BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.

Rulemaking 20-08-020
(Filed August 27, 2020)

OPENING COMMENTS BY ENVIRONMENTAL WORKING GROUP ON ADMINISTRATIVE LAW JUDGE PROPOSED DECISION REVISING NET ENERGY METERING TARIFF AND SUBTARIFFS

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I. THE PROPOSED DECISION WILL HAVE AN IMMEDIATE DETRIMENTAL IMPACT ON CALIFORNIA’S CUSTOMER SOLAR PROGRAM GOING FORWARD

The Commission’s November 10 net metering proposal does little to change EWG’s perspective about the plan’s negative impact on the distributed solar plus storage market. True, the egregiously high fixed charges have been dropped, subject to the Commission’s ultimate determination in R.22-07-005, and the Commission is, for the time being, leaving the current NEM structure in place for existing solar customers. However, the Commission has yet to properly assess the value of solar plus storage, presents a sudden and drastic change to the export rate, ignores the increasing participation of working families in the rooftop solar market, and has prioritized protecting the current utility-scale business model, rather than focusing on a balanced approach that enhances electric bill affordability and system resiliency.

Indeed, one can readily argue that the Commission’s proposal violates Bonbright’s principles of ratemaking, still the standard after 60 years, with respect to:

- Simplicity of rates and public acceptance of those rates;
- Stable rate levels, with minimal unexpected changes;
- Fair apportionment of cost of service; and,
- Support for market growth of competing products and services.

II. MORE OF THE SAME: LATEST NEM PROPOSAL STILL FLAWED

As EWG and others have pointed out during this proceeding, the utility attack on net metering has been raging across the country for well over a decade. Utilities created the “cost-shift” argument and have been remarkably consistent in beating that drum for a decade, apparently with some success in bending the perception of some regulators to a narrative that protects their bottom line and does nothing to address energy affordability for everyday
consumers. However, numerous organizations, including environmental justice advocacy groups and EWG, have rejected that false premise, and in a September letter to Gov. Gavin Newsom\(^1\) accused the utilities of “weaponizing” the issue.

In other words, in violation of the Bonbright public acceptance principle, there was practically no public acceptance of the previous PD, particularly among the population supposedly compromised by the net metering policy, and opposition is highly likely to grow against this new PD.\(^2\) Essentially, nothing has effectively changed with respect to Commission proposals to hobble the rooftop and community solar market.

III. THE PROPOSED GLIDEPATH WILL SUBSTANTIALLY SLOW THE DISTRIBUTED SOLAR MARKET, OR CREATE AN ABRUPT HALT

Parties to the proceeding warned the Commission prior to the November 10 PD that a drastic cut in the export rate on NEM customers would tank the market. But the PD proposes a nosedive, not a glidepath, for new solar customers. Referring to the proposed rate step-down as a glidepath smacks of Orwellian doublespeak when the solar export rate is drastically slashed in year one, with only marginal adder decreases for 2 of 3 Investor-Owned Utilities (“IOUs”) after that.

The California Solar and Storage Association response to the “glidepath” was immediate:

“The CPUC’s new proposed decision would really hurt. It needs more work, or it will replace the solar tax with a steep solar decline. An immediate 75 percent reduction of net energy metering credits does not support a growing solar market in California.

If passed as is, the CPUC’s proposal would protect utility monopolies and boost their profits, while making solar less affordable and delaying the goal of 100 percent clean energy.”\(^3\)

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\(^2\) Center for Biological Diversity, Environment California, 350 Bay Area, Faith Baptist Church, Environmental Justice Coalition for Water (2022, November 17) Virtual Rally: Save California Solar [Video] YouTube. [https://www.youtube.com/watch?v=iefoS8XcZG4](https://www.youtube.com/watch?v=iefoS8XcZG4)

The Solar Rights Alliance, coordinator of more than 600 clean energy, environmental justice, affordable housing, and faith-based organizations opposed to gutting net metering, made similar observations:

“The CPUC’s newest proposal will still make it much harder for people who don’t currently have solar to get it. When changes like these have been implemented elsewhere in the U.S, solar adoptions have dropped by a lot. That’s what the utilities want, but it isn’t good for the people."  

As indicated by the Alliance, these responses shouldn’t surprise the Commission. Even a utility-sponsored study found that changes in the export rate could curtail the market.

In July 2021, a study by the Frontier Group, Environment California, and Environment America Research and Policy Center showed that in states where net metering was eliminated, additional fees assessed, or reductions in the credit for exporting power to grid, customer adoption of solar dropped precipitously. The study included states that were also included in the utility-sponsored report that was filed before the CPUC.

Yet, here we are, raising the same issues with incontrovertible evidence that the Commission is simply ignoring. The Commission cannot and should not ignore these omissions.

IV. THE COMMISSION IS PUTTING THE CART BEFORE THE HORSE IN ITS ASSESSMENT OF DISTRIBUTED SOLAR BENEFITS

The Commission has several prerequisites that remain unmet prior to changing the NEM structure as drastically as it now proposes.

As noted by the Center for Biological Diversity (“CBD”), the Commission has not fully addressed distributed solar benefits, including societal benefits, which the state recognizes as important for disadvantaged communities to overcome financial barriers to solar. The Center

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5 See generally, A review of net metering reforms across select U.S. jurisdictions (2021) North Carolina Clean Energy Center on behalf of PG&E, SDG&E, SCE. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M371/K711/371711892.PDF
7 Center for Biological Diversity Reply Comments on Ruling Setting Aside Submission of the Record to Take Comment on a Limited Basis. (July 1, 2022); Docket No. 20-08-020 CPUC, p. 3. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M490/K710/490710980.PDF
referenced the avoided cost calculator as “outdated” and selected cost-effectiveness tests “inadequate,”8 as a result. CBD and Protect Our Communities Foundation (“PFC”) have urged the Commission to create a robust community solar program in this proceeding.9 PFC noted that utilities have argued in the past that community solar should be considered in NEM proceedings.10 But the Commission has spun off those issues into separate proceedings to be considered later – which leaves the actual benefits of solar unresolved.

There are additional solar benefits that the Commission refuses to consider.

The Solar Energy Industries Association (“SEIA”) and Vote Solar have urged the Commission to incorporate resiliency into its distributed solar cost-benefit analysis.11 But the Commission incorrectly sees no resiliency benefit to the system, only to individuals. The climate legacy of IOUs failing to mitigate wildfire risks has left customers, literally, to their own devices, using solar plus storage to provide resiliency during periods when IOUs are given relief from their duties to provide service during planned public power shutoffs.

The Commission’s position on distributed solar’s resiliency benefits is contrary to U.S. Department of Energy (“DOE”) data and observations.

SEIA reported that data in the DOE Energy Information Administration’s Annual Electricity report shows “that while 2021 recorded the third highest rate of total annual electric power outages since 2013, state markets with a high rate of rooftop solar adoption have shown to have the shortest timeframe for recovery from outages and higher grid resiliency.”12

The DOE also finds:

“In addition to providing energy savings, solar energy systems have the potential to make homes, commercial buildings, and entire communities more resilient. By

8 Id. at 2.
9 Id. at 10 and Reply Comments of the Protect Our Communities Foundation on Ruling Setting Aside Submission of the Record to Take Comment on a Limited Basis. (July 1, 2022); Docket No. 20-08-020 CPUC, p. 8.
10 Id. Protect Our Communities Foundation at 9.
11 Opening Brief of the Solar Energy Industries Association and Vote Solar. (August 31, 2021); Docket No. 20-08-020 CPUC, p. 4.
identifying the critical infrastructure in a community – like hospitals, fire stations, and shelters – and equipping those buildings with solar and energy storage systems, the community can respond better to, and recover faster from, electrical service loss.”

The National Energy Renewable Lab (“NREL”) touts microgrids for providing system resilience:

“Microgrids can provide local reliability and resilience through local generation. Microgrids insulate local customers from the effects of outages on the larger grid and can be used to start a system from the bottom up. Microgrids that are connected to one another and the larger grid need to be able to switch to ‘island’ mode seamlessly to insulate themselves during widespread disruptions such as blackouts and cyberattacks. As more distributed energy resources, energy storage, and microgrids are deployed in power systems, options for expanding system restoration beyond large-scale generation need to be considered.”

In addition, the Commission dismisses the assertion by solar advocates that distributed solar and solar plus storage avoids infrastructure investment and is a means to preserve desert habitats and carbon sinks. A number of parties have brought up the $2.6 billion in avoided distribution and transmission investment that customer solar and energy efficiency investments achieved, according to a 2018 CAISO analysis. In a recent webinar, the Center for Biodiversity estimates that solar and solar plus storage avoid $4 billion in such investment annually.

Parties have urged the Commission to include land preservation as a societal benefit of distributed solar and storage, but the Commission declined in the PD. But the avoided cost calculator excludes those benefits. Further, according to the California Solar and Storage Association, customers are likely to experience volatile pricing for solar once the 5-year “transition” period is complete, making it difficult to predict savings for customers – which violates Bonbright’s principles of stability and simplicity of rates. The CPUC’s reliance on this

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15 Center for Biological Diversity. (2022, November) Virtual Rally: Save California Solar [Video] YouTube at 33.00.
16 Opening brief of the California Solar & Storage Association. (August 31, 2021); Docket No. 20-08-020 CPUC, p. 91. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M404/K292/404292295.PDF
flawed tool has created a structural bias against customer-sited resources – a bias that must be noticed and corrected in this and related proceedings.

Environment California estimates that for every 1 gigawatt of rooftop installed instead of utility-scale means more than 5,000 acres of land is preserved.\textsuperscript{17}

The Commission is also ignoring developments in its own state with respect to how solar plus storage can help avoid blackouts. As the California Solar and Storage Association observes:

“An analysis by the California Solar and Storage Association (CALSSA) shows that California had more than 80,000 customer-sited batteries connected to the electric grid capable of providing 900 MW of solar power.

While not all the batteries were set to discharge during the peak hours of 4pm-9pm on September 6, an estimated 76\% were, which as a fleet, were capable of providing up to 684 MW of power at any given moment. We estimate that 50\% of these batteries’ aggregate power was put into use during peak hours, providing approximately 340 MW of power. To put this into perspective, a mid-sized natural gas power plant is 250 MW.

When California suffered rolling blackouts in August 2020, California had 30,000 distributed batteries with a potential to discharge 500 MW of power. In just two years, 50,000 consumers added 400 MW of clean sun-charged battery power. The current 900 MW of distributed batteries in California is nearly the size of Diablo Canyon’s Unit 1.”\textsuperscript{18}

Moreover, virtual power plants – thousands of customer solar plus storage installations aggregated and coordinated as a single power plant – in California can cut costs and boost reliability,\textsuperscript{19} making it a value-added resource.

But the Commission is apparently saving a discussion of aggregating distributed solar plus storage for another proceeding.\textsuperscript{20}

EWG recommends that several steps be taken prior to any drastic changes to the net metering rate structure. First, the system benefits of solar plus storage should be properly

\textsuperscript{17} Environment California. (2022, November) \textit{Virtual Rally: Save California Solar} [Video] YouTube at 8:42.


\textsuperscript{20} See, \textit{Assigned commissioner’s Phase I scoping memo and ruling}. (November 2022); Docket No. 22-07-005. CPUC. \url{https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M498/K072/498072273.PDF}
assessed. Second, the state should create a robust community solar program. Third, the state must allow for microgrids to thrive,\textsuperscript{21} to be properly compensated for their contribution to system reliability,\textsuperscript{22} and to consider the resiliency and reliability benefits of virtual power plants.\textsuperscript{23}

If the state moves forward with its current proposal, the market will dry up before distributed energy resources (DERs) have a chance to provide their full array of services to the grid that would benefit all electric customers – which is a violation of Bonbright’s principle of supporting competing products and services.

V. THE COMMISSION IGNORES GROWING PARTICIPATION OF WORKING FAMILIES IN THE ROOFTOP SOLAR MARKET

Solar remains in high demand. Households with incomes below $50,000 are adopting solar in California, a “tenfold” increase over the last decade.\textsuperscript{24} A recent NREL analysis reinforces this trend.\textsuperscript{25} However, the Commission ignores this trend, adhering to its ill-conceived, utility-driven cost-shift argument that claims rich solar owners are exploiting the poor.

CBD has highlighted this development and emphasized that greater access to solar for lower-income families is vital for ameliorating any perceived cost-shift concerns.\textsuperscript{26}

Indeed, the state’s own data show that access is the primary issue to solar, not a cost-shift based on outdated information and ignored evidence. Its 2021 Affordability Report shows, in a snapshot without further analysis of the growing numbers of these customers participating in the NEM program, 5 percent to 8 percent of California Alternate Rates for Energy (CARE) for low-

\textsuperscript{24} Opening brief of the California Solar and Storage Association at 56.
\textsuperscript{26} Center of Biological Diversity (July 1, 2022) at 5.
income customers in IOU territories participated in the NEM program – asserting this indicates “potential equity concerns related to the NEM cost shift…” The inverse of this argument is, of course, that greater access to solar-plus programs would work towards eliminating any cost-shift concerns.

In addition, NEM is clearly not the main reason for high electricity rates in California. Although the Commission soft-pedals the contribution of transmission and fire mitigation costs to high rates, state Affordability Reports clearly emphasize these costs over NEM as an underlying cause of high electric bills in the state.

CBD points out deficiencies in the state’s 2022 Affordability Report: “While the 2022 report does estimate some increase in bills due to NEM, those estimates still omit the same benefits and underestimate avoided costs as detailed above.”

The Commission’s approach to electricity affordability is ill-defined. Rather than focusing on a cost-shift based on select information as the primary concern for affordability, the Commission should look at providing greater access to solar plus storage to environmental justice and working-class communities and bolstering programs to achieve this goal, rather than slow-walking their development in ongoing or future proceedings down the road.

VI. EWG IS CONCERNED WITH THE DIRECTION STATE RATEDMAKING POLICY IS HEADING

In this proceeding and looking forward, the state seems to be systematically implementing the power companies’ game plan.

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29 Center for Biological Diversity (July 1, 2022), p. 8.

30 Decision revising net energy metering tariffs and subtariffs. (November 10, 2022); Docket No. 20-08-020. CPUC, p. 4. [https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M498/K526/498526033.PDF](https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M498/K526/498526033.PDF)
First, although the Commission asserts that it is balancing all the legislative mandates with respect to distributed solar, it clearly emphasizes protection of utility sunk costs by prioritizing the ratepayer impact measure (“RIM”) test over other tests,\textsuperscript{31} dismissing societal benefits altogether in this proceeding,\textsuperscript{32} and long-term levelized avoided costs of customer-owned solar systems over the lifetime of the system.\textsuperscript{33}

As other Parties have noted, overreliance on the RIM test will not serve to continue the expansion of distributed solar plus storage in California. Internationally recognized energy policy expert Amory Lovins called RIM the “hardly-any-winners” test, saying it “guaranteed misallocation of capital; it would raise everyone’s rates and bills equitably but needlessly.”\textsuperscript{34}

In addition, the California Legislature wants the Commission to consider imposing fixed charges on all customers based on income level, which has nothing to do with cost-of-service ratemaking and plays into the utilities’ game plan of protecting their utility-scale business model, protecting utility sunk costs. This will only serve to increase the cost of the electricity system overtime and reduce customer benefits of efficiency and solar/storage investments.

In reference to proceeding 22-07-005, the Commission states:

\begin{quote}
“Additionally, the Commission has initiated a rulemaking (Rulemaking 22-07-005, the Rulemaking to Advance Demand Flexibility Through Electric Rates) to broadly restructure the way fixed costs are collected, moving from volumetric charges to an income-graduated fixed charge on all residential customers”\textsuperscript{35} - (emphasis added)
\end{quote}

This approach violates Bonbright’s principle of fair apportionment of cost of service.

Finally, in 22-07-005, the staff proposed changing the state’s ratemaking principles. One of these changes is to structure rates so as to protect utility contribution to margin.\textsuperscript{36} This

\begin{footnotesize}
\textsuperscript{31} Id. at 58.  \\
\textsuperscript{32} Id. at 69.  \\
\textsuperscript{33} Reply comments of the Solar Energy Industries Association and Vote Solar on administrative law judge’s ruling setting aside submission of the record to take comment on a limited basis. (July 1, 2022); Docket No. 20-08-020. CPUC, p. 1.  \\
https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M490/K476/490476734.PDF  \\
\textsuperscript{35} CPUC (November 10, 2022), PP. 4-5.  \\
\textsuperscript{36} CPUC Staff. (November 11, 2022). Attachment: CPUC rate design and demand flexibility principles staff proposal. In \textit{Assigned commissioner’s Phase I scoping memo and ruling}; Docket No. 22-07-005.
\end{footnotesize}
essentially means ensuring fixed costs will be recovered, the definition of which utilities increasingly seek to expand.\textsuperscript{37} Without robust customer-owned solar plus storage, these fixed costs will rise practically unabated – not to mention the unregulated transmission investments allowed by the Commission.\textsuperscript{38}

As EWG observed in previous comments, the Edison Electric Institute (“EEI”) in its report “Disruptive Challenges” said recovering authorized revenue through decoupling isn’t enough to recover all utilities costs. The traditional rate structure threatened to make the costs of stranded assets unrecoverable, according to EEI.

Whether the state is aware or not, in this PD and other decisions it is doubling down on the highly expensive utility-scale business model, to the detriment of affordability and system resiliency. Those benefits can only be achieved by enabling the distributed grid paradigm to thrive\textsuperscript{39} and employing rate designs that actually allow customers to save money and to contribute to their own resiliency, and making the electric system stronger and more reliable.

\textbf{VII. CONCLUSIONS}

EWG urges the Commission to leave NEM 2.0 in place until:

\begin{itemize}
  \item Societal, avoided transmission and distribution system investment, and resiliency benefits are incorporated into the value of solar and solar plus storage;
  \item A robust community solar program is enabled; and,
  \item Microgrids and virtual power plants are considered energy resources on equal footing with utility-scale resources.
\end{itemize}

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\textsuperscript{37} The only fixed, customer-related costs are the line from the pole to one’s house, administrative costs related to billing, and metering. To protect their sunk costs against customer energy efficiency and solar investments, utilities seek to expand that definition to include components of the distribution system – although a customer’s demand (the amount of electricity the customer uses) should dictate apportionment of costs. For instance, multiple households exact differing demand or stress on shared transformers, which is why most costs should be recovered in volumetric charges.

\textsuperscript{38} Most of the electric grid transmission investments PG&E makes are unregulated, so the utility can plunge billions of dollars into unnecessary projects. From 2010 to 2019, according to the California Public Utilities Commission, or CPUC, nearly 70 percent, or more than $6 billion, of PG&E’s transmission projects were “self-approved” without state oversight. For 2020 to 2021, the CPUC’s May 2021 report estimated PG&E’s self-approved projects would make up more than 80 percent of company’s total transmission investments. \url{https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2021/senate-bill-695-report-2021-and-en-banc-whitewater_final_04302021.pdf}

Only then can distributed solar and solar plus storage be fairly balanced with utility-scale resources. Otherwise, the current PD will severely undermine California’s distributed solar and solar plus storage market.

The Commission should also analyze the trend in, and project into the future adoption of, solar by working-and-lower income families and the ability for an adequately structured community solar program to ameliorate any perceived cost-shift.

Respectfully submitted on November 30, 2022,

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