

PUBLIC UTILITIES COMMISSION

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February 20, 2014

Advice Letter 4305-E and
Advice Letter 4305-E-A

Brian Cherry
Vice President, Regulation and Rates
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177

Subject: Staff Disposition of Supplement -- Revise Electric Rate Schedule NEM
and Establish a New Electric Sample Form for NEM for Load
Aggregation Pursuant to Senate Bill 594 and Resolution E-4610¹

Dear Mr. Cherry:

The Energy Division has determined that the Advice Letters (AL) 4305-E and 4305-E-A are in compliance with Resolution E-4610, and Senate Bill 594 (Wolk 2012).² ALs 4305-E, and 4305-E-A are approved with an effective date of February 20, 2014.³

PG&E submitted AL 4305-E on October 21, 2013 with its proposed revisions to Schedule NEM to satisfy Resolution E-4610 and SB 594. PG&E's Advice Letter was protested by 7 parties.⁴ Of these, EcoPlexus did not serve their protest on the Energy Division, and it appears they did not serve it to the designated service list for this advice letter filing. PG&E filed a Reply to the protests on November 19, 2013. On November 20, 2014, Energy Division (ED) suspended PG&E's advice letter for an additional 120 days to allow time for further staff review.

PG&E's Reply did not resolve most of the protest issues raised by various parties. After several discussions with Energy Division Staff, and in light of the protests filed, ED asked PG&E to provide a supplement to further address the protest issues. PG&E filed

¹ Resolution E-4610:

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K158/77158265.PDF>

² Approved by Governor September 27, 2012. Filed with Secretary of State September 27, 2012.

³ Advice 4305-E-A is a partial supplemental to Advice 4305-E.

⁴ Seven parties filed protests to PG&E's Advice Letter 4305-E: Solar Energy Industries Association (SEIA), SolarCity, Interstate Renewable Energy Council (IREC), California Farm Bureau Federation (CFBF), Agricultural Energy Consumers Association, California Climate and Agriculture Network, and Wine Institute (Joint Ag Parties), Natal Energy, and Recolte Energy.

a partial supplemental Advice 4305-E-A on January 16, 2014, which addressed all of the protests.

Three parties, CFBF, Joint Ag Parties, and Récolte Energy, filed responses in support of PG&E's partial supplemental Advice 4305-E-A. SolarCity filed a protest on the modified billing fees. Under General Order 96-B, Section 7.6.1, ED rejects the protest of SolarCity on the basis of the technical review and analysis attached to this disposition letter (See Attachment 1). The same technical review and analysis summarizes the findings of ED with regard to PG&E Advice 4305-E and Advice 4305-E-A and our decision to approve them.

Please contact Gabe Petlin of the Energy Division staff at 415-703-1677 (gpl@cpuc.ca.gov) if you have any questions.

Sincerely,



Ed Randolph
Director, Energy Division
California Public Utilities Commission

Attachments (1): Technical Review and Analysis

cc:

Susan Buller, for Pacific Gas and Electric Company
Karen Norene Mills, for California Farm Bureau Federation
John Gorman, for EcoPlexus, Inc.
Thadeus B. Culley, for Interstate Renewable Energy Council, Inc.
Jason B. Keyes, for Interstate Renewable Energy Council, Inc.
Michael Boccadoro, for Agricultural Energy Customers Association
Tim Schmelzer, for Wine Institute
Jeanne Merrill, for California Climate & Agriculture Network
Eric Thompson, for Natel Energy, Inc.
Gopal Shanker, for Récolte Energy
David R. Wooley, for Solar City
Jeanne B. Armstrong, for Solar Energy Industries Association

Attachment 1

TECHNICAL REVIEW AND ANALYSIS

Protests

Seven parties submitted protests to PG&E Advice 4305-E. PG&E filed a response to these protests on November 19, 2013, and then filed a partial supplemental Advice 4305-E-A on January 16, 2014. Three parties, CFBF, Joint Ag Parties, and Récolte Energy, filed responses in support of PG&E Advice 4305-E-A. SolarCity filed a protest on the proposed billing fees. The protests, PG&E's responses, and PG&E's partial supplemental Advice 4305-E-A are summarized below. Energy Division staff findings based on a technical analysis and review are included at the end of each of the seven protest issues discussed in this attachment.

For ease of reference the following table displays the protest issues filed by each party:

PG&E Advice 4305-E and 4305-E-A

Protest Party PG&E Advice 4305-E

Protest Issue	Recolte Energy	Natal Energy	Joint Ag Parties	SEIA	CFBF	IREC	Solar City
1) Adjacent & Contiguous	X	X	X	X	X	X	X
2) Bill Credit Allocation	X		X	X	X	X	X
3) Billing Service Fees				X	X	X	X
4) Effective Date	X		X		X		X
5) Clarification Re: NSC				X			
6) Nem Cost Tracking						X	
7) CSI Application Treatment				X			

Protest Party PG&E Advice 4305-E-A

Protest Issue	Recolte Energy	Natal Energy	Joint Ag Parties	SEIA	CFBF	IREC	Solar City
3) Billing Service Fees							X

Protest Issue 1: Interpretation of Adjacent and Contiguous

SB 594 amended Public Utilities (PU) Code Section 2827(h)(4)(A) and (h)(4)(F)2 to state as follows (emphasis added):

*An eligible customer-generator with multiple meters may elect to aggregate the electrical load of the meters located on the **property** where the renewable electrical generation facility is located and on all **property adjacent or contiguous** to the **property** on which the renewable electrical generation facility is located if those **properties** are solely owned, leased, or rented by the eligible customer-generator.*

For the purposes of this paragraph, parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are otherwise contiguous and under the same ownership.

All protesting parties are concerned with how PG&E may interpret the phrase “adjacent or contiguous” and many requested clarification as to the application of this phrase to accounts that may be eligible for NEM Aggregation (NEMA). For example, Natal Energy in its protest stated that during discussions with PG&E, the utility communicated that it intends to define the term “contiguous” to mean **only immediately adjacent**, rather than **connected by an unbroken chain of common ownership**.

SEIA, in its protest, seeks “Commission confirmation that the language ‘adjacent or contiguous to’ will be interpreted and applied consistent with its plain meaning... The plain meaning of the term ‘adjacent’ is ‘near or close to, but not necessarily touching,’ while the plain meaning of the term ‘contiguous’ is ‘touching at a point or sharing a boundary.’”⁵ Similarly, SolarCity’s Protest pointed to the *The Merriam Webster Dictionary* which defines “adjacent” as “nearby,”⁶ and “Contiguous” is defined to mean: “...connected throughout in an unbroken sequence...contiguous row houses.”⁷

To illustrate their concern, some of the Protesting Parties provided an example in which the Renewable Electrical Generating Facility is located on Parcel A, and Parcel B is under the same ownership and contiguous to Parcel A, and Parcel C is under the same ownership and contiguous to Parcel B, but is not contiguous to Parcel A. The Protesting Parties assert that the statutory language is intended to allow Parcel C to participate in a NEMA arrangement with Parcel A, even though the parcels are not touching.⁸

The Farm Bureau Protest echoed the same concerns and emphasized the need for a common understanding of this language, particularly in rural areas, where property under single management and operated as a single enterprise may be composed of separately designated parcels.⁹

PG&E Responses to Protests Issue 1

In its Reply, PG&E interprets the “adjacent or contiguous” requirement to mean that aggregated accounts must be on parcels that are next to the parcel where the generator is located, or on the parcel where the generator is located.¹⁰ Under this interpretation in the example provided above, Parcel C would not be eligible to participate in an aggregation arrangement where the generator is located on parcel A, because C is not touching or adjacent to A.

⁵ SEIA’s November 12, 2013 Protest of PG&E Advice 4305-E at pp. 2-3.

⁶ <http://www.merriam-webster.com/dictionary/adjacent> cited in SolarCity Protest at 4.

⁷ <http://www.merriam-webster.com/dictionary/contiguous> cited in SolarCity Protest at 4.

⁸ *Id.* at p. 3. See also Protest of Natel Energy at p. 2, IREC Protest at p. 6, Protest of California Farm Bureau Federation at p. 2-3, and SolarCity Protest at p. 3-4.

⁹ Farm Bureau Protest at 5.

¹⁰ PG&E Protest Reply to Advice Letter 4305-E, at 2.

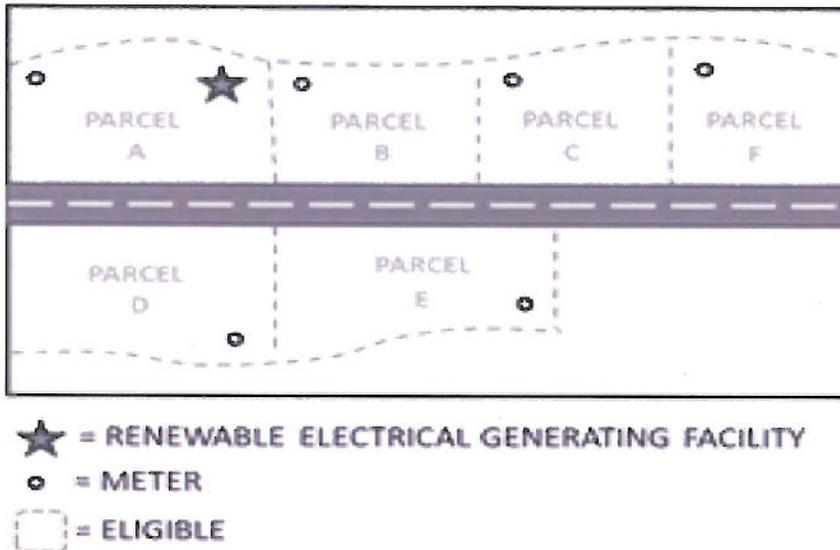
PG&E states that if the Commission rejects PG&E’s position and chooses to adopt the “A, B, C proposal” where C and A are eligible, it is important to require that all three parcels, A, B, C, have the same ownership requirement consistent with PUC Section 2827, that the properties are all “solely owned, leased, or rented by the eligible customer generator.”¹¹

PG&E Partial Supplemental Advice re: Issue 1

In their partial supplemental advice letter, PG&E clarified their interpretation of “adjacent or contiguous” with the addition of the following language and illustrative diagram:

Customer-generators are eligible to participate in Load Aggregation provided that all meters in a Load Aggregation Arrangement are located (i) on the property where the renewable electrical generation facility is located, or (ii) are located within an unbroken chain of contiguous parcels that are all solely owned, leased or rented by the customer-generator. For purposes of Load Aggregation, parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are within an unbroken chain of otherwise contiguous parcels that are all solely owned leased or rented by the customer-generator, as verified in Form 79-1153.

For example, assume there are five parcels (A, B, C, D, E, and F) that form a cluster of contiguous parcels and D and E are separated from A, B, C and F by a street, highway, or public thoroughfare. For the purposes of participating in Load Aggregation, all five parcels are considered contiguous, provided they are otherwise contiguous and all are solely owned, leased or rented by the customer-generator. Refer to Diagram 1 (for illustrative purposes only).



¹¹ PU Code section 2827(h)(4)(A).

Energy Division Findings re: Issue 1

The Energy Division agrees with PG&E's proposal for modifications to issue 1, including the helpful diagram. No party protested PG&E's revised proposal on issue 1 and supporting comments were received in responses from: Récolte Energy, CFBF, and Joint Ag Parties.

Had the intent of SB 594 been to allow only adjacent parcels that are touching, there would have been no need to use the term contiguous at all as it would be superfluous under PG&E's interpretation.

Under the example presented in PG&E's Protest Reply, unbroken contiguous clusters of parcels under the same ownership or lease will be designated as not adjacent or contiguous due to parcel boundaries. Whereas if the same land was a single parcel the entire property would be eligible according to PG&E. This is an unreasonable interpretation and outcome. The presence of parcel boundaries within contiguous property under single ownership would pose an arbitrary barrier to NEM meter aggregation.

PG&E's revised language allowing parcels in a contiguous and unbroken chain under common ownership or lease to participate in a NEMA arrangement is consistent with the legislative intent of SB 594 to allow aggregation of meters on **property** that is adjacent or contiguous to **property** where the renewable electricity generator is located (emphasis added by ED). This proposed language removes ambiguity, avoids arbitrary results, and is consistent with the plain meaning of "adjacent or contiguous."

Protests Issue 2: Bill Credit Allocation Method

PG&E proposed a bill credit allocation methodology that calculates the proportional allocation of kilowatt-hours (kWh) based on each account's individual consumption compared to the total consumption of the NEMA arrangement as a whole, for each billing period. PG&E believes their proposed method is compliant with the statute.¹²

Récolte Energy (Récolte) protested PG&E's proposed billing methodology because at true up at the end of the 12-month Relevant Period, some meters won't receive their due allocations and others will have more allocated to them than justified by their loads. According to *Section (iii) in Electric Sample Form 79-1153 (NEM Load Aggregation Appendix)*, any excess allocation would be forfeited to PG&E. Récolte argues this is inconsistent with *PU Code Section 2827 (h)(4)(B) on Net Surplus Compensation*.

In lieu of allocating current monthly generation based on current monthly loads only, Récolte proposes an alternative method of bill credit allocation which would allocate current period generation in proportion to the meters' current period loads, *after adjusting for the cumulative*

¹² See: PUC Code Section 2827(h)(4)(C)

allocations that were made in prior billing periods. The Farm Bureau, SolarCity, and Joint Ag Parties support Récolte’s proposal.¹³

Récolte illustrates the problem of under allocation with a hypothetical case of three electricity meters with combined annual loads of 1,500,000 kWh being offset with annual generation of 1,500,000 kWh. In the example, Meter 1 receives less production than its consumption, while meters 2 and 3 receive more production than their respective consumption and forfeit these surplus kWh to the utility. In the example where production and consumption are equal in aggregate, the customer receives credit for approximately 92% of the generation output.

Other parties offered their own solutions to the under allocation of kWh. SEIA proposes that if at the end of a Relevant Period, a NEMA customer has credits remaining on any of its aggregated accounts, then the credits should be applied to other accounts in the load aggregation arrangement.¹⁴

IREC proposes that customers with multiple meters under the same rate schedule be allowed the option of electing allocation percentages per meter account, consistent with the IOUs’ allocation of virtual net metering bill credits.

PG&E Responses to Protests Issue 2

In their Reply¹⁵ PG&E opposed the “Récolte” method. First, they point out that SB 594 states that the “proportionate allocation shall be computed each billing period”. Second, they are concerned that the carryover of usage (kWh) to subsequent months will result in usage being valued at different rates due to changing seasons or other factors such as changing tiers.

In response to the proposal by IREC¹⁶ to have different bill credit allocation methods based on rate schedules, PG&E opposes this approach, arguing it adds complexity and extra expense to the billing of NEMA. PG&E opposes the SEIA proposal for reconciliation at the end of the Relevant Period on the grounds that kWh cannot be credited equitably due to a difference in rate schedules and generation value.

PG&E Partial Supplemental Advice re: Issue 2

After further analysis, PG&E proposed to adopt the “Récolte” method of bill credit allocation. PG&E modified Special Condition 2d¹⁷ to read:

*For a customer-generator electing Load Aggregation
For each monthly billing period, the energy (kWh) exported to the grid (in kilowatt-hours or kWh) by the Renewable Electrical Generation Facility shall be allocated to each of the Aggregated Account meters (kWh reading), as well as the Generating*

¹³ Farm Bureau Protest at p. 4-5, SolarCity Protest at p. 6-7, Joint Ag Parties Protest at p. 2-3.

¹⁴ SEIA Protest at p. 3-4.

¹⁵ PG&E Protest Reply to Advice Letter 4305-E, at 6.

¹⁶ IREC Protest at p. 5-6.

¹⁷ See: PG&E Advice 4305-E-A at sheet 8.

Account if it has load, based on the cumulative usage at each aggregated account and the cumulative generation from the generating account from the start of the Relevant Period. At the end of the month, once the allocation proportions are known, the kWh for each Generating Account meter interval will be allocated to each of the Aggregated Accounts for the corresponding interval.

Energy Division Findings: Protest Issue 2

Energy Division agrees with PG&E's revised method of credit allocation in Advice 4305-E-A, aka the "Récolte method". No party protested PG&E's revised proposal on issue 2 and supporting comments were received in responses from: Récolte Energy, CFBF, and Joint Ag Parties.

Under the new proposal customer generators will be allocated all of the kWh that they generate, but they could never be "over credited" because SB 594 makes customer generators electing load aggregation ineligible for Net Surplus Electricity Compensation (NSC) per PU Code Section 2827 (4) (B). The original allocation method proposed by PG&E in Advice 4305-E could lead to customer generators receiving less kW than they consume at a particular meter while other meters with a surplus will forfeit those surpluses.

First we reject the original proposed allocation method of PG&E. We can appreciate that PG&E's first proposal was consistent with the bolded portions of PU 2827 (4) (C):

*2827 (4) (C) If an eligible customer-generator with multiple meters elects to aggregate the electrical load of those meters pursuant to subparagraph (A), and different rate schedules are applicable to service at any of those meters, the electricity generated by the renewable electrical generation facility shall be **allocated to each of the meters in proportion to the electrical load served by those meters.** This proportionate allocation shall be computed **each billing period.***

However at the end of the 12-month relevant period, PG&E originally proposed to zero out the surplus credits on the **individual** meters with surplus credit without attempting to reallocate surpluses to other meters with deficits in the aggregation. By focusing on the requirements of monthly proportionate allocation per PU Code Section 2827(4)(C), PG&E's method appeared to disregard another section --2827(4)(A), which instructs them to use "the **aggregated load** for the purpose of determining whether an eligible customer-generator is a net consumer or a net surplus customer-generator during a 12-month period." (emphasis added by ED)

The revised method proposed by PG&E appropriately solves this challenge by enabling all kWh generated to be credited. While it is true, as PG&E has stated, that the carryover of usage (kWh) to subsequent months will result in usage being valued at different rates, this effect can work both for and against the customer and thus should balance out. The prohibition on receiving NSC per PU Code Section 2827 (4) (B) acts as a ceiling to prevent over crediting. On balance this method is more likely to fairly credit the customer generator without leading to unintended consequences and distortions.

Finally, we reject the alternative proposals of IREC and SEIA. IREC is correct in pointing out that the monthly proportionate allocation requirement of PU Code Section 2827 (4) (C) only applies to aggregation arrangements where the benefitting accounts are on different rate schedules. Since the legislation is silent on what method of bill allocation to use when all the benefitting accounts are on the same rate schedule IREC proposes that customers with multiple meters under the same rate schedule be allowed the option of electing allocation percentages per meter account, consistent with the IOUs' allocation of virtual net metering bill credits. IREC believes this option would avoid the problem of "stranded credits" that can occur under PU Code Section 2827 (4) (C).

We reject IREC's proposal for two reasons: first it is only a partial solution as it does not address the issue of under allocation of credits in the context of multiple meters on different rate schedules which is a far more likely scenario in the load aggregation landscape; and second it would be administratively complex and likely more costly for PG&E to manage NEMA with two different bill credit allocation systems. We understand the intent of SEIA's proposal, but we agree with PG&E's response that kWh cannot be credited equitably due to differences in rate schedules and generation values. SEIA did not offer sufficient specific details on how their proposed method would work in practice.

Protest Issue 3: Billing Service Charges

PG&E's proposed set-up fee of \$4 per aggregation account and incremental monthly billing fee of \$15 per account per month were protested by four parties.¹⁸ The combined concerns of the protesting parties are summarized as follows:

- Lack of cost justification was a common concern for all the protesting parties.
- The Commission should reject and delay PG&E's proposed billing service charges and instead require it to submit a detailed accounting underlying their proposed charges (SEIA, IREC, SolarCity)
- IREC finds PG&E's proposed NEM load aggregation billing charges significantly more expensive than its existing virtual net energy metering (VNM) charges. For example, PG&E's Schedule NEMV has a one-time \$12 set up charge for each benefitting account, but does not have monthly recurring charges. Thus, a PG&E customer with five benefitting accounts would pay \$60 in the first year under VNM, but would pay \$920 under PG&E NEM load aggregation billing charges.
- Under IREC's previous bill credit allocation proposal if customers with all meters under the same rate schedule are allowed to elect to allocate credits on a fixed percentage similar to VNM customers, then it would follow that they pay billing charges equal to the VNM tariffs which are far less expensive.
- PG&E "reserves the right to modify the service charges..." and notes that its charges are for manual billing and do not include the cost of upgrading to an automatic billing process. In response several parties propose that no further charges to customers should

¹⁸ See: CFBF at p. 6, SEIA at p. 5, SolarCity at p. 2, and IREC at p. 3.

be allowed without detailed cost justification through at least a TIER 3 Advice Letter (CFBF) or a Tier 2 Advice Letter (SEIA).

- The Commission should consider, spreading cost recovery of any fees over a reasonable period of time to ensure that customers do not face an up-front cost hurdle that act as a barrier to participation in NEMA (SolarCity).
- SEIA asks the Commission to be mindful that residential customers could be disproportionately burdened by billing service charges and asks that the charges be set at level that does not unduly impede residential NEM customers from participating in aggregation.

PG&E Responses to Protests Issue 3

In their Reply¹⁹ PG&E responded to the protests by stating that its costs are reasonable given the additional work required to set up and bill a NEMA customer. Further, PG&E says that its proposed fees represent 100 percent of the incremental costs of providing billing services for NEMA under a manual billing solution. However, PG&E does not include any IT costs to automate the billing at this time, nor does it include future labor costs.

PG&E states that NEMA will leverage existing PG&E NEM system capabilities for account set-up, which explains why their proposed account set-up fee is a modest \$4 per account. They do not propose an automated billing solution at this time, due to the uncertain size of the NEMA market segment. PG&E states that usage data revisions for an aggregated account will impact the generation percentages and allocations to all aggregated accounts. This is how they justify an incremental cost of \$15 per account per month for manual monthly billing.

PG&E Partial Supplemental Advice re: Issue 3

PG&E has agreed to modify their proposed fee structure to: \$25 per account set-up fee (capped at \$500 per NEMA arrangement), and \$5 per account monthly billing fee. PG&E has expressed concern that this level of fees may not fully recover the incremental costs associated with billing services for NEMA. Accordingly, PG&E requested that ED direct PG&E to track costs for billing including the costs to automate billing for NEMA. Following review of actual billing costs PG&E proposes to file for CPUC approval of an adjustment (if warranted) to the NEMA billing fees consistent with statute.

Responses and Protest to PG&E Supplemental re: Issue 3

Supporting comments were received in responses from: Récolte Energy, CFBF, and Joint Ag Parties. SolarCity filed a protest to PG&E Advice 4305-E-A, on January 21, 2014, noting that the changes addressed all of their concerns from their original protest except the billing fees. SolarCity requested that PG&E adopt the same billing fee as proposed by SDG&E: a one-time \$220 per account set-up fee with no monthly recurring fees. SolarCity notes that under a 10-meter configuration the amount of revenue collected under PG&E's revised approach would exceed the amount of revenue that SDG&E asserts it would need to recover its billing costs in the

¹⁹ PG&E Protest Reply to Advice Letter 4305-E, at 8.

program within approximately four years. From the perspective of cost, SolarCity find's SDG&E's approach more reasonable.

SolarCity offers three additional amendments to the billing fee proposal:

- The per meter set-up fee should be reduced after the 1st 10 meters on the expectation that efficiencies and economies of scale are achieved;
- Customers should have the option to pay the \$220 set-up fee in \$5 monthly installments to address the barrier of high upfront costs; and
- Any subsequent changes to the fees charged should only apply to new aggregation arrangements to avoid creating price uncertainty for early adopters.

PG&E Response to Supplemental Protest Issue 3

PG&E did not address each of SolarCity's points, but their primary response was that if the fees proposed for NEM Load Aggregation are determined by the Commission at a future date to be too low or too high and require adjustment, those updated fees should apply equally to all participating customers. To do otherwise would not be consistent with the statute.

Energy Division Findings: Protest Issue 3

Energy Division approves the modified billing service fees proposed by PG&E Advice 4305-E-A: not to exceed \$25 per account set-up (capped at \$500 per NEMA arrangement), and not to exceed \$5 per account monthly billing fee. Energy Division provides the following additional guidance:

- We direct PG&E to track costs for NEMA billing via a memorandum account for one year from the effective date of the NEMA tariff, including the costs of automating the NEMA billing system if such automation is more cost effective for NEMA customers than manual billing.
- After one year from the effective date of the NEMA tariff PG&E may file a Tier 3 Advice Letter proposing modifications to the billing service fees and must include detailed justification for the proposed fees. Should the fee structure change existing customers shall not be retroactively charged or debited and the new fees shall apply to all NEMA customers on a going forward basis.
- If the costs are significantly higher, PG&E should consider spreading cost recovery of any fees over a reasonable period of time to ensure that customers do not face an up-front cost hurdle that act as a barrier to participation in NEMA.

We find this to be a prudent and reasonable approach which, on balance, addressed most of the protest concerns raised on billing fees. The Energy Division views PG&E's original proposed fee structure as a projection. It is difficult to assess a projection for a program that has not been implemented. The risk of over-charging must be weighed against the risk of undercharging. Excessively high fees could deter participation while excessively low fees could result in costs shifting to non-participants. Authorizing an opportunity for a potential revision to the fee structure after one year of program operation mitigates these risks to some degree.

We don't find reasonable the request of some parties to defer setting any billing service fees for one year. This is not consistent with the legislative requirement to have customers remit fees for the cost of billing services. It will give early adopters an unrealistic sense of the cost of participation in the 1st year.

While there is some merit to the fee structure proposed by SDG&E, it is a projection as well, thus tracking actual expenses for one year will provide greater insight into to actual costs. Compared to PG&E's proposal the SDG&E proposal recollects exponentially higher revenue in the 1st year. If the fees are adjusted downwards after the review process this would result in significant over collection. If adjustments are necessary, we are inclined not to require customer crediting or debiting, and thus find the PG&E fee proposal more reasonable. On that basis we deny the SolarCity protest of the supplemental Advice 4305-E-A.

Protest Issue 4: Effective Date

PG&E originally requested an effective date of 120 days from the approval date of the Advice 4305-E while the other two IOUs each requested 30 days from the date of filing for their respective NEM tariff revision advice letter filings in compliance with Resolution 4610 and SB 594.²⁰ Multiple parties²¹ protested and suggested that the effective date be 30 days from the date of filing or upon approval of the Energy Division.

While we don't believe 120 days is necessary for this advice letter to become effective, the date of this disposition letter is nearly 120 days from the October 21, 2013 filing. PG&E agreed in its supplemental filing that the tariff will be effective within 30 days of filing, which has long past. Therefore the advice letter is effective on the date of approval by the Energy Division.

Protest Issue 5: Clarification with Respect to the Permanent Prohibition on Net Surplus Compensation (NSC) for Aggregated Facilities

As part of SB 594, Section 2827 of the PU Code was modified to provide that:²²

If an eligible customer-generator chooses to aggregate pursuant to subparagraph (A), the eligible customer-generator shall be permanently ineligible to receive net surplus electricity compensation, and the electric utility shall retain any kilowatt hours in excess of the eligible customer generator's aggregated electrical load generated during the 12-month period.

In its protest SEIA²³ requested tariff language changes to clarify that the permanent prohibition on receiving NSC only apply to a Generator Account, and not to an Aggregated Account that subsequently separates from a Load Aggregation Arrangement.

²⁰ SCE Advice 2952-E and SDG&E Advice 2529-E, each filed on October 21, 2014

²¹ Joint Ag Parties, p.3; CFBF, p.6; SolarCity, p.7, Recolte Energy, p. 3, and SEIA, p.

²² See CA PUC section 2827(h)(4)(G).

²³ SEIA at p. 6-7.

PG&E did not respond to this protest in its Reply on November 19, 2013. After discussions with ED staff, PG&E agreed to address this protest point in their Supplemental filing.

In Advice 4305-E-A PG&E revised the language in Special Condition 6 to reflect SEIA's requested changes and to preserve statutory compliance. Similar changes were made to Form 79-1153 in the NEM Load Aggregation Appendix²⁴. Special Condition 6 now includes the following additional language: (emphasis added by ED)

If an eligible customer-generator elects Load Aggregation as described in Special Condition 8, the Generating Account shall be permanently ineligible to receive net surplus electricity compensation, and PG&E shall retain any kilowatt-hours and zero out any credits remaining on each account in the Load Aggregation Arrangement at the end of the Relevant Period. **However, if an Aggregated Account that is not a Generating Account is separated from the Arrangement, and subsequently qualifies for NEM, it is also eligible for NSC.**²⁵

This clarification is logical, consistent with the statute, and addresses the protest of SEIA on this point.

Protest Issue 6: NEM Cost Tracking

Resolution E-4610, ordering paragraph 4 states: "Within one year of the effective date of this Resolution, the IOUs will submit reports on the costs of interconnection for all NEM customers, as directed by the Energy Division director, which they will begin tracking immediately."

In their protest IREC recommended that interconnection costs be tracked in at least five cost categories (not an exhaustive list)²⁶. PG&E's response²⁷ to each item is included below:

- **Transformers:** PG&E plans on tracking these costs within the distribution system upgrade cost category.
- **Secondary wires:** PG&E plans on tracking these costs within the distribution system upgrade cost category.
- **Technical analysis time:** PG&E plans to track these costs on a programmatic (not project) level for all NEM interconnection requests.
- **Distribution system upgrades:** PG&E plans to track these costs on a project level for all NEM interconnection requests.
- **Administrative and general costs:** PG&E plans to track these costs on a programmatic (not project) level for all NEM interconnection requests.

²⁴ PG&E Advice 4305-E-A at sheet 17 and Form No, 79-1153 at 2.

²⁶ IREC p. 7.

²⁷ PG&E Protest Reply to Advice Letter 4305-E, at 10.

Energy Division appreciates that consistent and detailed tracking of NEM-related interconnection costs is a priority. The Energy Division will follow-up on with IOUs directly on NEM cost tracking and not as part of this advice letter filing which deals with tariff changes to NEM.

Protest Issue 7: California Solar Initiative (CSI) Application Treatment

SEIA requested clarification in the NEM tariff revisions for treatment of a prospective NEMA customer that has received a CSI incentive reservation for more than one renewable electrical generating facility (i. e., generating account) on a single property: “SEIA requests clarification that two separate generating facilities can be streamlined into one larger generating facility (consistent with the statutory size limit for a single NEM system) and the two CSI incentives combined into one larger incentive equal to the cumulative value of the separate incentives.”²⁸

PG&E responded²⁹ by noting that resolving CSI treatment of such applications is not within the scope of the NEM tariff, suggesting that CSI changes are subject to Senate Bill 1 (SB 1) limits and the CSI Handbook.

According to the CSI Handbook in section 2.2.4 Equipment Must Serve On-Site Electrical Load, “To be eligible for CSI Incentives, the system must be sized so that the amount of electricity produced by the system primarily offsets part or all of the Host Customer’s electrical needs at the Project Site.” Thus, current CSI rules limit the CSI incentive to the total annual electrical load (kWh) at the site where the generating system is located.

The same section of the CSI Handbook describes a different treatment for RES-BCT projects:

Any local governments participating in the RES-BCT tariff (AB 2466) are eligible for incentives up to the total annual electrical load (kWh) at the Site where the generating system is located. The system’s annual production capacity may not exceed the total annual electrical load at the Site where the generating system is located and the Non-Site benefitting account(s) combined. Local government sites participating in the RES-BCT tariff must comply with the 1MW cap per site.³⁰

Changes to the CSI Handbook are handled outside of this advice letter compliance filing and must be consistent with SB 1.

²⁸ SEIA p. 6.

²⁹ PG&E Protest Reply to Advice Letter 4305-E, at 10.

³⁰ California Public Utilities Commission California Solar Initiative Program Handbook, 2013, at p. 23.



October 21, 2013

Advice 4305-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Revise Electric Rate Schedule NEM and Establish a New Electric
Sample Form for NEM for Load Aggregation Pursuant to Senate
Bill 594 and Resolution E-4610**

Purpose

Pacific Gas and Electric Company (PG&E) modifies its Electric Rate Schedule NEM – Net Energy Metering Service and introduces a new Appendix (Electric Sample Form No. 79-1153) to be used with the existing Electric Sample NEM forms, pursuant to Senate Bill (SB) 594 and Resolution E-4610¹. The affected tariffs sheets are listed on the enclosed Attachment 1.

Background

SB 594 (Wolk, 2012) became effective January 1, 2013. Among other changes, it added a new “option” to the “retail” net energy metering program described in Public Utilities (PU) Code Section 2827, effectively expanding PG&E’s Schedule NEM. This change permits an eligible customer-generator with multiple meters to elect to aggregate the electrical load of the meters located on the property where the generating facility is located and on all property adjacent or contiguous to the property on which the generating facility is located, if those properties are solely owned, leased, or rented by the eligible customer-generator. However, prior to the statute going into effect, SB 594 also provided² that:

This paragraph shall not become operative for an electrical corporation unless the commission determines that allowing eligible customer-generators to aggregate their load from multiple meters will not result in an increase in the expected revenue obligations of customers who are not eligible customer-generators. The commission shall make this determination by September 30,

¹ Resolution E-4610:

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K158/77158265.PDF>

² In PU Code Section 2827(h)(4)(D)

2013. In making this determination, the commission shall determine if there are any public purpose or other noncommodity charges that the eligible customer-generators would pay pursuant to the net energy metering program as it exists prior to aggregation, that the eligible customer-generator would not pay if permitted to aggregate the electrical load of multiple meters pursuant to this paragraph.

On September 19, the California Public Utilities Commission (CPUC or Commission) made a determination in Resolution E-4610 that NEM load aggregation would not result in an increased cost shift to non-NEM customers. Resolution E-4610 orders:

1. Within 30 days³ of the issuance of this resolution, Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric shall each file a Tier 2 Advice Letter revising their Net Energy Metering (NEM) tariffs to enable meter aggregation pursuant to Senate Bill 594.
2. The advice letters and revised net energy metering tariffs must comply with all provisions of Senate Bill 594 pertaining to meter aggregation, including the provisions that were conditioned on the Commission making the determination contained in this resolution as well as the provisions that were not conditioned on the determination contained in this resolution.
3. The advice letters must be served on all parties to the Rulemaking (R.) for the California Solar Initiative, Self-Generation Incentive Program, and other Distributed Generation issues (R.12-11-005, and its predecessor R.10-05-004).
4. Within one year of the effective date of this Resolution, the IOUs will submit reports on the costs of interconnection for all NEM customers, as directed by the Energy Division director, which they will begin tracking immediately.

PG&E submits this Advice Letter, the accompanying NEM tariff revisions and, new NEM appendix form to address the requirements of SB 594 and Resolution E-4610.

Tariff Changes

In making changes to Schedule NEM, PG&E adds a new Special Condition 8 covering NEM Load Aggregation. This new section provides the applicability for load aggregation, and formally introduces three defined terms: Generating Account, Aggregated Account(s), and Arrangement (that is, all of the Aggregated Accounts, including a single Generating Account, that are billed together). PG&E is also introducing a new sub-schedule named NEMA, for NEM with load aggregation. With these terms defined formally, changes are made throughout the NEM tariff as

³ Since 30 days is October 19th, and it falls on a Saturday, PG&E submits this advice letter on Monday October 21st.

required and in accordance with SB 594 and Resolution E-4610, as described below.

Resolution E-4610 Ordering Paragraph (OP) 2 cited above requires that the “revised net energy metering tariffs must comply with all provisions of Senate Bill 594 pertaining to meter aggregation.” This section generally describes how the SB 594 language is incorporated, along with other related changes.

1) PU Code Section 2827 (h) (4) (A) on **Applicability and eligibility** requires:

An eligible customer-generator with multiple meters may elect to aggregate the electrical load of the meters located on the property where the renewable electrical generation facility is located and on all property adjacent or contiguous to the property on which the renewable electrical generation facility is located, if those properties are solely owned, leased, or rented by the eligible customer-generator. If the eligible customer-generator elects to aggregate the electric load pursuant to this paragraph, the electric utility shall use the aggregated load for the purpose of determining whether an eligible customer-generator is a net consumer or a net surplus customer-generator during a 12-month period.

The first part of this section is addressed in the Applicability Section on Sheet 1 and in a new Special Condition 8 at the end of the NEM tariff. The last sentence above is addressed in Special Condition 2d, on Billing.

2) PU Section 2827 (h)(4)(B) on **Net Surplus Compensation** requires:

If an eligible customer-generator chooses to aggregate pursuant to subparagraph (A), the eligible customer-generator shall be permanently ineligible to receive net surplus electricity compensation, and the electric utility shall retain any kilowatt hours in excess of the eligible customer-generator’s aggregated electrical load generated during the 12-month period.

This language is addressed in Special Condition 6 on Net Surplus Electricity Compensation.

3) PU Section 2827 (h)(4)(C) on **billing allocation** requires:

If an eligible customer-generator with multiple meters elects to aggregate the electrical load of those meters pursuant to subparagraph (A), and different rate schedules are applicable to service at any of those meters, the electricity generated by the renewable electrical generation facility shall be allocated to each of the meters in proportion to the electrical load served by those meters. For example, if the eligible customer-generator receives electric service through three meters, two meters being at an

agricultural rate that each provide service to 25 percent of the customer's total load, and a third meter, at a commercial rate, that provides service to 50 percent of the customer's total load, then 50 percent of the electrical generation of the eligible renewable generation facility shall be allocated to the third meter that provides service at the commercial rate and 25 percent of the generation shall be allocated to each of the two meters providing service at the agricultural rate. This proportionate allocation shall be computed each billing period.

This language is addressed in Special Condition 2, on Billing.

Note that since the statutory language states, "If an eligible customer-generator with multiple meters elects to aggregate the electrical load of those meters pursuant to subparagraph (A), and different rate schedules are applicable to service at any of those meters..." (emphasis added.) However, it does not explain what to do if the Aggregated Account rate schedules have the same rate schedule, PG&E assumes for the sake of this tariff, it should calculate the allocation in the same manner regardless of whether the Aggregated Account rate schedules are the same or different. The tariff reflects this consistent treatment.

- 4) PU Section 2827 (h)(4)(D) relates to the directive to the Commission on making a determination regarding the **cost shift**; therefore, PG&E does not need to address it in its tariff⁴.
- 5) PU Section 2827 (h)(4)(E) relates to **local publicly owned electric utilities and electric cooperatives**, and not PG&E. Therefore, it is not addressed in the tariff.
- 6) PU Section 2827 (h)(4)(F) **defining "contiguous"** requires:

For purposes of this paragraph, parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are otherwise contiguous and under the same ownership.

This language is addressed in Special Condition 8.

- 7) PU Section 2827 (h)(4)(G) on the **Generating Account generation capacity** requires:

An eligible customer-generator may only elect to aggregate the electrical load of multiple meters if the renewable electrical generation facility, or a combination of those facilities, has a total generating capacity of not more than one megawatt.

⁴ It is included in the Background of this advice letter, however.

This one megawatt capacity limit is already included in the NEM tariff

However, on the issue of a combination of multiple generating facilities behind a single meter, existing NEM Special Condition 5 addresses how to credit multiple generating facilities subject to different tariff treatment (NEMMT). The existing tariff language is straightforward on how to implement NEMMT for Load Aggregation if the only NEM-eligible Group is a single Load Aggregation Arrangement and a non-NEM generating facility, as covered in Special Condition 5(g). But with other scenarios the existing language is inadequate and additional CPUC guidance would be required to determine how to proceed. For instance, it does not address how to allocate the credits from the different groups if there are multiple NEM groups subject to treatment under the different NEM tariffs, hence these are not permitted at this time. It is important to note that there are many possible scenarios for combinations of generating facilities behind a single meter not addressed in the tariff. If any such situations arise it is anticipated that special billing methodologies would be required. Furthermore, the difficulty arises largely from the fact that Load Aggregation allocates by the percentage of monthly load, unlike the other NEM aggregation provisions in the NEMFC and NEMBIO tariffs. The order of precedence for which credits apply would need to be established. Because of this, PG&E reserves the right to file an advice letter to address these issues upon receiving an interconnection request for such a project, and also reserves the right to establish a special service charge to recover the additional programming costs and administration of these very unique situations.

8) PU Section 2827 (h)(4)(H) on **Service Charges** requires:

Notwithstanding subdivision (g), an eligible customer-generator electing to aggregate the electrical load of multiple meters pursuant to this subdivision shall remit service charges for the cost of providing billing services to the electric utility that provides service to the meters.

This language is addressed in Special Condition 8 covering Load Aggregation. In this section PG&E proposes two charges:

These charges include:

- i) One-Time Setup Charge of \$4.00 per Aggregated Account and for the Generating Account, as defined in Special Condition 8.

Plus,

- ii) Monthly Charge of \$15 Per Aggregated Account and for the Generating Account as defined in Special Condition 8.

In addition to the aforementioned changes and additions, PG&E included language on the following:

- **Direct Access and Community Choice Aggregation.** In the Applicability section. PG&E adds that, “if the tariffs for the customer’s ESP do not permit Load Aggregation, as described in Special Condition 8, this option is not available to the DA Customers.” Also, PG&E includes in the Billing Special Condition 2(i) the provision that, “All accounts in a Load Aggregation Arrangement, including the Generating Account and all of its Aggregated Accounts, will normally all take service either only from PG&E, a single ESP or a single CCA. However, if PG&E is the billing agent, a mixture of electric commodity service providers may be permitted as long as PG&E agrees and recovers the additional incremental costs related to billing this Load Aggregation Arrangement from the customer’s ESP and/or CCA based on the applicable rates in Schedules E-ESP and E-CCA.”
- For **demand response** programs, the Applicability section adds language modeled after language in Schedule NEMV due to the presence of Aggregated Accounts.
- **Metering** is addressed in Special Condition 1. For metering costs not captured in the customer’s OAS, PG&E lays out Generating Account metering charges based on the incremental costs of metering under the Special Facility charges to address the likelihood that generators will be sized larger than any existing on-site load to match the aggregated load. This method better captures the actual cost of metering.
- **Billing** is addressed in Special Condition 2. Here PG&E adds details for the allocation from the Generating Account. Once the allocations are determined each month, the Aggregated Accounts for the most part are treated the same for billing purposes as a regular NEM account. One difference, however, is that PG&E requires all accounts to have the same billing cycle and Relevant (true-up) period. Details are provided on how added or removed Aggregated Accounts are handled.
- **Interconnection** is discussed in Special Condition 3. This section adds language about the new Appendix (Form No. 79-1153) that will be used with existing interconnection agreements. Additionally, PG&E includes language on additional services, in case a generator account with no load is preferred by the customer to avoid electric service panel upgrade costs due to the added amperage of an “oversized” generating facility to support Load Aggregation. To prevent using this as a way to obtain a additional service to avoid demand charges, for example by requesting a second A6 account instead of a single E19 account, PG&E requires that the additional service not

be allowed to have load and if the generator is removed, the additional service may not be converted to a load account.

Similar to all NEM customers Load Aggregation customers will continue to be responsible for the costs of interconnection facilities associated with their generator interconnection. Given the anticipated over sizing of the Load Aggregation generators relative to load at the generator site, customers should be aware that such costs may be more likely for Load Aggregation participants.

Tracking NEM Interconnection Costs Pursuant to OP 4 of Resolution E-4610

PG&E plans to track and submit reports of all associated costs for interconnecting NEM customers that are under the Standard, Expanded, NEMVMASH, NEMV, NEMFC and NEMBIO programs, as well as the newly proposed NEM Aggregation program (NEMA). Specifically, these costs for interconnection include the administrative processing and technical reviews of NEM interconnection requests, as well as the associated interconnection upgrades and facilities that are installed to safely and reliably interconnect these customers to PG&E's distribution system. PG&E anticipates having this tracking capability in place no later than November of this year.

Billing Cost Recovery

PU Code Section 2827(h)(4)(H), added by SB 594, allows PG&E to recover its billing costs through a customer service charge for the Load Aggregation program. As noted above, PG&E is implementing a one-time setup charge and monthly billing charge. Initially, PG&E plans to manually bill these customers until the interest in the program has been gauged and it is determined that an automated billing solution is needed. At that point, PG&E will need to upgrade our NEM billing system to be able to establish automated billing for these customers. Given this additional cost to the program, PG&E reserves the right to modify the service charges for these customers as noted above. Additionally, as another option, PG&E reserves the right to create a memorandum account to track these billing costs to be recovered in rates from all customers.

New Appendix to Include with Existing Interconnection Agreement

For Load Aggregation, a completed and signed "NEM Load Aggregation Appendix" (Form No. 79-1153) must be included with the appropriate NEM interconnection agreement listed above when it is submitted to PG&E. This form includes:

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than

November 12, 2013, which is 22 days⁵ after the date of this filing. Protests should be mailed to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail, or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter. (General Order 96-B, Rule 7.4.) The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Rule 3.11).

Effective Date

PG&E requests that this Tier 2 advice filing become effective 120 calendar days after the date of approval in order to prepare manual billing once the final program load aggregation program requirements are established, and allow for time to roll the program out internally and to PG&E's customers.

⁵ The 20-day protest period concludes on a weekend and the following day is a holiday. PG&E is hereby moving this date to the following business day.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service lists for R.12-11-005, and R.10-05-004. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs>

A handwritten signature in cursive script that reads "Brian Cherry /sw".

Vice President, Regulatory Relations

Attachments

cc: Service Lists R.12-11-005 and R.10-05-004

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 E)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact **Person: Shirley Wong**

Phone #: **(415) 972-5505**

E-mail: **slwb@pge.com and PGETariffs@pge.com**

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas
PLC = Pipeline HEAT = Heat WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **4305-E**

Tier: **2**

Subject of AL: **Revise Electric Rate Schedule NEM and Establish a New Electric Sample Form for NEM for Load Aggregation Pursuant to Senate Bill 594 and Resolution E-4610**

Keywords (choose from CPUC listing): **Agreements, Billing Compliance, Conditions of Service, Customer Charge, Direct Access, Forms, Metering, Text Change, Rules**

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: **SB 594 and Res. E-4610**

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: **No**

Summarize differences between the AL and the prior withdrawn or rejected AL:

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: **No**

Confidential information will be made available to those who have executed a nondisclosure agreement: **N/A**

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: _____

Resolution Required? Yes No

Requested effective date: **120 days after date of approval**

No. of tariff sheets: **21**

Estimated system annual revenue effect (%): **N/A**

Estimated system average rate effect (%): **N/A**

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: **Electric Schedule NEM (Net Energy Metering Service), and new Electric Sample Form 79-1153 (NEM Load Aggregation Appendix)**

Service affected and changes proposed: **See "Tariff Changes" section in advice letter.**

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
ED Tariff Unit
505 Van Ness Ave., 4th floor
San Francisco, CA 94102
E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company
Attn: Brian K. Cherry, Vice President, Regulatory Relations
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177
E-mail: PGETariffs@pge.com

**ATTACHMENT 1
Advice 4305-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
33181-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 1	32803-E
33182-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 2	32068-E
33183-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 3	30773-E
33184-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 4	30774-E
33185-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 5	30775-E
33186-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 6	30776-E
33187-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 7	30777-E
33188-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 8	30778-E
33189-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 9	30779-E
33190-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 10	32804-E
33191-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 12	30782-E
33192-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 13	30783-E

**ATTACHMENT 1
Advice 4305-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
33193-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 14	30784-E
33194-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 15	30785-E
33195-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 16	30786-E
33196-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 17	30787-E
33197-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 20	30790-E
33198-E*	ELECTRIC SAMPLE FORM 79-1153 NEM LOAD AGGREGATION APPENDIX Sheet 1	
33199-E*	ELECTRIC TABLE OF CONTENTS Sheet 1	33137-E
33200-E	ELECTRIC TABLE OF CONTENTS RATE SCHEDULES Sheet 6	33134-E
33201-E*	ELECTRIC TABLE OF CONTENTS SAMPLE FORMS Sheet 28	32534-E



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 1

APPLICABILITY: This net energy-metering schedule is applicable to a customer who uses a Renewable Electrical Generation Facility as defined below with a capacity of not more than 1,000 kilowatts that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with PG&E's transmission and distribution systems, including wind energy co-metering customers as defined in California Public Utilities Code Section 2827.8, and is intended primarily to offset part or all of the customer's own electrical requirements (hereinafter "eligible customer-generator" or "customer"). Subject to the requirements of Special Condition 8, Load Aggregation to determine the customer's own electrical requirements is permitted.

(T)
 (T)

This service is not applicable to a Direct Access (DA) customer where the customer's ESP does not offer a net energy metering tariff. In addition, if the tariffs for the customer's ESP do not permit Load Aggregation, as described in Special Condition 8, this option is not available to the DA customer. In addition, if an eligible customer-generator participates in direct transactions with an ESP that does not provide distribution service for the direct transactions, the ESP, and not PG&E, is obligated to provide net energy metering to the customer.

(N)
 |
 (N)

This rate schedule is available on a first-come, first-served basis to customers that provide PG&E with: (a) a completed Net Energy Metering Application including all supporting documents and required payments; AND (b) a completed signed Net Energy Metering Interconnection Agreement; AND (c) evidence of the customer's final inspection clearance from the governmental authority having jurisdiction over the generating facility; until such time as the total rated generating capacity used by eligible customer-generators on Rate Schedule NEM and NEMVMASH exceeds five (5) percent of PG&E's aggregate customer peak demand. Once this cap has been reached, Schedule NEM will be closed to new customers. PG&E is required to update its NEM cap, the amount of customer generating capacity eligible to participate in the program, annually on October 1st.¹

The total rated generating capacity of eligible customer-generators will be calculated as the sum of all of the following:

- 1) For each PV generating facility, PG&E will use the California Energy Commission's (CEC) AC rating; or where the CEC AC rating is not available, PG&E will multiply the inverter AC nameplate rating by 0.86.
- 2) For all other Renewable Electrical Generation Facilities, PG&E will use the AC nameplate rating of the generating facility.

PG&E's aggregate customer peak demand is the sum of customers' non-coincident peak demands defined in D. 12-05-036². The methodology for calculating customer's non-coincident aggregate peak demand is detailed in the Assigned Commissioner's Ruling Providing Instructions on Calculation of Non-Coincident Aggregate Customer Peak Demand Pursuant to Ordering Paragraph 3 of Decision 12-05-036, dated September 4, 2012, which requires the following:

¹ Beginning October 1, 2013.

² D.12-05-036 requires the NEM program for new customers to be suspended at the end of calendar year 2014, pending the outcome of further Commission proceedings. Existing customers receiving service under this NEM service prior to January 1, 2015, will not be affected by this suspension. However, NEM will continue to be available to renewable customer-sited generation until the target for solar photovoltaic capacity under the California Solar Initiative has been reached.

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 2

APPLICABILITY
 (Cont'd):

- 1) Using load research data to calculate non-coincident aggregate peak demand;
- 2) Using a four-year moving average based on annual load research data;
- 3) If the non-coincident aggregate peak demand decreases in a given year, the NEM cap will remain at the previously determined level and may not decrease below the most recent level determined;
- 4) Using 15-minute interval data for calculating non-coincident aggregate customer peak demand when including 2012 data in the four-year moving average. 15- or 30-minute interval data may be used when incorporating data prior to 2012 into the four-year moving average.

Customers seeking generator interconnections in portions of San Francisco and Oakland where PG&E has a network grid must contact PG&E about generation export limitations.

A Renewable Electrical Generation Facility means a generating facility that generates electricity by using:

- a) biomass,
- b) solar thermal,
- c) photovoltaic,
- d) wind,
- e) geothermal,
- f) fuel cells using renewable fuels,
- g) small hydroelectric generation (but a small hydroelectric generation facility is not an eligible Renewable Electrical Generation Facility if it will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow), (T)
- h) digester gas,
- i) municipal solid waste conversion,
- j) landfill gas,
- k) ocean wave,
- l) ocean thermal, or
- m) tidal current,

and any additions or enhancements to the facility using that technology pursuant to paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code. These renewable sources are defined in the latest version of the California Energy Commission's (CEC's) Renewables Portfolio Standard (RPS) Eligibility Guidebook and the Overall Program Guidebook.³ (T)

³ The RPS Guidebooks can be found at: <http://www.energy.ca.gov/renewables/documents/index.html#rps>

(Continued)



**ELECTRIC SCHEDULE NEM
 NET ENERGY METERING SERVICE**

Sheet 3

APPLICABILITY:
 (Cont'd.)

Schedule NEM applies also to specified net energy metering eligible (NEM-eligible) generators in a generating facility comprised of multiple NEM- and non-NEM-eligible generators, served through the same Point of Common Coupling (PCC), where the NEM-eligible generating capacity is not more than 1 MW. Such facilities will be referred to as Multiple Tariff Facilities, and any group of generators within such a facility that is subject to the same tariff provisions for billing and metering purposes will be referred to as a Constituent Generator Group. In order to be eligible for this rate schedule in a Multiple Tariff Facility, the customer-generator must meet all the requirements of Special Condition 5 for the schedule NEM-eligible generator, and must also meet any other applicable tariffs.

Due to the complexity of Load Aggregation Arrangements and/or Multiple Tariff Facilities NEM generating facilities interconnecting under the provisions of Special Conditions 5 and 8 may require additional review and/or interconnection facilities and other equipment, and may incur interconnection costs, as provided for in electric Rule 21.

(N)
 (T)
 (N)

A Customer who owns, rents or leases a premises that includes solar and/or wind turbine electrical generating facilities, or a hybrid of both with a capacity of 30kW or less, that were previously approved by PG&E for NEM interconnection prior to the Customer moving in and/or taking electric service with PG&E (Change of party Customer) will take service on this tariff as long as the requirements of this section are met. To be eligible, the Change of party Customer must: 1) ensure that the generating facility is compliant with all applicable safety and performance standards as delineated in PG&E's Electric Rule 21 and other applicable tariffs; 2) keep in force the amount of property, commercial general liability and/or personal liability insurance the Change of party Customer has in place at the time they initiate service on this tariff; 3) understand that PG&E may from time to time release to the California Energy Commission and/or the California Public Utilities Commission, information regarding the Change of party Customer's facility, including Change of party Customer's name and Generating Facility location, capacity and operational characteristics. Any type of Renewable Electrical Generation Facility other than a solar and/or wind turbine electrical generating facilities, or a hybrid of both with a capacity of 30kW or less, may at PG&E's request be required to complete and submit to PG&E a new Interconnection Agreement (79-1137) and/or Affidavit (Appendix C).

Change of party Customers making any modification to previously approved PG&E NEM solar and/or wind turbine electrical generating facilities or other Renewable Electrical Generation Facility are not eligible for this provision and must complete the interconnection process in Special Condition 3 of this tariff.

Change of party Customers also must agree to comply with all rules and requirements of PG&E's Net Energy Metering tariffs.

When the builder/developer of a subdivision sells a new home during the NEM application process, after the builder/developer completes the Net Energy Metering Application and Interconnection Agreement for Customers with Solar and/or Wind Generating Facilities of 30kW or Less (Form #79-1101) and otherwise meets all of PG&E's requirements for the NEM project, but prior to PG&E providing final written approval for Parallel Operation on Schedule NEM, PG&E may treat the new home owner/Customer as a Change of-party Customer, as defined above.

(L)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 5

SUB-SCHEDULES:

Eligible customer-generators will be placed on the appropriate sub-schedule as described below:

1. NEMS – For Small Customer (as defined in Rule 1) customer-generators taking service with solar and/or wind generating facilities, the combined total of which is not more than 30 kW.
2. NEMEXP – For Small Customer (as defined in Rule 1) customer-generators with (i) solar generating facilities, the combined total of which is greater than 30 kW, or (ii) any other Renewable Electrical Generation Facility.
3. NEMEXPM – For all other commercial, industrial customer-generators, and agricultural customers billed monthly under Special Condition 2 with (i) solar generating facilities, the combined total of which is greater than 30 kW, (ii) or any other Renewable Electrical Generation Facility.
4. NEMMT – For customer-generators taking service as a Multiple Tariff Facility under Special Condition 5 of this tariff.
5. NEMA – For a customer-generator with a Load Aggregation Arrangement pursuant to Special Condition 8 of this tariff.

(N)
 (N)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 7

SPECIAL
 CONDITIONS:
 (Cont'd.)

2. BILLING: Facilities qualifying under multiple tariffs, see Special Condition 5.
 For customer-generators taking service on OAS's, any net monthly consumption or production shall be valued as follows:

a. For an OAS with Baseline Rates

Any net consumption or production shall be valued monthly as follows:

If the eligible customer-generator is a net consumer, the eligible customer-generator will be billed in accordance with the eligible customer-generator's OAS.

If the eligible customer-generator is a net generator, the net kWh generated shall be valued at the rate for the kWh up to the baseline quantity, with any excess kWh generated, valued at the rate for the appropriate tier level in which the equivalent kWh of usage would fall.

If the eligible customer-generator is being served under DA or CCA Service, ESP or CCA charges will be specified by their ESP or CCA in accordance with the eligible customer-generator's OAS and PG&E's Direct Access or Community Choice Aggregation tariffs. Applicable PG&E charges or credits will be valued as described in this Section 2.

For a DA or CCA Service customer-generator, Generation Rate Component credits, if any, do not reduce the charges owed to PG&E for energy supplied to the eligible customer-generator.

b. For an OAS with Time of Use (TOU):

If the eligible customer-generator is a net consumer during any discrete TOU period, the net kWh consumed shall be billed in accordance with that same TOU period in the eligible customer-generator's OAS.

If the eligible customer-generator is a net generator during any discrete TOU period, the net kWh produced shall be valued at the same price per kWh at the same TOU period in the eligible customer generator's OAS.

In the event that at the end of the monthly billing cycle, an eligible customer-generator's net usage for all TOU periods totals zero (i.e. net generation in one or more periods exactly offsets the net usage in all other periods), then the value of usage and/or generation will be calculated using Tier 1 rates (as set forth in the OAS).

If the eligible customer-generator is being served under DA or CCA Service, ESP or CCA charges will be specified by their ESP or CCA in accordance with the eligible customer-generator's OAS and PG&E's Direct Access or Community Choice Aggregation tariffs. Applicable PG&E charges or credits will be valued as described in this Section 2.

For a DA or CCA Service customer-generator, Generation Rate Component credits, if any, do not reduce the charges owed to PG&E for energy supplied to the eligible customer-generator. (T)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 8

SPECIAL
 CONDITIONS:
 (Cont'd.)

2. NET ENERGY METERING AND BILLING: (Cont'd.)

c. For an OAS with Minimum Charges:

Eligible customer-generators taking service on residential OAS's, the minimum charges have a customer-related component and an energy-related component. The applicable customer-related components of such minimum charges shall be treated as described in the OAS and billed monthly. The energy (kWh) related component shall be treated in the same manner as energy (kWh) consumed, as described in Section 2.e below, unless otherwise provided for in the OAS.

(T)

d. For a customer-generator electing Load Aggregation

For each monthly billing period, the energy (kWh) exported to the grid (in kilowatt-hours or kWh) by the Renewable Electrical Generation Facility shall be allocated to each of the Aggregated Account meters (kWh reading), as well as the Generating Account if it has load, in proportion to the electrical load (kilowatt-hours) served by those meters over that month. At the end of the month, once the allocation proportions are known, the kWh for each Generating Account meter interval will be allocated to each of the Aggregated Accounts for the corresponding interval.

(N)

Once the kWh is allocated to an eligible customer-generator's Aggregated Account, that account will be treated in accordance with (a), (b), and/or (c) above, as applies to the rate schedule on which the Aggregated Account takes service. The Generating Account will also be treated as an Aggregated Account in months where it has net load.

(N)

e. Payment Options:

Eligible Small Customer (as defined in Rule 1) customer generators may pay monthly or annually for the net energy (kWh) consumed. For all other commercial, industrial, and agricultural customers, the net balance of all moneys owed must be paid on each monthly billing cycle; when they are a net electricity producer over a monthly billing cycle, the value of any excess kilowatt-hours generated during the billing cycle shall be carried over to the following billing period and appear as a credit on the customer generator's account, until the end of the Relevant Period.

(T)

Aggregated Accounts, including the Generating Account in a Load Aggregation Arrangement must pay monthly for energy consumed.

(N)

(N)

f. Relevant Period:

A Relevant Period consists of any twelve monthly billing cycles commencing on the date PG&E provides the Customer-Generator with PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEM, and on every subsequent anniversary thereof. If an eligible customer-generator terminates service, or experiences a change in ESP or CCA prior to the end of any 12 monthly billing cycles the Relevant Period will consist of that period from the anniversary date until the effective date of that termination or ESP or CCA change.

(T)

(Continued)



**ELECTRIC SCHEDULE NEM
 NET ENERGY METERING SERVICE**

Sheet 9

SPECIAL
 CONDITIONS:
 (Cont'd.)

2. NET ENERGY METERING AND BILLING: (Cont'd.)

f. Relevant Period: (Cont'd.)

(N)

For Load Aggregation, the Generating Account and all Aggregated Accounts will have the same billing cycle and Relevant Period, based on the interconnection date, or Anniversary thereof as described earlier in this paragraph. However, if an Aggregated Account terminates service, or experiences a change in ESP or CCA prior to the end of any 12 monthly billing cycles, its Relevant Period will consist of that period from the anniversary date until the effective date of that termination or ESP or CCA change. If an Aggregated Account is subsequently added, its Relevant Period will consist of that period from its effective date of inclusion in Load

(N)

g. Energy True Up:

(T)

Net energy is defined as measuring the difference between the energy (kWh) supplied by PG&E, ESP or CCA, as applicable, through the electric grid to the eligible customer-generator and energy (kWh) generated by an eligible customer-generator and fed back into the electric grid over a Relevant Period.

For an Aggregated Account, (including a Generating Account) Net Energy is defined as measuring the difference between the energy (kWh) supplied by PG&E, ESP or CCA, as applicable, through the electric grid to the eligible customer-generator and the total energy (kWh) allocated to that Aggregated Account over a Relevant Period.

(N)

|

|

(N)

A true up is performed by PG&E and/or ESP or CCA, as applicable, at the end of each Relevant Period following the date the customer-generator was first eligible for Schedule NEM, or the date of PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEM, whichever is later, and at each anniversary date thereafter. The eligible customer-generator shall be billed for energy (kWh) used during that period.

Where the residential minimum bill applies at the true up for a Bundled Service customer, no further amounts will be billed to the customer-generator as a result of the true up. Where the minimum bill applies at the true up for a customer generator that has taken DA, CCA Service or transitional bundled commodity cost service for all or part of the Relevant period, the customer-generator will be billed for all applicable energy-related components, provided no credit will be allowed for negative components unless the rate for such component is also negative.

If the customer-generator is taking service under DA or CCA Service, separate true-ups will be calculated for the applicable PG&E charges and credits and the ESP or CCA charges and credits. If PG&E is the electric commodity service provider, this condition may be modified where the customer has signed a contract to sell electricity to PG&E.

(L)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 10

SPECIAL
 CONDITIONS:
 (Cont'd.)

2. NET ENERGY METERING AND BILLING: (Cont'd.)

g. Energy True Up: (Cont'd)

(T) (L)

For a DA or CCA Service customer-generator, Generation Rate Component credits, if any, do not reduce the charges owed to PG&E for energy supplied to the eligible customer-generator.

If any Eligible customer-generator has any credits calculated pursuant to this Section 2 remaining at the end of the Relevant Period, that credit will be set to zero. However, in the event the energy (kWh) generated exceeds the energy (kWh) consumed during the Relevant Period, compensation shall be made for the excess energy (kWh) as described and allowed for in Special Condition 6.

(T)

Once the true-up is completed at the end of the Relevant Period, any overpayment for energy (kWh) from the true-up will be credited to future bill charges.

(L)

h. Billing Information:

(T)

If PG&E supplies the eligible customer-generator with energy (kWh), PG&E shall provide the eligible customer-generator with net energy (kWh) consumption information with each regular bill. That information shall include the current monetary balance owed PG&E for the net energy (kWh) consumed since the last Relevant Period ended.

i. Electric Service Provider (ESP) Charges:

(T)

If PG&E provides direct access (DA) metering for the ESP, UDC consolidated billing (that is, PG&E Consolidated Billing as described on PG&E's Rule 22), or ESP dual or consolidated billing support services for DA customer-generators served under PG&E's rates or their ESP's rates, PG&E may recover the incremental costs related to net energy metering from the customer's ESP, as described in Schedule E-ESP – *Services To Electric Service Providers*, and Schedule E-EUS – *End User Service*.

(N)

(N)

(D)

(D)

All accounts in a Load Aggregation Arrangement, including the Generating Account and all of its Aggregated Accounts, will normally all take service either only from PG&E, a single ESP or a single CCA. However, if PG&E is the billing agent, a mixture of electric commodity service providers may be permitted as long as PG&E agrees and recovers the additional incremental costs related to billing this Load Aggregation Arrangement from the customer's ESP and/or CCA based on the applicable rates in Schedules E-ESP and E-CCA.

(N)

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(N)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 12

SPECIAL
 CONDITIONS:
 (Cont'd.)

3. INTERCONNECTION: (Cont'd.)

For Load Aggregation, a completed and signed "NEM Load Aggregation Appendix" (Form 79-1153) must be submitted together with the appropriate NEM interconnection agreement listed above. (N)
 |
 (N)

The eligible customer-generator must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the California Public Utilities Commission regarding safety and reliability.

For Load Aggregation Arrangements Requesting an additional service for Generator – Subject to all other applicable rules, an additional service may be allowed for the Generating Account if it has no load other than that associated directly with the Renewable Electric Generation Facility. However, a customer may not subsequently add load to that additional service, and if the Renewable Electrical Generation Facility is removed, the additional service, may not be converted to a load account. (N)
 |
 |
 |
 |
 (N)

4. EXEMPTIONS FROM CERTAIN CHARGES: Per Section 2827.7 of the California Public Utilities Code, eligible customer-generators who have all local and state permits required to commence construction of their generating facilities on or before December 31, 2002, and have completed construction on or before September 30, 2003, shall not be required to pay non-bypassable charges on Departing Load including Public Purpose Program charges and shall be entitled to the net energy metering terms in effect on the date the local and state permits were acquired, for the life of the generating facility, regardless of any change in customer or ownership of the generating facility.

(Continued)



**ELECTRIC SCHEDULE NEM
 NET ENERGY METERING SERVICE**

Sheet 13

SPECIAL
 CONDITIONS:
 (Cont'd.)

5. MULTIPLE TARIFF FACILITIES: (T)
- Multiple Tariff Facilities have the following additional provisions:
- a. When Net Generation Output Metering (NGOM) is required, such NGOM must conform to the requirements set forth in Electric Rule 21, Section F.
 - b. A NEM-eligible Constituent Generator Group is defined as a constituent generator group that is eligible for service under the provisions of either schedule NEM, NEMBIO or NEMFC or their sub-schedules.
 - c. A non-NEM-eligible Constituent Generator Group is defined as a constituent generator group that does not take service under the provisions of schedules NEM, NEMBIO or NEMFC, but interconnects under the provisions of Electric Rule 21.
 - d. All metering for Multiple Tariff Facilities called for in this special condition must meet the requirements needed to bill under the customer-generator's OAS. All metering, equipment and Non Export relays necessary to implement the provisions in this section will be provided at the Customer-Generator's expense.
 - e. Any generators eligible for tariffs NEMA, NEMFCA or NEMBIOA (accounts with the loads from eligible accounts aggregated on the main NEM, NEMFC or NEMBIO account pursuant as allowed under this Special Condition 5 of this NEM tariff) will be treated as a separate Constituent Generator Group. However at this time NEMA may not be combined with NEMFCA or NEMBIOA under this Special Condition (N)(T)
- (N)(T)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 14

SPECIAL
 CONDITIONS:
 (Cont'd.)

5. MULTIPLE TARIFF FACILITIES (Cont'd):

- f. Except for Load Aggregation Arrangements where multiple NEM-eligible Constituent Generator Groups are present, and energy (kWh) is exported to the grid at the PCC, the billing credit will be based upon the proportional contribution of the energy production (kWh) of each NEM-eligible Constituent Generator Group over the billing period as follows: (T)
- 1) Sum all NEM-eligible Constituent Generator Groups' NGOM readings.
 - 2) Determine the proportion of energy (kWh) attributable to each NEM-eligible Constituent Generator Group by dividing the NGOM reading of each by the sum from (1) above.
 - 3) NEM-eligible Export is the lesser of either all exported energy (kWh) as measured at the PCC or the sum of the energy (kWh) per (1) above.
 - 4) Take the NEM-eligible Export and assign it to each NEM-eligible Constituent Generator Group based on its respective proportion of NGOM reading.
 - 5) Determine the bill credit for the customer-generator as provided under the customer-generator's OAS in combination with the net energy metering tariff billing treatment type for each NEM-eligible Constituent Generator Group.
 - 6) If interval metering is chosen per Special Condition 5(g)(2)(c) of this special condition, this allocation of bill credit will be done on the aggregated intervals over a billing period. If the OAS is a time-of-use (TOU) rate schedule, the allocation will be performed for each aggregated TOU period separately.
 - 7) Generating Facilities including only multiple Renewable Electrical Generating Facilities are not Multiple Tariff Facilities and the customer-generator will be billed as provided in Special Condition 2 of this tariff.

(Continued)



**ELECTRIC SCHEDULE NEM
 NET ENERGY METERING SERVICE**

Sheet 15

SPECIAL
 CONDITIONS:
 (Cont'd.)

- 5. MULTIPLE TARIFF FACILITIES (Cont'd):
 - g. Multiple Tariff Facility Configurations and Metering.
 - 1) Except for Load Aggregation Arrangements, for two or more types of NEM-eligible Constituent Generator Groups, the customer-generator must select one of the following options: (T)
 - a) Install NGOM on each Constituent Generator Group. In addition, metering is required at the PCC capable of separately registering the flow of energy (kWh) in two directions. Billing credit will be calculated as provided for in Special Condition 5(f). Generation Rate Component charges are the charges for energy (kWh) used based on the generation rate component of the energy charge under the customer-generator's rate schedule(s). Billing credit will be applied consistent with the appropriate net metering tariff as follows:
 - i. First, apply NEMBIO credits (if any) to Generation Rate Component charges on any aggregated accounts, and then to Generation Rate Component charges on the account served by the generating facility (Host Account).
 - ii. Second, apply NEMFC credits (if any) to Generation Rate Component charges on the account served by the generating facility.
 - iii. Third, apply NEM credits (if any) as appropriate to the remainder of energy charges on the account served by the generating facility.
 - b) If the customer-generator has no Constituent Generator Group(s) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM consisting of one or more Renewable Electrical Generation Facilities, the customer-generator may elect to take service for such under either Schedule NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).

(Continued)



**ELECTRIC SCHEDULE NEM
 NET ENERGY METERING SERVICE**

Sheet 16

SPECIAL
 CONDITIONS:
 (Cont'd.)

5. MULTIPLE TARIFF FACILITIES (Cont'd):

g. Multiple Tariff Facility Configurations and Metering. (Cont'd)

- 2) For both, NEM-Eligible — unless there is a Load Aggregation Constituent Generator Group, in which case it must be the only NEM-Eligible Constituent Generator Group — and non-NEM Eligible Constituent Generator Groups, the Customer-Generator must select one of the following options:
 - i. **The Non Export Relay Option:** A Customer-Generator must install a Non-Export relay on their non-NEM Constituent Generator Groups and install metering as follows: 1) If there is only one type of NEM-eligible Constituent Generator Group then metering at the PCC is all that is required and the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then Metering at the PCC and NGOM metering of each NEM-Eligible Constituent Generator Group is required. The requirements of Special Condition 5(f) and 5(g) apply.
 - ii. **The Load Metering Option:** The customer-generator must install NGOM on each NEM-Eligible Constituent Generator Group, install energy consumption metering at the load, and install metering at the PCC as follows: 1) If there is one type of NEM-Eligible Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then the terms of Special Condition 5(f) and 5(g) apply.
 - iii. **The Interval Meter Option:** The customer-generator must install interval NGOM on each NEM-Eligible Constituent Generator Group and install interval metering at the PCC as follows: 1) If there is one type of Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then the terms of Special Condition 5(f) and 5(g) for interval metering apply. Energies (kWh) generated in an interval are aggregated over a billing period according to the OAS.
- h. Multiple Tariff Facilities, served under DA or CCA Service, may only participate to the extent their ESP or CCA offers net metering for the specific constituent generator group(s).
- i. Multiple Tariff Facilities involving multiple Load Aggregation Constituent Generator Groups, except for those allowed under Section g. above, are not permitted at this time.

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 17

SPECIAL
CONDITIONS:
 (Cont'd.)

6. Net Surplus Electricity Compensation (NSC):

Pursuant to P.U. Code Sections 2827 (h)(4)(A), this Special Condition was established to provide a NEM customer having **Net Surplus Electricity**, (defined as all electricity generated by an eligible customer measured in kilowatt-hours over a Relevant Period – as defined in Special Condition 2(e) of this tariff – that exceeds the amount of electricity consumed by that eligible customer), with **Net Surplus Electricity Compensation (NSC)** for the Net Surplus Electricity, while leaving other ratepayers unaffected. A NEM customer who has Net Surplus Electricity will be known as a **Net Surplus Generator**.

(a) NSC Applicability – All bundled Net Surplus Generators that satisfy the conditions in the Applicability Section of this tariff and take service under this rate schedule are eligible to receive NSC if they have a true-up on, or following, the effective date below. This includes Net Surplus Generators on sub-schedules NEMS, NEMEXP, and NEMEXPM. A NEMMT Net Surplus Generator is also eligible to receive NSC but only for the one or more generators at the same metered account eligible for billing treatment under Special Condition 2 (a through f) of this NEM schedule.

Net Surplus Generators who receive Direct Access (DA) Service from an ESP or who receive Community Choice Aggregation Service from a CCA are not eligible to receive NSC from PG&E but may contact their ESP or CCA Provider to see if they provide NSC.

If an eligible customer-generator elects Load Aggregation, the eligible customer-generator shall be permanently ineligible to receive net surplus electricity compensation, and PG&E shall retain any kilowatt-hours and zero out any credits remaining on each account in the Load Aggregation Arrangement at the end of the Relevant Period.

(N)
 |
 |
 (N)

The effective date for a Net Surplus Generator to begin to receive NSC will be no earlier than the end of their Relevant Period following January 1, 2011 unless (i) the Net Surplus Generator customer was a change-of-party Customer or became a new NEM customer in January 2010 and the meter read date for their twelfth billing month following enrollment in NEM falls in December of 2010; or (ii) a Net Surplus Generator's NEM meter was set to be read in January 2011 but due to PG&E's schedule of meter read dates, the read occurred on December 27, 2010 or later. Customers covered by subsections (i) or (ii) will be eligible to receive NSC for their Relevant Period ending in December 2010.

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 20

SPECIAL
 CONDITIONS:
 (Cont'd.)

7. Pursuant to Public Utilities Code Section 2827(c)(2), any customer with an existing electrical generating facility and meter who enters into a new net energy metering contract (for example, Sample Form 79-978, *Interconnection Agreement for Net Energy Metering of Solar and Wind Electric Generating Facilities of 1,000 Kilowatts or Less, other than Facilities of 30 Kilowatts or Less*) shall complete and submit a copy of form 79-1125 – *NEM / NEMVMASH Inspection Report* to PG&E, unless the electrical generating facility and meter have been installed or inspected within the previous three years. The *NEM Inspection Report* shall be prepared by a California licensed contractor who is not the owner or operator of the facility and meter. A California licensed electrician shall perform the inspection of the electrical portion of the facility and meter and sign the *NEM / NEMVMASH Inspection Report*. If an inspection is required, the customer shall submit the fully completed *NEM / NEMVMASH Inspection Report* to PG&E within 90 days of the customer becoming the customer of record at this account, or else the customer agrees to disconnect their Generating Facility and inform PG&E it no longer will take service on schedule NEM or NEMVMASH. By signing the interconnection agreement, the *NEM / NEMVMASH Inspection Report* shall be incorporated into it. (T)

8. **Load Aggregation** (N)

Load Aggregation is available to an eligible customer-generator that has load served by multiple meters ("**Aggregated Accounts**") located on the property where the Renewable Electrical Generation Facility ("**Generating Account**") is located and on property adjacent or contiguous to the property on which the Renewable Electrical Generation Facility is located, only if those properties are solely owned, leased, or rented by the eligible customer-generator, subject to the terms of this Special Condition and elsewhere in this tariff. For purposes of Load Aggregation, parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are otherwise contiguous and under the same ownership. All of the Aggregated Accounts, including a single Generating Account, that are billed together under this Special Condition are referred to as an **Arrangement**.

Billing Service Charges -- Notwithstanding Public Utilities Code Section 2827 (g), an eligible customer-generator electing Load Aggregation shall remit service charges for the cost of providing billing services as follows. These charges shall include:

- i) One-Time Setup Charge of \$4.00 per Aggregated Account and for the Generating Account, as defined in this Special Condition.

Plus,

- ii) Monthly Charge of \$15 Per Aggregated Account and for the Generating Account as defined in this Special Condition. (N)



ELECTRIC SAMPLE FORM 79-1153
NEM LOAD AGGREGATION APPENDIX

Sheet 1 (N)
(N)

Please Refer to Attached
Sample Form

NEM LOAD AGGREGATION APPENDIX**(If Applicable)**

**List of Qualifying Accounts Eligible for
Load Aggregation under Special Condition 8 of Schedule
NEM and Customer-Generator Declaration Warranting NEM Aggregation Is Located On
Same or Adjacent or Contiguous Property to Generator Parcel**

This is an appendix to form 79-1101 79-978, 79-1137 or 79-1069 as applicable. As governed by Schedule NEM Special Condition 8, PG&E will aggregate the load of the Customer-Generator's accounts listed below where the Customer-Generator is the customer of record and the accounts are (i) located on the property where the Generation Facility is located, or (ii) on property adjacent or contiguous to that property as long as those properties are solely owned, leased, or rented by the Customer-Generator. Parcels that are divided by a street, highway, or public thoroughfare are considered contiguous, provided they are otherwise contiguous and under the same ownership as described in (ii) above.

In accordance with this appendix:

(i) Pursuant to Schedule NEM Special Condition 8, the electricity generated by the renewable electrical generation facility and exported to the grid shall be allocated to each of the aggregated meters in proportion to the electrical load served by those meters, and

(ii) In accordance with Special Condition 8 of the Rate Schedule NEM, Customer-Generator shall remit service charges of _____ to PG&E for its cost of providing billing service to those meters, and

(iii) Customer-Generator shall permanently be ineligible to receive AB 920 net surplus electricity compensation, and PG&E shall retain any kilowatt hours in excess of the eligible Customer-Generator's electrical load as determined for each aggregated meter individually.

This agreement at all times shall be subject to such modifications as the California Public Utilities Commission may direct from time to time in the exercise of its jurisdiction.

NEM LOAD AGGREGATION APPENDIX

Requesting Second Service for Generator: Yes No

For Load Aggregation Arrangements Requesting an additional service for Generator – Subject to all other applicable rules, an additional service may be allowed for the Generating Account if it has no load other than that associated directly with the Renewable Electric Generation Facility. However, a customer may not subsequently add load to that additional service, and if the Renewable Electrical Generation Facility is removed, the additional service, may not be converted to a load account.

Accounts	Customer-Generator Service Agreement ID from your Billing Statement ⁶	Account Address as listed on your Billing Statement (Street, City, Zip Code – no P.O. boxes)	Annual kWh Load ⁷
Generator Account			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Annual kWh			
110% of Total Annual kWh (Standard NEM solar and/or wind <= 30 kW only)			

(Use more sheets as necessary. You do not have to restate the Generator Account on additional sheets.)

Total Annual Kwh Load (from all sheets, if applicable)	
Estimated Annual kWh Production Solar = CEC-AC ⁸ rating X 1,664 ⁹ Wind = Total Inverter Nameplate Rating X 2,190 ¹⁰ Other Technologies = Total Inverter Nameplate Rating X 7,008 ¹¹	

(Customer-Generator) _____ Date: _____ Page: ___ of ___

⁶ If this is a new account, enter *NEW*.

⁷ For previous twelve months from date of signature. Please also enter the annual kWh for generator account prior to the generator being installed; if none, enter zero.

⁸ CEC-AC (kW) = California Energy Commission Alternating Current, refers to inverter efficiency rating (Quantity of PV Modules x PTC Rating of PV Modules x CEC Inverter Efficiency Rating)/1000

⁹ Estimated Solar Production = 8,760 hrs/yr X 0.19 solar capacity factor = 1,664

¹⁰ Estimated Wind Production = 8,760 hrs/yr X 0.25 wind capacity factor = 2,190

¹¹ Estimated Other Technologies = 8,760 hrs/yr X 0.80 other technologies capacity factor = 7,008

Customer-Generator Declaration

In accordance with Schedule NEM, I, Customer-Generator represent and warrant under penalty of perjury that:

- 1) The total annual output in kWh of the generator is less than or equal to 110% (for solar and/or wind systems equal to or less than 30 kW) or 100% (for all other technologies and solar and/or wind systems greater than 30 kW) of the annual aggregated electrical load in kWh of the meters associated with the generator account, including the load on the generating account itself (before being offset by the generator); and
- 2) Each of the aggregated account meters associated with this NEM generator account are located either
 - (i) on the property where the renewable electrical generation facility is located, or
 - (ii) on property adjacent or contiguous to the property on which the renewable electrical generation facility is located, and those properties are solely owned, leased or rented by me; andParcels that are divided by a street, highway, or public thoroughfare are otherwise contiguous with the parcel where the generator is located and under the same ownership as described in (ii) above; and
- 3) PG&E reserves the right to request a parcel map to confirm the property meets the requirements of 2) above; and
- 4) Customer-Generator agrees to notify PG&E if there is any change of status that makes any of the meters listed in this Appendix ineligible for meter aggregation to ensure that only eligible meters are participating; PG&E will require an updated Appendix and Declaration form and
- 5) Upon request by PG&E, I agree to provide documentation that all aggregated meters meet the requirements of Rate Schedule NEM Special Condition 8 including but not limited to parcel maps and ownership records.

Customer Generator's Name

Signature

Date

Type/Print Name

Title



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**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

1st Light Energy	Douglass & Liddell	OnGrid Solar
AT&T	Downey & Brand	Pacific Gas and Electric Company
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	Praxair
Anderson & Poole	G. A. Krause & Assoc.	Regulatory & Cogeneration Service, Inc.
BART	GenOn Energy Inc.	SCD Energy Solutions
Barkovich & Yap, Inc.	GenOn Energy, Inc.	SCE
Bartle Wells Associates	Goodin, MacBride, Squeri, Schlotz & Ritchie	SDG&E and SoCalGas
Braun Blasing McLaughlin, P.C.	Green Power Institute	SPURR
CENERGY POWER	Hanna & Morton	San Francisco Public Utilities Commission
California Cotton Ginners & Growers Assn	In House Energy	Seattle City Light
California Energy Commission	International Power Technology	Sempra Utilities
California Public Utilities Commission	Intestate Gas Services, Inc.	SoCalGas
California State Association of Counties	Kelly Group	Southern California Edison Company
Calpine	Linde	Spark Energy
Casner, Steve	Los Angeles Dept of Water & Power	Sun Light & Power
Center for Biological Diversity	MAC Lighting Consulting	Sunshine Design
City of Palo Alto	MRW & Associates	Tecogen, Inc.
City of San Jose	Manatt Phelps Phillips	Tiger Natural Gas, Inc.
Clean Power	Marin Energy Authority	TransCanada
Coast Economic Consulting	McKenna Long & Aldridge LLP	Utility Cost Management
Commercial Energy	McKenzie & Associates	Utility Power Solutions
County of Tehama - Department of Public Works	Modesto Irrigation District	Utility Specialists
Crossborder Energy	Morgan Stanley	Verizon
Davis Wright Tremaine LLP	NLine Energy, Inc.	Water and Energy Consulting
Day Carter Murphy	NRG Solar	Wellhead Electric Company
Defense Energy Support Center	Nexant, Inc.	Western Manufactured Housing Communities Association (WMA)
Dept of General Services	North America Power Partners	
Division of Ratepayer Advocates	Occidental Energy Marketing, Inc.	