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Newsletter: Everything you need to know about California's plan to slash solar incentives

By Sammy Roth, Staff Writer Dec. 16, 2021 6 AM PT

This is the Dec. 16, 2021, edition of Boiling Point, a weekly newsletter about climate change and the environment in California and the American West. Sign up here to get it in your inbox.

Grid Alternatives solar installers Juan Alcantara, left, Sal Miranda and Lee Kwok place rooftop panels on Marta Patricia Martinez's home in Watts. (Gary Coronado / Los Angeles Times)

It's been two years since California reached 1 million solar roofs, a landmark in the fight against climate change. Now the story of solar power in the Golden State may be approaching another turning point.

The California Public Utilities Commission is poised to overhaul the state's main solar incentive program, known as net metering. The agency's proposal would effectively make rooftop solar more expensive, and could be approved as soon as Jan. 27.

Officials say the changes are needed to keep the lights on, prevent electricity rates from rising and encourage people to install batteries, while still growing the solar market. Solar executives say they would backfire and crater a thriving industry.

I wrote about what the changes would look like, and I want to hear what you think. Let me know by filling out this brief survey.

I'll share some of the responses in a future newsletter.

Scroll down to hear what some of the key players in the rooftop solar debate have to say, followed by the rest of this week's top stories. But first, here's what the Public Utilities Commission's proposed decision would do:

- **Reduce payments to solar customers who send electricity to the power grid when their systems generate more than they need.** Instead of being compensated at the retail rate — the same rate they pay for electricity from the grid — newly enrolled net metering customers would be paid at the much lower "avoided cost" rate. That would amount to about 5 cents per kilowatt-hour of electricity, down from 20 to 30 cents today, according to the California Solar & Storage Assn.
- **Add a monthly "grid participation charge" of $8 per kilowatt for homes (but not businesses) that install solar.** A home with a six-kilowatt system would be charged $48 per month, or $576 per year. Low-income and tribal homes would be exempt.
- **Add a temporary "market transition credit" to lessen some of those higher costs for households that want to go solar.** The credit would be available for four years, with homes that install solar panels locking in the savings for a decade. In Southern California Edison territory, the credit would start at

$5.25 per kilowatt of solar for low-income customers and $3.59 per kilowatt for everyone else, before decreasing each of the next three years. For Pacific Gas & Electric customers, the credits would start at $4.36/kW and $1.62/kW, respectively. San Diego Gas & Electric customers wouldn't receive any credits, because the commission believes solar is already cost-effective enough for them due to the utility's especially high electricity rates.

- **Require homes that already have solar panels to switch from the existing net metering program to the new program described above — known as "net billing" — no later than 15 years after their systems were installed.** Low-income homes could keep operating under the more favorable terms of the old program for 20 years after installation.
- **Create a "storage evolution fund" to encourage homes and businesses that already have solar to add batteries.** Utility customers currently enrolled in net metering would receive rebates of $200 per kilowatt-hour for installing an energy storage system — but only if they switch to the newly revised solar incentive program within four years. The rebate would drop the longer they wait. For a typical residential battery system of 13 kilowatt-hours, the rebate would start out at $2,600.
- **Create an "equity fund" that would spend as much as $600 million over four years bringing clean energy to low-income and polluted neighborhoods.** The details would be worked out later, with the utilities holding a workshop to solicit input.
- **Allow homes and businesses to install solar systems big enough to meet 150% of their energy demand, to help fuel electric cars or electric heating systems they might add later.** That's much bigger than is currently allowed.

Another key change: Homes and businesses that already have solar (or go solar under the new rules) would pay higher rates for electricity from the grid during some times of day and lower rates at other times. All monopoly utility customers are currently shifting to these "time of use" rates, to encourage energy consumption when supplies are abundant and discourage it when supplies are tight. But solar homes would see an especially high difference between "peak" and "off peak" rates. In Edison territory, they'd pay 48 cents per kilowatt-hour on summer weekday evenings, compared to 19 cents on winter mornings.

And one more thing: Only customers of Edison, PG&E and Sempra Energy subsidiary SDG&E would be affected by the new rules. Solar homes served by publicly owned utilities such as the Los Angeles Department of Water and Power wouldn't see any changes.

If you're served by a government-run "community choice" agency — such as Clean Power Alliance in Los Angeles and Ventura counties, which uses Edison's network of poles and wires to bring you electricity — you'd have to pay the new monthly "grid participation fees." But the compensation rate for your solar power would drop only if local elected officials decide it should.

Electric transmission lines run through a power corridor known as Path 26, near Southern California Edison's Vincent Substation north of Los Angeles. (Gary Coronado / Los Angeles Times)

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Environmental advocacy groups

The Sierra Club isn't happy. Neither are the Climate Center, Coalition for Community Solar Access, Environment California, Environmental Working Group and Vote Solar, all of which issued news releases slamming the proposed decision.

The Save California Solar Coalition — whose members include hundreds of groups focused on climate action, public health, conservation, equitable housing and more — called the state agency's proposal "a giveaway to investor-owned utilities."

Especially interesting is the Sierra Club's position, which doesn't align neatly with either the solar industry or the utility industry. The club had previously proposed gradually lowering compensation payments to new solar customers. It had also joined with advocacy group Vote Solar and nonprofit installer Grid Alternative to propose higher compensation rates for low-income homes.

The utilities commission's plan wouldn't do either of those things. Instead, it fully endorses the "cost shift" argument made by utility companies and others — that net metering leads to higher electricity rates for Californians who can't afford solar.

"The 'cost shift' narrative has been wildly overblown," Sierra Club attorney Katherine Ramsey told me. "We recognize that this program needs to be updated in order to reduce non-participant impacts. But at the end of the day, we need more rooftop solar."

Natural Resources Defense Council

At least one major environmental group is pleased with the decision. That would be the Natural Resources Defense Council, or NRDC, which largely agrees with the utility industry that net metering is a massive giveaway from the poor to the rich.

NRDC senior scientist Mohit Chhabra told me he's especially pleased with the $600-million equity fund, which he expects will help pay for solar panels for low-income homes. He sees that as a better model than the Sierra Club's proposal, because it would make it easier for low-income families to buy solar systems rather than lease them, and thus reap more of the long-term savings.

Chhabra says the primary goal of net metering shouldn't be to add as much rooftop solar as possible — it should be to meet California's overall climate goals, which will require a lot of rooftop solar but also many other forms of clean energy. That includes large solar and wind farms that generate renewable power at a lower cost than rooftop systems due to economies of scale.

"Cheap, clean, pollution-free electricity for everybody is the first step. And then do your best to make sure solar is distributed equally," Chhabra said. "Don't flip those two things."

The 192-megawatt Rosamond Central solar farm in California's Kern County. (Gary Coronado / Los Angeles Times)

Utility industry

In a written statement, Edison called the proposal "a meaningful step" that will "reduce the financial burden on non-solar customers who have subsidized net energy metering by significantly overpaying rooftop solar customers." PG&E offered similar praise, saying the current system has "resulted in deep inequities between customers with rooftop solar and those without."

SDG&E was more circumspect, saying it would "reserve comment until our experts have an opportunity to review the 204-page proposed decision and evaluate its impact to our customers."

Then there's the Affordable Clean Energy for All campaign, which lists more than 100 diverse supporters, but whose sole funders are the utility companies. Campaign spokesperson Kathy Fairbanks said the proposed decision "recognizes we can grow rooftop solar in California while taking steps to reduce inflated subsidies that have put an unfair cost burden on renters, seniors, disadvantaged communities and other working Californians who don't have the ability or means to install rooftop solar systems."

Solar industry

After writing my initial story, I talked with Brad Heavner, policy director for the California Solar and Storage Assn.

He told me one of the utilities commission's biggest mistakes is assuming that rooftop solar costs $2.34 per Watt, based on data from the National Renewable Energy Laboratory. He pointed to a different data set from Lawrence Berkeley National Laboratory showing that installed system costs actually hit $3.87 per Watt in California last year, which he described as closer to reality.

He also said new solar homes would be hit with higher fees than the commission is letting on, paying an additional $12 per month in Edison territory and $16 per month in SDG&E territory thanks to their time-of-use electric rates (with PG&E customers getting off scot-free, at least initially). That would bring new monthly fees for non-low-income homes to $38 for typical Edison and PG&E customers and $64 for typical SDG&E customers, after accounting for the new credits.

Then there's the reduced payment rate for electricity exported to the grid. Heavner estimated a typical new solar customer would see overall compensation drop by $675 per year in Edison territory, $985 in PG&E territory and $1,290 in SDG&E territory.

Heavner did some spreadsheet math and estimated how those changes would affect the typical payback period — ie. how long it takes solar customers to make back their upfront investments through lower bills. He calculated a 19-year payback for Edison customers and 16 years for PG&E customers — far short of the 10 years the commission said it is targeting (except for an estimated nine-year payback in SDG&E territory). For low-income homes, paybacks would be 11 or 12 years regardless of utility.

For comparison, payback periods currently hover around five years.

Again, these are the solar industry's estimations. But they help explain why rooftop solar advocates are so exasperated.

Sunrun employees Aaron Newsom, left, and Tim McKibben install solar panels on a Granada Hills home. (Mel Melcon / Los Angeles Times)

Consumer watchdogs

Let's start with Matthew Freedman, an attorney at the Utility Reform Network. The San Francisco-based ratepayer advocacy group spends much of its time fighting the utilities on rate increases — but it largely agrees with its adversaries on net metering.

Freedman thinks a 10-year payback period is a good target, and he's open to increasing the "market transition credit" if the commission used flawed data, to make sure 10 years is what consumers get. He thinks the commission could have come up with a better mechanism to support solar than the transition credit, but he's glad low-income homes would receive a larger credit.

"I think 10 years is fair for people to get their money back," Freedman told me. "Customers don't need that subsidy forever to invest in solar. Once customers make their money back, everything is gravy on top of that."

Mike Campbell, a program manager at the commission's Public Advocates Office, also had positive things to say. He called the proposal "a positive step in addressing the inequities in the current net energy metering program," saying it would compensate solar customers fairly while advancing the state's climate goals — in part by encouraging solar homes to install batteries.

I also checked in with Severin Borenstein, a UC Berkeley energy economist and net metering critic. He told me the commission's plan does "a good job addressing the cost shift inequity," but he also emphasized a larger point: that electricity rates are far higher than they should be for monopoly utility customers, and fixing net metering is like a Band-Aid for this bigger issue.

Right now, Borenstein said via email, Californians pay electric rates that cover all sorts of utility expenses that have nothing to do with generating power, from clean energy subsidies to projects that reduce the risk of wildfires. He thinks those "fixed" costs should be paid by everyone, allowing for lower electricity rates overall. That might mean less motivation to install solar, but it would also make people more likely to invest in electric vehicles and electric heating — key parts of California's climate strategy.

"If state leaders still want to prioritize rooftop solar, they could avoid shifting costs onto low and middle income households ... by subsidizing rooftop systems directly, and transparently, with a program covered by the state budget," Borenstein wrote in June.

Homebuilding industry

In 2018, California became the first state to require solar panels on most new homes. But that requirement was predicated on solar-powered homes being "cost effective" — and the California Building Industry Assn., a trade group for homebuilders, says the proposed changes to net metering might jeopardize the legality of the mandate by making solar no longer cost effective.

The group sent a letter to the Public Utilities Commission last month warning that fixed monthly charges for solar customers — like the ones the commission has now proposed — would "severely impact the financial viability" of rooftop solar on newly built homes. The trade group recommended "a steady glide path with small increments on any additional fees to customers."

Dan Dunmoyer, the group's CEO, told me he has a unique vantage point because his members include not only homebuilders but also utilities and rooftop solar installers. He agrees that some changes to net metering are warranted, but he also wants the solar mandate to succeed. While his group is still analyzing the proposal, his first impression is that it could be a recipe for failure.

"If you're paying $500 or $600 that you weren't paying before this change [to net metering], what does that do to families that are trying to balance their family budgets?" Dunmoyer asked.

The California Energy Commission, which crafted the solar mandate, is "evaluating the impacts of the [net metering] proposal on the cost effectiveness of the energy code," spokesperson Lindsay Buckley told me via email.

An aerial view of Day Creek Villas, a zero-net-energy senior housing development in Rancho Cucamonga. The community features 600 solar panels on the roof and 500 solar panels on carports. It was built by the affordable housing developer National Community Renaissance. (Allen J. Schaben / Los Angeles Times)

Wall Street

Within 12 hours of the utilities commission releasing its proposal, Morgan Stanley put out an analysis.

The investment bank wrote that the agency's net metering plan "would in our view be heavily damaging to near-term rooftop solar growth and margins." Morgan Stanley analysts called the proposed monthly fees "surprisingly high," saying they would "largely to completely eliminate the economic benefits of rooftop solar in California, absent the inclusion of storage."

At the same time, "storage can provide a longer-term offset," they wrote. For Sunrun in particular — the nation's largest rooftop solar installer, based in San Francisco — Morgan Stanley projected that by 2024, "the company will have sufficient storage volumes to offer all prospective California customers the ability to include storage with solar," which would save customers money.

Gov. Gavin Newsom

Rooftop solar advocates want the governor to exert his influence over the Public Utilities Commission and compel the agency to keep net metering largely unchanged. But they might find themselves disappointed. Newsom spokesperson Erin Mellon told me the governor "does not direct independent boards or individuals on how to handle any issues that are in front of them."