

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



April 20, 2015

**Advice Letters PG&E 4606-E, SCE 3198-E, SDG&E 2719-E**

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

Russell G. Worden  
Managing Director, State Regulatory Operations  
Southern California Edison Company  
8631 Rush Street  
Rosemead, CA 91770

Clay Faber  
Director- California & Federal Regulatory  
San Diego Gas and Electric Company  
9305 Lightwave Avenue, SD1190  
San Diego, CA 92123

**Subject: Revision to Schedule PEVSP and Associated Forms to Extend Phase 1 of Plug-In Electric Vehicle Submetering Pilot**

Dear Ms. Allen, Mr. Worden, and Mr. Faber:

Advice Letters (AL) PG&E AL 4606-E, SCE AL 3198-E, and SDG&E AL 2719-E<sup>1</sup> are effective March 26, 2015.

Sincerely,

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

Edward F. Randolph, Director  
Energy Division  
Cc:

[Damon.Franz@cpuc.ca.gov](mailto:Damon.Franz@cpuc.ca.gov)  
[Noel.Crisostomo@cpuc.ca.gov](mailto:Noel.Crisostomo@cpuc.ca.gov)  
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<sup>1</sup> As substituted on April 1, 2015 with Revised Cal. P.U.C. Sheet No. 26184-E\*

March 26, 2015

**Advice 4606-E**

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Revision of Schedule PEVSP and Associated Forms to Extend Phase 1 of Plug-In Electric Vehicle Submetering Pilot**

Pacific Gas and Electric Company (PG&E) files this advice letter to reflect the California Public Utilities Commission's (CPUC or Commission) approved extension of Phase 1 of PG&E's Plug-In Electric Vehicle Submetering Pilot (Pilot) and to submit revisions to tariffs and associated forms. The revised tariff sheets are listed in Attachment 1 and are attached hereto.

**Purpose**

The purpose of this advice filing is to modify Electric Schedule PEVSP, Plug-In Electric Vehicle Submetering Pilot (Phase 1), and associated agreements to reflect the Commission-approved extension of the Pilot and the safety certification requirement changes agreed to by Electric Motor Werks (EMW), NRG eVgo (NRG), Ohmconnect, PG&E, San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE), pursuant to the request of the Commission's Energy Division.

**Background**

On July 10, 2014, in compliance with Decision (D.) 13-11-002 and Resolution E-4651, SCE, PG&E and SDG&E (collectively referred to as the "investor-owned utilities" or "IOUs") filed new tariffs to implement Phase 1 of the Pilot. On September 1, 2014, the six-month enrollment period began. However, no Customer Enrollment Agreements have been accepted by the IOUs during the enrollment period,<sup>1</sup> primarily because the Submetering Meter Data Management Agents (MDMAs) were unable to comply with the safety requirements set forth in Schedule PEVSP.

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<sup>1</sup> Original Enrollment Period is for the first 6 months of the Phase 1 Pilot, September 1, 2014 – February 28, 2015, or until the maximum of 500 submeters is reached, whichever is earlier (Enrollment Period).

Pursuant to direction from the Energy Division, SCE submitted a letter to the Interim Executive Director of the CPUC, Timothy J. Sullivan, on February 17, 2015, on behalf of SCE, SDG&E, PG&E, EMW, NRG, and Ohmconnect, requesting an extension of time to comply with the deadlines for delivering utility customers to participate in the Submetering Phase 1 and 2 Pilots, set forth in Resolution E-4651.

Mr. Sullivan approved the request for extension on February 27, 2015. Accordingly, the enrollment period for Phase 1 of the Pilot is extended to August 31, 2015, Phase 1 of the Pilot is extended to August 31, 2016, and the requirement to submit a third-party evaluation report is extended to February 28, 2016. The resulting tariff changes are described below.

### **Tariff Revisions**

PG&E proposes to modify the following rate schedule and associated agreements to reflect the modified safety certification requirements and the approved extension request.

- Electric Schedule PEVSP, Plug-In Electric Vehicle Submetering Pilot – Phase 1
- Electric Sample Form 79-1158, Electric Vehicle Submetering Meter Data Management Agent (MDMA) Registration Agreement
- Electric Sample Form 79-1159, Electric Vehicle Submetering Pilot (Phase 1) Customer Enrollment Agreement

No cost information is required for this advice filing.

This advice filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

### **Protests**

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than April 15, 2015, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division  
ED Tariff Unit  
505 Van Ness Avenue, 4<sup>th</sup> 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:

Meredith Allen  
Senior Director, 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, Section 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, Section 3.11).

### **Effective Date**

PG&E requests that this Tier 1 advice filing become effective upon date of filing, which is March 26, 2015.

### **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.09-08-009 and R.13-11-007. 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/  
Meredith Allen  
Senior Director, Regulatory Relations

Attachments

cc: Service Lists R.09-08-009 and R.13-11-007  
Matt Duesterberg, Ohmconnect  
Valery Miftakhov, Electric Motor Werks  
George Betak, Electric Motor Werks

# 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) #: **4606-E**

Tier: **1**

Subject of AL: **Revision of Schedule PEVSP and Associated Forms to Extend Phase 1 of Plug-In Electric Vehicle Submetering Pilot**

Keywords (choose from CPUC listing): Agreements, Forms, Metering

AL filing type:  Monthly  Quarterly  Annual  One-Time  Other \_\_\_\_\_

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: N/A

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: **March 26, 2015**

No. of tariff sheets: **9**

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 PEVSP, Electric Sample Form 79-1158, and Electric Sample Form 79-1159

Service affected and changes proposed: N/A

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

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:

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

**Pacific Gas and Electric Company**  
**Attn: Meredith Allen**  
**Senior Director, Regulatory Relations**  
**77 Beale Street, Mail Code B10C**  
**P.O. Box 770000**  
**San Francisco, CA 94177**  
**E-mail: PGETariffs@pge.com**

**Cal P.U.C.  
Sheet No.**

**Title of Sheet**

**Cancelling Cal  
P.U.C. Sheet No.**

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35260-E	ELECTRIC SCHEDULE PEVSP PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1 Sheet 1	34247-E
35261-E	ELECTRIC SCHEDULE PEVSP PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1 Sheet 2	34248-E
35262-E	ELECTRIC SCHEDULE PEVSP PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1 Sheet 4	34250-E
35263-E	ELECTRIC SCHEDULE PEVSP PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1 Sheet 5	34251-E
35264-E	ELECTRIC SAMPLE FORM 79-1158 ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT Sheet 1	34252-E
35265-E	ELECTRIC SAMPLE FORM 79-1159 ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT Sheet 1	34253-E*
35266-E	ELECTRIC TABLE OF CONTENTS Sheet 1	35087-E
35267-E	ELECTRIC TABLE OF CONTENTS RATE SCHEDULES Sheet 6	35224-E
35268-E	ELECTRIC TABLE OF CONTENTS SAMPLE FORMS Sheet 31	35101-E



**ELECTRIC SCHEDULE PEVSP**  
**PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1**

Sheet 1

**APPLICABILITY:** This Schedule is applicable to bundled service customers and Community Choice Aggregation customers, as defined in PG&E's Electric Rule 23, on Residential, Industrial and Commercial rate schedules, who charge a plug-in electric vehicle (PEV) which is connected to the same meter that registers usage of the customer's primary load and where the connected PEV load is measured by a customer or third-party owned PEV submeter (submeter load) and subtracted from the customer's primary meter and billed on an applicable PG&E PEV rate schedule.

Customers must have a SmartMeter™ or interval data recorder (IDR) type meter as their primary meter to participate in this pilot. Separate PEV submetering requirements, specified in PG&E's Submeter Performance Requirements document, must be met as a condition of program participation.

**TERRITORY:** Within the entire territory served.

**RATES:** Customers eligible for service under this Pilot Schedule will have their primary usage and PEV submetered usage billed on separate applicable rate schedules.

Applicable residential rate schedules for primary meter usage are E-1, E-6, E-7, EM and ES and their low income equivalents. The applicable residential rate schedule for EV submetered usage is EV-B.

Applicable commercial rate schedules for primary submetered usage are A-6, A-10, E-19V, E-19, and E-20. The applicable commercial rate schedules for EV submetered usage are A-6 and A-10.

PG&E's Net Energy Metering (NEM) rate schedule may be a rider, as applicable, to the primary meter rate schedule.

**PILOT ELIGIBILITY:** Customers participating in this pilot will not be eligible to participate in PG&E's Balance Payment Plan (BPP) or Automatic Payment Plan.

**ELECTRIC VEHICLE SERVICE PROVIDER (EVSP) INCENTIVE PAYMENT:** A one-time enrollment payment of \$210 will be provided to the Submeter Meter Data Management Agent (MDMA) for each participant enrolled in this Pilot. This payment will be made by PG&E to the Submeter MDMA within 60 days after the participant's completed enrollment. Additionally, \$17.50 per month per submeter will be provided to the Submeter MDMA for performance of its data management and exchange responsibilities in compliance with Pilot requirements for each month the customer remains on the Pilot. These payments will be made by PG&E to the Submeter MDMA within 60 days of the first two successful billing cycles for a given customer, and within 30 days after receipt of the Submeter MDMA's final billing cycle invoice. PG&E may petition the CPUC's Energy Division to terminate this ongoing incentive, with no cost, liability, or further obligation, if Submeter MDMA fails to meet its performance requirements. These incentive payments are applicable only for Phase 1 of the Pilot, which ends after 12 billing cycles for a customer participant and no later than August 31, 2016.

(T)  
(T)  
(T)

(Continued)



**ELECTRIC SCHEDULE PEVSP**  
**PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1**

Sheet 2

- |  |  |     |
|--|--|-----|
| COMMERCIAL/<br>INDUSTRIAL<br>TIME-OF-USE<br>TARIFF<br>CUSTOMER<br>PAYMENT: | Commercial/Industrial customers with submeter usage billed under a Time-of-Use tariff, shall receive a payment applied as a bill credit of \$20/month per submeter. PG&E may petition the CPUC's Energy Division to terminate this ongoing customer payment, with no cost, liability, or further obligation, if Submeter MDMA fails to meet its performance requirements. These payments are applicable only for Phase 1 of the Pilot, which ends after 12 billing cycles for a customer participant and no later than August 31, 2016.  | (T) |
| SPECIAL<br>CONDITIONS:   | <ol style="list-style-type: none"> <li>1. <b>Pilot Term:</b> Phase 1 duration is for 24 months beginning September 1, 2014 and ending August 31, 2016. <span style="float: right;">(T)</span></li> <li>2. <b>Pilot Participation Cap:</b> On a first-come, first-served basis, a maximum of 500 submeters may be enrolled in each phase of the Pilot. Of the 500 submeters, a limit of 100 submeters may be related to NEM accounts. <span style="float: right;">(T)</span></li> <li>3. <b>Pilot Participation Period:</b> Participating customers are permitted to receive submetering service when enrolled into the pilot and may continue participation for up to 12 consecutive billing cycles. Customers may unenroll from the Pilot at any time, but may not re-enroll in Phase 1 of the Pilot unless they are relocating in one of the Investor Owned Utility's (IOU's) service territories as discussed in Special Condition 9.</li> <li>4. <b>Customer Enrollment in Submetering Services:</b> The Submeter MDMA is responsible for enrolling eligible customers and such enrollment will become effective with the start date of the customer's next billing cycle providing the volume of customer agreements in process at that time does not exceed an average of five (5) agreements per business day over any five (5) business day period. The Submeter MDMA must notify PG&amp;E of a customer's enrollment by submitting a completed Form 79-1159, PEV Submetering Pilot Customer Enrollment Agreement (Customer Enrollment Agreement - Electric Vehicle Submetering Pilot (Phase 1)) at least 5 business days prior to the start date of the customer's next billing cycle. <span style="float: right;">(N)<br/>I<br/>(N)</span></li> <li>5. <b>Enrollment Period:</b> The enrollment period is for the first 12 months of the Phase 1 Pilot, September 1, 2014 – August 31, 2015 or until the maximum of 500 submeters is reached, whichever is earlier (Enrollment Period). Once enrollment of 500 submeters is reached, Phase 1 of this pilot will be closed for enrollment. For the first 3 months of the Enrollment Period (the "Exclusivity Period"), each Submeter MDMA will have "Exclusivity Rights" to enroll a pre-determined number of submeters into the pilot program. This number will be determined by dividing 500, the pilot's enrollment cap, by the number of Submeter MDMA's participating in the pilot program. Exclusivity Rights expire at the end of the third month of the Exclusivity Period. <span style="float: right;">(T)<br/>(T)</span></li> <li>6. <b>MDMA Services for the PEV Submeter:</b> Program participants, or their Submeter Meter Data Management Agents (MDMAs), are required to provide, own and maintain the submeter used in this Pilot. The standards for qualified meters are contained in the EV Submeter Phase 1 Performance Standards for Metering and Meter Data Management Agents. Accuracy requirements are set at +/- 5% for this Pilot, which are below accuracy standards required by PG&amp;E for its meters and billing. For purposes of this Pilot, PG&amp;E will bill participating customers as if the submeters satisfy PG&amp;E's meter accuracy requirements.</li> </ol> |     |

(Continued)



**ELECTRIC SCHEDULE PEVSP**  
**PLUG-IN ELECTRIC VEHICLE SUBMETERING PILOT - PHASE 1**

Sheet 4

SPECIAL  
 CONDITIONS:  
 (Cont'd.)

10. **Pilot Eligibility:** If a customer's Submeter MDMA remits payments directly to PG&E on the customer's behalf, the customer cannot participate in either the Balance Payment Plan or Automatic Payment Plan options offered by PG&E for the duration of the customer's participation in this pilot. Customers already enrolled in these plans must unenroll for the duration of their participation in this pilot.

11. **IOU Programs Availability:** Programs such as My Energy and Green Button may be available to customers participating in this pilot but the data accuracy of these programs will be contingent upon the availability and the timeliness of the submeter data.

12. **Submeter:** The submeter may be embedded within the EVSE (as defined below) or may be stand-alone. The submeter must be located at a fixed point anywhere between the primary meter and the PEV. The IOUs shall limit customers to 19 submeters per primary meter and restrict participants from using multiple levels of submeters.

(D)

Any Electric Vehicle Supply Equipment (EVSE), EVSE with embedded submeter, and/or stand-alone submeter installed prior to the Pilot must be certified by an Occupational Safety & Health Administration (OSHA)-approved Nationally Recognized Testing Laboratory (NRTL). Any EVSE, EVSE with embedded submeter, and/or stand-alone submeter, and related PEV charging circuits, must have been installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must have obtained any required inspection and approval by the local Authority Having Jurisdiction (AHJ). The OSHA-approved list of NRTLs is maintained at: <https://www.osha.gov/dts/otpca/nrtl/>.

(N)

Any EVSE, EVSE with embedded submeter, and/or stand-alone submeter installed as part of the Pilot must be Underwriters Laboratories (UL)-certified or meet PG&E safety standards. Any EVSE, EVSE with embedded submeter, stand-alone submeter and related PEV charging circuits must be installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must have obtained any required inspection and approval by the local AHJ.

(N)

13. **Submeter Meter Data Management Agent (Submeter MDMA):** The Submeter MDMA is the entity that retrieves, processes, and submits PEV data using validation, editing and estimating methods, as determined by the IOUs and MDMA's, and provides this information to PG&E for billing purposes. Whether the Submeter MDMA, the Customer, or other third party owns the submeter, the Submeter MDMA is responsible for obtaining authorization from the Customer to access and submit this information on the Customer's behalf. The Submeter MDMA must submit a completed Customer Enrollment Agreement to PG&E. The Submeter MDMA cannot be the customer of record (COR).

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(Continued)





**ELECTRIC SAMPLE FORM 79-1158**  
**ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT**  
**(MDMA) REGISTRATION AGREEMENT**

Sheet 1

Please Refer to Attached  
Sample Form

(N)  
(N)

# **EV Submeter Pilot Phase 1**

## **Submeter MDMA Registration Agreement**

# **ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT**

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## **I. INSTRUCTIONS FOR QUALIFYING AS A SUBMETER METER DATA MANAGEMENT AGENT**

### **A. BACKGROUND**

On November 19, 2013, the California Public Utilities Commission (Commission or CPUC) issued Decision (D.) 13-11-002 modifying the PEV Submetering Protocol requirements set forth in D. 11-07-029 by adopting the Commission Energy Division (ED) Staff's Plug-In Electric Vehicle Submetering Roadmap for a two-phase pilot. Ordering Paragraph 2 of D.13-11-002 requires the investor-owned utilities (IOUs) to submit a Tier 2 Advice Letter that includes the metering requirements provided by the ED to the IOUs, draft versions of the data format template, the Submeter Meter Data Management Agent (MDMA) registration Agreement, the customer enrollment Agreement, and MDMA Service Requirements.

All Submeter MDMA's must submit a Notice of Participation to the Commission's Energy Division by July 11, 2014 to participate in the pilot. Submeter MDMA's must indicate the following in the Notice of Participation: (1) the number of submeters associated with customers that have agreed to participate as of the date they submit the Notice and (2) the total number of submeters that they plan to enroll. The Notice of Participation is embedded within the Submeter MDMA Registration Agreement. Phase 1 of the Pilot ends after 12 billing cycles for a customer participant and no later than August 31, 2016.

The Commission may require that potential Submeter MDMA's comply with certain Energy Division standards in experience, education and training to perform the functions of a Submeter MDMA. These functions and associated requirements are described in detail in the Phase One Performance Standards for Metering and Meter Data Agents Participating in California's Electric Vehicle Submetering Pilot (Performance Standards), approved by the Commission in Resolution E-4651 and attached hereto as Attachment 1

### **B. REGISTRATION AGREEMENT**

An entity desiring to act as a Submeter MDMA must complete the attached registration Agreement and submit it to the ED.

The ED will review the submitted documentation, determine if the prospective Submeter MDMA's standards meet the requirements established by the Commission, and notify the Submeter MDMA whether its request is approved via e-mail. The ED will make reasonable efforts to review the documentation and respond to the Submeter MDMA request within ten business days. Missing documentation may require the prospective Submeter MDMA's to resubmit that portion of the application and restart the ten-day review process.

### **C. REQUIREMENTS**

1. Entities seeking to offer Submeter MDMA services for an electric vehicle (EV) submeter must submit a Submeter MDMA Registration Agreement to the ED. Approval to act as a Submeter MDMA will be granted to Submeter MDMA's that satisfy the requirements established in the MDMA Performance Standards document.
2. The determination is based on the ED's review of the Submeter MDMA's written application, completed documents, and the ability to meet PG&E's EV Submeter Pilot Phase 1 Data Reporting and Transfer Requirements (Data Exchange Requirements), attached hereto as Attachment 2.

# **ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT**

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3. Upon receipt of the Submeter MDMA's Registration Agreement, PG&E will electronically forward a copy of its data exchange requirements to the Submeter MDMA. The Submeter MDMA's are allowed ten days to report a customer drop out or change of address to the IOUs.
4. The Submeter MDMA's must notify Energy Division and all IOUs in which they are providing services in the event that they terminate service prior to the end of the Pilot Term.

## **D. SUBMETER MDMA REGISTRATION PROCESS**

1. Submeter MDMA submits Registration Agreement to Adam Langton (adam.langton@cpuc.ca.gov) or Noel Crisostomo (noel.crisostomo@cpuc.ca.gov) of the CPUC's Energy Division by July 11, 2014. Reasonable efforts will be made to acknowledge receipt of the Registration Agreement within ten business days of receipt. The Energy Division may request additional information, as needed, to approve the MDMA's registration request for this phase of the Pilot.
2. Submeter MDMA receives final approval, may submit Customer Enrollment Agreements to PG&E starting September 1, 2014.
3. Submeter MDMA's shall enroll submeters on a first-come, first-served basis subject to Exclusivity Period and Enrollment Cap.

## **E. ENROLLMENT REPORTING**

1. Submeter MDMA's must report the balance of unenrolled customers to PG&E that will be available for enrollment during the Exclusivity Period on Friday of each week until 450 customers have been enrolled, in which case, Submeter MDMA must submit daily updates.
2. PG&E will notify Submeter MDMA's of remaining spaces available via email by Wednesday of the following week.
3. Beginning at the fourth month Submeter MDMA's are able to enroll additional submeters on a first-come, first-served basis, reporting enrollments to PG&E daily.

## **F. SUBMETER TESTING AND CALIBRATION**

Submeter MDMA's are not required to provide compliance and testing data to the IOUs if they have otherwise complied with the application process and demonstrated consistency with the Performance Standards for Metering and MDMA's. The Third Party Evaluator retained by the IOUs may randomly field test no more than five percent of the submeters for accuracy. By virtue of a customer's enrollment with submeter service by the IOU, the Independent Evaluator and Submeter MDMA's may obtain access from their participants for testing and calibration, if selected as part of the evaluation.

## **G. SUBMETER SAFETY REQUIREMENTS**

Any Electric Vehicle Supply Equipment (EVSE), EVSE with embedded submeter, and/or stand-alone submeter installed prior to the Pilot must be certified by an Occupational Safety & Health Administration (OSHA)-approved Nationally Recognized Testing Laboratory (NRTL). Any EVSE, EVSE with embedded submeter, stand-alone submeter, and related PEV charging circuits, must have been installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must have obtained any required inspection and approval by the local

# **ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT**

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Authority Having Jurisdiction (AHJ). The OSHA-approved list of NRTLs is maintained at: <https://www.osha.gov/dts/otpca/nrtl/>.

Any EVSE, EVSE with embedded submeter, and/or stand-alone submeter installed as part of the Pilot must be Underwriters Laboratories (UL)-certified or meet PG&E safety standards. Any EVSE, EVSE with embedded submeter, stand-alone submeter and related PEV charging circuits must be installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must obtain any required inspection and approval by the local AHJ.

## **H. DATA FORMAT**

Submeter MDMA must satisfy PG&E's EV Submetering Pilot Phase 1 Data Reporting and Transfer Requirements, attached hereto as Attachment 2.

## **I. FORMAT TESTING**

After PG&E receives the completed qualification documentation, the Submeter MDMA may contact PG&E to schedule the format acceptance test to ensure it can produce a secure data file that satisfies PG&E's Data Exchange Requirements. To schedule the test, please contact the EV Submetering Pilot Program Manager at PG&E.

## **J. SECURITY AND CONFIDENTIALITY**

Submeter MDMA must comply with Data security and confidentiality requirements specified in the CPUC's Privacy Rules and PG&E's Electric Rule 27 (Privacy and Security Protections for Energy Usage Data). The Submeter MDMA's access to, use, and disclosure of customer-specific energy usage and billing data is subject to the prior, express written consent of the participating customer and the sole responsibility of the Submeter MDMA.

## **K. VEE PERFORMANCE STANDARDS**

For the purposes of Phase 1 of the submetering pilot, the usage measured at the EV submeter will be used to allocate energy usage between a primary load and an electric vehicle. PG&E will accept the Submeter MDMA's data as being "valid" or VEE'd and bill both the EV and primary accounts accordingly. For purposes of Phase 1 of the pilot only, the Submeter MDMA is not required to satisfy the "Standards for Validating, Editing, and Estimating Monthly and Interval Data for Monthly and Interval Data" contained in "VEE-Attachment of the Direct Access Standards for Metering and Meter Data".

## **L. SUBMETER MDMA TERMINATION**

PG&E will notify Submeter MDMA in the event it fails to timely meet performance requirements for two consecutive billing periods. Absent corrective actions, if Submeter MDMA fails to timely meet performance requirements for a third consecutive month, PG&E may petition Energy Division to terminate pilot participation by Submeter MDMA and its customers.

## **M. JURISDICTION**

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

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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## N. INDEMNIFICATION

I, Submeter MDMA, hereby release, hold harmless, and indemnify PG&E from any liability, claims, demands, causes of action, damages, or expenses resulting from my participation in the submetering pilot under this Registration Agreement, including but not limited to the use of customer information obtained pursuant to the prior express, written consent of customers participating in the pilot, and from the taking of any action, including changes in services or rates of customers participating in the pilot, pursuant to this Registration Agreement, and provided such Utility action is consistent with applicable CPUC orders, tariffs and regulations.

[This Agreement must be signed by someone who has authority to financially bind the Submeter MDMA]

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Signature of Authorized Agent of Company

---

Submeter MDMA Company Name

---

Name of Authorized Agent of Company (Print)

---

Executed on (Date)

---

Phone Number

---

City and State Where Executed



# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

## 2.0 SUBMETER MDMA REGISTRATION AGREEMENT

A completed and approved Submeter MDMA Registration Agreement must be submitted by any entity desiring to participate as a Submeter MDMA in the Phase 1 Submetering pilot.

PG&E will use reasonable efforts to acknowledge receipt of the Registration Agreement, request any necessary additional information, and provide information on the required Acceptance Test with sample data, contact names, and procedures, within ten business days of receipt of the Registration Agreement.

MDMAs will have a temporary right to a number of customers within each IOU territory in which they plan to participate. During this three month "Exclusivity Period" each MDMA will have "Exclusivity Rights" to a number of submeters that will be determined by dividing the 500 maximum submeter enrollments by the number of Submeter MDMAs. Submeter MDMAs must report the balance of unenrolled customers to PG&E that will be available for enrollment during the Exclusivity Period on Friday of each week until 450 customers have been enrolled, in which case, Submeter MDMA must submit daily updates. Beginning at the fourth month Submeter MDMAs are able to enroll additional submeters on a first-come, first-served basis, reporting enrollments to PG&E daily.

This registration is for Phase 1 only and expires on August 31, 2016

_____	_____
Submeter MDMA NAME	Contact Person
_____	_____
Address:	Title
_____	_____
City, State, ZIP	Phone Number
_____	_____
Address	Email Address
_____	
Submeter MDMA's DUNNS Number	

NUMBER OF SUBMETERS ASSOCIATED WITH CUSTOMERS THAT HAVE AGREED TO PARTICIPATE:

TOTAL NUMBER OF SUBMETERS YOU PLAN TO ENROLL AND PROVIDE SUBMETERING SERVICES:

Total Submeter installations will be broken down as follows:

Residential:	Non-NEM	<input style="width: 60px; height: 25px;" type="text"/>	+	NEM	<input style="width: 60px; height: 25px;" type="text"/>	= Subtotal	<input style="width: 60px; height: 25px;" type="text"/>
		+			+		+
Commercial:	Non-NEM	<input style="width: 60px; height: 25px;" type="text"/>	+	NEM	<input style="width: 60px; height: 25px;" type="text"/>	= Subtotal	<input style="width: 60px; height: 25px;" type="text"/>
		=			=		=
	Subtotal	<input style="width: 60px; height: 25px;" type="text"/>		Subtotal	<input style="width: 60px; height: 25px;" type="text"/>	= Total	<input style="width: 60px; height: 25px;" type="text"/>

**Attachment 1**

**EV Submeter Pilot Phase 1  
PERFORMANCE STANDARDS FOR  
METERING AND METER DATA MANAGEMENT AGENTS**

**I. STANDARDS FOR EV SUBMETERING****A. Physical Location**

1. **Location.** The submeter must be located at any fixed point between the primary utility electric meter and the electric vehicle supply equipment (EVSE) coupler. Any EVSE containing an embedded submeter must indicate that it contains a metering device.
2. **Identification.** A submeter must be labelled with a unique serial number for identification.
3. **Security.** A meter system shall be designed and constructed so that metrology components are adequately protected from environmental conditions likely to be detrimental to accuracy. Components shall be designed to prevent unauthorized access to adjustment mechanisms and terminal blocks by providing for application of a physical security seal or an Audit Trail.
4. **Security from Tampering.** During Phase 1 of the submetering pilot, no sealing requirements will be placed on the submeter, regardless of whether remote configuration is feasible. The Submeter Meter Data Management Agent and/or EVSPs should document how they physically prevent submeters from tampering. No means shall be provided by which any measured electricity can be diverted from the measuring device.

**B. Accuracy and Measurement**

1. **Accuracy.** The submeter must maintain accuracy of +/- 5% during the first Phase of the pilot. The term 'accuracy' is equivalent to the same term used in the ANSI C-12 standard. Submeter MDMA is responsible for describing how they comply with this accuracy requirement prior to pilot installation.
2. **Interval of Measurement.** The submeter shall have the capability to measure energy consumption in time intervals equal to the interval used by PG&E, but submeters are not required to measure energy consumption in intervals smaller than 15 minutes. A Submeter MDMA has the option to measure in less than 15-minute time periods if they choose to do so. Regardless of the submeter's measurement interval, the Submeter MDMA must report energy consumption data in time intervals consistent with those used by PG&E.

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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3. **Standard Time Synchronization.** The submeter shall be synchronized to the same time used by utility meters in order to maintain billing consistency with measurements from the primary utility meter. The submeter's time should be synchronized to the United States time standard as defined by the National Institute of Standards and Technology or within three minutes of the time used by PG&E.
4. **Unit of Measurement.** The submeter must measure electricity data to the nearest Watt-hour (Wh) for each time interval and must be time-stamped to indicate the time/date of the energy consumption.
5. **Submeter and MDMA Storage of Data.** The device memory should retain information on the quantity of electricity consumed during a loss of external power. Values indicated or stored in memory shall not be affected by electrical, mechanical or temperature variations, radio-frequency interference, power failure, or any other environmental influences to the extent that accuracy is impaired per UL 2594. Memory shall be nonvolatile or backed up in a network.
6. **Utility Storage of Data.** Watt-hour data accumulated and indicated shall be retained by PG&E consistent with the same data storage requirements applicable to customer billing data.

## C. Safety

1. Any Electric Vehicle Supply Equipment (EVSE), EVSE with embedded submeter, and/or stand-alone submeter installed prior to the Pilot must be certified by an Occupational Safety & Health Administration (OSHA)-approved Nationally Recognized Testing Laboratory (NRTL). Any EVSE, EVSE with embedded submeter, stand-alone submeter, and related PEV charging circuits, must have been installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must have obtained any required inspection and approval by the local Authority Having Jurisdiction (AHJ). The OSHA-approved list of NRTLs is maintained at: <https://www.osha.gov/dts/otpca/nrtl/>.
2. Any EVSE, EVSE with embedded submeter, and/or stand-alone submeter installed as part of the Pilot must be Underwriters Laboratories (UL)-certified or meet PG&E safety standards. Any EVSE, EVSE with embedded submeter, stand-alone submeter and related PEV charging circuits must be installed by a person or entity with a general electrical contractor's license issued by the California Contractors State License Board and must obtain any required inspection and approval by the local AHJ.

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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## D. Informing Customers about Submeter Data

1. **MDMA Responsibilities.** There is no requirement for the submeter device to visually display data. Customers should be informed of this requirement by the EVSP or Submeter MDMA. MDMA's must make data available to customers through a web-based or mobile phone application and by request
2. **Utility Responsibilities.** Utilities are required to report submeter data through the customer's monthly bill. PG&E is not required to report this usage data through their customer web tools. A utility may opt to report data to customers online
3. **Terms Subject to Modification after Pilot Term.** Customers should be informed that the pilot is temporary and that the requirements may change after the end of the first pilot phase.

## E. Transfer of Submeter Data from Submeter MDMA's to Utilities

1. **Customer Submeter and Account Identification.** The MDMA must communicate the submeter serial number to the customer's utility as part of the customer enrollment in submetering services. This serial number shall be included in the monthly data communication in order to associate the submeter with the correct customer account.
2. **Minimum Transfer Requirement.** Utilities shall implement a simple means of receiving data that allows any qualified EVSP or Submeter MDMA to submit data to PG&E. Each utility shall make available a standard format for the MDMA to submit meter data via electronic spreadsheet. The form should allow the Submeter MDMA to submit all of its data through a single spreadsheet to the appropriate utility contact. The MDMA's should submit the data via the Internet in a secured /encrypted manner.
3. **Alternative Transfer Option.** Utilities are encouraged to explore additional meter transfer protocols that involve the use of 'Green Button' elements or other data transfer protocols that allow PG&E to efficiently receive data from the Submeter MDMA. These options may be offered to EVSPs as an alternative to the basic spreadsheet submission option, but cannot be required as the only data transfer method.
4. **Transfer Deadlines.** Submeter MDMA's must report data for a given billing period no later than three business days after the end of the billing period. Utilities should provide advance communication of these monthly deadlines to the Submeter MDMA to the extent that billing periods are known prior to the start of the Pilot Terms.

# **ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT**

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5. **Transfer Testing.** Submeter MDMA must demonstrate ability to transfer a test meter data file, which can be successfully processed for subtractive billing by PG&E. The Transfer Testing may use the Minimum Transfer Requirement or the Alternative Transfer Requirement if offered by PG&E. Data transfer testing shall only be required during the MDMA registration process and thereafter as necessary.
6. **Process Updates.** Utilities may make periodic changes to the standard format for the MDMA to submit meter data. Submeter MDMA's may be required, at their cost, to make modifications and perform additional testing of their systems to support any changes required by the Utilities.

## **F. SUBMETER MDMA QUALIFICATION**

Entities seeking to offer Submeter MDMA services for an electric vehicle (EV) submeter shall be required to submit a Submeter MDMA Registration Agreement if EVSP or entity seeks to offer such services. For Phase 1, the written request shall include the following information: name of the person or entity; business address and telephone number; intervals by which the EV submeter usage is measured, number of participants by customer class, utility service territory, whether the primary account is billed under a netting arrangement and all other data requirement found in the MDMA Registration form. Submeter MDMA's are required to register with the CPUC in order to participate in the Utilities' EV submetering programs. Upon receipt of the request, the CPUC's Energy Division (ED) shall be required to review the entities registration requirements. If the ED states that the proposed Submeter MDMA's educational and training requirements are sufficient, then the Submeter MDMA may begin offering Submeter MDMA services so long as it meets all the Submeter MDMA-related requirements.

## **G. SUBMETER MDMA VEE PERFORMANCE STANDARDS**

1. Meet requirements established in the **"EV Submeter Pilot Data Reporting and Transfer Requirements" (Attachment 2)**
2. For the purposes of Phase 1 of the CPUC's EV "single customer of record" submetering pilot, the usage measured at the EV submeter will be used to allocate energy usage between a primary load and an electric vehicle. PG&E will accept the Submeter MDMA's data as being "valid" and bill both EV and primary accounts accordingly.
3. The Submeter MDMA must provide all of its EV submeter data to PG&E within 3 business days of PG&E's regularly scheduled meter read date. Any submetered data submitted after 5:00 pm Pacific Time of the third business day will not be incorporated into the customer's bill. If data is not received for any submeter billed interval within this timeframe, that interval will be considered as "zero" by PG&E when calculating the primary and EV submeter monthly bills. The 3 business day standard may be met by providing submeter data throughout the course of the month (e.g. on a weekly basis) if desired.

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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## H. METER SYSTEM TESTING

An independent third party evaluator (3PE) will be allowed to field test up to five percent of the EV submeters within each of the utilities service territories for each phase of the EV pilot to evaluate the accuracy of the overall metering system at a customer site. The 3PE shall be allowed to select which EV meters to test, and the Submeter MDMA and its customers' shall provide the necessary access and assistance to facilitate such testing.

The submeter MDMA's will propose methodologies for testing and calibration for IOU review, consent, and subsequent implementation.

Submeter Manufacturer Certification & Accuracy: EVSE providers shall provide the respective utilities with documentation of their compliance with the "EV Submeter Pilot Phase 1 Performance Standards for Metering and Meter Data Management Agents" in general and the results of accuracy testing specifically for each submeter by serial number.

**Attachment 2  
EV Submeter Pilot Phase 1  
Data Reporting and Transfer Requirements  
IOU & MDMA Suggested Updates**

**I. INTRODUCTION**

This document is intended to describe the data format and data transfer processes necessary for a Submeter Meter Data Management Agent (MDMA) participating in Phase 1 of the CPUC ordered Electric Vehicle (EV) Submetering Pilot (Pilot). Submeter MDMA's are expected to meet certain performance standards in the EV Submetering Pilot<sup>1</sup>, including transferring submeter data to the California Investor Owned Utilities (IOUs) for the purpose of Subtractive Billing. This document provides information on EV Submeter data formats and transfer methods to be used in the Pilot.

Submeter MDMA's are expected to transfer Submeter Data to the Utilities using one of two methods: Either the Minimal Transfer Requirement, or the Alternative Transfer Option. The Utilities may offer the alternative option, but it may not be required of Submeter MDMA for the Pilot. Details to implement the Minimal Transfer Requirement are the focus of this document.

Additional Submeter MDMA activities are beyond the scope of this document, such as the process for a Submeter MDMA to register with an IOU and to signup customers for the Electric Vehicle Submetering Pilot. These additional activities are referenced herein, but the details are outside of the scope of this document.

**II. TERMS AND DEFINITIONS**

**CSV** – Comma Separated Values. The spreadsheet file format used in the Minimal Transfer Requirement. It is also a format used for Green Button subscription files.

**DUNS number** - Data Universal Numbering System. A nine digit number assigned by Dun & Bradstreet unique to a single business entity.

**NAESB** - North American Energy Standards Board. NAESB is the standards organization that created the ESPI standard, which is used by Green Button.

**UTC Time** - Coordinated Universal Time (UTC). A signed positive 64 bit integer value representing the number of seconds from midnight Jan 1, 1970, in UTC, not counting leap second corrections to UTC (35 seconds through 2012). So 5:00 PM EDT on September 22, 2013, has a UTC Time value of 1379883600")

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<sup>1</sup> See: Phase One Performance Standards For Metering And Meter Data Agents Participating In California's Electric Vehicle Submetering Pilot

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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**UUID** - Universally Unique Identifier. UUID is used to identify entities such as Customer and Submeter MDMA's.

### III. DATA FORMATS

This section describes the data file formats to be used in the Pilot. The two data formats available for this pilot are a Spreadsheet file format or the Green Button XML format. The spreadsheet format is for the Minimal Transfer Requirement.

#### A. *Minimal Transfer Requirement*

The spreadsheet data file format and name conventions are described below.

##### 1. Spreadsheet Data Format

The Spreadsheet format is a simplified derivation of the Green Button XML format. The spreadsheet format allows Submeter MDMA's to transfer in one file EV Submeter data for multiple submeters and multiple days. The spreadsheet includes field headers with the following titles and meaning. The spreadsheet shall be transmitted in CSV file format.

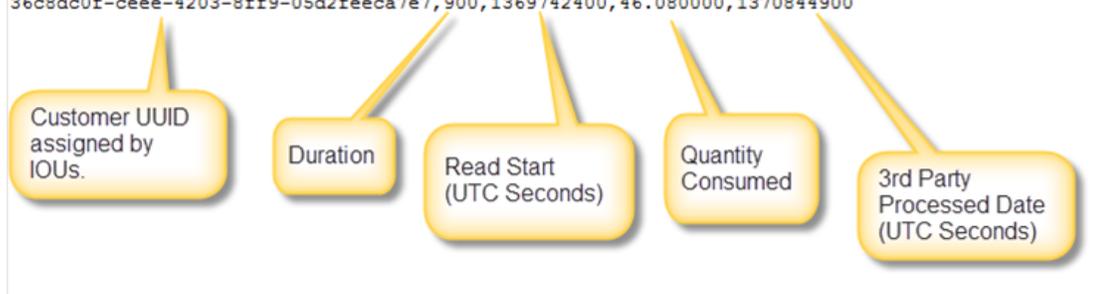
Field Title	Field Description
Customer UUID	Assigned by IOU after a Registered Submeter MDMA completes the Customer enrollment with the IOU.
Interval Duration	Duration of data interval for the Read Quantity represented in seconds. Interval Duration is either "0900" for 15 minute intervals or "3600" for 60 minute intervals. Interval Duration is specified by the IOU based on the Primary Meter's unit of measure and/or the IOU's Subtractive Billing processes.
Read Date & Time	Date & Time for the start (beginning) of the data interval. Read Date & Time is expected to be at the top of the hour for 60 minute intervals (e.g., UTC Time equivalent of 10:00 am, 11:00 am, ), or on the quarter hour for 15 minute intervals (e.g., UTC Time equivalent of 10:15 am, 10:30 am, 10:45 am, 11:00 am). A read Date & Time record is required for every interval every day, even when the Read Quantity is zero. (Formatted UTC Time, see terms and definitions )
Read Quantity	Interval value in Watt hours. (Formatted Decimal 12/6 with zero padding on the right, and none on the left)
Date Processed	Date the data was loaded into the spreadsheet by Submeter MDMA. (Formatted UTC Time, see terms and definitions )

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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Below is an example of the spreadsheet file: (UTC Seconds in the example represent UTC Time)

36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369728900, 40.640000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369729800, 41.120000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369730700, 43.040000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369731600, 41.280000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369732500, 39.840000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369733400, 39.360000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369734300, 40.000000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369735200, 40.000000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369736100, 39.200000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369737000, 40.160000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369737900, 40.000000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369738800, 45.440000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369739700, 45.280000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369740600, 43.520000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369741500, 38.880000, 1370844900
36c8dc0f-ceee-4203-8ff9-05d2feeca7e7, 900, 1369742400, 46.080000, 1370844900



## 2. Spreadsheet File Minimum Data Transfer Requirements

To facilitate data processing and possible data troubleshooting, minimum data transfer requirement are defined.

1. No partial day data will be processed by the IOU.
  - a. Spreadsheet files shall contain a minimum of 24 hours of interval data. (e.g., 96 consecutive intervals assuming 15 minute intervals, or 24 consecutive intervals assuming 60 minute intervals.)
  - b. Spreadsheet files shall contain a read Date & Time record for every interval, even when the interval's Read Quantity is a zero or a missing value.
  - c. Missing values shall be represented with a zero values.
  - d. SCE and SDG&E expect 96 consecutive intervals in a day; PG&E expects 24 consecutive intervals in a day for Residential submeters and 96 consecutive intervals in a day for Commercial & Industrial submeters.
2. IOUs recommend daily file transfers.
  - a. Daily file transfers may contain Date & Time records for multiple days.
  - b. Daily file transfers containing Date & Time records for multiple days, shall contain all expected consecutive intervals (e.g., no missing intervals or gaps in intervals)
  - c. Daily file transfers may contain repeated or corrected Date & Time records. IOU will use the most recently received and processed interval record(s), when billing the submeter data. IOU may not correct Date & Time records for intervals previously billed.

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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3. Date & Time records should not be delayed by more than three days. Records delayed by three or more days may not be processed for billing, due to the Pilot requirement that meter data is to be sent 3 days after the customer's billing period.

### 3. Spreadsheet File Name Structure

The CSV spreadsheet files transferred by the Submeter MDMA to PG&E shall use the following file naming structure:

"MDMA-DUNS\_IOU-DUNS\_EVSP\_YYYYMMDDHHMMSS.CSV"

File Name Component	Component Description
MDMA-DUNS	The nine digit DUNS Number of the Submeter MDMA registered with the IOU and provided to the IOU as part of the Submeter MDMA's Registration process. (Format numeric 9, all formatting dashes omitted)
IOU-DUNS	The nine digit DUNS Number of the IOU and provided by the IOU as part of the Submeter MDMA Registration process. (Format numeric 9, All formatting dashes omitted)
EVSP	Hard coded "EVSP" to identify the file as part of the EV Submetering pilot application.
YYYYMMDDHHMMSS	The date and time the spreadsheet file was created by the Submeter MDMA, based on MDMA's local time as determined by MDMA. Purpose of this file name component is to determine time sequence of files sent from an individual MDMA.
Example file name: "987654321_123456789_EVSP_20130428245959.csv"	

### ***B. Provision of UUIDs to Submeter MDMA's***

The provisioning of UUIDs consists of transferring the Customer UUIDs from the IOU to the Submeter MDMA. The Customer UUIDs are assigned by IOU after the MDMA's approved registration into the EV Submetering Pilot, and after a Registered Submeter MDMA submits a valid Customer Enrollment form to IOU. The Customer UUIDs are sent by encrypted email from IOU to the MDMA or by the EVSP Enrollment report described below in section Enrollment and Exception Reporting to Submeter MDMA's.

The Customer UUIDs will be sent to the Submeter MDMA in a CSV file containing both the UUID and the corresponding Unique Submeter Device Identifier (aka, Submeter Serial Number) for the customer's service. See EVSP Enrollment Data Format below for more details.

## IV. DATA TRANSFER METHODS

The IOUs each have slightly different methods to send and receive Minimal Transfer Requirement spreadsheet files and Green Button XML format files. This section describes PG&E's methods.

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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PG&E uses sFTP to receive both the Spreadsheet Format and Greenbutton Format data files from MDMA's. For the phase 1 pilot, PG&E will only support receiving the Spreadsheet format from MDMA's and only provide MDMA's enrollment files (no providing of Exception Reporting files for phase 1).

PG&E's preference is for MDMA's to push data files to our hosted sFTP servers (Inbound) and to pull enrollment files from our SFTP servers (outbound).

Per PG&E's preferred method, PG&E will provide MDMA's the following information:

1. IP Address
2. Assigned Username
3. Password or log in key (for key connectivity)
4. MDMA's to provide PG&E:
  - a. Name, email, and telephone number of MDMA's connectivity contact person(s).
  - b. Filename(s)

If file encryption is required, PG&E will provide the MDMA with PG&E's PGP Public Key. If necessary, PG&E can support pulling data files from MDMA's external servers (inbound) and pushing enrollment files to MDMA servers (outbound). To support this, PG&E will require the following information from the registered MDMA:

Files Inbound to PG&E:

1. SSH2 RSA 2048-bit key. This is used for validating the sFTP Connection. PG&E does use passwords as an alternative.
2. Hostname / IP address
3. Download folder path
4. Filename(s)
5. Name, email, and telephone number of MDMA's connectivity contact person(s).

Files Outbound from PG&E:

1. Hostname / IP address
2. Username
3. Password (or log-in key will need to be exchanged)
4. Upload folder path
5. Name, email, and telephone number of MDMA's connectivity contact person(s).

If file encryption is required, PG&E will provide the MDMA with PG&E's PGP Public Key.

## **V. ENROLLMENT AND EXCEPTION REPORTING TO SUBMETER MDMAS**

Enrollment information and reporting of errors or exceptions in the submeter CSV Spreadsheet format from PG&E to Submeter MDMA may be provided in CSV formats described below. These reporting CSV files will be transferred from PG&E to the Submeter MDMA using the outbound Data Transfer Methods described above.

### ***A. Enrollment and Exception Reporting File Name Structure***

The CSV files transferred by PG&E to Submeter MDMA shall use the following file naming structure:

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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“MDMA-DUNS\_IOU-DUNS\_EVSPENROLLMENTS\_YYYYMMDDHHMMSS.CSV”  
 “MDMA-DUNS\_IOU-DUNS\_EVSEXCEPTIONS\_YYYYMMDDHHMMSS.CSV”

See the Spreadsheet File Name Structure section above for additional description of the file name components.

**B. EVSP Enrollment Data Format:**

Field Title	Field Description
Transaction Type	Valid values are: <ul style="list-style-type: none"> <li>• “New Enrollment”</li> <li>• “Enrollment Termination”</li> </ul> (Formatted alpha-numeric)
Customer UUID	Assigned by IOU after a Registered Submeter MDMA completes the Customer enrollment with the IOU. The “New Enrollment” transaction file is the vehicle to initially transmit the UUID to the MDMA. Submeter MDMA will receive a Customer UUID for every Unique Submeter Device Identifier.
Unique Submeter Device Identifier	The Unique Submeter Device Identifier (aka Submeter Serial Number on the Customer Enrollment Form) provided by the Submeter MDMA during the Customer enrollment process. This identifier is unique to each submeter and provided by the MDMA. This identifier is expected not to change during the Phase I pilot. In the event of a submeter replacement, MDMA shall report data for the replacement submeter using the previously assigned Customer UUID. (Formatted alpha-numeric maximum 17 characters)
Effective Date	First date IOU will accept Submeter data from the MDMA. (Formatted UTC Time, see terms and definitions)
Termination Date	Date of the last day the EV submetering data will be used for subtractive billing. A new enrollment will not have a Termination Date (blank field); an Enrollment Termination will have a Termination date. For the Phase I pilot an Enrollment Termination will be sent after the 11 <sup>th</sup> billing month. MDMA are expected to submit to IOU an Enrollment Termination, in the event their customer discontinues Submetering service. (Formatted UTC Time, see terms and definitions)

**C. EVSP Exception Data Format:**

If the IOU processing the MDMA’s submetering data detects an error or exception within the spreadsheet data file, the IOU, at its own discretion, may elect to provide the MDMA with an exception notice. One method of sending an exception notice from the IOU to the submeter MDMA is an Exception Data file in the following format:

# ELECTRIC VEHICLE SUBMETERING METER DATA MANAGEMENT AGENT (MDMA) REGISTRATION AGREEMENT

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Field Title	Field Description
Customer UUID	Assigned by IOU after a Registered Submeter MDMA completes the Customer enrollment with the IOU.
Originating File Name	CSV file name provided by the Submeter MDMA which generated the exception (formatted MDMA-DUNS_IOU-DUNS_EVSP_YYYYMMDDHHMMSS.CSV)
Date Processed	Date Processed by PG&E. (Formatted UTC Time, see terms and definitions)
Exception Error	A description of the error generated by the CSV file provided by the Submeter MDMA. Example exception-errors may include: <ul style="list-style-type: none"> <li>• Invalid Enrollment - Customer and/or Device Invalid.</li> <li>• Invalid Data - Negative Values not allowed.</li> <li>• Invalid Data - Partial Data Found.</li> <li>• Invalid Data - Data received that is before or after the enrollment.</li> <li>• Invalid Enrollment - Customer and/or Device Invalid. (Formatted alpha-numeric, up to 255 characters)</li> </ul>

## VI. ALTERNATIVE TRANSFER OPTION (GreenButton format)

The IOUs may offer an alternative data transfer option, but the option may not be required of Submeter MDMA for the Pilot. The Alternative option described in this document is the Extensible Markup Language (XML) Green Button format.

The expected XML data format for EV Submetering data is the forthcoming NAESB Green Button Connect My Data standard for bulk transfer (Bulk Standard). This forthcoming standard is under development by NAESB and expected to be completed in early 2014.

The XML format for the Bulk Standard is a modification of the NAESB Green Button Connect XML<sup>2</sup>. The batch modifications to the Green Button Connect XML are outlined in the document titled Authorization and Bulk Transfer in Green Button Connect My Data.<sup>3</sup> Section 2.5 of the document describes Use Case #13: Bulk Transfer of Multiple Authorized Resources.

Please note the majority of the document titled Authorization and Bulk Transfer in Green Button Connect My Data, relates to an OAuth Authorization method which is not utilized in the EV Submetering Pilot.

The current ESPI Schema is available at the following webpage:

[http://naesb.org/termsfuse\\_form.asp?doc=espi.xsd](http://naesb.org/termsfuse_form.asp?doc=espi.xsd)

<sup>2</sup> See REQ.21 – Energy Services Provider Interface, NAESB 2010, [http://www.naesb.org/ESPI\\_Standards.asp](http://www.naesb.org/ESPI_Standards.asp)

<sup>3</sup> See: [http://osgug.ucaiu.org/sgsystems/OpenADE/Shared%2520Documents/Testing%2520and%2520Certification/GreenButtonTestPlan/referenceMaterial/GreenButtonAuthorization.docx&sa=U&ei=mhFYU9PoLYWr yAT1jYHoCQ&ved=0CBsQFjAA&usg=AFQjCNEwqtjaVvo3A16tgJlkeBn Ct\\_3C1g](http://osgug.ucaiu.org/sgsystems/OpenADE/Shared%2520Documents/Testing%2520and%2520Certification/GreenButtonTestPlan/referenceMaterial/GreenButtonAuthorization.docx&sa=U&ei=mhFYU9PoLYWr yAT1jYHoCQ&ved=0CBsQFjAA&usg=AFQjCNEwqtjaVvo3A16tgJlkeBn Ct_3C1g)



**ELECTRIC SAMPLE FORM 79-1159**  
**ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1)**  
**CUSTOMER ENROLLMENT AGREEMENT**

Sheet 1

Please Refer to Attached  
Sample Form

(N)  
(N)

# **ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT**

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## **I. Customer Enrollment Agreement - Electric Vehicle Submetering Pilot (Phase 1)**

### **TERMS AND CONDITIONS**

This Participation Agreement (“Agreement”), effective upon the date a Customer Enrollment Agreement is submitted, is entered into between Pacific Gas and Electric Company (“PG&E”), a California corporation, with principal offices located at 77 Beale St, San Francisco CA 94105, and customers that receive electric service from PG&E (hereafter, “Participant,” “Customer,” or “you”). PG&E and Participant are referred to jointly as “Parties.”

#### **A. PURPOSE AND OVERVIEW OF THE PHASE 1 PILOT**

PG&E is conducting a temporary Plug-in Electric Vehicle (EV) Submeter Pilot. To participate in Phase 1 of the Pilot, Customers must read and agree to the terms and conditions of this Agreement and be eligible for an applicable separately-metered EV Rate. The customer enrollment process is described in the Customer Enrollment Agreement.

The applicable EV Rates require a separate meter to measure only the energy used to charge electric vehicles, which will be charged at a different rate than the rest of your residence or business. For this Pilot, the separate meter must be a submeter owned by the Customer or by a third party. This Pilot is available to eligible customers within all of PG&E’s service districts and limited to 500 submeters on a first-come, first-served basis. Customers on a Net Energy Metering (NEM) rate are eligible but will be limited to 20% of the participation cap.

As a Participant in this Pilot, you agree to install an eligible Customer- or third party-owned submeter that meets the California Public Utilities Commission (CPUC)--approved Standards for Metering Products (accuracy and intervals) for the exclusive use of tracking the energy used to charge your electric vehicle to be billed on the applicable submeter Rate. Your Submeter Meter Data Management Agent (Submeter MDMA) will be required to collect and transmit your submeter usage data to PG&E as scheduled in the required format in compliance with the Submeter MDMA Performance Requirements (copy available upon request). You will retain sole responsibility for paying the entire monthly bill including EV and other charges regardless of any agreement between you and your Submeter MDMA.

This Pilot will begin on September 1, 2014. Any Customer enrolled in the Pilot will be eligible to participate for no more than 12 consecutive billing cycles; however the Customer may terminate participation in the pilot at any time. When Pilot participation ends, the submeter Rate will be terminated for the submetered account. Thereafter, any future electric vehicle charging will be billed at the Customer’s otherwise applicable tariff rate for the primary meter. Customers are encouraged to contact PG&E to discuss available electric vehicle rates.

In addition, you agree to provide an independent evaluator paid by the Investor Owned Utilities (IOUs) with feedback on your experiences with Pilot participation, including enrollment, equipment installation, and billing. In accordance with the CPUC’s instruction, this survey will not be burdensome. Additionally, you may be required to provide access to your home or facility for the evaluator to perform tests on your submeter. Such submeter testing is only required of five percent of participating customers. If your submeter is selected for testing, tests will be arranged at a convenient time, and your MDMA may be present. No adjustments to your primary or submetered accounts billed over the course of your participation in the Pilot will be made regardless of whether the submeter is found to violate CPUC meter accuracy standards.

# **ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT**

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## **B. ELIGIBILITY**

To be eligible to participate in the Pilot, Participants must:

1. Have an active PG&E service account;
2. Have an eligible PG&E interval data recorder (IDR) meter;
3. Charge a plug-in electric vehicle at that account;
4. Have an approved submeter installed for the exclusive use of tracking the energy used to charge your electric vehicle;
5. Be a Bundled Service Customers or Community Choice Aggregation (CCA) customer (i.e. does not participate in Direct Access (DA) or Community Aggregation (CA) service);
6. Not participate in either the Balance Payment Plan or Automatic Payment Plan options offered by PG&E for the duration of their participation in this pilot if their Submeter MDMA provides remittance payments to PG&E. If participant is already enrolled in one of these plans, they must unenroll for just the duration of their participation in this pilot.

## **C. DUTIES AND OBLIGATIONS OF PG&E:**

PG&E will:

1. Respond promptly to questions from a Submeter MDMA on customer's eligibility without disclosing confidential customer data.
2. Enroll you in the Pilot beginning with your next PG&E billing period, provided that you or your Submeter MDMA has submitted your complete Customer Enrollment Agreement at least five (5) business days prior to the end of your current billing period.
3. Receive your submeter EV usage information from your Submeter MDMA;
4. Use this information to separately calculate your usage for charging your electric vehicle on the applicable EV rate and the rest of your home or business usage on your current rate. Accuracy of your bill is dependent on receiving timely and accurate information from your Submeter MDMA and the accuracy of the submeter itself.
5. Late or incomplete EV submeter usage information will be disregarded (treated as if there was no EV usage for the time interval(s) involved) only where the Submeter MDMA action is the cause of the data transmission failure. As a result, any actual EV charging during these intervals will be billed at your current rate and will not be adjusted in any future bills if any EV usage data is subsequently received.
6. Provide you a summary bill reflecting all of your charges, including your submetered EV usage;
7. After 12 consecutive billing cycles PG&E will close your submeter account. Your entire usage will then be charged at your otherwise applicable rate.
8. Commercial/Industrial customers with submeter usage billed under a Time-of-Use tariff, shall receive a payment applied as a bill credit of \$20/month per submeter. PG&E may petition the CPUC's Energy Division to terminate this ongoing customer payment, with no cost, liability, or further obligation, if Submeter MDMA fails to meet its performance requirements. These payments are applicable only for Phase 1 of the Pilot, which ends after 12 billing cycles for a customer participant and no later than August 31, 2016.



# ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

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## D. DUTIES AND OBLIGATIONS OF PARTICIPANT:

Participant or its agent will:

1. Install or have installed a qualified submeter<sup>1</sup> for the exclusive use of tracking the energy used to charge your electric vehicle;
2. Own the EV submeter and be entirely responsible for its ongoing maintenance and services.
3. Request the submeter to be placed on an applicable EV rate schedule for its electric vehicle charging usage during the Pilot.
4. Have a Submeter MDMA provide PG&E with your submeter usage data as scheduled in the required format in compliance with the MDMA performance requirements (copy available upon request).
5. The Submeter MDMA must report a customer drop out or change of address to PG&E within 10 days.

Participant will:

1. Provide an independent third party evaluator with feedback on your experiences with Pilot participation, including enrollment, equipment installation, and billing.
2. Agree that the EV submeter and submeter usage information may not meet the accuracy standards or metering tariff standards required by PG&E for general billing purposes, and waive all rights and remedies related to such accuracy standards and metering tariffs, including any information provided to Participant based on such submeter usage or other information through other PG&E programs or services. In addition, for purposes of the Pilot, Participant's EV usage will be billed solely based on the submeter data provided by the Submeter MDMA, which is solely responsible for the accuracy and timely delivery to PG&E of submeter usage information.
3. If selected, provide access and assistance to facilitate random meter testing by an independent 3rd Party Evaluator.
4. In the event the Participant has a change of address, be allowed to re-enroll for the remainder of the Participant's pilot term. For customers that relocate within the service territory: 1) their MDMA must submit a separate Customer Enrollment Agreement for their new service address at least five days before the end of the current billing period; and 2) they are eligible to reenroll in the Pilot after the Enrollment Period. Similarly, for customers that relocate to another IOU's service territory, they may reenroll if PG&E's 500 submeter limit has not been met.
5. Retain sole responsibility for paying the entire monthly bill including EV and other charges regardless of any agreement between you and your Submeter MDMA.

## E. TERMINATION:

1. This Agreement shall be effective for no more than 12 consecutive billing cycles after Pilot enrollment.

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<sup>1</sup> The IOUs included CPUC's Energy Division's Temporary Submetering Performance and Data Communication Requirements in EV Submeter Pilot Phase 1 Performance Standards for Metering and Meter Data Management Agents.



## ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

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2. PG&E may petition the CPUC's Energy Division to terminate this Agreement, with no cost, liability, or further obligation, if Submeter MDMA fails to meet Submeter MDMA performance requirements for three consecutive months.
3. PG&E shall have the right to modify or immediately terminate this Agreement upon written notice to Participant if PG&E determines this Agreement would be inconsistent with, or violate any rule, regulation, or policy of the CPUC or other applicable laws or where Participant fails to satisfy its obligations as set forth in Section D above.
4. Participant shall notify PG&E promptly if Participant no longer desires to participate in the Pilot.
5. PG&E will notify the Participant if the Submeter MDMA service is terminated and the Participant may complete the remainder of the pilot subject to completing the requirements to re-enroll with an alternative Submeter MDMA.

### F. NOTICES

PG&E will provide notices to Customer about this Pilot by email or mail to the customer name and address listed on the Customer Enrollment Agreement. Notices from customer to PG&E hereunder shall be in writing and must be either personally delivered; sent by facsimile transmission; or sent by registered or certified mail, postage prepaid, return receipt requested, as follows:

To PG&E:

PG&E Records Unit  
PO Box 8329  
Stockton, CA 95208  
1-800-PGE-5000 (1-800-743-5000)

To Participant: Customer name and address as identified on PG&E customer account.

### G. LIMITATION OF LIABILITY:

1. Participant shall indemnify, hold harmless and defend PG&E and its directors, employees, agents, and contractors from any and all costs, liabilities, claims and expenses, including those from death or injury to any person or from a loss or damage to any real, personal or other property, arising from, or in connection with, this Agreement, unless solely caused by the negligence or willful misconduct of PG&E.
2. In no event shall PG&E be liable for any incidental, indirect, special, consequential, or punitive damages (including lost income), for any cause of action, whether in contract or tort, arising in any manner from this Agreement or the performance or non-performance of its obligations under this Agreement, regardless of the cause or foreseeability thereof. Unless solely caused by PG&E's negligence or willful misconduct, and except as expressly stated otherwise in this Agreement, PG&E shall not be liable for any costs, liabilities, claims or expenses in connection with this Agreement, including any loss or damage to any Participant's property. Further, the amount of PG&E's aggregate liability or damages shall not exceed ten thousand dollars (\$10,000.00).
3. Participant acknowledges that PG&E has not promised Participant energy or bill savings from use of the EV submeter and/or participation in the Pilot.



# ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

- Participant will hold PG&E harmless for its participation in and use of any other PG&E programs or features during the course of this Pilot. Programs such as My Account and Green Button may be available to customers participating in this Pilot but the data may not be all inclusive.
- Participant will hold PG&E harmless for its inability to participate in PG&E's Automatic Payment and Balance Payment Plan, during the course of this Pilot.

## H. WARRANTY DISCLAIMER:

PG&E makes no warranties, whether statutory, express, or implied, including, but not limited to, any warranties regarding the safety, design, construction, function, performance, fitness for a particular purpose, or placement of customer-owned or third party owned submeters, or any benefits to be derived from the placement, operation, or use of the customer owned or third party owned submeters.

## I. APPLICABLE LAW:

This Agreement shall be interpreted, governed and construed under the laws of the State of California, without reference to its choice of law provisions, and it is subject to modifications by the California Public Utilities Commission in the exercise of its jurisdiction.

## J. ENTIRE AGREEMENT:

This Agreement contains the entire agreement and understanding between the Parties related to Participant's participation in the Pilot, except for additional terms and conditions that are subsequently made a part of PG&E's tariffs as part of the further implementation of this Pilot. This Agreement supersedes all prior representations and discussions between PG&E and Participant pertaining to its subject matter. 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.

## K. APPLICABLE PG&E RATE FOR PHASE ONE OF THIS PILOT:

- Where the Primary Meter qualifies for Residential Service:

- Rate Schedule EV, option B

- Where the Primary Meter qualifies for Commercial/Industrial Service

Rate Schedule A1 (customers < 75 kW)

Rate Schedule A10 (customers > 75 kW < 500 kW)

Rate Schedule A6 (customers with demands < 500 kW)

Rate Schedule NEM may be applied as a "rider" to all the schedules above and would be applicable to customers with photovoltaic (PVs) meeting the tariff requirements.

More detail on these rates can be found at <http://www.pge.com/tariffs/ERS.SHTML#ERS>

# ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

## Customer Enrollment Agreement Instructions

- STEP 1:** Read the Plug-In Electric Vehicle Submetering Pilot (Phase 1) Participation Agreement in its entirety
- STEP 2:** Install an eligible Submeter(s), if not already installed, owned or leased by you or your Electric Vehicle Service Provider (EVSP)
- STEP 3:** Retain the services of a PG&E-approved Submeter Meter Data Management Agent (Submeter MDMA)
- STEP 4:** Complete this Customer Enrollment Agreement (Your Submeter MDMA may assist you with completing the form)
- STEP 5:** Sign the last page of this form (Section 4) to authorize the Entire Agreement
- STEP 6:** Have your Submeter MDMA sign the last page of this form (Section 5) to authorize the Entire Agreement
- STEP 7:** You or Your Submeter MDMA must submit this Customer Enrollment Agreement to PG&E for processing
- Retain a copy of the completed Agreement for your records
  - You or your Submeter MDMA must submit this Agreement at least five (5) business days before end of your billing period for you to be enrolled in the next billing period
  - Form may be submitted to PG&E at the contact below:

PG&E Records Unit  
PO Box 8329  
Stockton, CA 95208  
1-800-PGE-5000 (1-800-743-5000)

- Commercial Customers supported by a PG&E Representative may be provided this form directly

### Processing:

PG&E will review the Agreement and reply as follows:

- If Agreement is incomplete or inaccurate: You and your Submeter MDMA are notified. You and your Submeter MDMA complete Agreement and resubmits to PG&E
- If Agreement is complete: Enrollment process continues. Upon completion, PG&E will inform you and your Submeter MDMA when your EV Submetering Pilot (Phase 1) participation begins.

# ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

## Authorization To Release Customer information And Act On A Customer's Behalf

### INFORMATION, ACTS AND FUNCTIONS AUTHORIZED:

By signing this form to add the customer service account(s) set forth below, I, Customer, authorize my Agent (the Submeter MDMA) to act on my behalf to request and receive billing, usage, and meter data for the account(s) specified herein, to the extent such billing, usage, and meter data is associated with my dates of enrollment in the Pilot. This authorization also provides authority to the Submeter MDMA to act on my behalf of request rate changes necessary to participate in the Pilot.

I (Customer) authorize my Submeter MDMA to act on my behalf to perform the following selected specific acts and functions:

- 1) Yes  No  Request rate changes necessary for me to participate in the Electric Vehicle Pilot (Phase 1).
- 2) Yes  No  Receive a copy of my monthly PG&E bill for the duration of my participation in the Electric Vehicle Pilot (Phase 1).

Authorization is given for the period commencing with the date of execution of this Agreement until either the pilot ends or I decide to terminate my participation. If I, Customer, wish to release additional information to my agent, Submeter MDMA, or extend the timeframe during which this information will be released, I acknowledge that I must complete, sign and submit PG&E Form (79-1159).

Yes  No  I (MDMA) will provide PG&E remitted payments to be credited toward (Customer's) account as part of my submetering service.

I understand that if my submeter MDMA provides remittance payments to PG&E, I cannot participate in either the Balance Payment Plan or Automatic Payment Plan options offered by PG&E for the duration of my participation in this Pilot. If I am already enrolled in one of these plans, I must unenroll for the duration of my participation in this Pilot.

### RELEASE OF ACCOUNT INFORMATION:

I (Customer), \_\_\_\_\_ (print name of authorized signatory), declare under penalty of perjury under the laws of the State of California that I am authorized to execute this document on behalf of the Customer of Record listed on this form and that I have authority to financially bind the Customer of Record. I further certify that my Submeter MDMA, \_\_\_\_\_ (print name of Submeter MDMA), has authority to act on my behalf and request the release of information for the accounts listed on this form and perform the specific acts and functions listed above, including rate changes. I understand that PG&E reserves the right to verify any authorization request submitted before releasing information or taking any action on my behalf. I authorize PG&E to release the requested information on my account or facilities to the above Submeter MDMA who is acting on my behalf regarding the matters listed above. I hereby release, hold harmless, and indemnify PG&E from any liability, claims, demands, causes of action, damages, or expenses resulting from: 1) any release of information to my Submeter MDMA pursuant to this Authorization; 2) the unauthorized use of this information by my Submeter MDMA; and 3) from any actions taken by my Submeter MDMA pursuant to this Authorization, including rate changes. I understand that I may cancel this authorization at any time by submitting a written request.

### REVOCAATION:

Customer may cancel this Authorization at any time by contacting PG&E at (415) 973-0335. Consent from the Submeter MDMA is not required for Customer to cancel this Authorization. To the extent the



# ELECTRIC VEHICLE SUBMETERING PILOT (PHASE 1) CUSTOMER ENROLLMENT AGREEMENT

Pilot expires or otherwise terminates, the Authorization granted herein will automatically be revoked regardless of whether the Customer submits a request to cancel the Authorization.

**Entire Agreement** This Agreement, together with the applicable EV Rate and Plug-in Electric Vehicle Submetering Pilot Terms and Conditions, contains the entire agreement and understanding between the Parties related to Participant's participation in the Pilot, except for additional terms and conditions that are subsequently made a part of PG&E's tariffs as part of the further implementation of this Pilot. This Agreement supersedes all prior representations and discussions between PG&E and Participant pertaining to its subject matter.

**Section 1 Property Type (Check one)**

- Detached Home (Residential)
- Multi-family Dwelling/Attached Home (Residential)
- Commercial (Business)

**Section 2 PG&E Customer Account Information**

\_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_  
 Customer  
 Account Number *(Appears below your name on your PG&E bill)*

\_\_\_\_ - \_\_\_\_ - \_\_\_\_  
 Primary PG&E Electric Meter ID Number

\_\_\_\_\_  
Print First and Last Name *(As it appears on the PG&E bill)*

\_\_\_\_\_  
Customer Account Street Address

\_\_\_\_\_  
 City State Zip

\_\_\_\_\_  
 Telephone Number Email Address *(To be used for communications regarding Pilot)*

\_\_\_\_\_  
*If Commercial Account:* Business Name Contact Name Title

\* *Alternate Mailing Address (Provide if applicable):*

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
 City State Zip





**ELECTRIC VEHICLE SUBMETERING PILOT  
(PHASE 1)  
CUSTOMER ENROLLMENT AGREEMENT**

**Section 4 Customer & Submeter MDMA Authorization**

**[This form must be signed by someone who has authority to financially bind the customer]  
[for example, CFO of a company or City Manager of a municipality]**

_____ Authorized Customer Signature	_____ Print Name
_____ Date	_____ Phone Number
_____ City and State Where Executed	

\*\*\*\*\*

**I (Submeter MDMA)**, hereby release, hold harmless, and indemnify PG&E from any liability, claims, demand, causes of action, damages, or expenses resulting from the use of customer information obtained pursuant to this authorization and from the taking of any action pursuant to this authorization, including rate changes provided such utility action is consistent with applicable CPUC orders, tariffs and regulations.

_____ Authorized Agent Signature	_____ Company Name
_____ Agent Name (Print)	_____ Title
_____ Street Address	_____ Phone Number
_____ City, State, ZIP	_____ Email Address
_____ Date	_____ City and State Where Executed



**ELECTRIC TABLE OF CONTENTS**

Sheet 1

**TABLE OF CONTENTS**

<b>SCHEDULE</b>	<b>TITLE OF SHEET</b>	<b>CAL P.U.C. SHEET NO.</b>	
	Title Page .....	<b>35266-E</b>	(T)
	Rate Schedules .....	34511,34559,34619,34620, <b>35267</b> ,34621,35088,31541,34517-E	(T)
	Preliminary Statements .....	35083,32706,30376,35049,34357,34358,34359,34606-E	
	Rules .....	34623,34624,35089-E	
	Maps, Contracts and Deviations.....	35044-E	
	Sample Forms .....	32777,32429,32726,35090,32504,33654,33209,34626, <b>35268</b> ,32437,32508,32439-E	(T)

(Continued)



**ELECTRIC TABLE OF CONTENTS**  
**RATE SCHEDULES**

Sheet 6

SCHEDULE	TITLE OF SHEET	CAL P.U.C. SHEET NO.
	<b>Rate Schedules Other</b>	
S	Standby Service .....	28399,28400,35217,34783,28238,32515,32516,28241*-28243, 34784,32517,30291,34785,28401-28404-E
E-CHP	Combined Heat and Power PPA .....	30809-30813-E
E-CHPS	Combined Heat and Power Simplified PPA .....	30814-30817-E
E-CHPSA	Combined Heat And Power Simplified 500 kW PPA .....	30825-30828-E
E-DCG	DCG Departing Customer Generation, CG .....	30168*,30169*,23667, 30697,30698,28954,28607,23252,23253,28405,23255-E
E-DEPART	Departing Customers .....	28859-E
E-NWDL	New WAPA Departing Load .....	28581,28582,28862,28863,27448-27452-E
E-NMDL	New Municipal Departing Load.....	27453,32097,32098,32099, 29557,29558,29559, 29560,29561,29562,29563,29564-E
E-LORMS	Limited Optional Remote Metering Services .....	20194-E
E-SDL	Split-Wheeling Departing Load.....	28588,28589,28867,28868,27459-27464-E
E-TMDL	Transferred Municipal Departing Load .....	27465,28869,28870, 25883,28961,28594,28608,25887,25888,25889,25890,25891-E
NEM	Net Energy Metering Service.....	33897**,33898*,33899*,33900* 33901*-33904*,33905,33906,33907*-33918*-E
NEMFC	Net Energy Metering Service For Fuel Cell Customer-Generators...	32805,33919,32442-32448-E
NEMBIO	Net Energy Metering Service for Biogas Customer-Generators .....	27253-27255, 26140,27256,26142,27257,26144,27258-E
NEMCCSF	Net Energy Metering Service for City and County of San Francisco .....	28176,28177, 28178,28179-E
NEMV	Virtual Net Metering for a Multi-Tenant or Multi-Meter Property Served at the Same Service Delivery Point.....	31546,31547,33920*,31549,32806, 31551,33921,31553-31562,32807,31564,31565,33215,33216,31568-E
NEMVMASH	Net Energy Metering – Virtual Net Energy Metering ...	31625,33922*,30516,33923,33924,33925, 31630-31637,33217,31639,33676-E
E-ERA	Energy Rate Adjustments.....	35164,35165,35166,35167-E
RES-BCT	Schedule for Local Government Renewable Energy Self-Generation Bill Credit Transfer.....	30752,30753,29208,32216-32219,29213,32220-E
E-OBF	On-Bill Financing Balance Account (OBFBA) .....	29490-29492-E
E-OBR	On-Bill Repayment (OBR) Pilots .....	34527-34533-E
E-SOP	Residential Electric SmartMeter <sup>TM</sup> Opt-Out Program .....	35105,35106-E
PEVSP	Plug-In Electric Vehicle Submetering Pilot – Phase 1 .....	<b>35260,35261</b> ,34249, <b>35262,35263-E</b> (T)

(Continued)



**ELECTRIC TABLE OF CONTENTS**  
**SAMPLE FORMS**

Sheet 31

<b>FORM</b>	<b>TITLE OF SHEET</b>	<b>CAL P.U.C. SHEET NO.</b>
<b>Sample Forms Miscellaneous (Cont'd)</b>		
79-966	Agreement for Schedule E-OBMC .....	32491-E
79-995	Agreement for Customers Taking Service on Schedule E-31 .....	33014-E
79-1006	Municipal Departing Load - Nonbypassable Charge Statement .....	32124-E
79-1013	New Municipal Departing Load Nonbypassable Charge Statement .....	33015-E
79-1024	Dual Supply Customer Authorizing Agreement .....	33017-E
79-1029	Community Choice Aggregator (CCA) Service Agreement .....	27499-E
79-1031	Community Choice Aggregator (CCA) Non-Disclosure Agreement.....	32646-E*
79-1039	Rate Schedule Selection Customer Agreement .....	33019-E
79-1040	Non-Disclosure and Use of Information Agreement .....	33020-E
79-1050	Contract for Customer Provision of Physically Assured Load Reduction.....	33021-E
79-1075	Notice to Add or Delete Customers Participating in the Capacity Bidding Program.....	32495-E
79-1076	Agreement for Aggregators Participating in the Capacity Bidding Program .....	32496-E
79-1079	Agreement for Aggregators Participating in the Base Interruptible Load Program .....	32497-E
79-1080	Notice to Add or Delete Customers Participating in the Base Interruptible Program .....	32498-E
79-1102	Section 399.20 Power Purchase Agreement.....	32140-E
79-1103	Small Renewable Generator Power Purchase Agreements .....	32141-E
79-1118	General Off-Bill and On-Bill Financing Loan Agreement .....	32499-E
79-1120	Standard Contract for Eligible CHP Facilities .....	30818-E
79-1121	Power Purchase and Sales Agreement - Contract For Eligible CHP Facilities with Net Output of Not Greater Than 5 MW .....	32148-E
79-1126	Off-Bill and On-Bill Financing Loan Agreement for Self-Installed Projects .....	32500-E
79-1127	Agreement to Perform Tariff Schedule Related Work, Rule 20A General Conditions .....	29717-E
79-1128	Affidavit in Support of Customer Claim as Qualifying as a Small Business Customer under Government Code Section 14837* .....	33026-E
79-1138	Power Purchase and Sale Agreement - Contract For Eligible CHP Facilities with Power Rating of Less Than 500 KW .....	32150-E
79-1141	Agreement for Schedule A-15 Fixed Usage Estimate .....	33683-E
79-1143	California State Government Customers On-Bill Financing Loan Agreement .....	32501-E
79-1149	Election to Withdraw From the Capacity Bidding Program Form.....	32481-E
79-1150	Renewable Market Adjusting Tariff Power Purchase Agreement .....	32749-E
79-1156	Authorization To Add Loan Charges To Utility Bill (Residential) .....	34557*-E
79-1157	Authorization To Add Loan Charges To Utility Bill (Non-Residential) .....	34534*-E
79-1158	Electric Vehicle Submetering Meter Data Management Agent (MDMA) Registration Agreement .....	35264-E (T)
79-1159	Electric Vehicle Submetering Pilot (Phase 1) Customer Enrollment Agreement .....	35265-E (T)
79-1170	Authorization to Add MCE Loan Charges to Utility Bill .....	35098-E
79-1171	Authorization to Add MCE Storage Charges to Utility Bill.....	35099-E

(Continued)

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

AT&T	Douglass & Liddell	OnGrid Solar
Albion Power Company	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 Blaising McLaughlin, P.C.	Green Power Institute	SPURR
CENERGY POWER	Hanna & Morton	Seattle City Light
California Cotton Ginners & Growers Assn	In House Energy	Sempra Energy (Social Gas)
California Energy Commission	International Power Technology	Sempra Utilities
California Public Utilities Commission	Intestate Gas Services, Inc.	SoCalGas
California State Association of Counties	K&L Gates LLP	Southern California Edison Company
Calpine	Kelly Group	Spark Energy
Casner, Steve	Linde	Sun Light & Power
Center for Biological Diversity	Los Angeles County Integrated Waste Management Task Force	Sunshine Design
City of Palo Alto	Los Angeles Dept of Water & Power	Tecogen, Inc.
City of San Jose	MRW & Associates	Tiger Natural Gas, Inc.
Clean Power	Manatt Phelps Phillips	TransCanada
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	Occidental Energy Marketing, Inc.	
Division of Ratepayer Advocates	Office of Ratepayer Advocates	