

Decision 26-07-034

July 2, 2026

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Compliance Review of Utility-Owned Generation Operations, Portfolio Allocation Balancing Account Entries, Energy Resource Recovery Account Entries, Contract Administration, Economic Dispatch of Electric Resources, Utility-Owned Generation Fuel Procurement, and Other Activities for the Record Period January 1 through December 31, 2021.

Application 22-02-015

ORDER MODIFYING DECISION 25-06-045 AND DENYING REHEARING OF THE DECISION, AS MODIFIED

I. SUMMARY

This Order modifies Decision 25-06-045 and denies rehearing of the decision, as modified.

II. BACKGROUND

Pacific Gas and Electric Company (PG&E) filed Application (A.) 22-02-015 on February 28, 2022, seeking Commission review of its utility-owned generation operations, Energy Resource Recovery Account (ERRA) and Portfolio Allocation Balancing Account entries, contract administration, economic dispatch, fuel procurement, and related activities for the January 1 through December 31, 2021 record year. As part of A.22-02-015, the Commission reviewed six unplanned outages at the Diablo Canyon Nuclear Powerplant, three of which occurred during the 2020 Record Year and three of which occurred during the 2021 Record Year.¹ The 2020 outages were

¹ Decision (D.) 25-06-045 at 3, 14-24.

deferred from PG&E's 2020 ERRA compliance proceeding because PG&E's Root Cause Evaluation (RCE) was not completed in time for review in the previous proceeding.²

On June 26, 2025, the Commission adopted D.25-06-045 (Decision), which found that, with narrow exceptions, PG&E met the ERRA compliance standard for the 2021 Record Year.³ As relevant to this rehearing, the Decision found that the first three outages were caused by excessive vibrations arising from loosening of components known as bore rings.⁴ The Commission concluded that PG&E "acted reasonably with respect to the first three forced outages but failed to act as a reasonable and prudent manager to prevent or lessen forced outage four."⁵ Consequently, the Commission authorized PG&E to recover its requested costs for the first three outages but disallowed \$43,208,116 in replacement power costs associated with forced outage four, finding that PG&E should have ensured that the end windings and parallel rings met the specification requirements and recognized that its contractor Siemens failed to incorporate those limits into its design verification testing.⁶

The Alliance for Nuclear Responsibility (A4NR) filed an application for rehearing of the Decision on August 1, 2025, alleging that Finding of Fact 15, which finds that design flaws and design verification testing deficiencies were not factors in the first three outages, is unsupported by substantial evidence.⁷ A4NR contends that because Finding of Fact 15 is unsupported, Conclusions of Law 11 and 12, which conclude that PG&E acted reasonably with respect to all of the outages except outage four, are also unsupported.⁸

² *Id.* at 14.

³ *Id.* at 2.

⁴ *Id.* at 21.

⁵ *Id.* at 23. The first four outages involved excessive vibrations at the Unit 2 generator. The fifth and sixth outages involved different issues at the Unit 2 generator and are not relevant to the issues in the rehearing application.

⁶ *Id.* at 24.

⁷ A4NR Rehearing Application at 1, 4.

⁸ *Id.* at 4.

PG&E filed a response on August 18, 2025, opposing A4NR's rehearing application. PG&E argues that A4NR mischaracterized the RCE by conflating "contributing causes" with root causes, and that the record still supports the Commission's conclusion that PG&E acted reasonably under the reasonable manager standard with regard to the first three outages.²

We have reviewed the allegations of error contained in the application for rehearing of D.25-06-045 and have determined that good cause has been demonstrated to modify the Decision. As modified, rehearing of D.25-06-045 is denied.

III. DISCUSSION

A. Applicable Legal Standards

Under the Commission's Rules of Practice and Procedure, "[t]he purpose of an application for rehearing is to alert the Commission to a legal error, so that the Commission may correct it expeditiously."¹⁰ Applications for rehearing must "set forth specifically the grounds on which the applicant considers the order or decision of the Commission to be unlawful or erroneous, and must make specific references to the record or law."¹¹ The rehearing applicant bears the burden of proving legal error.¹²

A4NR's application specifically alleges errors under several subdivisions of section 1757(a), focusing primarily on the claims that the Commission's findings are unsupported by substantial evidence and that the Decision is not supported by the findings.¹³ Under the substantial evidence standard, the Commission's findings may be reversed only if, based on the evidence before the Commission, no reasonable person

² PG&E Response at 4-5.

¹⁰ Rule 16.1(c). Unless otherwise specified, all references to a Rule are to the Commission's Rules of Practice and Procedure.

¹¹ Pub. Util. Code § 1732. All subsequent section references are to the Public Utilities Code, unless otherwise specified.

¹² See Rule 16.1(c).

¹³ A4NR Rehearing Application at 4.

could reach the same conclusion.¹⁴ This limitation is reinforced by section 1757(b), which provides that nothing in section 1757 permits a reviewing court “to hold a trial de novo, to take evidence other than as specified by the California Rules of Court, or to exercise its independent judgment on the evidence.”¹⁵

The Commission used a “reasonable manager standard” to assess PG&E’s actions.¹⁶ Under this standard, utilities are held to “a standard of reasonableness based upon the facts that are known or should have been known at the time,” and their actions must “comport with what a reasonable manager of sufficient education, training, experience, and skills using the tools and knowledge at his or her disposal would do when faced with a need to make a decision and act.”¹⁷ In other words, the standard evaluates decisions prospectively, not with hindsight, and measures whether the utility’s management actions were reasonable given the information and constraints existing at the time.

B. Section 4.3.3 and Finding of Fact 15 of the Decision are Modified to Clarify the Findings of the Root Cause Evaluation

A4NR’s rehearing application challenges the Commission’s findings regarding the cause of the first three outages at Diablo Canyon. Specifically, A4NR alleges that the Commission’s conclusion that design flaws were not a factor in the first three outages was a misinterpretation of PG&E’s Root Cause Evaluation.¹⁸ The Decision’s Finding of Fact 15 states that “Design flaws and design verification testing deficiencies were not factors in the first three of the four vibration-caused forced outages at the Diablo Canyon Nuclear Powerplant.” However, A4NR points to several places in

¹⁴ *The Utility Reform Network v. Public Utilities Com.* (2014) 223 Cal.App.4th 945, 959; § 1757(a)(4).

¹⁵ § 1757(b).

¹⁶ D.25-06-045 at 9.

¹⁷ D.90-09-088 (1990) 37 CPUC 2d 488, 499-500; D.11-10-002 at fn. 6; D.10-07-049; D.14-05-023.

¹⁸ A4NR Rehearing Application at 1.

the Root Cause Evaluation that list both design flaws and design verification testing deficiencies as “contributing causes” of all four outages.¹⁹

A4NR correctly notes that the Root Cause Evaluation lists design flaws (as well as design testing verification deficiencies) as contributing causes of the first three outages, including for issues associated with the original stator design, the stator rebuild design, the Stator Core Cooling Water (SCCW) manifold water box weld design, and related vibration/resonance concerns. We acknowledge that the language in section 4.3.3 and Finding of Fact 15 that design flaws and design testing verification deficiencies were not factors in the first three outages may cause confusion in light of these findings in the Root Cause Evaluation.

Therefore, we modify section 4.3.3 and Finding of Fact 15 to clarify that the Root Cause Evaluation identified certain design-related issues as contributing causes associated with the first three vibration-related outages at the Diablo Canyon Nuclear Powerplant, but that ultimately the determinative root cause of the first three outages was the slip-stick phenomenon.²⁰ As discussed further below, these modifications do not affect the Decision’s conclusion that PG&E acted reasonably with respect to the first three outages.

C. A4NR’s Allegations that Conclusions of Law 11 and 12 are Unsupported Lack Merit

As noted above, A4NR argues that, because the Root Cause Evaluation identifies design flaws as contributing causes of the first three outages, Finding of Fact 15 is unsupported by substantial evidence to the extent it states that design flaws were not factors in those outages.²¹ A4NR then contends that this asserted factual error undermines the Decision’s related legal conclusions regarding PG&E’s prudence.²²

¹⁹ *Id.* at 1-4.

²⁰ *Id.* at 1-4; D.25-06-045 at 21-22.

²¹ A4NR Rehearing Application at 1-4

²² *Ibid.*

Specifically, A4NR challenges Conclusions of Law 11 and 12.²³ Conclusion of Law 11 states that, “[w]ith the exception of forced outage four, PG&E acted reasonably with respect to forced outages one, two, three, five and six at the Diablo Canyon Nuclear Power Plant.”²⁴ Conclusion of Law 12 states that, “[w]ith the exception of forced outage four at Diablo Canyon Nuclear Power Plant, PG&E managed its utility owned nuclear generation facilities reasonably and in compliance with all applicable rules, regulations and Commission decisions.”²⁵

A4NR alleges that if design flaws caused or contributed to the first three outages, then the Commission’s conclusions that PG&E acted reasonably with respect to those outages are not supported by the findings or substantial evidence. Based on this, A4NR asks the Commission to revise the Decision’s treatment of the first three outages and impose additional replacement power disallowances.²⁶ In addition to the \$43,208,116 disallowance already adopted for forced outage four, A4NR seeks to augment the disallowance by \$103,535,740 for replacement power costs associated with the first three SCCW manifold vibration-related outages.²⁷

A4NR’s allegations lack merit. As discussed above, we modify Decision to clarify Finding of Fact 15 and section 4.3.3. The Commission’s conclusion that PG&E acted reasonably with respect to outages one through three are supported by the findings, as modified, and substantial evidence.

²³ *Ibid.*

²⁴ D.25-06-045 at 57.

²⁵ *Id.* at 58.

²⁶ A4NR Rehearing Application at 4.

²⁷ *Ibid.*

1. The Record and Findings Support the Commission’s Determination that PG&E Acted Prudently with Respect to Outages One Through Three

The Root Cause Evaluation identified that the root cause of the first three outages was the bore ring “slip-stick” phenomenon.²⁸ An additional root cause, attributed to outage four, was identified as inadequate mitigation of and testing for resonant frequencies on the exciter and parallel rings and end windings.²⁹

PG&E failed to prevent the stick-slip phenomenon, until after the third outage.³⁰ PG&E stated that this “stick-slip” phenomenon “had never previously occurred in a generator using Siemens’ chosen stator design” and was an “underlying causal condition” that “no industry knowledge or available testing could have detected prior to restart.”³¹ Because the stick-slip phenomenon was “previously unknown,” the Commission concluded that PG&E did not act imprudently by failing to identify and prevent the condition, even after two outages.³²

As discussed above, the reasonable-manager standard is retrospective and asks what a reasonable manager knew or should have known at the time the issue occurred.³³ Here, the record showed that the stick-slip phenomenon was a latent and unusual bore-ring seating problem that had not previously manifested in a generator using Siemens’ chosen stator design, and PG&E’s response involved an iterative effort to identify, tighten, and stabilize the affected assembly.³⁴ Therefore, the Commission concluded that PG&E acted as a reasonably prudent manager with regard to the first three outages.³⁵

²⁸ See D.25-06-045 at 21; PG&E Response at 3-4.

²⁹ See D.25-06-045 at 22.

³⁰ *Id.* at 22.

³¹ *Id.* at 21.

³² *Id.* at 22.

³³ *Id.* at 20.

³⁴ *Id.* at 22.

³⁵ *Id.* at 24.

The Decision found that PG&E ultimately achieved sustained bore ring bolt tightness after the third forced outage.³⁶ By contrast, forced outage four involved additional components — including the stator end windings and parallel rings — and the Commission found that, by that point, PG&E should have taken a broader approach to evaluating Unit 2’s structural integrity after multiple vibration-related failures.³⁷

As detailed above, the Commission’s reasoning for its conclusion that PG&E acted reasonably with respect to the first three outages is adequately set forth in the Decision. The findings supporting this conclusion are supported by substantial evidence. The Decision did not find that no design-related issue existed anywhere in the technical history of the Unit 2 generator. Rather, it weighed the Root Cause Evaluation, PG&E’s testimony, the parties’ briefing, and the outage sequence, and determined that PG&E acted reasonably in responding to the first three outages but failed to act reasonably before outage four. That determination is consistent with the reasonable manager standard, which asks what a reasonable utility manager would have done based on the information known or reasonably knowable at the time.³⁸

Based on the record, the Decision concluded that the first three outages involved a previously unknown stick-slip vibration mechanism requiring iterative diagnosis and mitigation, while also concluding that, after three vibration-related failures, PG&E should have known enough to expand its testing and inspection before returning Unit 2 to service.³⁹ A4NR fails to demonstrate that this conclusion was unreasonable, much less that no reasonable person could reach the same conclusion. Therefore, A4NR fails to demonstrate legal error.

³⁶ *Id.* at 22.

³⁷ *Id.* at 23.

³⁸ *Id.* at 20.

³⁹ *Id.* at 23.

2. A Finding of Causation in the Root Cause Evaluation is not Determinative of Whether PG&E Acted Prudently

A4NR's argument that the Commission's reasonableness conclusions lack support are based on the premise that design-related contributing causes identified in the RCE are determinative of the prudence inquiry. However, this premise is erroneous.

First, "root cause" and "contributing cause" are technical terms of art in the Root Cause Evaluation, and the Root Cause Evaluation's identification of a contributing cause does not necessarily mean that eliminating that condition would have prevented the outage. As laid out in the Fault Tree Methodology in Section V of the Root Cause Evaluation, a "Contributing Cause" is "[a] condition or behavior that exacerbates the consequence of an event without being necessary to cause the event," and "[e]liminating a contributing cause(s) will not eliminate the effect."⁴⁰ By contrast, a "Root Cause" is "[t]he most basic reason . . . for a problem whose removal prevents, or minimizes the probability of recurrence of the problem."⁴¹ As PG&E explained in its testimony, this "differentiation between root and contributing causes is necessary" because "[a]voiding a contributory cause to an outage would not prevent the outage."⁴²

Second, and more importantly, the existence of design-related contributing causes does not by itself resolve the separate legal question of whether PG&E acted as a reasonable manager based on what it knew or should have known at the time. Post-incident technical findings, corrective actions, and identified causes do not themselves answer the legal question of whether the utility acted as a reasonable manager.

D.25-06-045 expressly recognized this distinction. The Decision explained that, while it is appropriate for the Commission to use the facts and underpinning of a Root Cause Evaluation in applying the reasonable manager standard, the conclusions reached in a Root Cause Evaluation are not, standing alone, evidence that the utility acted

⁴⁰ See PG&E Response at 5.

⁴¹ See *ibid.*

⁴² See *ibid.*

unreasonably.⁴³ The Decision further emphasized that inappropriate actions, root causes, or apparent causes identified in a post-incident evaluation “may not translate directly into unreasonable actions on the part of the utility.”⁴⁴

Instead, the Commission must evaluate the utility’s actions, the facts identified in the RCE, and the identified root causes together under the reasonable manager standard to determine whether the outage was reasonable or unreasonable and whether a replacement-power disallowance is warranted.⁴⁵ Thus, even if the RCE identified an issue as a “root cause,” that does not compel the conclusion that PG&E failed to act prudently with respect to those outages.

As discussed above, the Decision’s prudence determination rests on the broader record showing what PG&E knew or should have known at each stage and how PG&E and Siemens responded to the recurring vibration issue. A4NR fails to demonstrate the Commission erred in making this determination.

IV. CONCLUSION

As discussed above, we have determined that the Decision should be modified. As modified, we deny rehearing of D.25-06-045 because no legal error has been demonstrated.

THEREFORE, IT IS ORDERED that:

1. Decision 25-06-045 is modified as follows:
 - a. The last sentence of the first full paragraph on page 22 is modified to read: “While noting certain design flaws and design verification testing deficiencies as contributing causes, the Root Cause Evaluation asserts

⁴³ D.25-06-045 at 15.

⁴⁴ *Id.* at 16.

⁴⁵ *Ibid.*; D.16-04-005 at 31-32.

that the slip-stick phenomenon was the root cause of the first three forced outages.”

- b. Footnote 46 on page 22 is modified to read: Exhibit A4NR-01-C, Attachment A at 13-17, 87 (Fault Tree Methodology).
 - c. Finding of Fact 15 is modified to read: “The root cause of the first three forced outages was the stick-slip phenomenon.”
2. Rehearing of Decision 25-06-045, as modified, is denied.
 3. Application 22-02-015 is closed.

This order is effective today.

Dated July 2, 2026 at Fort Bragg, California.

JOHN REYNOLDS
President
DARCIE L. HOUCK
KAREN DOUGLAS
Commissioners

Commissioner Matthew Baker recused himself and did not participate in the vote of this item.

Commissioner Christine Harada being absent did not participate in the vote of this item