

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



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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)

**COMMENTS OF JOINT PARTIES
ON PROPOSED DECISION ISSUED MARCH 18, 2019**

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SUBJECT INDEX OF RECOMMENDED CHANGES

Pursuant to Rule 14.3(b) of the Rules of Practice and Procedure 14.3(b), the Joint Parties provide this subject index of recommended changes to the Proposed Decision issued in this case on March 18, 2019:

- The Proposed Decision should be revised to impose on all load serving entities in the electric service territory of Pacific Gas and Electric Company (“PG&E”) an affirmative obligation to procure their proportional share of the new, greenhouse gas (“GHG”) free resources that will be needed to replace the output of the Diablo Canyon Power Plant (“Diablo Canyon”) generating units when they are retired in 2024-2025 and avoid any increase in GHG emissions at that time.
- The Proposed Decision should be revised to require that the proposed procurement track in this proceeding must include Diablo Canyon replacement procurement as one of the topics to be addressed.

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ON PROPOSED DECISION ISSUED MARCH 18, 2019**

Pursuant to Rule 14.3 of the Commission’s Rules of Practice and Procedure, the Joint Parties listed on the cover to this pleading and in the footnote below¹ hereby submit these Comments on the Proposed Decision of Administrative Law Judge Julie Fitch issued in this case on March 18, 2019, entitled “Decision Adopting Preferred System Portfolio and Plan for 2017-2018 Integrated Resource Plan Cycle” (hereinafter, “Proposed Decision” or “PD”).

I. INTRODUCTION AND SUMMARY

Joint Parties sincerely appreciate the fact that the Proposed Decision addresses in detail the challenge of replacing the output of the Diablo Canyon Power Plant (“Diablo Canyon”) with new, greenhouses gas (“GHG”) free resources, to ensure that no increase in GHG emissions is allowed to occur when the Diablo Canyon generating units are retired in 2024-2025.

¹ The Joint Parties sponsoring these comments are: Friends of the Earth, the Natural Resources Defense Council, and California Unions for Reliable Energy. The Joint Parties are among the signatories to a multi-party agreement known as the “Joint Proposal,” executed in June 2016, which called for the planned retirement of the two generating units at Diablo Canyon Power Plant at the end of their current operating licenses in 2024-2025, and replacement of the output with new, 100% GHG-free resources.

The Joint Parties strongly support the Proposed Decision’s finding that a procurement track in this proceeding is needed to ensure that California will achieve its 2030 GHG reduction goals, while also maintaining reliability of the grid.

Our principal comment is that the Proposed Decision should be revised to include in the new procurement track a Commission-supervised effort by load-serving entities to procure new, GHG-free resources to replace the output of Diablo Canyon. The requirement to procure such new, GHG-free replacement resources should be shared by all load-serving entities in the electric service territory of Pacific Gas and Electric Company (“PG&E”).

A Diablo Canyon replacement procurement effort is mandated by a new and distinct statutory requirement, Senate Bill (“SB”) 1090 (Stats. 2018, Ch. 561 (Monning)), which expressly requires the Commission to ensure that retiring the generating units at Diablo Canyon in 2024-2025 does not lead to *any* increase in GHG emissions. Achieving this goal will require a substantial, Commission-supervised procurement effort by load-serving entities.

The proposed procurement track in this Integrated Resource Plan (“IRP”) proceeding is the appropriate and necessary vehicle for accomplishing this statutory mandate.

II. BACKGROUND

Diablo Canyon is California’s last remaining operating nuclear power plant. Under SB 1090, a substantial effort to procure new, GHG-free resources, beyond what is otherwise required to achieve the goals of SB 350 (Stats. 2015, Ch. 547 (de Leon)) and other predecessor legislation, will be needed between now and 2024-2025 to ensure that no increase in GHG emissions occurs as a result of retiring the Diablo Canyon generating units.

The particular focus of concern is not just the longer-term GHG reduction goals for the year 2030, but also the period between 2024 and 2030.

**A. The Twin Goals of Retiring the Diablo Canyon Generating Units,
Without Triggering Any Increase in GHG Emissions**

In Decision (“D.”) 18-01-022, the Commission approved a proposal to retire the Diablo Canyon generating units at the end of their current operating licenses in 2024-2025. The Commission in D.18-01-022 also expressly ruled that no increase in GHG emissions should be allowed to occur as a result of this action, and that the Commission would implement this mandate in this IRP proceeding.²

Subsequently, the Legislature adopted, and then-Governor Brown signed, SB 1090, which imposed on the Commission a series of mandatory requirements governing the retirement of the Diablo Canyon generating units.

² See D.18-01-022, p. 21-22: “It is the intent of the Commission *to avoid any increase in greenhouse gas emissions* resulting from the closure of Diablo Canyon.” See also *id.*, p. 57, Finding of Fact 4 (“The IRP proceeding is broader in scope than this proceeding, and is considering issues including optimized portfolios of generation resources *to achieve the statewide GHG emissions target.*”). See also *id.*, p. 58, Conclusion of Law 3 (“Any procurement to replace Diablo Canyon should be addressed in the IRP proceeding *to avoid increased GHG emissions in the most optimal manner.*”). (Emphasis added.)

See also *id.*, p. 60, Ordering Paragraphs 5 and 6:

5. Efforts to *avoid an increase in greenhouse gas emissions* relating to the retirement of Diablo Canyon, including any replacement procurement, will be addressed in the Integrated Resource Planning proceeding or a proceeding designated by the Integrated Resource Planning proceeding.
6. Pacific Gas and Electric Company should be prepared to present scenarios for Diablo Canyon retirement in the Integrated Resource Planning proceeding that demonstrate *no more than a de minimis increase in the GHG emissions* of its electric portfolio.

(Emphasis added.)

SB 1090 requires the Commission to ensure that there will not be *any* increase in greenhouse gas emissions as a consequence of retiring the generating units at Diablo Canyon in 2024-2025. This is a binding legal mandate, not merely an aspirational goal. The legislation requires that the Commission accomplish this mandate via its regulatory oversight of load-serving entities and their individual integrated resource plans.

The pertinent text of the legislation itself is as follows:

(b) The commission shall ensure that integrated resource plans are designed to avoid any increase in emissions of greenhouse gases as a result of the retirement of the Diablo Canyon Units 1 and 2 powerplant.

(Pub. Util. Code § 712.7(b).)

B. Position of the Joint Parties: A Major Procurement Effort By Load Serving Entities, Supervised By The Commission, Will Be Needed To Achieve The SB 1090 Statutory Mandate That There Be No Increase in GHG Emissions When The Diablo Canyon Generating Units Are Retired in 2024-2025.

The Joint Parties have long emphasized that retiring 18,000 GWh/year of GHG-free energy, without triggering *any* increase in GHG emissions, will require a major, Commission-supervised effort by all load-serving entities to procure new, incremental GHG-free resources. Absent such an effort, it is inevitable that a large increase in GHG emissions will occur once the Diablo Canyon generating units are retired in 2024-2025.

This is not mere speculation. It is based on actual experience. When the San Onofre Nuclear Generation Station (“SONGS”) was abruptly taken off line in 2012, and subsequently retired in 2013 without being returned to service, California experienced a catastrophic increase in GHG emissions. Like Diablo Canyon, the SONGS plant was a major nuclear power plant with a long history of operation. Because there was no plan in place for the replacement of the

energy generated at the SONGS facility, its output was instantaneously replaced almost entirely with fossil-fuel-generated electricity, and GHG emissions increased dramatically.

The Commission staff's own analysis in this proceeding has confirmed that, absent additional procurement and construction of new, GHG-free resources between now and 2024-2025, the same thing that happened with SONGS will happen with Diablo Canyon: Power plants fueled by natural gas of necessity will be run harder to take up the slack, with a resulting increase in GHG emissions in the years between 2024 and 2030. In a report prepared by Commission's Energy Division and issued on July 19, 2017, staff confirmed that its analysis showed that "energy from gas rebounds 2026-2030 as Diablo Canyon closes."³

The Joint Parties consistently have recognized the practicalities of reaching the goal of a zero increase in GHG emissions when the Diablo Canyon generators are retired in 2024-2025. We have urged the Commission to launch an early procurement effort, so that the necessary resources can be identified, contracted, permitted and built, during the interval between now and the time when the Diablo Canyon generators are finally retired.

We respectfully submit that the mandate of SB 1090 now requires a major procurement effort by load-serving entities, overseen by the Commission, to acquire and construct sufficient new, incremental GHG-free resources to avoid any increase in GHG emissions when the Diablo Canyon generators are retired in 2024-2025. The proposed procurement track in this IRP proceeding affords an opportunity for undertaking this significant challenge.

³ CPUC Energy Division, "Preliminary RESOLVE Modeling Results for Integrated Resource Planning at the CPUC," slide 51 (July 19, 2017), available at: http://www.cpuc.ca.gov/uploadedfiles/CPuCWebsite/Content/utilitiesindustries/energy/energyPrograms/elecPowerProcurementGeneration/irp/17/CPuC_irP_Preliminary_resolve_results_2017-07-19_final.pdf

It must be emphasized that the time horizon between now and 2024-2025 is quite short, given the magnitude of what needs to be done.

A variety of new, GHG-free resources will be needed. These will include renewable energy generation sources (such as wind and solar), energy efficiency measures, demand response, energy storage, and potentially other types of GHG-free resources. Substantial time will be needed for load serving entities to complete the procurement process, and for developers to get the necessary permits, and then construct and install the new facilities and infrastructure.

III. COMMENTS ON THE PROPOSED DECISION

A. Introduction and Summary

The Proposed Decision represents the first major effort by the Commission to replace the output of the Diablo Canyon generating units with GHG-free resources. As stated at the outset, the Joint Parties very much appreciate this effort.

The Proposed Decision states that “we will require each LSE that serves load in PG&E distribution territory to include a section in its next IRP filing explicitly addressing its plans to address the Diablo Canyon retirement.” (PD, p. 145.)

However, the Proposed Decision stops short of imposing on load-serving entities any affirmative obligation to procure their proportional share of the new, GHG-free resources that will be needed to replace the output of the Diablo Canyon generating units and avoid an increase in GHG emissions in 2024-2025.

This deficiency should be remedied, by revising the Proposed Decision. Specifically, in the proposed new procurement track in this IRP Proceeding, the Commission should include a mandatory Diablo Canyon replacement procurement effort by all load serving entities in PG&E’s

electric service territory. This effort must be designed to ensure that these load-serving entities procure their proportional share of the new, GHG-free resources that will be needed to replace the output of Diablo Canyon. Only in this way can the Commission comply with the SB 1090 statutory mandate to avoid *any* increase in GHG emissions as a consequence of retiring the Diablo Canyon generating units in 2024-2025.

B. The Joint Parties Support The Proposed Decision’s Initiative To Create A Procurement Track In This IRP Proceeding.

After extensive analysis of both the individual IRP plans filed by load serving entities and the cumulative shortfalls in achieving the twin goals of system reliability and GHG reductions, the Proposed Decision finds that “the appropriate way to make more progress, beyond just utilizing more appropriate planning assumptions, is to begin to conduct procurement processes for various types of resources.” (PD, p. 136.) The Proposed Decision finds that it is appropriate to open a procurement track in this proceeding, and thus “begin the acquisition process for the types of resources that we need and want to support for the transition to 2030.” (*Id.*)

By initiating a proposed new procurement track, the Proposed Decision finds that the Commission can “begin to tackle some of the critical questions we face in ensuring adequate clean resources and reliability, at lowest cost, through 2030[.]” (*Id.*) The Proposed Decision also indicates an openness to receiving input from the parties concerning the various resource types and attributes to be procured. (*Id.*, p. 137).

The Joint Parties strongly support the proposal to initiate a new procurement track in this proceeding. It seems abundantly clear that, absent a Commission-supervised procurement process, California is at risk of falling woefully short of its twin goals of (1) maintaining system

reliability, and (2) building the substantial new GHG-free resources that will be needed to achieve the mandated GHG reduction goals for the electric sector.

As discussed below, the proposed procurement track also is needed to accomplish the statutory mandate of SB 1090 that no increase in GHG emissions be allowed to occur when the Diablo Canyon generating units are retired in 2024-2025.

C. The Actions Required of Load Serving Entities For Diablo Canyon Replacement Procurement Should Be Strengthened And Included As Part Of The Proposed New Procurement Track In This IRP Proceeding.

The Proposed Decision states that “we will require each LSE that serves load in PG&E distribution territory to include a section in its next IRP filing explicitly addressing its plans to address the Diablo Canyon retirement.” (PD, p. 145.) This is a welcome addition to the requirements adopted in D.18-02-018.

But the Proposed Decision then goes on to state:

We will not, however, allocate a specific replacement capacity to each LSE. The responsibilities for the replacement of Diablo Canyon are embedded in the load assumptions already being planned for by PG&E and the CCAs operating in its territory.
(PD, p. 145.)

Thus, the Proposed Decision stops short of mandating any procurement by load serving entities to replace the output of the Diablo Canyon generators. In effect, when it comes to Diablo Canyon replacement procurement, it appears that all that would be required of the load-serving entities, under the Proposed Decision, is that they *consider* the topic of Diablo Canyon replacement procurement in their IRP plans. The Proposed Decision does not appear to adopt any mandate that load serving entities actually *do* anything about it.

The predictable outcome has already been previewed by the Community Choice Aggregators (“CCAs”) and other load serving entities in their opposition to the Joint Parties on this issue: Absent a firm mandate by the Commission, it is obvious that they will simply not procure anywhere near the quantity of new, GHG-free replacement resources that will be needed to meet the SB 1090 statutory goal of avoiding *any* increase in GHG emissions when the Diablo Canyon generating units are retired in 2024-2025.

The Proposed Decision’s treatment of reliability resources is instructive. In Part 5, the Proposed Decision observes that “the amount of new resource procurement will need to be roughly twice what the CCAs have procured to date by 2022, and close to six times as much by 2030.” (PD, p. 131.) What the Proposed Decision goes on to state in the context of reliability resources is equally applicable in the context of Diablo Canyon replacement procurement:

“These are ambitious goals that require a lot of concrete contracting in order to secure the resources necessary.” (*Id.* (emphasis added).)

Especially given the statutory mandate of SB 1090, the Proposed Decision should be revised to impose on all load-serving entities in PG&E’s electric service territory an affirmative obligation to procure their proportional share of the new, GHG-free resources that will be needed to replace the output of the Diablo Canyon generating units and avoid any increase in GHG emissions in 2024-2025. It is apparent that “a lot of concrete contracting [will be needed] in order to secure the resources necessary.”

The Proposed Decision also should be further revised to expressly include Diablo Canyon replacement procurement, between now and 2024-2025, as one of the topics to be addressed in the proposed new procurement track in this IRP proceeding. Modeling alone is not enough, nor is merely cajoling load serving entities to do more. As the Proposed Decision correctly observes

in Finding of Fact 25 on page 157: “The IRP process is not just an advisory planning exercise. Procurement is likely to be required from the IRP process in the near future.”

Diablo Canyon replacement procurement is a proper and necessary topic for the proposed procurement track of this IRP proceeding.

D. Because Of The Adoption of SB 1090, The Goal Is A Zero Increase In GHG Emissions in 2024-2025, Which Is Not The Same As Achieving The 2030 GHG Reduction Goals.

The Proposed Decision discusses how Diablo Canyon replacement was considered in the Commission’s February 2018 decision in this proceeding (D.18-02-018). It explains that the Commission in D.18-02-018 relied on modeling results which appeared to show that, even taking into account the retirement of the Diablo Canyon generating units in 2024-2025, GHG emissions still were expected to meet the GHG emissions reductions goal for the year 2030. (PD, p. 143.) Thus, the analysis in D.18-02-018 “showed that the electric sector will still be on a trajectory to satisfy the 2030 GHG emissions target even with the retirement of Diablo Canyon.” (*Id.*)

The Joint Parties respectfully submit that, especially given the mandate of SB 1090, which was enacted approximately eight months after issuance of D.18-02-018, it is not sufficient that the modeling relied upon by the Commission appears to show that the electric sector can still achieve its 2030 GHG reduction goals, despite the retirement of Diablo Canyon.

More is required. Under SB 1090, it is imperative that no increase in GHG emissions be allowed to occur during the period between 2024 and 2030. If the Commission were to allow an increase in GHG emissions to occur between 2024 and 2030, this would violate SB 1090. More importantly, the excess emissions between 2024 and 2030 would be in the atmosphere contributing to climate change for many decades.

IV. CONCLUSION

For the foregoing reasons, the Proposed Decision should be modified to adopt a mandatory procurement program by all load serving entities in PG&E's electric service territory to replace the output of the Diablo Canyon generating units. The Diablo Canyon procurement effort should be included as part of the proposed new procurement track in this proceeding. The focus should be on developing sufficient new, GHG-free resources between now and 2024-2025 to prevent any increase in GHG emissions when the Diablo Canyon generators are retired.

Respectfully submitted,

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**APPENDIX:
JOINT PARTIES’
PROPOSED CHANGES TO FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS**

Pursuant to Rule 14,3(b) of the Rules of Practice and Procedure, the Joint Parties respectfully propose the following changes to the Findings of Fact, Conclusions of Law, and Ordering Paragraphs in the Proposed Decision issued on March 18, 2019. Underlining indicates proposed additions, while strikethroughs indicate proposed deletions.

Findings of Fact

* * * * *

25. The IRP process is not just an advisory planning exercise. Procurement is likely to be required from the IRP process in the near future. **Such procurement is needed both for reliability and for GHG reduction goals. The GHG reduction goals include the goal of avoiding any increase in GHG emissions when the Diablo Canyon generating units are retired in 2024-2025.**

* * * * *

38. The RSP adopted in D.18-02-018, as well as the PSP recommended in this decision, puts the electric sector on a trajectory to satisfy the 2030 GHG emissions target even with the retirement of Diablo Canyon. **Notwithstanding this expectation, SB 1090 further requires that no increase in GHG emissions be allowed to occur in 2024-2025, when the Diablo Canyon generating units are scheduled to be retired.**

39. **While the** ~~The~~ retirement of Diablo Canyon will not prevent the electric sector from meeting its portion of the statewide GHG emissions reductions ~~between now and~~ **in the year 2030, additional procurement of new, incremental, GHG-free resources will be necessary to ensure that no increase in GHG emissions is allowed to occur when the Diablo Canyon generating units are retired in 2024-2025.**

Conclusions of Law

* * * * *

18. The Commission should consider exercising its authority to require long-term commitments to renewable integration resources by CCAs, **as well as new, GHG-free resources to replace the output of Diablo Canyon,** in a new “procurement track” of this IRP proceeding.

19. The Commission should focus a procurement track of the IRP proceeding on the following types of resources: diverse renewable resources in the near term at levels sufficient to reach the 2030 optimized portfolio, in coordination with the RPS program, **and to avoid any increase in GHG emissions when the Diablo Canyon generating units are retired in 2024-2025;** near-term resources with load following and hourly or intra-hour renewable integration capabilities; existing natural gas resources; and long-duration (8 hour) storage resources.

* * * * *

21. The Commission should continue to utilize an assumption of 2024 and 2025 for retirement of the Diablo Canyon nuclear units in its GHG analysis for meeting the electric sector emissions targets by 2030.

22. Under SB 1090, the Commission also is required to ensure that no increase in GHG emissions is allowed to occur when the Diablo Canyon generating units are retired in 2024-2025.

~~22~~**23. The Commission should require each LSE serving load within the PG&E territory to explicitly address in its individual IRP its plans to address the retirement of Diablo Canyon, to procure its proportional share of the new, GHG-free resources that will be needed to replace the output of the Diablo Canyon generating units and avoid any increase in GHG emissions in 2024-2025.**

[Conclusions of Law 23, 24 and 25 should be renumbered accordingly as 24, 25 and 26.]

Ordering Paragraphs

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11. The Commission hereby institutes a procurement track, alongside the planning activities in this proceeding, in order to evaluate the need for the following types of resources: diverse renewable resources in the near term at levels sufficient to reach the 2030 optimized portfolio, in coordination with the RPS program, **and to avoid any increase in GHG emissions when the Diablo Canyon generating units are retired in 2024-2025;** near-term resources with load

following and hourly or intra-hour renewable integration capabilities; existing natural gas resources; and long-duration (eight hour) storage resources.

12. All entities serving load within the territory of Pacific Gas and Electric Company shall include in each individual integrated resource plan filed between the date of this decision and 2030 a section describing its plans to address the retirement of the Diablo Canyon Generation Plant. **All such load serving entities shall be obligated to procure their proportional share of the new, GHG-free resources that will be needed to replace the output of the Diablo Canyon generating units and avoid any increase in GHG emissions in 2024-2025.**