



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

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Implementing Senate Bill 846 Concerning
Potential Extension of Diablo Canyon Power
Plant Operations.

R.23-01-007
(Filed January 12, 2023)

**OPENING BRIEF OF CALPINE CORPORATION
IN PHASE 1: TRACK 2**

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I. INTRODUCTION.

Pursuant to the briefing schedule set forth by the assigned Administrative Law Judge in a ruling issued on August 14, 2023 (“August 14th Ruling”), as modified by the subsequent assigned Administrative Ruling issued on September 13, 2023, Calpine Corporation (“Calpine”) hereby submits this opening brief pertaining to Phase 1: Track 2 of this proceeding. Although the August 14th Ruling instructs parties to utilize a common briefing outline following the Phase 1: Track 2 issues that are identified in the Assigned Commissioner’s Scoping Memo and Ruling issued on April 6, 2023 (“Scoping Memo”), Calpine’s sole focus in this proceeding is the definition of, “new zero-carbon resources,” so this brief is limited to that issue.

In testimony sponsored by Calpine and admitted into the record, Calpine’s witness, Ms. Emily Turkel, demonstrates that the proposed definition of “new zero-carbon resources” is too narrow, particularly with respect to procurement policy outside the context of this proceeding, and excludes important resources, such as combustion turbines using hydrogen as a fuel and natural gas generation retrofit with post-combustion carbon capture, utilization and storage (“CCUS”) technology.¹ Because so little attention has been paid in this proceeding to this important issue which has significant implications for future procurement decisions in furtherance of California’s climate and clean energy goals, the California Public Utilities Commission (“Commission”) should explicitly limit the reach of the definition adopted for “new zero-carbon resources” to this proceeding and explicitly provide that further examination of the definition of “new zero-carbon resources” will occur in a subsequent proceeding.

II. THE PROPOSED DEFINITION OF “NEW ZERO-CARBON RESOURCES” IS TOO LIMITED FOR APPLICABILITY IN BROADER PROCUREMENT POLICY.

As recounted in the Scoping Memo, on September 2, 2022, Governor Newsom signed Senate Bill (SB) 846² which allows for the potential extension of operation of Diablo Canyon Nuclear Power Plant (“Diablo Canyon”) beyond its current retirement dates for up to five years. On January 20, 2023, the Commission opened this proceeding to consider specific criteria related

¹ See Exhibit Calpine-01, Opening Testimony of Emily Turkel on behalf of Calpine Corporation, at p. 2, lines 2-10.

² SB 846 (Dodd, 2021-2022 Reg. Sess.).

to the potential extension of operations at Diablo Canyon. One of the specific criteria the Commission must establish is:

Whether new renewable energy and zero-carbon resources that will be constructed and interconnected by the end of 2023 are an adequate substitute for Diablo Canyon, and will meet the state’s planning standards for energy reliability.³

In connection with this inquiry, the Commission must determine what constitutes “new zero-carbon resources.” As a starting point, in a ruling issued on April 20, 2023 (“April 20th Ruling”), the assigned Administrative Law Judge proposed the following definition of “new zero-carbon resources”: “new zero-carbon resources are resources that are incremental to the D.19-11-016 baseline with zero on-site emissions, unless otherwise permissible for compliance with the RPS program.”⁴

Unfortunately, the vast majority of CCUS and hydrogen technologies have emissions on-site, and would not satisfy the April 20th Ruling’s proposed definition of a “new zero-carbon resource.”⁵ Nonetheless, CCUS in particular has been identified as a necessary tool to reduce greenhouse gas emissions and mitigate climate change.⁶ Legislative history in support of California Public Resources Code Section 25216.7 also recognizes the importance of CCUS.⁷ In the context of the short-term determination of how to address the possible extension of the operating life of Diablo Canyon, the Commission must not ignore the potential long-term implications of its decision on future procurement of resources with on-site emissions, such as those retrofitted with CCUS, but which are nevertheless consistent with the state’s climate goals.

³ See Scoping Memo at p. 5; *see also* Cal. Pub. Util. Code § 712.8(c)(2)(D).

⁴ See April 20th Ruling at p. 5.

⁵ See Exhibit Calpine-01, Opening Testimony of Emily Turkel on behalf of Calpine Corporation, at p. 2, lines 21-23.

⁶ See Exhibit Calpine-01, Opening Testimony of Emily Turkel on behalf of Calpine Corporation, at p. 3, lines 10-11, *citing* California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality (December 2022), p. 84.

⁷ See Exhibit Calpine-01, Opening Testimony of Emily Turkel on behalf of Calpine Corporation, at p. 2, line 26 through p. 3, line 5.

III. THE COMMISSION SHOULD EXPLICITLY LIMIT THE APPLICABILITY OF THE DEFINITION OF “NEW ZERO-CARBON RESOURCES” TO THIS PROCEEDING.

Given the significant implications for future procurement policy associated with the definition of “new zero-carbon resources,” the Commission should explicitly limit any findings that it makes in this proceeding to the issue of how to address the operational future of Diablo Canyon.

Limiting the applicability of the Commission’s definition of “new zero-carbon resources” to this proceeding is consistent with the absence of a detailed record on this topic. Among the parties who served testimony on Phase 1: Track 2 issues, only a few addressed the April 20th Ruling’s proposed definition. Calpine recommended an addition to the definition to specify that “resources that the Commission has determined can support zero-carbon retail sales and have been identified by the Commission, the California Energy Commission or the California Air Resources Board as consistent with/facilitating the state’s climate goals” should be considered zero-carbon resources.⁸ Pacific Gas and Electric Company’s (“PG&E’s”) opening testimony recognized the limitations of the April 20th Ruling’s proposed definition and thus

. . . does not support a definition adopted in this limited proceeding to be relied on or precedential in broader planning venues like the IRP proceeding. SB 846 clearly establishes a distinction between the effort to replace DCPD and processes such as the IRP in stating that the Commission ‘[d]oes not consider the energy, capacity, or any attribute from the Diablo Canyon Unit 1 or Unit 2 after August 26, 2025, in meeting the policy’ that ‘eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers...by December 31, 2045.’ This distinction should similarly be recognized with respect to the definition of zero-carbon resources.”⁹

In a single sentence with no analysis, the Alliance for Nuclear Responsibility (“A4NR”) expressed support for the April 20th Ruling’s definition.¹⁰ Otherwise, there was no substantive

⁸ See Exhibit Calpine-01, Opening Testimony of Emily Turkel on behalf of Calpine Corporation, at p. 4, lines 2-7.

⁹ See Exhibit PG&E-03, PG&E Testimony on Phase 1 Track 2 Issues, dated June 30, 2023, at p. 13, lines 1-10.

¹⁰ See Exhibit A4NR-01, Alliance for Nuclear Responsibility Testimony on Phase 1 Track 2 Issues, dated June 30, 2023 (Public Version), at p. 21, line 33.

testimony in the opening and rebuttal testimony regarding the definition of “new zero-carbon resources.”

Calpine would certainly support the Commission adopting the edits to the definition that Calpine proposed in its opening testimony. However, the foregoing analysis suggests that the record in this proceeding is not sufficiently robust to adopt a definition of broad applicability to what will be an important factor for future procurement decisions. Consequently, the Commission should include an explicit caveat in any decision resolving Track 1: Phase 2 issues that the definition of “new zero-carbon resources” is specific to the operating future of Diablo Canyon. Notably, PG&E agrees to such a caveat.¹¹

IV. CONCLUSION.

Based on the foregoing, the Commission should recognize the potential that a definition of “new zero-carbon resources” in this proceeding could be broadly misapplied outside of the instant proceeding. To avoid this outcome and recognizing that this proceeding has not given deep consideration to the implications for how the Commission defines “new zero-carbon resources,” the Commission should include a statement in any decision it adopts resolving Phase 1: Track 2 issues that the adopted definition of “new zero-carbon resources” applies only in the context of evaluating what steps to take in connection with the Diablo Canyon Power Plant.

Dated this 18th day of September, 2023, at San Francisco, California.

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¹¹ See Exhibit PG&E-04, PG&E Rebuttal Testimony on Phase 1 Track 2 Issues, dated July 28, 2023, at p. 3-9, lines 19-28.