BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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

TESTIMONY OF ROBERT EARLE ON BEHALF OF
THE COALITION OF CALIFORNIA UTILITY EMPLOYEES

June 18, 2021

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Utility Employees
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Attachment A – Curriculum Vitae of Dr. Robert Earle
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I. INTRODUCTION

A. NEM as currently structured has been a growing disaster for ratepayers and California’s climate and equity goals

1. NEM has been a disaster for ratepayers

Customers who do not participate in NEM will pay NEM customers about $3.0 billion more than the value they receive in 2021. This is expected to grow to at least $5.0 billion to $6.3 billion per year by 2030.¹ A central reason for this wealth transfer is simple. As a recent article put it succinctly: ²

When a household installs solar in the service areas of the three California investor-owned utilities (PG&E, SCE and SDG&E), the customer saves 20-30 cents for every kilowatt-hour their system produces, but the utility costs only go down by 7-9 cents…The extra 10-20 cents are avoided by that household, but those fixed costs still have to be paid.

Numerous studies have supported this conclusion.³ Figure 1 shows an estimate of the increase in household utility bills because of NEM for each of the IOUs. In SDG&E’s territory,

² https://energyathaas.wordpress.com/2021/06/01/rooftop-solar-inequity/.
³ Supporting studies include:
   2. Cal Advocates estimates that the average SDG&E NEM 1.0 customer “was compensated at almost seven times the value of the energy generated. Cal Advocates Proposal, p. 11.
the average consumer paid an extra $230 per year to NEM customers. Note also that CARE
customers were not immune from the price increases caused by NEM. For example, CARE
customers in PG&E’s territory paid an extra $100 per year because of NEM. This is because: 4

…CARE is, by law, a 30%-35% discount off the standard rate. So, when the cost
shift pushes up the standard rate, it pushes up the CARE rate by 65%-70% much.
Not quite as bad, but still a cost shift onto the poor. And CARE only protects
households with incomes less than 200% of poverty, which for a family of 4 is
currently $53,000 per year. You aren’t in poverty if you are slightly above that
income, but in California you sure aren’t making ends meet without a struggle.

Figure 1: Increase in Household Utility Bills Due to NEM 5

Another way to understand the disaster of NEM for ratepayers is to consider the return on
investment for ratepayers. The ratepayer impact measure (“RIM”) test measures this by dividing
the increased benefits from a policy by the increased rates (costs) – a standard way of looking at

4 https://energyathaas.wordpress.com/2021/06/01/rooftop-solar-inequity/
5 From Borenstein et al., 2021, p. 28.
benefit to cost ratios. Ratepayers benefit if the RIM score is greater than 1.0 – for every dollar spent by ratepayers, the benefit to ratepayers is more than one dollar. Any policy enacted should have an expected RIM score of more than 1.0. That is, policies should result in benefits to ratepayers, not losses.

The NEM 2.0 Lookback Study documents the damage done to ratepayers by NEM 2.0 with an average RIM of 0.37. In other words, for every dollar NEM has cost ratepayers, they have received an astoundingly low 37 cents of benefits. Ratepayers have wasted almost 2/3 of the money they have spent on NEM 2.0.

The prospective results as reported by E3 are even more dismal. The RIM score for NEM 2.0 for 2023 Non-CARE customers is 0.11 for PG&E, 0.21 for SCE, and 0.09 for SDG&E. By way of comparison, if one invested in the stock market at its height before the great recession of 2008 and then sold at the worst possible moment one would have only lost 57% (RIM score of 0.43). Of course, if one held on and not sold, one would have recouped the investment and more. Unfortunately for ratepayers, the losses are not recuperable. The money taken by NEM customers from non-NEM customers is gone forever. Any NEM successor should end the harm to ratepayers from both current and future NEM customers.

Part of the problem for rooftop solar and residential storage is that they are not cost competitive with utility scale alternatives. Figure 2 shows comparative costs for various generation resources. According to Lazard, while utility scale solar PV costs between $29 to

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6 Lookback Study, p. 6.
8 The S&P 500 bottomed out on March 9, 2009 closing at 676.53. The high occurred on October 9, 2007 with the S&P 500 closing at 1565.15. 676.53/1565.15 yields a “RIM” score of .43, or a loss of 57% (1-.43 = .57). Data from wsj.com.
$42/MWh, rooftop residential solar PV costs between $150 and $227/MWh, or about five times utility scale solar does. And, while commercial and industrial ("C&I") and community solar PV is less expensive than residential solar PV, it is still substantially more expensive than utility scale solar PV, $74 to $179/MWh for C&I, and $63 to $94/MWh for community solar PV.

Figure 2: Costs of Various Energy Generation Technologies

Utility scale solar, of course, supplies the same solar energy benefits that rooftop solar does, thus making it more attractive in comparison. According to the avoided cost calculator ("ACC") there are potentially some benefits such as distribution and transmission deferral, but relative to the cost shift to non-NEM customers these benefits are de minimis. The 2021 ACC

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estimates the entire benefit of rooftop solar (including energy) to the system to be about 3.1 cents/kWh compared with consumer rates of about 20 to 30 cents/kWh.\textsuperscript{10}

Residential storage faces similar cost challenges as solar PV when compared to utility-scale storage. Figure 3 compares the levelized costs of various types of storage systems. Utility-scale storage systems designed to be paired with large solar PV facilities have costs of $188 to $329/kW-year compared to $489 to $662/kWh-year for residential. The numbers for utility-scale storage are less than half those for residential storage.

\textbf{Figure 3: Storage Cost Comparison}\textsuperscript{11}


NEM 2.0 has similarly failed spectacularly from a total resource cost (‘‘TRC’’)
perspective, that is the benefits provided by NEM versus the costs ignoring transfer payments.
For PG&E and SCE, the TRC is 0.56, and for SDG&E, it is 0.59.12 A return of anything less than
a dollar for a dollar spent is a failure. So, far from providing a cost-competitive alternative,
rooftop solar under NEM 1.0 and NEM 2.0 greatly harms ratepayers. Any NEM successor
should end the ongoing harm from NEM 1.0 and NEM 2.0 customers.

2. NEM harms California’s equity goals

The enormity of the wealth transfer from non-NEM customers to NEM customers is
compounded by income and racial disparities in the wealth transfer. Figure 4 shows the
percentage of solar adopters over the years 2010 to 2019 by income level measured as a
percentage of median income. The richest group, those with income greater than 120% of the
median income, dominates in all years comprising over 59% of solar adopters in every year.
Those with incomes greater than the median accounted for over 69% of all systems in every
year. The result of this skewed adoption is that the wealth transfer from non-NEM customers to
NEM customers is dominated by transfers from poorer households to wealthier households.

12 Lookback Study, p. 9, Table 1-5. Including the transfer payment of the income tax credit, still gives failing TRC
values of 0.80, 0.91, and 0.84 for PG&E, SCE, and SDG&E, respectively.
In looking at disadvantaged communities, the Lookback study concludes:\textsuperscript{14}

Eleven (NEM 1.0) to twelve (NEM 2.0) percent of residential NEM systems are installed in disadvantaged communities. This proportion is much lower than the population of the state with the disadvantaged community designation (25 percent).

Moreover, Cal Advocates points out:\textsuperscript{15}

CARE customers represent 28% of total residential customers but only 10% of NEM program participants…To put this into perspective, the overall annual NEM cost burden ($2.85 billion) is more than double the total funding to provide bill discounts through the CARE program each year ($1.3 billion). Ratepayers are paying almost double to fund an incentive program that predominantly benefits more affluent customers than they are paying to fund a low-income assistance program.


\textsuperscript{14} Lookback Study, p. 37.

\textsuperscript{15} Cal Advocates Proposal, p. 18.
There is an abundance of evidence that the burden of NEM falls greater on the poor and middle class heightening economic inequality.

There is also evidence that the NEM wealth transfer is also likely skewed towards transfers of wealth from Black and Hispanic households to non-Hispanic White households.

Solar adoption occurs in areas where on-average 48% of the population is White, compared to a statewide average of 38%.16

Polices that are meant to advance climate and renewable goals should not disproportionately burden the less wealthy and disadvantaged communities. As Governor Newsom said:17

We must map out longer-term strategies ... for California’s energy future, to ensure that the cost of climate change doesn’t fall on those least able to afford it.

NEM as currently structured has failed this very basic goal of equity. With the pressing need for wildfire prevention and the transition to a zero-carbon grid, we simply can’t afford to subsidize an industry to the tune of $3 billion (and growing) per year, nor can we put that burden on the backs of those who can least afford it.

3. NEM harms California’s climate goals and electrification efforts

California intends that 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045 be supplied

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16 LBL 2021, p. 32-33. There is evidence that this racial skew is not accounted for by income level. See “Disparities in rooftop photovoltaics deployment in the United States by race and ethnicity,” DA Sunter, S Castellanos, and DM Kammen, Nature Sustainability, 2(1), 2019.
17 https://www.gov.ca.gov/2019/02/12/state-of-the-state-address/.
by eligible renewable energy and zero-carbon resources.\textsuperscript{18} To meet the goals of the Charge Ahead California Initiative to reduce GHG emissions to 40% below 1990 levels by 2030 and 80% below by 2050, California must electrify much of its transportation.\textsuperscript{19} As electricity rates rise, however, there will be less adoption of electric vehicles hindering California’s climate goals.\textsuperscript{20}

Building decarbonization is another key target area for reduction of GHG emissions.\textsuperscript{21} Along with measures such as energy efficiency, a key part of building decarbonization is electrification – replacing fossil fuel use with electricity. We already have an energy affordability crisis; unnecessarily making electricity more expensive to end-use consumers makes building electrification a less attractive option.

As currently implemented, NEM will make decarbonizing the California economy much harder. While NEM has increased (behind the meter) renewable generation, it has done so at an unnecessarily heavy cost to ratepayers. The same result could have been achieved through utility-scale generation at less than half the resource cost, and approximately one-sixth of the cost to ratepayers.\textsuperscript{22} Wasting money is always bad. California is facing resource constraints due to the COVID recession and the considerable cost of wildfire mitigation. In the midst of this, NEM continues to waste money at a furious and growing rate.

\textsuperscript{18} Senate Bill (SB) 100, De León, Stats. 2018, ch. 312 §2(e)(1). Executive Order (EO) B-55-18 to Achieve Carbon Neutrality, September 10, 2018.

\textsuperscript{19} Public Utilities Code § 740.12(a)(1).

\textsuperscript{20} See, for example, Cal Advocates Proposal, pp. 14-15.


\textsuperscript{22} Cal Advocates Proposal, p. 13: The cost burden attributable to NEM is increasing average electric rates, which conflicts with the state’s goal of achieving greenhouse gas (GHG) reductions. High electric rates will make it less economic for consumers to switch from gasoline/natural gas fueled technologies – and left unchecked, could make these important technologies prohibitively expensive. See also, E3 Whitepaper, pp. 25-26.
California will not reach its clean energy goals if it wastes money on inefficient programs. With the COVID-induced recession and the need for wildfire mitigation, ratepayers are being squeezed, as evidenced in the SCE 2021 GRC where SCE proposed to defer $1.4 billion in needed infrastructure replacement.\(^{23}\) If rates had been lower because NEM had not wasted so much money, perhaps some of the urgent infrastructure replacement could have occurred. As it is, however, ratepayers are put at risk because of the infrastructure replacement delays.

**B. How did we get into this mess?**

NEM was originally intended as a subsidy to jump start rooftop solar in 1995 through Senate Bill (SB) 656 (Alquist). In 1995, there was little rooftop solar in California, only 10 MW by 2002, compared with over 9200 MW at the end of 2020.\(^{24}\) Prices for residential rooftop solar are now a third of what they were in 2000.\(^{25}\) Participating customers were given large economic incentives to install rooftop solar because rooftop solar was not otherwise economically justified.\(^{26}\) With few participants, though the cost shift was inequitable and other means of subsidizing rooftop solar would have been better, the total burden on other ratepayers was low.

But like the frog in the pot of water slowly heated on the stove, by 2013 the Legislature realized it was beyond time to hop out of the near-boiling pot. The Legislature enacted AB 327 because it recognized that the existing NEM subsidy was no longer justified nor fair to non-participating customers. Non-solar customers paid the full retail electric rate for solar energy


\(^{24}\) [https://www.californiadgstats.ca.gov/](https://www.californiadgstats.ca.gov/)


Testimony of Robert Earle

exported to the grid rather than the value of the energy supplied by residential rooftop solar customers who paid little to nothing to support the grid. D.16-01-044 made small revisions to the NEM 1.0 tariff, but failed in that decision to align payments to NEM customers with the benefits that NEM customers provide. As TURN has discussed, the hotly contested 3-2 decision simply “kicked the can down the road.” This was acknowledged in the Commission business meeting in which D.16-01-044 was adopted: 27

…Commission President Picker acknowledged the fact that the Decision does not reach any conclusions regarding the valuation of costs and benefits for the successor tariff and explained that these omissions represent “areas where we really fell short.” Commissioner Florio noted, in his oral comments opposing the Decision, that the NEM 2.0 successor tariff being adopted was flawed because AB 327 (Perea, 2013) “requires us to look at the costs and benefits and require that they are appropriately balanced.” Commissioner Peterman admitted that the Decision creates a “cost shift” that “is a general concern for all of us.” In short, a majority of Commissioners openly acknowledged the failure of the Decision to satisfy key statutory requirements regarding cost shifting.

In 2016 it was past time to fix NEM compensation with around a billion dollars a year in wealth transfers to NEM customers, now it is well past time with over 3 billion dollars a year in wealth transfers. Any NEM successor should eliminate this cost shift.

C. How do we get out of this mess?

A basic standard of rate making is that costs must be just and reasonable or prudent. As Bonbright put it: 28

[O]ne standard of reasonable rates can fairly be said to outrank all others in the importance attached to it by experts and by public opinion alike—the standard of cost of service, often qualified by the stipulation that the relevant cost is necessary cost or cost reasonably or prudently incurred.

The Public Utilities Code agrees:\footnote{Public Utilities Code Section 451. Emphasis added.}

All charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be \textit{just and reasonable}. Every unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful.

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.

All rules made by public utility affecting or pertaining to its charges or service to the public shall be \textit{just and reasonable}.

Moreover, AB 327 required tariffs to be \textquotedblleft based on the costs and benefits of the renewable electrical generation facility\textquotedblright{} and \textquotedblleft ensure that the total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total costs.\textquotedblright\footnote{Pub. Util. Code § 2827.1(b)(3-4).} For non-NEM ratepayers, paying multiple times what NEM produced power is worth is clearly not prudent, nor is it just and reasonable, nor is it based on the costs and benefits of the renewable electrical generation facility. Therefore, any NEM tariff that results in a RIM value of far less than one is therefore not just and reasonable. Similarly, from a TRC perspective, a value of less than 1.0 results in an imprudent and unjust and unreasonable selection of resources and a violation of the Public Utilities Code.

While there are details that are addressed in the following sections of this testimony, the way forward is clear. All cost-shifts and subsidies in the NEM tariffs should be eliminated for both current and new NEM customers. To do otherwise results in continued harm to non-NEM ratepayers and particularly hurts the disadvantaged. Moreover, paying NEM customers much...
more than the value that they provide profoundly distorts economic signals. In order to get the right amount of rooftop solar, NEM customers should be paid for the value provided. To continue cost shifts would violate both the Public Utilities Code and the Commission’s guiding principles.

There are four key aspects of making a NEM successor tariff economically efficient, compliant with the Public Utilities Code, and the Commission’s guiding principles:

- Export rate
- Import rate
- Grid benefit charge
- Transition for NEM 1.0 and NEM 2.0 customers

The following sections of this testimony address these topics followed by a section focused on the ALJ’s questions.

II. THE EXPORT RATE SHOULD BE BASED ON THE MOST RECENT ACC

Compensation for NEM generation should be done through net billing rather than net metering. This aligns with Cal Advocates’, NRDC’s, and TURN’s proposals. To ensure adequate compensation for the value of energy exported to the grid by NEM customers, customers should receive a bill credit for the value of that energy. Export compensation should be no more than the values provided by most recent ACC value available. While there remain issues with the ACC as currently implemented, great progress has been made in its recent

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development, and any issues with the ACC are appropriately addressed in the ACC proceeding, R.14-10-003, not in this one.

To make the export compensation send the correct economic signal to existing and future NEM customers, the compensation must be tied as closely as possible to the time and location of the export. Otherwise, exports to the grid will not occur at times that maximize its value to the grid. Thus, hourly and locational values from the ACC should be used to determine export compensation.

The use of values of the ACC for future years, say the value in the 2021 ACC for years after 2022 will distort the compensation for NEM customers compared with using the values from the most recent ACC. The very nature of forecasts is that they are inevitably either higher or lower than actual results except by chance. Forecasts closer in time to the actual event take into account more recent information and so are better than forecasts further away in time. Therefore, the export compensation rate should be updated with each new ACC.

On the forecast issue, TURN’s proposal has a useful suggestion for modifying the export compensation rate by using “the actual recorded California Independent System Operator (CAISO) market prices to calculate energy supply value.” These market prices “would include the Cap & Trade adder, ancillary services costs, and losses.” The ACC would be used under TURN’s proposal for the Greenhouse Gas (“GHG”) adder, GHG portfolio rebalancing, transmission, distribution, generation capacity, and methane leakage. The merit of this suggestion is that rather than using an inevitably wrong forecast, actual prices that are the actual value provided by NEM energy would be used. Exports when prices are high would

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32 TURN proposal, p. 9.
appropriately be compensated more than when prices are low. This would mean both more
accurate compensation for NEM customers as well as more accurate economic price signals. It
may be, however, that it is administratively simpler to use most recent ACC, not market prices.

III. IMPORT RATE

NEM customers should pay for their consumption at the otherwise applicable TOU rate.
This aligns with Cal Advocates’ and TURN’s proposals that the NEM successor tariff should
function as an overlay. Having the NEM successor tariff function as an overlay will enhance
clarity as to what the features of NEM participation are and enhance the ability of customers to
choose whether NEM is right for them.

IV. GRID BENEFITS CHARGE

NEM customers use the T&D grid every day. The NEM successor tariff should ensure
that NEM customers pay their fair share of fixed costs. These costs do not go down because of
NEM customer self-generation, but are born by the non-NEM customers absent a Grid Benefits
Charge (“GBC”). The GBC recovers the non-generation costs that would be recovered absent
NEM customer self-generation. Without the recovery of these costs, NEM creates a downward
spiral tariff with fewer non-NEM customers bearing a larger and larger amount of evaded costs.

TURN has provided a useful list of these non-generation related costs shown in Figure 5.
These costs are classified by TURN as either nonbypassable or unavoidable/shared costs.

Distribution and transmission infrastructure costs should be included in the GBC. The timing of solar generation does not align with the timing of highest demand on the distribution and transmission system. Highest system demand occurs in the evening when solar generation wanes. Because of volumetric rates, however, NEM 2.0 residential customers pay a small fraction of their cost of service. NEM customers should not be allowed to escape paying their share of costs for the distribution and transmission system. Absent introduction of a demand charge into volumetric rates (which would likely need another proceeding to resolve), it would

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34 TURN Proposal, p. 15.
35 See, also, Cal Advocates Proposal, p. 33.
36 E3 Whitepaper, p. 11: “While the majority of the solar photovoltaic (PV) generation takes place during the middle of the day, the higher marginal cost value falls between hours ending 16 through 21 (4 to 9 pm), which include almost the entire fixed generation capacity, transmission, and upstream (primary) distribution costs. In those higher-cost evening hours, solar generation declines rapidly and therefore does not provide meaningful capacity value.”
37 Lookback Study, p. 12: about 12% average across the three IOUs. (18% for PG&E, 9% for SCE, and 9% for SDG&E).
be effective to have a GBC which would consist of the NUS costs listed in Figure 5 multiplied by the kWh of customer self-consumption supplied by BTM resources.\(^{38}\)

There are other costs beyond the direct distribution and transmission infrastructure costs that are captured in distribution and transmission rates and also not affected by BTM generation.\(^{39}\) For example, wildfire mitigation costs, Competition Transition Costs, and Nuclear Decommissioning costs are also not affected by BTM generation. All of these costs remain the same no matter how much or how little NEM generation there is. Moreover, because NEM has benefited the wealthier at the expense of the less wealthy, it is particularly inequitable to allow NEM customers to escape their share of support for Public Purpose Programs such as CARE.

V. TRANSITION FOR NEM 1.0 AND NEM 2.0 CUSTOMERS

Reforming NEM 2.0 in the successor tariff to eliminate cost-shifts for new NEM customers is vital for ratepayer fairness, equity, and California’s climate goals. Transitioning NEM 1.0 and NEM 2.0 customers to the successor rate so that NEM 1.0 and NEM 2.0 customers do not continue to burden non-NEM ratepayers, damage California’s equity goals, and hinder California in combatting climate change is also vitally important.

The Joint IOUs point out that even if the successor tariff has zero cost shift to non-participants, absent Commission transitioning NEM 1.0 and NEM 2.0 participants to the successor tariff the “$3.0 billion cost shift annually from NEM 1.0 and 2.0 customers will continue shifting costs for their entire 20-year legacy period. A customer who adopts today will have a legacy period until 2041.”\(^{40}\) Figure 6 shows the damage done to non-NEM customers by NEM 1.0 and NEM

\(^{38}\) This aligns with TURN Proposal, p. 13.
\(^{39}\) TURN Proposal, p. 16.
\(^{40}\) Joint IOUs Proposal, p. 42.
2.0. The light blue area at top shows the cost-shift if NEM 2.0 continues. This is the opportunity provided by the NEM successor tariff if it stops the cost shifts for future customers. The opportunity for relief from inequity from future NEM customers to non-NEM customers reaches about $2 billion/year by 2030. The Commission should provide that relief in the successor tariff.

Figure 6: Joint IOU Cost Shift

The Commission should also urgently address the on-going transfers due to NEM 1.0 and NEM 2.0. from the disproportionately less wealthy to the wealthier. Even if the successor tariff completely eliminates cost shifts, on-going cost shifts from NEM 1.0 and NEM 2.0 will still be about $3 billion dollars per year in 2030.

If the Commission does not want to immediately transfer NEM customers to the successor tariff and continue for some period the wealth transfer to NEM customers, an option would be to transfer NEM 1.0 and NEM 2.0 customers as they reach their payback period as

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41 The damage from existing NEM 1.0 and NEM 2.0 customers is about $3 billion in 2030. The total damage in 2030 is about $5 billion if NEM 2.0 continues. If the successor tariff stops the cost-shift then the savings are $5 billion minus $3 billion equals $2 billion in 2030.

42 Joint IOU Proposal, p. 42.
measured from the time of interconnection. So, for instance, the SDG&E average payback period was 4.3 years for vintage 2016 NEM 2.0 (see Figure 7). That means the average customer from the 2016 NEM 2.0 will have completed its payback period by early next year and can be transitioned to the successor tariff in 2022. Having reached their payback period end and transitioning to the successor tariff, the vintage 2016 customers will enjoy the benefits of their rooftop solar for about 34 more years without burdening non-NEM customers with undue wealth transfers.

**Figure 7: Payback Periods for Various Vintages of NEM 2.0 Customers**

<table>
<thead>
<tr>
<th>Install Year</th>
<th>SDG&amp;E Payback Period for NEM 2.0 Customers (years)</th>
<th>PG&amp;E Payback Period for NEM 2.0 Customers (years)</th>
<th>SCE Payback Period for NEM 2.0 Customers (years)</th>
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</thead>
<tbody>
<tr>
<td>2016</td>
<td>4.3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2017</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>3.1</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2019</td>
<td>3.1</td>
<td>5</td>
<td>8</td>
</tr>
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NEM 1.0 customers were estimated to have payback periods ranging from 8 to 12 years for vintages 2010 to 2013. This means that there are NEM 1.0 customers who could also be immediately transitioned to the successor tariff because their payback periods are over.

The length of the payback period depends on the year of installation, geographical location, and other factors that the Commission may want to take into account in determining when to transition various vintages of NEM 1.0 and NEM 2.0 customers to the successor tariff.

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43 Cal Advocates Proposal, Appendix C.
44 D.14-03-041, p. 11.
However, it is clear that the transition of some NEM 1.0 and NEM 2.0 customers to the successor tariff can begin immediately.