BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision D.16-01-044, and to Address Other Issues Related to Net Energy Metering.	RULEMAKING 20-08-020 (Filed August 27, 2020)

Comments of the Center for Sustainable Energy® regarding the Proposed Decision Revising Net Energy Metering Tariff and Subtariffs

Center for Sustainable Energy®

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Ben Airth
Senior Distributed Generation Policy Manager
Center for Sustainable Energy®
3980 Sherman St., Suite 170
San Diego, CA 92110
Tel: (858) 244-1194
benjamin.airth@energycenter.org

Sephra A. Ninow, J.D.
Director, Regulatory Affairs
Center for Sustainable Energy®
3980 Sherman St., Suite 170
San Diego, CA 92110
Tel: (858) 244-1177
sephra.ninow@energycenter.org

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I. INTRODUCTION

The Center for Sustainable Energy® (CSE) appreciates the opportunity to provide these Comments in response to the *Proposed Decision Revising Net Energy Metering Tariff and Subtariffs* (Proposed Decision). On December 17, 2021, Assistant Chief Administrative Law Judge S. Pat Tsen, on behalf of Administrative Law Judge Kelly Hymes, partially granted the request from the Coalition for Community Solar Access (CCSA) for an extension of time to file opening comments to January 7, 2022, and increasing the page limits for opening comments from 15 to 20 pages. As such, these opening comments are timely filed.

CSE is a national nonprofit driven by one simple mission – Decarbonize. As an administrator of several California Public Utilities Commission (CPUC or Commission) programs, including the Solar On Multifamily Affordable Housing (SOMAH), Self-Generation Incentive Program (SGIP), California Solar Initiative (CSI), and Multifamily Affordable Solar Housing (MASH) programs, we serve as a trusted and objective resource helping to implement successful sustainable energy programs that use public funds appropriately and in the best interest of their communities. Our vision is a future with sustainable, equitable, and resilient transportation, buildings, and communities, and we support California's efforts to achieve this vision through incentivizing clean energy technologies.

Through our work administering SOMAH, SGIP, CSI, and MASH and facilitating the adoption of distributed generation technologies in California, CSE recognizes the critical role of Net Energy Metering (NEM) tariffs. NEM has contributed to the successful installation of over one million rooftop solar systems in California, with a significant amount of these systems now providing grid and resiliency benefits with the pairing of energy storage systems, especially important now as the State continues to experience unprecedented devastation from wildfires as well as constraints on the grid from historic heat waves. Yet the Proposed Decision in its current form threatens California's progress, making drastic changes that will

slow the growth of distributed generation technologies and cause California to fall short of its ambitious climate goals.

These proposed drastic changes come at a time when distributed generation technologies are becoming more accessible to low- and moderate-income Californians. Rather than the drastic changes proposed, NEM should instead be better tailored to broaden participation of and provide more financial benefits to low-income customers and disadvantaged communities to further enable these customers to participate in the transition to renewable and zero-carbon energy resources. Additionally, state law requires that a successor NEM policy sustain growth in the solar industry, and fostering this growth will provide quality jobs and economic development to further benefit low-income customers and disadvantaged communities. Moreover, it will take a sustained distributed generation industry to ensure California meets its ambitious climate goals.

Nevertheless, CSE remains hopeful that the Commission will listen to Parties within this proceeding and create a balanced path forward to allow distributed generation resources to continue to benefit utility customers and help California meet its ambitious climate goals. This will, however, require a significantly different resolution than has been recommended in the Proposed Decision, i.e., one where any NEM successor developed provides continuing value to customer-generators in combination with their underlying rate structures and incentives provided via other customer programs, while also providing value and optimization services for the utility as the grid operator. Accordingly, CSE provides the following comments.

II. THE VALUE PROPOSITION FOR BEHIND-THE-METER SOLAR AND STORAGE SHOULD BE STRENGTHENED TO ENSURE THESE ASSETS PLAY A SIGNIFICANT ROLE IN GRID RELIABILITY.

NEM has been a trailblazing policy for distributed generation technologies and clean energy in California that provided a salient solution to the previous peak demand issues the

State faced over a decade ago. Moreover, NEM has been the core state policy to facilitate the growth of today's solar market that employs over 70,000 workers and is greatly responsible for the installation of over 1.3 million distributed solar energy systems. Today, California faces different challenges than what was faced just 10-15 years ago, with the ever-increasing climate crisis and thus the paramount need for a strong solar market where energy storage is necessarily paired with solar to further decarbonize our electricity sector and transition customers to electrification.

Nevertheless, CSE acknowledges that the current NEM structure may not provide the proper market signals necessary to unlock the full value behind-the-meter solar and energy storage can provide to customers and the grid. With today's current grid conditions, a broader yet more nuanced use of distributed solar is required: one that unlocks the benefits of energy storage because solar must now be flexible and time-dependent instead of solely subject to the rise and fall of the sun. Energy storage is key to the flexibility required for behind-the-meter resources. Integrated on a large scale, distributed solar and energy storage can play several roles to achieve grid reliability and resiliency, greenhouse gas (GHG) emissions reductions, as well as customer bill savings. When aligned correctly through tariffs that foster the proper use of the technology, distributed solar and energy storage can be aligned with the supply and demand of the grid to reduce stress during the most energy-impacted hours, days, and months of the year.

To achieve the numerous benefits distributed solar and storage can provide, it is critical that the Commission create a NEM successor that strengthens the value proposition of distributed solar and energy storage and does not dampen the value as would result from the Proposed Decision as currently written. A better-tailored NEM successor should provide the proper market signal for its operation and use and be inherent to the interconnection of these demand resources into the grid. Ultimately, tariff and rate design should make the choices for customers who install distributed solar and energy storage systems to optimize their own bills

consistent with the choices that reduce electric system cost and provide the greatest grid benefit. Instead, the current Proposed Decision proposes values for net exports that are so grossly reduced on an average basis and solar-only fees that inflict such an increase on customer bills that the value proposition for customers to install these clean technologies is voided.

III. NO FIXED OR DISCRIMINATORY FEES SHOULD BE LEVIED AGAINST CUSTOMERS WHO INSTALL SOLAR AND ENERGY STORAGE, REGARDLESS OF MARKET SECTOR.

To properly maximize the value energy storage can provide when paired with distributed solar, it is critical that no fees be applied that cannot be reduced by onsite solar and energy storage. Regrettably, the Proposed Decision will do just that. The solar-only fees proposed by the Commission will only penalize customers who install distributed solar and energy storage, sending a very clear price signal to potential customers that the investment in these technologies will not make sense financially. This is despite the fact that California policy has long focused on encouraging the use of distributed solar and maximizing buildout of distributed energy resources (DER). At $8 per kilowatt of installed capacity, the proposed Grid Participation Charge (GPC) would be one of the highest solar-only fees in the country. The proposed GPC is more akin to the demand charges levied on commercial and industrial customers, yet as currently proposed, the GPC does not reflect the customer's coincident peak demand, as do the demand charges for commercial and industrial customers. Instead, the proposed GPC is based on the size of the solar system. This is unreasonably discriminatory both because actual coincident peak usage may be much smaller in relation to the GPC and because no other residential customers are required to pay anything similar to a demand charge.

When coupled with the significantly reduced export compensation credits that will now be based on hourly Avoided Cost Calculator values (which are, on average, 80% lower than

previous NEM 1.0 and NEM 2.0 retail rate credits), solar, even when paired with energy storage, will no longer make financial sense. To phrase this another way, imposing the proposed GPC creates a convincing economic signal that customers should avoid installing solar. We strongly recommend the Commission instead use rates and tariffs to optimize consumer use of distributed solar and energy storage in order to maximize the value to the customer, which will, by default, maximize the value of solar and energy storage to the grid.

More specifically, we urge the Commission to eliminate the proposed GPC that will only penalize the use of behind-the-meter production and self-consumption. Solar customers should not be levied a fee and consequently discouraged from investing their own capital in a clean energy system that provides so many benefits to the grid, the environment, and society. By pairing solar with energy storage, solar can effectively become an energy efficient technology through self-consumption where the solar energy that is produced is stored in the energy storage device and utilized when the home needs it most. Accordingly, no power produced on-site will have to cross the utility meter, and the use of the grid will not be required. Nevertheless, the GPC, as proposed, would charge customers based on the installed capacity of the solar array located on the premises, regardless of the premises' actual use of the grid, and no amount of increased solar or energy storage capacity will help reduce it. By instituting the proposed GPC or other similar grid participation charge that reduces the value of distributed solar and energy storage, the adoption of distributed solar and energy storage will slow and very likely come to a standstill, leaving California devoid of the benefits it could have received from customer-sited systems.

IV. IN LIEU OF FIXED FEES, THE USE OF A MINIMUM BILL SHOULD BE CONTINUED TO ENSURE THE RECOVERY OF A PORTION OF THE UTILITIES' FIXED COSTS.

CSE recognizes the need for recovery of some fixed costs invested by the IOUs on behalf of ratepayers from customer-generators who install distributed solar and energy storage

systems. But, in place of the proposed fixed fees described in the Proposed Decision that are in close alignment with the fixed fees previously proposed by the IOUs and others, CSE instead recommends continuing the use of a minimum bill, which has been the predominant method for IOUs to collect fixed costs from customer-generators and is consistent with previous Commission decisions.

In D.15-07-001,[1] the Commission elected to continue the use of a minimum bill to collect customer-related costs incurred on their behalf , maintaining, "[t]he minimum bill would ensure that all customers contribute some amount toward the cost of the system to which they remain connected[, and i]t also avoids any potential negative impact on conservation associated with a fixed charge [and] protects lower-usage customers whose fixed costs might be lower."[2] In D.15-07-001, the Commission recognized the "potential negative impact on conservation associated with fixed charges" and how it could impede opportunities for customers to employ energy efficiency. With the current operational functionality of distributed solar and energy storage that prioritizes onsite consumption over grid exports, distributed solar combined with energy storage is more akin to energy efficiency/conservation than generation. Accordingly, the Commission should recognize that the potential negative impact associated with fixed charges extends to distributed solar combined with energy storage. Fixed fees, in particular the proposed GPC, will have a negative impact on customer-generators and result in slowed adoption of distributed solar and energy storage. Rather, maintaining the use of a minimum bill is more appropriate, ensuring that the customer-generators contribute some amount toward the cost of the system to which they remain connected, while also avoiding any potential negative impact on the adoption of distributed solar and energy storage that would be associated with a fixed charge. Moreover, a minimum

[1] D.15-07-001, *Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and Transition to Time-Of-Use Rates*, July 3, 2015, page 225.

[2] *Id.*

bill can be fine-tuned to ensure the appropriate cost recovery amount from customer-generators when their bills reach $0 on a monthly basis.

V. THE PROPOSED RETROACTIVE TREATMENT OF ALL LEGACY PROJECTS, I.E., TRANSITIONING NEM 1.0 AND NEM 2.0 CUSTOMERS TO THE NEM SUCCESSOR TARIFFS AFTER 15 YEARS INSTEAD OF 20 YEARS, IS POOR PUBLIC POLICY.

CSE is extremely concerned and disheartened that the Proposed Decision proposes to reduce the 20-year legacy treatment promised to NEM 1.0 and NEM 2.0 customers by five years. CSE firmly believes that no changes should be made to systems installed under the existing NEM 1.0 and NEM 2.0 structures. Rather, these customers must continue to receive the legacy treatment promised to them under the Commission's D.14-03-041.[3] To make retroactive changes to this legacy treatment would be dangerous and counterproductive public policy. Promises of financial certainty regarding a customer's solar investment have been previously deliberated and decided upon in a public proceeding. Revising these tariff structures now would skew anticipated monthly bill savings and lengthen payback periods for these customers. Solar contractors made promises to customers that were memorialized in binding installation contracts and solar agreements on the predication that the tariffs under which NEM 1.0 and NEM 2.0 customers installed were locked in for a period of 20 years. Perhaps even more importantly, this retroactive change would send a signal to the people of California that they cannot rely on commitments made by state government to promote important policy outcomes. Pulling this thread may lead to the unraveling of important policies in the State in ways that we cannot fully anticipate. This would be dangerous and unwise. Appropriately, these customers must continue to receive the legacy treatment of 20 years promised to them under the Commission's D.14-03-041.

[3] D.14-03-041, *Decision Establishing a Transition Period pursuant to Assembly Bill 327 for Customers Enrolled in Net Energy Metering Tariffs*, March 27, 2014.

In addition, CSE urges the Commission to enhance the incentives aimed at NEM 1.0 and NEM 2.0 customers beyond what is currently outlined in the Proposed Decision to encourage these customers to add energy storage to their existing solar-only systems. This should be done not through penalties or threats of retraction of their existing NEM benefits, such as removing five years of legacy treatment, but instead through incentives and market signals that send a clear explanation of financial benefits.

As currently described in the Proposed Decision, the Commission would "offer all existing NEM 2.0 customers an incentive for storage if they voluntarily switch to the successor tariff within four years from the time the storage rebate becomes available."[4] For each of the four years after the switch to the successor tariff, the incentive rate will drop by 25% until it is eventually phased out. To state plainly, this offer will not entice NEM 2.0 customers to switch to the NEM successor. Although it is an upfront cash incentive, it would not compensate the customer-generator sufficiently to forego the 14-15 years NEM 2.0 customers have remaining on their legacy treatment (or the 6-7 years remaining when factoring in the proposed five-year reduction of the 20-year legacy period). This minimal value to NEM 2.0 customers is compounded by the bad terms of the NEM successor, as described above, where highly reduced exports and perverse solar-only fees push payback periods far beyond what customers can expect under NEM 2.0. Rather, monthly bill savings would be so low that investing tens of thousands of dollars in a distributed solar and energy storage system would be illogical.

However, if California took the right approach to driving current solar customers to pair their existing distributed solar systems with energy storage, we could realize nearly instant grid and environmental benefits. California already has over 600,000 NEM 1.0 and another 700,000 NEM 2.0 systems, most of which are not presently connected to energy storage

[4] *Proposed Decision Revising Net Energy Metering Tariff and Subtariffs* (Proposed Decision), December 13, 2021, page 150.

systems. This equates to over 11 GW of solar that provide peak power during the daytime hours. If market signals were properly structured, California could see many of these already existing solar-only GWs turn into flexible loads with the addition of energy storage.

VI. CALIFORNIA MUST ENSURE THE CONTINUED GROWTH OF DISTRIBUTED GENERATION SOLAR TO EXTRACT THE BENEFITS OF ENERGY STORAGE AND FURTHER ENABLE LOW-INCOME ACCESS TO DISTRIBUTED GENERATION TECHNOLOGIES.

For myriad reasons, distributed solar, especially when paired with energy storage, must continue to grow in California. Distributed solar and energy storage help meet demand during extreme heat events, provide resilient backup during outages caused by wildfires, and reduce GHG emissions. Furthermore, if the State is to reach its goal of renewable and zero-carbon energy resources supplying 100 percent of electric retail sales to customers by 2045, California cannot take away the value NEM provides. Most importantly though, the distributed generation solar industry must continue to grow to further enable low-income customers and disadvantaged communities to participate in the transition to renewable and zero-carbon energy resources. State law requires that a successor NEM policy sustain growth in the solar industry. We must recognize that such drastic changes to NEM policy will not only affect the ability of low-income customers and disadvantaged communities to transition to renewable and zero-carbon resources, but these changes will also impact the quality jobs and economic development fostered by the growth of the solar industry.

As the core state policy that has increased the deployment of distributed solar in low-income communities, NEM is also the underpinning of California's low-income solar programs that have been in existence in some form or another since the mid-2000s. The suite of low-income programs dating back to 2008, including the Single-family Affordable Solar Homes (SASH) and Multifamily Affordable Solar Housing (MASH) and more recently the Disadvantaged Communities Single-family Affordable Solar Homes (DAC-SASH) and Solar On Multifamily Affordable Housing (SOMAH) Programs, have helped to offset the costs of

over 12,300 distributed solar projects serving over 55,000 low-income families. While SASH and DAC-SASH have utilized the NEM tariff to serve their single-family customers, MASH and SOMAH have used the Virtual Net Metering (VNEM) tariff, a variant of the NEM tariff, to virtually allocate solar energy generated from onsite solar to serve tenant units of multifamily properties. The VNEM tariff uses the same structure as the NEM tariff, but instead of a physical connection from the solar array to each tenant utility meter, the VNEM tariff utilizes a virtual process to allocate the total kilowatt-hours produced from the solar array to the tenant benefitting accounts. This allocation shows up as credits on tenant bills nearly exactly how it would show up on a single-family home's utility bill.[5] This virtual allocation removes the need to wire the solar array directly to each tenant meter and include individual inverters for each tenant unit, saving thousands of dollars in both equipment and labor costs and thereby helping to deliver cost-effective solar systems to these properties.

Again, we urge the Commission to strengthen the value proposition for solar and energy storage and not reduce it, particularly for the benefit of enabling low-income access, and this extends to the MASH and SOMAH VNEM tariffs as well. While the Commission proposes no changes to these tariffs for now, and per the Proposed Decision, the Commission will wait for the outcomes determined in the affordability rulemaking (R.18-07-006) and in the current SOMAH program evaluation before changes are proposed to the MASH and SOMAH VNEM tariffs,[6] the Proposed Decision simply does not offer the needed certainty and confidence that these tariffs will not change or will not be significantly reduced in the near future.

[5] One of the only differences between a single-family NEM set-up and a multifamily VNEM set-up is due to the solar energy physically being exported directly to the grid and accounted for through a net generation output meter; thus, multifamily tenant properties do not get the benefit of instantaneous power reductions, and they instead rely solely on the VNEM allocation for their benefits.

[6] Proposed Decision at 140.

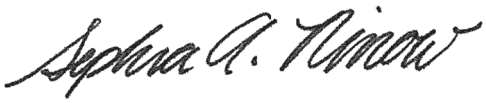
For property owners and tenants in MASH and SOMAH properties, the Commission again misses the opportunity to strengthen the value proposition for these customers. The success of solar on low-income multifamily housing has been driven mainly by incentives provided by the MASH and SOMAH programs in conjunction with the value VNEM provides. Because the decision-making process for these systems is in the hands of the property owners, the decision to go solar can be uncertain as property owners look at the dual value provided to common area bills and tenant bills, often in that order. Because of this, we strongly encourage the Commission to find ways to provide greater value to these properties, for example, through increased NEM benefits by allowing full retail export credits and approving the proper interconnection protocols for energy storage to pair with solar installed on multifamily housing using VNEM. Allowing for energy storage to be paired with solar installed using a VNEM tariff will additionally provide other significant value streams, such as the initiation of Time-Of-Use (TOU) rates, which better aligns solar and energy storage with the needs of the grid, resiliency, and backup benefits, and allowing for the participation of these projects in demand response and virtual power plants. Allowing for these other benefits enables low-income multifamily properties to be treated as single site solar and storage properties are presently treated and thus should be considered by the Commission in the necessary revisions to the Proposed Decision.

VII. CONCLUSION

CSE appreciates the opportunity to provide these Comments in response to the Proposed Decision. CSE urges the Commission to listen to Parties within this proceeding and develop a significantly different resolution than has been recommended in the Proposed Decision, i.e., one where any NEM successor developed provides continuing value to customer-generators in combination with their underlying rate structures and incentives provided via other customer programs, while also providing value and optimization services for the utility as the grid operator. CSE is confident that the Commission can create a balanced

path forward to allow distributed generation resources to continue to benefit utility customers, including and especially low-income customers and disadvantaged communities, and help California meet its ambitious climate goals.

January 7, 2022



Sephra A. Ninow, J.D.
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3980 Sherman St., Suite 170
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