

February 27, 2023

Mr. Wade Crowfoot, Secretary
California Natural Resources Agency
715 P Street
Sacramento, CA 95814

TRANSMITTED BY EMAIL

Re: A4NR Comments on “Detailed Description and Plan of Actions Needed to Extend Operations of Diablo Canyon Power Plant”

Dear Secretary Crowfoot:

On behalf my client, the Alliance for Nuclear Responsibility (“A4NR”), I submit these written comments on your report prepared pursuant to Public Resources Code § 25548.2(f) identifying actions necessary to extend the operation of the Diablo Canyon Nuclear Power Plant (“DCNPP”).

The month of March is likely to prove critical to DCNPP extension efforts, as the Nuclear Regulatory Commission (“NRC”) staff determines whether to exempt PG&E from the timeliness requirement of 10 CFR 2.109(b). Failure by PG&E to gain such an exemption would require an extended shutdown of DCNPP after the current operating licenses expire while the NRC considers license renewal.

If PG&E’s request for exemption is denied, the Department of Water Resources (“DWR”), for which you are responsible under Government Code § 12800(b), will need to determine pursuant to Public Resources Code § 25548.3(c)(5) whether to suspend or terminate the \$1.4 billion loan authorized by SB 846. Oddly, your “Detailed Description and Plan” makes no mention of DWR.

DWR has not been a particularly attentive steward of General Fund resources in performing its SB 846 duties as lender to PG&E. The DWR-PG&E Loan Agreement appears to have been drafted without a clear understanding of the timing of potential grant receipts from the U.S. Department of Energy (“DOE”). DOE has tied the start of the four-year DCNPP Award Period to the completion of the “the Final Environmental Impact Statement prepared for the Selected Nuclear Reactor by the NRC.”¹ Your report

¹ [https://www.energy.gov/sites/default/files/2022-06/US DOE CNC Guidance-Revision 1-June 2022.pdf](https://www.energy.gov/sites/default/files/2022-06/US%20DOE%20CNC%20Guidance-Revision%201-June%202022.pdf), p. 41.

optimistically envisions that taking place in late 2026. The DWR-PG&E Loan Agreement anticipates a General Fund repayment in December 2027, but that can only come after the grant's four-year Award Period is followed by a one-year DOE Recapture Period, during which an audit must confirm DCNPP operating losses at least equal to grant amounts. DWR's General Fund repayment assumption is off by at least 4 years.

Even though the \$75 million awarded to PG&E by AB 180 may be reimbursed by the DOE grant, the DWR-PG&E Loan Agreement imposes no repayment obligation on PG&E for this amount. Similarly, even though SB 846 specifies interest "set at a rate less than the Pooled Money Investment Account rate," the DWR-PG&E Loan Agreement is for a zero-interest loan. A strongarm provision in the DWR-PG&E Loan Agreement attempts to force the Legislature into making the \$800 million second appropriation discussed in SB 846. If this appropriation is not made by September 30, 2023, then the first \$800 million (minus the amount of any second appropriation) received from the DOE grant will be diverted from the loan repayment escrow "to PG&E for PG&E's use in accordance with the DOE award agreement."

DWR has also been less than diligent in specifying the rigor of the updated seismic assessment required by SB 846. The NRC seismic review will only focus on those safety systems necessary to shut the plant down after an earthquake without a large release of radiation or damage to a reactor core. SB 846, however, is focused on reliability – and the state has an unmistakable interest in the seismic resilience of DCNPP systems needed to prevent a prolonged outage that imposes large replacement power costs on ratepayers. As Dr. Norman Abrahamson, one of PG&E's primary geoscientists, previously explained,

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

that part go.² (emphases added)

At the insistence of the California Energy Commission, PG&E last reviewed these so-called “non-safety-related-systems” in 2010 – prior to Fukushima, and prior to PG&E’s 2014 reinterpretation of DCNPP seismic sources. Performed under contract by Enercon, the 2010 assessment had many shortcomings, not the least being that it set the threshold for an acceptable outage at 120 days. Nevertheless, it did identify the “non-safety” seismic vulnerability of the main turbine thrust bearings, and estimated a potential shutdown risk of 1 – 2 years. Based on PG&E’s calculation of replacement power costs of DCNPP Unit 2’s 149.2 days of forced outages in 2020 – 21, a shutdown of just one of DCNPP’s two units for just one year could generate \$437 million in replacement power costs. If both units were down for two years, those replacement power costs would quadruple to \$1.75 billion.

A4NR brought this concern to the attention of DWR on September 13, 2022 by letter to DWR Director Karla Nemeth, but the October 18, 2022 DWR-PG&E Loan Agreement leaves the content of the required seismic update – and whether to include “non-safety-related-systems” – entirely to PG&E’s discretion. Would a prudent lender be so inert?

The Alliance for Nuclear Responsibility is grateful for the opportunity to submit these comments, and urges you to evaluate the potential extension of DCNPP operations from the perspective of the taxpayers and ratepayers. SB 846 has already been great for PG&E – the stock price is up 21.75% since the bill passed, compared to a decline of 11.2% in the S&P 500 Electric Utilities Industry Index – but its implementation seems poised to shift more and more costs onto the public as the process grinds on.

Sincerely,

/s/ John L. Geesman

DICKSON GEESMAN LLP

Attorney for ALLIANCE FOR NUCLEAR RESPONSIBILITY

² California Energy Commission Docket Nos. 07-AB-1632 and 08-IEP-1F, September 25, 2008, transcript pp. 83 – 85. “Non-safety-related-systems” may be a strained euphemism (the CEC saw risks of injury and loss of life to plant workers and occupants but not a direct safety hazard to the public) to the extent applied to the non-ductile concrete DCNPP Administration Building, the very design that has triggered widely publicized calls by California structural engineers for local retrofits or demolitions in the wake of multiple collapses of such structures in the recent Turkey earthquakes. <https://news.yahoo.com/deadly-building-flaw-common-california-130003837.html>