

Docket No.: A.24-03-018
Date: July 27, 2024
Commissioner: Douglas ALJ: Atamturk
Witness: Peter Bradford

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

Application of Pacific Gas and Electric
Company to Recover in Customer Rates the
Costs to Support Extended Operation of
Diablo Canyon Power Plant from September
1, 2023 through December 31, 2025 and for
Approval of Planned Expenditure of 2025
Volumetric Performance Fees
(U 39 E)

Application 24-03-018
(Filed March 29, 2024)

**OPENING TESTIMONY OF PETER BRADFORD ON BEHALF OF SAN LUIS OBISPO
MOTHERS FOR PEACE**

Dated: July 27, 2024

Peter Bradford on behalf of SLOMFP
c/o
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VERIFICATION

The statements in the foregoing document are true and correct to the best of my knowledge. The facts presented in the forgoing document are true and correct to the best of my knowledge, and the opinions expressed therein are based on my best professional judgment. I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct.

Executed on 27/07/2024 in Nonquitt, Mass.,

Peter Bradford

Peter Bradford

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1 **I. STATEMENT OF QUALIFICATIONS**

2 My name is Peter A. Bradford, CEO of Bradford Brook Associates, a firm consulting on
3 utility regulatory policy issues of prudence in the context of nuclear power plant operation and
4 construction.

5 I chaired the New York State Public Service Commission (1987-1995) and the Maine
6 Public Utilities Commission (1974-75 and 1982-87). I was also a commissioner at the Maine
7 PUC (1971-77 and 1982-87). Among the statutory duties of both of these utility regulatory
8 agencies was assuring a fully adequate electric supply at just and reasonable rates. During my
9 terms on the Maine and New York commissions, I participated in deciding more than 10,000
10 utility proceedings. Several of these decisions involved issues of prudence in the context of
11 nuclear power plant operation and construction.

12 I was a commissioner on the US Nuclear Regulatory Commission (NRC) between 1977
13 and 1982. The NRC's mission is "to license and regulate the Nation's civilian use of radioactive
14 materials to provide reasonable assurance of adequate protection of public health and safety and
15 to promote the common defense and security and to protect the environment".¹ During my term,
16 the NRC issued more than twenty nuclear power construction permits and operating licenses -
17 more licenses, I believe, than have been issued during any five-year period since that time.

18 I participated in the 2006 National Research Council of the National Academy of
19 Sciences panel evaluating the alternatives to continued operation of the Indian Point nuclear
20 units in New York. I was also a member of the 2007 Keystone Center Nuclear Power Joint Fact-
21 Finding project, which identified points of agreement among a broad range of constituencies,
22 including nuclear power plant owners and builders, on issues relating to nuclear power costs and
23 the role of nuclear power in combating climate change.

24 I chaired and served on the three-member Public Oversight Panel (2008-10) that
25 supervised the legislatively-mandated comprehensive reliability audit of the Vermont Yankee
26 nuclear power plant.

27 I was President of the National Association of Regulatory Utility Commissioners (1986-
28 87) and was at different times a member of its committees on electricity, gas and

¹ NRC Mission Statement - <https://www.nrc.gov/about-nrc.html>.

1 communications as well as its Executive Committee. I was briefly Maine’s Public Advocate
2 (1982).

3 Of particular relevance to this proceeding, I chaired the New York Public Service
4 Commission when it approved the 1989 settlement between the Long Island Lighting Company
5 (LILCO) and the State of New York that foreclosed operating the recently completed and
6 licensed Shoreham Nuclear Power Plant. This settlement was opposed in prolonged litigation by
7 the US Department of Energy which forecast that without Shoreham Long Island would not have
8 a reliable power supply during hot summer months. Indeed, Department of Energy Secretary
9 James Watkins stated, wrongly as it turned out, “If activists can prevent things from being built,
10 by God, I can prevent things from being shut down when it’s stupid.” The state of New York and
11 LILCO concluded that adequate reserves existed and that more could rapidly be brought on line.
12 Shoreham did not operate. Long Island during those hot summer months when the Washington
13 DC grid was overloaded sold surplus power south to run the air conditioning in DOE’s offices.
14 LILCO and New York state government demonstrated that a utility and a state working
15 cooperatively could maintain reliability through summers of record heat even when a nuclear
16 plant representing some 20% of its power generation became unavailable on relatively short
17 notice.

18 Since leaving utility regulation, I have taught, written and consulted on regulatory issues
19 in the U.S. and abroad, including as an adjunct professor at the Vermont Law School, where I
20 taught courses entitled “Nuclear Power and Public Policy” and “The Law of Electric Utility
21 Restructuring.” I have also taught Energy Policy and Environmental Protection at the Yale
22 University School of the Environment.

23 In 2008 and 2009, I testified before the Florida PSC regarding the wisdom of building the
24 Levy County nuclear units and before the North and South Carolina regulatory commissions as
25 to the likelihood of excess costs, cost overruns and delays at the Lee units. Despite approvals
26 from those state commissions, all of these units were canceled at considerable cost to the utility
27 customers.

28 In 2017, I testified before the Georgia Public Utilities Commission as to the wisdom of
29 continuing to build Vogtle units 3 and 4. The Commission granted approval, but further cost
30 overruns and delays were so great that customers would have been better served by plant
31 cancellation.

1 In 2011, I testified in the NRC license renewal proceedings for New York’s Indian Point
2 units 2 and 3 to the effect that low carbon alternatives were likely to be available to replace these
3 two units on reasonable terms. These two units were closed in 2021 and 2022.
4 I have written a number of articles on utility regulation and energy policy, as well as one book
5 concerning energy policy. I am a graduate of Yale University and Yale Law School.

6 **II. PURPOSE AND BASIS OF TESTIMONY**

7 I have been retained by San Luis Obispo Mothers for Peace (SLOMFP) to provide
8 testimony relevant to the currently ongoing, legally-mandated deliberations of the California
9 Public Utilities Commission (CPUC) with respect to the conditional approval of extended
10 operations of the Diablo Canyon Power Plant (DCPP). Specifically, my testimony pertains to
11 Issue 1 in the Assigned Commissioner’s Scoping Memo and Ruling for this proceeding, dated
12 June 18, 2024.

13 I previously provided testimony in Phase 1 of the CPUC Rulemaking Proceeding R.23-
14 01-007. My testimony will show that PG&E’s continued effort to extend DCPP’s operation is not
15 prudent and that PG&E has not met its burden of proof as to establishing prudence to justify the
16 recovery of the costs of continued operation. My testimony will demonstrate that decisions and
17 actions to extend the operations of the Diablo Canyon powerplant to at least 2030 are not
18 prudent. Fundamental elements of prudence as that term is used in SB 846 and throughout
19 utility regulation cannot be met by extending the operating life of the Diablo Canyon nuclear
20 power units.

21 In Phase 1 of the Rulemaking Proceeding, I testified on the issue of prudence. I provided
22 a standard for prudence and discussed in-depth how the processes being used to justify the
23 extended operation of Diablo Canyon did not remotely satisfy the prudence standards developed
24 over the last century to protect utility customers, secure reliable service and compel management
25 care and wisdom consistent with the size and consequences of the commitments being made and
26 managed. I concluded that an effective review of cheaper and more effective energy alternatives
27 was not performed. I further concluded that without such a review, a commitment to extend the
28 operating life of DCPP past its initial license expiration of 2024/2025 was not prudent.
29 Especially in the face of the uncertainties, risks and unavoidable disadvantages stemming from
30 DCPP’s age and susceptibility to seismic hazards. I recommended that the CPUC find that

1 extension of the Diablo Canyon powerplant is imprudent.² My prior testimony, including all
2 attachments and materials referenced therein, is incorporated by reference into this testimony, as
3 if fully set forth herein.

4 Since the time of testimony in Phase 1 of the Rulemaking proceeding, new assessments
5 and studies have been released on the issues of seismic hazards at DCP, embrittlement of the
6 Unit 1 reactor vessel, and energy reliability. I have reviewed the responses of Dr. Peter Bird, Dr.
7 Digby Macdonald and Rao Konidena on these respective issues. While my June 30, 2023
8 Opening Testimony remains my current position on all issues relating to the imprudence of
9 extended operations at DCP, this testimony augments my prior testimony.

10 **III. PRUDENCE ANALYSIS OF EXTENDED OPERATIONS AT DCP AND**
11 **PG&E’S APPLICATION FOR COST RECOVERY**

12 The Commission failed to make any prudence findings in its Rulemaking Decision which
13 conditionally authorized extended operations of DCP.³ The Commission did so without the S.B.
14 846-prescribed seismic assessment and deferred maintenance study, stating “[t]he Commission
15 does not have sufficient information at this time to be able to determine whether extended
16 operations at DCP are ‘too high to justify’ or ‘not cost-effective or imprudent.’”⁴

17 The S.B. 846 studies are now available and P.U.C. Section 451 dictates that the
18 Commission must analyze those studies. Of course, PG&E like any franchised distribution
19 utility, is under a continuing obligation, day after day, to evaluate the prudence (i.e. assessing
20 whether the act is expected by the utility to provide adequate supply at the lowest reasonable cost
21 consistent with state policy goals and good utility practices of operating DCP).⁵

22 Dr. Peter Bird has submitted new analysis raising significant concerns with PG&E’s
23 seismic assessment updates and the DCISC’s reliance on those assessments.⁶ Dr. Digby
24 Macdonald has also submitted new analysis raising significant Unit 1 reactor vessel

² Exh. SLOMFP_03 Opening Testimony of Peter Bradford on Phase 1 Track 2 Issues
[<https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/R2301007/6411/512708456.pdf>] in R.23-01-007.

³ D.23-12-036, p. 135 [Order Paragraph 1].

⁴ D-23-12-036, p. 48.

⁵ See Exh. SLOMFP_03 Opening Testimony of Peter Bradford on Phase 1 Track 2 Issues
[<https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/R2301007/6411/512708456.pdf>] pp, 8-11 in R.23-01-007; see also P.U.C. Section 451.

⁶ See Opening Testimony of Dr. Peter Bird on Behalf of San Luis Obispo Mothers for Peace, pp. 1-10.

1 embrittlement concerns currently under consideration at DCISC, which may not issue a final
2 recommendation on this aging plant concern until October 2024.⁷

3 Prudence dictates that PG&E must include in its cost forecasts at least some value for the
4 likelihood that costs will increase if seismic and Unit 1 pressure vessel project expenses are
5 required. Thus, it is imprudent for PG&E to completely ignore and not include in its cost
6 forecasts at least some value for the uncertainties raised by Drs. Bird and Macdonald with
7 respect to potential capital costs related to seismic hazards the Unit 1 pressure vessel.

8 Rao Konidena has performed analysis of new storage capacity that has come online, new
9 and increased excess storage capacity figures, a better outlook on contingency resources and
10 demand response. PG&E has not performed any meaningful analysis, as its duty under P.U.C.,
11 section 451 dictates, of whether it is prudent to continue extended operations in light of new data
12 strongly suggesting that the need for DCPD from a reliability standpoint is even weaker now. In
13 performing this analysis a prudently managed utility would constantly use available market and
14 planning mechanisms to determine whether its commitments, especially one with the
15 skyrocketing costs and uncertainties of the aging Diablo Canyon, could instead be used towards
16 providing adequate power supply at the lowest cost (e.g. renewable energy). This duty is even
17 clearer for a utility whose rates are now among the very highest in the country and whose
18 commitments to subsidize continued Diablo Canyon operation through rates and taxes creates
19 cost consequences not present in the case of other power supply options.

20 **IV. CONCLUSION**

21 P.U.C. Section 451 obligates the Commission to analyze PG&E's failures to include
22 meaningful contingency boundaries as to its cost forecasts for seismic upgrades and Unit 1
23 pressure vessel repair and replacement, as well as for Diablo Canyon operation generally. The
24 Commission must also analyze whether it is prudent to continue to authorize extended operations
25 in light of new resource reliability data. It is my opinion that pursuing extended operations and
26 rate recovery under these circumstances falls well below the utility's duty of prudent
27 management as to the Diablo Canyon nuclear power plant.

28 This concludes my testimony.

⁷ See Opening Testimony of Dr. Digby Macdonald on Behalf of San Luis Obispo Mothers for Peace, pp. 1-7.