



**COMMENTS OF THE COGENERATION ASSOCIATION OF CALIFORNIA AND THE  
ENERGY PRODUCERS AND USERS COALITION  
ON THE ISO'S STANDARD CAPACITY PRODUCT PHASE II ISSUE PAPER**

The California Independent System Operation (ISO) initiated the Standard Capacity Product (SCP) II initiative to resolve the double counting of outages for resources whose historical performance determines their Net Qualifying Capacity (NQC).<sup>1</sup> The ISO stated that the combination of reduced NQC and non-availability charges “*could be exceedingly severe*” for affected resources.<sup>2</sup> Yet, the singular purpose of the resolution of double penalties ignores the implications of inter-related ISO regulation and policies. The Cogeneration Association of California and the Energy Producers and Users Coalition (CAC/EPUC) urge the ISO to clarify the SCP rules, not to create different obligations for different resources, but to prevent “*exceedingly severe*” consequences for the state’s combined heat and power (CHP) facilities.<sup>3</sup>

The potential consequences for CHP facilities from the Resource Adequacy (RA) must offer obligation (MOO) and the SCP availability standards are profound. As demonstrated in the following sections, the RA MOO and the availability standards could provide pronounced disincentives to generate. CHP facilities are not merchant generators solely operating to produce electricity to meet the supply demands of the ISO grid. CHP generators’ electrical output depends on thermal demands separate from the production of electricity that are vital to the generators’ viability. Thus, CHP output may decrease because of reduced thermal demand, what can be termed “host

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<sup>1</sup> ISO Standard Capacity Product II Issue Paper 6 (December 4, 2009) (Issue Paper).

<sup>2</sup> *Id.*

<sup>3</sup> CAC/EPUC thank the California Independent System Operator (ISO) for the opportunity to make these comments on its Resource Adequacy (RA) Standard Capacity Product (SCP) Phase II Issue Paper

steam variations.” The ISO recognized features like host steam variations in SCP I when it stated that variations in Qualifying Facility (QF) output do not represent changes in capacity.<sup>4</sup>

To address CHP’s unique characteristics, CAC/EPUC urge the ISO to clarify that CHP facilities fit the definition of, and are eligible to apply for status as, Non-Dispatchable Use-Limited Resources (ULRs). The ISO should clarify the Tariff to provide that host steam variations do not qualify as “*Forced Outages, non-ambient de-rates or temperature-related ambient de-rates.*” Should the ISO make these clarifications, CAC/EPUC will support the ISO’s proposed use of historical output correction, with certain modifications, in Phase 1 of R.09-10-032 at the California Public Utilities Commission (CPUC).

**I. THE ISO SHOULD CLARIFY THAT CHP FACILITIES FIT ARE NON-DISPATCHABLE USE-LIMITED RESOURCES**

CHP facilities would face recurring sanctions under the under the CAISO Tariff unless the facilities are eligible to become Non-Dispatchable Use-Limited Resources. The Tariff demands that “*Resource Adequacy Resources physically capable of operating must submit ... Economic Bids for Energy and/or Self-Schedules for all their Resource Adequacy Capacity*” in the Day Ahead Market and remain available to offer such energy at Real-Time.<sup>5</sup> However, a CHP facility’s thermal demand for steam determines its ability to bid in or schedule power. In fact, a CHP generator’s Scheduling Coordinator may bid in or schedule 0 MW if there is no thermal demand. Thus, at

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<sup>4</sup> See ISO Standard Resource Adequacy Product 2<sup>nd</sup> Draft Final Proposal 11 (February 27, 2009) (Final Proposal).

<sup>5</sup> ISO Conformed Tariff §§ 40.6.1, 40.6.2 (November 25, 2009) (Tariff).

times, CHP facilities in the course of normal operations will be unable to meet the must-offer provisions of the RA program and will be subject to sanctions.<sup>6</sup>

These sanctions could shut in valuable CHP capacity if producing electricity is no longer possible due to uncertainty, risk and administrative penalties or cost burdens. Furthermore, running CHP units solely to produce electricity to meet the RA MOO obligations could result in lowered efficiencies, which could result in disqualification from certain programs, and in increased greenhouse gas intensity.

Article V of the Tariff already contemplates the inclusion of resources with valuable generation capacity but limited operational flexibility in the SCP. It resolves the fact that these resources are physically unavailable to provide energy output at their RA capacity at certain times by labeling them ULRs. A ULR is a

*resource that, due to design considerations, environmental restrictions on operations, cyclical requirements, such as the need to recharge or refill, or other non-economic reasons, is unable to operate continuously on a daily basis, but is able to operate for a minimum set of consecutive Trading Hours each Trading Day.*<sup>7</sup>

A Non-Dispatchable ULR is a ULR that cannot be increased or curtailed.<sup>8</sup> Because of these unique characteristics, Non-Dispatchable ULRs are required to schedule or bid *“their expected available Energy or their expected as-available Energy, as applicable, in the Day-Ahead Market and HASP.”* Thus, registration as Non-Dispatchable ULRs would reduce CHP facilities’ exposure to recurring MOO sanctions.<sup>9</sup>

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<sup>6</sup> See Tariff §§ 40.6.1(1), 40.6.8, 40.7.2 and 37.2.4.

<sup>7</sup> Tariff Appendix A.

<sup>8</sup> *Id.*

<sup>9</sup> As CHP generators follow steam load, they cannot be curtailed or dispatched without endangering the facility’s operations.

The ISO suggested at a CPUC Workshop on Monday, December 17, 2009 (December 17 Workshop) that QFs are included in the ULR definition. In addition, the Business Practice Manual for Reliability Requirements, although not binding, lists QFs as ULRs.<sup>10</sup> QFs include not only CHP but wind, solar and other unconventional generation, some of which may be increased or curtailed. Consequently, CAC/EPUC request that the CAISO clarify in its Business Practice Manual that CHP facilities fit the definition of, and are eligible to register as, Non-Dispatchable ULRs.

## **II. THE ISO SHOULD CLARIFY THAT REDUCTIONS IN AS-AVAILABLE CHP OUTPUT DUE TO A REDUCTION IN STEAM NEEDS DO NOT COUNT AGAINST AVAILABILITY**

As-available CHP facilities sometimes provide energy output below their RA capacity obligation due to host steam variations.<sup>11</sup> CAC/EPUC seek clear recognition that host steam variations from normal operating procedures do not affect a CHP unit's availability.

The ISO has stated on numerous occasions, including the December 17 Workshop, that only two types of events, "*Forced Outages*" and "*temperature-related ambient de-rates*," will affect a generator's availability in determining compliance with availability standards. Host steam variations are neither "*Forced Outages*" as defined in the Tariff<sup>12</sup> nor "*temperature-related ambient de-rates*" as discussed in the SCP 2<sup>nd</sup>

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<sup>10</sup> ISO Reliability Business Practice Manual 42 (November 18, 2009).

<sup>11</sup> The RA obligation of an as-available CHP facility is its NQC. A Standard Offer 1 Contract between a Load-Serving Entity (LSE) and an as-available CHP facility would not state a specific number of MW as the RA Capacity sold. Instead, the LSE takes output as it becomes available from the CHP facility. Because of the less predictable nature of as-available power, the LSE would list the CHP facility's NQC as the facility's RA Capacity in the LSE's Supply Plan. In turn, the ISO would hold the CHP facility to its NQC as its RA obligation.

<sup>12</sup> See Tariff Appendix A.

Draft Final Proposal (Final Proposal).<sup>13</sup> The ISO also addressed Qualifying Facility

(QF) compliance in the Final Proposal, where it stated:

*The ISO does not consider normal variations in the output of Qualifying Facilities for which the output depends on a process separate from the production of electricity to represent changes in the unit's maximum output capability. As such, these normal variations are not required to be reported.*<sup>14</sup>

This language implied that as-available QFs “*should not have to report availability as the output*” of their generating units.<sup>15</sup>

While the Final Proposal offers clarification, a generator is held to the provisions of the ISO Tariff. Tariff section 40.9.4.2 states that:

*“[a] Resource Adequacy Resource will be determined to be less than one hundred percent (100%) available in a given month if it has any Forced Outages, non-ambient de-rates or temperature related ambient de-rates that impact the availability of its designated Resource Adequacy Capacity during the Availability Assessment hours.”*<sup>16</sup>

This language suggests that a third type of event, a “*non-ambient de-rate*,” would also reduce a generator’s availability and potentially subject that generator to availability charges. The phrase is not defined in the Tariff. More importantly, it is unclear from the tariff language alone whether a host steam variation would count as a “*non-ambient de-rate*,” thereby opening CHP facilities to continuous non-availability charges.<sup>17</sup>

Assuming that “*non-ambient de-rate*” has some other useful meaning in the Tariff, CAC/EPUC recommend that the ISO modify Tariff Section 40.9.4.2 to address host steam variations by adding the following sentence: “Reductions in

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<sup>13</sup> See Final Proposal at 18-19.

<sup>14</sup> *Id.* at 11.

<sup>15</sup> See *id.*

<sup>16</sup> Tariff § 40.9.4.2.

<sup>17</sup> See Attachment A, *infra*.

output by a combined heat and power generator due to changes in the thermal demand of its industrial host shall not reduce the generator's availability." If the phrase "*non-ambient de-rate*" has no other meaning, the term should be eliminated entirely from Tariff Section 40.9.4.2.

**III. WITH THESE CLARIFICATIONS CAC/EPUC WILL SUPPORT THE CONSIDERATION OF A HISTORICALLY BASED NQC COUNTING METHODOLOGY AT THE CPUC IN PHASE 1.**

CAC/EPUC have raised concerns about the NQC Counting Methodology in Phase 1 of R.09-10-032 at the CPUC due primarily to questions related to the matters addressed in these comments and their relationship to on-going confidential contract negotiations. If the requested clarifications are incorporated into the ISO Tariff, CAC/EPUC will support the ISO's proposed use of historical output correction, with certain modifications, in that proceeding.

Respectfully submitted,



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**Attachment A – Application of availability standards to CHP facilities if a Host Steam Variation qualifies as a “non-ambient de-rate.”**

QF Operating Range	
Min	Max
5	10

Description	Historical Monthly Availability Assessment Hour Data Used to Calculate the As-Available QF Net Qualifying Capacity (NQC)												NQC 3-Year Average
	Year 1				Year 2				Year 3				
	Noon	1pm	2pm	3pm	Noon	1pm	2pm	3pm	Noon	1pm	2pm	3pm	
QF-A	10	10	7	10	5	5	5	7	7	7	10	5	7.333
QF-B	7	7	10	5	10	10	7	10	5	5	5	7	7.333
QF-C	5	5	5	7	7	7	10	5	10	10	7	10	7.333
Aggregated Total	22	22	22	22	22	22	22	22	22	22	22	22	22.000

Availability Standard for the Month: 98.0%  
 Minimum Availability W/o Charge: 95.5%

Description	Actual Operation for the Month				Deliveries below NQC Capacity				Total
	Noon	1pm	2pm	3pm	Noon	1pm	2pm	3pm	
QF-A	5	5	5	7	2.3	2.3	2.3	0.3	7.3
QF-B	10	10	7	10	0.0	0.0	0.3	0.0	0.3
QF-C	7	7	10	5	0.3	0.3	0.0	2.3	3.0
Aggregated Total	22	22	22	22	0.0	0.0	0.0	0.0	0.0

**Availability Calculation for As-Available QFs**

Availability for Individual QFs = [(NQC \* Availability Assessment Hours) less Deliveries Below NQC] ÷ [NQC x Availability Assessment Hours]

Description	Availability	Subject to Charge
QF-A	75.0%	Yes
QF-B	98.9%	No
QF-C	89.8%	Yes
Aggregated Total	100.0%	