

**COMMENTS TO CALIFORNIA ISO ON
PLANNING ASSUMPTIONS FOR 2016-2017 TRANSMISSION PLAN
BY THE COGENERATION ASSOCIATION OF CALIFORNIA**

The Cogeneration Association of California¹ provides these comments on the draft 2016-2017 Transmission Plan posted on January 31, 2017 (the Plan).² CAC is concerned with the apparent inconsistency between the forecast assumptions related to Combined Heat and Power (CHP) resources and the realities of the State's energy policies related to these resources. But also, the need for the CAISO to take note of, and support leadership roles in, finding solutions to preserve these existing, efficient resources that sustain industrial operations in California.

I. INTRODUCTION

The Plan relies on the capacity provided by CHP resources, particularly in assessing local capacity requirements. The continued availability of existing, efficient CHP resources is an express policy objective of the California Public Utilities Commission's (CPUC) QF/CHP Program.³ This program explicitly called for the encouragement of the continued operation of existing CHP, and for policies and procedures to support that goal. In an apparent disregard for this objective, the CPUC, pursuant to an Assigned Commissioner ruling⁴ adopted a CHP planning assumption that all existing CHP resources will retire at the end of a 40-year life, or at the expiration

¹ CAC represents the combined heat and power and cogeneration operation interests of Midway Sunset Cogeneration Company and Watson Cogeneration Company.

² <http://www.aiso.com/planning/Pages/TransmissionPlanning/2016-2017TransmissionPlanningProcess.aspx>.

³ The Qualifying Facility and Combined Heat and Power Program Settlement Agreement (CHP Settlement or Settlement); *Decision Adopting Proposed Settlement*, D.10-12-035, A.08-11-001 (December 21, 2010), as modified by D.11-03-051 and D.11-07-010, available at http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/128624.pdf.

⁴ *Assigned Commissioner's Ruling Adopting Assumptions*, R.16-02-007 (February 28, 2017).

of their current Power Purchase Agreement (PPA), whichever is later. Thus, the Plan may not accurately reflect the risks associated with the loss of continued CHP availability. The Plan should assess the important contribution that existing, efficient CHP resources make to the grid, and what the loss of this generation supply to VAR support, frequency support, demand and stability of the market, particularly in the LA Basin, would mean. Existing, efficient CHP resources have provided and should continue to provide electric grid reliability, relief for constrained distribution and transmission locations, and locational and needed generation supply for load pockets. In addition, these attributes sustain California's economic competitiveness, employment, tax base and many other benefits.

A recently published quote attributed to the Center for Energy Efficiency and Renewable Technologies (CEERT) explains:

"...the solution [to addressing resource integration] involves much more than simply adding energy storage or substituting more wind or solar generation for the 55 percent of energy the state now derives from natural gas-fired generation. The key is to have the right mix. What you choose must also keep the grid properly synched, instantaneously balancing supply and demand, and maintaining the standard frequency and voltage needed to avoid blackouts."⁵

The assumptions in the Plan, related to retirement of CHP resources from an electrical system that relies on balance and diversity of resources are not consistent with a responsible balancing of diversified generation assets. CHP projects are generally located at unique thermal and electric demand locations, and eliminating these existing, efficient resources is imprudent for balancing the State's complex interests.

⁵ <https://www.greenbiz.com/article/californias-grid-geeks-deep-green-time-trump>.

To provide a more accurate reflection both of the threats to the grid support provided by CHP and of the future potential of these resources, CHP proposes three modifications to the Plan. First, the Plan must recognize the potential risks that CHP resources may no longer provide a material portion of the capacity in the State, particularly in the local areas of the Western LA Basin and Big Creek. CAISO studies, particularly of local capacity requirements, seem to assume that capacity will be on-line for the duration of the planning period. However, that capacity will remain on-line only as long as the resource has a PPA providing reasonable compensation; there are significant risks that the state will abandon its commitment to CHP and will not provide for renewal or extension of such PPAs. CAC also notes that the study of risk of retirement in Section 6 of the Plan does not seem to include retirement of any CHP unit in either Big Creek or the LA Basin, although, as discussed below, there is a substantial risk of such retirements within the planning horizon of this Plan. Moreover, the impact associated with the loss for CHP resource is not confined to the amount of export capacity. Without CHP, there is a potential risk for increased system load associated with behind-the-meter load. Additionally, the environmental considerations associated with thermal production could exacerbate the risk of increased electrical load.

Second, the Plan must also address the problems with the assumptions approved by the CPUC⁶ that all such CHP resources will retire at the end of a 40-year life, or at the expiration of their current PPA, whichever is later. The ISO must recognize that several large CHP resources, including in the LA Basin, will reach their 40 year life in 2026 at the end of the planning period for the current Plan, and within the

⁶ *Assigned Commissioner's Ruling Adopting Assumptions*, R.16-02-007 (February 28, 2017).

planning period for the 2017-2018 plan currently being developed. Although this assumption of a 40-year life ignores the continuous upgrades and maintenance provided for these units, the CPUC assumptions (unless corrected) force the ISO to reflect in its plans the contingency that those resources will not be available to provide local capacity, reliability and voltage support.

II. ASSUMPTION AS TO EVERGREEN PPAs

The CPUC assumptions⁷ signal to existing CHP resources that they are at risk of retirement as soon as their current PPA expires, given that they also nearing the expiration of that assumed 40-year operating life. Such an assumption of retirement and decreasing CHP capacity is inconsistent with the original intent of the CPUC's QF/CHP Program and representations made to the Federal Energy Regulatory Commission to sustain the state-administered program. The CPUC QF/CHP Program was expressly intended, in part, to create an on-going procurement program for existing, efficient CHP resources. The Settlement itself promised the platform for an ongoing CHP retention program.

1.2.2.9 [Among the CHP Program objectives] Establishes a platform for a State CHP Program with identified features through 2020, and sets a framework for a sustained State CHP Program beyond 2020.

Moreover, express policy objectives of the CPUC QF/CHP Program call for the encouragement of the continued operation of existing CHP, and for policies and procedures to support that goal.

1.2.1.3 The purpose of the State CHP Program is to encourage the continued operation of the State's Existing CHP Facilities, and the development, installation, and interconnection of new, clean and efficient CHP Facilities, in order to increase the diversity, reliability, and

⁷ It is CAC's understanding that these assumptions were vetted with the ISO.

environmental benefits of the energy resources available to the State's electricity consumers.

1.2.1.4 These policies and purposes will be achieved by a State CHP Program that procures CHP as set forth in this Settlement, retains existing efficient CHP, supports the change in operations of inefficient CHP to provide greater benefits to the State, and replaces CHP that will no longer be under contract with the IOUs with new, efficient CHP.⁸

Although inconsistent with the original intent of the QF/CHP Settlement, it seems the abandonment of these resources after their current PPA reflects an abandonment of the stated commitment to provide a sustained CHP procurement beyond 2020.

This abandonment was effected by the Commission's decisions on procurement requirements for the Second Program Period of the Settlement (2015 – 2020). The decision on CHP policy issues in the 2014 LTPP proceeding set a new target for the Second Program Period:

While we will reduce the GHG Emissions Reduction Target, we are persuaded by EPUC/CAC and others that the Second Program Period GHG Emissions Reduction Target needs to be robust enough to achieve the CHP policy objectives established in D.10-12-035 beyond GHG emissions reductions.⁹

The target established for the Second Program Period relied on the same ICF Study for the CEC upon which the 2012 assumptions were based:

[W]e will use the June 2012 CEC Report's Medium Case to establish the Second Program Period GHG Emissions Reduction Target. The Medium Case has assumptions that reflect policies in effect today.¹⁰

That decision recognized the benefits that continued use of CHP could provide to the grid and to California's environment:

⁸ Term Sheet of the QF/CHP Settlement.

⁹ *Decision on Combined Heat and Power Procurement Matters*, D.15-06-028 (June 11, 2015), p. 16.

¹⁰ *Id.*, at p. 20.

Ideally, CHP would be situated at locations where inefficient boilers are displaced by a system that can generate both industrial-grade heat and electricity. We note that CHP, as a form of distributed generation, both displaces electric load and delivers baseload generation onto the grid. Thus, if we drastically alter the GHG Emissions Reduction Target associated with CHP procurement, we may unintentionally cause efficient existing CHP facilities without future contract certainty to shut down, and undermine the state's efficiency and distributed generation goals.¹¹

This decision on the Second Program Period seems to represent an evolution in the CPUC's implementation of the QF/CHP Settlement, and an abandonment of any sustained procurement of existing, efficient CHP resources. CAISO's Plan must reflect that contingency and the loss of those units upon the expiration of their existing PPAs. Certainly, such an eventuality represents a risk of economic retirement that should be reflected in the Plan's study of risk of retirement. Appendix C to the Plan models retirement of QF units only for certain local areas of PG&E. It appears to only model retirements that may be caused by thermal overloads. It does not model retirement for any SCE area.

CAC's interactions with the ISO reveal that the ISO recognizes the value of the continued availability of these resources. Although the Plan should recognize the real possibility of the early retirement of these units, the ISO, as the entity responsible for the reliability of the grid, should be advocating in any available forum for the continued support and retention of these existing, efficient CHP resources.

III. OPERATING LIVES AND CHARACTERISTICS OF CHP RESOURCES

The CPUC assumption that CHP resources will retire after 40 years of operation is misplaced. CHP operations typically undergo major maintenance overhauls in five-year cycles. This regularly scheduled maintenance provides opportunities to upgrade

¹¹ *Id.*, at pp. 21-22.

equipment, enhance efficiency and effectively refresh anew the physical plant. These units have demonstrated superior capacity and on-line performance factors, *i.e.*, sustainable operating characteristics, and there is no reason to assume they will not continue to do so. Moreover, the host facilities that rely on these CHP resources are not typically planning on terminating operations. These hosts, usually industrial facilities, have longevity requirements for thermal output far beyond what the CPUC Staff assumptions would support. Many of the units owned by CAC's members are approaching 40 years in operation, would likely be classified as exporting CHP units, and continue to operate efficiently (all of which are greater than 20 MW). The industrial operations that they support will continue to need the most efficiently-produced and reliably supplied thermal and electrical energy for decades in the future.

The assumptions utilized by the CAISO should not contemplate a decrease in the amount of CHP capacity on the grid from existing, efficient resources for the period of this TPP planning cycle (2016-2026) without a compelling factual basis. Even with California's commitment to reduce (not eliminate) fossil-fuel use, particularly in existing, efficient applications, the "other 50%" of grid resources relying on clean natural gas generation matter, and need to be prudently sustained. The ISO should embrace a responsible and balanced set of assumptions that supports a policy that industries relying on existing, efficient CHP should obtain their thermal and electrical requirements in the most feasible and proficient means possible.

IV. CONCLUSION

The ISO transmission plan should accurately reflect the contribution made to grid stability by existing, efficient CHP resources. But it must also reflect the risk that such

CHP resources may be untimely removed from service pursuant to policies adopted by the CPUC. The expiration of current PPAs may force these resources to close, eliminating their multiple benefits to the grid. The ISO's modeling of system requirements, particularly of local capacity requirements, should incorporate the presumption that within the planning horizon of this plan, these units may be eliminated. Moreover, the CAISO should take the lead in demonstrating the cost and operational implications of the loss of these resources in order to fairly address options that include consideration of contracts that sustain the resources in contrast to the cost of losing the resource.

Respectfully submitted,

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

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