

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 9, 2017

Advice Letter 4847-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Subject: Information-Only Filing Regarding Net Energy Metering Costs

Dear Mr. Jacobson:

Advice Letter 4847-E is effective as of May 25, 2016.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Director, Energy Division

May 25, 2016

Advice 4847-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Information-Only Filing Regarding Net Energy Metering Costs

Pacific Gas and Electric Company (PG&E) hereby submits for filing a report correcting interconnection costs for all NEM customers in compliance with Resolution E-4610 Ordering Paragraph (OP) 4, and Decision (D.) 14-05-033, OP 16.

Purpose

The purpose of this filing is to correct a previous report filed in Advice 4660-E of PG&E's costs of interconnection for all NEM customers, for the period of November 1, 2013 through May 31, 2015.

Background

In accordance with D.14-05-033, the investor-owned utilities jointly filed a Tier 2 Advice Letter detailing the cost categories being tracked pursuant to E-4610 on June 23, 2014. Southern California Edison (SCE) filed Advice Letter 4446-E on behalf of PG&E, and was approved as of June 23, 2014 via disposition letter on August 1, 2014.

In accordance with Resolution E-4610 and D.14-05-033, PG&E reported costs of interconnection for all NEM customers, first on September 19, 2014, with a follow up report on June 30, 2015.

As noted in Advice Letter 4802-E, Section A.1, footnote 10, filed on February 29, 2016, PG&E discovered that data it filed in Advice Letter 4660-E, Appendix A, Table 3, Metering Installation/Inspection and Commissioning, did not capture all of the costs that were associated with NEM projects. As a result, PG&E is submitting a correction to Appendix A, Table 3.

Net Energy Metering Interconnection Costs

The corrected report of interconnection costs for all NEM customers is attached to this Advice Letter, Attachment A.

Protests

This is an information-only advice letter filing. Pursuant to General Order 96-B Section 6.2, PG&E is not seeking relief through this advice letter and is not subject to protest. Instead, PG&E is simply reporting the interconnection costs for all NEM customers pursuant to Resolution E-4610 and D.14-05-033.

Effective Date

PG&E requests that this information-only advice filing become effective June 30, 2015, which was the original requested effective date in Advice Letter 4660-E.

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.14-07-002. 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/>.

_____/S/

Erik Jacobson
Director, Regulatory Relations

Attachments

cc: Service Lists R.12-11-005 and R.14-07-002
Elizabeth Curran, Energy Division

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: Kingsley Cheng

Phone #: (415) 973-5265

E-mail: k2c0@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) #: **4847-E**

Tier: N/A

Subject of AL: **Information-Only Filing Regarding Net Energy Metering Costs**

Keywords (choose from CPUC listing): Compliance

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.14-05-033 and Resolution 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: **June 30, 2015**

No. of tariff sheets: N/A

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: N/A

Service affected and changes proposed: N/A

Pending advice letters that revise the same tariff sheets: N/A

This is an information-only advice letter filing. Pursuant to General Order 96-B Section 6.2, PG&E is not seeking relief through this advice letter and is not subject to protest.

California Public Utilities Commission
Energy Division
EDTariffUnit
505 Van Ness Ave., 4th Flr.
San Francisco, CA 94102
E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company
Attn: Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
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Attachment A
NEM Interconnection Costs

In response to the California Public Utilities Commission (CPUC) order stated in Resolution E-4610, PG&E has tracked the following interconnection costs (Tables 1-5) related to its Net Energy Metering tariffs for the period November 1, 2013 through May 31, 2015. PG&E's current available NEM tariffs include: Schedules NEM (including NEMA and NEMMT), NEMFC, NEMV, and NEMVMASH.

Note: The figures included in this report are based on historic interconnection records. They represent the cost of interconnection between the dates of November 1, 2013 and May 31, 2015 as a result of existing interconnection processes and requirements. As such, any attempts to use these figures to forecast future interconnection costs should account for changes to processes, requirements/ standards, and changes in capacity of interconnected distributed energy resources relative to the local integration capacity of the circuit. As DER penetration increases, it is likely that the unit cost for interconnection will increase.

| | |
|-----------------------------------|--------|
| Total NEM Applications | 79,593 |
| Total NEM Interconnections | 77,033 |

| Table 1 Processing/Administration Costs | |
|---|-------------|
| Total | \$8,844,612 |
| Note: Includes Application Processing (e.g., validating single line diagram, interconnection agreement, electrical inspection clearance from governmental agency having jurisdiction, and other required documents), and back office tasks (e.g., initial billing setup). | |

| Table 2 Distribution Engineering Costs | |
|--|-------------|
| Total | \$2,128,980 |
| Note: Includes technical analysis, studies, and screens consistent with Rule 21 (e.g., voltage rise, 15% Penetration, transformer loading) | |

| Table 3 Metering Installation/Inspection and Commissioning | |
|---|-----------|
| Total | \$604,085 |
| Note: Includes residential and non-residential meter changes and remote meter programming, material, supplies, procurement costs, labor for installation, testing, engineering, and quality assurance necessary for interconnection | |

| Table 4 Facility Upgrade Costs | |
|---|--------------------|
| Type | Total |
| Interconnection Facilities | \$1,886,145 |
| Distribution Upgrades | \$3,513,511 |
| Total | \$5,399,656 |

In response to the CPUC order stated in Decision (D) 14-05-033, PG&E has tracked the following waived fees and costs (Table 5) related to interconnection of NEM-Paired Storage for the period of May 23, 2014 through May 31, 2015.

| Table 5 NEM-Paired Storage Waived Fees and Costs | | |
|--|--------------------|------------|
| Category | Number of Projects | Total Cost |
| Application Fee | 91 | \$72,800 |
| Supplemental Review Fee | 9 | \$22,500 |
| Distribution Upgrades | 0 | \$0 |
| Standby Charges | 100 | \$53,226 |
| NGOM Metering | 0 | \$0 |
| Notes: | | |
| <ul style="list-style-type: none"> Standby Charges calculated according to Schedule S for customers interconnected at distribution level. PG&E understands that there can be reactive demand impacts from inverter based customer-storage units without reactive power compensation; however since most of these customers do not have a meter capable of measuring VARs, the reactive demand charges will be tracked as \$0.00. Corrections made to the Distribution Upgrade and NGOM Metering figures submitted on September 19, 2014. | | |

In addition to reporting NEM interconnection costs and waived fees, PG&E proposed in Advice Letter 4446-E to track and report the interconnection costs refunded to customers who paid to interconnect qualifying NEM-Paired Storage systems prior to the issuance of D.14-05-033. The refunded costs in Table 6 were collected between January 1, 2012 and May 23, 2014.

| Table 6 Refunded NEM-Paired Storage Interconnection Costs | | |
|---|--------------------|------------|
| Category | Number of Projects | Total Cost |
| Refunded IC fees and Metering costs | 61 | \$51,300 |
| Notes: | | |
| <ul style="list-style-type: none"> Includes 61 application fees and 1 Supplemental Review fee. Correction made to Number of Projects submitted on September 19, 2014. | | |

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

| | | |
|---|---|--|
| AT&T | Division of Ratepayer Advocates | Office of Ratepayer Advocates |
| Albion Power Company | Don Pickett & Associates, Inc. | OnGrid Solar |
| Alcantar & Kahl LLP | Douglass & Liddell | Pacific Gas and Electric Company |
| Anderson & Poole | Downey & Brand | Praxair |
| Atlas ReFuel | Ellison Schneider & Harris LLP | Regulatory & Cogeneration Service, Inc. |
| BART | Evaluation + Strategy for Social Innovation | SCD Energy Solutions |
| Barkovich & Yap, Inc. | G. A. Krause & Assoc. | SCE |
| Bartle Wells Associates | GenOn Energy Inc. | SDG&E and SoCalGas |
| Braun Blaising McLaughlin & Smith, P.C. | GenOn Energy, Inc. | SPURR |
| Braun Blaising McLaughlin, P.C. | Goodin, MacBride, Squeri, Schlotz & Ritchie | San Francisco Water Power and Sewer |
| CENERGY POWER | Green Charge Networks | Seattle City Light |
| CPUC | Green Power Institute | Sempra Energy (SoCal Gas) |
| California Cotton Ginners & Growers Assn | Hanna & Morton | Sempra Utilities |
| California Energy Commission | International Power Technology | SoCalGas |
| California Public Utilities Commission | Intestate Gas Services, Inc. | Southern California Edison Company |
| California State Association of Counties | Kelly Group | Spark Energy |
| Calpine | Ken Bohn Consulting | Sun Light & Power |
| Casner, Steve | Leviton Manufacturing Co., Inc. | Sunshine Design |
| Center for Biological Diversity | Linde | Tecogen, Inc. |
| City of Palo Alto | Los Angeles County Integrated Waste Management Task Force | TerraVerde Renewable Partners, LLC |
| City of San Jose | Los Angeles Dept of Water & Power | Tiger Natural Gas, Inc. |
| Clean Power | MRW & Associates | TransCanada |
| Clean Power Research | Manatt Phelps Phillips | Troutman Sanders LLP |
| Coast Economic Consulting | Marin Energy Authority | Utility Cost Management |
| Commercial Energy | McKenna Long & Aldridge LLP | Utility Power Solutions |
| Cool Earth Solar, Inc. | McKenzie & Associates | Utility Specialists |
| County of Tehama - Department of Public Works | Modesto Irrigation District | Verizon |
| Crossborder Energy | Morgan Stanley | Water and Energy Consulting |
| Davis Wright Tremaine LLP | NLine Energy, Inc. | Wellhead Electric Company |
| Day Carter Murphy | NRG Solar | Western Manufactured Housing Communities Association (WMA) |
| Defense Energy Support Center | Nexant, Inc. | YEP Energy |
| Dept of General Services | ORA | |