

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**



FILED

04/15/19
04:59 PM

Order Instituting Rulemaking to Develop
an Electricity Integrated Resource
Planning Framework and to Coordinate
and Refine Long-Term Procurement
Planning Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**REPLY COMMENTS OF CALPINE CORPORATION ON
PROPOSED DECISION**

Matthew Barmack
Director, Market and Regulatory Analysis
Calpine Corporation
4160 Dublin Blvd.
Dublin, CA 94568
Tel. (925) 557-2267
Email: Matthew.Barmack@calpine.com

April 15, 2019

Patrick Ferguson
Katie Jorrie
Davis Wright Tremaine LLP
Suite 800
505 Montgomery Street
San Francisco, CA 94111-6533
Tel. (415) 276-6500
Email: patrickferguson@dwt.com
Email: katiejorrie@dwt.com

Attorneys for Calpine Corporation

I. INTRODUCTION

Pursuant to the Rule 14.3 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure, Calpine Corporation ("Calpine") submits these reply comments on the *Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle* ("PD"). Calpine welcomes the opportunity to reply to opening comments specifically related to gas generation, in particular the consideration of long-term procurement of gas generation in the procurement track that the PD would establish.

Calpine supports consideration of longer term procurement of gas generation in connection with the procurement track, and disagrees with parties that suggest that procurement of gas generation should be limited to short-term RA and energy purchases. Securing some gas generation on a long-term basis would better ensure reliability, allow suppliers to recover their ongoing operating and maintenance costs, and likely lower per year prices for buyers. Some parties argue that gas generation should not be procured on a longer-term basis to preserve optionality to procure other resources as their costs potentially decline or new technologies emerge. Maintaining such optionality would entail costs, in terms of potentially lower reliability and higher cost, shorter-term procurement of gas generation. Calpine encourages the Commission to explore these tradeoffs in the proposed procurement track.

Calpine strongly objects to arguments that an explicit goal of the IRP process should be to shutter gas generating capacity. As the PD articulates, the IRP process should strive to meet environmental objectives while also balancing cost and reliability concerns. Continued reliance on gas generation to meet reliability requirements, potentially in combination with reducing energy production from the same resources, is a prudent approach to meeting all IRP goals that should be more fully examined during the procurement track.

II. RESPONSE TO PARTY COMMENTS

A. San Diego Gas & Electric Company (“SDG&E”)

Calpine strongly agrees with SDG&E that the Commission should revisit whether the current 15% planning reserve margin (“PRM”) used to set system RA requirements is sufficient to maintain reliability in light of changes to the system, such as higher penetrations of intermittent renewables.¹ This is likely best addressed in the RA proceeding.

Staff validation of the reliability of portfolios in IRP using reliability models such as SERVIM may minimize the importance of robust, analytically-based PRMs in IRP. To the extent the Commission chooses to impose longer-term, reliability-related procurement requirements in IRP, it may be desirable to tie such requirements to updated PRMs.

B. Southern California Edison Company (“SCE”)

SCE continues to support its own prescriptive procurement proposal, the Reliability Threshold Mechanism (“RTM”).² It would enable SCE to procure storage on an expedited basis and spread the costs through non-bypassable charges if capacity supply shortages emerge, including shortages related to retirements of natural gas generation. Calpine continues to object to the RTM because it is focused exclusively on one type of resource (i.e. storage) in reaction to reliability events that may be manageable through more ex ante procurement.

Calpine favors all-source procurement to secure reliability on a forward basis. Such procurement would allow for consideration of whether it is actually economic to replace gas

¹ See Comments of San Diego Gas & Electric Company (U 902 E) on Proposed Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle (“SDGE Comments”), at 10.

² See Comments of Southern California Edison Company (U 338-E) on Proposed Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle (“SCE Comments”), at 9-11.

generation with storage, and presumably avoid unexpected retirements of gas generation that might jeopardize reliability.

C. The Union of Concerned Scientists and the Natural Resources Defense Council (“USC/NRDC”)

UCS/NRDC argue that the Commission should not consider longer-term procurement of gas generation in the procurement track, because it would occur prior to the Commission’s gas generation analysis scheduled to take place in the 2019-2020 IRP cycle.³ While Calpine supports further analysis of gas generation (and other resources), there is no reason for a categorical proscription of procurement of gas generation until the Commission completes its gas generation analysis. To the extent the Commission orders procurement, it should be open to all technologies and balance environmental concerns about gas with concerns about cost and reliability based on the most current modeling and information about gas generation and potential alternatives.

D. California Environmental Justice Alliance and Sierra Club (“CEJA/SC”)

CEJA/SC suggest that the Commission should affirmatively try to eliminate gas generation.⁴ This recommendation has little basis in fact or law. The overarching objective of

³ See Comments of the Union of Concerned Scientists and the Natural Resources Defense Council on Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle, at 4.

⁴ See Comments of California Environmental Justice Alliance and Sierra Club on the March 18, 2019 Proposed Decision Adopting Preferred System Portfolio and Plan for the 2017-2018 Integrated Resource Plan Cycle, at 5-6; EBCE/PCE makes a similar argument. See Opening Comments of Peninsula Clean Energy Authority and East Bay Community Energy on the Proposed Decision, at 9. In addition, EBCE/PCE suggest that “en masse” retirements of gas generation will be necessary to meet the state’s GHG goals. In fact, as demonstrated by the Commission’s own PSP, continued reliance on gas generation is fully consistent with the state’s GHG goals. In addition, longer-term modeling suggests that some reliance on gas generation is also consistent with even deeper decarbonization goals. For example, see https://www.ethree.com/wp-content/uploads/2018/06/Deep_Decarbonization_in_a_High_Renewables_Future_CEC-500-2018-012-1.pdf, especially Figures 14 and 16. Burning less gas in gas generation, i.e., producing less energy from gas generation, can reduce GHG while maintaining gas generating *capacity* to assure reliability.

the IRP proceeding is to determine the mix of resources that meet environmental objectives at reasonable cost while maintaining reliability. As the PD acknowledges, gas generation is likely to remain a part of a portfolio that achieves these multiple objectives. At a minimum, the question of whether gas generation is an economic part of a portfolio that meets IRP goals should be studied more thoroughly, as is contemplated in the upcoming IRP cycle.

Further, CEJA/SC suggests that the procurement authorized in Resolution E-4909 is a good model for how the Commission should undertake resource planning.⁵ Calpine disagrees for the following reasons: (1) the resulting procurement was approved absent a clear reliability need;⁶ (2) had the local reliability need continued absent transmission upgrades, the CAISO never validated that the storage procured would have met the local reliability need;⁷ and (3) the cost-effectiveness showing was based on a flawed valuation that assumed incorrectly that the alternative of continued reliance on gas generation would only be available at the cost of CAISO backstop procurement (i.e., it did not consider or test the possibility that gas generation might be available at lower prices if procured for the same terms as the storage that was procured).⁸

E. Protect Our Communities Foundation (“POC”)

Calpine disagrees with POC’s flawed arguments against long-term procurement of gas generation.⁹ Based on recent solar PV contract prices, POC suggests that solar is cheaper than

⁵ Resolution E-4909 approved PG&E’s storage procurement to obviate the need for several existing gas generation plants in the South Bay/Moss Landing local sub-area.

⁶ PG&E found low-cost transmission upgrades that obviated the specific local reliability need for which the storage was ostensibly procured.

⁷ While PG&E procured storage with 4-hour duration, several analyses of local areas by CAISO have suggested that longer duration storage may be necessary to address local reliability issues in local areas similar to South Bay/Moss Landing.

⁸ In addition, the valuation ascribed significant additional flexible RA capacity value to storage relative to gas generation even though flexible RA capacity has been trading at essentially no premium to generic/inflexible RA capacity.

⁹ See The Protect our Communities Foundation Comments on Proposed Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle, at 6-8.

gas generation; however, the comparison is inapposite because solar yields very different benefits than gas generation. For example, solar generally produces energy in the middle of the day when it is less valuable.¹⁰ In addition, as Energy Division's SERVVM modeling demonstrates, incremental solar is expected to yield very little RA capacity value.

POC also suggests that it is preferable to allow gas generation to operate on a merchant basis instead of securing it through long-term contracts. There are two major problems with this argument: (1) it is not clear that gas generation will remain economically viable on a merchant basis; and (2) gas generation may not be cheaper for load on a merchant basis.¹¹ POC also suggests that long-term contracts encourage gas generation to operate uneconomically and crowd out renewable generation, but ignores the fact that long-term contracts for gas generation are typically tolling agreements or RA-only (neither of which encourage uneconomic operation).¹²

¹⁰ For example, for April 10, day-ahead wholesale prices in NP15 were zero or negative for hours ending 11-17, including many of the hours in which solar production was highest.

¹¹ To the extent suppliers face uncertainty about recovering costs over multiple years, they likely will seek to recover costs on an accelerated basis leading to higher annual costs than if the same resources were procured for longer terms. In addition, longer term procurement of gas generation insulates buyers from short-term disruptions in wholesale markets, such as have occurred recently due to restrictions on the operations of the Aliso Canyon gas storage facility and several pipeline outages on SoCalGas's system.

¹² Tolling agreements convey dispatch rights to buyers who then decide whether or not to dispatch the tolled plant in response to market conditions (or offer resources into CAISO markets so that the CAISO can dispatch them economically). Similarly, under RA-only contracts, sellers retain dispatch rights and then are incented to dispatch the associated resources in response to market conditions (or offer resources into CAISO markets so that the CAISO can dispatch them economically).

Matthew Barmack
Director, Market and Regulatory Analysis
Calpine Corporation
4160 Dublin Blvd.
Dublin, CA 94568
Tel. (925) 557-2267
Email: Matthew.Barmack@calpine.com

April 15, 2019

Respectfully submitted,

/s/

Patrick Ferguson
Katie Jorrie
Davis Wright Tremaine LLP
Suite 800
505 Montgomery Street
San Francisco, CA 94111-6533
Tel. (415) 276-6500
Email: patrickferguson@dwt.com
Email: katiejorrie@dwt.com

Attorneys for Calpine Corporation