

# NEM Grandfathering

February 19, 2014





# PG&E's Grandfathering Proposal

- PG&E's **transition period** for current customers to move from existing program to NEM 2.0 is based on a reasonable payback period that:
  - Protects existing NEM customers' investment in their systems
  - Subjects non-participating PG&E customers to lower cost shifts
  - Gradually steps down to NEM 2.0 to mitigate a gold rush
  - Reflects AB327 direction to base transition period on reasonable payback period.

Interconnection From	Interconnection To	Customer Transfers to NEM 2.0*	Years on NEM 1.0
<i>Start of NEM</i>	<i>March 30, 2014</i>	<i>January 1, 2023</i>	<i>10 - 25</i>
<i>April 1, 2014</i>	<i>December 31, 2015</i>	<i>January 1, 2020</i>	<i>5 - 7</i>
<i>January 1, 2016</i>	<i>June 30, 2017</i>	<i>NEM 2.0 effective date</i>	<i>1 - 1.5</i>

• Transition occurs first true-up period following January 1, 2023



# Solar Parties' Proposals Perpetuate the NEM Cost-Shift

Proposals for “life-of-system” significantly increase the potential cost-shift over proposals based on reasonable payback

	Years Post 2017	MWs Grandfathered <sup>2</sup>	Cumulative PG&E Cost-Shift During Proposed Grandfathering period (\$ billions) <sup>1</sup>
<i>TURN</i>	<b>3</b>	<b>1,640</b>	<b>\$1.3</b>
<i>ORA</i>	<b>5</b>	<b>1,640</b>	<b>\$2.1</b>
<i>PG&amp;E, SDG&amp;E</i>	<b>7</b>	<b>1,310</b>	<b>\$2.0</b>
<i>SCE</i>	<b>7</b>	<b>1,640</b>	<b>\$2.9</b>
<i>CCSE- &amp; Most solar Parties</i>	<b>20 -30</b>	<b>2,409</b>	<b>\$12.3 - \$18.4</b>
<i>Other solar parties</i>	<b>45</b>	<b>2,409</b>	<b>\$27.7</b>

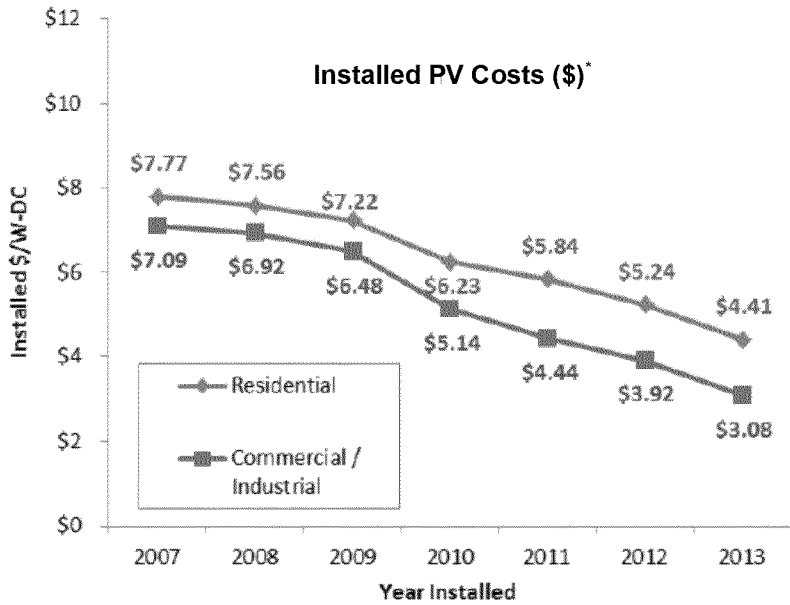
Notes:

1) Calculations rely on Cost-Shift per MW per year in 2017 of \$255,000 from E3 work-papers;

2) Projected volumes are from E3 work-paper projections of year-end volumes, with partial year values interpolated. Proposals from CCSE and solar parties are set at PG&E's NEM Cap of 2409 MW due to expected “gold-rush” from lengthy grandfathering. PG&E and SDG&E's proposal is assumed to result in less megawatts grandfathered than SCE's because of the step-down in grandfathering proposed by the former.



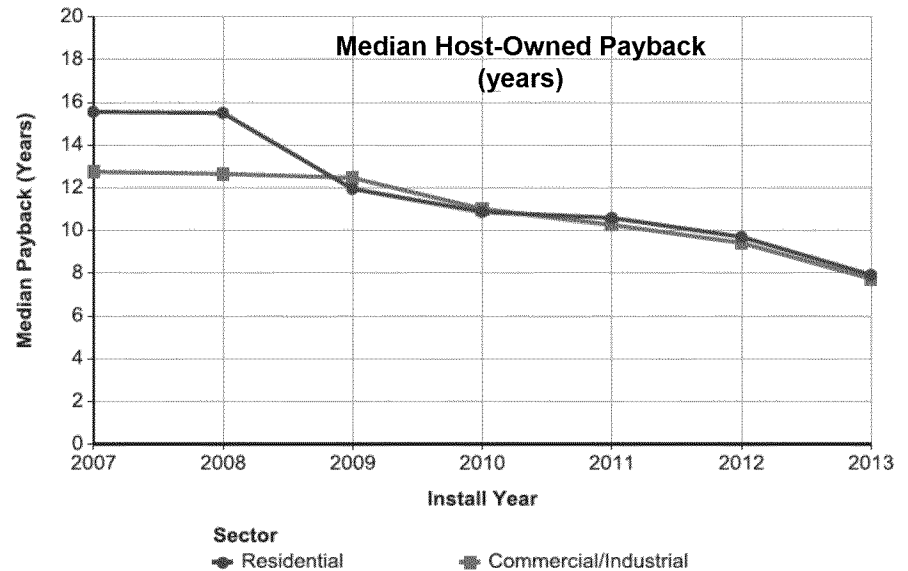
# Basis for 7- to 10-Year Payback Period



Source: PowerClerk Working Data, November 27, 2013

- System prices declined 40% over 4 years
- Costs are expected to continue declining (Germany~\$2.35/Watt)

- Lower prices have led to declines in payback period
- This trend will continue to as costs continue to decline



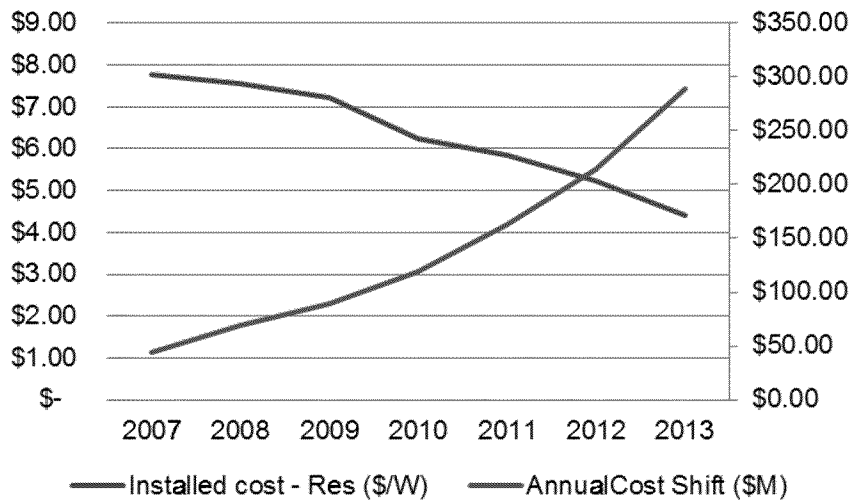
\* Source: Navigant Consulting report submitted with PG&E reply comments on Grandfathering



# Market Analysis

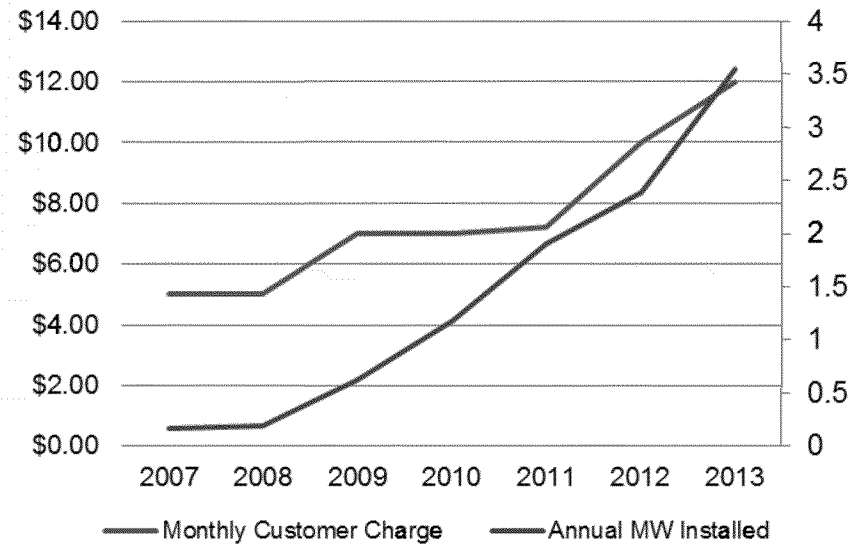
- Solar industry's previous claims of market disruption did not materialize
- Decreasing system costs mean it is possible to address cost-shift without market disruption
- It is understandable that solar market wants to preserve (increase) profits, but not at expense of utility customers

**As cost of solar has decreased, no savings have reached nonparticipating customers**



Source: Navigant Consulting & E3

**SMUD has increased customer fixed charge with no decrease in installation rates**



Source: Sacramento Municipal Utility District

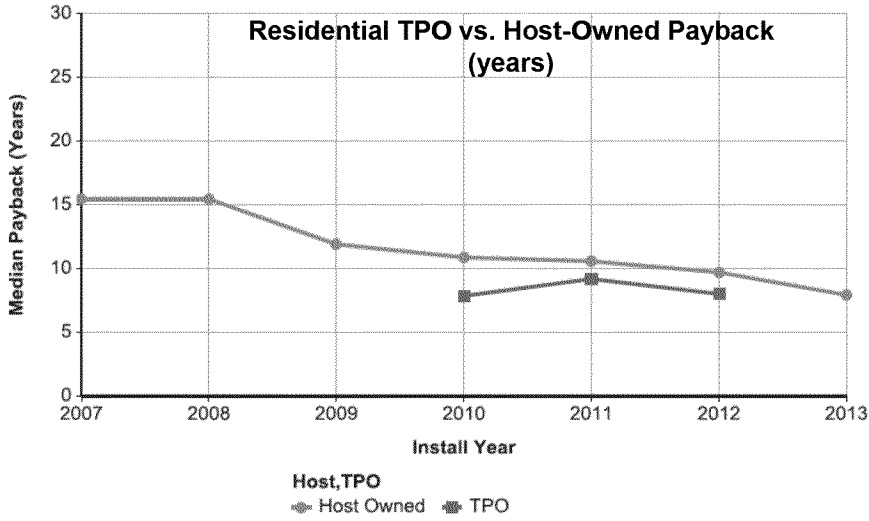


# APPENDIX

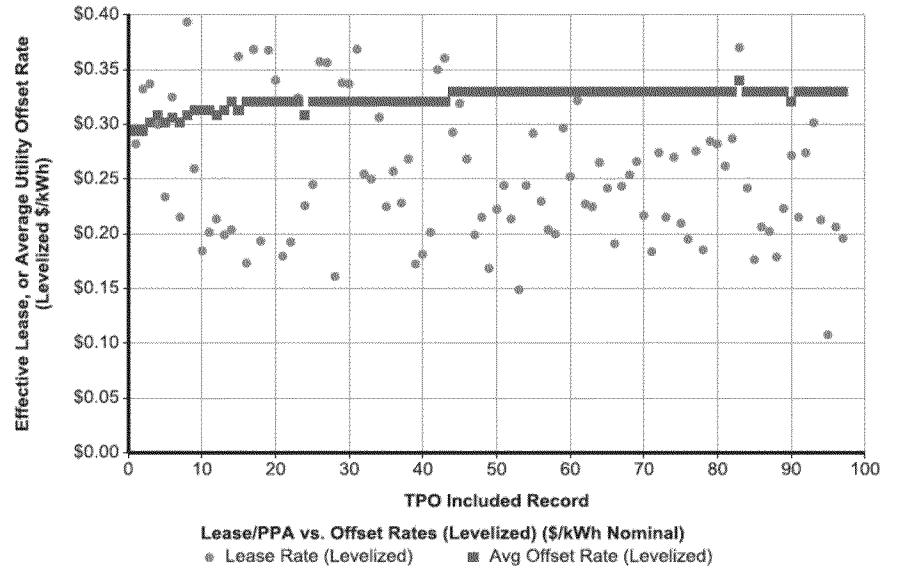
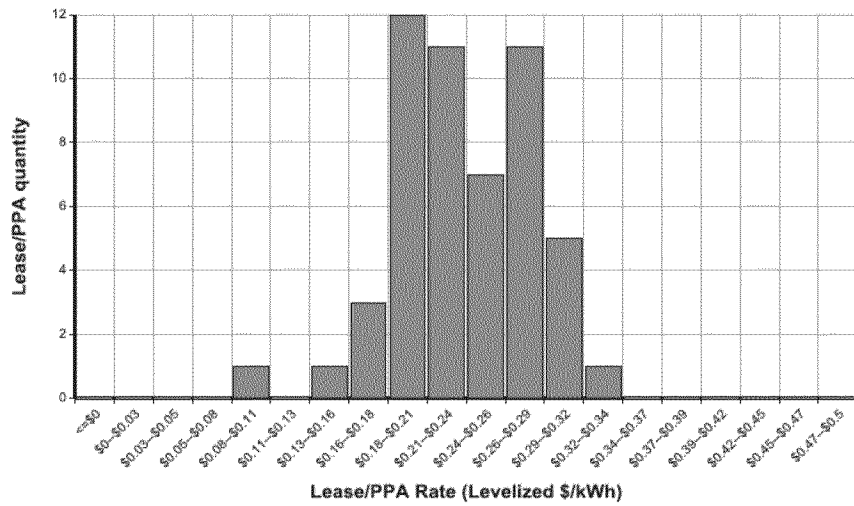




# Residential Third-Party Owned Analysis



- TPO payback lower than host-owned for residential; TPOs are able to monetize depreciation
- TPO arrangements provide immediate savings with little upfront payment
- Required conversion of the lease/PPA into terms that could translate into payback





# Residential adoption is concentrated among high income customers

