

**California Independent System Operator Stakeholder Process  
On the Flexible Resource Adequacy Criteria and Must-Offer Obligation  
Fourth Revised Straw Proposal**

**Joint Comments of the CHP Parties  
The Energy Producers and Users Coalition and  
The Cogeneration Association of California**

The CHP Parties appreciate the CAISO's acknowledgement of the unique operating and commercial aspects of Combined Heat and Power (CHP) resources in its November 6, 2013 Fourth Revised Straw Proposal for Flexible Resource Adequacy Criteria and Must-Offer Obligation: This recognition is a positive first step to assure appropriate counting for all potentially available Effective Flexible Capacity (EFC) from CHP resources. The CHP Parties recognize that there are many other compelling issues facing the CAISO and stakeholders related to Flexible Capacity. However, there are important features to clarify for CHP operations relative to Flexible Capacity that do not appear to raise material opposition. These features are addressed in these comments.

In Section 6 of the Fourth Straw Proposal under the heading "RA Showings and Replacement" (page 28), the CAISO provided the following passage to adapt the prior proposals to address issues raised by the CHP community:

*The ISO has also reviewed the counting criteria for combined heat and power or similar resources that a primary industrial process of which electricity is a byproduct. Some of these resources have a "reliability must take" amount of capacity listed in the ISO's master file. The ISO believes that the reliability must take portion of these resources' capacity should be treated the same way as a PMin with greater than a 90 minute start-up time. This will reduce the EFC some qualifying facilities, but ensure that the resources are better able to maintain flexibility consistent with their underlying industrial processes.*

This above passage acknowledges some of the CHP Parties concerns regarding Flexible Capacity. However, this passage seems better placed in the context of the CAISO's straw proposal as specific CHP EFC criteria under Section 7.1 (Flexible Capacity Must Offer Obligation for Different Resource Types).

The CAISO proposal suggests using a Regulatory Must Take (RMT) value instead of Pmin in the EFC calculation formula ( $NQC - Pmin$ ). While this suggestion may be intended to address CHP minimum self-scheduling needs, it may reduce without justification the amount of EFC a CHP may be able to make available. Accordingly, the CAISO should permit a CHP facility to provide Flexible Capacity if the facility chooses to provide an economic bid below the facility's RMT for certain periods of the year. Rather

than having RMT as a lower limit, the CAISO should allow a CHP resource to annually specify its EFC, provided it does not exceed NQC - Pmin.

It is understood that EFC counting rules will be established for the required annual or monthly showings of availability. Like NQC, EFC will be established on an annual basis for each month of the subsequent counting year. However, the amount of available flexible capacity a CHP resource may be able to provide within a counting year could vary based on changes in host operations beyond the CHP resource's control. As a result, there may be situations where a CHP resource has additional flexible RA Capacity available on a month-ahead and day-ahead basis. The CHP Parties recommend that CAISO incorporate a methodology to allow a CHP resource to provide such excess flexible RA capacity to the bi-lateral and CAISO markets on month-ahead and day-ahead bases.

### **CHP Must Offer Obligation Under Section 7.1**

The CHP Parties recommend the adoption of an additional subsection under Section 7.1 entitled "Flexible Capacity Must Offer Obligation – Combined Heat and Power Resources." This additional subsection would embrace the above referenced passage in Section 6 of the Fourth Straw Proposal with a set of clear criteria for CHP EFC counting and Must Offer Obligations, as follows:

#### *Flexible Capacity Must Offer Obligation – Combined Heat and Power Resources*

*Combined Heat and Power (CHP) resources have unique operating and commercial conditions that challenge the proposed methodology for counting Effective Flexible Capacity (EFC). Due to obligations to meet operating requirements of their industrial hosts (e.g., thermal or electrical energy), CHP resources require a more defined counting formula and greater discretion in setting the value that will be used by the CAISO for designating EFC for RA showing purposes. The ISO has reviewed the counting criteria for CHP or similar resources associated with primary industrial process of which electric generation is a byproduct. Some of these resources have a "reliability must take" amount of capacity listed in the ISO's master file. The ISO believes that the reliability must take portion of these resources' capacity could be considered the same way as a PMin with greater than a 90 minute start-up time. This may reduce the available EFC of some CHP resources, but ensure that these resources are better able to maintain flexibility consistent with their underlying industrial processes.*

*In order to accommodate CHP operations, the following criteria will apply:*

- 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 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 EFC prescribed by the ISO's default thermal resource formula ( $NQC - P_{min}$ ). This will ensure that a CHP's Must Offer Obligation does not interfere with its ability to self-schedule.*
- 3) *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.*
- 4) *A CHP resource may provide flexible capacity above its annual EFC designation on a month-ahead or day-ahead basis if such CHP resource determines that it is capable of submitting economic bids for such incremental capacity.*
- 5) *For outages (planned or unscheduled) and de-rates resulting in partial capacity availability, a generating resource that provides both generic and bundled generic/flexible capacity will have the discretion to designate whether the offered generation is generic capacity or flexible capacity by virtue of how generation is offered to the ISO Day-Ahead and Real Time Markets. Economically offered generation during the flexible capacity assessment hours would be allocated first to flexible capacity must offer obligations on a pro-rata basis. Any surplus economic offers would be allocated to generic capacity Must Offer Obligations. Generic capacity Must Offer Obligations can also be met with self-schedule generation.*

The CHP Parties appreciate the opportunity to address the issues affecting CHP resources under the CAISO Stakeholder process related to EFC.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Evelyn Kahl", with a long horizontal flourish extending to the right.

Evelyn Kahl

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