

Stakeholder Comments Template

**Flexible Resource Adequacy Criteria and Must-Offer Obligation  
Revised Straw Proposal, June 13, 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 June 13, 2013, and issues discussed during the stakeholder meeting on June 19, 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](mailto:fcp@caiso.com) no later than the close of business on June 26, 2013.

1. The ISO has outlined the a methodology to allocate flexible capacity requirements to LSE SC based one possible measurement of the proportion of the system flexible capacity requirement to each LSE SC based on its contribution to the ISO's largest 3 hour net-load ramp change each month. Please provide comment regarding the equity and efficiency of the ISO proposed allocation. Please provide specific 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. Has the ISO identified the core components for allocation? Are more needed? If so, what additional components should be considered and how should ISO consider them? Are fewer needed? If so, what should the ISO include?

*As an initial matter, the City and County of San Francisco (San Francisco) notes that the Flexible Resource Adequacy Criteria and Must-Offer Obligation should allocate responsibilities consistent with principles of cost causation. Thus, load serving entities (LSEs) that cause the need for*

additional flexible capacity – based on the LSE’s net ramping requirement at the time of the system maximum 3-hour net-load ramp – should be allocated the responsibility and associated costs of obtaining it. The ISO’s current proposal moves in this direction. The ISO proposes to allocate the total system flexible capacity need to LSEs as follows:

Change in load (LSE’s peak load ratio share x ISO total change in load during maximum monthly 3-hour net-load ramp)

+ Change in wind output (LSE’s % of total wind contracted x ISO total change in wind output during maximum monthly 3-hour net-load ramp)

+ Change in solar PV output (LSE’s % of total solar PV contracted x ISO total change in solar PV output during maximum monthly 3-hour net-load ramp)

+ Change in solar thermal output (LSE’s % of total solar thermal contracted x ISO total change in solar thermal output during maximum monthly 3-hour net-load ramp)

+ Change in distributed generation (DG) output (LSE’s peak load ratio share x ISO total change in DG output during maximum monthly 3-hour net-load ramp)

= LSE’s share of total flexible capacity need during the ISO forecasted maximum monthly 3-hour net-load ramp

While the ISO’s proposed allocation methodology represents an improvement over the simple peak load ratio share methodology previously proposed, San Francisco believes further changes are needed to ensure consistency with cost causation principles.

The core components identified by ISO for allocation of the largest 3 hour net-load ramp change each month (as set forth above) are generally appropriate provided that the right LSE allocation factors are used as set forth below. However, these components should only be used if and when the ISO has the information available to calculate an LSE allocation factor that is consistent with cost causation for a particular component. Until the ISO has the information it needs to calculate each LSE’s share of distributed generation, the distributed generation component should not be used (see below for suggested revisions to the change in load and change in distributed generation component allocation factors).

Currently, the distributed generation component is expected to be small, but it is expected to grow in significance over time. The ISO should work with stakeholders to put in place the procedures to obtain the information it requires to accurately allocate the flexible capacity need associated with the distributed generation component to LSEs based on cost causation, so that this is possible in a few years when the distributed generation component may be more substantial.

- b. Has the ISO used the right allocation factors for the identified components (i.e. load ratio share, percent of total capacity contracted)? If additional or fewer components should be considered as identified in 1a, above, please provide specific allocations factors for these components.

The ISO has used the appropriate allocation factors for change in transmission-connected wind, change in transmission-connected solar PV and change in transmission-connected solar thermal. However, the allocation factors for change in load and change in distributed generation (i.e., load ratio share) do not appropriately reflect each LSE's share of these components.

For change in load, the ISO should either:

(1) calculate each 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 non-holiday weekday hours, 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:  $\Delta\text{Load} = \text{LSE's maximum monthly 3-hour load ramp (based on LSE's average hourly load shape) divided by sum of all LSEs' maximum monthly 3-hour load ramp (based on each LSE's average hourly load shape) x ISO's total change in load during ISO's forecasted monthly maximum net-load ramp}$

Additionally, as noted above, the change in distributed generation 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. Specifically,

Proposed revised distributed generation component formula:  $\Delta$  Distributed Generation (DG) = Change in DG output (LSE's % of total DG contracted x ISO total change in DG output during maximum monthly 3-hour net-load ramp)

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

First, the ISO should clarify that DG is defined as distribution-level connected generation that is not behind the retail meter.

Second, San Francisco does not believe it is appropriate to include the Most Severe Single Contingency (MSSC)/3.5% of peak load component in the flexible capacity requirements. This component adds a forward spinning reserve requirement on top of the maximum 3-hour ramping requirement. The ISO has not demonstrated through this stakeholder process that either 1) it has a reasonable expectation of being unable to obtain spinning reserve when needed using existing mechanisms, or 2) intermittent renewables increase the amount of spinning reserves required to maintain reliability.

If there were a demonstrated need for such a forward spinning reserve requirement, the resources that qualify to meet that requirement should continue to be allowed to be self-scheduled and to set/use the contingency flag when they are selected to meet the requirement, since spinning reserves should only be used to produce energy during contingency events and not to meet the ramping requirements (which will be covered by the flexible resources identified to meet the 3-hour ramping requirement).

2. The ISO believes that there are either tools in place or under development to manage a resource's use-limitations while still be subject to economic bid must offer obligation. The ISO, consistent with the CPUC's RA proposed decision, will require hydro resources to be able to provide a minimum of 6 hours of energy at Pmax to be eligible to provide flexible capacity. However, some resources, including demand response and storage resources may have use limitations that may do not fit well within these mechanisms.

- a. Please provide comments regarding what use-limitations are currently managed by existing or proposed ISO tools and what must-offer obligation should apply to these resources.

To maximize the hydro resources available to provide flexible capacity and consequently reduce costs for ratepayers, the hydro counting rule should be clarified to allow hydro owners as much flexibility as is consistent with meeting the ISO's objectives for flexible capacity. San Francisco proposes that the hydro counting rule be clarified to allow for an effective capacity to be calculated even if a hydro resource cannot generate at Pmax for 6 hours. For example, if a hydro resource can generate at 80% of Pmax for 6 hours, its effective flexible capacity should be 80% of Pmax. During the stakeholder meeting on June 19, there was also discussion of allowing hydro resources to generate for less than 6 hours. This too would add flexibility and should be allowed if consistent with the ISO's objectives. For example, if a hydro unit can generate at 100% of Pmax for 4 hours, its effective flexible capacity should be 2/3 of Pmax. An LSE SC claiming flexible capacity from this hydro unit would be able to claim as much as 2/3 of Pmax from the unit.

- b. Should the ISO consider other minimum energy or run time limits for other types of use limited resources to be eligible to provide flexible capacity? If so, what should these limits be? Why?

The ISO should consider minimum energy or run time limits for other types of use-limited resources to maximize the number of resources available to provide flexible capacity and reduce the cost of a flexible capacity requirement. The ISO should prioritize working with stakeholders to develop appropriate requirements for demand-response and energy storage.

3. The ISO is assessing how bid validation rules could work for flexible capacity resources that are subject to an economic bid must offer obligation. The ISO provided two examples of bid validation rules and potential interpretations. Please provide comments regarding how the ISO should address each of these examples and any others that may need to be considered.

No comment at this time.

4. The ISO currently has a tool in place that allows for a resource to include the opportunity costs associated with run-limitations into the default energy bid. The ISO is considering a similar mechanism to allow resources with annual or monthly start limitations to include the opportunity costs of start-up in the resource's start-up and minimum load costs. Please provide comments on how

the ISO should consider the opportunity costs for start limitations and how that opportunity cost should be calculated.

No comment at this time.

5. The ISO is proposing that all flexible capacity resources should be required to submit economic bids between 5:00 am and 10:00 pm. Please provide comments regarding this proposed must-offer obligation. Please connect to the response to this question to any responses to questions 5 or 6 as appropriate.

As stated above, San Francisco does not believe there is justification to include in the flexible capacity requirement a spinning reserve component. If the ISO nonetheless retains a spinning reserve component, this component should not be subject to bidding requirements beyond the existing requirements for spinning reserve.

6. The ISO has proposed to include 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.

If the ISO includes a backstop procurement provision in its flexible capacity requirement framework, the ISO should use its currently proposed approach for implementing this provision. That is, the ISO should only be authorized to use its backstop procurement authority if there is a collective deficiency, and the cost of the capacity procured by the ISO should be allocated to the deficient LSEs.

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

The ISO's proposed formula for calculating the monthly system flexible capacity requirement includes the use of an epsilon factor or error term to "account for load forecast errors and variability" (ISO, Revised Straw Proposal, June 13, 2013). The proposed epsilon factor needs more definition and reasonable restrictions on the magnitude and applicability of the factor. The ISO should describe the type of information it will consider in the use of the factor. Further, the development of the epsilon value should be part of the annual flexible capacity stakeholder process. Finally, the epsilon value should not be adjusted within the RA compliance period so that LSEs will have a reasonable degree of certainty that their flexible capacity requirements will not change once the allocation has been made each year.