Edward Fenster, Sunrun's co-Founder and co-Executive Chairman, Issues Statement Responding to Draft Proposed Changes to California's Net Energy Metering Program

Proposal represents California politics at its worst and loses sight of what constituents want -- innovation, control, and fast solutions -- in favor of propping up failed and stodgy incumbents

Proposal would decimate market for solar without batteries and discourage solar and batteries customers from pitching in to help the grid

Appointed regulators at the California Public Utility Commission will now have the opportunity to interact with stakeholders and resolve these issues

Summary

While we appreciate the CPUC's efforts to encourage battery adoption, the Proposed Decision is contrary to the state's objectives of addressing climate change and eliminating frequent blackouts. We believe the solar-customer fixed fees of on average about $700 per year are in violation of the Public Utility Regulatory Policies Act of 1978 ("PURPA"). If adopted, the proposal will cost tens of thousands of jobs, especially among the thousands of solar companies unable to offer battery storage solutions due to supply shortages. The proposal is contrary both to what Californians have clearly said they want and to editorials in all major California newspapers. Finally, the proposed reduction to grandfathering for existing customers is an outrageous violation of trust and undermines the Commission's stated interest in consumer protection.

Self-defeating policy

A well-designed rate structure for distributed energy would encourage the evening export of solar power. It would provide customers, at a minimum, with a return on investment no less than is provided to the state's utilities. And it would provide a glide path for the industry that allows battery manufacturing capacity -- stymied by covid and semiconductor shortages -- to catch up to battery demand. These are complicated topics which we applaud the CPUC for considering. Unfortunately, this first draft proposal meets none of these objectives.

Evening exports are paramount because on a "good day" that's when fossil fuel use and power cost is highest and on a "bad day" there isn't enough power from any source to meet demand. Evening power is expensive in part because California has nine gigawatts of capacity -- about the size of 40 typical natural-gas peaking power plants -- that operate less than 5% of the time. Home solar and storage systems can dispatch power into this challenge and retire these polluting plants.

With the coming launch of bidirectional electric vehicle chargers, the large size of EV batteries will turbocharge these advancements. However, in order to achieve this future, two simple things must be true: (1) the export rate for evening power must be greater than the overnight retail (i.e., import) rate, and (2) the benefits of exporting must more than offset the fixed fees assessed for the right to export. If the first condition is not met, solar+storage customers will in the evenings consume from their batteries only enough power to offset usage, consuming the rest of the battery overnight and into the following morning. If the second condition is not met, solar+storage customers will not elect to pay the fixed fees -- in this case about $700/year -- that entitle them to export power in the first place.

While the proposed decision says it is designed to encourage the "export [of] electricity onto the grid when carbon-intensive electricity is at the margin," it will unfortunately fail to do this because it fails to meet both conditions above. No rational customer installing a solar and storage system would take service under the proposed rate structure because it significantly reduces compensation for exported electricity and imposes high monthly fees. A rational customer will instead elect to avoid the draconian fees in this rate tariff by choosing a

non-exporting rate tariff and self-consuming their solar-generated power from their batteries overnight and into the morning, instead of sharing it with the grid in the evening when it's most needed. Other customers may not interconnect their solar and storage systems at all, operating their homes either from solar+storage or from the grid, but never both simultaneously. More may go off-grid entirely.

The lack of evening exports will mean more blackouts, slower retirement of polluting peaking power plants, and more expensive peak power for all Californians. In August of 2020, during the first rolling blackouts California experienced since 2001, distributed solar and battery systems across California provided 310 megawatts of electricity to the grid, lessening the severity of these blackouts. The capacity provided by these systems has been growing exponentially since then and will rocket even higher with the adoption of grid-connected electric vehicles. This is not the time to erect barriers to power sharing; California's electric grid urgently needs distributed solar power and batteries to meet peak demand.

Discouraging ordinary Californians from pitching in to solve the energy and climate crisis is a once-in-a-generation blunder. Just three million electric cars dispatching half their batteries in the evening would eliminate all evening fossil fuel use in the state without the utilities having to buy a single battery or power plant. However, if the unprecedented fees proposed in this decision are adopted, electric vehicle batteries that are paired with home solar will largely not be interconnected to the grid and their battery power will not be made available to solve our energy and climate crisis. Instead, the utilities will spend tens of billions of dollars to build huge and unnecessary batteries which consumers will buy from car companies regardless.

Rather than just have consumers share excess battery capacity with the grid, utilities want to bilk Californians for the cost of duplicative batteries plus a guaranteed after-tax return of more than 10%. Hawaii made this same policy mistake in 2016, when it effectively banned power export to the grid. After five years of encouraging Hawaii residents to build self-consuming solar and storage systems, Hawaii reversed course and created structures to encourage evening exported power and is now relying on distributed solar to replace power from a coal-fueled plant. We call on Governor Newsom to not doom California to repeat Hawaii's mistake. The climate and power crisis is too urgent.

Discriminatory and inconsistent with federal law

The proposal's fixed fees on solar customers likely violate PURPA and Federal Energy Regulatory Commission ("FERC") Order No. 69. In large part because solar customers have net energy consumption consistent with many other utility customers[1], the CPUC cannot assess fixed fees on solar customers without also assessing those fees on similarly profitable customers without solar systems.

Just this June, two FERC commissioners, including the chairperson, issued an opinion that there was a "strong case" the Alabama Public Utilities Commission's proposed fees for solar customers failed to adhere to these federal regulations. In the wake of this opinion, Arizona removed its fixed charge for solar customers (which were about $5-10 per month) and utilities in both North and South Carolina adopted rates with no fixed fees for most all residential solar systems. We call on Governor Newsom to ensure that, when it comes to renewables, California is not left in the dust by any state, let alone most states.

A consumer protection disaster

Martha Guzman Aceves, the lead commissioner on the proposed decision, has said repeatedly that she is a champion of consumer protection. The Net Metering docket includes as a principal that "a successor to the net energy metering tariff should enhance consumer protection measures for customer generators providing net energy metering services" and should be "transparent and understandable to all customers." However, the proposed decision stiffs existing solar customers by going back on the CPUC's previous promise of 20 years worth of grandfathering. If adopted, this reduction to grandfathering would undermine the CPUC's credibility for decades to come. Underscoring this, a UBS equity analyst already wrote that the grandfathering reduction "could also serve to undermine the credibility of the proposed 15yr grandfather under NEM 3.0, in our view."

[1] e.g., PG&E's NEM customers pay monthly average bills of $95.48 (NEM 1) and $57.85 (NEM 2)

The newly proposed rate structure is so complicated that no consumer, no matter how sophisticated, could possibly understand the true financial implications of installing a solar system because export rates vary by every hour of the day and "netting" is instantaneous. Consumers who momentarily use a hairdryer or microwave when a cloud passes overhead will literally pay materially more than if they waited for the cloud to pass. Economics would vary several-fold based on when consumers are home and exactly how sunny it is at any given moment, and especially over the 30-year expected life of a solar system, which spans multiple homeowners. While the decision rightly exempts low-income customers from the approximately $700/year in fixed fees that a typical customer might face, a low-income customer who sells his/her home to a moderate-income customer will end up effectively having to pay the fees anyway, in the form of a huge negative purchase price adjustment on their home, ultimately harming the low-income customer.

Instead of simplifying rate structures for California renewable energy consumers, these complexities would magnify the already ridiculous complexity embedded in the state's rate structures. Electric rates can already vary based on super-off-peak, off-peak, mid-peak, and on-peak periods; be different on weekdays than weekends; change from "summer" to "winter," except "winter" is 8 months long and summer includes dates that are actually in autumn; and have a daily basic charge, minimum daily charge, and a baseline credit. It's hard to imagine a business that cares about its customers, or has to compete for them, would ever adopt such a plan.

If the Commission were truly interested in consumer protection, it would approve rate designs that ordinary Californians can understand, and it would honor its grandfathering promises made to past solar adopters.

Jobs lost

The proposed decision will harm thousands of small, local solar companies across the state who are not able to quickly transition to advanced battery-enabled systems, further jeopardizing grid reliability for millions of Californians. The proposed rate structure makes most solar-only installations cost ineffective in as little as 150 days. However, only about 12% of solar installations in California in the last year include batteries, as they are a new technology and semiconductor supply chain constraints have significantly limited availability. Only large companies like Sunrun have significant access to batteries, and even large companies don't have the access to the amount of batteries that their customers already demand. Because of the supply chain issues in batteries, end consumer prices for batteries have risen as much as 50% in the last year. Implementing the draconian fees and export rates in as little as 150 days will cause tens of thousands of unnecessary jobs losses, as compared to a more measured approach, which would wait at least a year to let battery supply catch up to battery demand.

Underserved communities

The proposed decision admirably attempts to exempt underserved communities from certain of the negative impacts of the order, although as discussed above (see: "A consumer protection disaster"), it will fail to do so. We support efforts to encourage more solar in underserved communities. Sunrun has been committed to expanding the addressable market for solar since our founding 15 years ago. In 2007, Sunrun invented the residential power purchase agreement, which allowed customers to install solar, save money, and generate their own clean energy to consume and send to their neighbors -- without incurring any upfront costs. Since then, we have broadened underwriting, lowered costs by two thirds, expanded beyond single-family homes, and launched virtual power plants, which permit our customers to offer their stored energy to the grid when it's needed.

Today Sunrun is the leading provider of solar to low-to-moderate income multifamily housing in California. Nearly half of new solar adopters live in low-income and working class neighborhoods. Underwriting standards for solar loans have expanded to support customers with deeply subprime credit scores. Economies of scale in purchasing, financing, permitting, and installation density are what have allowed the solar industry to achieve all these milestones. The more solar is installed everyday, the cheaper it is for everyone. Killing the economics for moderate and middle income customers will undermine the economics for everyone. A solar and storage installation on any home leverages private capital to put us one step closer to solving both global warming and the state's evening peak power shortage.

Sunrun also has a long track record of backing policy efforts to increase solar access and affordability, including via community solar and low-income solar programs. We have spent years fighting to lower the cost of rooftop solar through such programs as online permitting and the removal of unnecessary red tape. Many of our efforts to do both have been arduous and fought tooth-and-nail by utilities, their proxies, and certain elected and appointed officials. As such, when these same stakeholders who have previously pulled policy levers to block solar access suddenly focus on the importance of "energy equity," we must collectively ask: what is really going on here? They are trying to gaslight California liberals into supporting policies that don't pass the sniff test. The *LA Times* editorial board addressed this matter head-on, writing that "the proposed fees seem designed to discourage solar installations rather than right some structural inequity."

Undermines state climate and clean energy goals

The CPUC, California Energy Commision, and California System Operator (which operates Califorina's grid) found that California must triple the amount of distributed rooftop solar in our state to meet California's SB 100 clean energy target of 100% clean energy by 2045. Given the long timeline for building transmission to reach far-away generation, local clean DG power is essential for making progress in the next 5-10 years. A separate study shows that California can help ratepayers save $120 billion over the next 30 years if the state allows the rooftop solar market to continue to grow. The climate crisis is an emergency. We need renewables now, and making it more expensive and arduous for everyday Californians to become part of the solution is poor policy. Centralized solar alone can't be built fast enough.

Overwhelming and broad based consumer support for residential solar

Rooftop solar has broad popular support in California and utilities do not. Four in five Californians support retail-rate net metering, which even the solar industry offered to forgo. The fees embedded in this proposal would be grossly unpopular, especially when an increasing number of Californians are installing home batteries to protect against California's blackout-prone electricity system. Last week, more than 200 leaders representing 600 groups delivered 120,000 letters to Governor Newsom and the CPUC calling on them to protect net metering in California. This is compared with the handful of groups that oppose local solar, two thirds of whom receive utility funding. The state's major publications -- *The Los Angeles Times*, *The San Francisco Chronicle*, *The Sacramento Bee*, and *The Fresno Bee* -- all wrote strong editorials in support of residential solar. When the state's utilities have failed, year after year, to deliver reliable energy, it is against the public interest and tone deaf to make it even harder for Californians to take matters into their own hands to remedy the situation.

Incorrect assumptions and misleading math

The proposed decision is littered with incorrect assumptions and mathematical sleight-of-hand. The most egregious of the assumptions is that residential solar in California costs $2.34 per watt. The state's utilities collect pricing data on every solar system sold and interconnected in the state, and those records show that the average sale price during 2021 was $3.98/watt, or 70% higher. The CPUC is advertising that they believe their decision will permit for a 10-year payback, but that assumption is based on the materially incorrect $2.34/watt cost assumption.

The most egregious sleight-of-hand is the assumption that once simple payback has been achieved, a customer no longer needs to benefit from their solar system. Few people buy capital assets without a return expectation. The CPUC knows this more than anyone, as they currently authorize a rate-of-return of over 10% for the state's utilities on the assumption that's what is required for investors to own their stock. For the utilities, an asset with a 30-year useful life will only have achieved a third of its expected revenues at year 9-10, when it achieves "payback". However, the commission suggests that homeowners installing solar should be happy with their investments moments after achieving simple payback. The CPUC should not offer the state's utilities substantially better financial returns than it offers Californians.

Governor's appointees should start over

After the release of this proposed decision, but before it can be voted on, the lead commissioner who oversaw the proposed decision will have departed; the President of the commission will have departed; and the head of the energy division also will have departed. Under commission rules, the remaining commissioners were not

even allowed to discuss the proposed decision with the lead commissioner over the past year. Given the serious conflicts between this proposed decision, the public interest and the law, and the threat it poses to hundreds of thousands of solar workers and over a million solar customers, Governor Newsom should ask his new team, which must approve any changes to solar rate structures, to start over.

Forward Looking Statements

This communication contains forward-looking statements related to Sunrun (the "Company") within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, statements related to: the implications and impacts of the proposed changes to the Net Energy Metering (NEM) regulations issued by the California Public Utility Commission (CPUC) and the implications and impacts resulting from the adoption of those proposed changes; the Company's leadership team and talent development; the Company's financial and operating guidance and expectations; the Company's business plan, trajectory and expectations heading into 2022, market leadership, competitive advantages, operational and financial results and metrics (and the assumptions related to the calculation of such metrics); the Company's momentum in the company's business strategies, expectations regarding market share, addressable markets, customer value proposition, market penetration, financing activities, financing capacity, product mix, and ability to manage cash flow and liquidity; the growth of the solar industry; the Company's ability to manage suppliers, inventory, and workforce; the impacts of COVID-19 on the solar industry and the Company's operations; supply chains and regulatory impacts affecting supply chains; factors outside of the Company's control such as macroeconomic trends, public health emergencies, natural disasters, and the impacts of climate change; the legislative and regulatory environment of the solar industry; expectations regarding the Company's storage and energy services businesses, anticipated emissions reductions due to utilization of the Company's solar systems; expectations regarding the growth of home electrification, electric vehicles, virtual power plants, and distributed energy resources. These statements are not guarantees of future performance; they reflect the Company's current views with respect to future events and are based on assumptions and estimates and are subject to known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from expectations or results projected or implied by forward-looking statements. The risks and uncertainties that could cause the Company's results to differ materially from those expressed or implied by such forward-looking statements include: the impact of COVID-19 on the Company's operations; the Company's continued ability to manage costs and compete effectively; the availability of additional financing on acceptable terms; worldwide economic conditions, including slow or negative growth rates; rising interest rates; changes in policies and regulations, including net metering and interconnection limits or caps and licensing restrictions; the Company's ability to attract and retain the Company's solar partners; supply chain risks and associated costs; realizing the anticipated benefits of past or future investments, strategic transactions, or acquisitions, and integrating those acquisitions; the Company's leadership team and ability to retract and retain key employees; changes in the retail prices of traditional utility generated electricity; the availability of rebates, tax credits and other incentives; the availability of solar panels, batteries, and other components and raw materials; the Company's business plan and the Company's ability to effectively manage the Company's growth and labor constraints; the Company's ability to meet the covenants in the Company's investment funds and debt facilities; factors impacting the solar industry generally, and such other risks and uncertainties identified in the reports that we file with the U.S. Securities and Exchange Commission from time to time. All forward-looking statements used herein are based on information available to us as of the date hereof, and we assume no obligation to update publicly these forward-looking statements for any reason, except as required by law.

Citations to industry and market statistics used herein may be found in our Investor Presentation, available via the "Investor Relations" section of Sunrun's website at https://investors.sunrun.com.

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