

**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)

**OPENING COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON
THE PROPOSED DECISION ESTABLISHING A NET ENERGY METERING
TRANSITION PERIOD**

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March 12, 2014

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) provides these opening comments on President Peevey's *Proposed Decision Establishing A Transition Period Pursuant to Assembly Bill 327 For Customers Enrolled In Net Energy Metering Tariffs*, released on February 20, 2014 (Proposed Decision or PD). In the PD, the Commission proposes a 20-year transition period from the date of interconnection for all projects installed prior to July 1, 2017. This transition period is directly at odds with the directions of the legislature, is not needed to provide existing and new customers with a reasonable opportunity to recover their investment, and permits far too many costs to be shifted to other customers. Accordingly, the PD should be modified to adopt a much shorter transition period, particularly for customers installing qualifying renewable generation from this point forward.

The PD notes that a recent CPUC study found that the cost shift associated with current net energy metering (NEM) rules could be over **one billion dollars per year** at the NEM transition trigger level, and that in Assembly Bill (AB) 327, the legislature has given the CPUC tools to reduce that cost shift. However, the PD proposes to lock-in these "net costs subsidized by other ratepayers" (PD p. 7) for two decades. Even if the CPUC is able to reduce a portion of this \$20 billion cost shift by rate reforms, the magnitude of the reduction is not known at this time because the rate reform will not be adopted by the time the transition period is approved,

and rate reform cannot solve many of the current NEM cost shifts. This transition period is simply too long and the cost shifts are too large. The CPUC should adopt PG&E's balanced proposal which gives at least 10 years of grandfathering to all projects installed before April 2014.

These comments also address three additional topics in the PD.

- First, shorter transition periods should be set for projects interconnecting between April 1, 2014 and the transition date to the successor NEM tariffs. This will help to mitigate the market disruption of a near-term “gold rush” followed by a precipitous drop in sales. There is no need to provide a 20-year grandfathering period for newly installed projects where developers are claiming a much shorter payback period (or “savings from day one.”)
- Second, purchasers of properties with installed renewable equipment should not be eligible for the old NEM tariffs after the transition date. Allowing the new owner of a property to remain on the old NEM tariff is contrary to how other utility tariffs are managed, is inconsistent with general home buying practices, is not needed to protect reliance interests, and misses a chance to achieve substantial savings for other customers.
- Third, PG&E generally supports the language in the PD concerning eligibility of modified systems for the existing NEM tariff. However, minor changes to the PD will clarify how eligibility for the increases should be calculated in practice.

PG&E offers these suggestions because it wants success and fairness for **both** its solar and non-solar customers. A 20-year extension of the current NEM subsidy is not needed to support a continuing and vibrant solar business.

II. DISCUSSION

A. **The Transition Period For Projects Installed Prior To July 1, 2017 Should Be Substantially Shorter Than The 20 Year Period Proposed In The PD.**

The PD relies on three key considerations as the basis for the proposed 20-year transition period. First, it claims to be following the directions from the legislature. As explained in detail below, and as highlighted in letters from the Author of AB 327, as well as the Chairmen of the two energy policy committees, the PD is inconsistent with AB 327. Second, the PD claims that 20 years constitutes a “reasonable payback period as contemplated in AB 327.” Page 21. In fact, the overwhelming evidence is that the payback of commercial and residential systems installed recently is less than ten years. Third, the PD expresses concern that failure to give existing customers decades of protection for their “expected benefits” would “undermine regulatory certainty and discourage future investment in renewable distributed generation.” Page 20. In fact, the rate of new interconnection applications continues to grow substantially, solar prices continue to drop, and many solar companies continue to report continued expansions. The PD fails to establish a credible foundation for the claim that a shorter transition period would harm the solar market.

Most significant is what is not addressed in the PD. In developing AB 327, the legislature intended to protect non-participating customers from being unduly burdened by the NEM-related cost-shift. It would be unfair to set a lengthy transition period that will shift literally billions of dollars of costs to maintain a subsidy that is not needed to sustain a vibrant solar industry.

Therefore, PG&E suggests the Commission adopt PG&E’s original proposal that all generation interconnected before this decision be grandfathered on the existing NEM tariff through 2023; all customers installing generation between April 1, 2014 and December 31, 2015 (when the successor NEM rules must be adopted) be entitled to take advantage of the existing NEM tariff through 2020; and all later customers transition to the new NEM tariff on July 1, 2017, or when PG&E’s NEM cap is reached.

At the very least, if the CPUC adopts a long transition period for customers interconnecting prior to the date that this grandfathering decision is issued, it should adopt shorter periods for NEM customers interconnecting after that date. In the PD, the Commission expresses concerns about denying customers their “expected benefits.” However, this concern does not apply to new NEM customers, because the solar market will know about the adopted NEM transition period by the end of this month. Under PG&E’s proposal, customers installing NEM generators between April 1, 2014 and December 31, 2015 could stay on the current NEM rules for a number of years, but not as long as customers who installed solar before it became evident that the rules would be changing. On January 1, 2016, after the CPUC has adopted the rules for the successor NEM tariff, the market will respond to these new directions. Because of that, all remaining customers interconnected after that date should be transitioned to the successor NEM rules at the 2017 transition date, or as soon as possible thereafter.

Each of these topics is addressed in more detail below.

1. The PD Is Directly At Odds With The Directions From The Legislature.

AB 327 directed the CPUC to set a transition period for pre-July 2017 NEM customers to move to the successor NEM tariff, and to consider “reasonably expected payback period based on the year the customer initially took service....” The PD, like the Assigned Commissioner Ruling before it, appears to accept the essentially undisputed definition of “payback.” As explained in the original Ruling, payback means recovery of cost spent on the system, not all the benefits a customer might hope or plan to receive.¹ However, while claiming that it was adopting the “expected payback” required by the legislature, the PD adopted a 20-year “payback” term not supported by the evidence.

¹ See Assigned Commissioner Ruling dated November 27, 2013, footnote 7, defining “payback” as “the initial system installed costs divided by the dollar value of saving per year, with no modifications for inflation or time value of money.” TURN, PG&E, and SDG&E provided a number of citations to financial textbooks and dictionaries showing this is the established meaning. None of the parties arguing for “life of the facilities” included any references to any reputable linguistic, economic or financial authority, or other legislative history supporting a different definition.

The PD also bases the 20-year transition period on an “expected useful life analysis.” Page 21. It concludes that “adopting a transition period that denies customer-generators the opportunity to realize their expected benefits would not be in the public interest.” Page 20. However, the Legislature considered proposals to insert protection for the life of the facilities into the legislation, and rejected them. Attached to these comments are letters from the Author of AB 327 as well as the Chairmen of the two energy policy committees directly involved in drafting AB 327. All make clear that this PD is directly at odds with legislative mandates.

- Senator Alex Padilla wrote: “In considering [the NEM transition] issue, some parties suggested codifying a 20 to 30 year term or a ‘life of system’ treatment for such facilities... *Those proposals were soundly rejected by the author and the two policy committees in both the Senate and the Assembly....* Instead, the Legislature’s intent was clear; we want to significantly reduce the cost shifts in today’s rates a move to a more fair and equitable rate design for all customers....” Padilla letter² (emphasis added).
- Assembly Member Steven Bradford wrote: “I am concerned that the proposed decision does not meet legislative intent with respect to the method used to calculate the payback period.... [The legislative] committee analysis concluded that the PUC needs to define reasonably expected payback period and establish standard assumptions for calculating the payback period.... Without this, the proposed decision could increase the cost burden on the non-participating customers.” Bradford letter.
- The author of AB 327, Assembly Member Henry Perea, wrote: “I am concerned that the proposed decision fails to meet the original intent of AB 327 with respect to the potential cost shift customers could face. During last year’s negotiations the Legislature’s intent was clear that we wanted to limit the cost shift... As the author of AB 327, I respectfully ask that you update the proposed decision to mitigate the potential cost shift on customers.” Perea letter.

2. Fairness To Non-NEM Customers Requires A Transition Period No Longer Than That Needed To Permit Customers To Recover Their Investment.

The PD states that “adopting a transition period that denies customer-generators the opportunity to realize their expected benefits would not be in the public interest.” Page 20.

² Three letters are attached at Exhibit A. There are 1) the letter dated February 20, 2014 from Alex Padilla, Chairman, California State Senate Committee on Energy Utilities and Communications, 2) the letter dated February 24, 2014 from Assembly Member Steven Bradford, Chair of the California Assembly Committee on Utilities and Commerce, and 3) the letter dated February 26, 2014 from Assembly Member Henry Perea, the author of Assembly Bill 327.

PG&E acknowledges that its current NEM customers have made good faith investments in their projects, and has proposed a lengthy transition period intended to allow customers to recover this investment. However, extending this protection after payback has been achieved would inappropriately burden non-participating customers.

As with any other financial investment, there is risk associated with investments in renewable distributed generation. Utility rates change every year, solar output due to insolation varies from year to year, and the customer's own usage pattern will change over the life of the system. Under PG&E's proposal, affected customers can recoup their investment, and then continue to accrue bill savings under the new NEM rules. While not expected to be as lucrative as the current NEM rules, there is every reason to expect that NEM customers will continue to enjoy savings on their energy bills under the new tariff.

3. Basic Fairness To All Customers Requires The CPUC To Reduce The Cost Shift By Adopting A Shorter NEM Transition Period.

The CPUC's selection of a transition period will have a dramatic impact on the levels of costs being shifted from NEM customers to non-participating customers, with longer transition periods resulting in markedly higher cost burdens for non-participants. The Legislature directed the CPUC to specifically address the impact on non-participating utility customers, and was well aware the updated ratepayer impact analysis study conducted as required by AB 2514 would be available to inform the CPUC's development of the ultimate NEM rules and any transitional program. The CPUC must balance NEM customers' reasonable recovery of their investment costs with the mitigation of the cost shift on other customers.

The PD acknowledges the Commission's recent report finding a potential cost shift of over one billion dollars per year at the NEM cap based on current rate design.³ It found that over three-fourths of NEM customers do not pay their full cost of service⁴ and the median income of

³ Proposed Decision p. 7, citing Energy and Environmental Economics, Inc., "California Net Energy Metering Ratepayer Impacts Evaluation," prepared for the CPUC, October 2013 (E3 Report). This study was required by legislative action in AB 2514 (Bradford, Chpt. 609, Stats of 2012).

⁴ E3 report, page 105.

NEM customers is 68% greater than median California income.⁵ Building on the Commission’s own study, PG&E provided detailed calculations of the cost shift to other PG&E customers under the various transition proposals.⁶ The proposal of PG&E and SDG&E would result in a cumulative PG&E cost shift of approximately \$2 billion. The proposals of ORA and TURN would shift fewer costs, since they proposed a shorter transition. The proposal in the PD would result in a \$9.9 billion cost shift for PG&E customers. The statewide cost shift would be over \$20 billion (the number in the Commission’s report on annual cost shift times 20 years). Even a modest alternative to the PD that would reduce the grandfathering period to 15 years for all customers interconnected prior to December 31, 2015, when the rules for NEM 2.0 would be clearly known, leads to several billions of dollar savings compared to the proposed decision.⁷

The table below shows the cost shift to PG&E customers under various scenarios.

		Effective Years Post July 2017	PG&E MWs Grandfathered	Cumulative PG&E Cost-Shift During Proposed Grandfathering period (\$ billions)	Cumulative PG&E Cost-Shift During Proposed Grandfathering period including Rate Reform (\$ billions)
1	<i>TURN</i>	3	1,640	\$1.3	\$0.7
2	<i>PG&E & SDG&E proposal</i>	7	1,310	\$2.0	\$1.1
3	<i>PD – 20 Years from Interconnection</i>	16.2	2,410	\$9.9	\$5.2
4	<i>Alternative: Before 2016: 15 years; Otherwise transition at start of NEM 2.0</i>	9.9	1,720	\$4.35	\$2.3

Notes:

1. Column (c) cost-shift per MW per year in 2017 of \$255,000 from E3 work-papers; column (d) cost-shift reduced to reflect PG&E rate reform

⁵ E3 Report p. 112.

⁶ See PG&E Reply Comments filed December 23, 2013 at pages 6-9, which are updated here.

⁷ This alternative would be better than the result in the PD. However, adoption of a 15 year transition lacks record support and still results in unacceptable cost shifts.

(Notes continued.)

2. Projected volumes assume constant annual growth rate to reach NEM cap in 2017 of 2410 MW from YE 2013 levels
3. Column (a) Effective years accounts for sooner end-date for earlier interconnected systems
4. Rate reform assumption --effective avoided res rate/kwh of \$.205 based on Res Rate OIR proposals from 2-28-14, including impact of \$10 Basic Service Fee, 2 Tiers (with 20% differential), and 80% of DG offsetting the higher tier.
5. Cost-shift values are projected from E3 2017 values in 2017 dollars

The PD expressly admits the Commission’s own calculation of the overall cost shift, but does nothing to incorporate it in its “public interest” analysis. The only discussion of why the proposal does nothing to mitigate this cost shift is the statement that the costs of NEM are “entirely” a function of retail rate design and that a change in rate structures would have a significant impact on the results.⁸ Unfortunately, the CPUC is not scheduled to address residential rate design until long after the transition date is established, and some of the rate design proposals, such as a basic service fee for residential customers, will address only a small portion of the NEM cost shift. Moreover, solar intervenors in the residential rate OIR have already made clear that they will continue to fiercely oppose proposals for a basic service fee and reductions in high tiered rates, as they have already.⁹

Even if changing residential rate design to two tiers with a 20% differential and a \$10 basic service fee can cut the NEM cost shift in half, the proposed transition period would still result in an unneeded \$10 billion cost shift statewide. Further, residential rate reform efforts are legislatively limited in AB 327 and therefore will not entirely eliminate the cost shift. Finally, some subsidies now given to NEM customers by waiving interconnection costs and standby charges are not a function of retail rate design, and the requirement to give NEM customers a full retail credit for exports that is far higher than the market value of that power will not be eliminated by rate design cases. Those cost shifts are a function of NEM design, and will not be solved by changes in residential rate structures alone.

⁸ Proposed Decision p. 7. In fact, as explained below, changes in non-NEM rate design can affect only a portion of the NEM cost shift.

⁹ See, for example, the Comments of the Solar Energy Industries Association (SEIA) and the Vote Solar Initiative (Vote Solar) filed in Rulemaking 12-06-013 on July 12, 2013, and the Comments of Distributed Energy Consumer Advocates (DECA) and the Interstate Renewable Energy Council (IREC) filed the same day. These and other groups opposed adoption of any basic service fee (then called a customer charge) for residential customers.

As the author of AB 327, Assembly Member Henry Perea, explained: “A potential cost shift of this nature [\$1.1 billion per year for 20 years] seems contradictory to our clear intent of limiting the cost shift....” Perea Letter.

4. The Conclusion In The PD That The “Reasonable Expected Payback” Is 20 Years From Interconnection Is Directly At Odds With Overwhelming Evidence To The Contrary

The legislature and the CPUC asked for information on the length of payback and evidence was submitted, both by way of reports submitted by the three investor-owned utilities (IOUs), as well as public literature. The PD concludes that “Based on the record before us, we **find that 20 years constitutes a reasonable payback period as contemplated in AB 327.**”

Page 21. This is directly at odds with the actual record presented in this proceeding.

PG&E submitted a report by Navigant Consulting, Inc. (Navigant), which examined the customer economics and assessed the payback period for both host-owned and third-party-owned (TPO) PV systems across the residential and commercial customer segments.¹⁰ This analysis showed median payback periods of less than 10 years for recently installed residential and commercial projects, with longer payback periods for projects installed much earlier when prices were higher. Other record evidence was similar.¹¹

The PD claims that this record supports a payback calculation of 20 years from interconnection. It states that “Based on the estimates provided by the investor-owned utilities in this proceeding, it will take up to 18 years for customers from certain customer classes to recover their initial investment under the existing NEM structure.” Page 18. However, attached as

¹⁰ The Navigant analysis drew from public, transparent sources such as the California Solar Initiative (CSI) Database and the workpapers in the CPUC’s E3 report. Navigant calculated payback times for thousands of individual host-owned systems using actual installation data obtained from the CSI PowerClerk database. Navigant then aggregated these results to calculate the probability distribution of expected payback times. For the Residential Sector, Navigant used a sample of 6,601 residential host-owned systems, and 1,367 systems installed in the Commercial/Industrial sector in PG&E’s territory.

¹¹ SCE and SDG&E filed similar information with their reply comments. TURN and ORA also filed comments supporting a payback calculation, with transition periods far shorter than those proposed by PG&E, including ORA’s citations to various authorities supporting a payback expectation of ten years or less. PG&E also provided data on payback estimates in various public documents. Online reports, news coverage, and solar company statements put most recent installations in the 5- to 10-year payback range in California. In contrast, parties proposing a longer transition period offered essentially no evidence on reasonable payback periods.

Exhibit B is a table showing the actual payback calculations submitted by the utilities. Each utility did not give a single payback figure, but instead gave figures “based on the year the customer initially took service,” as required by the legislature. Almost all these recent figures show payback in less than ten years. This data does not support a 20-year payback for all customers for all years for all utilities.

The PD focuses on the highest number in these reports, and then adopts an even higher number. On page 18, the PD states: “For example, according to SCE’s analysis, a small commercial customer that installs a NEM-eligible PV system in the SCE territory will not achieve payback until 2031, on average. (SCE Reply Comments, Appendix A at 5.)” However, for small SCE commercial customers, the end of the payback period in SCE’s Table ranged from 2025 to 2031 with only some installations in 2017 receiving the 2031 date referred to in the PD. PG&E further notes that a 20-year transition period for those installations would lead to an end date of 2037 for projects coming on line in 2017, not 2031. The PD is providing a transition period six years longer than supported by SCE’s analysis, and over a decade longer than the other relevant figures in SCE’s data.¹²

The PD observes that there are variations in the payback estimates provided by the utilities and suggests that this variation reflects the “fact that the utility used different assumptions in their analyses.” Page 19. The PD cites “limitations of the existing estimates of the payback period” as a reason to support a transition year based on equipment life. Page 20.

These claims are not well-grounded. The utility payback estimates are in fact in a more narrow range than described in the PD. The table in Exhibit B below compares the payback periods presented by the different IOUs. There is some variation in the results, as there should

¹² A similar result is found upon examination of the SDG&E payback analysis. The PD states: “Similarly, SDG&E’s analysis shows that, on average, some of its NEM customers enrolled in Time of Use tariffs would not recoup the costs of systems installed in 2014 until 2030 (SDG&E Reply Comments at 11).” PG&E notes that, again, the CPUC focuses on the longest payback period, but still the 20 year transition period will extend well beyond the payback date in SDG&E’s figures. In this case, where the data supports a payback of 16 years, the PD awards a transition period four years longer; for other customer groups, the transition is over a decade longer than supported by this evidence.

be because as the PD recognizes, there are differences in “electricity costs, climate, and system installation costs.” Nonetheless, for the similar groupings of customers (residential, small commercial), the paybacks for given installation years are relatively close together, and most importantly, far shorter than 20 years. In addition, as installations have been growing, many more systems have been installed from 2011-13, so more emphasis should be placed on the recent payback periods, which typically range from 6-10 years.

The PD also claims that the utilities used different assumptions, and analyses “limited by the source data and methodologies.” This characterization is not correct. The table at Exhibit C below shows a comparison of the key methods, source data, and assumptions the different utilities used. Again, there are indeed some differences, but they are based on genuine differences among the utilities. And to the extent that they reflect different approaches (e.g., different groupings of non-residential customers), with the appropriate adjustments, the paybacks would be more consistent and well below the 20-year figure.

The PD also claims that the analysis does not address the specific circumstances applicable to government agencies, which do not qualify for all of the same tax and depreciation benefits as commercial customer generators. Page 19. PG&E acknowledges that government agencies may have longer payback periods than commercial customers. However, these customers qualify for third-party financing, through which tax and depreciation savings can be monetized and passed through to the end-user via lower PPA and leasing prices. Navigant analyzed the economics of third party financing arrangements, and concluded that customer payback would be achieved within ten years for the vast majority of residential and commercial/industrial projects.¹³

5. A Shorter Transition Period Will Not Unduly Affect The Market

The PD states that failure to protect “expected benefits” will “undermine regulatory certainty” and therefore harm the solar market. Page 20. This is at odds with the facts. There

¹³ See PG&E Reply Comments filed December 23, 2013, Appendix A, pp. 23 and 33.

has been significant uncertainty about NEM for a long time, and the solar market has grown substantially nonetheless. NEM has always had an overall legislative cap, and since May 2012, when the CPUC passed the NEM cap decision¹⁴ calling for a study of and possible suspension of NEM, the market has been aware that NEM is likely to change in order to mitigate the cost shift. During that time period, solar installations have continued to increase in California. In PG&E's service territory, in recent months, long after AB 327 was enacted, over 3,000 new projects have applied for interconnection in every month. These customers elected to install renewable generation systems despite facing uncertainty around the rules for the NEM transition period. Approximately one quarter of the customer side solar installations in the entire United States have been installed in PG&E service area. The notion that this market would be "undermined" by a shorter transition period is simply hyperbole, and contrary to actual market performance.

B. A Shorter Transition Period For Projects Coming On Line After March 31, 2014 Will Reduce Costs, Avoid A Gold Rush, and is Appropriate, Since The Industry Knows Change Is Coming.

A number of parties addressed the benefits of a shorter transition period coming on line after the NEM transition decision, or after the successor NEM rules established in 2015, and addressed the risks of a "gold rush." The PD rejected the proposal for a different transition period for such projects, stating only "We find that the 'Gold Rush' concern is significantly mitigated by the existing NEM transition trigger level, which places a known limit on the amount of load that can be served under the existing NEM structures." Page 23. That does not dispute that there will be a "Gold Rush," only that the parties remaining on the old NEM rules for 20 years will not add up to more than 5% of non-coincident peak load. Arizona experienced a gold rush in its transition to new NEM rules.¹⁵ Similarly, the author of AB 327 stated: "I would

¹⁴ D.12-05-036. Although that decision was vacated by the CPUC, this did not occur until after AB 327 was enacted. See D.13-11-026, issued in November 2013.

¹⁵ Arizona adopted a small cost recovery mechanism for new NEM customers in November 2013, which did not apply to customers who submitted their applications by December 2103. Arizona Corporation Commission Decision 74202. Although formal reports are not due until April 15th, early news indicates that Arizona applications increased substantially in late 2013 and dropped in early 2014.

expect the proposed decision to encourage a flood of new users to install by July 1, 2017 which would significantly increase the cost shift to non-participating customers- exactly what the Legislature made a conscious effort to reduce....” Perea letter. Moreover, there is a high risk that a lengthy transition could cause not only a “Gold Rush” prior to the transition date, but also a market crash immediately thereafter.

For this reason, PG&E proposes that projects installed after this decision receive a shorter transition period. Customers installing renewable generation between January 2016 and July 2017 should not be surprised by the NEM changes, since those rules will have been set in 2015. They should be transitioned to the successor NEM rules in July 2017 or when the NEM cap is reached.

C. Allowing New Owners To Go On The Legacy NEM Tariff Because They Bought Property With Previously Installed Renewable Generation Is At Odds With Utility Tariff Principles, Home Buying Practices, and Unnecessarily Shifts Costs To Other Customers.

The PD concludes that systems interconnected before the NEM transition date are allowed to remain on the original NEM tariff even if the system is transferred to a new owner or utility account. The PD states that such transferability treatment “preserves the value of these systems, and ensures that the cost of system installation may be recovered on the terms expected when the system was purchased.” Page 28.

The transfer of a closed rate schedule is inconsistent with utility tariff practices. A customer of record starting service at a property can elect to take service under any applicable rate schedule available *at the time*. When a rate schedule has been closed to new customers, a new customer may not take service under that rate even if the previous customer of record at the same location was on that rate. New customers only get currently available rates. Allowing a

new customer to remain on the original NEM tariff after transfer of the home or business to a new owner would be inconsistent with utility tariff practices.¹⁶

Moreover, this transferability finding is antithetical to general home buying principles. When an individual buys a home, he or she is not guaranteed the same mortgage rate used by the original owner in calculating his investment, or a return on the prior home owner's purchase price. Rather, the home buyer determines whether the home is a good value based on the available information at time of sale – not whether the purchase will ensure a complete recovery on all investments made in the home over the course of its life.

Finally, the transferability finding unnecessarily shifts costs to non-participating customers. There are studies showing that average California home is sold every 7-12 years.¹⁷ Ending the cost shifts associated with legacy NEM when the homes or businesses are sold provides a significant opportunity to reduce the cost shifts associated with these projects, and the new homeowners will know what they are getting when they buy the property. The new NEM rules should apply to new customers after the property is sold.

D. Minor Changes Should Be Made To The Text In The PD Concerning Transition Eligibility For Projects That Have Been Materially Modified.

The PD finds that material additions to the original systems made after July 1, 2017 should be covered by the successor NEM tariff. PG&E agrees. PG&E generally supports the findings in the PD limiting modifications and/or expansions to 10% of the existing system capacity or 1 kW, whichever is greater, and is sized to meet but not exceed the customer's annual load. However, greater clarity on the definition of existing system capacity should be included

¹⁶ In addition, the transfer of an existing tariff schedule during a sale of a home is not necessary to preserve the value of the home or the solar system and is contrary to general home buying practices. When deciding whether a home purchase is appropriate, a buyer will weigh many different factors including cost, size, taxes, and location. The applicable rate schedule is unlikely to be a significant factor in the price of a home. While PV systems will likely be an attractive addition to any home, it is unrealistic to assume that without the legacy NEM tariff, the value of the PV system is eliminated.

¹⁷ See studies quoted in "Property Tax Limitations and Mobility: The Lock-In Effect of California's Proposition 13," White and Wasi. NBER working paper 11108, February 2005. Brookings-Wharton Papers on Urban Affairs, available at <http://econweb.ucsd.edu/~miwhite/wasi-white-final.pdf>, pdf pages 11 (fn. 20) to 13. California's Proposition 13 generally allows real estate property tax assessments to raise to the full market value of a property when it is sold.

to avoid claims that a project may increase its size by 10% every year after the NEM transition and still remain subject to the prior NEM rules. The existing system capacity should be defined as the existing system capacity interconnected and commissioned at the point in time when the transition period for a particular generating facility starts. This additional language will ensure clarity with regards to system sizing and allow for clear direction with regards to eligibility to remain on the legacy NEM tariff. Of course, any request to increase in the size of generating projects would still be subject to the requirements of Rule 21, and PG&E suggests the final decision remind parties of this fact.¹⁸

The Commission should also set a timeline for the filing of tariff revisions to implement this decision, such as the various net metering tariffs. We propose those tariff changes should be filed within 90 days after the transition decision is adopted.

III. CONCLUSION

PG&E appreciates the opportunity to provide these comments and requests that the Commission adopt these recommendations.

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¹⁸ In addition, the text of the PD at page 26 and Ordering Paragraph 3 provide that the increased system size should “not exceed the customer’s peak load.” This is not the limit the Legislature has determined should apply to NEM generation. As the PD correctly recognizes on page 24: “the total system generation capacity” should “not exceed annual onsite load.” The text on page 26 and Ordering Paragraph 3 should be modified to reflect the annual load limit.

Respectfully submitted,

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Exhibit A

Letter dated February 20, 2014 from Alex Padilla, Chairman, California State Senate Committee on Energy Utilities and Communications.

Letter dated February 24, 2014 from Assembly Member Steven Bradford, Chair of the California Assembly Committee on Utilities and Commerce.

Letter dated February 26, 2014 from Assembly Member Henry Perea, the author of Assembly Bill 327.

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February 20, 2014

Michael Peevey, President
Michel Florio, Commissioner
Catherine Sandoval, Commissioner
Carla Peterman, Commissioner
Michael Picker, Commissioner
505 Van Ness Avenue
San Francisco, CA 94102

Dear Commissioners:

As you consider the adoption of grandfathering rules for net energy metering customers pursuant to the requirements of AB 327 (Chap. 611, Statutes of 2013), I wanted to convey my thoughts to you regarding the legislative intent and purpose of those provisions of the bill.

As you are aware, AB 327 vested significant new authority to the California Public Utilities Commission (CPUC) relative to residential electric rate design as well as the development of a new structure for a net energy metering program. Consideration of this bill by my committee and the Legislature was not without careful consideration of the impact that the bill would have by returning decision-making authority on rates to the CPUC. We spent a considerable amount of time studying, evaluating and framing what that authority meant in order to ensure that rates were fair, equitable and reasonable. In the end we were assured that this authority would be used judiciously and that a firm commitment existed at the CPUC to significantly reduce the cost shifts that exist in today's rates as a result of not only the historic rate freezes in existence since the energy crisis, but also the impacts of net energy metering.

Of particular concern now is the CPUC's adoption of the grandfathering rules in R.12-11-005 that will ultimately transition existing net energy metering customers to the new tariff implemented by the CPUC as called for by July 2017.

AB 327 requires the CPUC to "consider a reasonable expected payback period based on the year the customer initially took service under the tariff or contract authority by Section

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2827.” In considering this issue, some parties suggested codifying a 20 to 30 year term or a “life of the system” treatment for such facilities to determine the time period in which existing customers would continue to receive the existing rate treatment. Those proposals were soundly rejected by the author and the two policy committees in both the Senate and the Assembly. In addition, discussions on those provisions were held with the Governor’s Office and similarly rejected. Instead, the Legislature’s intent was clear; we wanted to significantly reduce the cost shifts in today’s rates and move to a more fair and equitable rate design for all customers irrespective of their decision to become customer-generators. The delegation of authority to consider a reasonable payback period was included because we recognized that picking one year in statute would not strike the balance necessary in the changing costs of solar over the past ten years and that varying times may be needed in order to ensure that customers, particularly those early adopters of solar, are treated fairly.

I recognize that multiple actions are needed to address the cost shifts that exist in today’s rates both in terms of rate design as well as the structure of the net energy metering program. I therefore seek your support in addressing these issues consistent with the intent of AB 327.

Sincerely

A handwritten signature in black ink, appearing to read "Alex Padilla", written in a cursive style.

ALEX PADILLA
Chairman



Assembly Committee on Utilities and Commerce

Assemblymember Steven Bradford, Chair

California Legislature

February 24, 2014

Michael Peevey, President
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Proposed decision establishing a transition period pursuant to Assembly Bill 327 for customers enrolled in Net Energy Metering tariffs

Dear President Peevey, *Mike*

On February 20, 2014 you issued a proposed decision proposing a transition period for customers who currently utilize the Net Energy Metering (NEM) tariff and for those customers who may request NEM tariffs until January 1, 2017 or until the NEM capacity cap is reached, whichever comes first. The proposed decision establishes a transition period of 20 years, beginning with the year the system was interconnected for systems already on net energy metering tariffs. This 20 year transition is also allowed for new systems installed prior to the earlier date of July 1, 2017 or the date on which a utility reaches its statutorily required net energy metering "cap."

I appreciate the Commission's timely publication of the proposed decision in order to meet the statutory deadline of March 1, 2014. However, I am concerned that the proposed decision does not meet legislative intent with respect to the method used to calculate the payback period.

Public Utilities Code 2827.1(b)(6) states:

"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 pursuant to subparagraph (B) of paragraph (4) of subdivision (c) of Section 2827, whichever is earlier, shall be eligible to continue service under the previously applicable net energy metering tariff for a length of time to be determined by the commission by March 31, 2014. Any rules adopted by the commission shall consider a reasonable expected payback period based on the year the customer initially took service under the tariff or contract authorized by Section 2827."

As the decision states, parties filed comments (17 sets), reply comments (15 sets), and supplemental reply comments (7 sets) reflecting a wide variety of positions on the appropriate schedule and terms on which NEM customers should transition to a successor tariff once one is developed. **"These 39 sets of comments constitute the record on which this decision is based."** [emphasis added]

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The Assembly Committee on Utilities and Commerce heard AB 327 (Perea) on September 11, 2013 and the Committee analysis discussed the calculation of the reasonable payback period:

"For customers who are using the current NEM program, this bill establishes a transition to the new NEM. The PUC is to establish a transition period for existing and new NEM customers added prior to July 2017 and adopt rules for this transition. The PUC must consider a reasonable expected payback period based on the year the customer initially took service. Self-generation customers receive an array of support, some of which are described in this analysis. A recent report by the Climate Policy Initiative found that the financial value of bill savings and the sum of only a few of the incentives mentioned above exceed average system prices. The PUC will need to define what is meant by a "reasonable expected payback period" and establish standard assumptions for calculating the payback period, particularly the price paid for the on-site generation because this value varies widely and the price affects payback. In addition, the bill language refers to reasonable payback from the perspective of the utility customer. However, some customers may elect to assign benefits to a third party financier, such as but not limited to tax credits or local rebates. The PUC will need to address how to adjust the reasonable payback period if a customer transfers some of these values to another entity."

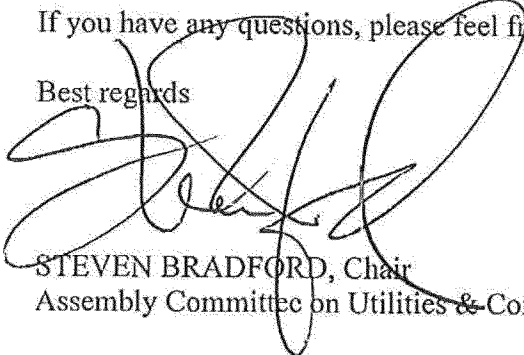
At the September 11, 2013 hearing on AB 327 several of the parties to the PUC's proceeding testified in support of AB 327, none of whom raised concerns about the analysis stating that the PUC must define what is meant by a reasonable payback period. These included Clean Power Finance, REC Solar, SolarCity, Sunrun, SunPower, Verengo Solar, and the Solar Energy Industries Association (SEIA).

While I agree it is important to continue the growth of solar utilization in California, it is also important to respect the ratepayers who are bearing this cost. This is why the Committee analysis stated that the PUC needs to define reasonable expected payback period and establish standard assumptions for calculating the payback period. Without this, the proposed decision could have unintended results by providing more than what is necessary to ensure a reasonable expected payback period for system owners and increasing the cost burden on the non-participating customers.

For this reason, I respectfully request that the proposed decision be revised to include a calculation of the payback period and the standard assumptions in the decision and that it be used to determine that payback period.

If you have any questions, please feel free to contact me or my staff.

Best regards



STEVEN BRADFORD, Chair
Assembly Committee on Utilities & Commerce

cc: The Honorable Jerry Brown
Carla Peterman, Commissioner
Michael Picker, Commissioner
Katherine Sandoval, Commissioner
Mike Florio, Commissioner

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HENRY T. PEREA
ASSEMBLYMEMBER, THIRTY-FIRST DISTRICT

February 26, 2014

Michael Peevey, President
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

RE: Proposed decision for Net Energy Metering tariffs transition period pursuant to Assembly Bill 327.

Dear President Peevey:

As you consider the adoption of grandfathering rules for net energy metering customers pursuant to the requirements of AB 327 (Chpt. 611, Stats of 2013), I wanted to convey my thoughts to you regarding the February 20, 2014 proposed decision.

The CPUC's proposed decision allows a 20 year transition period for all new systems installed prior to July 1, 2017 or on the date in which a utility reaches its statutorily required net energy metering "cap". It also allows for a 20 year transition period beginning with the year the system was interconnected. I am concerned the proposed decision fails to meet the original intent of AB 327 with respect to the potential cost shift customers could face.

During last year's negotiations the Legislature's intent was clear that we wanted to limit the cost shift to a more fair and equitable rate design regardless of a customer's decision to become a customer-generator. I would expect the proposed decision to encourage a flood of new users to install by July 1, 2017 which would significantly increase the cost shift to non-participating customers - exactly what the Legislature made a conscious effort to reduce.

Since enactment of AB 327, the CPUC has issued a report pursuant to AB 2514 (Bradford, Chpt. 609, Stats of 2012) which suggests a cost shift associated with the current net energy metering program of \$1.1 billion by the year 2020. I understand that even with a new rate structure there will be cost shifts. However, they are made even greater with a full retail treatment for a product that should now be priced at market without continued subsidy. A potential cost shift of this nature seems contradictory to our clear intent of limiting cost shift during last year's negotiations with stakeholders and the Governor's Office.

As the author of AB 327, I respectfully ask that you update the proposed decision to mitigate the potential cost shift on customers. Please feel free to contact me or my staff with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'HTP', enclosed within a large, hand-drawn oval.

HENRY T. PEREA
Assemblymember
Thirty-First District

CC: The Honorable Jerry Brown, Governor
Carla Peterman, Commissioner
Michael Picker, Commissioner
Katherine Sandoval, Commissioner
Mike Florio, Commissioner

HTP/ec

Exhibit B

Comparison of utility payback periods							
Start Year*	2007	2008	2009	2010	2011	2012	2013
Residential Payback Period (# of years)							
SCE	17.0	15.7	11.2	10.3	10.5	8.8	8.2
PG&E	15.5	15.5	11.9	10.9	10.6	9.7	7.9
SDG&E	12.6	11.3	11.0	12.2	11.1	9.1	7.1
Average difference from 20 years	5.0	5.8	8.6	8.9	9.3	10.8	12.3
Small Commercial Payback Period (# of years)							
SCE	19.1	17.8	16.0	14.3	14.9	16.6	14.4
PG&E	12.7	12.7	12.5	11.0	10.3	9.4	7.8
SDG&E	9.4	10.9	10.1	9.5	8.4	9.0	7.4
Average difference from 20 years	6.3	6.2	7.1	8.4	8.8	8.3	10.1
Large Commercial Payback Period (# of years)							
SCE	18.9	21.3	18.1	15.0	14.8	16.7	13.8
PG&E	12.7	12.7	12.5	11.0	10.3	9.4	7.8
SDG&E - "Solar Rate"	12.0	13.8	12.8	12.2	10.9	11.7	9.6
SDG&E - Standard Rate	17.3	20.6	19.5	18.7	16.8	18.0	15.0
Average difference from 20 years	4.8	2.9	4.3	5.8	6.8	6.1	8.4

Exhibit C

Key Topic	Method/Source/Assumption			Comments
	SCE	PG&E	SDG&E	
Customers Included	All	All	Customers on schedule DR (Res), A (Sm Comm), DGR (C&I) and ALTOU (C&I)	For similarly segmented customers, results are similar; Ag is included in the non-res
System Cost Inputs				
Install Cost Source	CSI Database	CSI Database	CSI Database	
CSI Incentives	CSI Database	CSI Database	CSI Database	
Fed Tax Incentives	ITC, MACRS	ITC, MACRS, Bonus depreciation	ITC, MACRS, Bonus depreciation	*Include \$2,000 cap for res pre-2009; *impact of ITC and CSI on tax basis, *SCE set bonus depreciation to 0, but on a simple payback, not relevant
Annual Benefits				
Bill Savings Calculations	Bill savings based on load and solar gen profile and rate design	Bill savings based on load and solar gen profile and rate design	Bill savings based on load and solar gen profile and rate design	Each IOU has different Rate designs and load offset profiles
Starting Capacity Factor (AC)	Varies with Vintage, 2007 at 18.2%, 2013 at 19.8%	20.50%	19.60%	
Annual Degradation	0.50%	1%	1%	
O&M Costs	\$.025/Watt escalated at 2.5%	\$.05-\$.07/Watt	x	
Rate escalation	4%/year	index from E3 (2.8%/year from 2013-23; 2.0% 2023-2033)	index from E3 (2.6%)	