



COMMENTS OF THE COGENERATION ASSOCIATION OF CALIFORNIA ON THE ISO'S STANDARD CAPACITY PRODUCT PHASE II DRAFT FINAL PROPOSAL

I. INTRODUCTION

The California Independent System Operator (ISO) Standard Capacity Product (SCP) Phase II Final Draft Proposal (Proposal) fails to successfully fit combined heat and power (CHP) resources into the SCP and endangers California's achievement of its CHP goals.¹ CHP operating characteristics do not conform with the SCP's RA must offer obligation (MOO) and availability standards, which are designed to accommodate only conventional electric generation. However, given the ISO's preference to incorporate all resources into the SCP framework, the Cogeneration Association of California (CAC) has developed and proposed solutions at the CPUC and the ISO to accommodate this result. Importantly, all of the following changes must be made at the CPUC and the ISO in order to allow CHP to be incorporated into the existing SCP framework:

1. Rejection of the newly proposed availability calculation as it penalizes CHP resources generating at their capacity obligation and contradicts the ISO Tariff, FERC SCP order and previous ISO statements;
2. Elimination of the risk that host steam variations in the course of normal operations will cause CHP generators to incur availability penalties;
3. Categorization and treatment of CHP facilities with Qualifying Facility (QF) Participating Generator Agreements (PGAs) as Non-Dispatchable Use-Limited Resources (ULRs) in recognition of CHP's operational characteristics;
4. Elimination of the obligation to secure replacement capacity in the event of scheduled outages; and
5. Adoption of CAC's proposed Net Qualifying Capacity (NQC) counting methodology as recommended in R.09-10-032 at the CPUC.

¹ Specifically, the California Public Utilities Commission's expressed objective to retain the existing level of CHP in the State (D.07-09-04), the California Energy Commission's IEPR, and the California Air Resources Board prescription to add 4,000 MW of CHP capacity for the state to reach its climate goals.

CAC has attached its comments to the ISO SCP II Straw Proposal, which address all but the first point. The instant comments demonstrate that the proposed availability calculation should be rejected and the current availability calculation should be maintained. Adoption of the changes proposed in both sets of CAC comments will ensure that CHP facilities are integrated into the provisions of the SCP without jeopardizing California's CHP goals. Without them, the SCP availability standards and MOOs expose CHP to excessive risks and barriers to continued operation and development.

II. THE ISO SHOULD MAINTAIN ITS CURRENT AVAILABILITY CALCULATION

The ISO's newly proposed availability calculation penalizes CHP generators that are 100% available to cover their RA capacity obligations. In addition, it directly conflicts with Tariff Section 40.9.4.2.2, contradicts the Federal Energy Regulatory Commission (FERC) SCP order, and is outside the ISO's stated scope of this proceeding. First, CHP generators will face recurring availability charges despite being able to supply their contracted RA capacity. Consider a CHP resource under a Standard Offer 1 Contract (i.e. an as-available resource) that can export up to 30 MW to the grid but historically exports between 5 and 10 MW due to thermal host needs. It exhibits the following characteristics:

Pmax	30 MW
Net Qualifying Capacity	7.33 MW
RA Capacity Sold	7.33 MW

In a given compliance hour, the resource has a reported thermal steam load of 20 MW and a temperature-related ambient de-rate (TRAD) of 2.66 MW. The resource is still able to export 7.34 MW to the grid and therefore is able to satisfy its RA capacity

obligations. Under the FERC-approved availability calculation, the resource is 100% available.² Under the ISO-proposed availability calculation, the resource would only be 91.1% available,³ well outside an average 2010 month's availability standard. The CHP facility would be subject to availability penalties despite the fact that it is still able to supply its full amount of contracted RA capacity. Thus, the ISO calculation has created an unavailability fiction that unfairly penalizes CHP. This calculation will subject not only an as-available project to absurd outcomes but also CHP projects selling firm contract capacity.

Second, the new calculation directly conflicts with Tariff Section 40.9.4.2.2. That section states that *"[a]ny de-rate will be applied first to any non-Resource Adequacy Capacity of the resource."*⁴ Thus, when a generator reports a forced outage or TRAD the ISO will reduce a resource's non-RA capacity before it reduces a resource's RA capacity. However, the proposed calculation would subtract forced outages and TRADs from non-RA and RA capacity concurrently through the use of a Pmax availability ratio. The Pmax availability ratio is calculated on the basis of the resource's entire capacity without first applying the de-rate to non-RA capacity. In this way, the ISO's Proposal directly contradicts Tariff Section 40.9.4.2.2.

Third, altering the availability calculation is contrary to FERC's order regarding the SCP. As the ISO states in its own Proposal, *"FERC approved the SCP on the*

² The resource would have reported a de-rate of 20 MW for the thermal load and a de-rate of 2.66 MW for the TRAD, resulting in a SLIC Availability of 7.34 and a SCP Availability of 27.34. Since $27.34 > 7.34$, the resource is 100% available for the purposes of SCP availability standards.

³ See Final Proposal at 12. $(30 - 2.66) / 30 = 91.13\%$. $(91.13\% * 7.33) / 7.33 = 91.13\%$.

⁴ Tariff § 40.9.4.2.2

*grounds that it will ... (2) establish uniform metrics*⁵ Yet, the ISO has created a metric in the new availability calculation that discriminates against historically calculated resources. If a typical thermal resource can meet its RA obligation, it is considered available. If the CHP resource used in the example above can meet its RA obligation, it will be considered unavailable.

Finally, the ISO repeatedly stated that the purpose of this stakeholder proceeding was to correct for double penalties, not to change the availability calculations of certain resources.⁶ In fact, the ISO stated in the Issue Paper, the Straw Proposal, and even the Draft Final Proposal that *“[t]he intention of this proposal is not to change the current SCP rules provided in the Tariff....”*⁷ The ISO’s proposed new availability calculation is precisely a *“change to the current SCP rules provided in the Tariff”* and runs contrary to the ISO’s stated intentions.

Therefore, the ISO should not adopt the proposed availability calculation for CHP resources. It is possible that the ISO availability proposal was developed to prevent wind and solar generators with large differences between Pmax and NQC from realizing windfall availability payments. As demonstrated above, however, this proposal leads to absurd results for CHP generators, whose operating characteristics differ greatly from wind and solar generators. Therefore, the ISO should maintain the current availability standard calculation for CHP.

⁵ Draft Final Proposal at 4.

⁶ Issue Paper at 4; Straw Proposal at 4; Draft Final Proposal at 5.

⁷ Issue Paper at 6; Straw Proposal at 6; Draft Final Proposal at 6.

III. CONCLUSION

The ISO's proposed availability calculation is yet another aspect of the SCP framework that creates CHP barriers. If the SCP framework is able to accommodate only conventional electric generators, an exemption from that framework is the optimal solution to satisfying California's CHP goals and assuring the continued consumer benefits derived from CHP. The justification for such an exemption is described in CAC's comments to the original SCP I stakeholder initiative. There, CAC noted that the *"the application of SCP availability standards will subject QFs to duplicative obligations and penalties as a result of CPUC adopted QF contracts."*⁸ The proposal references the terms of CPUC-prescribed standards that already exist in CHP contracts and will exist in future contracts.⁹ The CAC argued that the ISO should grant CHP an exemption from the terms of the SCP because of these already existing contractual standards and the double penalties that would result from them. During the SCP II, on the other hand, CAC has attempted to work with the ISO and within the structure of the ISO's SCP Tariff to incorporate CHP into the SCP. In the absence of adoption of the remedies CAC proposes, a blanket exemption for CHP from the SCP may indeed be the best course of action.

Respectfully submitted,



⁸ Comments of the Cogeneration Association of California and the Energy Producers and Users Coalition on the ISO's Final Standard Capacity Product Proposal, page 3 (January 14, 2009) (2009 Comments).

⁹ 2009 Comments at 2.

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ATTACHMENT



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

The Cogeneration Association of California and the Energy Producers and Users Coalition (CAC/EPUC)¹⁰ are eager for combined heat and power (CHP) generators to participate fully in the Resource Adequacy (RA) Standard Capacity Product (SCP). A cursory review of California Independent System Operator (ISO) and California Public Utilities Commission (CPUC) Net Qualifying Capacity (NQC) data indicates that CHP provides over 3600 MW of reliable capacity to the ISO-controlled grid. However, CHP does not fit the operate-to-generate paradigm of merchant and utility generators whose only business purpose is to supply electricity to the ISO-controlled grid. The main purpose of a CHP facility is not the production of electricity, but the manufacture of products. As such, CHP does not readily fit within the SCP framework. Specifically, as demonstrated below, CHP operating characteristics do not conform well with the SCP's RA must offer obligation (MOO) and availability standards.

Nonetheless, there is a solution for making the CHP piece fit within the SCP structure. That solution entails simultaneous actions within the realms of both the CPUC and the ISO and includes:

- ✓ Elimination of the risk that host steam variations in the course of normal operations will cause CHP generators to incur availability penalties;
- ✓ Treatment of CHP facilities with Qualifying Facility (QF) Participating Generator Agreements (PGAs) as Non-Dispatchable Use-Limited Resources (ULRs);
- ✓ Recognition of CHP generators' unique operations in rejecting any requirement that CHP QFs procure replacement capacity in the event of scheduled outages; and

¹⁰ CAC/EPUC thank the ISO for the opportunity to make these comments on its Straw Proposal.

- ✓ Adoption of CAC's proposed NQC counting methodology in R.09-10-032 at the CPUC.

The ISO's Straw Proposal in the SCP Phase II Initiative addressed, in part, two of these issues:

1. It proposed the deletion of the phrase "*non-ambient de-rate*" to clarify that only forced outages and temperature-related ambient de-rates affect a generator's availability.¹¹
2. It proposed moving the burden of replacing RA capacity that is on scheduled outage from entities guaranteed to have a fleet of resources, to entities that may only have one or a few generating units.¹²

In response, CAC/EPUC:

- ✓ Support the ISO's proposal to delete the Tariff language "*non-ambient de-rate*," but recommend Tariff language that would eliminate the risk that host steam variations will open CHP generators to availability penalties.
- ✓ Request that the ISO clarify in its Tariff that, due to the operational nature of CHP facilities, CHP resources may elect to be deemed Non-Dispatchable ULRs.
- ✓ Recommend that the ISO reject any requirement that CHP QFs procure replacement capacity in the event of scheduled outages.

These actions will help to ensure that CHP facilities are successfully integrated into the provisions of the SCP.

I. ELIMINATE THE RISK THAT HOST STEAM VARIATIONS IN THE COURSE OF NORMAL OPERATIONS WILL CAUSE CHP GENERATORS TO INCUR AVAILABILITY PENALTIES

CAC/EPUC strongly support the ISO's proposal to eliminate the phrase "*non-ambient de-rate*" from the ISO Tariff.¹³ However, the ISO's statement that "*non-ambient*

¹¹ ISO Standard Capacity Product Phase II Straw Proposal at 13 (January 19, 2010) (Straw Proposal).

¹² Straw Proposal at 12.

¹³ Straw Proposal at 11,13.

de-rates” are a “subset of the term *forced outage*” is worrisome.¹⁴ The concern is grounded in the Tariff definition of “*Outage*.” Specifically, the Tariff language raises the possibility that host steam variations¹⁵ resulting from normal CHP operations could be considered “*reductions in capacity*.” A “*reduction in capacity, planned or forced, of one or more elements of an electric system*” qualifies as a Forced Outage under the exact language of the Tariff, if reported within 72 hours of Real Time.¹⁶ The ISO has stated on numerous occasions, including the Straw Proposal, that “*normal variations in output from a Qualifying Facility*” are not Forced Outages.¹⁷ However, a generator is held to the language of the Tariff. Thus, CAC/EPUC recommend adding the following, clarifying language to the definition of Outage, in the Tariff’s Appendix A:

“Normal variations in output from facilities that serve industrial host operations, such as combined heat and power QFs, are not considered Outages for purposes of compliance with the provisions of the Resource Adequacy Standard Capacity Product.”

Such language will ensure that host steam variations will not affect a CHP generator’s availability under normal operating conditions.

II. CHP FACILITIES MAY ELECT TO BE DEEMED NON-DISPATCHABLE ULRS BECAUSE OF THEIR OPERATIONAL NATURE

CHP facilities executing a QF PGA are by contract “*non-dispatchable*,” yet may face recurring sanctions under the Tariff provisions related to the SCP. For example,

¹⁴ Straw Proposal at 7; Tariff Appendix A, definition of Forced Outage and Outage.

¹⁵ A CHP facility operates to serve its thermal host. A host steam variation is an increase or decrease in steam due to an increase or decrease in thermal demand on the part of the facility’s thermal host.

¹⁶ Tariff Appendix A, definition of Forced Outage and Outage.

¹⁷ Straw Proposal at 11.

the RA MOO 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.¹⁸ Thus, a generator must bid in the specific amount of RA capacity it sold or face penalties.

However, numerous CHP contracts do not identify a specific MW value for the RA capacity sold.¹⁹ Instead, the Load-Serving Entity (LSE) that contracts with the CHP facility for RA capacity simply lists the resource’s NQC as the resource’s RA value in its annual and monthly filings. The CPUC calculates these resources’ NQC on a historical basis, using a three-year average of generation during peak summer hours.²⁰

Thus, under the terms of the RA MOO, a CHP QF must bid in its three-year historical average each day. However, the nature of an *“average”* dictates that the generator will be unable to comply with the RA MOO during portions of the year’s compliance hours. Therefore, CHP QFs 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.²¹

A solution to this issue is to deem these facilities Non-Dispatchable Use-Limited Resources. 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

¹⁸ ISO Conformed Tariff §§ 40.6.1, 40.6.2 (Jan 5, 2010) (Tariff).

¹⁹ Previous comments filed with the CPUC and sent to the ISO labeled these resources *“as-available.”* Because the January 27, 2010 CPUC workshop in R.09-10-032 revealed confusion about this phrase, it is not used here.

²⁰ CPUC Energy Division Qualifying Capacity Methodology at 19-20 (Dec 18, 2009).

²¹ See Tariff §§ 40.6.1(1), 40.6.8, 40.7.2 and 37.2.4.

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.*²²

A Non-Dispatchable ULR is a ULR that cannot be increased or curtailed.²³ 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.²⁴

The ISO suggested at a CPUC Workshop on Monday, December 17, 2009 that QFs are included in the ULR definition. In addition, the Business Practice Manual for Reliability Requirements, although not binding, lists QFs as ULRs.²⁵ QFs include not only CHP but wind, solar and other unconventional generation, some of which may be increased or curtailed. Further, no CHP QF has attempted to register as a Non-Dispatchable ULR. Thus, it is not clear if CHP QFs fit the ULR definition. Consequently, CAC/EPUC recommend adding the following language to the definition of a *“Use-Limited Resource”* in Appendix A of the Tariff:

²² Tariff Appendix A.

²³ *Id.*

²⁴ As CHP generators follow steam load, they cannot be curtailed or dispatched without endangering the facility’s operations.

²⁵ ISO Reliability Business Practice Manual at 42 (January 1, 2010).

“Facilities, including combined heat and power QFs, with normal variations in output that result from changes in demand from industrial host operations may elect to be deemed Use-Limited Resources.”

Such language will ensure that host steam variations will not subject a CHP generator to recurring RA MOO penalties under normal operating conditions.

III. CHP FACILITIES SHOULD NOT BE REQUIRED TO PROCURE REPLACEMENT CAPACITY IN THE EVENT OF SCHEDULED OUTAGES

The ISO’s proposal to shift the obligation to secure replacement capacity onto generators in the event of a scheduled outage should be rejected. While the full details of the proposal remain unknown, this sea change in capacity replacement will significantly discourage investment in CHP and CHP QFs’ willingness to supply RA capacity. As explained in more detail below, the proposal is based on assumptions of a generator’s ability to procure replacement capacity which do not universally apply to CHP QFs. In addition, paying for ISO procurement will increase the cost of generation for producers whose business purpose is to manufacture products. Finally, the proposal may result in increases in the cost of RA procurement with no added benefit.

The burden to replace capacity on unscheduled outage is a tall barrier to investment in CHP. The ISO’s proposal assumes that all RA capacity suppliers are not only in a position to secure replacement obligation but will do so as a normal course of their electric supply business. This may be a fair assumption for some RA suppliers, such as merchant and utility generators. In fact, some RA capacity suppliers support the ISO proposal on the grounds that their existing bilateral RA contracts already require them to secure replacement capacity for scheduled outages. In other words,

they support the proposal because the change imposes no incremental procurement obligation on the generator. This is not the case for CHP QFs. Existing CHP QF/utility contracts do not obligate CHP QFs to secure replacement obligation. More importantly, unlike supporters such as Calpine, CHP QFs do not universally have access to alternative sources of non-RA generation. As a result, the ISO's proposal to expand the replacement procurement obligation would impose new costs on CHP QFs with existing contracts without providing any additional compensation. In doing so, the proposal creates a barrier to CHP QF development and discourages the provision of RA capacity by both existing and potential CHP QFs.

The alternative to finding replacement capacity, paying for ISO procurement, also discourages investment in CHP. All generators take scheduled outages to address maintenance issues. This maintenance effort is important to ensure reliable operation. As such, scheduled outages promote the underlying goal of the RA program to ensure adequacy of resources. The ISO proposal, however, would effectively penalize CHP QF generators for taking a scheduled outage by obligating them to pay for ISO procurement if the generators were unable to secure replacement capacity. In some circumstances, this punishment would be exceedingly harsh. For example, a generator submits a scheduled outage request after it submitted its monthly Supply Plan but more than three days before Real Time. The scheduled outage request will last three days. If the ISO has to procure replacement capacity, that generator could have to pay for it through the ICPM *for the entire month*. This result by itself seems overly harsh. It is even more troubling that under the current availability standards scheme, a generator on a forced outage that lasts three days, but does not cause the generator to miss its

availability standard for the month, does not pay any penalty. As noted above, CHP QFs do not supply electricity as the sole focus of their business. In fact, the vast majority of CHP QFs supply electricity as a by-product of their core business. Accordingly, the signal to these highly reliable resources, many of whom are located in load centers, is to discourage investment in CHP and to discourage the provision of RA capacity.

The ISO proposal may also unnecessarily increase the costs of RA procurement. The RA program bases LSE procurement obligations on peak demand. Scheduled maintenance outages are typically scheduled in off-peak periods of the year. As a result, it is not clear that additional RA capacity costs are incurred by all LSEs due to the current scheduled maintenance obligation methodology. In fact, as SCE notes in its comments at the CPUC, the Commission adopted the planning reserve margin to account for both forced and scheduled outages. This comment suggests that shifting the capacity replacement obligation for scheduled outages may cause redundant over-procurement and unnecessarily increase costs.

IV. CONCLUSION

The proposed, clarifying language in the definitions of Outage and Use-Limited Resource is a vital step to including CHP generators in the SCP, and CAC/EPUC urge

the ISO to adopt it. Further, CAC/EPUC recommend that the ISO reject any requirement that CHP generators procure replacement capacity in the event of scheduled outages.

Respectfully submitted,

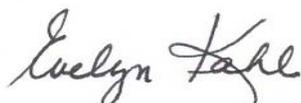


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