



**FILED**

02/24/23

04:59 PM

R2008020

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

Order Instituting Rulemaking to Revisit Net  
Energy Metering Tariffs Pursuant to Decision  
16-01-044, and to Address Other Issues  
Related to Net Energy Metering.

R.20-08-020  
(Filed August 27, 2020)

**JOINT OPENING COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY  
(U 338-E), PACIFIC GAS AND ELECTRIC COMPANY (U 39-E) AND SAN DIEGO GAS  
& ELECTRIC COMPANY (U 902-E) IN RESPONSE TO ADMINISTRATIVE LAW  
JUDGE'S RULING PROVIDING DETAILS ON FEBRUARY 8, 2023 WORKSHOP AND  
SOLICITING RESPONSES TO RULING QUESTIONS**

ASHLEY E. MERLO

Pacific Gas and Electric Company  
77 Beale Street, Mail Code B30A  
San Francisco, CA 94015  
Telephone: (925) 200-5819  
Facsimile: 415-973-5520  
Email: Ashley.Merlo@pge.com

Attorney for  
Pacific Gas and Electric Company

E. GREGORY BARNES

San Diego Gas & Electric Company  
8330 Century Park Court, CP32D  
San Diego, CA 92123  
Telephone: (858) 654-1583  
Facsimile: (619) 699-5027  
Email: GBarnes@sdge.com

Attorney for  
San Diego Gas & Electric Company

JANET S. COMBS  
REBECCA MEIERS-DEPASTINO

Southern California Edison Company  
2244 Walnut Grove Avenue  
Rosemead, CA 91770  
Telephone: (626) 302-6016  
Email: Rebecca.Meiers.Depastino@sce.com

Attorneys for  
Southern California Edison Company

Dated: February 24, 2023

## TABLE OF CONTENTS

	Page
I. INTRODUCTION .....	1
II. RESPONSES TO ATTACHMENT 2 QUESTIONS .....	2
A. Watch List (Decision (D.) 21-06-026) and Non-Compliance .....	2
1. What changes, if any, should be made to the list of regulations and rules that solar providers must comply with for purpose of determining whether to include a solar provider on the Watch List? .....	2
a) Background .....	2
b) Existing consumer protection measures do not identify fraud and the IOUs should be removed from the Watch List process.....	3
c) CSLB and DFPI should take a greater role in determining which vendors should be placed on the Watch List.....	3
2. Should Net Billing tariff interconnection applications that fail to adhere to the consumer protection requirements of D. 20-08-001 and D. 21-06-026 be deemed non-compliant for purposes of the Watch List? If yes, propose enforcement and implementation processes. ....	4
3. Explain whether investor-owned utilities (Utilities), in consultation with the Commission, CSLB, and DFPI staff, should develop and propose a standardized set of non-compliance criteria through a joint advice letter?.....	5
B. Watch List Removal Process .....	5
4. Currently, a solar provider that has been placed on the Watch List will remain listed until the end of the full quarter after which the solar provider was initially placed on the Watch List (i.e., solar providers remain on the Watch List for six months minimum). Should the Commission modify the Watch List duration to remove compliant solar providers from the Watch List after the first quarter (i.e., three months)? .....	5
5. Should there be alternate means for a solar provider to be removed from the Watch List other than the natural expiration or by proving compliance with consumer protections through the current removal request process? .....	6

**TABLE OF CONTENTS**  
**(continued)**

	<b>Page</b>
C. Watch List Pre-Approval Reviews .....	6
6. Should Utilities be authorized or required to deny a net billing tariff interconnection application that is found by utility staff to be non-compliant with the consumer protection statutes, regulations, or rules enumerated in Section 4 of D.21-06-026? .....	6
7. Explain whether Utilities should report the results of their pre-approval enhanced reviews to the Commission with their semi-annual spot audits directed by Ordering Paragraph 10 of D.18-09-044 or through an annual Tier 2 advice letter? .....	7
D. Customer Billing.....	7
8. Historically, net energy metering bills have been complicated and difficult for customers to understand. Explain whether the utilities should be required to garner feedback from parties or other entities on the presentation of net billing tariff customer bills? If yes, how could this be accomplished, e.g., should the utilities host a workshop or be required to report on other information-gathering efforts such as focus groups. ....	7
9. Explain whether Utilities should engage with a single, statewide vendor to develop a uniform bill format to maximize readability and optimize understanding and address common customer questions? Explain whether such bill reforms should include Virtual Net Energy Metering tariff beneficiaries? How might such work dovetail with Utilities’ ongoing and planned billing system upgrade initiatives? Would it be appropriate for this effort to be funded out of Utilities’ Net Billing Tariff memorandum accounts established pursuant to D.22-12-056?.....	7
10. Utilities Only. For the years 2017-2022, provide annual statistics on how many unique customer inquiries utility received regarding issues with net energy metering bills? How many customer service representative hours were dedicated in these years to net energy metering billing inquiries? .....	8
E. Consumer Education: Misinformation and False Advertising.....	10
11. Would it be advantageous for the Commission or Utilities to host a workshop to address solar misinformation and false advertising on social media, mail, radio, and other forms of media? What outcomes, if any, could be anticipated from such a workshop? .....	10

## TABLE OF CONTENTS (continued)

	Page
F. Consumer Education: Non-Functioning Solar Systems .....	10
12. What type of outreach should Utilities engage in to remind their customers to regularly check the performance of their solar systems through their online billing portals or other system monitoring programs? .....	10
13. Explain whether Utilities should be required to alert solar customers when their solar systems are non-functioning or under-functioning? If yes, propose the customer type, communication venue, timing, and any other relevant parameters (e.g., to residential solar-only customers, after seven days, but then not again until the next calendar month and allow customers to permanently opt out). Should any method of predicting which customers may be likely to export power if their solar system is functioning, e.g., solar-only customers whose system capacity covers over a certain percentage of their historical electric load? .....	11
G. Solar Complaint Portals .....	12
14. Currently, Utilities are required to submit quarterly advice letters reporting solar consumer complaints received. Explain whether this reporting requirement should be modified or removed? .....	12
III. RESPONSES TO ATTACHMENT 3 QUESTIONS .....	12
A. Evaluation Parameters .....	12
1. What researchable questions are required to successfully evaluate the net billing tariff and its achievement of the Commission's goals? .....	12
2. What metrics should be used in answering the research questions? .....	13
3. What types of data are needed to demonstrate the net billing tariff's status according to each recommended metric? .....	16
a) Describe the data sources, data collecting entity, data collection time intervals, data storage method, upfront and ongoing data collection and storage costs, and any other important factors in deciding which data to collect. ....	16
b) Describe whether and how data collection should differentiate among any sub-populations, such as customer types, subtariffs (e.g., Net Energy Metering Aggregation, Virtual Net Energy Metering, etc.), generation types, or electrification technology types. ....	18

## TABLE OF CONTENTS (continued)

	Page
c) If proposing the collection of qualitative data, describe how the data should be treated to enable the use of the data in conformity with the Commission’s evaluation protocols. ....	18
d) Describe how the utilities and/or data collecting entity should access any needed data that are held by private entities, e.g., equipment manufacturers or lenders.....	19
B. Evaluation Implementation Questions .....	19
4. Explain whether the evaluation directed by D.22-12-056 should utilize the process outlined above, with or without modifications? If you recommend modifications, explain how you propose to modify the above process.....	19
5. Explain whether the final research plan should be submitted as a compliance filing?.....	19
6. By what date should data collection start? Considering your answer to question 1, what timeline of implementation steps would enable data collection to start by your proposed data collection start date? .....	20
7. Demand side management evaluation, measurement and verification often relies on a Response to Recommendations process to ensure results or findings of a study are implemented in a program. Explain whether that process should be utilized for this evaluation effort? .....	20
8. What compliance requirements should the Commission adopt to facilitate responses to and incorporation of evaluation findings and recommendations? .....	20
C. Evaluation Funding .....	20
9. What budget should be authorized for this evaluation effort? .....	20
10. Explain whether the funding source for the evaluation study should be public purpose program surcharges, as it was for the net energy metering Lookback Study? If not, propose an alternative. ....	21
IV. CONCLUSION.....	21

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

Order Instituting Rulemaking to Revisit Net  
Energy Metering Tariffs Pursuant to Decision  
16-01-044, and to Address Other Issues  
Related to Net Energy Metering.

R.20-08-020  
(Filed August 27, 2020)

**JOINT OPENING COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY  
(U 338-E), PACIFIC GAS AND ELECTRIC COMPANY (U 39-E) AND SAN DIEGO GAS  
& ELECTRIC COMPANY (U 902-E) IN RESPONSE TO ADMINISTRATIVE LAW  
JUDGE’S RULING PROVIDING DETAILS ON FEBRUARY 8, 2023 WORKSHOP AND  
SOLICITING RESPONSES TO RULING QUESTIONS**

**I. INTRODUCTION**

Pursuant to the February 1, 2023 Administrative Law Judge’s Ruling Providing Details on February 8, 2023 Workshop and Soliciting Responses to Ruling Questions (the “Ruling”), Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (collectively, the “Joint Utilities”) provide responses to the questions posed in Attachments 2 and 3 of the Ruling. The Joint Utilities appreciate the opportunity to respond to the Ruling’s questions.

Concerning consumer protection, in summary, the Joint Utilities submit that the Contractors State License Board (CSLB) and Department of Financial Protection and Innovation (DFPI) are better positioned than the investor-owned utilities (IOUs) to protect consumers from the unscrupulous practices of some solar vendors. The Joint Utilities therefore recommend that the IOUs be removed from having any role in connection with the existing solar consumer protection Watch List process, and instead that the CSLB and DFPI should take a greater role in consumer protection. The Joint Utilities also recommend that the Commission reconsider the value of existing administrative reporting relating to consumer protection issues, which, while well-intended, in practice are not well designed to prevent fraud.

As for the future evaluation of the Net Billing Tariff (NBT), the Joint Utilities recommend that the evaluation consider the legislative requirements of Assembly Bill 327, and

as described in D.22-12-056, place “an emphasis on evaluating equity, affordability and grid benefits.” The Joint Utilities recommend questions and considerations in Section III. below aimed at these objectives.

## **II. RESPONSES TO ATTACHMENT 2 QUESTIONS**

### **A. Watch List (Decision (D.) 21-06-026) and Non-Compliance**

#### **1. What changes, if any, should be made to the list of regulations and rules that solar providers must comply with for purpose of determining whether to include a solar provider on the Watch List?**

The Joint Utilities recommend the following changes: (a) the IOUs, as owners of the interconnection portals and processes, should be removed from the Watch List process, and (b) CSLB and DFPI should take a greater role in determining which vendors should be placed on the Watch List.

##### **a) Background**

In accordance with Decision (D.) 21-06-026 (dated June 24, 2021), a solar provider will be placed on the watch list if found: (1) by Commission staff to be out of compliance with any of the requirements of D.18-09-044 or D.20-02-011; (2) by the CSLB to have violated the California Business and Professions Code or the California Code of Regulations, and are subject to public disclosure pursuant to Business and Professions Code Section 7124.6; or (3) by DFPI to have violated the California Financial Code, the California Corporations Code, or the California Code of Regulations.<sup>1</sup>

To support the Commission staff with assessing non-compliance with the requirements of D.18-09-044 or D.20-02-011, and as owners of the interconnection process, the Joint Utilities have provided access to their interconnection portals so that the Energy Division, CSLB and DFPI staff can review contracts and other pertinent information provided by the applicants. In addition, the Joint Utilities file a quarterly report with the Commission identifying the categories and quantity of solar consumer complaints received by each IOU and perform a desk audit of a number of random applications to determine whether the documents provided by applicants

---

<sup>1</sup> D.21-06-26, pp. 9-10.

comply with the consumer protection requirements of D.18-09-044 and D.20-02-011. The information provided by the IOUs is then used by Energy Division staff (in coordination with the CSLB and DFPI) to identify non-compliant vendors to be placed on the watch list. Pursuant to D.21-06-026, the IOUs are then required to provide notice to the identified vendors of their placement on the watch list.

At the time of this response, the Joint Utilities are not aware of vendors placed on the list by direct recommendation from the CSLB or DFPI (as directed by numerals (2) and (3) above).

**b) Existing consumer protection measures do not identify fraud and the IOUs should be removed from the Watch List process**

First, in the Joint Utilities' experience, the existing consumer protection measures are not designed to identify fraud. The quarterly reports regarding solar consumer complaints and the audit process are largely clerical. The Joint Utilities are unaware of any action taken in response to these reports and audits and we are dubious that they deter fraud and ill-intent from unscrupulous vendors. Likewise, it appears that vendors are placed on the Watch List largely for administrative errors. Within days after being put on the Watch List, most vendors provide explanations for the violations identified that put them in the list (e.g., administrative errors, inadvertent omissions, etc.), and request to be removed from the list.

Second, and specific to the Watch List, the Joint Utilities appreciate that we are not responsible for determining placement on the list, but our role in notifying vendors of their placement on the list creates confusion in this regard. Vendors often mistakenly believe that the IOUs made the determination and have the authority to decide whether they remain on the Watch List. The Joint Utilities strongly believe that determining a third party's compliance with laws and rules is not a utility role as they must remain neutral to all solar providers, and therefore the IOUs should be removed from the Watch List process altogether.

**c) CSLB and DFPI should take a greater role in determining which vendors should be placed on the Watch List**

The Joint Utilities note that even if vendors on the Watch List are indeed deliberately attempting to elude the consumer protection requirements of D.18-09-044, D.20-02-011, or



D.21-06-026, the consequences of being put on the Watch List are minimal, if any. More specifically, there is not currently a process by which CSLB or DFPI is required to contact the vendor's customers to seek their input or empirical evidence of fraud. The Joint Utilities believe customers are never aware that their solar provider is on the watch list (either before or after installation).

A potential way to deter unwanted sales behavior would be to create an interagency task force that would evaluate reported suspicious vendor activities, evaluate past vendor selling practices, consult with affected customers, and recommend for legal investigation when evidence of fraud is found. The recommendation should include whether to assess penalties or require customer restitution (when the customer has been economically harmed by the fraud).

Finally, if interconnection documentation continues to be a component of the Watch List, the Joint Utilities recommend that a standardized installation contract be developed in coordination with the CSLB. Consumers would have a better understanding of the product they are receiving and paying for. Moreover, a standardized contract would also simplify the audit process for the IOUs as it would be clear as to which pages require a signature/initial, like the Consumer Protection Guide. This will also benefit solar providers as it would reduce the chances for inaccuracies or violations of the Commission consumer protection requirements.

**2. Should Net Billing tariff interconnection applications that fail to adhere to the consumer protection requirements of D. 20-08-001 and D. 21-06-026 be deemed non-compliant for purposes of the Watch List? If yes, propose enforcement and implementation processes.**

As described in the response to question 1, the Joint Utilities do not believe that placement on the Watch List due to clerical errors on the Consumer Protection guide is effective in protecting consumers. The current audit and reporting processes are largely administrative and lack any clear consequences. Similarly, vendors placed on the Watch List have no immediate need to remediate their behavior (even if caused by simple administrative errors). Moreover, by the time a vendor is put on the Watch List, other customers of that vendor may be waiting for their interconnection to be approved. Therefore, halting or even delaying approval of these

customers' interconnection applications only harms those customers who, in good faith, have decided to install solar.

**3. Explain whether investor-owned utilities (Utilities), in consultation with the Commission, CSLB, and DFPI staff, should develop and propose a standardized set of non-compliance criteria through a joint advice letter?**

The Joint Utilities agree that there is benefit in re-evaluating the non-compliance criteria, but recommend that any changes be accomplished via a CPUC ruling or final decision rather than a joint advice letter authored by the Utilities. The Joint Utilities are responsible for the safe and reliable interconnection of the customers' solar systems, and are therefore not well-suited to address concerns of fraud. Having the IOUs in the role of regulators of contracts (or any non-interconnection related documentation) is not only inappropriate but untimely as the interconnection applicant is normally the solar system installers, not the unscrupulous sales agents or the contracting solar providers. With the current process, the salespersons and/or solar providers would remain free to continue their practices so long as they used a variety of third parties—whether panel installers or otherwise—to submit applications on behalf of the consumers.

**B. Watch List Removal Process**

**4. Currently, a solar provider that has been placed on the Watch List will remain listed until the end of the full quarter after which the solar provider was initially placed on the Watch List (i.e., solar providers remain on the Watch List for six months minimum). Should the Commission modify the Watch List duration to remove compliant solar providers from the Watch List after the first quarter (i.e., three months)?**

If a solar provider is placed on the Watch List due to the recommendation of CSLB or DFPI (i.e., due to more than just clerical errors on the Consumer Protection packet), the Joint Utilities recommend that the vendor should remain on the list for the full duration specified or even longer. If solar providers are on the list due to unscrupulous behavior or practices, they should not be easily removed so as to discourage such practices. On the other hand, if a solar

provider is placed on the Watch List due to clerical errors, it may be appropriate to shorten the duration that they are on the Watch List.

Separately, and as discussed above, the Joint Utilities propose that they be eliminated from the Watch List removal process entirely. Instead, the Energy Division, CSLB, or DFPI should be the entity informing affected vendors of their status on the Watch List, and subsequently be the point of contact for vendors to initiate any review process to be removed. It would then be up to the Energy Division to make recommendations whether three months or a longer term on the Watch List is appropriate.

**5. Should there be alternate means for a solar provider to be removed from the Watch List other than the natural expiration or by proving compliance with consumer protections through the current removal request process?**

If the current Watch List process is maintained such that interconnection documentation is a reason for inclusion on the list, the Joint Utilities are open to discussing options for a provider to be removed from the list under specific circumstances. For example, a scenario could occur where a solar provider has recently taken over a company and may not have access to prior application documents. Under such circumstances, it may be appropriate and reasonable for the provider to be removed from the Watch List through an alternate means.

**C. Watch List Pre-Approval Reviews**

**6. Should Utilities be authorized or required to deny a net billing tariff interconnection application that is found by utility staff to be non-compliant with the consumer protection statutes, regulations, or rules enumerated in Section 4 of D.21-06-026?**

The Joint Utilities contend that a NBT interconnection application should not be denied for this reason. As described previously, the installer (not the salesperson) is usually submitting the application on the customer's behalf. By the time the interconnection application is submitted, the vast majority of systems have already been installed, and the customer may even have made payments on their system. Therefore, halting the interconnection process does nothing to eliminate the fraud. Instead, it would only harm the customer.

7. **Explain whether Utilities should report the results of their pre-approval enhanced reviews to the Commission with their semi-annual spot audits directed by Ordering Paragraph 10 of D.18-09-044 or through an annual Tier 2 advice letter?**

The Joint Utilities should not be required to report on the results of the enhanced reviews unless there is an appropriate outcome or action taken against offending providers as a result of the reported results. Additional reporting without any consequences merely adds to the existing clerical work without meaningfully protecting consumers.

#### **D. Customer Billing**

8. **Historically, net energy metering bills have been complicated and difficult for customers to understand. Explain whether the utilities should be required to garner feedback from parties or other entities on the presentation of net billing tariff customer bills? If yes, how could this be accomplished, e.g., should the utilities host a workshop or be required to report on other information-gathering efforts such as focus groups.**

The Joint Utilities support the desire to help customers taking service under the NBT to understand their bills and are not opposed to receiving feedback from parties on the presentation of the bills as long as feedback is directional only. Stakeholder workshops could be an avenue to showcase the NBT bill and receive feedback as well as report on findings from their own customer panel testing and surveys. The main goal of any such efforts should be to receive actual customer feedback since customers are the ultimate beneficiaries of any discussion around bill presentation. However, as discussed below, the timing of workshops or other efforts to address bill design must be considered.

9. **Explain whether Utilities should engage with a single, statewide vendor to develop a uniform bill format to maximize readability and optimize understanding and address common customer questions? Explain whether such bill reforms should include Virtual Net Energy Metering tariff beneficiaries? How might such work dovetail with Utilities' ongoing and planned billing system upgrade initiatives? Would it be appropriate for this effort to be funded out of Utilities' Net Billing Tariff memorandum accounts established pursuant to D.22-12-056?**

Although the Joint Utilities are open to the proposal to engage with a single, statewide vendor on bill presentation, there are certain considerations that need to be made before

finalizing a decision. The first consideration is the timing of a statewide research effort. Bill design changes are ideally conducted in tandem with the launch of the new rate to optimize the experience from the start. The IOUs are already in various stages of research on bill format, as these decisions need to be made now. Findings that come at a later date could be duplicative of research already conducted, and it is unlikely that the IOUs could implement additional findings until quite some time later.

Additionally, the Joint Utilities clarify that any finalized proposal by a statewide vendor should be directional only. It is essential that the IOUs retain the latitude to tailor the bill format to their respective demographics and customer base, as well as their varying billing system and printing capabilities. If a statewide billing presentment proposal is pursued, the Joint Utilities recommend that the scope be limited to customers taking service under the NBT, including virtual net energy metering benefitting customers if it is modified via this proceeding. Moreover, as these changes would be limited to NBT customers, it is appropriate to fund these activities through the Utilities' NBT memorandum accounts pursuant to D.22-12-056.

Finally, the Joint Utilities are currently working to meet the ambitious compliance deadline to implement the NBT by December 15, 2023. As recognized by the Commission in the framing of this question, each IOU is in varying stages of planned billing system upgrade initiatives, so any potential overhaul or modification of bill presentation must be appropriately considered from an implementation timeline perspective.

**10. Utilities Only. For the years 2017-2022, provide annual statistics on how many unique customer inquiries utility received regarding issues with net energy metering bills? How many customer service representative hours were dedicated in these years to net energy metering billing inquiries?**

The following data represents how many SDG&E customers selected the solar path in the interactive voice response system and proceeded through the system to speak to a NEM Specialist. The data only goes back to 2018.

2018		2019		2020		2021		2022	
Solar Res	17,250	Solar Res	26,444	Solar Res	28,218	Solar Res	34,336	Solar Res	41,094
Solar Bus	1,017	Solar Bus	1,138	Solar Bus	1,149	Solar Bus	1,090	Solar Bus	1,219
<b>Total</b>	<b>18,267</b>	<b>Total</b>	<b>27,582</b>	<b>Total</b>	<b>29,367</b>	<b>Total</b>	<b>35,426</b>	<b>Total</b>	<b>42,313</b>
<b>Agents</b>	<b>18</b>	<b>Agents</b>	<b>39</b>	<b>Agents</b>	<b>36</b>	<b>Agents</b>	<b>34</b>	<b>Agents</b>	<b>36</b>

The data below represents how many dedicated SDG&E NEM Specialists were trained and able to respond to a variety of NEM-type inquiries. Please note, in 2019 SDG&E's Business Contact Center representatives were trained and started to assist with NEM calls.

Year	2017	2018	2019	2020	2021	2022
NEM	19	18	19	18	13	18
BCC taking NEM calls			20	18	21	18
<b>Total</b>	<b>19</b>	<b>18</b>	<b>39</b>	<b>36</b>	<b>34</b>	<b>36</b>

For PG&E, below is the total number of solar billing-related calls it has received from 2017-2022 via its contact centers. PG&E notes that these statistics do not include solar-related calls in support of agricultural and commercial/industrial customers, as those accounts are managed by PG&E designated account managers. PG&E estimates the total incremental call volume for such customers from 2017 to 2022 to be approximately 6,800 calls.

Year	Total Solar Billing-Related Phone Calls	Total CSR Billing Hours Spent on Solar Billing-Related Calls
2017	198,581	33,156
2018	194,238	31,323
2019	307,994	40,297
2020	434,924	40,904
2021	699,204	58,096
2022	637,067	68,077
<b>Total</b>	<b>2,472,008</b>	<b>271,854</b>

**E. Consumer Education: Misinformation and False Advertising**

- 11. Would it be advantageous for the Commission or Utilities to host a workshop to address solar misinformation and false advertising on social media, mail, radio, and other forms of media? What outcomes, if any, could be anticipated from such a workshop?**

The Joint Utilities believe that any advantage of such a workshop would be small at this time. The Commission has comprehensively considered consumer protections for fraud (or misinformation and false advertising) in the context of NEM.

**F. Consumer Education: Non-Functioning Solar Systems**

- 12. What type of outreach should Utilities engage in to remind their customers to regularly check the performance of their solar systems through their online billing portals or other system monitoring programs?**

Where feasible and appropriate, the Joint Utilities could periodically integrate messaging into existing rate education or similar program outreach to remind solar customers to check their system's performance. The utilities could also explore more transactional opportunities to reach customers in a manner that is the simplest to execute and at the lowest cost (e.g., system-generated automatic emails).

However, while the utilities can provide some support, the responsibility and liability of system monitoring and maintenance is ultimately with the customer, not the IOUs. Therefore, a balance must be achieved when educating this customer segment so that there is not an unnecessary burden on the utilities or additional costs that are then passed on to all customers, including those that do not have solar.

- 13. Explain whether Utilities should be required to alert solar customers when their solar systems are non-functioning or under-functioning? If yes, propose the customer type, communication venue, timing, and any other relevant parameters (e.g., to residential solar-only customers, after seven days, but then not again until the next calendar month and allow customers to permanently opt out). Should any method of predicting which customers may be likely to export power if their solar system is functioning, e.g., solar-only customers whose system capacity covers over a certain percentage of their historical electric load?**

The Joint Utilities should not be required to alert solar customers when their solar systems are non-functioning or under-functioning. It is neither an appropriate role for the IOUs, nor do the utilities have the data to accurately assess whether a customer's generation system is properly functioning.

Requiring the utilities to monitor customer systems goes beyond the historic role of the IOUs to provide energy. The IOUs are not the installers, nor the warrantors, of the customer-owned solar systems. Customers should be looking to their solar providers to address any concerns regarding the functioning of their systems, not the utilities. Moreover, requiring the utilities to take on the role of monitoring the functioning of customer-owned solar systems unnecessarily places the IOUs at risk of customer disputes, and related requests for compensation, when customer systems are non- or under-functioning. As a customer-owned solar system is an investment by the customer for the customer, the IOUs should not be responsible for monitoring the system.

Furthermore, the Utilities do not have the full insight into customer-owned equipment; critically, the IOUs' data does not reflect behind-the-meter generation that is consumed by the customer. Therefore, the only way a Utility could potentially be alerted that a customer's system is non- or under-functioning would be through a change in excess generation data or usage data. But a change in usage patterns does not necessarily equate to a system that is a non- or under-functioning. For example, a solar customer could be away for a month (resulting in reduced load and excess generation) and then return home with a relative visiting, resulting in increased load. Communicating to such a customer that their solar system is under-functioning could raise



unnecessary alarm and also could be viewed as a nuisance since the system is operating correctly.

#### **G. Solar Complaint Portals**

##### **14. Currently, Utilities are required to submit quarterly advice letters reporting solar consumer complaints received. Explain whether this reporting requirement should be modified or removed?**

The Joint Utilities recommend removing this reporting requirement entirely. We are unaware of any party actively using this information, these reports do not provide any actionable information, and the CSLB already has a robust process for managing solar installer complaints.

Using PG&E data from 2021 and 2022, the top three categories of complaints (accounting for 87% in aggregate) are in the categories/subcategories that the IOUs have no authority to resolve or mitigate. These include complaints that a solar company is unresponsive, has misrepresented contract terms, or that there is missing or incorrect documentation. The next highest category of complaint (accounting for 6% of complaints) is lack of permission to operate from the utility, which is addressed through processes each IOU already has in place.

Instead of the quarterly advice letter requirement which does not effectively address customer complaints, the Joint Utilities recommend that customers raising complaints involving their solar provider be quickly directed to the agency of authority (i.e., CSLB), who can take the next appropriate corrective action. If needed, the Joint Utilities could work directly with CSLB to ensure awareness of such referrals.

### **III. RESPONSES TO ATTACHMENT 3 QUESTIONS**

#### **A. Evaluation Parameters**

##### **1. What researchable questions are required to successfully evaluate the net billing tariff and its achievement of the Commission's goals?**

Generally, the Commission should evaluate the NBT against the legislative requirements of Assembly Bill 327. Further, the Joint Utilities agree with D.22-12-056 that the evaluation should place “an emphasis on evaluating equity, affordability and grid benefits.”<sup>2</sup> To that end, the Joint Utilities recommend the evaluation focus on the following questions:

---

<sup>2</sup> D.22-12-056 p. 200.

- a) Has NBT reduced the impact of the cost shift, especially among low-income customers?
- b) Has NBT resulted in benefits that approximately equal costs considering the various perspectives of the total energy system, program participants, non-participating ratepayers and utilities administering the program? How have these answers changed from NEM 1.0/2.0 to NBT?
- c) Does the NBT encourage customers to export their generated energy during times that are most beneficial to the grid?
- d) Has NBT successfully encouraged storage adoption?
- e) Has NBT successfully encouraged electrification among adopting customers and do customers who use the oversizing attestation provision increase their load consistent with the attestation? How have these answers changed from NEM 1.0/2.0 to NBT?
- f) What is the adoption rate of solar and storage systems and what are the characteristics of installed systems and customers taking service under NBT? Has NBT successfully encouraged solar and/or storage adoption among low-income customers and customers in Disadvantaged Communities (DACs)?
- g) What are the primary drivers of solar and storage adoption among NBT customers?

**2. What metrics should be used in answering the research questions?**

The Joint Utilities recommend the following specific metrics to answer the above research questions.

- a) Has NBT reduced the impact of the cost shift, especially among low-income customers?
  - i. Total annual cost shift (in dollars) by IOU service area
  - ii. Annual dollar and percent increase to customer bill by IOU service area, by CARE/Non-CARE and income quantile

- b) Has NBT resulted in benefits that approximately equal costs considering the various perspectives of the total energy system, program participants, non-participating ratepayers and utilities administering the program? How have these answers changed from NEM 1.0/2.0 to NBT?
- i. Total Resource Cost (TRC) test, Participant Cost Test (PCT), Ratepayer Impact Measure (RIM) and Program Administrator Cost (PAC) per the CPUC's Standard Practice Manual (SPM).
  - ii. Total System Benefit (TSB) as described in the EE rulemaking.<sup>3</sup>
  - iii. Payback periods calculated either via modeling with NREL's System Advisory Model (SAM) or via measurement using customer meter Advanced Meter Infrastructure (AMI) data and solar/storage generation data.
  - iv. Annual bill savings calculated either via modeling with NREL's System Advisory Model (SAM) or via measurement using AMI data and solar/storage generation data.
  - v. Differentiate the cost-effectiveness results above between CARE/Non-CARE, standalone solar and solar + storage
  - vi. Compare the results for NBT to the results presented in the NEM 2.0 Lookback Study
- c) Does the NBT encourage customers to export their generated energy during times that are most beneficial to the grid?
- i. Export load shape for customers on NBT program. Evaluate the magnitude of exports that occur during the on-peak Time-Of-Use period

---

<sup>3</sup> D.21-05-031 in R.13-11-005 adopted the Total System Benefit metric, "...which combines and optimizes the energy and peak demand savings goals, along with greenhouse gas benefits of energy efficiency, into one metric that can be forecasted and tracked" (p. 2). See technical guidance for the TSB metric at <https://pda.energydataweb.com/#!/documents/2560/view>

- ii. Number of NBT customers enrolled in demand response (DR) pilots or programs such as critical peak pricing
    - (1) For those customers dually enrolled in NBT and DR pilots or programs, quantify the net load impact (MW) during DR events to determine the incremental benefit of dual enrollment and incentives
  - iii. Net GHG emissions reductions (in tonnes) for NBT compared with legacy NEM 1.0/NEM 2.0 systems
- d) Has NBT successfully encouraged storage adoption?
  - i. Number and percentage of paired systems compared to total NBT volume as compared to attachment rates with NEM 1.0/2.0
- e) Has NBT successfully encouraged electrification among adopting customers and do customers who use the oversizing attestation increase their load consistent with the attestation?
  - i. Number and percent of adoptions of the following technologies among NBT customers after enrollment in NBT:
    - (1) EVs, heat pumps, heat pump water heaters, electric induction cooktops (via survey by customer, vendor and/or evaluator)
  - ii. Number and percent of customers whose load has increased after their enrollment in NBT (via net surplus compensation at the end of the year)
- f) What is the adoption rate of solar and storage systems and what are the characteristics of installed systems and customers taking service under NBT? Has NBT successfully encouraged solar and/or storage adoption among low-income customers and customers in Disadvantaged Communities (DACs)?
  - i. Adoption (total number and percent) of standalone solar and solar + storage by:

- (1) CARE/Non-CARE
- (2) Income quantile
- (3) Disadvantaged Communities (DAC) customers/Non-DAC customers
- (4) Tribal communities
- (5) Title 24 new construction versus retrofit/general market
- (6) Geography
- (7) Customer Sector (Res, Non-res by rate class)
- (8) Subtariff (NBT, NBT-PS, NBT-(VNEM), others)
- ii. Evaluation of solar and storage system sizes installed under the NBT by the above categories
- g) What are the primary drivers of solar and storage adoption among NBT customers?
  - i. NBT customer surveys to understand the attribution of different incentives and drivers, including ACC+, Self-Generation Incentive Program (SGIP) incentives, additional state funding including AB 209, environmental concerns, etc.
- 3. **What types of data are needed to demonstrate the net billing tariff's status according to each recommended metric?**
  - a) **Describe the data sources, data collecting entity, data collection time intervals, data storage method, upfront and ongoing data collection and storage costs, and any other important factors in deciding which data to collect.**

The Joint Utilities suggest using IOU interconnection portals, which provide application information as well as application status, as a source for data. Additional data sources include IOU AMI data for customer load profiles and system sizes, the American Community Survey (ACS) datasets available through the U.S. Census Bureau for low-income customer adoption rates, DG Stats website for standalone solar versus solar plus storage installations.

In addition to these sources, the Joint IOUs have specific recommendations for data sources corresponding to the research questions and metrics above:

1. For measuring cost shift:
  - Access to utility billing data before and after NBT adoption, across NEM 1.0/2.0 versus NBT, and customers with no technology on site for comparison
2. For measuring adoption rates:
  - Access to utility interconnection data and customer information on CARE participation, and adoption by customers residing in DACs and high-fire threat districts, etc.
  - Customer/developer/manufacture surveys to ascertain motivations behind adoption, possible willingness to pay for a solar/storage system.<sup>4</sup> This would include questions to developers, manufacturers and installers on marketing efforts for various customer segments.
3. For calculating NBT benefits:
  - Because individual customers likely won't have insight into storage operations, the evaluator will need solar generation and storage charge/discharge data directly from developers/manufacturers to ascertain exactly what the system is doing and how much PV is generated. AMI data from utilities will also help pinpoint customer electricity consumption, imports from the grid, and exports to the grid.
  - Interviews with manufacturers/developers/installers to provide information on solar/storage system setups and operations, for example whether "out-of-the-box" settings are primarily to encourage self-consumption or to maximize exports during high priced hours

---

<sup>4</sup> See, for example, the 2021 SGIP Energy Storage Market Assessment Study at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/self-generation-incentive-program/sgip-2021-market-assessment-study.pdf>

- WattTime GHG signal (or ACC GHG marginal emissions rates) to calculate GHG impacts.

The Joint Utilities recommend that all data mentioned above only be collected once through a retroactive study and that no ongoing data collection be conducted unless Energy Division is interested in continually evaluating NBT. Essentially all the data above is already being collected for SGIP evaluations, so there is precedent in place.

The external evaluator should collect the data from each of the data sources and store the data in the same manner as the NEM 2.0 Lookback Study. Other considerations in deciding which data to collect include customer privacy and what data is publicly available.

**b) Describe whether and how data collection should differentiate among any sub-populations, such as customer types, subtariffs (e.g., Net Energy Metering Aggregation, Virtual Net Energy Metering, etc.), generation types, or electrification technology types.**

See the response to Question 2 above at subparts (e) and (f) regarding differentiation amongst sub-populations, customer types and technology types. Specifically, data used to determine the cost effectiveness test results (e.g. RIM and TRC) should be differentiated by customer class as well as program participation type (i.e., NEM-A, VNEM, or NBT). The data should also be differentiated by installation type (standalone solar vs paired solar + storage), which the IOUs can provide.

Surveys will need to be dynamic according to how a customer answers, i.e., if a customer is on CARE, they get a different set of questions than a non-CARE customer.

**c) If proposing the collection of qualitative data, describe how the data should be treated to enable the use of the data in conformity with the Commission's evaluation protocols.**

Survey responses should be anonymized and aggregated to protect consumer privacy.

**d) Describe how the utilities and/or data collecting entity should access any needed data that are held by private entities, e.g., equipment manufacturers or lenders.**

For SGIP, SGIP program rules<sup>5</sup> mandate developers/manufacturers make their charge/discharge data available to CPUC-appointed third-party evaluator. The Joint Utilities recommend that similar requirements be established for evaluation of the NBT. Neither the Utilities nor the SGIP Program Administrators have access to any of this data directly, but it is imperative that the NBT evaluator has access to quantify NBT benefits.

**B. Evaluation Implementation Questions**

**4. Explain whether the evaluation directed by D.22-12-056 should utilize the process outlined above, with or without modifications? If you recommend modifications, explain how you propose to modify the above process.**

The Joint Utilities believe the process outlined in Attachment 3 of the Ruling leading to this question is not efficient, as an IOU is used as Energy Division's conduit to procure a contract with a vendor. Instead, one of the Joint Utilities can take the lead in issuing a request for proposal (RFP) and share proposals with Energy Division and the other IOUs. The vendor selection should be a collaboration between Energy Division and the Joint Utilities, with the lead IOU setting up the contract with the selected vendor and taking input from Energy Division and the other IOUs. This approach will lead to an efficient and transparent process.

**5. Explain whether the final research plan should be submitted as a compliance filing?**

Energy Division and the Joint Utilities should form a working group, which will review and approve the research plan. The final research plan should be provided to the service list so all parties can review and provide feedback on the research plan. The group will incorporate feedback from stakeholders as necessary.

---

<sup>5</sup> See 2022 SGIP Handbook, Section 7 on Metering & Data Collection available here: <https://www.selfgenca.com/home/resources/>



**6. By what date should data collection start? Considering your answer to question 1, what timeline of implementation steps would enable data collection to start by your proposed data collection start date?**

The Joint Utilities understand this question to not be addressing the period of the evaluation (which should commence once NBT is implemented), but rather, when the vendor should commence the data collection process to support the evaluation. Data collection should begin after the 36<sup>th</sup> month that customers were able to be billed on the new tariff. Therefore, the Joint Utilities recommend that an RFP be issued at the beginning of the third year so that an evaluator is onboarded in time to begin the data collection process in a timely manner.

**7. Demand side management evaluation, measurement and verification often relies on a Response to Recommendations process to ensure results or findings of a study are implemented in a program. Explain whether that process should be utilized for this evaluation effort?**

The Joint Utilities encourage the independent evaluator to summarize policy recommendations based on the findings in response to relevant research questions; however, we do not believe that these recommendations should require response from parties or be binding in creating future tariff modifications and design. As was the case with the NEM 2.0 Lookback Study, the NBT evaluation should provide a starting point to inform the regulatory process for future tariff modifications and be incorporated as record evidence in future policy decisions.

**8. What compliance requirements should the Commission adopt to facilitate responses to and incorporation of evaluation findings and recommendations?**

As noted in response to question 3d, the Commission should require developers/manufacturers to make their solar generation and storage charge/discharge data available to the CPUC-appointed third-party evaluator.

**C. Evaluation Funding**

**9. What budget should be authorized for this evaluation effort?**

The budget should not exceed \$2 million for this evaluation effort, consistent with the funding for the NEM 2.0 Lookback Study.

**10. Explain whether the funding source for the evaluation study should be public purpose program surcharges, as it was for the net energy metering Lookback Study? If not, propose an alternative.**

As set forth in Ordering Paragraph 12(a) of the Decision 22-12-056, costs associated with data collection, administrative support and execution of the third-party evaluation of the NBT are to be recorded in the memorandum accounts that the utilities were directed to establish by that ordering paragraph. Those costs are then to be recovered in a subsequent general rate case.<sup>6</sup>

**IV. CONCLUSION**

The Joint Utilities appreciate the opportunity to respond to the Ruling and respectfully request that the Commission consider and incorporate the recommendations made above in addressing consumer protection issues and framing evaluation of the NBT.

Respectfully submitted on behalf of the Joint Utilities,  
ASHLEY E. MERLO

By: /s/ Ashley E. Merlo  
ASHLEY E. MERLO

Pacific Gas and Electric Company  
77 Beale Street, Mail Code B30A  
San Francisco, CA 94105  
Telephone: (925) 200-5819  
Facsimile: (415) 973-5520  
Email: Ashley.Merlo@pge.com

Attorney for  
PACIFIC GAS AND ELECTRIC COMPANY

Dated: February 24, 2023

---

<sup>6</sup> D.22-12-056, pp. 194-195, 243, OP 12(a).