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 (Filed November 8, 2012)

REPLY COMMENTS OF THE ALLIANCE FOR SOLAR CHOICE CONCERNING THE ESTABLISHMENT OF A NET ENERGY METERING TRANSITION PERIOD

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The Alliance for Solar Choice ("TASC") submits these reply comments pursuant to the November 27, 2013 Assigned Commissioner's Ruling in the above-captioned proceeding.

Parties' opening comments reveal the alignment of a remarkably diverse set of interests in favor of a transition period based on the reasonable expected life of a PV system, with most of these parties agreeing such a timeframe is at least 30 years. This diverse group represents and seeks to preserve the reasonable expectations of the 165,000 homes, cities, school and water districts, family farms, ranches, small businesses and corporations the State induced to invest in onsite solar systems. Those expectations were reasonably built upon foundational net metering principles embedded in the language of the Public Utilities Code, the net metering tariffs and the representations of this Commission, none of which provided notice that the foundations of net metering could be substantially revised. Based on these expectations, the Commission should act on the Governor's signing statement and extend the net metering transition period for at least 30 years, the reasonable expected life of the system.

Relying on the reasonable expected life of the system to determine the duration of the transition period also prevents harm to the solar industry, avoids the tenuous and complex notion

of a payback period, allows the Commission to meet its statutory deadline, and ensures all of California's customer-generators will have a fair and equitable opportunity to earn a return on their investments. Moreover, home, property and system values depend on a customer-generator's ability to modify and transfer ownership of their systems during the grandfathering period. Failing to base the net metering transition period on the expected life of the system, and failing to ensure modifications and transfers can be made during that period, will have negative impacts across California.

I. Comments From a Diverse Set of Stakeholders Provide Substantial Support For a Transition Period Lasting At Least 30 Years and Demonstrate the Benefits of a Transition Period that Honors Customer-Generator Expectations.

The solar industry,[1] municipalities, school districts, water districts,[2] renewable and sustainable energy non-profit organizations,[3] homeowners,[4] energy consultants,[5] farmers and ranchers,[6] and energy storage companies[7] have all expressed support for upholding customer-generators' expectations, with nearly every one of these parties agreeing on a grandfathering period of at least 30 years.[8] This alignment makes sense given how California's net metering policy has shaped reasonable expectations throughout the State about the use and value of onsite generation over the life of a solar system. The Public Utilities Code, the net metering tariffs, and

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1 *See,* The Alliance for Solar Choice ("TASC") Opening Comments; Opening Comments of the Vote Solar Initiative and Solar Energy Industries Association ("VSI/SEIA"); Opening Comments of the California Solar Energy Industries Association ("CalSEIA").

2 *See,* Opening Comments of City of Benicia, Lemon Grove School District, NLine Energy, Padre Dam Municipal Water District, Rancho California Water District, Rancho California Water District, San Diego Unified School District, Terraverde Renewable Partners, LLC and Valley Center Municipal Water District("NEM-PAC").

3 *See,*Interstate Renewable Energy Council ("IREC") Opening Comments; California Center for Sustainable Energy Comments ("CCSE").

4 *See* Opening Comments of Charles Hewitt.

5 *See* Recolte Opening Comments.

6 *See* Agricultural Energy Consumers Association ("AECA") Opening Comments; California Farm Bureau Federation ("Farm Bureau") Comments; California Climate and Agricultural Network Opening Comments ("CalCAN").

7 *See* California Energy Storage Association ("CESA") Opening Comments.

8 VSI/SEIA at 4 (at least 30 years); CalSEIA at 2 (minimum of 30 years); NEM-PAC at 4 (30 years); IREC at 9 (30 years); CCSE at 3 (20 years); Recolte at 7 (actual life of the system); AECA at (2530 years for solar projects); Farm Bureau at 1 (minimum of 30 years); CalCAN at 3 (at least 30years); and CESA at 6 (25-30 years).

the Commission's own publications all created the expectation that when making these investments, net metering rates would remain for the life of the system.[9]

California's cities, school and water districts, homes, family farms, ranches, small businesses and corporations relied on this expectation and made rational, long-term investments in onsite solar systems in the interest of, and at the behest of, public policy.[10] An investment in onsite solar is not made lightly.[11] It must be justified to spouses, management, school boards, and local citizens, and rationalized in the context of monthly grocery budgets, competing investments, test scores and depleted tax coffers.[12] The chief factors informing the purchase of an onsite solar system are the anticipated benefits in the form of bill savings and purchases from the grid.[13] This "initial expectation of savings" includes a return on investment that extends beyond the payback period over the life of the project.[14] The Commission should recognize that customer expectations were reasonably based on an investment horizon extending over the lifetime of the rooftop solar system and not a horizon contemplating the premature dismantling of the state policy framework upon which that investment depends.

A. A Transition Period Based on the Expected Life of the System Will Support Property Owners.

The diversity and number of parties that agree the transition period should be based on the reasonable expected life of the system demonstrates the broad impact the Commission's decision will have on California. One example of this impact cited by many parties relates to the increased value a solar system adds to the home, farm or commercial property on which it is

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9 TASC Opening Comments at 5-7 (citing Cal PU Code §§ 2827(a), (e) and (h)); CalSEIA Opening Comments at 4; Farm Bureau Opening Comments at 2; IREC Opening Comments at 6 -7.

10 CCSE Opening Comments at 3.

11 Recolte Opening Comments at 4.

12 *Id.*

13 IREC Opening Comments at 6.

14 CalSEIA Opening Comments at 3; VSI/SEIA Comments at 4; AECA Comments at 2; Farm Bureau Federation Comments at 4-6.

installed. The *Consumer's Guide to the California Solar Initiative* cites increased home values as a benefit of investing in solar, and many parties have cited the Lawrence Berkeley National Laboratory studies confirming this added value.[15] Home and property owners have suffered in many parts of California in recent years, and undermining property values further by failing to maintain the value of installed solar systems would be a punishing blow to owners that may still be underwater.

B. A Transition Period Based on the Expected Life of the System Will Ensure Equal Treatment of Customer-Generators.

Customers in the same rate class who invested in the same equipment under the same tariff should have the same opportunity to operate their equipment for the same timeframe. That is, a 2016-vintage customer-generator should have the same opportunity to realize a return on that equipment as a similarly situated 2006-vintage customer-generator. The simplest way to ensure equal treatment is to rely on the expected lifetime of a PV system, a common denominator for most customer-generators, and begin the transition period on the date of interconnection. In fact, failing to provide the same opportunities for different customers could result in discrimination between equally positioned ratepayers.

C. A Transition Period Based on the Expected Life of the System Will Prevent Significant Harm to the Solar Industry.

The use of a transition period that falls well short of systems' lives will introduce significant uncertainty into California's solar market. It is true that customer-generators' investments have always been subject to some risk on account of changes in rates or the potential for tweaks to the net metering tariffs. However, no changes to the net metering tariffs to date have affected the foundational components of the State's net metering framework: the ability to serve onsite load, the receipt of bill credits for exports at the retail rate, and immunity from

[15] *See, e.g.,* CalSEIA Opening Comments at 10; SCE Opening Comments at 8, n. 16.

discriminatory charges targeting customer-generators. Given that the specific features of potential modifications to the net energy metering program have yet to be determined, establishing grandfathering provisions that push customers onto this to-be-developed regime will cast a pall of uncertainty over both existing and future investments in distributed generation. Further, this proceeding is not only operating in the context of potentially significant revisions to the pillars of the net metering framework, it is also operating in the context of potentially significant rate design changes under AB 327, which could drastically affect the solar value proposition.

The opening comments of Southern California Edison ("SCE"), Pacific Gas & Electric ("PG&E"), San Diego Gas & Electric ("SDG&E") (collectively, "IOUs"), the Utility Reform Network ("TURN") and the Office of Ratepayer Advocates ("ORA") (collectively, "Ratepayer Advocates") are riddled with the assumption that customer-generators can rely on promises of a new customer-generation tariff contemplated in §2827.1(b), which some parties misleadingly call "NEM 2.0". It would throw customer expectations and the state's solar market into chaos to make the value of onsite solar generation subject to that program. The details of the program will likely not be established before December 31, 2015, and there is no certainty regarding whether the value proposition under that program will be similar to the net metering framework or continue the essential elements of net metering.

This uncertainty is even more imposing for customers that have yet to invest in solar but are considering doing so over the next few years. No person can make a rational decision to install solar if the use and value of the system for most of the expected system's life will be governed by a program that has not yet been adopted. The strength of the grandfathering

provisions the Commission adopts here will directly influence these near-term investment decisions.

Weak grandfathering provisions would also exacerbate near-term uncertainty regarding future investment in California's solar market. Parties' discussion of third-party-owned systems in opening comments has done little to soothe this uncertainty, with some erroneously and unjustifiably suggesting reduced payback periods because of this financing mechanism.[16] These assertions are worrisome to the extent they imply that investors financing third-party owned systems should not have the opportunity to be made whole on their investments.

II. The Commission Should Base the Transition Timeframe on the Reasonable Expected Lifetime of the System.

A. The Expected Life of the System Avoids the Tenuous and Complex Concept of an Expected Payback Period and Accounts for the Diversity of California's Customer-Generators.

The IOUs and Ratepayer Advocates all suggest different methodologies to calculate a "reasonable expected payback period".[17] Within these methodologies, the parties suggest consideration of a number of variable and complex factors, including drivers of production costs, bill savings, "purely subjective considerations",[18] expanded definitions of the term "payback period",[19] requests to calculate payback "based on the conditions that existed at the time" a customer-generator interconnected,[20] and the inclusion of subsidies, incentives and increased home values.[21] Some of these parties do not include third-party leases when calculating the

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16 PG&E Opening Comments at 7; ORA Opening Comments at 3.

17 ORA Opening Comments at 2; SCE Opening Comments at 10-12; PG&E Opening Comments at 4-11; TURN Comments at 7-10; SDG&E Opening Comments at 4-10.

18 SCE Opening Comments at 11.

19 PG&E Opening Comments at 3, 13.

20 SDG&E Opening Comments at 2-3.

21 TURN Opening Comments at 7; SCE Opening Comments at 8, n. 16.

payback period, while other parties do.[22] Given the challenge of modeling the variability of customer-generators in the State, it is not surprising that ORA concludes, "the very circumstance-specific nature of NEM bill savings makes it nearly impossible to determine expected payback periods."[23]

Moreover, the IOUs' rate design proposals in R.12-03-016 will greatly impact the calculation of customer payback periods in this proceeding. "AB 327-related rate reforms could have a significant impact on residential customer payback periods by allowing a fixed customer charge of up to $10 and by consolidating or lowering the existing upper- tier residential rate." [24] That is, the calculations of payback periods in this proceeding will be rendered inaccurate due to the IOUs' proposals in another docket. This scenario reinforces why payback periods, although they must be considered, should not guide the Commission's decision.

Because of the complexity of the exercise, the only certainty the Commission can rely on is that its determination of the "expected reasonable payback period" will be wrong for some customer-generators. For example, TURN's payback analysis relies, at least in part, on the "rough" calculation of "a range of payback times for 'typical solar' customer (*sic)* during the time frame 2006-2012".[25] Rough calculations, ranges, typical customers and limited time frames are likely to result in large margins of error when determining payback periods for customer-generators as varied as cities, school and water districts, homes, family farms, ranches, small businesses and corporations. If the Commission relies on broad-stroke methodologies to set the sunset date for the current net metering tariff, there will certainly be customer-generators

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22 *Compare* TURN Opening Comments at 10 (excluding third-party owners from the expected payback period) *to* PG&E Opening Comments at 7 (including third-party owners).

23 ORA Opening Comments at 3; *See also* Recolte Opening Comments at 3-4, 6 (stating, "Financial returns cannot be standardized for all PV customers, because the assumptions and appetites for risk vary from project" and "There is no such thing as a reasonable expected payback period. It differs from customer to customer and project to project.").

24 IREC Opening Comments at 11.

25 TURN Opening Comments at 9.

taken off of the tariff before they have even broken even on their investments, much less made a reasonable return. The Commission should avoid this result by relying on the reasonable expected life of a system, which avoids large amounts of complexity and variability, does not result in inflated margins of error and honors the expectations of California's array of customer-generators.

B. The Commission Need Only *Consider* Payback Periods.

The Commission has a statutory deadline of March 31, 2014, and administrative efficiency will be essential in meeting this deadline.[26] Within this short timeframe, "AB 327 provides the Commission with discretion in developing the transition period, as long as the Commission considers the 'reasonable expected payback period' in crafting the grandfathering rules."[27] The Commission is not required to base a decision on the reasonable expected payback period, and, given the short deadline and complexity of the concept, would be ill-advised to do so.

In addition to the practical challenges of relying on an administratively determined payback period, there is a more fundamental concern with undermining customers' expectations of earning a return on their investments in onsite generation. Customers face real opportunity costs in deciding where to invest their capital, and a grandfathering approach that only ensures customers achieve payback will fall well short of customers' expectations to earn a return. Moreover, potential changes to the net metering program are not known, meaning both customers and investors will severely discount any potential value ascribed to that future regime. Thus, allowing customers to simply recover the cost of their investment will leave existing

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[26] Cal PU Code §2827.1(b)(6) (Deering's 2013).
[27] TURN Opening Comments at 4.

customer-generators well short of the return on investment that motivated their decision and significantly discourage future customers and investors from making similar decisions.

III. AB 327's Rate Design Mechanisms are Sufficient to Address Alleged Cost Shifts.

E3's recently issued Net Energy Metering Ratepayer Impacts Evaluation concludes that rate design, especially residential rate design, is the "central driver" of the cost shifts the study identifies.[28] The IOUs and Ratepayer Advocates' proposal to transition customers to a revised net energy metering program on an expedited basis ignores this conclusion. AB 327 makes available a number of rate design tools to address alleged cost shifts, and the IOUs have already made supplemental filings in R.12-03-016 to revise rate structures per that statute.[29] Because the E3 study concludes its purported cost shifts are driven by rate structures, and because residential rate structures are likely to change significantly in the near term on account of AB 327, rapidly transitioning customers to a new net energy metering program is neither justified nor necessary.

IV. Modest Increases to System Capacity that Comply With the Existing Net Metering Tariff Should Be Allowed During the Transition Period.

The ability to maintain the PV panels and components in a solar system is a critical issue for customer-generators. TASC agrees with SCE, and a number of other parties, that grandfathering additions or modifications to an existing facility should be allowed, provided that

> (1) the grandfathering is based on the original installation's vintage date and not the date the modifications are completed, and
>
> (2) the additions or modifications are sized to offset all or a portion of, but not more than, the customer's on-site requirements up to 1 MW. [30]

SCE's position is validated by the current net metering tariff, which provides the ability to modify systems to replace or repair panels or components so long as those modifications result in

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28 *See, e.g., California Net Energy Metering Ratepayer Impacts*, at 3 (October 2013).

30 SCE Opening Comments at 13.

a facility that is smaller than 1 MW and sized to offset a customer's load.[31] Parties that take more restrictive views on modifications ignore AB 327's intent to continue the terms of the "previously applicable net energy metering tariff," *i.e.*, the existing net metering tariff, for the duration of the transition period.[32] Any modifications to a renewable electrical generation facility that are currently allowed under the existing net metering tariff should continue to be allowed for the duration of the transition period so long as such modifications do not result in major increases in a system's capacity. In no circumstance should increasing the generating capacity of a net metering system after July 1, 2017 deprive the original system of eligibility for the net metering transition program.

V. The Treatment of Ownership Transfer Should be the Same as Under the Current Tariff.

As established in a number of parties' comments, customer-generators that installed solar did so with the expectation that a solar system will increase the value of the property on which the system was installed. The terms of the typical solar lease in California significantly exceed the typical timeframe within which a residential customer is likely to sell their home, and customers likely factored in the ease of lease transfer when committing to a long-term lease or power purchase agreement ("PPA"). If the transfer of a lease or PPA eliminated grandfathering rights,[33] the value of the customer-generators' solar system would be significantly undermined, threatening the viability of lease transfers, a result that would have serious implications for third-party owned systems. The Commission should ensure grandfathering will not be eliminated upon the transfer of a lease or PPA.

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[31] Cal PU Code §2827(b)(4) (Deering's 2013).

[32] Cal PU Code §2827.1(b)(6) (Deering's 2013); PG&E Opening Comments at 14- 15; SDG&E Opening Comments at 12.

[33] *See* SDG&E Opening Comments at 9.

VI. Conclusion

A large and diverse contingent of stakeholders agree the net metering transition period should be set on the basis of reasonable customer expectations regarding the life of an onsite solar system. For this reason, and the other reasons discussed above, the sunset date for each customer-generator should be set 30 years from the date of interconnection and apply to all customer-generators regardless of rate class, facility size or other factors.

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