



**Comments of  
the Cogeneration Association of California and  
the Energy Producers and Users Coalition on  
Revised Draft Flexible Capacity Tariff Language**

The Cogeneration Association of California (CAC) and the Energy Producers and Users Coalition (EPUC) provide the following comments on the revised draft tariff language for Flexible Capacity and Must Offer Obligation (FRAC MOO) issued by the CAISO on June 27, 2014. CAC and EPUC appreciate the revisions made to the initial draft to address some of CAC/EPUC's prior comments. Some important and compelling clarifications still warrant careful attention. The following comments address remaining issues:

1. In 40.10.2(f), it remains unclear how the phrase "*or its capability over 3 hours*" is meant to be applied. Is EFC meant to be the least of the three alternatives: NQC, PMax – Pmin or capability over 3 hours? If that is the intent, then there should be a (iii) before "or its capability ..."
2. In Section 40.10.4.2.1(a)(1), the reference to 40.10.4.1 seems incorrect, as there are no criteria in 4.1. The criteria may either be the criteria for the various ramping products in 40.10.3.1 – 3.3, or the criteria for determining EFC in 40.10.4.2. Depending on which criteria the ISO intended to refer, the reference to 40.10.4.1 should be replaced with either 40.10.3.1 – 3.3 or 40.10.4.2.
3. There is a general ambiguity about the use of EFC. This issue has been regularly raised and identified, but it has not been clarified.

First, to clarify and to provide the specific interrelationship among the various obligations, the definition of Flexible RA Capacity should be revised to read:

*Flexible Capacity with an obligation to provide Flexible RA Capacity during a resource adequacy month, as included in a Resource Flexible RA Capacity Plan, and to which the must offer obligation applies.*

Second, there is the suggestion that EFC will set a resource's must offer obligation. That is contrary to the principle that a resource can decline to sell or commit to provide any part of its EFC. For instance, in both 40.10.3.1 and 40.10.4.1, it suggests EFC is used to specify the capacity to be delivered and the must offer obligation. But it is the actual amount committed to be delivered, or the Flexible RA Capacity, that determines the capacity to be economically bid and the extent of the must offer obligation. The EFC value is irrelevant in determining the sufficiency of plans or in setting a must offer obligation. The term "Effective Flexible Capacity" in the introduction to 40.10.3.1 should be changed to "Flexible RA Capacity as included

in a Resource Flexible RA Capacity Plan. The same revision should be made in the introduction to 40.10.4.1.

Similarly, there remains an apparent confusion between EFC and Flexible RA Capacity, and how they are used to validate plans. For instance, under 40.10.5.3(c), a collective deficiency will be determined “based on the Effective Flexible Capacity value determined by the CAISO for each resource.” To use some specific hypothetical numbers, a resource may have an EFC of 100 MW, but only commit to provide 80 MW of Flexible RA Capacity. The proposed tariff language suggests that the ISO will evaluate whether there is a deficiency assuming all 100 MW is available from the resource. The deficiency should be determined assuming the resource supplies only 80 MW. This issue also arises in 40.10.5.4. In both 40.10.5.3(c) and 40.10.5.4, the term “Effective Flexible Capacity” should be replaced with “Flexible RA Capacity.”

In 40.10.3.2(b), it requires a resource to be capable of supplying its entire EFC. That seems erroneous. A resource should be physically capable and “available” to supply only its Flexible RA Capacity – what it has committed to provide in economic bids to the market. The term “Effective Flexible Capacity” in 40.10.3.2(b) should be replaced with “Flexible RA Capacity.”

4. The sections providing the formula for determining EFC for conventional resources (e.g. 40.10.4.2) use the term “weighted average ramp rate.” That may not work for resources, including multi-stage generators that have transition zones, and may not accurately determine what they can provide in 180 minutes. 40.10.4.2(1) should be revised to read:

- (1) *If the Start-Up Time of the resource is greater than 90 minutes, the Effective Flexible Capacity value shall be the MW/minute ramp rate above  $P_{min}$  for each segment of a resource’s generation configurations multiplied by each segment’s generation capacity (MW) for each generation configuration, up to a maximum amount of capacity achievable in 180 minutes. The Effective Flexible Capacity shall not exceed the difference between the  $P_{min}$  and  $P_{max}$  of the resource and will reflect ramping constraints associated with Multi-Stage Generation referenced in 40.10.4.2 below.*

Respectfully submitted,



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