that some resources reduce the net load ramp at one time, but increase it at others)?

The ISO should adopt criteria and an allocation methodology that is applied consistently for each resource and in a manner that is consistent with the causation principle. If the ISO is using the single greatest ramp in each month as the indicator of the system ramping requirement and as the basis for allocation, it should apply the contribution of a particular resource or resource type to the net ramping requirement during that ramping period, not try to account for how the resource performs during other ramp periods. For example, if the system ramping requirement is based on an evening ramp for a given month, then the expected contribution of load and the identified resource types during the evening ramp should be considered (whether positive or negative).

- b. What measurement or allocation factor should the ISO use to determine an LRA's contribution to the change in load component of the flexible capacity requirement?

In its June comments on this matter, San Francisco provided two alternative methods for the ISO to consider for determining an entity's contribution to the change in load component. San Francisco reiterates its proposal below as it believes that both methods would be more consistent with causation than either peak load share or monthly average load factor.

To allocate an LRA's contribution to change in load, the ISO should either:

(1) calculate each LRA/LSE's change in load coincident with the interval containing the maximum 3-hour net load change for each month, using the same data the ISO uses for each LSE to build up the combined ISO net load curve for this calculation. Specifically,

Proposed revised load component formula: $\Delta\text{Load} = \text{LSE's forecasted change in load during forecasted ISO maximum monthly 3-hour net-load ramp}$

or

(2) the ISO should use historical metered load data to calculate each LSE's average hourly load curve for the relevant hours (e.g., 5:00 am to 10:00 pm, daily), calculate each LSE's maximum 3 hour ramp using this data and then calculate the LSE's share of change in load. Specifically,

Proposed revised load component formula: $\Delta\text{Load} = \text{LSE's maximum monthly 3-hour load ramp (based on LSE's average hourly load shape) divided by sum of all LSEs' maximum monthly 3-hour load ramp (based on each LSE's average hourly load shape)} \times \text{ISO's total change in load during ISO's forecasted monthly maximum net-load ramp.}$

In its Second Revised Straw Proposal (Revised Proposal) the ISO is proposing to use historic average monthly load factors to allocate the change in load contribution to the

flexible ramping requirement (as opposed to the peak load ratio share methodology it initially proposed). While an LRA/LSE's load factor is a measure of its load variability, it is not a good proxy for the entity's contribution to the ISO's maximum 3-hr ramp because it does not indicate the LRA/LSE's ramping requirement, when it occurs, or if it is coincident with the ISO's max 3-hr ramp. Additionally, the ISO's updated proposal provides no information on how the ISO will convert load factor into a share of the change in load component; on page 19, the proposal merely changed the column heading from "Peak Load Ratio Share" to "Monthly Average Load Factor."

While San Francisco appreciates the ISO's efforts to simplify the methodology for calculating each LRA/LSE's contribution to the system net load ramp, this should not be done in a manner that might compromise alignment with the causation principle.

- c. Does your organization have any additional comments or recommendations regarding the allocation of flexible capacity requirements?

San Francisco supports the ISO's latest proposal for allocating the resource side of the flexible capacity allocation formula. In its June comments, San Francisco observed that the change in distributed energy resource component should be allocated by each LSE's share of distributed generation for the period, similar to the allocation for transmission-connected wind, solar PV and solar thermal (as opposed to LSE load-ratio share times change in DG output). Appropriately, the ISO made this change in its revised proposal and further clarified that the contribution of distributed energy resources would be based on the LSE's percent of total *intermittent* DG, as opposed to all DG, which might include dispatchable resources. The ISO also identified the data collected through its annual DG deliverability study as the source of information on intermittent distributed generation, which San Francisco believes is appropriate.

3. The ISO has proposed must-offer obligations for various types of resources. Please provide comments and recommendations regarding the ISO's proposed must-offer obligations for the following resources types:
 - a. Resources not identified as use-limited

No comment at this time.

- b. Use-limited resources
 1. Please provide specific comments regarding the ISO's four step proposal that would allow resources with start limitations to include the opportunity costs in the resource's start-up cost.

No comment at this time.

2. Please provide information on any use-limitations that have not been addressed and how the ISO could account for them.

No comment at this time.

c. Hydro Resources

San Francisco requests that the ISO clarify what it means for a hydro resource to “demonstrate the capability of producing a six hour energy equivalent.” San Francisco believes the proposed must-offer obligation for hydro resources should be based on the resource’s committed flexible capacity, which should be capped at the resource’s Effective Flexible Capacity. Additionally, the ISO should ensure that the flexible capacity counting criteria can accommodate hydro resource owners’ other obligations, particularly water-first and environmental requirements. San Francisco believes the ISO’s Flexible Capacity Criteria and Must Offer Obligation framework should spell this out clearly to avoid uncertainty that could discourage a resource owner from participating. The Effective Flexible Capacity should be the amount of capacity that the resource is expected to be able to sustain for six hours, which could vary on a seasonal basis or as dictated by a resource owner’s operational constraints. The ISO should similarly clarify that the Effective Flexible Capacity can be different from the resource’s Pmax.

- d. Specialized must-offer obligations (please also include any recommended changes for the duration or timing of the proposed must-offer obligation):
 1. Demand response resources

No comment at this time.

2. Storage resources

No comment at this time.

3. Variable energy resources

No comment at this time.

4. The ISO has proposed to include a backstop procurement provision that would allow the ISO to procure flexible capacity resources to cure deficiencies in LSE

SC flexible capacity showings. Please provide comments regarding the ISO's flexible capacity backstop procurement proposal.

On page 11 of the Revised Proposal, the ISO provides a general annual schedule for the flexible capacity requirement assessment. San Francisco believes the process and schedule is reasonable and that the ISO should continue to mirror the use of its backstop procurement authority for flexible capacity on its existing procedures for local capacity. However, the Revised Proposal is unclear about whether the ISO's backstop procurement authority will also apply to the year-ahead showings (i.e., when LSE/SCs are required to show they have 90% of the upcoming year's flexible capacity requirement under contract). San Francisco opposes the application of the backstop procurement authority to year-ahead deficiencies and believes the ISO should clarify that it only intends to exercise its backstop procurement authority on a month-ahead basis, when it finds there is a cumulative deficiency.

5. The ISO is not proposing to use bid validation rules to enforce must-offer obligations. Instead, the ISO is proposing a flexible capacity availability incentive mechanism. Please provide comments on the following aspects of the flexible capacity availability incentive mechanism:

a. The proposed evaluation mechanism/formula

No comment at this time.

1. The formula used to calculate compliance
2. How to account for the potential interaction between the flexible capacity availability incentive mechanism and the existing availability incentive mechanism (Standard Capacity Product)

b. The use of a monthly target flexible capacity availability value

No comment at this time.

1. Is the 2.5% dead band appropriate?
2. Is the prevailing flexible capacity backstop price the appropriate charge for those resource that fall below 2.5% of monthly target flexible capacity availability value? If not, what is the appropriate charge? Why?

- c. Please also include comments regarding issues the ISO must consider as part of the evaluation mechanism that are not discussed in this proposal.

No comment at this time.

6. Are there any additional comments your organization wishes to make at this time?

No additional comment at this time.