

Stakeholder Comments Template

**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 2nd 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 fcg@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.

SCE does not oppose the ISO's proposed schedule to assess, identify and report the annual flexible capacity requirements.

As will be described within some of following comments, SCE does have concerns regarding some of the assumptions and methodologies being proposed.

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)?

[See SCE's response to 2.c.](#)

- 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?

[See SCE's response to 2.c.](#)

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

[SCE has reviewed the CAISO proposal as well as data on the flexibility need¹. SCE then applies the CAISO methodology to determine the overall system allocation of the flex requirement. The result is the following:](#)

¹ <http://12.200.60.146:990> is the File Transfer Protocol web address from which the data can be accessed. A user name and password are needed to access this location and can be obtained from the CAISO.

<u>2015 Share Calculations</u>					
Month	Load Share	Wind Share	Solar PV Share	Solar Th Share	DER PV Share
1	53%	6%	25%	7%	8%
2	56%	8%	20%	8%	8%
3	46%	2%	33%	9%	10%
4	39%	4%	35%	10%	12%
5	39%	0%	37%	13%	11%
6	91%	23%	-12%	0%	-1%
7	101%	20%	-18%	0%	-3%
8	137%	4%	-18%	-15%	-8%
9	84%	16%	0%	0%	0%
10	46%	4%	34%	10%	6%
11	54%	1%	29%	8%	8%
12	59%	2%	25%	7%	6%
Average	67%	8%	16%	5%	5%

SCE is concerned that the results shown above are driven more by the modeling methodology than actual contribution to the ramping need in some instances. The data reflected in the table above appears to demonstrate that the effective flex credit received by solar is entirely an artifact of the ISO's analytical approach (i.e., allocating based on a 3-hr net load ramp when the load ramps in summer are longer and forcing the annual peak load to occur in August) and does not fairly represent solar's "true" contribution to flex needs. In addition, the erratic behavior of the allocations in the summer months do not make rational sense and could be indicative of further difficulty for the data to fully describe the contribution to flex need of each group and therefore is not a reliable basis for allocation.

SCE believes that the issues mentioned above bring into question whether it is appropriate to disaggregate the categories into the five proposed by the CAISO. SCE is concerned that if the data and analysis cannot reasonably support the disaggregation, then the categories should be aggregated at a higher level as discussed below.

Given the above concerns, SCE recommends that for 2015, the CAISO implement the following²:

Collapse the categorization to three; Load, Wind, and Solar. This will eliminate the seemingly illogical and sometimes dramatic difference in allocation between similar resource types like solar PV and solar thermal. SCE has created a table showing this allocation as follows:

2015 Flex Share Ratios			
Month	Load	Wind	Solar
1	53%	6%	41%
2	56%	8%	36%
3	46%	2%	52%
4	39%	4%	57%
5	39%	0%	61%
6	91%	23%	-13%
7	101%	20%	-21%
8	137%	4%	-41%
9	84%	16%	0%
10	46%	4%	50%
11	54%	1%	45%
12	59%	2%	39%
Non-summer	49%	3%	48%
Summer	100%	0%	0%

Second, SCE would recommend that rather than using a monthly allocation, which is subject in any month to the use of the three hour measure, simply using an average of the entire non-summer³ period (this average is provided in the table above).

Finally, for the summer months, the data appears to show that for 2015, the vast majority of the flexible need is attributable to load. Therefore, a possible allocator for the summer is to simply allocate the entire requirement to load.

² For the years beyond 2015, SCE agrees that with increased data and experience a more appropriate allocation methodology could be developed.

³ Based on the data above, the non-summer period would be January through June and October through December

As a final note, SCE recognizes that the use of peak load ratio share is not an adequate method to allocate to load. SCE recommends looking to other measures and believes that the use of average daily load factor has the potential to provide a relatively simple measure which more accurately tracks loads contribution to flexibility need.

SCE has and continues to support an allocation mechanism that allocates the obligation for the provision of flexible resources to those that cause the need for flexible resources. As a general matter, the CAISO is proposing to allocate the obligation based on those load serving entities that have contracts with intermittent resources. While this is a step in the right direction, SCE has noted that there is a current example where this does not appropriately address cost causation. SCE is concerned that this example will continue to grow in the future and produce a skewed allocation. That example is a situation in which a load serving entity that is not a CAISO entity procures intermittent resources from the CAISO controlled grid and exports them to serve load outside of the CAISO. In this circumstance, the CAISO proposal lacks in its ability to allocate flex requirements to that entity. SCE urges the CAISO to address this deficiency as soon as possible.

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:

Although the question posed concerns offer obligations, the underlying issue centers around the ability of various resource types to "count" toward meeting flexible RA requirements. SCE notes that counting rules and offer obligation requirements are two separate issues and should not be considered interchangeable.

- a. Resources not identified as use-limited.

SCE supports the must-offer obligation rules being proposed for these resources.

- b. Use-limited resources.

SCE supports must-offer obligation rules similar to those developed by PG&E for hydro resources, plus including the

ability for a SC to submit an opportunity cost-based default energy bid for commitment energy.

Specifically, the rules would need to include the following six criteria:

1. The resource would need to supply a bid for the entire must-offer period (i.e. 5:00 a.m. to 10:00 p.m. each day).
2. The LSE can set the daily energy limit used by the ISO.
3. The resource would need to be able to supply a minimum of six full load hours of energy capability during that period.
4. The SC would be able to offer the resource as self-providing Ancillary Services up to the daily energy limit.
5. The ISO would honor the start limitations (as identified in the master file).
6. SCs have the ability to submit an opportunity cost-based default energy bid for commitment.

SCE points out that these criteria are to be considered a bundled package and it is through this bundled package that long-term use limitations on resources will be controlled.

2. 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.

Opportunity cost-based bidding alone is not sufficient because this approach draws into question: When is the practice of using an opportunity cost bid economic withholding versus when is it an acceptable method of managing the resources must-offer obligation.

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

c. Hydro Resources.

SCE supports the must-offer obligation developed by PG&E and adopted during the Resource Adequacy proceeding for hydro resources.

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

For the following resource types, SCE does not recommend a separate unique must-offer obligation by resource type, but

rather a “bucketing approach.” A distinct bucket should be developed to house these types of resources and allow them to count towards meeting flexible capacity needs. The challenge will be to appropriately size the bucket to allow meaningful participation of these types of “preferred” loading order resources, while still maintaining reliability of the system. It is premature to set unique rules for these types of resources without first having gained sufficient knowledge and experience in understanding the capabilities of these resources. Because the current quantity of these resources is small, the “bucket approach” will allow these resources to count while that experience is gained. Finally, it is likely that any rules that would be adopted without first gaining experience would need to be changed in the near term anyway.⁴

1. Demand response resources
2. Storage resources
3. Variable energy resources
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.

SCE understands that the CAISO may, on occasion, need to procure flexible capacity to cure deficiencies in LSE SC flexible capacity showings. Whether implicitly or explicitly stated, SCE believes that when these situations arise, similar to current backstop procurement policies, the LSE must be provided a meaningful opportunity to cure the deficiency on its own prior to the CAISO procuring the capacity. Further, if the CAISO intends to use the current CPM price to procure flexible capacity, then the MW procured must be a “fully loaded” product that includes flexible capacity as well as all of its underlying system and local attributes.

As SCE understands the requirements, a resource owner is required to sell its flexible capacity as a “bundled” product (i.e. complete with any

⁴ The threshold question of Resource Adequacy eligibility needs to be resolved in the next phase of the Resource Adequacy proceeding prior to adding any resources to a bucket. For example, there is currently no methodology for counting a MW of energy storage toward meeting RA requirements as those rules have yet to be determined. Without those threshold RA counting rules, it is premature to include such resources in a bucket that would allow them to count for flexible RA, when they do not yet count for meeting system or local RA requirements.

underlying system and local requirements the MW possesses) in order to prevent withholding and potential market manipulation. However, an LSE is able to utilize the various components of its procured MW to meet its showing in a manner that best meets its RA requirements at the lowest cost. For example, if a LSE procures 100MW of flexible capacity, which comes bundled with system and local attributes, but maybe only needs to show 50 MW of the flexible capacity to meet its flexibility requirement, but must show the full 100 MW of “local” capacity in meeting its local requirement, then the LSE has the remaining 50 MW of the “flexible” attribute available for substitution needs or to make available to the CAISO in the event the CAISO requests available “flexible” capacity to procure on behalf of a deficient LSE who is short flexible capacity. In this case, if the CAISO is really only procuring 50 MW of flexible capacity from the LSE without the underlying system and/or local attributes, then the CPM price designed to compensate a resource owner for a “fully loaded” MW would be too high. Although this lower price has not yet been established, it would be inappropriate to compensate the LSE for a MW with only partial attributes at the full CPM price. More discussion is needed to determine what would be a fair price in these circumstances.

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
 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
 1. Is the 2.5% dead band appropriate?

SCE supports the use of the 2.5% dead band as a starting point, with the understanding that this value is

consistent with the current dead band established by the SCP program.

Consistent with SCE's position that any rules agreed to now are to be considered interim, this band width may need to be revisited once experience is gained on the effectiveness of the flexible capacity availability incentive mechanism.

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?

See SCE's response to 4.

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

SCE supports the incentive mechanism as proposed, but only as an interim mechanism. A final answer to the question of what price to pay can only be developed after data representing actual program implementation is accumulated, analyzed and discussed.

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

SCE wishes to remind parties that the current proposal is designed to be interim in nature until a more robust and permanent structure can be developed. Ultimately, cost causation must include not only an allocation of costs to load, but also an allocation to the resources that contribute to the need for flexibility.

Counting and Most Offer rules should line-up reasonably with both market needs and reliability needs. At present, there is neither sufficient historical data nor an agreement on how preferred resources can and will satisfy these needs to develop rules that are anything other than interim.