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Retire Diablo Canyon

A4NR comments on costs of Diablo Canyon CPUC Opening Testimony

Additional submitted attachment is included below.

BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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

Rulemaking 23-01-007

**ALLIANCE FOR NUCLEAR RESPONSIBILITY'S
OPENING COMMENTS STRUCTURED AS TESTIMONY
ON STATUTORY INTERPRETATION, ISSUES OF POLICY, AND
CERTAIN REPORTS IN THE RECORD OF THIS PROCEEDING**

PUBLIC VERSION

JOHN L. GEESMAN

DICKSON GEESMAN LLP

P.O. Box 177

Bodega, CA 94922

Telephone: (510) 919-4220

E-Mail: john@dicksongeesman.com

Date: June 30, 2023

Attorney for

ALLIANCE FOR NUCLEAR RESPONSIBILITY

1 **INTRODUCTION:**

2 In response to the April 20, 2023 Ruling of Administrative Law Judge Ehren D. Seybert,
3 as modified by email ruling on May 3, 2023, the Alliance for Nuclear Responsibility (“A4NR”)
4 respectfully submits its Opening Comments Structured as Testimony on questions of statutory
5 interpretation and policy that are being considered in Phase 1: Track 2 of this proceeding. The
6 questions posed by the modified Ruling are reproduced below in 12-point Times New Roman
7 bold-face type.

8 Q01: Please state your name and business address for the record.

9 A01: My name is John Geesman, and my business address is: Dickson Geesman LLP, P.O. Box
10 177, Bodega, CA 94922.

11 Q02: Are your professional qualifications included in your testimony?

12 A02: Yes, my professional qualifications are contained in the Appendix to my testimony.

13 Q03: Was your testimony prepared by you or under your direction?

14 A03: Yes, it was.

15 Q04: Insofar as your testimony contains material that is factual in nature, do you believe it to
16 be correct?

17 A04: Yes, I do.

18 Q05: Insofar as your testimony contains matters of opinion or judgment, does it represent
19 your best judgment?

20 A05: Yes, it does.

21 Q06: Does this written submittal complete your prepared testimony and professional
22 qualifications?

23 A06: Yes, it does.

24 Q07: What is the purpose of your testimony?

1 A07: The purpose of my testimony is to provide A4NR’s responses to the questions posed by
2 the Administrative Law Judge’s modified April 20, 2023 Ruling for consideration in Phase 1:
3 Track 2 of this proceeding, and to provide A4NR’s response to PG&E’s May 19, 2023 testimony.

4 **A4NR’S RESPONSES TO ALJ’S RULING REQUESTING COMMENTS:**

5 **1. Questions related to Pub. Util. Code Section 712.8(c)(2)(B):**

6 **a. How should “too high to justify” be defined and evaluated in the**
7 **context of this section?**

8
9 This threshold should be defined as the level at which the projected costs described in
10 Pub. Util. Code Section 712.8(c)(2)(B), all of which are supposed to be properly recorded in the
11 DCTRMA, exceed the sum of: (1) available government funding streams identified in D.22-12-
12 005’s Finding of Fact 9; (2) “other nonratepayer funds available” to PG&E, as contemplated by
13 Pub. Util. Code Section 712.8(c)(1)(C); and (3) the amount of any binding commitment by PG&E
14 to forego recovery of costs in excess of (1) and (2) from its ratepayers or the customers of other
15 LSEs. The Pub. Util. Code Section 712.8(c)(2)(B) costs are precisely the type of transition costs
16 from which PG&E and LSE ratepayers are shielded by Pub. Util. Code Section 712.8(c)(1)(C).

17 The opacity of PG&E’s May 19, 2023 testimony, compounded by the calendar for utility
18 decision-making implied by several PG&E data responses, complicates significantly the
19 Commission’s evaluation of the Pub. Util. Code Section 712.8(c)(2)(B) costs. These concerns are
20 discussed in response to Question 1.d. below.

21
22 **b. The DCISC’s most recent Fact Finding Reports (See Attachments A-**
23 **C to this ruling) do not recommend any upgrades or additional**
24 **actions to address seismic safety or issues of deferred maintenance. Do**
25 **parties have any comments on these Fact Finding Reports or**
26 **recommendations as they relate to the Commission’s obligations**
27 **under Pub. Util. Code Section 712.8(c)(2)(B)?**

28
29 PG&E’s data response to A4NR_03-Q001 (attached as Exhibit A to these Opening
30 Comments/Testimony) indicates that it may be some time before the Commission can gain any
31 insight into whether “the costs of any upgrades necessary to address ... issues of deferred
32 maintenance that may have arisen due to the expectation of the plant closing sooner are too

1 high to justify incurring.” As of May 10, 2023, PG&E had not developed a written request for
2 proposal or other solicitation document to satisfy its obligations under Pub. Res. Code Section
3 25548.3(c)(14).¹ When asked to provide a copy of any written reports documenting PG&E’s
4 review of “the updated PM [i.e., Preventative Maintenance] and CM [i.e., Corrective
5 Maintenance] activities” that the DCISC January 31 – February 1, 2023 fact-finding report says
6 (at p. D.7-3) “would form an updated long-range maintenance plan for DCCP,” PG&E responded
7 with the two lists – devoid of the risk assessments, cost estimates, and timelines required by
8 Pub. Res. Code Section 25548.3(c)(14) – attached hereto as Exhibit B.

9 The DCISC January 31 – February 1, 2023 fact-finding report identifies a critical element
10 inherent in PG&E’s repeated declarations of its intent (notwithstanding D.22-12-005 or the
11 provisions of SB 846) to seek a 20-year extension of the Diablo Canyon operating licenses.
12 Describing its interview with PG&E’s Allen Wilson about the review process nearing conclusion
13 “in a few months,” the DCISC observes at p. D.7-4, “Lastly, he noted that any possible extension
14 of operations beyond five years would appreciably change the number of capital projects that
15 would be worthy of consideration.” When A4NR asked PG&E to identify those capital projects
16 “worthy of consideration” but for the limitation to five years of a possible extension of
17 operations, PG&E cited 11 projects for implementation in Unit 1’s October 2023 refueling
18 outage and added, “The remainder of the portfolio of identified projects is still being evaluated
19 and prioritized. A comprehensive list of scheduled and approved projects will be available in Q4
20 2023.”²

21 Commission access to actionable information about “any upgrades or additional actions
22 to address seismic safety” is also on a trajectory for extended delay. PG&E’s data response to
23 A4NR_003-Q007 (attached as Exhibit D) indicates that, as of May 10, 2023, “PG&E and DWR
24 [i.e., Department of Water Resources] have not yet agreed on a final plan for the updated
25 seismic assessment.” More significantly, the “SB846 Seismic Hazard Update Plan” PG&E
26 presented on May 5, 2023 to the Commission’s Independent Peer Review Panel (“IPRP”)³
27 outlines a work process that is inconsistent with Pub. Res. Code Section 25548.3(c)(13) and the

¹ Exhibit A, PG&E Data Response A4NR_03-Q001f.

² PG&E Data Response A4NR_03-Q002, attached as Exhibit C.

³ PG&E Data Response A4NR_03-Q007Atch01.ppt, included in Exhibit D.

1 guidance published in 2018 by the Nuclear Regulatory Commission (“NRC”) as NUREG-2213
2 (attached as Exhibit E). NUREG-2213 prescribes a SSHAC⁴ Level 1 review to determine whether
3 an “update” of an existing SSHAC Level 3 evaluation (as was completed for Diablo Canyon in
4 2015) is needed, and specifies six decision factors to use in comparing the new SSHAC Level 1
5 inputs and results with the existing SSHAC Level 3 study. Application of these decision factors
6 determines: (1) whether an “update” is needed; (2) whether the existing SSHAC Level 3 study
7 needs to be “replaced,” in which case a new SSHAC Level 3 or Level 4 study is to be performed;
8 (3) whether the existing SSHAC Level 3 study needs to be “revised,” in which case a new SSHAC
9 Level 2 or Level 3 study is used to “modify” elements of the existing SSHAC Level 3 study; and
10 (4) whether the existing SSHAC Level 3 study needs to be “corrected,” in which case changes
11 are made to the existing model inputs to correct for errors that are not hazard significant.⁵

12 By enacting Pub. Res. Code Section 25548.3(c)(13) the Legislature has already
13 determined the need for an update, but the SSHAC Level 1 application of decision factors
14 remains vital to defining the update’s dimensions. As noted in NUREG-2213, DOE nuclear
15 facilities are required to re-evaluate all natural phenomena hazards assessments at least every
16 10 years to ensure that existing studies are still applicable⁶ – a timeframe analogous to Diablo
17 Canyon’s. Rather than adhere to the procedural rigor prescribed in NUREG-2213, PG&E
18 contemplates an “incremental approach” that “(p)otentially provides resolution sooner”⁷ but
19 does not make a decision about whether a SSHAC Level 1 study should even be initiated until
20 July 2023.⁸ In the scenario where PG&E ultimately chooses to follow the NRC guidance,
21 completion of the SSHAC Level 1 study – the first step in the NUREG-2213 process – is not
22 anticipated until June 2024.⁹ After hearing PG&E’s planned schedule, the IPRP scheduled its
23 next meeting for November 2023.

24 A4NR doubts the ability of PG&E’s Geosciences Department to achieve even this relaxed
25 schedule. More than eight months after the enactment of SB 846, one benefit PG&E attributed

⁴ SSHAC is an acronym for Senior Seismic Hazard Analysis Committee.

⁵ Exhibit E, pp. 4-1 – 4-7.

⁶ *Id.*, p. 4-1.

⁷ Exhibit D, slide 8.

⁸ *Id.*, slide 12.

⁹ *Id.*

1 to its “incremental approach” in the May 5, 2023 IPRP presentation is, incredulously, that “This
2 process starts the work now.”¹⁰ Notwithstanding the syrupy self-congratulations PG&E has
3 ladled onto its Diablo Canyon seismic assessments for decades, the company’s internal
4 assessment of quality assurance in Geosciences has been scathing. As documented in PG&E
5 Data Response A4NR_04-Q001Atch01CONF (attached as **CONFIDENTIAL Exhibit F**), the Audit
6 Team “ [REDACTED]
7 [REDACTED]
8 [REDACTED].”¹¹ [REDACTED]
9 [REDACTED] determined that [REDACTED].¹² In addition, the
10 [REDACTED]
11 [REDACTED], concluding that “[REDACTED]
12 [REDACTED].”¹³

13 PG&E’s leisurely pace in addressing its responsibilities under Pub. Res. Code Sections
14 25548.3(c)(13) and 25548.3(c)(14) has precluded the availability of information necessary for
15 the Commission to properly discharge its obligations under Pub. Util. Code Section
16 712.8(c)(2)(B) by the deadline specified in Pub. Util. Code Section 712.8(c)(2)(A). This condition
17 is unlikely to change during the time currently allowed for Phase 1 of this proceeding, which
18 envisions a Proposed Decision (or Proposed Decisions) in October-November 2023.¹⁴

19
20 **c. Generally speaking, what are the types of activities the U.S. Nuclear**
21 **Regulatory Commission (NRC) might include as potential conditions**
22 **of license renewal? Please include examples and citations where**
23 **relevant.**

24
25 In 2011, some six months after the events at the Fukushima Daiichi Nuclear Power
26 Station, the NRC explained its license renewal process as follows:

27 //

¹⁰ *Id.*, slide 8.
¹¹ **CONFIDENTIAL Exhibit F**, p. 2 of 5.
¹² *Id.*
¹³ *Id.*, p. 4 of 5.
¹⁴ May 3, 2023 Email Ruling Granting Extension Request by California Coalition of Utility Employees, p. 5.

1 ... The NRC allows plants to continue operation for an additional 20 years beyond
2 the original 40-year period if licensees prove that there are appropriate aging-
3 related programs in place to assure safe operation throughout this period.

4
5 Getting a license renewal from the NRC is no small feat for nuclear power plants.
6 The renewal application is reviewed along two tracks: one for safety issues and
7 another for environmental issues. The nuclear power plants must prove they
8 have addressed the technical aspects of plant aging and must also evaluate the
9 potential impact on the environment if the plant operates for another 20 years.
10 The NRC closely reviews the application and conducts multiple inspections to
11 verify what the plant reports.¹⁵

12
13 Without knowledge of the contents of either PG&E's seismic update or the independent
14 consultants' study of potential remedies for deferred maintenance, it is impossible to provide
15 anything but broad speculation as to the "types of activities" the NRC might include as potential
16 conditions of license renewal. In general, A4NR anticipates these conditions will be framed as
17 requirements for PG&E to conclusively demonstrate its management of the aging process for
18 vital structures, systems, and components ("SSCs") of a plant originally constructed in 1973 but
19 not brought online (after substantial seismic modifications) until 1985 (Unit 1) and 1986 (Unit
20 2), as well as to mitigate any adverse environmental impacts from an extension of operations.

21 For indicative purposes, A4NR has attached as **CONFIDENTIAL Exhibit G** the summary of
22 71 PG&E aging management commitments contained in the June 2, 2011 Safety Evaluation
23 Report prepared by the NRC in response to PG&E's November 23, 2009 license renewal
24 application. Multiple caveats arise when weighing the continued applicability of these past
25 commitments: (1) the principal NRC guidance documents for the 2009 license renewal
26 application, NUREG-1800 for NRC staff and NUREG-1801 for PG&E, have been significantly
27 revised¹⁶ with unclear ramifications for an "end-of-2023" new application; (2) many of the
28 commitments identified in **CONFIDENTIAL Exhibit G** required actions by PG&E prior to
29 expiration of the current licenses (A4NR has highlighted these in green in **CONFIDENTIAL Exhibit**
30 **G**), and it is uncertain how many of such actions were abandoned after PG&E's 2016 decision to
31 retire the plant; (3) no specific costs were publicly identified for compliance with the 71 PG&E

¹⁵ <https://public-blog.nrc-gateway.gov/2011/08/15/renewing-licenses-for-nuclear-power-plants/>

¹⁶ These revisions are catalogued and discussed in NUREG-1950. <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1950/index.html>

1 commitments identified in **CONFIDENTIAL Exhibit G**, although PG&E’s May 19, 2023 testimony
2 states that its forecast of \$78,349,800 of “commitment cost estimates are based on previous
3 DCPD relicensing efforts.”¹⁷ Elsewhere, PG&E acknowledges that “the NRC has not established
4 any conditions of a renewed operating license, and PG&E is not able to precisely predict likely
5 or potential improvements that might reasonably be required as part of the NRC relicensing
6 process;”¹⁸ (4) there can be no assurance that the specific aging management issues perceived
7 as salient in a plant that has operated for ~40 years will be the same as those identified by the
8 earlier NRC review after ~25 years of operation; and (5) the January 24, 2023 NRC staff
9 rejection of PG&E’s request to reinstate the 2009 license renewal application emphasized the
10 need for PG&E to provide

11
12 new information that would have been required in annual updates in accordance
13 with 10 CFR 54.21(b) if the application had not been withdrawn and remained
14 under NRC staff review ... The additional information that is needed also includes
15 addressing material new information and guidance updates since the cessation
16 of the staff’s review for both the safety and environmental reviews.¹⁹
17
18

19 **d. What are the potential upgrades, and associated costs or cost ranges,**
20 **that might be needed to address deferred maintenance and NRC’s**
21 **potential conditions license renewal at Diablo Canyon? In considering**
22 **this question, parties may refer to Pacific Gas and Electric**
23 **Company’s (PG&E’s) May 19, 2023 testimony, [footnote omitted] as**
24 **well as other relevant sources of information. Please provide citations**
25 **where relevant.**
26

27 Based upon the information contained in A4NR’s response to Questions 1.b. and 1.c.
28 above, it is impossible at present to do more than speculate about potential upgrades, and
29 associated costs or cost ranges to address deferred maintenance and potential NRC conditions
30 to license renewal. PG&E’s May 19, 2023 testimony does very little to place reasonable bounds

¹⁷ PG&E May 19, 2023 Testimony, p. 13, lines 8 – 9. Lines 5 – 6 from Table 3 on p. 13 sum to \$78,349,800.

¹⁸ *Id.*, p. 12, lines 10 – 13.

¹⁹ January 24, 2023 letter from Lauren K. Gibson, Chief, NRC License Renewal Projects Branch to Paula Gerfen, PG&E Senior Vice President, Generation, and Chief Nuclear Officer, p. 2, attached as Exhibit H. The letter characterized PG&E’s request as inconsistent with NRC regulations and both the Efficiency and Openness components of NRC Principles of Good Regulation.

1 around these uncertainties. PG&E’s clearest statement relates to the \$78,349,800 estimate of
2 the cost of its anticipated aging management commitments (an estimate that suffers from the
3 questionable applicability of PG&E’s prior experience to the new license renewal application, as
4 discussed in A4NR’s response to Question 1.c. above) and carries the large disclaimer that PG&E
5 cannot “precisely predict likely or potential improvements that might reasonably be required”²⁰
6 by an NRC relicensing process that has yet to even commence.

7 PG&E’s May 19, 2023 testimony is more ambiguous concerning the assumed costs or
8 cost ranges to address deferred maintenance. The testimony states that the Table 2 cost
9 forecast “reflects PG&E’s best available estimated costs of resuming maintenance projects with
10 an optimized 2030 end date”²¹ and that such costs “are included amongst costs identified in
11 multiple lines on Table 2 (Forecast Costs) and portions of the capital and transition costs of
12 Table 4.”²² The black box nature of the estimated costs to address deferred maintenance, and
13 how they were derived, is compounded by the testimony’s assurance: “The project row
14 includes costs for projects that may be considered ‘deferred maintenance,’ as described in the
15 Scoping Memo, with an assumption of optimized performance for a 2030 retirement date.”²³
16 There is no row in either Table 2 or Table 4 identified as the “project row.” One source that
17 might yield a tangible estimate of costs to address deferred maintenance, the independent
18 consultants’ study required by Pub. Res. Code Section 25548.3(c)(14), is described in the
19 testimony as “in progress” (notwithstanding PG&E’s May 10, 2023 acknowledgment that it had
20 not developed a request for proposal or other written solicitation for a consultant to perform
21 the work²⁴). Nearly nine months after enactment of SB 846, PG&E’s testimony admits the
22 obvious: “As of the date of this testimony, PG&E does not have a complete estimate of those
23 costs.”²⁵

24 PG&E’s May 19, 2023 testimony evades entirely the question of estimating any costs
25 necessary to reduce the seismic risk to the reliable operation of the plant, a topic taken up at

²⁰ PG&E May 19, 2023 Testimony, p. 12, lines 12 – 13.

²¹ *Id.*, p. 11, lines 9 – 11.

²² *Id.*, p. 11, lines 15 – 17.

²³ *Id.*, p. 11, lines 18 – 20.

²⁴ Exhibit A, PG&E Data Response A4NR_03-Q001f.

²⁵ PG&E May 19, 2023 Testimony, p. 11, lines 31 – 32.

1 the May 5, 2023 meeting of the IPRP.²⁶ PG&E’s testimony repeats the company’s longstanding
2 dogma concerning Diablo Canyon seismic safety (“PG&E is not aware of any seismic upgrades
3 required for reactor safety and license renewal and, as a result, does not anticipate any seismic
4 safety costs.”²⁷) but artfully chooses words that ignore potential seismically-induced forced
5 outages at the plant. The premise of SB 846, as succinctly summarized in its qualification as an
6 urgency statute, is the necessity of “ensuring electrical reliability in the California electrical
7 system.”²⁸ With up to \$1.475 billion of California General Fund resources invested²⁹ to enable
8 potential extended operations at Diablo Canyon, and customers liable for replacement power
9 costs (including a replenishable \$300 million liquidated damages balancing account to
10 indemnify PG&E for failure to meet the reasonable manager standard³⁰), regulatory prudence
11 requires assessment of potential seismic upgrades that might cost-effectively reduce the
12 duration of forced outages caused by earthquake.

13 A reasonable benchmark for the cost of such outages is PG&E’s calculation in A.22-02-
14 015 that the 149.2 days of (non-seismic) forced outages suffered by Diablo Canyon Unit 2
15 between July 17, 2020 and November 4, 2021 triggered replacement power costs of \$178.6
16 million³¹, or about \$1.2 million per day. Had both Unit 1 and Unit 2 been affected, a not
17 implausible earthquake scenario, the replacement power costs would have been \$2.4 million
18 per day. Notably, the June 5, 2023 extension by the California State Lands Commission (“CSLC”)
19 of PG&E’s lease of public trust lands at Diablo Canyon added Special Condition 2 to address the
20 linkage between seismic risk and “costly purchases of replacement electricity”:

21
22 Consistent with SB 846 and with the goals of maximizing reliability, minimizing
23 interruptions to the Diablo Canyon Power Plant’s generation of electricity, and
24 minimizing the need for costly purchases of replacement electricity prior to
25 decommissioning of the Plant, Lessee is required to conduct an updated seismic
26 assessment under SB 846 (Pub. Resources Code, § 25548.3 (c)(13)). Within 60

²⁶ See also May 5, 2023, “IPRP Comments and Questions for the November Fact Finding Report approved by the DCISC at its February 15-16, 2023 meeting, pp. 2 – 3, attached as Exhibit I.

²⁷ PG&E May 19, 2023 Testimony, p. 14, lines 6 – 8.

²⁸ SB 846 (Dodd – Statutes of 2022), Section 18.

²⁹ SB 846 authorized a forgivable “loan” of up to \$1.4 billion, and AB 180 (Ting -- Statutes of 2022) appropriated \$75 million with no apparent repayment requirement.

³⁰ Pub. Util. Code Section 712.8(i)(1).

³¹ A.22-02-015, ANR-1, p. 2, citing ERR-2021-PGE-Compliance_DR_A4NR_002-Q003, p. 1.

1 days of the release of the updated seismic assessment, Lessor may direct Lessee
2 to provide to Commission staff a written analysis of preventive actions, if any, to
3 remediate any newly identified seismic vulnerabilities of the facilities within the
4 Lease Premises.³²

5
6 In 2010, PG&E contractors conducted an assessment of some 300 Design Class II (i.e.,
7 non-safety) SSCs in response to the California Energy Commission (“CEC”) 2008 AB 1632 Report.
8 The AB 1632 Report had observed:

9
10 The non-safety related systems, structures, and components (SSCs) of the
11 plants are most vulnerable to damage from earthquakes. Damage to non-safety
12 related SSCs is the greatest source of seismic-related plant reliability risk for
13 SONGS and Diablo Canyon. Damage to non-safety related SSCs could pose risks
14 of injury and loss of life to plant workers and occupants but damage would not
15 pose a direct safety hazard to the public; however, it could result in extended
16 outages for repairs lasting weeks or months. The seismic-related reliability risk of
17 non-safety related SSCs is not well understood in large part because the nuclear
18 industry and the NRC historically have focused on safety related SSCs.³³

19
20 The CEC’s observation reflected testimony received from one of PG&E’s primary
21 geoscientists, Dr. Norman Abrahamson:

22
23 When we talk about reliability we are generally looking at the performance of
24 the plant for a below design basis earthquake that is actually likely to happen.
25 For example, at Diablo Canyon we would be concerned with a magnitude say
26 6.25 earthquake on the Hosgri Fault that might give us .2 or .3 Gs of peak
27 acceleration. Less than half of what our design basis is. But it is the non-safety-
28 related systems that are potentially being damaged, would be damaged by those
29 and then would put us out of operation, even though all our safety systems
30 performed properly ... Really reliability is going to be driven by a more frequent
31 but lower level of shaking for which our non-safety related systems are not
32 designed for ... we think reliability is going to be driven by a much more
33 frequent, smaller magnitude earthquake for which our non-safety-related
34 systems would be damaged ... That has not been addressed by the industry in
35 general. It has been so focused on safety that we have let that part go.³⁴

³² June 5, 2023 CSLC Staff Report 90, p. 4. The “facilities” identified as within the Lease Premises include the intake structure and electrical room, the cooling water discharge structure and channel, and the breakwaters.

³³ CEC, An Assessment of California’s Nuclear Power Plants: AB 1632 Report (2008), pp. 11 – 12.

³⁴ CEC transcript, Docket Nos. 07-AB-1632 and 08-IEP-1F, September 25, 2008, pp. 83 – 85.

1 PG&E has acknowledged that its Seismic Probabilistic Risk Assessment model does not
2 analyze seismic accident sequences for their potential effects on Class II SSCs necessary for the
3 plant’s operation after a safe shutdown, and instead provided A4NR with a copy of the
4 aforementioned 2010 contractor report.³⁵ PG&E described the 2010 report, whose primary
5 author was Enercon, as “an assessment of the probability of a prolonged post-earthquake
6 outage at DCPD due to damage to non-safety related SSCs and evaluates additional preplanning
7 or mitigation steps to minimize a prolonged outage following a major seismic event.”³⁶ The
8 2010 Enercon report is an unsuitable response to the seismic assessment needs created by SB
9 846, most conspicuously because it set the threshold for an acceptable outage at 120 days³⁷
10 (resulting in replacement power costs of some \$144 million per Unit, using PG&E’s A.22-02-015
11 calculation). Nevertheless, it did identify the seismic vulnerability (at horizontal ground
12 accelerations greater than 0.2g) of the main turbine thrust bearings, and a potential 1 – 2-year
13 shutdown risk³⁸ -- approximately \$438 – 876 million per Unit, based upon PG&E’s A.22-02-015
14 calculation. The “updated seismic assessment” required by Pub. Res. Code Section
15 25548.3(c)(13) must address the risk to plant operations posed by earthquakes with the same
16 reliability-enhancing rationale that motivated SB 846.

17 The absence of either of the analyses required by Pub. Res. Code Sections
18 25548.3(c)(13) and 25548.3(c)(14), as well as the purely conjectural nature of any assumed NRC
19 conditions of license renewal, render Question 1.d. premature at this time.

20

21 **e. Considering the answers above, please comment on whether the costs**
22 **associated with potential upgrades necessary to address seismic safety,**
23 **issues of deferred maintenance, or NRC conditions of license renewal**
24 **at Diablo Canyon are “too high to justify.”**
25

26 The informational deficiencies identified in response to Question 1.d. above make it
27 presently impossible to determine whether the costs described in Pub. Util. Code Section
28 712.8(c)(2)(B) – i.e., the costs identified by Question 1.e. – exceed the sum of: (1) available
29 government funding streams identified in D.22-12-005’s Finding of Fact 9; (2) “other

³⁵ PG&E Data Response A4NR_003-Q013, attached as Exhibit J.

³⁶ *Id.*, p. 2. The Enercon report is attached as Exhibit K.

³⁷ Exhibit K, p. 7.

³⁸ *Id.*, pp. 22 – 23.

1 nonratepayer funds available” to PG&E, as contemplated by Pub. Util. Code Section
2 712.8(c)(1)(C); and (3) the amount of any binding commitment by PG&E to forego recovery of
3 costs in excess of (1) and (2) from its ratepayers or the customers of other LSEs. The following
4 features of the SB 846 structure establish sufficiently material financial uncertainties to require
5 that, in any future determination of whether projected Pub. Util. Code Section 712.8(c)(2)(B)
6 will be “too high to justify”, responsibly-projected benefits from extended operations exceed
7 well-informed calculations of costs by a substantial, incontrovertible margin:

- 8 • *What happens if PG&E fails to receive and retain funds from the DOE grant?*

9 PG&E’s 2014 indictment and 2016 conviction for obstruction of justice (18 USC § 1505)³⁹
10 conflicts with the definition of “Prohibited Person” contained in the draft Credit Redemption
11 Agreement⁴⁰ included in the Application materials for the first round of DOE’s Civil Nuclear
12 Credit Program. Section 4.12. of the draft Credit Redemption Agreement specifies “... Neither
13 the Owner/Operator nor any of their respective Principal Persons is a Prohibited Person. No
14 event has occurred and no condition exists that is likely to result in Owner/Operator nor any of
15 its respective Principal Persons becoming a Prohibited Person.”⁴¹ “Prohibited Person” is defined
16 as “any person or entity that is: ... indicted, convicted or had a Governmental Judgment
17 rendered against it for any of the offenses listed in any of the Debarment Regulations ...”⁴²
18 2 CFR § 180.800 states: “... A Federal agency may debar a person for— (a) Conviction of or civil
19 judgment for— ... (3) Commission of embezzlement, theft, forgery, bribery, falsification or
20 destruction of records, making false statements, tax evasion, receiving stolen property, making
21 //
22 //
23 //

³⁹ The July 10, 2014 federal indictment states: “On or about September 10, 2010, and continuing through on or about September 30, 2011, in the Northern District of California, the defendant, PACIFIC GAS AND ELECTRIC COMPANY, did corruptly influence, obstruct, and impede, and did endeavor to influence, obstruct, and impede the due and proper administration of the law under which a pending proceeding was being had before a department and agency of the United States ...” United States District Court for the Northern District of California, Docket No. 3:14-cr-00175.

⁴⁰ A copy of the draft Credit Redemption Agreement is attached hereto as Exhibit L.

⁴¹ Exhibit L, p. 8.

⁴² *Id.*, p. 19.

1 false claims, or obstruction of justice.”⁴³

2 DOE’s written guidance (attached as Exhibit M) regarding the Credit Redemption
3 Agreement for the grant cycle in which PG&E applied specifies:

4
5 Each Applicant is directed to include with its Certification Application a redline
6 draft showing any requested changes to the Credit Redemption Agreement with
7 margin notations explaining the basis for its requested changes ... DOE at its
8 discretion may accept or reject the requested changes to the Credit Redemption
9 Agreement, or determine to conduct negotiation of any requested changes.
10 DOE’s decision to extend a Conditional Award to an Applicant does not mean
11 that DOE has accepted or will accept any of the redline edits that the Applicant
12 has included with its Application.⁴⁴

13
14 Despite this direction from DOE, a copy of PG&E’s redline draft (attached as

15 **CONFIDENTIAL Exhibit N**) makes clear that PG&E’s requested changes [REDACTED]

16 [REDACTED]

17 [REDACTED].⁴⁵ In response to an A4NR data request asking whether PG&E
18 had informed DOE of its prior criminal conviction for obstruction and seeking any written
19 documentation of such disclosure, PG&E [REDACTED]

20 [REDACTED]:

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

⁴³ 2 CFR § 180.125 states: “What is the purpose of the nonprocurement debarment and suspension system?
(a) To protect the public interest, the Federal Government ensures the integrity of Federal programs by conducting business only with responsible persons.
(b) A Federal agency uses the nonprocurement debarment and suspension system to exclude from Federal programs persons who are not presently responsible.
(c) An exclusion is a serious action that a Federal agency may take only to protect the public interest. A Federal agency may not exclude a person or commodity for the purposes of punishment.”

⁴⁴ Exhibit M, p. 30.

⁴⁵ PG&E’s Application included [REDACTED]
[REDACTED], attached as **CONFIDENTIAL Exhibit O**.

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[REDACTED]

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The [REDACTED] (attached as **CONFIDENTIAL Exhibit Q**), Paragraph [REDACTED] of which stated that “[REDACTED],”⁴⁷ [REDACTED] [REDACTED]. Although Paragraph [REDACTED] indicated that [REDACTED] [REDACTED]⁴⁸, such records are only retained for five years⁴⁹ and may not have been accessible at the time of PG&E’s September 2, 2022 Application. Notably, PG&E’s data response made [REDACTED] [REDACTED].

Having reviewed PG&E’s entire Application, A4NR believes that PG&E omitted any disclosure to DOE of its potentially disqualifying 2014 indictment and 2016 conviction for violation of 18 USC § 1505. Such omission may constitute a separate criminal violation of 18 USC § 1001(a), which provides:

- Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully—
 - (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact;
 - (2) makes any materially false, fictitious, or fraudulent statement or representation; or
 - (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry;
- shall be fined under this title, imprisoned not more than 5 years or, if the offense involves international or domestic terrorism (as defined in section 2331), imprisoned not more than 8 years, or both ...

The statutorily-required elements of the loan agreement between PG&E and DWR include obligations for PG&E to “submit a timely and complete application for funding” from DOE⁵⁰ and to disclose to DWR “any known ... material defect that would disqualify the

⁴⁶ PG&E Data Response to A4NR_004-Q007, attached as **CONFIDENTIAL Exhibit P**.
⁴⁷ **CONFIDENTIAL Exhibit Q**, p. 11.
⁴⁸ *Id.*
⁴⁹ https://www.cpars.gov/documents/FAPIS_Overview.pdf, p. 2.
⁵⁰ Pub. Res. Code Sections 25548.3(c)(4)(A).

1 application ... or otherwise disallow or substantially delay any necessary ... approvals necessary
2 for the extension of operating the Diablo Canyon powerplant.”⁵¹ A4NR’s data request
3 A4NR_004-Q007 asked whether PG&E had informed DWR that the prior criminal conviction
4 might jeopardize PG&E’s eligibility to enter into the Credit Redemption Agreement with DOE,
5 and requested any written documentation of such disclosure. PG&E [REDACTED]

6 [REDACTED]
7 [REDACTED].⁵²

8 A4NR filed a request under the California Public Records Act with DWR seeking any
9 records of such disclosure by PG&E. DWR’s response (attached as Exhibit Q) repeated each of
10 the five specific inquiries before concluding, “Following a diligent search, it has been
11 determined that DWR does not have records responsive to the criteria described in your
12 request.”⁵³

13 The remedy provided by Pub. Res. Code Section 25548.3(c)(4) for a PG&E failure to
14 submit a timely and complete application to DOE, or a PG&E failure to make proper disclosure
15 to DWR, is to “trigger loan repayment obligations by the borrower.” The remedy provided by
16 Pub. Res. Code Section 25548.3(c)(5) if DWR determines that PG&E “has not obtained the
17 necessary ... approvals,” or if DOE makes a final determination that Diablo Canyon is not eligible
18 for the grant, is to “trigger a suspension or early termination of the loan agreement.” If the
19 loan is terminated, Pub. Util. Code Section 712.8(c)(1)(B) instructs the Commission to modify its
20 D.22-12-005 Order and “direct an earlier retirement date.” If DOE makes a final determination
21 that Diablo Canyon is not eligible for the grant, Pub. Util. Code Section 712.8(w) specifies that
22 most of the cost recovery provisions created by SB 846 will no longer be operative and the
23 Commission “shall instead undertake ordinary ratemaking with respect to the Diablo Canyon
24 powerplant.”⁵⁴

⁵¹ Pub. Res. Code Sections 25548.3(c)(4)(B).

⁵² CONFIDENTIAL Exhibit P, p. 2.

⁵³ Exhibit R, p. 1.

⁵⁴ Pub. Util. Code Section 712.8 “subdivisions (d) to (m), inclusive, (p), (q), (t), and (u) shall cease to be operative.” Notably excluded from this repeal are the ratepayer protections of Section 712.8(c)(1)(C) and the general authorization in Section 712.8(c)(3) for “allocating financial responsibility for the extended operations of the Diablo Canyon powerplant to customers of all load-serving entities.”

1 The timeframe for DOE resolution of PG&E’s “Prohibited Person” status is uncertain.
2 DOE’s written guidance for the grant cycle in which PG&E applied indicates that execution of a
3 Credit Redemption Agreement is a necessary precondition to Final Award Selection, which it
4 describes as the date upon which the Credit Redemption Agreement becomes effective, Credits
5 are awarded, and the four-year Award Period commences.⁵⁵ But the DOE written guidance also
6 indicates that DOE will not execute any Credit Redemption Agreement or make any Final Award
7 until it has completed its obligations pursuant to the National Environmental Policy Act
8 (“NEPA”)⁵⁶, which it will accomplish by “adopting, or adopting and supplementing, the Final
9 Environmental Impact Statement prepared for the Selected Nuclear Reactor by the NRC.”⁵⁷
10 PG&E has indicated that it does not anticipate NRC completion of the Diablo Canyon license
11 renewal process (when a Final Environmental Impact Statement would be adopted by the NRC)
12 “until at least 2026.”⁵⁸ The company’s updated assessment in a May 16, 2023 data response to
13 A4NR admitted, “[REDACTED]
14 [REDACTED].”⁵⁹

15 Besides the possibly prolonged uncertainty over whether PG&E will be disqualified from
16 executing a Credit Redemption Agreement, delaying the start of the four-year Award Period
17 “until at least 2026” may significantly reduce Diablo Canyon’s likelihood of meeting the
18 operating loss requirement for retention of grant proceeds. As openly acknowledged in PG&E’s
19 Application, the [REDACTED]
20 [REDACTED]
21 [REDACTED]:

22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

⁵⁵ Exhibit M, pp. 33 – 34.

⁵⁶ *Id.*, p. 30.

⁵⁷ *Id.*, p. 41.

⁵⁸ R.23-01-007, PG&E Opening Comments on OIR, p. 6.

⁵⁹ PG&E Data Response to A4NR_004-Q006, attached as **CONFIDENTIAL Exhibit S**.

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[REDACTED]

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But the federal statute establishing the DOE Civil Nuclear Credit program requires recapture of grant proceeds if, “(d)uring the 4-year period **beginning on the date on which a certified nuclear reactor first receives a credit**” [emphasis added] the reactor “does not operate at an annual loss in the absence of an allocation of credits to the certified nuclear reactor.”⁶¹ And PG&E was [REDACTED]

[REDACTED] :

[REDACTED]

⁶⁰ PG&E Data Response A4NR_002-Q001, J9EKLNMZXF6_Diablo Canyon_Cost-of-Service Pathways, p. 2 of 2, attached as **CONFIDENTIAL Exhibit T**.

⁶¹ 42 USC 18753(g).

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[Redacted]

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If the four-year Award Period does not begin until 2026 or later, can PG&E make the requisite showing of losses under the DOE-required Generally Accepted Accounting Principles (“GAAP”) to receive and retain grant proceeds? How will the forgivable, non-amortizing DWR loan (which limits “the only source of funds to satisfy any PG&E repayment obligation” to the DOE grant, any other federal funds received for Authorized Expenses, and any excess funds remaining in a balancing account as a result of market revenues exceeding costs and expenses in the final year of the Extended Operating Period⁶³) be factored into the calculation of “annual loss” during the four-year Award Period? At what point might DWR, a presumed watchful steward of General Fund resources, exercise the “trigger” provisions of Pub. Res. Code Sections 25548.3(c)(4) or 25548.3(c)(5), especially the authority granted by Section 25548.3(c)(5)(F) – “that permitted timeframes are not viable to accomplish the purposes of this chapter” – or Section 25548.3(c)(5)(G) – “that repayment is less likely than initially anticipated”?

A4NR believes that the identified uncertainties concerning PG&E’s ability to receive and retain funds from the DOE grant, and the potentially lengthy period of time before they are resolved, reinforce the necessity that the Commission’s assessment of Diablo Canyon extension costs require that responsibly-projected benefits of extended operations exceed well-informed

⁶² PG&E Data Response A4NR_002-Q001, J9EKLNMZXF66_Diablo Canyon_Post-Award Sustainability Plan, p. 1 of 2, attached as **CONFIDENTIAL Exhibit U**.

⁶³ PG&E-DWR Loan Agreement, Section 7.e., p. 11, attached as Exhibit V. Notwithstanding Pub. Res. Code Section 25548.3(c)(1)(A) and Section 8.a. of the Loan Agreement requiring that PG&E “take all steps necessary to secure a grant or other funds available for the operation of a nuclear powerplant from the United States Department of Energy, and any other potentially available federal funds, to repay the loan,” PG&E appears to have not applied for the second round of the DOE Civil Nuclear Credit Program. PG&E’s September 2, 2022 Application to DOE was for [Redacted] of the \$1.4 billion General Fund loan authorized by SB 846, despite assurances from the Governor’s Cabinet Secretary (“these federal funds that we believe will offset the entirety of the loan that we are proposing,” <https://www.assembly.ca.gov/media/assembly-utilities-energy-committee-20220826/video> at 1:02:20) and State Senator John Laird (“The \$1.4 billion loan expenditure will be matched with \$1.4 billion in federal revenue, which limits the requirement of any ratepayer or taxpayer money for that purpose,” written statement, <https://sd17.senate.ca.gov/news/statement-state-sen-john-laird-d-santa-cruz-sb-846-dodd>).

1 calculations of costs by a substantial, incontrovertible margin. The Commission should expressly
2 weigh the ramifications of Pub. Util. Code Section 712.8(w) being activated, including whether
3 its automatic repeal of the lucrative enticements in SB 846 will fatally curb PG&E’s ardor for
4 proceeding.

5 Even if the DOE grant and DWR loan issues are resolved promptly to PG&E’s benefit,
6 three of the SB 846 enticements deserve special consideration by the Commission in
7 determining where the “too high to justify” cost threshold should lie. Two of these, the
8 replenishable \$300 million liquidated damages balancing account established by Pub. Util. Code
9 Section 712.8(g)⁶⁴ and the guaranteed recoveries of the \$100 million annual (in 2022 dollars,
10 subject to Commission escalation methodologies and adjustment factors) “fixed payment”
11 established by Pub. Util. Code Section 712.8 (f)(6)⁶⁵, represent an extraordinary transfer of risk
12 from utility to customer. Both appear to reflect an “acknowledgment of the greater risk of
13 outages in an older plant that the operator could be held liable for,”⁶⁶ but both represent an
14 unprecedented undermining of the “reasonable manager” cornerstone of Commission
15 regulation. Insulating PG&E from much of the financial consequences⁶⁷ of its budgeting,
16 maintenance, and inspection decisions at Diablo Canyon will likely encourage operational
17 practices with a higher tolerance for unplanned outages than has historically been the case.
18 One need not be steeped in the economic science of financial incentives to recognize an
19 unmistakable invitation to step onto the indifference-negligence-recklessness downward
20 stairway. In the context of a nuclear powerplant, regardless of NRC regulation, this prospect is
21 disquieting.

⁶⁴ Pub. Util. Code Section 712.8(i) directs the Commission to authorize payment from this account upon finding “that replacement power costs incurred when a unit is out of service due to an unplanned outage are the result of a failure of the operator to meet the reasonable manager standard ...”

⁶⁵ Pub. Util. Code Section 712.8(f)(6) requires PG&E’s retention of each unit’s annual \$50 million fixed payment during unplanned outages of nine months or less during the first year of extended operations; eight months or less during the second year of extended operations; seven months or less during the third year of extended operations; six months or less during the fourth year of extended operations; and five months or less during the fifth year of extended operations. In each instance, PG&E is allowed to retain 50% of the fixed payment for unscheduled outage months in excess of the prescribed time limit. Notably, the annual “fixed payment” is not subject to SB 846’s various prohibitions on PG&E’s use of Diablo Canyon revenues to benefit shareholders.

⁶⁶ Pub. Util. Code Sections 712.8(f)(5) and 712.8(f)(6).

⁶⁷ Any outage would appear to deprive PG&E of the \$13 per MWh volumetric payments established by Pub. Util. Code Section 712.8(f)(5), subject to potential reimbursement from the liquidated damages balancing account.

1 The liquidated damages balancing account, [REDACTED] characterized in PG&E’s grant
2 Application as “[REDACTED]
3 [REDACTED],”⁶⁸ could collect \$1.5 billion from customers over the five-year extended operations
4 period and will function as a customer-funded “Imprudence Allowance.” This Imprudence
5 Allowance will be augmented by the “fixed payment” guarantee to ensure that, irrespective of
6 any unplanned outages, PG&E collects at least \$395.9 million of the \$500 million (in 2022
7 dollars, subject to Commission escalation methodologies and adjustment factors) “fixed
8 payment” amounts provided by Pub. Util. Code Section 712.8 (f)(6)(A).

9 SB 846’s third enticement to PG&E for extended operations, contained in Pub. Util. Code
10 Section 712.8 (h)(1), would forego any reasonableness review of Diablo Canyon annual
11 operating expenses that were below 115% of updated forecast costs. This regulatory
12 forbearance could encourage PG&E overestimates of operating costs while undermining efforts
13 to contain such costs. Based on the current estimate of operating costs in Table 2 of PG&E’s
14 testimony, required Commission acceptance of 15% overruns would add at least \$673.8 million
15 to the costs PG&E has estimated for the 2025 – 2030 period. However, PG&E has
16 acknowledged that does not include all of the operating costs that PG&E will seek to recover:

17
18 In addition to costs presented in the EUCG cost categories identified herein,
19 PG&E proposes that entries to the DCEOBA include additional costs categories,
20 such as taxes, benefits and standard PG&E overheads, employee retention costs,
21 regulatory compliance items, and statutory charges and fees. In addition, PG&E
22 would record to the DCEOBA, and, in a future cost recovery application, would
23 request recovery thereof, specified amounts associated with PG&E’s extended
24 operations that are identified in SB 846 that may not be explicitly included in
25 Table 2, such as the volumetric performance and fixed management payments
26 for extended operations.⁶⁹

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28
29 The most readily quantifiable of the operating costs excluded from Table 2 (the \$13/MWh
30 volumetric payments; the \$50 million per Unit annual fixed payments; and the estimated \$ [REDACTED]
31 [REDACTED] per year in incremental employee retention payments) would increase total operating

⁶⁸ CONFIDENTIAL Exhibit U, p. 2 of 2.

⁶⁹ PG&E May 19, 2023 Testimony, p. 16, lines 4 – 13.

1 costs by \$ [REDACTED] over the five-year extended operating period for each Unit.⁷⁰ The
2 cumulative value of the 15% cushion for cost overruns during extended operations would climb
3 to at least \$ [REDACTED], and is still likely to be understated due to the unknown amounts of
4 “additional costs categories, such as taxes, benefits and standard PG&E overheads, ...
5 regulatory compliance items, and statutory charges and fees” that PG&E has excluded from
6 Table 2 of its May 19, 2023 testimony.

7 **2. Questions related to Pub. Util. Code Section 712.8(c)(2)(D):**

8 **a. How should the Commission define the following terms: “new**
9 **renewable energy” and new “zero-carbon resources,” “adequate to**
10 **substitute for the Diablo Canyon powerplant,” and the “state’s**
11 **planning standards for energy reliability”? As a starting point, parties**
12 **may comment on whether the Commission should adopt the following**
13 **potential definitions of those terms:**

14
15 **i. New [resources]: for the purposes of this use case, new resources**
16 **are those that are incremental to the baseline resources used in**
17 **Commission Decision (D.) 19-11-016.**
18

19 A4NR believes this is a reasonable definition for the Commission to adopt.
20

21 **ii. New renewable energy: new renewable energy refers to**
22 **resources that are incremental to the D.19-11-016 baseline and**
23 **are compliant with the state’s Renewable Portfolios Standard**
24 **(RPS) program, per Public Resource Code Section 25741.**
25

26 A4NR believes this is a reasonable definition for the Commission to adopt.
27

28 **iii. New zero-carbon resources: new zero-carbon resources are**
29 **resources that are incremental to the D.19-11-016 baseline with**
30 **zero on-site emissions, unless otherwise permissible for**
31 **compliance with the RPS program.**
32

33 A4NR believes this is a reasonable definition for the Commission to adopt.

⁷⁰ This amount is calculated by adding \$ [REDACTED] (the product of multiplying \$13 by the [REDACTED] MW/h of 2017 – 2021 Diablo Canyon generation identified in PG&E’s DOE grant application. See PG&E Data Response A4NR_002-Q001, J9EKLNMZXF66_Diablo Canyon_Historic Annual Operating Conditions_Year, spreadsheet line 13, attached as **CONFIDENTIAL Exhibit W**) to \$500 million in fixed payments and \$ [REDACTED] in incremental employee retention payments.

1
2 iv. **State’s planning standards for energy reliability:**
3

- 4 • **On a system-level, refers to the industry standard of planning**
5 **electric system reliability. This is typically done based on loss-**
6 **of-load expectation (LOLE) modeling analysis, using**
7 **probabilistic tools such as the Commission’s Energy Resource**
8 **Modeling section’s Strategic Energy and Risk Valuation**
9 **Model (SERVM), [footnote omitted] to determine system**
10 **reliability. The accepted standard used in such analysis is 0.1**
11 **LOLE, which translates to a probability of one loss of load**
12 **event every ten years. This can then be used to inform**
13 **development of a planning reserve margin for use in planning**
14 **and procurement exercises. There are multiple ways of**
15 **evaluating system reliability. While some analyses may be**
16 **tied directly to the 0.1 LOLE reliability standard, others may**
17 **assess supply conditions against related elements such as**
18 **average and extreme conditions to determine if a shortfall**
19 **event could occur under those conditions.**
20
- 21 • **On an individual resource-level, individual resources are**
22 **counted using the reliability standards and rules established**
23 **in the Commission’s Integrated Resource Plan and Resource**
24 **Adequacy proceedings. These rules sometimes overlap, and**
25 **sometimes differ as resources are counted over a longer-term**
26 **planning horizon.**
27

28 In recognition of the required objectivity of the determination the Commission must
29 make under Pub. Util. Code Section 712.8(c)(2)(D), and to prevent any inference of an *ad hoc*
30 redefinition of the applicable standards, A4NR recommends these two paragraphs be replaced
31 with the sentence, “iv. State’s planning standards for energy reliability: those standards
32 adopted by the Commission pursuant to Pub. Util. Code Sections 380 and 454.52.” The
33 Commission has issued multiple decisions implementing these statutory provisions as
34 California’s electricity system has evolved over the years, stakeholders have expended
35 substantial resources in participating in the applicable proceedings, and the result is an
36 extensive empirical record and meticulously delineated policy latticework. These Commission
37 decisions, most recently in R.21-10-002 and R.20-05-003, are the resource adequacy and
38 integrated resource planning guideposts for California’s clean energy transition. Failure to

1 formally acknowledge this would be a disservice to the Commission’s and stakeholders’
2 longstanding investment in a credible and transparent process.

3
4 **b. Is the baseline used in D.19-11-016 the correct starting point to**
5 **consider new resources? If not, which baseline should the Commission**
6 **consider when quantifying new resource additions (for example,**
7 **should the Commission consider the baseline used in D.21-06-035?)**
8

9 A4NR believes the baseline used in D.19-11-016 is the correct starting point from
10 which to consider new resources.

11 **c. What conclusions might the Commission draw from the CEC’s**
12 **March 2023 report (Attachment D), and the joint report of the CEC**
13 **and Commission staff from February 2023 (Attachment E) to satisfy**
14 **its obligations under Pub. Util. Code Section 712.8(c)(2)(D)?**
15 **Specifically, does either report allow the Commission to conclude that**
16 **new renewable energy and zero-carbon resources are adequate to**
17 **substitute for the Diablo Canyon powerplant, meet the state’s**
18 **planning standards for energy reliability, and will be constructed and**
19 **interconnected by the time of its decision? If so, how? If not, why?**
20

21 Pursuant to the June 2, 2023 Administrative Law Judge’s Ruling, A4NR incorporates into
22 this response its comments on the May 2023 Joint Agency Reliability Planning Assessment – SB
23 846 Second Quarterly Report, included as Attachment A to the June 2, 2023 ruling.

24 The three reports compel the very conclusion inquired about in Question 2.c., and
25 enable an Order – at the Commission’s discretion – under Pub. Util. Code Section 712.8(c)(2)(D)
26 “that reestablishes the current expiration dates as the retirement date, or that establishes new
27 retirement dates that are earlier ...” Each of the three cited reports makes similar, unequivocal
28 observations when applying the state’s reliability planning standards:

- 29 • “The analysis shows that under the current resource adequacy planning
30 standard, the CPUC’s procurement orders, Decision (D) 19-11-016 and D.21-
31 06-035, are sufficient to eliminate shortfalls through 2030.”⁷¹
32

⁷¹ Attachment D to the April 20, 2023 ruling, p. 3.

- 1 • “Under a 17 percent reserve margin scenario, the CPUC’s procurement
2 orders and Preferred System Plan avoid reliability shortfalls well beyond the
3 period covered by the current procurement orders.”⁷²
4
- 5 • “While expected online date changes are common, it is worth noting that the
6 CPUC’s jurisdictional LSEs have not been delayed in meeting CPUC IRP orders
7 for new generation.”⁷³
8
- 9 • “The stack analysis assumes Once-Through-Cooling (OTC) plants and Diablo
10 Canyon Power Plant (DCPP) retire as currently scheduled. This is December
11 31, 2023, for the 3,700 MW of OTC gas plants. DCPP Units 1 and 2 are
12 assumed to be offline by 2025, resulting in 2,280 MW of capacity reduction
13 to the supply stack.”⁷⁴
14
- 15 • “Under the planning standard, the ordered procurement resulted in surplus
16 under all delay scenarios until 2030, which is due to no new supply being
17 ordered after 2028 and the gradual demand increase year to year.”⁷⁵
18
- 19 • “The improvements in system conditions further increased the [2023] surplus
20 resources, under the planning standard, to about 2,300 MW [from the
21 previous 1,538 MW].”⁷⁶
22

23 The first quarterly Joint Agency Reliability Planning Assessment confirms that, from
24 January 2020 to September 2022, sufficient new renewable energy and zero-carbon resources
25 were constructed and interconnected to easily substitute for Diablo Canyon:

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⁷² Attachment E to the April 20, 2023 ruling, p. 4. This first of the quarterly Joint Agency Reliability Planning Assessment reports acknowledges (at pp. 29 – 30, 42 – 43) that it has not included the 4,000 MW of additional 2026 – 2027 procurement ordered by D.23-02-040 but that the deferral to 2028 of geothermal and 8-hour batteries has been assumed (at p. 45).

⁷³ *Id.*, p. 36.

⁷⁴ *Id.*, p. 44.

⁷⁵ *Id.*, p. 48. Given California’s clean energy goals, it is reasonable to assume that Commission procurement efforts will continue past 2028.

⁷⁶ Attachment A to the June 2, 2023 ruling, p. 10. This second of the quarterly Joint Agency Reliability Planning Assessment reports confines its analysis to 2023 and does not update the first report’s 2024 – 2030 assessment.

1 **Cumulative New SB 100 Resources, January 2020 through September 2022⁷⁷**

Technology Type	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects
Storage	3,521	3,339	50
Solar	2,901	282	41
Hybrid (storage/solar)	786	395	11
Wind	810	103	19
Geothermal	40	31	1
Biogas, biomass, hydro	34	1	8
Subtotal Total New SB100 Resources, IN-California ISO	8,092	4,151	130

2
3 This information was updated in the second quarterly Joint Agency Reliability Planning
4 Assessment, with an additional 10 projects online (an increase in Nameplate Capacity of 9.4%
5 and in Net Qualifying Capacity of 7.8%), as follows:

6
7 **Cumulative New SB 100 Resources, January 2020 through March 2023⁷⁸**

Technology Type	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects
Storage	3,782	3,621	51
Solar	3,302	283	45
Hybrid (Storage/Solar)	998	456	16
Wind	700	83	19
Geothermal	40	31	1
Biogas, Biomass, Hydro	34	1	8 (2,2,4)
Subtotal Total New SB100 Resources, In-California Independent System Operator	8,856	4,475	140

8
9
10 **d. Notwithstanding the reports included as Attachment D and**
11 **Attachment E, will new renewable energy and zero-carbon resources**

⁷⁷ Attachment E to the April 20, 2023 ruling, Table 2, p. 30.

⁷⁸ Attachment A to the June 2, 2023 ruling, Table 1, p. 4.

1 **adequate to substitute for the Diablo Canyon powerplant, and that**
2 **meet the state’s planning standards for energy reliability, be**
3 **constructed and interconnected by the end of 2023? Factual**
4 **statements must be supported by evidence. [footnote omitted]**
5

6 The Commission staff’s November 2022 Resource Tracking Data, posted March 15, 2023
7 to the Commission website, contains the same data on new SB 100 resources as the January
8 2020 through September 2022 table on the preceding page under the title, “Online New
9 Resources, Jan 2020 – Oct 2022.”⁷⁹ As of the filing date of these Opening Comments /
10 Testimony, the Commission website has not separately updated the January 2020 through
11 March 2023 table above.

12 **3. Sections 712.8(c)(2)(B) through (D) specify that, if the Commission**
13 **establishes earlier retirement dates, then sufficient time should be**
14 **provided for orderly shutdown and recovery of any outstanding**
15 **uncollected costs and fees.**

16
17 **a. What is the length of time needed to support an orderly shutdown of**
18 **Diablo Canyon and recovery of any outstanding and uncollected costs**
19 **and fees? Please identify each action that is required, being as specific**
20 **as possible, and include an estimated timeframe to complete each**
21 **action.**

22
23 A4NR will defer, at least initially, to PG&E’s identification of any applicable safety
24 requirements in the Diablo Canyon operating licenses that would influence the timeframe
25 necessary to achieve an orderly shutdown (and permanent defueling) of both Units. Planned
26 shutdown of a single Unit for refueling is a common occurrence, and A4NR is unaware of any
27 additional time considerations that a dual-Unit cold shutdown would raise—but does not rule
28 out that possibility. For system reliability purposes, A4NR believes that advance scheduling of a
29 cold shutdown of either one or both Units should be carefully coordinated with the California
30 Independent System Operator (“CAISO”) and that short-term supply/demand balances would
31 likely dominate the Commission’s consideration of any retirement dates earlier than those
32 provided in Section 712.8(c)(1)(A).

⁷⁹ <https://www.cpuc.ca.gov/news-and-updates/newsroom/summer-2021-reliability/tracking-energy-development>,
November 2022 Resource Tracking Data, unnumbered slide 5.

1 Economic considerations could reasonably inform such scheduling, but there is no
 2 publicly available forecast of Diablo Canyon’s cost-effectiveness during the 2022 – 2025 period
 3 prior to expiration of the existing operating licenses. PG&E’s 2022 DOE grant Application –
 4 which acknowledged “ [REDACTED]
 5 [REDACTED] ”⁸⁰ – identified substantial Diablo
 6 Canyon above-market costs for the most recent five years for which data was available that
 7 exceeded \$ [REDACTED] ⁸¹ and were charged increasingly to departed load:
 8

YEAR OF OPERATION	ABOVE-MARKET COSTS (\$) ⁸²	BUNDLED LOAD SHARE (%) ⁸³
2017	[REDACTED]	Not provided.
2018	[REDACTED]	[REDACTED]
2019	[REDACTED]	[REDACTED]
2020	[REDACTED]	[REDACTED]
2021	[REDACTED]	[REDACTED]

9
 10 Separately, the Commission’s ability to authorize “recovery of any outstanding
 11 uncollected costs and fees” under Section 712.8(c)(2)(B) would not be affected by its
 12 determination of “sufficient time for orderly shutdown.”

13
 14 **4. Additional questions:**

- 15
 16 **a. If the Commission directs and authorizes extended operations at
 17 Diablo Canyon, should one or more processes be established to
 18 monitor the associated utility ratepayer cost from, and reliability need
 19 for, continued operations at Diablo Canyon? If so, please consider the
 20 following:**
 21
 22

23 Based upon the current record, the Commission will not have adequate information
 24 from PG&E by December 31, 2023 concerning the foreseeable costs identified in Pub. Util. Code

⁸⁰ See p. 16, lines 26 – 27.

⁸¹ CONFIDENTIAL Exhibit W, spreadsheet line 94.

⁸² *Id.*

⁸³ PG&E Data RESPONSE DR_A4NR_004-Q003Supp01CONF, p. 4, attached as CONFIDENTIAL Exhibit X.

1 Section 712.8(c)(2)(B) to determine whether such costs would be too high to justify incurring.
2 Any Commission authorization under Pub. Util. Code Section 712.8(c)(2)(A) should be subject
3 to, and conditioned upon, PG&E providing this statutorily-required information and the
4 Commission confirming that any extension of Diablo Canyon operations will be both cost-
5 effective and prudent. Recovery of extended operating costs from PG&E ratepayers and LSE
6 customers could not be considered just and reasonable without a well-supported
7 determination by the Commission that the Section 712.8(c)(2)(B) costs were not too high to
8 justify.

9 The comments of the Diablo Canyon Independent Safety Committee (“DCISC”) in the
10 Joint Prehearing Conference Statement envisioned a multi-step Commission path for
11 addressing deficiencies in the evidentiary record regarding the costs of any upgrades necessary
12 to address seismic safety or issues of deferred maintenance:

13
14 With respect to PG&E’s reference to the reports and recommendations of the
15 DCISC, the DCISC notes that the provisions of Public Utilities Code Section 712.8
16 enacted by SB 846 may result in more than one Commission decision addressing
17 retirement dates for DCP. Specifically, Public Utilities Code Section
18 712.8(c)(2)(B) provides that, if the Commission’s review of the DCISC’s reports or
19 recommendations cause it to determine that the costs of any upgrades
20 necessary to address seismic safety or issues of deferred maintenance are too
21 high to justify incurring, the Commission may issue an order that reestablishes
22 the current retirement dates or sets new retirement dates for DCP earlier than
23 those stated in Section 712.8(c)(1)(A). It appears the Commission is authorized to
24 take such action at any time prior to the retirement dates stated in Section
25 712.8(c)(1)(A); that is, the Commission could authorize extended operation of
26 DCP pursuant to Section 712.8(c)(2)(A) by the specified deadline of December
27 31, 2023, and also, either concurrently or at a later date, reestablish the current
28 expiration dates or establish new retirement dates earlier than provided in
29 Section 712.8(c)(1)(A). In practical terms, this means the Commission will not
30 necessarily have completed its review and action upon the reports and
31 recommendations of the DCISC by the end of December 2023.⁸⁴

32
33
34
35
36

**i. The requirement for the Commission to consider the costs of
NRC’s conditions of license renewal.**

⁸⁴ Joint Prehearing Conference Statement, pp. 25 – 26.

1 These costs are likely to not be estimable on even a preliminary basis until the NRC staff
2 issues its Safety Evaluation Report (“SER”) and Draft Environmental Impact Statement (“DEIS”).
3 PG&E should be required to file in this proceeding its estimate of compliance costs within 30
4 days of receiving the NRC staff’s SER and DEIS.

5
6 **ii. Setting aside NRC’s conditions of license renewal, whether any**
7 **other cost and/or reliability monitoring process(es) should be**
8 **established. If so, please explain why, identifying the underlying**
9 **purpose and statutory basis for any recommendation.**

10
11
12 For the reasons A4NR identified in response to Question 4.a. above, any 2023
13 Commission authorization under Pub. Util. Code Section 712.8(c)(2)(A) should require future
14 consideration of the information required by Pub. Res. Code Sections 25548.3(c)(13) and
15 25548.3(c)(14), when it becomes available, in order to determine whether the costs of any
16 upgrades necessary to address seismic safety or issues of deferred maintenance will be too high
17 to justify. These determinations are required to satisfy the Commission’s obligations under
18 Pub. Util. Code Section 712.8(c)(2)(B). Within 30 days of completion of each of the reports
19 required by Pub. Res. Code Sections 25548.3(c)(13) and 25548.3(c)(14), PG&E should file in this
20 proceeding its estimate of the costs associated with any recommended upgrades.

21
22 **iii. How should the monitoring process(es) be designed and**
23 **implemented, including any triggering events/thresholds and**
24 **timing considerations? Please also consider whether the**
25 **proposed structure would be an efficient use of party and**
26 **Commission resources.**

27
28
29 A4NR recommends the Commission adopt a process, similar to that used in I.12-10-013,
30 for monthly status reports filed by PG&E with the Energy Division and served on the parties.
31 Such reports would provide a running update of actual and forecast costs to be recorded in the
32 DCTRMA; actual and forecast costs to be recorded in the DCEOBA; the procedural status and
33 anticipated calendar for NRC license extension and other permit processes; cumulative
34 drawdowns and remaining undisbursed amounts of the DWR loan; and the anticipated
35 schedule of DOE grant disbursements. A4NR recommends that the Commission schedule a

1 status conference shortly after PG&E’s filing of a cost estimate for (1) compliance with NRC
2 conditions of license renewal or (2) upgrades to address seismic safety or deferred
3 maintenance as identified by the reports required by Pub. Res. Code Sections 25548.3(c)(13)
4 and 25548.3(c)(14).

5
6 **b. Should additional guidance be provided on the use of any surplus**
7 **ratepayer funds PG&E receives for Diablo Canyon in 2024, beyond**
8 **what is provided in Pub. Util. Code Section 712.8(t)(1)? Why or why**
9 **not?**

10
11
12 A4NR agrees with the Public Advocates Office (“PAO”)⁸⁵ and Southern California Edison
13 (“SCE”) “that any surplus ratepayer funds received in 2024 be used to reduce the costs of
14 extended operations and minimize rate impacts on all customers.”⁸⁶

15
16 **c. Are there any other comments concerning interpretation of the**
17 **requirements in Sections 712.8(c)(2)(B) through (E)?**

18
19
20 Satisfaction of the requirements of Pub. Util. Code Section 712.8(c)(2)(D) does not
21 address the “extreme events” scenarios (i.e., the 2020 and 2022 heat events and 2021 wildfire
22 disruption to imports) evaluated in Attachments D and E to the April 20, 2023 ruling. Because
23 these posited extreme events are of limited duration, state strategies to address them focus on
24 contingency resources that may not formally qualify for resource adequacy status but can be
25 mobilized quickly for short-term use. As noted in the CEC’s March 2023 report, \$3.365 billion in
26 funding was provided in 2022 to DWR and the CEC to establish a Strategic Reliability Reserve
27 (“SRR”): “When fully operational, the SRR is anticipated to provide up to 5,000 MW of
28 additional extreme-event support to the state ... The SRR is expected to remain in operation
29 through 2027 but may be extended if circumstances warrant continuation.”⁸⁷

30 The CEC’s May 2023 Senate Bill 846 Load-Shift Goal Report, required by SB 846’s newly
31 enacted Pub. Res. Code Section 25302.7, identifies the hours of greatest concern to California’s
32 electricity planners as the “net peak period”:

⁸⁵ PAO Opening Testimony on Phase 1, Track 2 Proposals, p. 9, lines 8 – 13.
⁸⁶ SCE Opening Testimony on Phase 1: Track 2 Proposals, p. 18, lines 6 – 8.
⁸⁷ Attachment D to the April 20, 2023 ruling, p. 14.

1 The net peak period is defined as the top 100 net system load hours in a year,
2 and correspondingly the net peak demand is defined as the average hourly
3 demand over the net peak period. The LBNL [i.e., Lawrence Berkeley National
4 Laboratory] Potential Study also uses the top 100 net load hours to define the
5 system peak period. The net system load in each hour is defined as gross system
6 load minus impacts from BTM [i.e., behind-the-meter] solar generation, utility-
7 scale solar generation, and utility-scale wind generation.⁸⁸

8
9
10 Diablo Canyon is unsuitable as a contingency resource, and has not been included in the
11 SRR for good reason. It cannot load-follow or ramp quickly, and is designed to operate at a
12 ~90% capacity factor (or 7,884 hours) per year. The finite nature of ratepayer (and General
13 Fund) financial resources places a premium on deploying contingency resources that are well-
14 calibrated to the 100 net load hours without the burden of extraneous operating costs during a
15 surplus as large as 7,774 hours. Diablo Canyon’s value to system reliability is best measured by
16 its contribution to the Planning Reserve Margin, a primary focus of the evaluation required by
17 Pub. Util. Code Section 712.8(c)(2)(D).⁸⁹

18
19 **d. Are there any other comments concerning the reports and**
20 **recommendations included as Attachments A-E to this ruling?**

21
22 No.

23
24 **A4NR’S RESPONSE TO PG&E’S MAY 19, 2023 TESTIMONY**
25 **ON DIABLO CANYON HISTORICAL AND FORECAST COST DATA:**

26
27 PG&E’s May 19, 2023 testimony presents a materially misleading forecast of Diablo
28 Canyon costs and taxpayer contributions that omits at least \$ [REDACTED] in previously identified
29 prospective DOE reimbursements; understates the amount of authorized funding from DWR by
30 some \$375 million; excludes more than \$2.1 billion from the cost forecast; and attempts to shift
31 approximately \$876 million of fuel costs out from under the ratepayer protections of Pub. Util.
32 Code Section 712.8(c)(1)(C). PG&E’s claim that its forecast “is based on its best available

⁸⁸ CEC, SB 846 Load Shift Goal Commission Report, p. 19.

⁸⁹ See discussion of Pub. Util. Code Section 712.8(c)(2)(D) evaluation at p. 23, line 21 thru p. 26, line 11 above.

1 information at this time”⁹⁰ is disingenuous, and the deferral of a fuller disclosure to “a future
2 cost recovery application”⁹¹ impedes the Commission’s ability to determine in its Phase 1: Track
3 2 decision whether an extension of Diablo Canyon operations would be “not cost effective or
4 imprudent, or both.”⁹²

5 **1. An omission of roughly \$ [REDACTED] in the Application to DOE.**

6 PG&E’s September 2, 2022 Application to the DOE Civil Nuclear Credit Program
7 acknowledged that [REDACTED] the \$7/MWh fee it will collect under the
8 PG&E-DWR Loan Agreement “during the period before the start of extended operations”
9 pursuant to Pub. Res. Code Section 25548.3(c)(16). PG&E’s choice contradicted the
10 contemporaneous assurances from the Governor’s Cabinet Secretary and the State Senator
11 representing the Diablo Canyon site that federal funds would fully offset the SB 846 loan.⁹³
12 Total collections of this fee are capped under the PG&E-DWR Loan Agreement at \$300 million.⁹⁴
13 PG&E stated in a data response to A4NR that it “[REDACTED]
14 [REDACTED]
15 [REDACTED]”⁹⁵ but [REDACTED].

16 As the Commission noted in D.22-12-005, “Pursuant to SB 846, transition costs to
17 prepare for extended operations at Diablo Canyon, including the \$7 per megawatt-hour
18 performance-based disbursement fee, are not eligible for recovery from utility ratepayers.”⁹⁶
19 Failure to include this approximately \$300 million cost in Table 4 of PG&E’s May 19, 2023
20 testimony is a material omission.

21 In addition to electing to [REDACTED], PG&E also chose to
22 [REDACTED] costs from its September 2, 2022 Application to the
23 DOE Civil Nuclear Credit Program. As PG&E stated in the Application,
24

⁹⁰ PG&E May 19, 2023 testimony, p. 15, lines 18 – 19.

⁹¹ *Id.*, p. 16, line 9.

⁹² Pub. Res. Code Section 25548.3(c)(5) specifies as an event “that would trigger a suspension or early termination of the [DWR] loan agreement” the following: “(C) A determination by the Public Utilities Commission that an extension of the Diablo Canyon powerplant is not cost effective or imprudent, or both.”

⁹³ See footnote 63.

⁹⁴ Exhibit V, Section 5.e., p. 9.

⁹⁵ PG&E Data Response A4NR_004-Q004, attached as **CONFIDENTIAL Exhibit Y**.

⁹⁶ D.22-12-005, p. 17, footnote 32.

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[REDACTED]

⁹⁷

The sufficiency of PG&E’s rationale for [REDACTED] potential DOE reimbursement of some \$ [REDACTED] of [REDACTED] costs beyond those previously approved in D.18-11-024 will be subject to future Commission determination. There is no question, however, that such incremental costs are eligible for funding under the DWR loan. As the Commission noted in D.22-12-005, Pub. Res. Code Section 25548.3(C)(3) defines covered costs under the SB 846 loan as “those necessary to preserve the option of extending the Diablo Canyon powerplant or to extend the Diablo Canyon powerplant’s operation to maintain electrical reliability.”⁹⁸ Failure to include this approximately \$ [REDACTED] cost in Table 4 of PG&E’s May 19, 2023 testimony is a material omission.

2. A roughly \$375 million understatement of available DWR funds.

Table 4 in PG&E’s May 19, 2023 testimony purports to be a compilation of forecast costs expected to be recovered through the DWR loan and the DOE grant. The 2023 – 2026 annual totals on Line 6 sum to \$1,100,521,000 – the precise amount conditionally awarded by DOE as well as [REDACTED] of PG&E’s September 2, 2022 Application. That leaves \$299,479,000 of the \$1.4 billion DWR loan unaccounted for, essentially the same \$300 million amount allowed by Pub. Res. Code Section 25548.3(c)(16) for the \$7/MWh fee. Table 4’s Line 6 sum of \$1,100,521,000 also fails to account for the \$75 million 2022 appropriation in AB 180 to reimburse PG&E Diablo Canyon transition costs. PG&E’s testimony persists in the false implication that the AB 180 funds are subject to a loan agreement,⁹⁹ despite PG&E having

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//

⁹⁷ PG&E Data Response A4NR_002-Q001, J9EKLNMZXF6_ Diablo Canyon_Workforce Narrative, p. 3 of 7, attached as **CONFIDENTIAL Exhibit Z**.

⁹⁸ D.22-12-005, p. 16.

⁹⁹ PG&E May 19, 2023 testimony, p. 15, lines 14 – 15.

1 recanted this mischaracterization last fall in the A.16-08-006 proceeding.¹⁰⁰

2 Failure to include this approximately \$375 million in additional government funding
3 resources in Table 4 of PG&E's May 19, 2023 testimony is a material omission.

4 **3. An exclusion of nearly \$ 2.2 billion of known costs from the Table 2 forecast.**

5 PG&E admitted in Data Responses TURN_002-Q004, TURN_002-Q011, TURN_002-Q012,
6 and TURN_002-Q013 (collectively attached as Exhibit Z2) that it excluded from the Table 2
7 operating cost forecast the envisioned incremental employee retention payments, \$13 MW/h
8 volumetric payments, the \$50 per Unit annual fixed payments, and the payment amounts
9 related to the liquidated damages balancing account. These missing and readily calculable
10 amounts sum to \$2,157,803,996¹⁰¹, and PG&E's failure to include such known costs in Table 2
11 of PG&E's May 19, 2023 testimony is a material omission.

12 A4NR refrains from attributing a motive to PG&E for omitting from its testimony a full
13 accounting of projected costs and the government revenue streams available to cover such
14 costs, but the extraordinary magnitude of inaccuracy suggests either recklessness in PG&E's
15 financial planning or indifference to the role of Commission review. Neither would augur well
16 for the concerns A4NR has previously registered about costs properly recorded in the DCTRMA
17 migrating unlawfully into the DCEOBA.

18 **3. An attempted conversion of approximately \$ [REDACTED] into ratepayer liabilities.**

19 Without explanation, PG&E's May 19, 2023 testimony limits the amount of fuel costs to
20 be reimbursed from government funding sources to \$ [REDACTED],¹⁰² leaving the remainder of
21 the fuel costs forecast on Line 12 of Table 2 as ratepayer obligations. Beginning in 2025, these
22 forecast costs sum to \$ [REDACTED].¹⁰³ These costs clearly fall within the scope of the DWR loan
23 defined by Pub. Res. Code Section 25548.3(C)(3), and there is nothing in the DOE written
24 guidance¹⁰⁴ to suggest that they are outside the scope of the DOE grant. The long lead times

¹⁰⁰ A.16-08-006, PG&E Data Response DiabloCanyonRetirementJointProposal_DR_A4NR_004-Q002, attached as Exhibit Z1.

¹⁰¹ This amount is the sum of \$1,857,803,996 (calculated in footnote 70 on p. 21 above) and the \$300,000,000 annual cap on collections for the liquidated damages balancing account.

¹⁰² PG&E May 19, 2023 **CONFIDENTIAL** testimony, p. 15, Table 4, line 5. A4NR has assumed that the remaining \$ [REDACTED] and \$ [REDACTED] of forecast fuel costs in 2023 and 2024, respectively, are for current operations.

¹⁰³ [REDACTED] + [REDACTED] + [REDACTED] + [REDACTED] + [REDACTED] + [REDACTED] = [REDACTED].

¹⁰⁴ Exhibit M.

1 necessary to design, fabricate, store, and install nuclear fuel for operation of the Diablo Canyon
2 reactors for an incremental five years require financial commitments to be made prior to
3 commencement of any extended operations period. PG&E rebuffed A4NR’s inquiries into the
4 status of contractual commitments for the various steps in the fuel procurement process for
5 the extended operations period, objecting that the request was “irrelevant to and outside the
6 scope of this proceeding” while adding that “nuclear fuel procurement costs will be included in
7 the historic and forecast costs presented in PG&E’s May 19, 2023 testimony.”¹⁰⁵

8 PG&E’s May 19, 2023 testimony quantifies the impact of the cost-shift PG&E is
9 attempting in its recently-filed AL 6870-E. The testimony indicates a plan to transfer more than
10 81% of the extended operations fuel costs¹⁰⁶ from the government funding contemplated by SB
11 846 to electricity rates. While an attachment to AL 6879-E identifies the “purpose” of the
12 DCEOBA to be to record and recover expenses “that are not eligible for government funding
13 pursuant to Senate Bill 846, Assembly Bill 180, or the United States Department of Energy’s Civil
14 Nuclear Credit Program,”¹⁰⁷ it does not indicate how PG&E will make that determination.
15 PG&E’s observation in AL 6870-E – “while PG&E intends to make some fuel purchases during
16 the transition period consistent with SB 846 and AB 180, it cannot reasonably ensure that it will
17 be able to purchase the volume of fuel required for the entirety of the extended operating
18 period upfront”¹⁰⁸— implies that PG&E mistakenly believes it has the discretionary authority in
19 recording costs to the DCEOBA to simply waive the “not eligible for government funding”
20 prerequisite.

21 **4. Conclusion: Prudence “red flags” are flapping loudly.**

22 The distortions embedded in PG&E’s May 19, 2023 testimony are slightly offsetting due
23 to the understatement of DWR funding, and perhaps more indicative of sloppiness than
24 scienter. Even before the Commission has the information required to make its “too high to
25 justify” determination about potential Pub. Util. Code Section 712.8(c)(2)(B) costs, the
26 misstatements in PG&E’s May 19, 2023 testimony add \$ [REDACTED]¹⁰⁹ to the amount by

¹⁰⁵ PG&E Data Response A4NR_003-Q009, attached as Exhibit Z3.

¹⁰⁶ [REDACTED] ÷ [REDACTED] = .8141.

¹⁰⁷ AL 6870-E, Attachment 1, Cal. P.U.C. Sheet No. 55707-E.

¹⁰⁸ AL 6870-E, p. 6.

¹⁰⁹ [REDACTED] minus [REDACTED] plus [REDACTED] = [REDACTED].

1 which forecast Pub. Util. Code Section 712.8(c)(1)(C) costs will exceed identified government
2 funding streams. This deficit will increase by any additional amounts ultimately identified in the
3 Commission’s Section 712.8(c)(2)(B) assessment. Even if the costs attributed to upgrades
4 necessary to address seismic safety or issues of deferred maintenance are estimated at zero,
5 and PG&E’s estimate of the cost of NRC relicensing conditions is left unaltered, the shortfall in
6 government funding sources is far too large to resolve.

7 With the new renewable energy and zero-carbon resources constructed and
8 interconnected since January 2020 already measuring nearly twice Diablo Canyon’s Net
9 Qualifying Capacity, and state reliability planning standards fully satisfied through 2030,¹¹⁰ how
10 prudent is it to perpetuate an expensively flawed exercise in federal grant harvesting? What is
11 the likelihood that PG&E will actually receive, and retain, DOE grant proceeds? Or that DWR
12 will exercise the “trigger” provisions of Pub. Res. Code Sections 25548.3(c)(4) or 25548.3(c)(5)
13 to safeguard General Fund resources? Or, as D.22-12-005 surmised, that Pub. Res. Section
14 25233.2(b) will compel the CEC to “reevaluate the cost-effectiveness of prolonging the
15 powerplant’s operations” when the “costs of the extension of operations of the Diablo Canyon
16 powerplant exceed limits provided for in the loan agreement”¹¹¹? Under such circumstances,
17 how long can continued avoidance of accumulating evidence be considered defensible?

18 A4NR challenges PG&E to reply in detail to each of the points raised by these Opening
19 Comments/Testimony.

20

21

Respectfully submitted,

22

By: /s/ John L. Geesman

23

JOHN L. GEESMAN

24

DICKSON GEESMAN LLP

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Date: June 30, 2023

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Attorney for

ALLIANCE FOR NUCLEAR RESPONSIBILITY

¹¹⁰ See p. 23, line 21 – p. 26, line 11 above. As noted in footnote 72 on p. 24, this analysis does not include the 4,000 MW of additional 2026 – 2027 procurement ordered by D.23-02-040.

¹¹¹ D.22-12-002, p. 16.

APPENDIX: QUALIFICATIONS OF JOHN GEESMAN

John L. Geesman is an attorney with the law firm, Dickson Geesman LLP, and a member in good standing of the California State Bar.

Mr. Geesman served as a member of the California Energy Commission from 2002 to 2008, and was the agency's Executive Director from 1979 to 1983. While a Commissioner, he chaired the Commission's Facilities Siting Committee during a period when nearly two dozen new power plants were approved for construction. Between his two tours at the Energy Commission, Mr. Geesman spent nineteen years as an investment banker focused on the U.S. bond markets and served as a financial advisor to municipal electric utilities throughout the western states.

Mr. Geesman has a long history of engagement with issues related to regulatory compliance, resource planning, environmental policy, financial management, and risk practices. This is demonstrated by his experience in numerous leadership capacities, including stints as:

- Co-Chair of the American Council on Renewable Energy;
- Chairman of the California Power Exchange;
- President of the Board of Directors of The Utility Reform Network (formerly known as Toward Utility Rate Normalization);
- Member of the Governing Board of the California Independent System Operator; and,
- Chairman of the California Managed Risk Medical Insurance Board.

Mr. Geesman has testified as an expert witness before the California Public Utilities Commission in many proceedings. He is a graduate of Yale College and the University of California Berkeley School of Law.

1 **VERIFICATION**

2
3 I am the attorney for the Alliance for Nuclear Responsibility (“A4NR”); which is absent from the
4 County of Sonoma, California, where I have my office, and I make this verification for A4NR for
5 that reason and am authorized to do so; the statements in the foregoing document are true of
6 my own knowledge, except as to matters which are therein stated on information or belief, and
7 as to those matters I believe them to be true.

8
9 I declare under penalty of perjury that the foregoing is true and correct.

10
11 Executed on June 30, 2023 at Bodega Bay, California.

12
13
14 /s/ John L. Geesman

15 Attorney for Alliance for Nuclear Responsibility
16
17