

Stakeholder Comments Template

Flexible Resource Adequacy Criteria and Must-Offer Obligation Fourth Revised Straw Proposal, Posted November 7, 2013

Submitted by	Company	Date Submitted
Brian Theaker brian.theaker@nrgenergy.com 530-295-3305	NRG Energy, Inc. ("NRG")	November 27, 2013

This template is for submission of stakeholder comments on the topics listed below, covered in the Flexible Resource Adequacy Criteria and Must-Offer Obligation fourth revised straw proposal on November 7, 2013, and issues discussed during the stakeholder meeting on November 13, 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 November 27, 2013.

1. The ISO has outlined a methodology to allocate flexible capacity requirements to LRAs. As detailed in the fourth revised straw proposal¹ and at the 11/13 stakeholder meeting PG&E has put forward an alternative allocation methodology. Please provide comments for each of these proposals, particularly as they relate to cost causation. If your organization has a preference for one over the other, please state your preference and why.

As NRG understands it, PG&E's allocation methodology proposal is intended to address the following issues that arise under the CAISO's Fourth Revised Straw Proposal: (1) the fact that some non-CAISO LSEs with variable resources in the CAISO's balancing authority area may be "leaning" on the flexible capacity in the CAISO Balancing Authority Area, but would not be allocated a flexibility requirement because they are not serving load in the CAISO BAA, and (2) allocating the flexibility requirement solely on the basis of an LSE's contribution to the maximum monthly coincident ramp, while not recognizing any need from flexibility that may arise apart from the maximum monthly coincident ramp.

¹ PG&E's specific proposal can be found at http://www.caiso.com/Documents/PG_E-Comments-FlexibleResourceAdequacyCriteriaMustOfferObligation-ThirdRevisedStrawProposal.pdf.

NRG, as a non-LSE, is not directly affected by the differences in these allocation proposals. However, with regards to issue (1), NRG would agree with PG&E that non-CAISO LSEs whose variable energy resources within the CAISO BAA should be allocated a flexibility requirement to address the “free rider” problem. With regards to issue (2), NRG is not yet persuaded that modifying the allocation mechanism to incorporate flexibility needs that arise from periods other than the monthly coincident peak ramping period is necessary, as (1) it does not expect that LSEs’ load shapes will be radically different and (2) the level of the CAISO’s flexibility requirement still will be driven by the maximum coincident peak ramp.

2. The ISO believes that demand response resources should have the opportunity to provide flexible capacity. The ISO has proposed how demand response resources could do so. Please provide comments on the ISO’s proposal. Specifically, please identify concerns with the ISO’s proposal and offer potential solutions to these concerns. Additionally, please comment on the proper forum (ISO, CPUC, etc.) where these concerns should be addressed.

Preferred resources, including demand response, should have the opportunity to provide flexible capacity. However, as it stands, the CAISO’s proposal would impose much different (far less stringent) offering obligations on demand response resources than would be imposed on other resources providing the very same flexible capacity product. Having different performance requirements for the same product will not facilitate standardizing that product, nor will it lead to developing consistent ways to value that product.

Whether these concerns are addressed at the CPUC or at the CAISO is a secondary matter, as long as the CAISO, CPUC and market participants are all involved in the discussions.

3. Please provide comments and recommendations (including requested clarifications) regarding the ISO’s proposed must-offer obligations for the following resources types:
 - a. Dispatchable gas-fired use-limited resources
 1. Please provide comments regarding the ISO’s proposal that would allow resources with use- limitations to include the opportunity costs in the resource’s default energy bid, start-up cost, and minimum load cost.

The CAISO’s proposal to calculate and apply energy and start-up opportunity costs in an attempt to ration the use of use-limited resources that are providing flexible capacity is reasonable, assuming that the calculated energy and start-up opportunity costs are reasonable.

NRG is concerned about the CAISO's proposal to levy Standard Flexible Capacity Product (SFCP) penalties against use-limited resources that become unavailable because they reach monthly or annual use limits. While the opportunity cost adders are intended to prevent use-limited resources from reaching their use limits prematurely, these adders cannot guarantee that they will accomplish their intended goal, nor can the CAISO guarantee that the resources' use limits will not be used up through exceptional dispatch. If the resource is bidding in accordance with the adders developed by the CAISO, the CAISO should not apply SFCP to resources whose use limits are reached as a result of exceptional dispatch.

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

No response.

b. Specialized must-offer obligations:

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

All resources, including preferred resources, should have the same offering obligation and performance requirements for providing the same product (flexible capacity). NRG opposes affording different, less stringent offering and performance obligations for certain resources. To the extent that certain resources cannot provide the same type and duration of flexibility service as other resources, some mechanism (e.g., adjustment to those resources' EFC) is needed to differentiate the value of the flexibility those resources provide. Absent such mechanisms, there will be nothing to differentiate the quality of flexibility service provided, especially if the offering obligations are not consistent across technologies.

4. At the 11/13 stakeholder meeting there a significant amount of discussion regarding the appropriate method for setting the price for the proposed flexible capacity availability incentive mechanism. Please provide comments about how this issue might be resolved.

As NRG has shared in prior comments, both written and at the meetings, NRG perceives from discussions with possible RA counterparties that LSE buyers currently place little, if any, incremental value on flexibility as an attribute.

NRG is sympathetic to the CAISO's desire to have an SFCP value defined before the presumed implementation of flexible capacity requirements for RA year 2015. And while NRG has found the CAISO's mathematical exercises that attempt to assign such a value to be interesting, though NRG strongly believes that the proposed SFCP values that those exercises have yielded to be very far – an order of magnitude, at least - above the perceived value of flexibility.

In the spirit of exploration, NRG offers its own mathematical exercise deriving a possible SFCP value. The combined 2014 MW-month flexible capacity requirement from Figure 2 of the Fourth Revised Straw Proposal totals 108,531 MW-months. As NRG understands, the total value paid out through the Flexi-Ramp Constraint in 2012 was approximately \$21 million. Understanding the temporal disconnect between the 2012 FRC value and the 2014 projected flexible capacity requirements, dividing the 2012 FRC value by the 2014 capacity requirement yields a value of \$193/MW-month, which translates to approximately \$2.32/kW-year, or approximately \$0.19/KW-month. This value seems much closer to NRG's anecdotal sense of the current value of flexibility.

If the true purpose of the SFCP is to provide an appropriate financial incentive for parties to make flexible capacity available to the CAISO, and the SFCP is not intended to derive a surrogate figure for the value of RA capacity prior to the implementation of RSA, NRG would support Doug Parker's suggestion of convening a work group to try to negotiate such a value. The current SCP penalty – the CPM rate – is almost certainly well above the going rate for system, and even most local, RA capacity. NRG is not eager to create a second penalty rate that suffers from that same feature.

5. The ISO has proposed an SFCP evaluation mechanism/formula that weights compliance with the real-time must offer obligation heavier than the day-ahead must offer obligation. Please comment on:
 - a. The merits of using such a weighting mechanism relative to the "lesser of" proposal from the previous proposal
 - b. The relative weights between the real-time and day-ahead markets

As is noted below, while NRG would agree that the CAISO markets would be more efficient and liquid if the amount of self-scheduling decreased, NRG views self-scheduling as a necessary evil under some conditions (e.g., to avoid unfavorable outcomes for MSG-modeled units). As a result, NRG from time to time self-schedules its resources, primarily in the real-time market. As a result, NRG is concerned about the CAISO's proposal that a resource that self-schedules is deemed unavailable from a

flexibility standpoint, and further concerned that the CAISO is placing four times the weight for self-scheduling in the real-time market as in the Day-Ahead market.

6. There were several clarifying questions asked at the 11/13 stakeholder meeting regarding substitution of flexible capacity that is on forced outage. Please provide comments and / or questions (and potential answers) regarding any additional clarifications the ISO should make in the next revision to clarify this aspect of the proposal.

NRG supports allowing parties to substitute other flexible resources for flexible resources that become unavailable so as to avoid incurring SFCP penalties. However, there are problems inherent in the ways the CAISO currently provides for substitution, namely, (1) the CAISO's inability to allow for more than one substitution from a single resource, regardless of the amount of un-contracted capacity available on that substituting unit, and (2) requiring capacity within a local area that is sold as *system* capacity to be replaced with *local* capacity. These limitations unnecessarily interfere with providing substitute capacity. In crafting the rules for allowing for substitution of flexible capacity, the CAISO must not impose similar kinds of limitations on the provision of substitute flexible capacity.

7. Please provide comments regarding how, or if, the SFCP adder price and the flexible capacity backstop price should be related.

It is not clear that they should be. Arguably, these two prices should be related if the CAISO would always procure backstop replacement flexible capacity for unavailable flexible capacity. However, the CAISO is not proposing this, nor is NRG advocating it. Because these two things do not appear to be linked, the SFCP penalty rate would seem to serve primarily as an incentive to make flexible capacity available to the CAISO. As an incentive rate, not as the cost of replacement, the SFCP penalty rate could be very different from the backstop replacement rate.

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

Yes.

Flexibility as spot market operational attribute instead of forward-procured capacity attribute. The CAISO is advocating procuring flexibility through forward capacity procurement, rather than through its spot energy and ancillary service markets. NRG is well aware of the CAISO's position that forward procurement of reliability services is necessary to ensure that the capability exists at the time when it will be needed. Yet, in light of the increasing complexity of the CAISO's FRACMOO proposal, NRG still holds it would be preferable to use well-designed spot markets to facilitate the provision of flexibility.

SFCP will impose additional risks and costs on suppliers. NRG is concerned that the current direction the CAISO is taking with FRACMOO will impose additional costs and risks on parties that supply flexibility for which those parties will not receive commensurate compensation. In NRG's experience, while LSEs are increasingly requiring that RA suppliers bundle a resource's flexibility attributes with its RA attributes, there is no evidence that LSEs have increased or are willing to increase RA prices to reflect acquiring the flexibility attribute along with the generic capacity attribute. As the SFCP is implemented, suppliers will be taking on additional penalty risk, for which the prospects of earning higher RA prices seem unclear at best. Further, while NRG agrees that the CAISO's markets would be more liquid and efficient if all parties submitted in those markets through economic bids and not self-schedules, NRG nevertheless views self-schedules as a necessary evil under some conditions to protect against unfavorable CAISO market actions or outcomes. Considering all these things together, NRG sees the imposition of the proposed FRACMOO and SFCP rules as a move towards a world in which NRG and other flexibility suppliers will take on additional risk (SFCP and market risk) for which the prospects of receiving additional payment are unclear at best.