

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 [fcg@caiso.com](mailto:fcg@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?
  - 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.

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

SDG&E generally shares the CAISO's desire to tie the allocation of Flex RA requirements more closely to causation. However, SDG&E is concerned that the proposed methodology is perhaps overly complex given that load changes – not resource portfolio mixes—are the primary driver of flexible capacity needs in the near term. Consequently, constructing an allocation methodology designed to capture the contributions of different resources types to total flexible need is, for the vast majority of LSEs, unlikely to yield results that materially differ from a less complex allocation scheme based simply on changes in load. This is particularly true given that all LSEs share the state's 33% RPS mandate, and to a large extent, will have a similar mix of resources in their portfolios. To the extent there are outliers to this general proposition – for example, an LSE whose RPS requirements are met nearly entirely with dispatchable biogas, or storage assisted wind or solar – then perhaps we should focus on crafting an exception ensuring a fair allocation to the outlier, not adding unnecessary complexity to *all* allocations.

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.
  - 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?

Customized solutions that balance operational needs with the use limitations of various resources must be developed to ensure the pool of resources eligible to meet the CAISO's evolving flexible capacity challenges is deep and liquid. The recently adopted PG&E proposal requiring 6 hours minimum daily energy to qualify a hydro resource as flexible is an example of type of creative solutions this effort should seek for other use limited resources.

One obvious solution is to create categories – or buckets – that limit the total amount of use limited resources an LSE can count towards meeting its Flexible RA requirements. The CAISO’s ramp duration curve could be used to determine the maximum contributions from each bucket while still allowing the CAISO to meet all its flexibility needs. For example, “Bucket A” resources might be those that are available to meet all ramps, and there would be no restriction on the maximum amount LSEs could count as Flexible RA from this bucket. Bucket B would consist of resources that were slightly operationally restricted, but available to meet most ramps. Hydro resources would likely fall into Bucket B, as would CTs with mild (e.g., < 3000 run hours per year) environmental restrictions. Bucket C resources are fairly restricted, and perhaps available to meet only one ramping scenario day, and not available every day. These resources likely include CT’s with more rigid environmental permit restrictions (e.g., < 50 starts per year), or highly flexible DR programs with a significant numbers of total hours or calls. Energy Storage resources also likely fall into Bucket C. Bucket D resources are very restricted and expected to meet only a few super ramps per year. Bucket D resources include normal DR programs or participating loads.

While all groups provide needed flexibility, contributions from Buckets B- D would be capped to ensure only a fixed amount of operationally restricted resources make up the daily pool of eligible flexible resources. Economic Bidding requirements would be the same across all Buckets. However, like the current accommodation for hydro resources, the daily energy requirements would vary by bucket and would reflect the use-limitations of resources in each bucket.

There may be natural break points between buckets driven by the total portfolio of available flexible resources. The Buckets also have to have meaningful differences so the CAISO can optimize their use. Finally, SDG&E suggests number of groups or buckets needs to be kept small to minimize the counting rules and enhanced MOO that must be developed and approved by FERC.

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.

SDG&E believes the flexible portion of the resource is top down from Pmax and the non-flexible portion is bottoms up from 0MWs. With that in mind, SDG&E recommends the CAISO to not reject any bids both self-schedule and economic as long as the resource has sufficient non-RA capacity available to its PMax (option C of example 2). However, if the resource does not have any flexible RA available, only then should the CAISO reject the bid and allow the SC to resubmit its bid. If the SC does not do so, then SIBR should economically bid in the entire RA amount. In cases of outages, the current practice is top down from the PMax, so it should be the flexibility portion that is curtailed first. Any new SCP penalties should not duplicate the current SCP penalties for RA forced outages.

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.

SDG&E is generally open to the approach, provided the circumstances under which a resource can make intra-year revisions to the calculation of its negotiated opportunity costs are transparent and straightforward. Obviously, for resources with run limitations, opportunity costs will increase over the year as the unit is dispatched and its number of remaining hours or starts decreases. If the resource has a maximum of 50 starts, and 40 of them are utilized by April 1 to manage springtime ramps, then the value of the remaining 10 starts increases substantially over the last 8 months of the year. There must be a simple way to make intra-year changes to the NDEBs to reflect the changes circumstances.

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 **Error! Reference source not found.** or 5 as appropriate.

SDG&E generally supports the uniform application of the economic bidding requirements to all flexible RA resources. However, like the current accommodation for hydro resources, SDG&E recognizes that the daily energy requirements will likely vary to reflect the operational use-limitations of resources.

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.

SDG&E has no comment on the backstop proposal at this time.

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

SDG&E anticipates this process will ultimately generate accommodations for use limited resources of all types to provide eligible, flexible capacity. Once flexible RA of any flavor is listed on an LSE's monthly and yearly compliance showings, it is up to the CAISO to judiciously manage the dispatch of those resources both within the month and across the year. If the CAISO's optimization mismanages use limitations and creates a situation where the resource is unable – because, for example, it reached maximum hours or starts limits -- to provide flexibility in the later part of the year, the LSE should be indifferent. SDG&E believes there should be no change the resource's status from an RA compliance perspective. In short, there should be no replacement obligation if the CAISO fails to properly account for and optimize known use limitations within a given month or across the year.