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

Order Instituting Rulemaking to Develop a
Successor to Existing Net Energy Metering
Tariffs Pursuant to Public Utilities Code
Section 2827.1, and to Address Other Issues
Related to Net Energy Metering.

Rulemaking 14-07-002
(Filed July 10, 2014)

And Related Matter.

Application 16-07-015

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) OPENING COMMENTS ON THE
PROPOSED DECISION ADOPTING STANDARDIZED INPUTS AND ASSUMPTIONS FOR
CALCULATING ESTIMATED ELECTRIC UTILITY BILL SAVINGS FROM
RESIDENTIAL PHOTOVOLTAIC SOLAR ENERGY SYSTEMS**

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TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND SUMMARY	1
II. DETAILED COMMENTS.....	4
A. Completion of an Online Calculator Should Precede IOU Enforcement of Standardized Bill Savings	4
1. An Online Calculator Will Improve Transparency and Consumer Protection.....	4
2. An Online Calculator Will Provide Better Oversight Regarding Solar Providers’ Compliance	5
3. Streamlined Compliance for Solar Providers	7
4. Information for Policy Analysis	7
B. Additional Scope for Citations and IOU Review Beyond “Spot Audits” Is Inappropriate Until Significant Concerns Raised in a Pending Petition for Modification Are Addressed.....	8
C. Costs for Implementation of the Online Solar Calculator and Bill Savings Enforcement Should Be Recoverable Through IOU Interconnection Fees	9
D. Correction Needed - PG&E’s Position on Solar Providers’ Ability to Show Alternative Bill Savings Estimates	9
E. Clarification on IOU Requirements to Collect Documentation Is Needed.....	10
III. CONCLUSION	10

TABLE OF AUTHORITIES

Page(s)

CALIFORNIA AUTHORITIES

Statutes and Regulations

Public Utilities Code § 2854.6(a).....4

California Public Utilities Commission

CPUC Decisions

Decision 18-09-044.....6, 8

Decision 20-02-011.....6, 7

CPUC Rules of Practice and Procedure

Rule 14.3(a).....1

SUMMARY OF RECOMMENDED CHANGES

- PG&E’s opening comments provide recommendations for how the CPUC should modify the Proposed Decision to facilitate transparency and enforcement of the bill savings estimation requirements.
- PG&E recommends the Commission accelerate the development of the statewide online estimated electric bill savings calculator.
- PG&E recommends that the Commission refrain from considering citations and IOU review beyond “spot audits” related to enforcement of the bill savings estimation inputs until the issues raised in a pending Petition for Modification are resolved.
- PG&E recommends that the Commission confirm that cost recovery for the online solar calculator and bill savings enforcement be recoverable through the IOU’s respective interconnection fees.
- PG&E recommends a correction in the Proposed Decision of material that appears to incorrectly describe PG&E’s position on solar provider’s ability to provide alternative bill savings estimation.
- PG&E recommends clarification on IOU requirements to collect documentation as part of the interconnection application process.

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I. INTRODUCTION AND SUMMARY

Pursuant to Rule 14.3 of the California Public Utilities Commission’s (CPUC or Commission) Rules of Practice and Procedure (Rules), Pacific Gas and Electric Company (PG&E) respectfully submits these opening comments to the Proposed “Decision Adopting Standardized Inputs and Assumptions for Calculating Estimated Electric Utility Bill Savings from Residential Photovoltaic Solar Energy Systems,” issued on June 12, 2020 (Proposed Decision or PD).

PG&E supports the CPUC’s efforts to enhance consumer protection by ensuring that utility customers who choose to invest in solar base their decision on fair estimates of solar bill savings. The Proposed Decision also outlines mechanisms to ensure transparency in – and enforcement of – solar providers’ use of the standardized inputs and assumptions outlined in Attachment B of the Proposed Decision (Staff Proposal). PG&E’s opening comments provide recommendations for how the CPUC should adjust the Proposed Decision to facilitate transparency and enforcement of the bill savings estimation requirements.

PG&E urges the Commission to accelerate the development of the statewide “online estimated electric bill savings calculator”^{1/} described in the Staff Proposal for “Phase 2” and enforce the bill savings estimation requirements outlined in this Proposed Decision only once the calculator is complete and publicly available.^{2/} The standardized inputs and assumptions will not be transparent, enforceable, or effective until such a calculator is developed for the following reasons:

1. Standardized inputs and assumptions must be paired with standardized calculations and presentation of the outputs to provide real transparency for customers;
2. The online bill savings calculator will enable more effective oversight and enforcement; and
3. A single statewide calculator would streamline compliance for solar providers and capture useful information for policy makers.

Without the online bill savings calculator, PG&E may be unable to effectively perform spot audits due to the challenges in executing non-disclosure agreements (NDAs) with hundreds of solar providers and collecting and verifying calculations steps that may have been done in hundreds of different ways. Furthermore, PG&E believes that without the consistency and information capture provided by the online calculator, the Contractors State Licensing Board (CSLB) and the Commission’s Consumer Protection and Enforcement Division (CPED) will be hampered in their oversight efforts.

PG&E recognizes that the CPUC is seeking to meet the AB 1070 requirements to establish standardized estimates solar bill savings inputs and assumptions (which was required by July 2019), and PG&E does not seek to further delay use of these inputs and assumptions. Per an email notice to the R.14-07-002 service list, on July 1, 2020, Energy Division notified

^{1/} PG&E and other parties to the R.14-07-002 service list received an email notice on July 1, 2020 from the CPUC Energy Division that the solar calculator has been cancelled but that the CPUC “may reinstate this process in the future”. It is unclear to PG&E from this notice if/when the new solar calculator will be developed—given this uncertainty and PG&E’s receipt of this notice the day before these comments are due, PG&E has not modified its comments to respond to this notice.

^{2/} Staff Proposal, p. 6.

parties that the solar calculator Request for Offer (RFO) has been cancelled and the CPUC “may reinstate this process in the future.” Due to this uncertainty, PG&E requests the Proposed Decision be held or reconsidered at a later date when the Commission has more certainty regarding the development of the solar calculator RFO.

PG&E provides more details on the benefits of aligning the standardized inputs and assumptions requirements with the availability of an online bill savings calculator in Section II.A of these opening comments. The remaining issues addressed in PG&E’s opening comments are summarized below.

In Section II.B, PG&E requests that the CPUC refrain from considering citations related to enforcement of the bill savings estimation inputs and assumptions until the issues raised in the Petition for Modification of Decision 20-02-011 of Southern California Edison (U338-E), Pacific Gas and Electric Company (U39-E) and San Diego Gas & Electric Company (U 902-E) (PFM) are resolved by the Commission.

In Section II.C, PG&E requests that the Commission confirm that cost recovery for the online solar calculator and costs associated with auditing the use of the standardized bill savings inputs and assumptions be recoverable through the Investor Owned Utilities’ (IOUs’) respective interconnection fees.

In Section II.D, PG&E requests a correction in the Proposed Decision of material that appears to incorrectly describe PG&E’s position on solar providers’ ability to provide alternative bill savings estimation.

In Section II.E, PG&E requests clarification on what information on bill savings estimation the CPUC is requesting the IOUs collect as part of the interconnection application process – the standard assumptions document, or the data fields on the document.

Proposed specific changes to the Proposed Decision are provided in Appendix A, attached hereto.

II. DETAILED COMMENTS

A. Completion of an Online Calculator Should Precede IOU Enforcement of Standardized Bill Savings

PG&E strongly recommends that the Commission adjust the Proposed Decision to align enforcement of solar bill savings estimation requirements with the availability of the “online estimated bill savings calculator” described in “Phase 2” of the Staff Proposal.^{3/} Requirements should go into effect only after completion of the calculator, which would provide the following benefits:

1. An Online Calculator Will Improve Transparency and Consumer Protection

AB 1070 directs the Commission to “develop standardized inputs and assumptions to be used in the calculation and presentation of electric utility bill savings to a consumer that can be expected by using a solar energy system by vendors, installers, or financing entities...”.^{4/} PG&E supports the Commission’s efforts to meet the intent of this directive, to provide an estimate of expected bill savings that is not influenced by solar providers’ incentive to make a sale and enables customers to make “apples-to-apples” comparison between solar offers. However, if the output – the presentation of those bill savings estimates – is not also standardized, customers may be confused when reviewing the minimum three to four bids that PG&E recommends customers obtain when shopping for solar. Even if the underlying inputs and assumptions are the same across bids, it may be difficult to decipher varying presentation of bill savings from different solar providers. PG&E is concerned that this may compromise customers’ ability to make comparisons between bids. Standardized presentation of bill savings through consistent output from a statewide online calculator would provide far better transparency for customers and would better meet the intent of AB 1070.

^{3/} Staff Proposal, p. 6, as adopted in the Proposed Decision, Ordering Paragraph (OP) 1.

^{4/} Pub. Util. Code § 2854.6 (a).

The online calculator could also promote better consumer protection by providing data quality checks that ensure inputs and assumptions conform to the CPUC requirements, further giving customers assurance that standardized assumptions were used.

2. An Online Calculator Will Provide Better Oversight Regarding Solar Providers' Compliance

PG&E recognizes that enforcement of the solar bill savings standardized inputs and assumptions is necessary and is best performed by the CSLB in conjunction with the CPED. PG&E is concerned, however, that the Proposed Decision will not enable effective oversight.

The PD directs IOUs to collect documentation of bill savings estimates for all residential solar interconnections through each IOU's respective interconnection portal.^{5/} The PD further requires IOUs to "collect all steps, figures and backup documentation in the calculation process of electric bill savings estimates" for a sample of 100 interconnections on a semi-annual basis^{6/} and requires the IOUs to conduct spot audits of this sample to ensure that solar providers are complying with the requirement to use standardized inputs and assumptions in solar bill savings estimates.^{7/} To enable the collection of backup documentation for the purposes of these spot audits, the Staff Proposal adopted by the PD states that "this information shall be transmitted to the IOU under a non-disclosure agreement between the IOU and the solar provider."^{8/}

The PD states it is reasonable for PG&E to collect backup documentation on solar bill savings estimation and to conduct spot audits.^{9/} PG&E asserts that this requirement will be reasonable only once the "steps, figures and backup documentation in the calculation process" are standardized through the online bill savings estimation calculator described under "Phase 2" of the Staff Proposal.^{10/} To audit solar bill savings estimates for conformance to CPUC

^{5/} PD, OP 6, p. 17.

^{6/} PD, OP 6, p. 17.

^{7/} PD, OP 7, pp. 17-18.

^{8/} Staff Proposal, p. 10.

^{9/} PD, OP 7 and OP 8, pp. 17-18.

^{10/} Staff Proposal, p. 10.

requirements without standardized calculations and presentation from an online calculator, the IOUs would have to recreate bill savings estimations at every semi-annual audit that have been performed in 100 distinct ways by different solar providers, and with varying backup documentation. Implementation of this requirement would be extremely challenging and represents a poor use of IOU resources given that a calculator is currently under development that would greatly streamline – and enhance the oversight provided by – spot audits.

Furthermore, standardized calculations and presentation through an online calculator would enhance transparency in bill savings calculations to the CSLB, the CPED, and any other entities charged with enforcing the bill savings estimation requirements. The Proposed Decision directs the IOUs to include findings on compliance with bill savings estimation requirements as part of the audit process required by OP 10 of Decision (D.) 18-09-044. OP 10 directs the electric utilities to provide audit findings to the CSLB to substantiate grounds for disciplining contractors for violations of CSLB rules and regulations, and to the CPED, which may propose a citation program for the consumer protection requirements established in both D.18-09-044 and D.20-02-011.^{11/} Transparency provided by an online calculator in both the solar providers' bill savings estimate calculations and the spot audit process will significantly enhance the effectiveness of these enforcement mechanisms.

With regard to the requirement that backup documentation of bill savings calculations be transferred to the utilities under an NDA between the IOUs and solar provider as part of semi-annual spot audits, PG&E urges the Commission to remove this requirement as it is unreasonable. Currently as part of the application process, PG&E has no contractual agreements between the solar provider or installer and PG&E – the contractual agreement is only between PG&E and the customer. As written now, Section 4 of the Staff Proposal requires PG&E to establish NDAs with the installers associated with the 100 randomly selected applications included in the audit. Interconnections in PG&E's service area include installations from thousands of contractors so it likely that PG&E would have to establish 100 new NDAs for each

^{11/} PD, p. 12.

semi-annual spot audit. This would involve weeks if not months to implement and represents a poor use of IOUs' and solar providers' resources. We alternatively recommend that the “steps, figures, and backup documentation in the calculation process”^{12/} be captured in the solar calculator and that only restricted output – which would be filtered to omit solar provider confidential information – be provided to the IOUs as necessary to enable spot audits.

3. Streamlined Compliance for Solar Providers

PG&E supports the CPUC and other California State institutions' efforts to promote consumer protection for IOU electric customers who choose to invest in a solar system for their home. PG&E also recognizes that customer acquisition can be a challenging and costly process for solar providers. Consumer protection measures should be implemented in a way that does not unnecessarily add cost and complexity to the solar sales process. A standardized calculator would offer solar providers clear direction and tools for ensuring that their calculations conform to CPUC requirements.

4. Information for Policy Analysis

With over a million rooftop solar installations in California and continued growth in solar at over a hundred thousand installations a year, better information on estimated customer bill savings and generation could provide useful information for policy makers.^{13/} The statewide online bill savings calculator would capture information in a standardized format that not only would facilitate better transparency and enforcement of bill savings estimation, but could also provide information for policy makers on customer solar generation and bill savings, much as the California Distributed Generation Statistics site has for customer solar adoption trends.

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^{12/} Staff Proposal, p. 10.

^{13/} California Distributed Generation Statistics, <https://www.californiadgstats.ca.gov/> > [\(as of June 29, 2020\)](#).

B. Additional Scope for Citations and IOU Review Beyond “Spot Audits” Is Inappropriate Until Significant Concerns Raised in a Pending Petition for Modification Are Addressed

In the Petition for Modification (PFM) of D.20-02-011 of Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas & Electric Company (collectively the IOUs) raised significant legal concerns about the citation program proposed by the CPUC in Draft Resolution UEB-004, which was based on a last minute material revision to D.20-02-011 – on which parties had no opportunity to comment – that shifted to IOUs a citation program all parties had thought was directed to unethical solar providers.

The PFM points out that D.18-09-044 and the “Assigned Commissioner Ruling Regarding Enhanced Consumer Protections via Potential Modifications to Customer Information Packet Signature Requirements and Solar Provider Registration Process of Interconnecting under Net Energy Metering” that preceded D.20-02-011 did not identify the IOUs as the subject of the proposed citation program; rather, it was the solar providers who were understood to be responsible for complying with the NEM Consumer Protection documentation requirements and were subject to a potential citation program for failure to supply accurate and comprehensive information. In addition to this concern, the IOUs showed that the risk of hefty citations would force the IOUs to check NEM consumer protection documentation on each of the thousands of monthly solar interconnection applications they receive at significant administrative cost and in a manner that contradicts the direction from D.18-09-044.^{14/} Finally, the PFM raised significant procedural concerns about the proposed citations in Draft Resolution UEB-004. In light of these concerns, the IOUs requested in the PFM that stakeholders be given the opportunity to explore alternatives other than the IOU citation program. Due to these significant, pending issues, PG&E requests that any references to citations in the Proposed Decision be removed until the concerns raised in the PFM are addressed. PG&E incorporates by reference its PFM and comments on Draft Resolution UEB-004.

^{14/} D.18-09-044, OP 10, p. 58, and Sec. 2.2.7, pp. 30-34, direct the utilities to not check every application, but to conduct “spot audits” of a least 100 interconnection applications semi-annually.

C. Costs for Implementation of the Online Solar Calculator and Bill Savings Enforcement Should Be Recoverable Through IOU Interconnection Fees

In Section 2.5 of D.18-09-044, the Commission affirmed the appropriateness of recovering costs related to IOU implementation of D.18-09-044 requirements through interconnection fees pursuant to D.14-05-033, Resolution E-4610 and OP 2 of D.16-01-044. PG&E urges the Commission to clarify that costs associated with implementing the online solar calculator described in the Staff Proposal, along with costs associated with updates to the IOUs' interconnection process to comply with the Proposed Decision also be recoverable through interconnection fees.

D. Correction Needed - PG&E's Position on Solar Providers' Ability to Show Alternative Bill Savings Estimates

PG&E respectfully requests that the Commission correct an incorrect description in the Proposed Decision of PG&E's position on solar providers' ability to provide alternative bill savings calculations. The Proposed Decision incorrectly characterizes PG&E's position on whether solar providers should be allowed to provide alternative additional bill savings estimates to customers during the sales process. The Proposed Decision states "PG&E, SCA, SCE, and TURN assert solar providers should not be permitted to present alternative calculations and/or alternative scenarios; TURN argues that doing so would defeat the purpose of the standardized approach."^{15/}

In "Pacific Gas and Electric Company's (U 39 E) Opening Comments on the Administrative Law Judge's Ruling on Inviting Comments on the Staff Proposal for Implementation of Electric Bill Savings Calculator for Solar Customers," PG&E expressed *support* for solar providers' ability to provide additional bill savings calculations to customers to supplement the bill savings estimated based on required inputs and assumptions. A primary reason for PG&E's position on this is that solar providers may have more advanced tools for developing solar generation estimates than the NREL PV Watts tool mandated for use by the CPUC in the Proposed Decision. Many solar providers use advanced modeling tools to develop

^{15/} PD, p. 8.

customer-specific estimates of solar generation. These modeling approaches use aerial or satellite images combined with photogrammetry to take two-dimensional images and render three-dimensional information, as well as Light Detection and Ranging (LiDAR) information which provides three-dimensional building surface renderings. Such tools can more accurately capture shading impacts on hourly generation.^{16/}

E. Clarification on IOU Requirements to Collect Documentation Is Needed

OP 2 requires PG&E to “(a) modify [its] interconnection processes to enable and require uploading of a document that includes (1) an electric bill savings estimate that uses the standardized inputs and assumptions adopted by this decision...”^{17/} PG&E requests that the Commission specify what document is being required. Clarification of this requirement is needed to enable the IOUs to implement software and process changes that meet the Commission’s intent. PG&E also requests that the Commission clarify that no additional modifications to the interconnection portal beyond enabling the uploading of this document will be required for the IOUs to comply with OP 2 of this Proposed Decision.

III. CONCLUSION

PG&E supports the Commission’s efforts to enhance consumer protection by ensuring that utility customers receive fair estimates of future bill savings when they make the decision to invest in solar. PG&E recommends that the CPUC adopt the recommendations outlined in these

^{16/} PG&E’s Opening Comments on the Administrative Law Judge’s Ruling Inviting Comments on Staff Proposal for Implementation of Electric Bill Savings Calculator for Solar Customers (Aug. 27, 2019) p. 3.

^{17/} PD, OP 2, p. 16.

APPENDIX A

PG&E'S PROPOSED CHANGES TO THE FINDINGS OF FACT AND CONCLUSIONS OF LAW

Below are PG&E's recommended changes to the Proposed Decision. PG&E's recommended changes are shown in strike-out for proposed deletions and single-underlining for proposed additions.

Conclusion of Law:

7. It is reasonable to require the electric utilities to verify that estimated bill savings provided as part of the interconnection application process are consistent with outputs and presentation from the online estimated bill savings calculator described in Phase 2 of the Staff Proposal ~~collect all steps, figures and backup documentation~~ for at least 100 interconnection applications, as part of the semi-annual audit process ordered in D.18-09-044.

Attachment B (Staff Proposal):

Section 4. Transparency

Each IOU shall ~~collect all steps, figures, and backup documentation in the calculation process from the solar provider of~~ verify that estimated bill savings provided as part of the interconnection application process are consistent with outputs and presentation from the online estimated bill savings calculator described in Phase 2 of the Staff Proposal for at least 100 interconnection applications as part of the audit process established by D.18-09-044 to ensure customers have signed the Solar Consumer Protection Guide. ~~This information shall be transmitted to the IOU under a non-disclosure agreement between the IOU and the solar provider~~