

With Emissions Soaring, Democratic Governors Sour On Plans To Shut Down Nuclear Power

The governors of Michigan and California have signaled their support for President Joe Biden’s nuclear agenda.



By
Alexander C. Kaufman

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Virtually every place that shuts down nuclear plants — from San Diego to New York City, Germany to South Korea — replaces them with fossil fuels, swapping an abundant source of zero-emissions electricity for the very energy sources roasting the planet.

But with gas prices and emissions on the rise, two governors are rethinking plans to shut down major nuclear power stations.

With just weeks to go before the Palisades Nuclear Generating Station becomes the next U.S. plant to shutter, Michigan Gov. Gretchen Whitmer (D) [formally asked](#) the Biden administration on April 20 for federal funding to keep the reactors running.

On Friday, California Gov. Gavin Newsom (D) [told the Los Angeles Times](#) he also wanted federal money to keep Diablo Canyon, his state's last remaining nuclear plant, open past its 2025 closure date.

The announcements mark a shift in the politics of atomic power. At a time when planet-heating gas pollution is surging and efforts in Congress to cobble together a historic clean-energy spending plan have faced repeated setbacks, nuclear energy is becoming more appealing, even among Democrats whose party has historically championed closing down reactors.

Nuclear energy is by far the most efficient and reliable electricity source humans have ever harnessed. Nuclear reactors produce power 24/7 on vastly less acreage than wind and solar, regardless of weather conditions. Atomic energy is also safer than fossil fuels, which not only cause global warming but lace the air with deadly, disease-causing particles.

But connections to nuclear weapons and rare but catastrophic disasters like the meltdowns in Chernobyl in 1986 and Fukushima in 2011 have long stoked opposition to reactors. Natural gas, made cheap by the U.S. drilling boom, [gobbled](#) up nuclear companies' share of the electricity market, while state regulators have made increasingly challenging demands of plant operators, making it even harder to compete.



California Gov. Gavin Newsom, left, and Michigan Gov. Gretchen Whitmer are both asking for federal money to keep nuclear plants in their states open.

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There are some efforts to stave off shutdowns. Last September, Illinois approved nearly \$700 million in new subsidies to keep the state's nuclear fleet afloat in the decade ahead. In November, President Joe Biden [signed](#) into law the bipartisan infrastructure deal that established a \$6 billion fund to bail out financially troubled reactors.

But nuclear power in the U.S. is in trouble. Twelve nuclear reactors in the U.S. have closed permanently since 2012, and another seven are scheduled to shut down by 2025, according to a Congressional Research Service [report](#). Together, they make up more than 7% of the country's nuclear capacity.

California's Unique Issues

Money from the new fund to bail out reactors could make a practical difference in Michigan, where owner Energy Nuclear has long operated the Palisades plant at a loss. The relatively modest-sized, single-reactor station on the east coast of Lake Michigan had struggled to find buyers for its electricity as more gas plants and wind turbines came online. In January, it won federal regulators' [approval](#) to sell Palisades to Holtec International, a company that decommissions reactors.

But an application from California for federal money to save its last remaining nuclear plant would mark more of a symbolic change in the Golden State.

The state banned the construction of new nuclear reactors in 1976. But since the two reactors at Diablo Canyon, which were already under construction, came online in 1987, the plant profitably produced nearly one-tenth of California's electricity from its isolated location near San Luis Obispo.

Environmentalists campaigned to close the plant for decades before climate change became the defining issue in drought- and wildfire-prone California. Some feared Diablo Canyon, located near a volatile fault line, could set off a disaster in an earthquake. On the other side of the Pacific, an earthquake played a key role in triggering the accident that irradiated the area around the Fukushima-Daiichi plant 11 years ago.

Other critics complained that the plant hurt aquatic animals because its system for cooling reactors with seawater spewed out warmed water that made the coastal area immediately near the plant less habitable for certain species.

In 2016, when Newsom was the state's lieutenant governor, he helped broker a deal between environmentalists, the reactor's owner, Pacific Gas & Electric and the union representing its workers to shut the plant down. Under the agreement, its first reactor is set to come offline in 2024, with the second following the next year.



Aerial view of the Diablo Canyon, the only operational nuclear plant left in California, due to be shut down in 2024.

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But in the years that have followed that deal, the effects of climate change have become more visible and have taken a toll on the state’s electricity grid. Wildfires, some sparked by electrical equipment, caused rolling blackouts across the state. Hydroelectric dams that provided close to 13% of California’s power started facing shortages as drought dried reservoirs to new crisis levels. And the limited progress the power sector had made toward slashing emissions under the Obama administration’s climate regulations slowed after President Donald Trump took office and pushed to increase fossil fuel use.

In 2020, California regulators [delayed the enforcement](#) of new rules banning gas-fired plants from spewing warmed coolant water into waterways — the same problem for which the state went after Diablo Canyon — in a bid to avoid blackouts.

Last week, Newsom said California “would be remiss not to” file an application, due May 19, for federal funding to keep the plant open.

In an email, Newsom spokesperson Erin Mellon cautioned that the “governor does not have authority over Diablo Canyon’s license,” but added that the “Governor is in support of keeping all options on the table to ensure we have a reliable grid.”

Preventing a closure would require PG&E to apply to relicense the plant, then win approval from state and federal regulators. The process would likely take years. PG&E spokesperson Suzanne

Hosn said in an email that the company was “always open to considering all options to ensure continued safe, reliable, and clean energy delivery to our customers.”

“We always knew this was a political decision, not a financial decision. So I think it’s huge in that this opens the door.”

- Isabelle Boemeke, pro-nuclear advocate

A [2021 study](#) by researchers at MIT and Stanford University found that retrofitting Diablo Canyon to keep it operating until 2035 would reduce power sector emissions in California more than 10% below 2017 levels and save the state \$2.6 billion in power system costs. If operated until 2045, those savings increase to \$21 billion.

“We always knew this was a political decision, not a financial decision. So I think it’s huge in that this opens the door,” said Isabelle Boemeke, a pro-nuclear advocate in California who founded the group Save Clean Energy. “It’s just the beginning in terms of everything that needs to happen.”

But opponents of nuclear power say salvaging the power station would divert resources away from efforts to slash energy use and increase renewable electricity generation.

“My worry is that if you create this false prospect that somehow Diablo Canyon stays around, you reduce pressure on everyone involved to accelerate the acquisition of new zero-carbon sources,” said Ralph Cavanagh, the energy co-director at the Natural Resources Defense Council and a key supporter of closing the plant. “Diablo Canyon is a false hope and a false prospect.”

The state has many options to import clean power from neighboring states if its own development of new sources lags, Cavanagh said. He added that the labor union representing the workers at the plant supported its closure. But on Friday, the union, now under new leadership, issued a public statement of support for keeping Diablo Canyon open.

“Californians are facing big challenges, from COVID to the impacts of extreme drought,” IBEW 1245 business manager Bob Dean wrote in a [press release](#). “A shortage of electric power supply and rolling blackouts must not be added to this list.”

Political Smoke Signals, And Problems With Federal Funding

The White House’s \$6 billion bailout fund limits eligibility to plants that are losing money in the face of competition from gas and other energy sources. That means Diablo Canyon, which is not losing money, would likely not qualify.

Paris Ortiz-Wines, a California-based organizer with the pro-nuclear group Stand Up for Nuclear, said Newsom was likely using the federal program as a way to signal his willingness to support the Biden administration’s efforts to keep reactors running.

“There’s some game being played,” she said. “Diablo Canyon does not need the federal funding, but I do think it’s in the political conversation right now, so it’s a safe way to make his announcement.”



The Colorado Fire burns down toward the Bixby Bridge in Big Sur, California, early Saturday morning, Jan. 22, 2022.

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Mark Nelson, a nuclear engineer and consultant who advocates for atomic power, said the move by Whitmer put pressure on Newsom. While Whitmer had not played the active role Newsom did in setting the stage for the next U.S. nuclear closures, the Michigan governor had remained silent throughout the process, according to the Mackinac Center for Public Policy, a think tank that [pushed](#) to keep Palisades open. Both governors are widely discussed as potential Democratic presidential candidates.

“What he sees is another ambitious Democratic governor that’s pretty young going along with Biden’s desire, Sen. Joe Manchin’s desire and [Energy Secretary Jennifer] Granholm’s desire to save a nuclear plant,” Nelson said. “He wants to show, ‘I, too, can go along with the program if the program is nuclear.’”

A spokesperson for Whitmer did not respond to a request for comment on Monday.

But Chris Gadomski, the lead nuclear analyst at the energy consultancy BloombergNEF, warned that the eligibility requirements of the federal fund would make it difficult for many utilities to apply. Natural gas prices have more than doubled since the legislation creating the fund was debated, meaning reactors that financially struggled in years past might have more balanced books now that higher costs are making nuclear power more competitive.

“The way the rules are written, you have to be losing money to be eligible for support,” he said. “So now you have a problem: How can you close down nuclear plants when gas prices are so high? But when that’s the case, you have to change the rules.”

Nelson said he would be “utterly unsurprised if not a penny were disbursed” from the federal fund. But he still sees it as progress toward saving the country’s existing reactors and, eventually, building more.

“Nuclear plants are closing because they don’t know that they have long-term revenue, yet this is being addressed by an extremely short-termist program,” Nelson said. “I don’t look at the \$6 billion as anything other than a very powerful, attractive sign of nuclear being in favor among Democrats.”

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[Alexander C. Kaufman](#)

Senior Reporter, HuffPost