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Witness: Ken Cook

PREPARED REBUTTAL TESTIMONY OF KEN COOK
ON BEHALF OF
THE ENVIRONMENTAL WORKING GROUP

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EXECUTIVE SUMMARY OF RECOMMENDATIONS

On behalf of the Environmental Working Group (EWG), my rebuttal testimony responds to certain assertions made by California's Investor-Owned Utilities (IOUs) in their joint opening testimony, as well as certain assertions made by the Natural Resources Defense Council (NRDC) in their opening testimony on June 18, 2021. Specifically, I address the following issues:

1. The IOUs' testimony focuses narrowly on cost-effectiveness and ignores the key benefits of increased resilience in the face of wildfires, drought and climate change that distributed solar provides;
2. The assertion made in the IOUs' testimony that widespread distributed storage can be accomplished without a net energy metering (NEM) program favorable to distributed solar;
3. The validity of NRDC's arguments that sustainable growth in distributed generation can be accomplished even if the NEM program creates an unfavorable market for rooftop solar;
4. The flaws in the program elements provided in the IOUs' testimony for low-income solar adoption in the successor tariff; and
5. The reasonableness of the assumption put forth in the IOUs' and NRDC's testimony that distributed generation can grow sustainably even with excessively long payback periods.

My rebuttal testimony also highlights several key issues EWG thinks are critical to correctly considering a NEM successor tariff. Chiefly, that the long-term resilience and climate mitigation needs of California are critical in this era of wildfires, drought and extreme weather and they must be considered and quantified, rather than only using a narrow definition of cost-effectiveness. I submit that a NEM tariff that truly ensures sustainable growth in distributed generation will create a truly "optimized" portfolio of distributed and utility-scale solar resources, in contrast to what has been proposed by the IOUs. I also suggest that the Commission should retain the current tariff for an additional two years and take more time to study the wider implications of any major changes.

As a matter of overall perspective, I urge the Commission to recognize the inherent incentives for the IOUs to argue for more centralized power generation and against greater distributed energy generation, as evidenced by inconsistencies within the IOUs' testimony around the needs of low-income customers. Finally, drawing from a proposal in the IOUs' testimony, I also suggest that the Commission should consider what would truly be a "robust," "collaborative," and "comprehensive" stakeholder process for NEM and future proceedings.

I. INTRODUCTION

Q: Have you already filed direct testimony?

A: Yes, I filed direct testimony on behalf of Environmental Working Group (EWG) on June 18th, 2021. EWG has a long history of energy work and over 200,000 supporters in California. I currently serve as EWG's president and chairman of the board of directors. My full professional background was provided in my direct testimony.

Q: What Issues are you addressing in your rebuttal testimony?

A: I am addressing Issues #3 – #6. I will not be addressing Issue #2 in my rebuttal testimony since I have nothing more to add on that point.

II. ISSUE #3: What method should the Commission use to analyze the program elements identified in Issue #4 and the resulting proposals, while ensuring the proposals comply with the guiding principles?

A: The Commission should broadly consider the long-term needs of California in the proceeding in this era of wildfires and climate change and reject the Joint IOUs' arguments to focus narrowly on cost-effectiveness and ignore the benefits of increased resilience.

Q: What do the IOUs state in their testimony about how the individual benefits of increased resilience should be considered in the NEM proceeding?

A: The IOUs argue that "the individual benefit of increased resilience due to a residential customer installing solar + storage" should not be considered in the Commission's assessment of the NEM tariff because they do not belong in cost-effectiveness analyses.[1]

Q: Do you agree with the IOUs' arguments?

A: No. First, it is odd to exclude these individual benefits when they accrue to rate-paying customers and are now increasingly available. Moreover, climate change is a critical challenge facing California and is already causing more frequent wildfires and extreme weather threats. The Commission itself recognizes this threat, noting on its "Climate Change Adaptation" webpage that: "Climate change is impacting California, and many of the industries the CPUC regulates are affected. Robust climate adaptation planning in a time of worsening climate impacts is a prudent next step."[2] Given that distributed solar and storage can help offer greater resilience in the face of climate change, it would be an error to exclude these considerations from the NEM decision. Importantly, distributed solar and storage also provides significant climate change mitigation benefits that should also be considered.

Q: How can distributed solar and storage help make California communities more resilient in the face of climate change?

[1] Joint IOU testimony, p. 93.
[2] California Public Utilities Commission, Climate Change Adaptation. Available at: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/climate-change. Accessed on July 13, 2021.

A: The U.S. Department of Energy summarizes how distributed solar and storage can make individual buildings and communities better able to cope with natural disasters that will become more frequent with climate change and the resulting likely power outages:

> "Solar energy technologies can play an important role in strengthening our energy system's resilience. Two key attributes make solar a unique asset for resilience. The first is that solar generation can be distributed, as opposed to centralized. This means individual buildings can host their own solar systems to meet some or all of their power needs.
>
> Communities can combine solar with storage and other technologies to create a microgrid that will provide power to critical infrastructure when it is needed. Most electric power is generated in large, centralized power plants—which then send the electricity to homes and businesses through power lines. This power can be disrupted if the transmission or distribution system gets damaged. Distributed generation in combination with local energy storage allows power to be generated locally, near the customers, and could be used even if the centralized system experiences interference or disruption.
>
> The second attribute that makes solar energy a key contributor to resilience is that sunlight-generated electricity can be stored and discharged without the need for fuel deliveries, unlike conventional diesel generators, which are the most common source of emergency backup power. In a long outage, solar

and its associated energy storage can continue delivering power, even at night, to homes and businesses." [3]

Q: Has the State of California made climate adaptation and resilience a priority?

A: Yes. The state of California has also prioritized climate change adaptation and resilience planning and policy for many years, including creating a Climate Adaptation and Planning Guide[4] in 2012 and updating it in 2020, and launching the state Integrated Climate Adaptation and Resiliency Program[5] in 2015. Given the clear importance of resilience to the state, it would be unwise for the Commission to ignore how its decisions in the NEM proceeding may impact the state's larger efforts to promote greater local climate resilience. In this era of increasing climate change, an over-reliance on centralized generation and long-distance power lines is a vulnerability, not a strength. No serious cost-benefit analysis can ignore the value add of local generation and storage capacity just because it is hard to quantify.

Q: How would you characterize the relationship between local solar and storage and the now common practice of Public Safety Power Shutoffs?

A: It is deeply ironic and unfair that the IOUs themselves are choosing to shut off their customers' power during wildfire-prone weather, but are also arguing against the Commission considering the benefits that individuals and communities can

[3] Department of Energy, Solar and Resilience Basics. Available at: https://www.energy.gov/eere/solar/solar-and-resilience-basics. Accessed on July 13, 2021.
[4] California Governor's Office of Planning and Research, Adaptation Planning Guide. Available at: https://resilientca.org/apg. Accessed on July 13, 2021.
[5] California Governor's Office of Planning and Research, Integrated Climate Adaptation and Resiliency Program. Available at: https://opr.ca.gov/planning/icarp. Accessed on July 13, 2021.

experience from having local solar and storage resources that enable them to maintain power during these IOU-prompted power shut offs.

Q: Should the Commission consider cost-effectiveness alone when deciding the future of the NEM tariff?

A: No. Cost-effectiveness analyses alone cannot capture the hardships that people experience when they are not able to access electricity at all due to a climate-related grid failure or a preemptive power shut off. More generally, while cost-effectiveness analyses are important, they are also limited since they do not capture important societal values such as the need for climate resilience and an energy system that can meet the needs of a changing climate. The Commission must think more broadly when it comes to the future of the NEM tariff and consider what kind of energy system will truly best serve California in the long run, including what is needed to ensure that California meets its climate change goals.

Q: What else should the Commission consider when deciding the future of the NEM tariff?

A: As the Commission considers decisions about NEM, EWG urges it to think about the NEM successor tariff in the broader context of what kind of power system would best serve all Californians in the future as we face the continued and increasing impacts of climate change. What kinds of new models would instill public trust, fix the broken incentives inherent in the current utility system, ensure that California meet its climate goals to mitigate climate impacts, and actually provide the kind of resilience

that California needs to manage the growing realities of climate change? If the Commission focuses too narrowly on cost-effectiveness questions, it will miss a key opportunity to move towards the kind of power system California really needs.

B. The Commission should recognize that resilience is critical for California, but reject the Joint IOUs' assertions that widespread distributed storage can be accomplished without a NEM program favorable to distributed solar.

Q: What do the IOUs state in their testimony about the public interest in energy storage and the likelihood of households choosing to invest in storage systems?

A: Despite the fact that the IOUs argue that the Commission ignore the contribution of distributed solar and storage to resilience in its assessment of NEM, they acknowledge in their testimony that "[r]esilience reigns supreme" and "storage interest is on the rise."[6] The IOUs argue that, primarily out of concern for power outages, "many households will be motivated to add [behind the meter solar and storage] systems even if there are reforms to the current NEM tariff."[7]

Q: Do you agree with this assessment?

A: No. The truth is that while many people may *want* to add solar and storage for the reasons the IOUs outline, if the Commission were to adopt the Joint IOU proposal this option would become largely out of reach for many California households. With much longer system payback periods, new fixed charges, and significantly reduced

[6] Joint IOU testimony, p. 43.
[7] Joint IOU testimony, p. 44.

savings, solar and storage will be much less economically attractive and achievable for all but the wealthiest residents. California needs to see rapid deployment of rooftop solar with paired storage if it is going to meet both its climate and resilience goals. The Commission should not accept the IOUs' implication that a successor NEM tariff that makes solar unattainable for many residents won't also impact the adoption of distributed storage.

Q: How is the adoption of distributed solar and distributed storage connected?

A: As discussed in EWG's opening testimony,[8] the deployment of local and household storage is happening as a secondary effect of rooftop solar.[9] Since there is no paired solar and storage without solar, if the rate of rooftop solar adoption is lowered, this will undoubtedly lower the adoption rate of distributed storage and, in turn, local resiliency. Storage alone has limited value; ten kilowatt-hours of storage may meet a customer's needs for a day, but paired with solar, it can meet at least that customer's basic needs for an indefinite period. The day-to-day economic value of storage is closely tied to NEM, allowing solar and storage owners to generate free energy from the sun and then sell it back to the grid or use it themselves when the energy is most needed and most expensive.[10]

[8] EWG testimony, p. 13.
[9] U.S. Department of Energy, Solar Energies Technologies Office. Solar Integration: Solar Energy and Storage Basics. Available at: https://www.energy.gov/eere/solar/solar-integration-solar-energy-and-storage-basics. Accessed on June 9, 2021.
[10] Gerza, A., "Energy storage net metering: An illustration of why it's so valuable", Solar Power World, April 2020. Available at: https://www.solarpowerworldonline.com/2020/04/energy-storage-net-metering-an-illustration-of-why-its-so-valuable. Accessed on June 9, 2021.

Q: What are some of the other benefits of individual resilience aside from increased reliability that are not captured in the IOUs' joint testimony?

A: Paired local solar and storage not only provides a boost to reliability but also is a strong climate mitigation strategy. It allows individual households to effectively operate on clean energy continually by banking their own solar energy production for usage when their solar panels are not generating. This removes the need to buy dirtier power from the utility in the evening peak, just as much as it removes the need to run a diesel generator during the next power shutoff event. Therefore, local solar and storage can help the overall grid be less fossil-fuel intensive and help combat climate change. As discussed at length in EWG's testimony,[11] maintaining strong growth of distributed solar and storage is critical for meeting California's climate goals.

C. The Commission should reject NRDC's arguments that sustainable growth in distributed generation can be accomplished even if the NEM program creates an unfavorable market for rooftop solar.

Q: What does NRDC state in their testimony regarding what is required for distributed generation to "grow sustainably" and how does it define growth?

A: NRDC states in its testimony that: "Growth of distributed generation is guaranteed due to Title 24 requirements and due the continuance of low-income solar initiatives"[12] and claims that this enables the Commission to meet the Public Utilities Code (PUC) 2827.1(b)(1) requirements that the NEM successor tariff ensure that

[11] EWG testimony, p. 15, p. 22-27
[12] NRDC testimony, p. 9.

distributed generation continues to "grow sustainably."[13] NRDC defines growth simply as "total installed distributed generation must increase in number and capacity over time."[14]

Q: Does the NRDC's definition of growth align with California's climate goals?

A: No. As detailed in the 2021 joint report titled "Achieving 100% Clean Electricity in California"[15] and authored by the Commission, along with the California Air Resources Board and the California Energy Commission, California's climate goals require *1 gigawatt (GW) of rooftop solar installation every year for the next 25 years*. This is the definition that the Commission should use in defining what sustainable growth of rooftop solar is, rather than any definition put forward by NRDC or any other party.

Q: What are the implications of the Commission's "Achieving 100% Clean Electricity in California" for NRDC's claims?

A: The "Achieving 100% Clean Electricity in California" report findings mean that in order to meet California's legally binding climate goals such as SB 32's goal of cutting emissions by 40% from 1990 levels by 2030[16] or SB 100's goal of zero carbon electric power by 2045,[17] the high current rate of distributed solar installation

[13] PUC 2827.1.(b)(1).
[14] NRDC testimony, p. 9.
[15] California Energy Commission, SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future, March 2021, p. 7. Available at: https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237168&DocumentContentId=70348
[16] SB-32 California Global Warming Solutions Act of 2006: emissions limit. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32.
[17] SB-100 California Renewables Portfolio Standard Program: emissions of greenhouse gases (2017-2018). Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100.

must be maintained. These installation rates can't be accomplished simply through relying on new homes being built and existing low-income solar programs, as NRDC argues is sufficient.

For example, analysts have estimated the new Title 24 requirements would lead to the addition of between 123 megawatts to 334 megawatts of solar PV each year through the rules related to new construction.[18] The Solar on Multifamily Affordable Housing (SOMAH) program is designed to add less than 30 megawatts of solar PV per year.[19] And by far the greatest amount of megawatts that has ever been added in a single year from the Single-family Affordable Solar Homes (SASH) programs, the Multifamily Affordable Solar Housing (MASH) programs and the Disadvantaged Communities – Single-family Solar Homes (DAC-SASH) program was 12 megawatts.[20] Together, these programs would provide between 16.5% and 37.6% of the 1 GW of rooftop solar needed to be installed each year to meet California's climate goals. The remaining 62.4% to 83.5% of rooftop solar will need to come from general market purchases, which will not be possible if the NEM tariff makes solar installation financially unattractive or infeasible for most California residents.

[18] Merchant, E. "California's Rooftop Solar Mandate Hits Snag With Housing Market Set for Slowdown" Green Tech Media, July 22, 2002. Available at: https://www.greentechmedia.com/articles/read/will-the-coronavirus-slow-californias-solar-home-requirement. Accessed on July 13, 2021.
[19] California Distributed Generation Statistics. Statistics and Charts: SOMAH. Available at: https://www.californiadgstats.ca.gov/charts/somah. Accessed on July 13, 2021.
[20] California Distributed Generation Statistics. Statistics and Charts: Low-Income Solar PV. Available at: https://www.californiadgstats.ca.gov/charts/li. Accessed on July 13, 2021.

III. ISSUE #4: What program elements or specific features should the Commission include in a successor to the current net energy metering tariff?

A. The Commission should ensure that the NEM tariff contributes to a truly "optimized" portfolio of distributed and utility-scale solar resources.

Q: What do the IOUs state in their testimony regarding an "optimized" portfolio of distributed vs. large-scale solar resources?

A: The IOUs argue that California is "able to realize its important and ambitious climate goals—which we support—through a variety of endeavors and resources, including the building of large, utility-scale renewable resources and utility-scale energy storage facilities.... Sound policy will allow an optimized portfolio of distributed solar and distributed storage, as well as large scale resources, to contribute to California's policy goals."[21]

Q: Do you agree with the IOUs' statements regarding portfolio optimization?

A: Yes and no. EWG agrees that a combination of both utility-scale and distributed solar and storage will be required to meet the state's climate and resilience goals. We disagree, however, on what the IOUs consider to be an "optimized" portfolio. The IOUs' proposal and associated testimony outlines a series of changes to NEM that

[21] Joint IOU testimony, p. 4.

would significantly harm the growth of rooftop solar and make solar less accessible to low-income families, while increasing the IOUs' centralized control of the energy system (and ultimately their profits). The Commission should pursue a true "optimized" portfolio that recognizes the unique strengths of both utility-scale and distributed solar resources and seek a path where each of these technologies can truly grow sustainably.

B. The Commission should promote low-income solar adoption in the successor tariff but reject the program elements provided by the IOUs because they are inherently flawed.

Q: How do the IOUs propose to promote low-income solar adoption?

A: In their testimony, the IOUs describe how they propose a "transitional Income Qualified Discount (IQD) to help ensure continued access to rooftop solar for lower-income customers."[22] Yet even with this discount, when you consider all of the changes being proposed by the IOUs (from the new fixed charges and altered true-up periods to the reduced export compensation and time-of-use differentials), the IOUs estimate the payback period for income-qualified customers will be between ten and 13 years;[23] this is in contrast to the three to four years they have estimated as the current payback period for solar.[24]

[22] Joint IOU testimony, p. 164.
[23] Joint IOU testimony, p. 165.
[24] Joint IOU testimony, p. 105.

It is hard to understand how the IOUs can argue that their proposal would ensure "continued access to rooftop solar" when they would actually clearly be making it much more difficult for low-income customers to access solar's economic benefits given the tripling of the payback period. The IOUs are also only proposing that this discount would be available for the "first three years from the date of implementation of the successor tariff," which just underscores this point.[25] To allow distributed solar to continue to grow at the current rate needed to meet California's climate goals, the Commission should ensure that there are no fixed charges levied on any solar customers, and this is especially critical for low-income families for whom such charges are equivalent to a regressive tax.

Q: Should the Commission adopt the IOUs' proposed pilot low-income storage program?

A: No. The new pilot storage program proposed by the IOUs is also highly problematic. The "Savings Through Ongoing Renewable Energy" (STORE) program would provide subsidies for storage to income-qualified customers for three years.[26] Yet this support comes with a catch: the IOUs would retain "dispatch rights" for the storage system, meaning that the utilities would ultimately control how the system is used, not the low-income families. Notably, this IOU control is not a feature of the current Self-Generation Incentive Program (SGIP), which offers rebates on storage systems for both income-qualified and non-income qualified residents. Low-income families deserve to have access to the full benefits of storage and the power to choose when to

[25] Joint IOU testimony, p. 169.
[26] Joint IOU testimony, p. 163.

dispatch those resources. It would be a grave mistake for the Commission to give a green light to a pilot storage program that would provide partial benefits to low-income families while giving the IOUs the power to control this powerful resource.

Q: What proposals should the Commission look to for guidance to address low-income solar access?

A: Rather than looking to the IOU proposal for guidance on how the NEM tariff should address low-income solar access, the Commission should look to the proposals submitted by the California Solar and Storage Association, GRID Alternatives, Sierra Club, the Solar Energy Industry Association and Vote Solar.

IV. ISSUE #5: Which of the analyzed proposals should the Commission adopt as a successor to the current net energy metering tariff and why? What should the timeline be for implementation?

A. Distributed generation cannot grow sustainably with the excessively long payback periods proposed by the Joint IOUs and NRDC in their testimony.

Q: What do the IOUs offer as proposed solar payback periods in their proposal and testimony?

A: The IOUs put forward a proposal within the NEM proceeding in which they initially estimated would result in solar payback periods increasing by 3-4 years to a total of

11-15 years.[27] These estimates have since been updated in their most recent testimony to reflect additional information and have dramatically increased to payback periods of 15-19 years.[28]

Q: Would these proposed payback periods allow distributed solar to grow sustainably?

A: No. EWG rejects the IOUs' arguments that solar would be able to grow sustainably under their proposed NEM program when the payback periods are so prohibitively long.[29] The IOUs compare solar payoff times to system lifetimes,[30] but this is not a valid comparison. When a resident is considering investing in a solar system, how long they plan to live in their home is a much more important consideration than how long the solar system itself might last.

Q: How long do people normally live in their homes?

According to government data, the average amount of time that people own their homes in the US is eight years, and ten years in major California metropolitan areas.[31] This means that it would take roughly double the amount of time people are likely to live in their homes for their solar investment to pay off. Given that most people aren't living in their houses for more than eight or ten years, it's difficult to imagine how a 15-19 year payback period is going to be attractive to most residents. The IOUs also

[27] Joint IOU proposal, p. 9.
[28] Joint IOU testimony, p. 105.
[29] Joint IOU testimony, p. 20, 36, and 44, among others
[30] Joint IOU testimony, p. 104.
[31] Lanser, J. "5 California metros top U.S. rankings for longer homeownership: The typical U.S. seller owned the home 8 years, up 3.6 years in a decade", Orange County Register, October 23, 2019. Available at: https://www.ocregister.com/2019/10/23/nobodys-moving-california-metros-top-u-s-growth-in-length-of-homeownership.

argue that a new NEM tariff should "clearly incentivize the adoption of storage,"[32] yet their testimony details how the IOUs' proposal would increase the payback time for solar and storage systems from the current estimated 4-7 years to 11-14 years.[33] No proposal that doubles or even quadruples the payback time for solar and storage systems can claim to incentivize storage adoption.

Q: What does NRDC offer as proposed solar payback periods in their proposal and testimony?

A: NRDC states in its testimony that a "critical part of the NRDC Successor Tariff proposal is to ensure that distributed generation systems have at most a ten-year payback period…. a solar system should last for at least twenty-five years if not more. This provides solar customers ample opportunity to earn money on their investment after the ten-year payback period."[34] Given that most people aren't living in their houses for more than eight or ten years, many solar customers simply won't have "ample opportunity" to earn money on their investment after the ten-year payback period because they will likely have moved. While the solar system may lead to a higher home sale price, this is uncertain. Therefore, solar payback periods must be shorter than the average amount of time that most California residents stay in their homes, or about 7 years. This payback period would allow distributed storage to continue to grow sustainably and allow California to meet its climate goals.

[32] Joint IOU testimony, p. 105.
[33] *Id.*
[34] NRDC testimony, p. 19.

Q: What are other issues regarding the very long payback periods proposed by the IOUs and NRDC?

A: Households are not considering investing in solar or storage in a vacuum and will have other competing investment opportunities. An investment that doesn't begin to pay off for ten or 15 years will look very unattractive as compared to many if not most other investment options.

B. The Commission should reject the IOUs' argument that the NEM program should be modified now; the Commission should instead retain the current tariff for an additional two years.

Q: When do the IOUs argue the NEM tariff should be modified, and do you agree with this argument?

A: In their testimony, the IOUs present arguments for why the NEM tariff should be modified now, rather than at some other point in the future.[35] EWG disagrees with this stance and recommends that the Commission leave NEM 2.0 in place for two years while it launches a study of the utility business model and its capability to meet the demands of the future.

Q: Why should the Commission retain NEM 2.0 for two years rather than revising the NEM tariff now?

[35] Joint IOU testimony, p. 55 and 91.

A: With California facing such huge stakes around climate change, it would be imprudent to make changes now that are likely to lessen the greening of California's grid and impede our efforts to make that grid more resilient. The Commission should broaden the parameters of the current cost-effectiveness analysis, and should also take a much wider and comprehensive look at what customer and system benefits can be gained from a distributed grid design and how best to ensure those benefits are realized. Otherwise, the state and stakeholders will be constantly revisiting issues of resiliency, customer access to solar and efficiency (particularly for low-income customers), and utility complaints of eroding margin. It would be wise for the Commission to actually ask if California's climate goals and the reality of the impacts of climate change itself make the current centralized IOU business model incompatible with achieving those climate goals and ensuring customer benefits consistently flow to all rate payers.

V. ISSUE #6: Other issues that may arise related to current net energy metering tariffs and subtariffs.

A. The Commission should recognize the inherent incentives for the IOUs to argue for more centralized power generation and against greater distributed energy generation, as evidenced by inconsistencies within the IOUs' testimony around the needs of low-income customers.

Q: How is the IOUs' testimony inconsistent with respect to the needs of low-income customers?

A: In their testimony, the IOUs discuss at length their concerns about the affordability of electricity, especially how high electricity rates impact low-income customers, as well as the income-based discrepancies in access to clean energy.[36] Yet, at the same time, the IOUs' proposal would significantly reduce the savings that low-income families can currently enjoy through access to solar under NEM 2.0. From the new fixed charges and altered true-up periods to the reduced export compensation and time-of-use differentials, low-income families would end up seeing very little day-to-day savings on their energy bills and payback periods that would triple. While the IOUs propose a limited discount on fixed charges for income-qualified customers, this program would expire in three years unless further action was taken.[37] For those families lucky enough to get such a discount, they would only receive it until they had paid back the cost of their solar system – at which point their savings would decrease even more.

The IOUs also recommend against increasing the funding for existing low-income solar programs for at least three years (if at all).[38] Finally, while the IOUs propose a new pilot storage program aimed at low-income families, this program would require that the utilities retain access to "dispatch" these resources rather than allowing the families themselves to make such decisions.

[36] Joint IOU testimony, p. 5, p. 14, p. 49-52, p. 74, and p. 204, among other references.
[37] Joint IOU testimony, p. 164.
[38] Joint IOU testimony, p. 169.

Q: What do these inconsistencies say about the IOUs' true incentives within the NEM proceeding?

A: If the IOUs were truly so concerned with energy affordability and access to clean energy, one would expect that their proposal would include more provisions to support low-income solar access and ensure that these income-qualified families would see significant energy savings from their rooftop solar systems. One would also expect that the IOUs would propose increasing the budget for the Equity and Equity Resiliency programs[39] within SGIP to promote low-income access to energy storage, rather than piloting a new program that is very similar but gives the utilities ultimate control over how the storage resource is used.[40] These discrepancies point to the underlying incentives for the IOUs within the NEM proceeding: to drive out competition and maintain its highly profitable centralized control of electricity supply and distribution. The IOUs also have an incentive to distract from the billions of dollars in self-approved infrastructure spending that is driving up electricity rates and taking place without any state or federal oversight.[41]

[39] California Public Utilities Commission, Self-Generation Incentive Program (SGIP). Available at: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2020/SGIP_factsheet_050520.pdf. Accessed on July 9, 2021.
[40] Joint IOU testimony, p. 163.
[41] California Public Utilities Commission, Utility Costs and Affordability of the Grid of the Future, February 2021, p. 40. Available at: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Reports_and_White_Papers/Feb%202021%20Utility%20Costs%20and%20Affordability%20of%20the%20Grid%20of%20the%20Future.pdf.

B. The Commission should consider what would truly be a "robust," "collaborative," and "comprehensive" stakeholder process for NEM and future proceedings.

Q: How do the IOUs describe what would be an effective stakeholder processes in their testimony?

A: The IOUs detail in their testimony how the proposed STORE pilot would include a stakeholder process that they describe as "robust," "collaborative," and "comprehensive."[42]

Q: How "robust," "collaborative," and "comprehensive" is the stakeholder process in the NEM proceeding?

A: The IOUs statements about its proposed STORE stakeholder process prompted EWG to reflect on how "robust," "collaborative," and "comprehensive" the stakeholder process has been in the NEM proceeding. Quite simply, the NEM proceeding is remarkably inaccessible and largely unknown to Californians. Despite considering NEM rule changes that may directly impact the finances of over 1.2 million solar rooftop installations;[43] as of July 12th, nearly a year after opening the proceeding, the Commission has only received 55 public comments.[44] Surely, a response rate of under 0.005% would not be considered "robust" or "comprehensive" public input in

[42] Joint IOU testimony, p. 170 and 177.
[43] Natural Resources Defense Council, Rooftop Solar in California is Ready to Take the Next Step. Available at: https://www.nrdc.org/experts/mohit-chhabra/rooftop-solar-california-ready-take-next-step. Accessed on July 13, 2021.
[44] California Public Utilities Commission. R2008020 - Public Comments. Available at: https://apps.cpuc.ca.gov/apex/f?p=401:65:0::NO::: Accessed on July 13, 2021.

any context, let alone one where the universe of potentially impacted ratepayers is in the tens of millions. Please note that this lack of public input transcends ratepayer interests. There is neither significant input from the people who are supposedly paying higher bills for other people's solar energy, nor is there much input from solar owners who could potentially lose thousands of dollars.

Q: Why do you believe the Commission isn't seeing more input from the general public into the NEM proceeding and how should it respond?

A: This is an important question. Is it because people know what's going on and don't care? Or is it because this debate is taking place through an administrative legal proceeding with minimal public input or notice to the wider public? I would suggest that, in fact, this process has such a high bar to entry that only utilities, trade groups and a few experienced advocates have been able to make their voices heard. It is also notable that the official proceeding schedule does not include any kind of true public workshop solely designed to gather general public input on the important policy questions at hand.[45]

It is clear that the residents of California care deeply about all of the issues that the Commission is grappling with around NEM: climate change, electricity rates, clean energy access, equity and resilience. They deserve to be a bigger part of this process, especially since this proceeding will help determine what the future of the California energy system will look like and how effectively the state can meet its

[45] California Public Utilities Commission, Net Energy Metering Rulemaking (R.) 20-08-020. Available at: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/net-energy-metering/nemrevisit. Accessed on July 13, 2021.

climate goals. EWG urges the Commission to consider how the NEM proceeding and its other stakeholder processes could be transformed to be more "robust," "collaborative," and "comprehensive" and make these much needed changes.