

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies  
Procedures and Rules for the California Solar  
Initiative, the Self-Generation Incentive Program  
and Other Distributed Generation Issues.

Rulemaking 12-11-005  
(November 8, 2012)

**COMMENTS OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION AND  
THE VOTE SOLAR INITIATIVE  
REGARDING THE ESTABLISHMENT OF A  
NET ENERGY METERING TRANSITION PERIOD**

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December 13, 2013

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In accord with the November 27, 2013, Assigned Commissioner Ruling (ACR) in the above captioned docket, the Solar Energy Industries Association (SEIA)<sup>1</sup> and the Vote Solar Initiative (VSI) submit these comments regarding the establishment of a Net Energy Metering (NEM) transition period.

**I. INTRODUCTION**

AB 327 instituted a framework for the evolution to a new NEM regulatory structure. Part of this evolutionary process, as directed by the legislature, is for the Commission to “establish a transition period during which eligible customer-generators taking service under a net energy metering tariff or contract prior to July 1, 2017 or until the electrical corporation reaches its net energy metering program limit . . . . , whichever is earlier, [will] be eligible to continue service under the previously applicable net energy metering tariff for a length of time to be determined by the Commission.”<sup>2</sup> In fashioning this dictate, the legislature was clear that “[a]ny rules adopted by the commission shall consider a reasonable expected payback period based on the

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<sup>1</sup> The comments contained in this filing represent the position of the Solar Energy Industries Association as an organization, but not necessarily the views of any particular member.

<sup>2</sup> Public Utilities Code Section 2827.3(b)(6).

year the customer initially took service under the tariff or contract authorized by Section 2827.”<sup>3</sup>

The statutory directive to the Commission was given additional clarity in Governor Brown’s signing message for AB 327:

As the CPUC considers rules regarding grandfathering of net metering customers, I expect the Commission to ensure that customers who took service under net metering prior to reaching the statutory net metering cap on or before July 1, 2017, ***are protected under those rules for the expected life of their systems.***”

The plain language of the legislation, coupled with the Governor’s direction, make clear that the Commission is to fashion a transition period which protects the value of the investment made by customers under the current regulatory construct. This value is not limited to recouping the customer’s cost of the generating system, but includes the anticipated savings from that system as well. The Commission must structure the transition period in a manner which ensures that NEM customers who invest in renewable energy systems based on the current NEM regulatory construct have the full value of that investment protected. Failure to do such will undercut the regulatory contract entered into by such customers.

The legislature fashioned the NEM statute as a means “to *encourage substantial private investment* in renewable energy resources,”<sup>4</sup> for a variety of purposes including reducing demand for electricity during peak consumption periods, enhancing the continued diversification of California’s energy resource mix, and encouraging conservation and efficiency. Thus, based on the provisions of the NEM statute, which were structured to encourage private investment in renewable resources, NEM customers financed renewable installations to the benefit of California’s renewable goals. In other words, these customers expended their financial resources in a manner promoted by the state, in reliance upon the terms and conditions of the NEM

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<sup>3</sup> *Id.*

<sup>4</sup> Public Utilities Code Section 2827 (a).

program which had been established by the legislature. The transition to the new NEM regulatory paradigm should not undo this current regulatory contract, but assure that the NEM customers who relied on the current structure receive the full value of their respective investments.

Moreover, should the NEM program rules be changed significantly, such that the value NEM provides to customer-generators is substantially reduced, the impact on the solar market could be profound if systems that were deployed under the current NEM regime are not adequately grandfathered. If customers' solar systems no longer result in energy cost savings, then they may default on solar lease payment obligations, resulting in investors declining to provide financing for future deployment of third-party owned systems. Such a scenario will undo much of the progress that has been made over the past few years in dramatically broadening access to the benefits of solar to vastly more residential ratepayers through third-party ownership models and would undermine achievement of the market transformation goals of key state policies, including the NEM program and the California Solar Initiative.

## **II. RESPONSE TO QUESTIONS**

While the NEM statute is applicable to facilities that generate electricity from a variety of renewable sources, the responses of SEIA and VSI to the ACR's questions are framed in the context of customer installation of solar photovoltaic (PV) systems.

***1. How long should customers who take service under a NEM tariff prior to the earlier of July 1, 2017, or the attainment of their respective utility's NEM cap, be guaranteed to receive the NEM tariff currently in place? Is this proposed transition period related to a reasonable expected payback period, expected system life, or some other factor?***

The transition period during which a customer who takes service under a NEM tariff prior to the earlier of July 1, 2017, or the attainment of their respective utility's NEM cap is eligible to continue service under that NEM tariff should be determined by the expected life of

the system installed by that customer. As will be discussed in more detail below, the expected life of a solar PV system is at least 30 years. Allowing a customer to continue service under its current NEM tariff for the expected life of its system appropriately captures the value of the investment made by the customer.

The driving impetus behind a majority of investments in solar installations is the realization of electric bill savings over the operational life of the system, not just the ability to break even on the investment. The computation of potential savings, and thus the determination of whether solar investment would be cost effective for the individual customer, is premised on the terms and conditions of the current NEM tariff. The language of AB 327, coupled with the Governor's signing message, strongly indicate intent that the transition period rules fashioned by the Commission should extend applicability of the current NEM construct in a manner that protects the customer's investment including the expected return on that investment (*i.e.*, the expected net savings over the life of the project).

***2. Should calculation of the reasonable expected life of a system be based on the warranty of ten years as required by California Publ. Util. Code §387.5(d)(4), or should other factors, such as the Original Equipment Manufacturer's warranty, be taken into account?***

The expected life of the system should not be tied to the equipment warranty period required by the Public Utilities Code<sup>5</sup> or the Original Equipment Manufacturers' warranty, as neither is sufficient to capture the anticipated operational life of the system. As stated above, the expected life of a solar PV system is at least 30 years, as illustrated by a number of factors.

First, leading manufacturers of solar modules installed in California offer warranties that guarantee power production will exceed 80 percent of their solar modules' power output rating

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<sup>5</sup> SEIA/ VSI are assuming that the Section of the Public Utilities Code referenced in the question was intended to be Section 2854 (d)(4) which provides that the solar energy system has a warranty of not less than 10 years to protect against defects and undue degradation of electrical generation output.

for 25 years. This long term guarantee indicates that the expected operating life of the solar module, which is the primary component in a PV system, is significantly longer.

Second, solar systems are often installed through third party financing agreements, including solar leases and power purchase agreements, which, in recognition of the long-term value proposition of the system, typically last twenty years or more. Moreover, data indicates that the majority of agreements for third-party owned residential systems in California either renew automatically after the initial term or provide the customer with the option to extend the agreement beyond the initial term for up to 10 additional years, effectively guaranteeing the right to a 30-year term.<sup>6</sup>

Finally, the Commission should bear in mind that customer sited solar installations are an alternative to the construction of central station power plants. Such plants are valued over long periods of time. Comparable treatment should be afforded solar installations.

**3. *Should the reasonable expected life of a system begin on the date of interconnection or some other project milestone?***

The reasonable expected life of a system should begin on the date when it goes into service. For the purpose of customers who have constructed their systems in reliance on the current NEM construct, this would be the date on which the system is interconnected to the IOU's distribution system.

**4. *What is a "reasonable expected payback period?" Does a reasonable expected payback period for customer-owned systems differ by customer sector such as residential, commercial, or school and other government host sites? Does the expected payback period vary with system size or other factors?***

As discussed above, the reasonable expected payback period should be equated to the expected life of the system, *i.e.*, 30 years. This period of time is necessary to allow the customer

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<sup>6</sup> See, e.g., <http://www.californiasolarstatistics.ca.gov/>;  
<http://www.greentechmedia.com/research/report/u.s.-residential-solar-pv-financing>

to recoup their anticipated return on investment. This expected life does not differ depending on the host site for the installation nor system size. Moreover, the Commission should adopt simple, consistent rules which apply equally across all customer classes and sectors in order to minimize confusion among potential customers and the market generally as to which sets of rules is applicable to a particular situation.

**5. *Should the addition of solar panels or other modifications to an existing renewable electrical generation facility that increase its generating capacity occurring on or after July 1, 2017, be eligible for the NEM transition program? If not, how should such modifications be treated?***

SEIA and VSI recognize the complexity of this issue as the legislation is structured in a manner to grandfather certain customers (and MW) under the current regulatory construct, while other customers (and the MW they install) would be subject to the new construct. The legislation, however, did not directly address a situation in which a grandfathered NEM customer added new MW after July 1, 2017.

SEIA and VSI believe that in this scenario, legislative intent indicates that the original system continue to be covered under the existing NEM tariff for a period of at least 30 years, and any substantive additions to the original system made after July 1, 2017 be counted under the new NEM paradigm.<sup>7</sup> This delineation between old and new, however, should be administered in a common sense manner. It is critical that grandfathered customers be allowed to replace or repair panels in the original system without concerns that such action will trigger a change in applicable tariff. For example, there may be instances where a specific vintage panel is no longer available and the replacement panel(s) causes a minor increase in system capacity. This circumstance should not result in the additional capacity (which is likely to be small) being

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<sup>7</sup> SEIA and VSI recognize that this would require that the project have two separately administered meters.

subject to the new NEM rules, potentially requiring installation of an additional metering system and billing complexity. It is our understanding that in no circumstance would increasing the generating capacity of a NEM system after July 1, 2017 deprive the original system of eligibility for the NEM transition program.

SEIA and VSI note that in Rulemaking (R.) 13-11-007 the Commission is currently considering ways to accelerate adoption of alternative-fuel vehicles, including electric vehicles, among IOU customers, and in R.11-09-011 the Commission is considering whether and how to encourage solar customers to install additional generating capacity to be used for voltage support. The Commission should ensure that the impact of NEM transition period rules does not discourage early adopters of solar from taking these additional carbon emissions-reducing actions.

### **III. ADDITIONAL CONSIDERATIONS**

#### **A. Clear “Cut Off” Date for Applicability of Current Rules**

In fashioning transition rules, the Commission must bear in mind the impact which such rules will have on the deployment of new renewable systems in California over the next two years (i.e., until the new standard NEM contract and tariff are approved) . Transition rules which lend to uncertainty of which customers will be grandfathered under the current construct, and which will be subject to a set of yet unknown rules could significantly curtail (if not halt) the installation of new systems. Potential customers must know which rules will apply in order to undertake the necessary analysis to determine the cost effectiveness of installing a solar system.

In order to give the market as much certainty as possible, the Commission should require the IOUs to provide public information, updated at least once per quarter, regarding how many megawatts remain available under their 5% program cap, taking into account pending



applications and already installed systems. This will provide installers and customers with critical information regarding which set of NEM rules is likely to apply to a specific installation.

**B. Grandfathered Tariff should be Tied to the System not the Customer**

The right to continue under the current NEM construct should be tied to the physical system rather than the customer. In other words, the right should convey upon transfer of the system, and also provide flexibility for a customer to relocate the system within the interconnecting IOU's service territory without impacting its applicable NEM tariff. The average California home is sold every seven years. Therefore, the typical residential NEM installation will face more than one change of ownership scenario during the expected life of the system, and there may be instances where a customer relocation plans include retention of the system. Flexibility to transfer the lease/PPA or purchased system to a new owner, or retain the lease/PPA or purchased system upon relocation, without diminishing the value of the system is a key component of a customer's decision to install solar -- a decision which was premised on the cost-effectiveness of solar installations under the current NEM construct. Failure to extend grandfathering protections to the aforementioned scenarios would negatively impact the expected value of customer investments.<sup>8</sup>

**IV. CONCLUSION**

In fashioning rules to govern the transition from the current NEM construct to the new, not yet established, NEM paradigm, the Commission must bear in mind the intended function of those rules -- to protect customers who purchased renewable installations under the current

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<sup>8</sup> According to the Lawrence Berkeley National Laboratory's April 2011 report *An Analysis of the Effects of Residential Photovoltaic Energy Systems on Home Sales Prices in California*, homes with installed solar systems sell, on average, for a premium of \$17,000 more than houses without solar energy. A customer's inability to transfer the system without diminishing the system value could impact this premium.

construct from having the expected value of their investment diminished. Moreover, in order to ensure minimal disruption in the marketplace during the next two years (i.e., prior to the adoption the new NEM rules), the Commission should (1) adopt a set of consistent rules which apply equally across all customer classes; and (2) require the IOUs to provide up-to-date public information on how many unreserved megawatts remain under the current NEM construct.

Respectfully submitted this December 13, 2013, San Francisco, California.

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