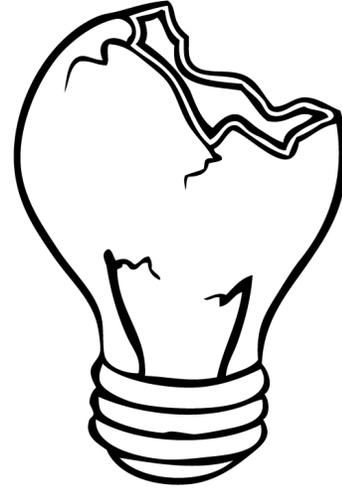


Diablo vs. Renewable Energy

The state legislature rushed Senate Bill 846 through in the final hours of the 2022 legislative session, paving the way for the extension of the life of the Diablo Canyon Nuclear Power Plant and pulling a 180-degree turn on the agreement it had previously certified to close Diablo Canyon by 2025. Invoking the specter of energy shortages, SB 846 proposed to keep the plant open for an additional five years.



But it was not a done deal. Instead of taking the Governor's word that blackouts were imminent if the plant closed and handing PG&E a billion-dollar check to keep running a power plant the utility had determined is no longer economical to run, legislators wrote some conditions into the bill.

Before the radical course change can be approved, several issues have to be settled, most of them relating to the cost of running and maintaining a 40-year-old nuclear plant years past the expiration date of its operating license. (We reviewed the full implications of the state's requirement for an updated seismic assessment in our [July/August issue](#).)

Another condition was a requirement to determine the factual basis of the Governor's concern. SB 846 gives the California Public Utilities Commission (CPUC) the authority to reinstate the original retirement dates of 2024 and 2025 if renewable and other zero carbon resources adequate to substitute for Diablo Canyon are online by the end of this year. Hence, Diablo Canyon's fate turns on this question: Would California really come up short on renewable energy to replace the nuclear plant if it closed as scheduled?

The CPUC has opened a proceeding to determine if this would be the case. The state's energy agencies -- all appointed by the governor and answerable to him -- agreed that Diablo's closure would result in an energy shortage.

Independent energy experts who have filed testimony in that proceeding, however, tell a different story. Women's Energy Matters and the Alliance for Nuclear Responsibility have shown that zero-carbon resources adequate to substitute for Diablo Canyon are already in place, thus fulfilling the condition posed by SB 846.

On July 25, the Santa Lucia Chapter summarized the conclusions of the independent experts in a public meeting of the CPUC, one of two [remote public participation hearings](#) held that day regarding the possible extended operation of Diablo Canyon.

Some of the salient points:

- Estimates of how much of the state's total energy and total zero carbon energy is supplied by Diablo Canyon routinely overstate Diablo Canyon's contribution and omit the contributions of rooftop solar as well as energy efficiency, which is the state's largest single energy resource.
- Advocates for extending the life of the nuclear plant have pushed the false narrative that California is lagging in meeting its renewable electricity goals, caused by supply chain problems. The California Public Utilities Commission's 2022 annual report to the legislature on renewable energy shows the state is actually far advanced in meeting the state's policy targets.
- Zero carbon resources demonstrably are and will be available in multiple forms. Just one of them – battery storage – negates the case for the extension of Diablo Canyon's life beyond the expiration of its current license. The California Independent System Operator (CAISO) has reported battery storage resources totaling 5,600 MW are now available on the grid. This means that an energy resource that can adjust to changing grid conditions, as Diablo Canyon cannot, has replaced and more than doubled the 2300-megawatt peak power capacity of Diablo Canyon.
- Last May's assessment of the North American Electric Reliability Corporation found that more than two gigawatts of new battery energy storage systems will be coming online in California this year. That is to say, this one battery storage project, by itself, will replace the entire output of Diablo Canyon in five months.
- Reviewing in full the state's extraordinary success in bringing renewable energy sources online, it is clear that Diablo Canyon's output is only 5.5% of the state's total electricity supply. By next year, rooftop solar is forecast to provide 10% of the state's electricity consumption.
- It is estimated that Diablo Canyon's output has been repeatedly replaced approximately every 1.7 years by the continued growth of renewables, rooftop solar, and energy efficiency.
- Diablo Canyon's continued operation, by PG&E's estimate, is curtailing and displacing solar and wind energy at a rate of up to 2,400 gigawatt hours per year.

From reviewing this testimony, we concluded that Diablo Canyon's energy has been and is continuing to be replaced. Therefore, paying PG&E billions of dollars to keep Diablo Canyon online, thereby pushing renewable energy sources off the grid, is antithetical to the state's energy policies and a waste of public funds. This points to a finding that Diablo Canyon's original retirement dates of 2024 and 2025 should be reinstated.

The CPUC will release its decision by the end of the year.

Move Along, Nothing to See Here

There's another item of interest in the testimony filed in the CPUC proceeding discussed above.

Presented for your edification: The top half of page 5 of the Alliance for Nuclear Responsibility's "Opening Comments Structured As Testimony On Statutory Interpretation, Issues Of Policy, And Certain Reports In The Record Of The Proceeding Before The Public

Utilities Commission Of The State Of California Implementing Senate Bill 846 Concerning Potential Extension of Diablo Canyon Power Plant Operations – aka Rulemaking 23-01-007.

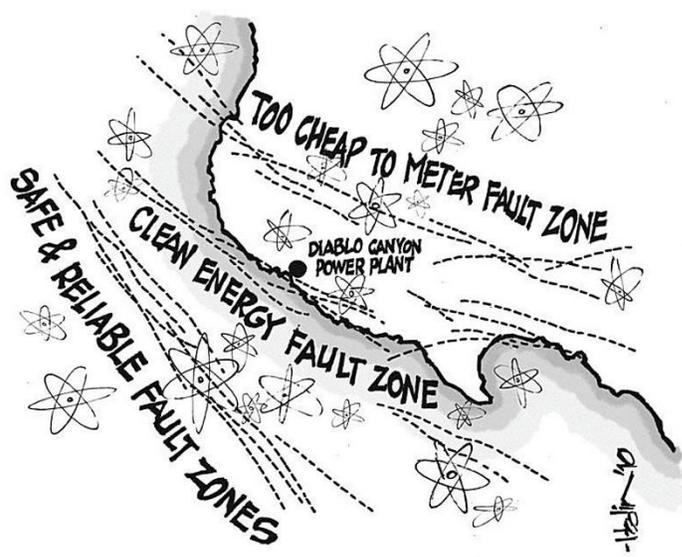
Yes, a monumentally boring title. But much less boring content. It was, in fact, way too exciting.

Hence, what you see at right is the public version of that testimony. There is a confidential version that you can't see.

The author is the legal counsel for the Alliance, John L. Geesman, a former California Energy Commissioner. His subject in this section of testimony is the decades of seismic assessments PG&E has conducted around the Diablo Canyon Nuclear Power Plant. Throughout all that time, PG&E's public relations department has made much of this body of research and its invariable conclusion, repeated over the years, that the seismic faults around the power plant are not capable of producing an earthquake stronger than the plant can withstand. (Somehow, with each successive study, as new data has kept finding that the web of faults around the plant can generate earthquakes stronger than previously believed, the plant has kept getting safer.)

In this passage from his testimony, Mr. Geesman, citing from a PG&E internal audit, prefaces it by noting that "the company's internal assessment of quality assurances in Geosciences has been scathing."

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



recent analysis re-affirms existing faults

This is followed by a collection of thick blue lines obscuring the confidential, redacted text that you can't see but which Mr. Geesman has seen. You can be forgiven for feeling a slight unease as you wonder what exactly the internal audit found to be particularly scathing about the way PG&E goes about conducting seismic studies.

The next time a "green nuclear" apologist tosses out the line about the plant's perfect seismic safety -- pointing at the tonnage of impressive looking studies conducted by PG&E and proudly noting that they're all

publicly available -- hand them page 5 of the Alliance for Nuclear Responsibility's "Opening Comments Structured As Testimony On Statutory Interpretation, Issues Of Policy, And Certain Reports In The Record Of The

Proceeding Before The Public Utilities Commission Of The State Of California Implementing Senate Bill 846 Concerning Potential Extension of Diablo Canyon Power Plant Operations."

Of course, you can only show them the public version, minus those seven scathing lines from the confidential internal audit of PG&E's seismic science – seven lines of text evaluating the quality of the science behind those studies and the worth of the paper they're written on.

Thank You, Sam



Sam Casalina passed away on September 12, 2022, at the age of 96. A longtime Sierra Club member and supporter of the designation of the Chumash Heritage National Marine Sanctuary, Dr. Casalina was a World War II combat veteran who followed his service with a long career as a radiation health physicist, and then, for the rest of his life, relentlessly warned about the threat of nuclear power in general and the Diablo Canyon Nuclear Power Plant in particular.

In 2015, New Times printed [a memorable response](#) from Dr. Casalina to letters from Diablo Canyon boosters, in which he wrote that "The proponents'

opinions prompt me to suggest that if their cheers for nuclear power are so glowing, I would offer to help land them a real estate agent's job in Chernobyl, Russia or Fukushima, Japan."

The Santa Lucia Chapter is grateful to have been named as a beneficiary of the Sam Lewis Casalina Trust, an act of generosity that will allow us to continue our work for years to come.