

PROJECT EARTH

CALIFORNIA MAY BE ABOUT TO SET A REMARKABLY AMBITIOUS CLEAN ENERGY GOAL

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California may be about to set a remarkably ambitious clean energy goal: a 100% renewable energy portfolio by 2045. Last week, State Senate President pro Tempore (the California equivalent of Majority Leader) Kevin de León (D) introduced the California Clean Energy Act, a bill last that would double California's current renewable portfolio standard (RPS). On Tuesday, the bill easily passed the Senate energy committee, by an 8-2 vote. California State Senate staffers expect it will be taken up by the full Senate later this month.

De León is also the author of the 2015 law that sets the state's current RPS at 50% by 2030. That standard is already among the country's most aggressive. The U.S. as a whole gets about 15% of its energy from renewable sources such as wind, solar, and hydropower, according to the U.S. Energy Information Administration. Currently, about 40% of California's electricity generation is renewable. That places it eighth among the states and the District of Columbia, but, except for West Coast neighbors Oregon and Washington, all the higher-ranked states are ones with small populations such as Vermont and Montana. In terms of total output, California's renewable sector is the second largest of any state, after Washington state, which has large hydropower resources.

There are more clean energy jobs in California than coal jobs in the entire nation. That didn't just happen, it happened because we moved the right policies in the legislature.

As the world's sixth-largest economy, California transitioning to a fully renewable portfolio in the next 28 years would significantly reduce greenhouse gas emissions. But the real impact might be economic: as the solar, wind, and small-scale hydropower industries grow, their costs drop

as they develop innovative new technologies and achieve economies of scale. California's climate leadership could make renewable power more affordable and accessible all over the world and also show governments elsewhere that it is technically and economically feasible.

The Clean Energy Act is just the newest, biggest piece of a broad, multi-faceted effort in California to combat climate change, clean up the environment, and make sure the benefits are shared by all.

Renewable Energy as Environmental Justice Issue

"Renewable energy is an environmental justice issue," says Strela Cervas, co-director of the California Environmental Justice Alliance (CEJA), an advocacy organization. "We work with Latino communities, black communities, Asian, and Native American communities that live right next to dirty fossil fuel infrastructure."

But renewable energy deployment can also perpetuate or exacerbate inequalities. Buying solar panels for your rooftop, for example, is heavily subsidized in California, but homeowners are mostly richer than renters and panels are expensive. That's why California is working to complement its existing programs with new ones that make clean, renewable energy—and the cost savings that home solar owners enjoy—more broadly accessible. In 2015, Gov. Jerry Brown (D) signed into law a bill that will spend \$100 million per year for ten years on installing solar on the roofs of affordable apartment buildings and share the cost savings with the building's renters.

This year, CEJA hopes to augment that program with a proposal to expand community solar, which allows people who cannot put solar on their roof to subscribe to a utility-scale solar farm and get the discounted solar energy rates. Senate Bill 366, proposed by Sen. Connie Leyva (D) would subsidize community solar projects built in environmental disadvantaged neighborhoods.

A common criticism of mandated renewable energy standards is that, by forcing to utilities to build expensive new facilities rather than squeezing every last ounce of energy from existing coal and gas plants, it drives up energy costs for consumers and that hits lower-income households hardest. Californians have a quick answer for that, though: thanks to the state's energy efficiency programs (with an assist from the West Coast's mild weather), Californians consume less energy per capita than residents of most states and their electricity bills are cheaper as a result. "In

California, we have the fourth lowest utility bills in America,” de León boasts. Even fossil fuel-rich Texas has higher average utility bills.

What About the Weather?

Aside from equity and economic impact, the other big concern about a fully renewable portfolio is what happens when the weather doesn’t cooperate. Currently, a 100% renewable portfolio could experience blackouts if there was no wind or sun in the middle of the day, when demand is high. Energy utilities keep natural gas, nuclear, and coal plants ready to provide “base load generation” and “peaking power” for those moments.

Clean energy advocates say they’re confident that breakthroughs in battery storage of wind and solar power will occur between now and 2045. “The Internet didn’t exist 28 years ago,” de León notes. In just the last year, companies such as Tesla have rolled out cheaper, smaller home batteries for rooftop solar owners.

With a large Democratic majority in the state assembly and a governor who has committed to leading in the fight against climate change, the bill’s prospects might be promising. Even likely opponents have yet to come out of the woodwork: neither the California State Republican Party nor Republicans on the senate energy committee responded to Fusion’s request for comment. Republicans did vote against SB 350, however, and two of the committee’s three Republicans voted against the current bill. Sacramento insiders expect the bill will pass the senate but are much less certain about its prospects in the assembly. Even an enthusiastic supporter such as Michelle Kinman, clean energy advocate at Environment California, a statewide green group, cautions, “It’s very early in the process.”

De León says he is confident because the economic and environmental benefits are so readily apparent. “The air quality has improved considerably in parts of California, and especially Southern California, and that’s with more cars on the road and more people,” says de León. “If we hadn’t done anything our air would be like Beijing. We’ve created 500,000 jobs in the clean energy space in California. There are more clean energy jobs in California than coal jobs in the entire nation. That didn’t just happen, it happened because we moved the right policies in the legislature.”