

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Oversee  
the Resource Adequacy Program,  
Consider Program Refinements, and  
Establish Annual Local Procurement  
Obligations

Rulemaking 11-10-023  
(Filed October 20, 2014)

**OPENING COMMENTS ON  
DETERMINING FLEXIBLE CAPACITY FOR CHP RESOURCES  
FROM THE COGENERATION ASSOCIATION OF CALIFORNIA**

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February 24, 2014

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The Cogeneration of California (CAC)<sup>1</sup> appreciates the opportunity to provide comments to augment the “Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework” dated February 10, 2014. These comments focus on the determination of Effective Flexible Capacity (EFC) for Combined Heat and Power (CHP) facilities, to produce a methodology that is feasible for CHP facilities while also maximizing the amount of dispatchable flexible capacity available to the CAISO from these facilities.

**I. Proposal to Set EFC for CHP**

Each CHP unit can be unique in both its configuration and its operating constraints. Some CHP units are bottoming cycle, and start with an industrial process producing waste heat, such as petroleum coke calcining or cement manufacturing.

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<sup>1</sup> CAC represents the combined heat and power and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

Some topping cycle units generate electricity from a combustion turbine and then produce useable thermal energy from the waste heat. Others start with a steam generator, generate electricity in a steam turbine, and then apply the waste heat to an industrial process. These options in technology mean each unit offers differing opportunities to produce flexible capacity.

Each unit also may have unique contractual and operational constraints in serving its industrial host. Depending on the nature of that industry, the cogeneration unit may be able to generate excess electricity or it may be able to coordinate variations in thermal output with dispatchable variations in electricity output, both giving it the ability to produce some flexible capacity.

For these reasons, each CHP unit may have a unique ability to produce flexible capacity, and should be able to designate that capacity. A simple arithmetic formula does not capture the variance in capabilities of these units. Rather than apply the same formula to each CHP unit, CAC proposes that each unit designate its own EFC. The EFC could be no greater than the NQC for the unit. The CHP unit would then have the comfort that it can actually produce its identified EFC, as it may offer it in contract. The CAISO would be assured, both by the unit's contractual obligations and the CAISO penalty provisions, that the unit would deliver its EFC as actually sold in the market. The final policy document on flexible capacity should provide that:

*A CHP resource will be permitted to designate an EFC value annually for each month of a counting year to reflect its unique operating requirements related to industrial host obligations or CHP contract limitations, provided that it does not exceed the NQC of the resource. This will ensure that a CHP's Must Offer Obligation does not interfere with its ability to self-schedule.*

## **II. Proposal for CHP Safe Harbor**

Candidly, many CHP generators are concerned that if an EFC value is identified for their facility, they will be required to provide that full amount, regardless of either their business preference or their physical capabilities. For this reason, and to ensure that any flexible capacity protocol is consistent with the QF/CHP Settlement and with the CAISO's Net Scheduled Participating Generator Agreement, the final guidelines on flexible capacity should explicitly provide that:

*1. Flexible Capacity is not intended to diminish a CHP resource's ability to self-schedule into the ISO's Day-Ahead and Real Time markets.*

*2. A CHP resource, or any generating resource, will have the ability to designate or sell any portion of its designated EFC as "generic capacity." Such generic RA capacity would have the option to submit either self-schedules or economic bids, but would not have the flexible RA capacity Must-Offer Obligation to submit economic bids.*

## **III. Remaining Issue with CAISO Straw Proposal**

Using the same methodology as proposed for other conventional resources, as the CAISO proposed in its final straw proposal, is not a satisfactory solution. The formula of NQC – PMin captures one concept for conventional gas-fired resources since it represents a calculation of one measure of maximum output minus a measure of minimum stable generation. It represents a completely different concept for CHP. NQC for CHP resources is generally based on their output to the grid net of deliveries to their industrial host. Some CHP units that deliver both electricity and thermal energy behind the meter to their industrial host have only a small net amount of electricity to export to the grid. For those resources, NQC is a relatively small amount and will likely be less

than PMin. The formula would produce a negative EFC for those resources, although they may in fact have some flexibility.

On the other hand, some CHP units among the members of the CHP community have a significant export to the grid and a NQC that is a relatively large percentage of their PMax. For them, the formula NQC-PMIn will overstate their flexibility. Although they export a large amount to the grid, that electricity output may be inflexibly tied to the thermal deliveries to the industrial host, and therefore not flexible capacity available for dispatch. The CAISO may respond that those units can designate that inflexible excess as generic capacity. However, the CAC is concerned that the proposal creates the threat of unintended future obligations for CHP. Having identified a hypothetical, unsupported EFC for a resource, that EFC may be used to create an obligation to operate that the CHP resource cannot honor.

Respectfully submitted,

ALCANTAR & KAHL LLP

A handwritten signature in black ink that reads "Donald Brookhyser". The signature is written in a cursive style and is positioned above the typed name of the signatory.

Michael Alcantar  
Donald Brookhyser

Counsel to the  
Cogeneration Association of California

February 24, 2014