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Diablo Canyon Needed to Save Climate, Coasts

Attached find three recent, relevant articles from the San Francisco Chronicle regarding the ongoing safe operation of Diablo Canyon Power Plant (DCPP.) A new group advocates for DCPP.

The proposed version of the 2015 IEPR should be revised to reflect the importance of DCPP in meeting California's aggressive emissions reduction targets to combat global warming while providing abundant reasonably-priced emission-free electric power. DCPP also provides significant voltage and frequency stability to the California power grid.

So-called "renewable energy" sources such as solar and wind are unable to provide voltage and frequency stability - in fact, they tend to destabilize the grid.

Additional submitted attachment is included below.

Diablo Canyon is needed to save the climate, coasts

By Peter Raven and Michael Shellenberger

February 1, 2016 Updated: February 1, 2016 4:23pm

<http://www.sfchronicle.com/business/article/Yes-nukes-Conservationists-rally-to-save-6794124.php>



Photo: Michael Mariant, Associated Press

This Nov. 3, 2008, file photo, shows one of Pacific Gas and Electric's Diablo Canyon Power Plant's nuclear reactors in Avila Beach on California's central coast.

At U.N. climate talks in Paris in December, California Gov. Jerry Brown spoke eloquently of his commitment to clean energy — not just for California but also the world.

But meeting California's climate commitments won't be easy. Doing so would require that the state's emissions fall over the next five years at a rate 5.5 times faster than they have since 2000.

And if Diablo Canyon — California's last operating nuclear power plant, on the coast near San Luis Obispo — closes, meeting our climate goals will be near-impossible.

The climate implications of losing Diablo Canyon would be severe. Its energy output would be replaced by natural gas and create carbon emissions nearly equivalent to putting nearly 2 million additional cars on the road.

Brown has the opportunity to achieve his goals, and earn his status as a global climate leader, by doing everything in his power to keep open Diablo Canyon, which provides nearly one-quarter of the state's electricity from clean energy.

Wind and solar should be part of the climate solution, but they aren't nearly enough on their own to power a state of 39 million people.

Diablo Canyon produces twice as much power as all of California's solar panels, 24 percent more than all of its wind, and 40 times more than its largest solar farm.

Also, Diablo Canyon provides power to 3 million Californians on a patch of land the size of three football fields. Achieving the equivalent from a solar farm would require [145 times](#) more land; from wind, 500 times more.

Saving Diablo Canyon comes with a conservation win: up to 2,000 acres of coastal land north of the site that would probably have to be purchased by Pacific Gas and Electric Co. to offset the reactor's impact on fish eggs and larvae sucked into the plant. While there has been talk that the regional water board may require PG&E to build cooling towers, all parties involved — board staff, their consultant and PG&E's consultant — say they will recommend against towers, which makes it unlikely the board will require them.

But if Diablo Canyon goes away, so too will this opportunity for significant new land conservation along California's coast.

Diablo Canyon makes PG&E about [\\$2 billion](#) a year, and another \$1 billion of ratepayer money is pumped into the local and state economies. Why then is PG&E considering shutting it down?

Part of the reason is pressure from California officials, some of whom were once openly antinuclear.

Brown acknowledged that [he is open](#) to keeping Diablo Canyon operating, even though he opposed it in the 1970s. Brown knows that Diablo Canyon is safe. The federal Nuclear Regulatory Commission has been repeatedly inspecting the plant for more than 30 years, requiring upgrades and certifying it as safe.

Brown can't ensure a future for Diablo Canyon on his own. State agencies should keep an eye on the climate and conservation prize and expedite regulatory approvals. For its part, as PG&E recognizes the value of Diablo Canyon, it should agree to reasonable regulations and mitigating measures.

But the governor's leadership is essential. He can find agreement among the agencies and PG&E for reasonable regulations and mitigation. And he can explain to the public why Diablo Canyon is crucial for achieving California's environmental and climate goals.

Paris was just the most recent moment in Brown's 40-year career as an environmental leader. For California and the world, we hope the governor will try to — and believe he can — save Diablo Canyon.

Peter Raven is president emeritus at the Missouri Botanical Garden, and a 1953 graduate of St. Ignatius High School in San Francisco. Michael Shellenberger is founder and president of Environmental Progress, an environmental research and policy organization. They are co-founders of [SaveDiabloCanyon.org](#).

San Francisco Chronicle

<http://www.sfchronicle.com/business/article/Yes-nukes-Conservationists-rally-to-save-6794124.php>

Yes nukes! Conservationists rally to save state's nuclear plant

By David R. Baker

January 29, 2016 Updated: January 29, 2016 8:10pm



Photo: Michael Macor, The Chronicle

Michael Shellenberger at his Berkeley home on Thurs. January 28, 2016, in Berkeley, Calif. Shellenberger is the co-founder of an environmentalist group that is banding together to save the Diablo Canyon Nuclear power plant from shutting down.

For decades, a host of environmental groups has labored to close the Diablo Canyon nuclear plant.

Now, one wants to keep it open.

Related Nuclear power Articles:



Related: [Diablo Canyon may have a friend in Jerry Brown](http://www.sfchronicle.com/business/article/Diablo-Canyon-may-have-a-friend-in-Jerry-Brown-6647691.php)

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The new [Save Diablo Canyon coalition](#) aims to persuade Californians that the state's last nuclear plant is an indispensable asset, not a danger.

California can't possibly achieve its global warming goals without Diablo, coalition members argue. The seaside plant, near San Luis Obispo, [produces 8 percent](#) of all electricity generated within the state, and pumps no greenhouse gases into the sky.

"It felt wrong to me that we would close down a plant like that for reasons that are clearly irrational," said the coalition's organizer, Michael Shellenberger, who has long advocated for nuclear power as an answer to climate change. "Once they consider the brute numbers here, people will be won over."

The group has recruited some major names, including James Hansen, arguably the nation's most prominent climate scientist. On Friday, the group sent Gov. Jerry Brown and five other top state officials a letter urging them to help keep the plant running for decades to come. Diablo's original operating licenses expire in 2024 and 2025.

And, in an odd twist, the group also sent the letter to the chief executive of Pacific Gas and Electric Co., which owns Diablo but has not yet committed to renewing the plant's licenses. Save Diablo Canyon hopes to tip PG&E off the fence.



Photo: Nancy Pastor, Nancy Pastor For The SF Chronicle

Monday August 24, 2015, San Luis Obispo County, California The Diablo Canyon Power Plant is an electricity-generating nuclear power plant near Avila Beach in San Luis Obispo County, California. The plant has two Westinghouse-designed 4-loop pressurized-water nuclear reactors operated by Pacific Gas & Electric. The facility is located on about 900 acres (360 ha) west of Avila Beach, California. Together, the twin 1,100 MWe reactors produce about 18,000 GW \cdot h of electricity annually, about 7% of the electricity California uses, supplying the electrical needs of more than 3 million people. (Nancy Pastor for the San Francisco Chronicle)

“We urge you not to allow unrelated conflicts, politics, ideology or irrational fears to get in the way,” the letter reads.

The group has not and will not accept money from PG&E, or any other energy company, Shellenberger said. So far, funding has come from philanthropists Rachel and Roland Pritzker. The federal Nuclear Regulatory Commission decides whether to extend a plant’s license. But for reasons specific to Diablo, several California agencies [could play a big part](#) in deciding the plant’s fate.



Photo: Michael Macor, The Chronicle

Michael Shellenberger at his Berkley home on Thurs. January 28, 2016, in Berkeley, Calif. Shellenberger is the co-founder of an environmentalist group that is banding together to save the Diablo Canyon Nuclear power plant from shutting down.

New lease in question

The State Water Resources Control Board, for example, is weighing whether to force Diablo to replace its current cooling system with potentially costly towers. And the State Lands Commission, chaired by Lt. Gov. Gavin Newsom, is considering whether to give PG&E a new lease for state-owned tidelands at the plant. The water intake and outflow chutes for the plant's existing cooling system lie on those tidelands, and the current leases expire in 2018 and 2019.

Newsom, not coincidentally, was among the officials addressed in the coalition's letter. At a Lands Commission meeting in December, [he expressed doubt](#) that Diablo would still be open in 10 years.

Diablo has long been the [subject of fierce debate](#), starting before it opened in 1985.

Earthquake faults, discovered only after construction began, nearly surround the plant. PG&E was forced to install major retrofits, including support beams and concrete buttresses, before the Nuclear Regulatory Commission granted the plant its operating licenses. Massive protests tried, and failed, to block its opening.

PG&E in 2009 announced that it would ask the commission to renew the plant's licenses and keep it open for another 20 years. But the utility put that effort on hold after Japan's Fukushima Daiichi accident in 2011. CEO Tony Earley told The Chronicle last year that the utility had not ruled out extending Diablo's life span but had other, more pressing issues to deal with first.

Enter Shellenberger and his coalition.

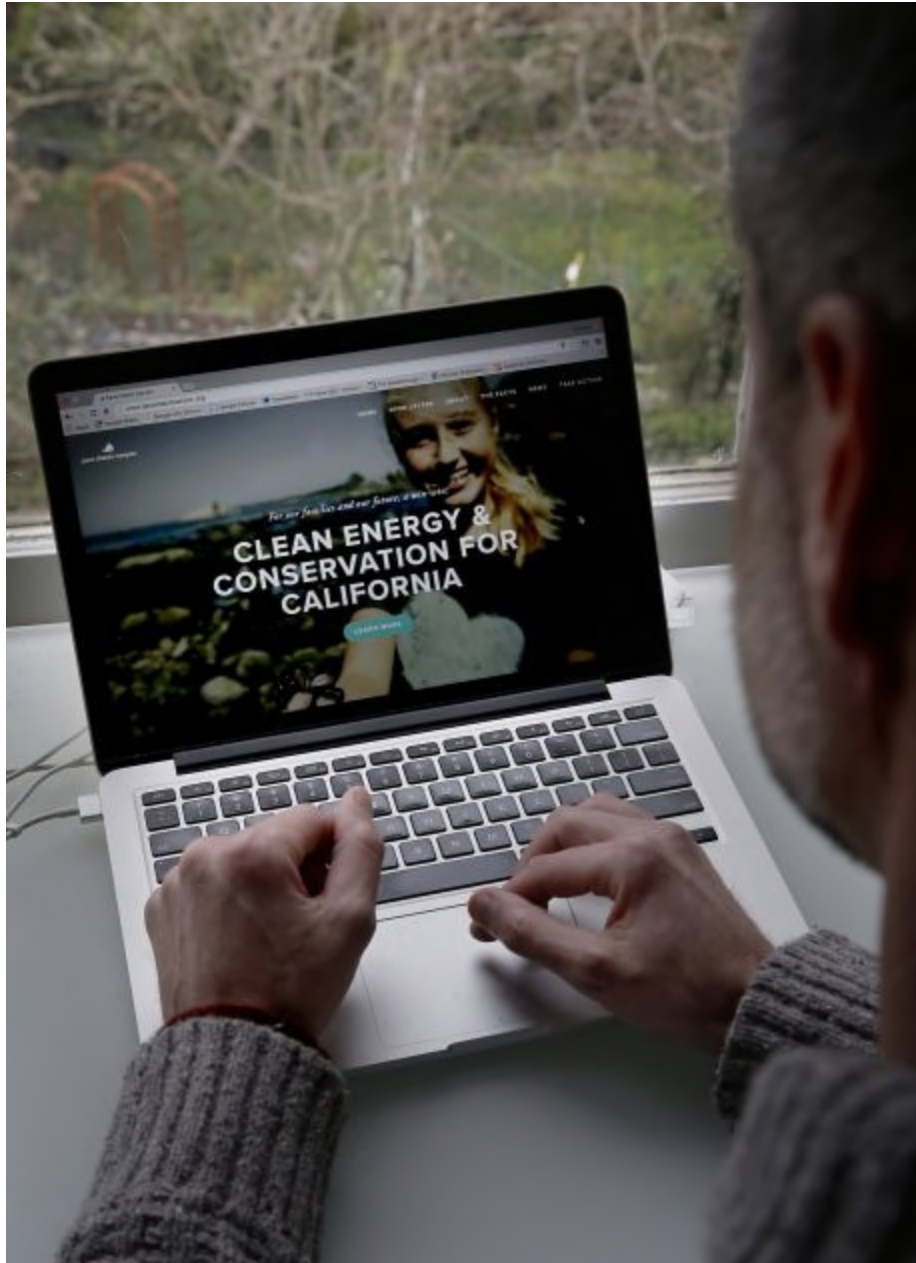


Photo: Michael Macor, The Chronicle

Michael Shellenberger pulls up his group's website at his Berkeley home on Thurs. January 28, 2016, in Berkeley, Calif. Shellenberger is the co-founder of an environmentalist group that is banding together to save the Diablo Canyon Nuclear power plant from shutting down.

Cofounded think tank

The Berkeley resident has a long history of rankling traditional environmentalists. In 2004, he wrote with Ted Nordhaus an essay called [“The Death of Environmentalism”](#) that argued the movement had grown too calcified to deal with a major crisis like global warming, and too fixated on narrow policy solutions like raising fuel standards on cars.

He cofounded the [Breakthrough Institute](#) think tank in Oakland, and last year co-authored “[An Ecomodernist Manifesto](#).” Both the institute and the manifesto call for fighting climate change through technological innovation, rather than restricting energy production. Both are staunchly pro-nuclear. He is also developing a new organization, Environmental Progress, to advocate for cheap energy and nuclear power in the developing world.

Other eco-minded thinkers have reached the same conclusions as Shellenberger. They have so far failed to persuade most environmentalists, who believe the risk of a meltdown and the difficulties of dealing with radioactive waste outweigh any benefits.

“We went off on a romantic version of environmentalism instead of a pragmatic version,” said Stewart Brand, former publisher of the Whole Earth Catalog and a member of Save Diablo Canyon. “You can’t solve climate change without this. You do the math ... and you just can’t get there without something like nuclear.”

Both Brand and Shellenberger consider the dangers of nuclear power vastly overblown and note that it requires far less land than large-scale solar or wind facilities. As for the fault lines near Diablo, Shellenberger says the Nuclear Regulatory Commission has the technical expertise to judge whether the plant is seismically safe.

“If I didn’t think the NRC was an independent and competent agency, I would not support nuclear power at all in the United States,” he said.

Diablo’s critics aren’t likely to be swayed. Many are already familiar with Shellenberger and his arguments, and say he underestimates both nuclear power’s dangers and expense.

Eventually will close

“Diablo Canyon is going to close — you can’t run these plants forever,” said Damon Moglen with [Friends of the Earth](#), an environment group born out of the fight to block Diablo Canyon’s opening. “So the real question is, what does the future of California’s energy look like? We are going to have an energy system that is clean, efficient and greenhouse gas-free, and it will be based on renewable energy and storage.”

And PG&E? The utility remains on the fence about relicensing Diablo, said spokesman Blair Jones.

“While we believe the carbon-free energy provided by Diablo Canyon is consistent with the governor’s vision to reduce (greenhouse gas) emissions, we have not made a decision to move forward with license renewal as we await additional feedback on seismic research and are evaluating the steps needed to obtain state approvals,” he said.

David R. Baker is a San Francisco Chronicle staff writer. E-mail: dbaker@sfchronicle.com

Twitter: @DavidBakerSF



[David R. Baker](#)

Business Reporter

San Francisco Chronicle

Can Gavin Newsom close California's last nuclear plant?

By [David R. Baker](#)

January 3, 2016 Updated: January 3, 2016 6:50pm

<http://www.sfchronicle.com/business/article/Can-Gavin-Newsom-close-California-s-last-6734454.php>



Photo: Nancy Pastor, Nancy Pastor For The SF Chronicle

The Diablo Canyon power plant.

Gavin Newsom has a prediction about California's last nuclear power plant, Diablo Canyon: It won't stay open another 10 years.

And due to a quirk of Diablo's complicated history, he could have a hand in closing it.

Diablo sits on a coastal bluff near San Luis Obispo and uses seawater for coolant. The chutes that suck in water from the Pacific and return it to the ocean — 2.5 billion gallons per day — lie on tidelands owned by the state and leased by the plant's owner, Pacific Gas and Electric Co.

Those leases expire in 2018 and 2019. Without the cooling system, the plant can't run.

So PG&E this year asked the State Lands Commission, chaired by Lt. Gov. Newsom, for a new lease, casting the move as a simple administrative step.

Newsom predicts closure

Instead, Newsom wants to subject the request to a full environmental impact review, a process that can take more than a year. It could also rekindle arguments about Diablo's safety, since the plant sits within a web of earthquake fault lines discovered after construction began.

"I don't think that PG&E, in its quiet moments, would disagree that this may not have been the ideal site for a plant," Newsom said at the commission's Dec. 18 meeting.

Already running for governor in 2018, Newsom often touts his support for green causes. At the same Lands Commission meeting, he even predicted that Diablo Canyon could close when its federal operating licenses expire in 2024 and 2025 — something many California environmentalists desperately want. PG&E has not yet decided whether it wants to renew the federal licenses.

"I just don't see that this plant is going to survive beyond 2024, 2025," Newsom said. "I just don't see that. Now, I absolutely may be wrong, but that's my punditry. And there is a compelling argument as to why it shouldn't."

And yet, Newsom has not slammed the door on PG&E's request.

He has urged the commission to think about how Diablo fits into California's future energy mix as the state tries to halt global warming. Unlike conventional power plants burning fossil fuels, Diablo pumps no greenhouse gases into the sky. It also supplies 8 percent of the electricity generated within the state. Closing it now, the plant's supporters argue, would undermine California's climate fight.

The commission may vote in February on whether a new tidelands lease will require an environmental report, under the California Environmental Quality Act. PG&E argues that it shouldn't.

"PG&E has been consistent in our point of view that a CEQA review is not required as the structures are currently operating under approved leases, and we have proposed no new operational or design changes," said utility spokesman Tom Cuddy.

Expiration dates vary

When PG&E leased the tidelands at Diablo, the company didn't realize that the leases would expire six years before the plant's federal operating licenses. But then, very few things in Diablo's early days went according to plan.

Construction on the plant began in 1968, and the state granted Diablo's two tideland leases in 1969 and 1970. Each lease would last 49 years. Federal operating licenses for nuclear plants run for 40 years. So as long as PG&E managed to open the plant by 1979, the state leases and the federal licenses would match up.

But in 1971, geologists discovered an offshore fault line 3 miles from Diablo. PG&E was forced to redesign a plant it had largely built, and defend it from massive protests. Diablo didn't open until 1985. Hence the lease problem.

Renewing Diablo's federal licenses would keep the plant open an additional 20 years. But since PG&E has not decided on this move, rather than seek another 49-year lease on the shore, the company asked the State Lands Commission for a new 6-year lease that would expire at the same time as the plant's existing licenses.

Much of the debate about the plant's future already focuses on the cooling system.

Another California government panel — the State Water Resources Control Board — is expected to vote this year on whether PG&E should be forced to install a new cooling system that uses less seawater and kills fewer fish. Diablo's system kills an estimated 1.5 billion fish eggs and larvae each year. A report commissioned by PG&E forecast that replacing the system with cooling towers could cost as much as \$14 billion.

Environmental review

Environmentalists who have been pushing to close Diablo for years argue that the plant's toll on fish violates the existing state leases, which were supposed to protect the coastal environment.

"There shouldn't be a new lease issued under these circumstances, and if the state is even going to think about it, certainly an environmental assessment should be required," said Damon Moglen, senior adviser to the environmental group Friends of the Earth. He welcomed Newsom's interest in Diablo's future.

"It's great that a political leader is paying attention to this plant," Moglen said. "An accident would be absolutely devastating for the state. So it's well and just that a politician like Newsom is thinking about it."

*David R. Baker is a San Francisco Chronicle staff writer. E-mail: dbaker@sfgchronicle.com
Twitter: @DavidBakerSF*



[David R. Baker](#)

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