December 31, 2015

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

SUBJECT: Information-Only Filing Regarding Net Energy Metering Costs

Dear Mr. Jacobson:

The Energy Division Tariff Unit acknowledges receipt and review of PG&E Information-Only Advice Letter 4660-E, effective as of June 30, 2015.

Sincerely,

Edward Randolph
Director, Energy Division
June 30, 2015

Advice 4660-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 on 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 report 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 Resolution E-4610 and D.14-05-033, PG&E shall report costs of interconnection for all NEM customers, first on September 19, 2014, with a follow up report no later than June 30, 2015.

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.

Net Energy Metering Interconnection Costs

The 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, the date of filing.

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

<table>
<thead>
<tr>
<th>Utility type:</th>
<th>Contact Person: Kingsley Cheng</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ ELC ☐ GAS</td>
<td>☑ PLC ☐ HEAT ☐ WATER</td>
</tr>
</tbody>
</table>

**EXPLANATION OF UTILITY TYPE**

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

Advance Letter (AL) #: **4660-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.
### 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 | 58,844,612 |

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 | $500,932 |

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interconnection Facilities</td>
<td>$1,886,145</td>
</tr>
<tr>
<td>Distribution Upgrades</td>
<td>$3,513,511</td>
</tr>
<tr>
<td>Total</td>
<td>$5,400,656</td>
</tr>
</tbody>
</table>

#### Table 5: NEM-Paired Storage Waived Fees and Costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Projects</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee</td>
<td>91</td>
<td>722,800</td>
</tr>
<tr>
<td>Supplemental Review Fee</td>
<td>9</td>
<td>122,500</td>
</tr>
<tr>
<td>Distribution Upgrades</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Standby Charges</td>
<td>100</td>
<td>553,226</td>
</tr>
<tr>
<td>NGOM Metering</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes:
- Standby Charges calculated according to Schedule 5 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.

#### Table 6: Refunded NEM-Paired Storage Interconnection Costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Projects</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refunded IC fees and Metering costs</td>
<td>61</td>
<td>511,800</td>
</tr>
</tbody>
</table>

Notes:
- Includes 61 application fees and 1 Supplemental Review fee.
- Correction made to Number of Projects submitted on September 19, 2014.
AT&T
Albion Power Company
Alcantar & Kahl LLP
Anderson & Poole
BART
Barkovich & Yap, Inc.
Bartle Wells Associates
Braun Blasing McLaughlin, P.C.
CENERGY POWER
CPUC
California Cotton Ginners & Growers Assn
California Energy Commission
California Public Utilities Commission
California State Association of Counties
Calpine
Casner, Steve
Center for Biological Diversity
City of Palo Alto
City of San Jose
Clean Power
Coast Economic Consulting
Commercial Energy
Cool Earth Solar, Inc.
County of Tehama - Department of Public Works
Crossborder Energy
Davis Wright Tremaine LLP
Day Carter Murphy
Defense Energy Support Center
Dept of General Services
Division of Ratepayer Advocates
Douglass & Liddell
Downey & Brand
Ellison Schneider & Harris LLP
G. A. Krause & Assoc.
GenOn Energy Inc.
GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz & Ritchie
Green Power Institute
Hanna & Morton
In House Energy
International Power Technology
Intestate Gas Services, Inc.
K&L Gates LLP
Kelly Group
Leviton Manufacturing Co., Inc.
Linde
Los Angeles County Integrated Waste Management Task Force
Los Angeles Dept of Water & Power
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McKenna Long & Aldridge LLP
McKenzie & Associates
Modesto Irrigation District
Morgan Stanley
NLine Energy, Inc.
NRG Solar
Nexant, Inc.
Occidental Energy Marketing, Inc.
Office of Ratepayer Advocates
OnGrid Solar
Pacific Gas and Electric Company
Praxair
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
SCE
SDG&E and SoCalGas
SPURR
Seattle City Light
Sempra Energy (Socal Gas)
Sempra Utilities
SoCalGas
Southern California Edison Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
Tiger Natural Gas, Inc.
TransCanada
Utility Cost Management
Utility Power Solutions
Utility Specialists
Verizon
Water and Energy Consulting
Wellhead Electric Company
Western Manufactured Housing Communities Association (WMA)
YEP Energy