

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



Revised

February 13, 2012

Brian K. Cherry
Vice President, Regulation and Rates
Pacific Gas & Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Subject: Third Supplemental Advice Letter Modifying PG&E NEM Rate Schedules and Related Forms to Conform with Public Utilities (PU) Code 2827 as Amended by Senate Bill (SB) 489, and to Address the Joint Protest of the California Farm Bureau Federation and California Climate and Agricultural Network.

Dear Mr. Cherry:

PG&E Supplemental Advice Letter 3969-E-C is effective January 1, 2012. This AL 3969-E-C supersedes Advice 3969-E in part and supersedes Advice 3969-A and Advice 3969-E-B in whole.

On January 3, 2012, the California Farm Bureau Foundation and the California Climate & Agricultural Network ("Protesting Parties") filed protests to PG&E Advice Letter 3969-E, which was filed on December 13, 2011. Energy Division staff requested that PG&E address the protest and make a few other related ministerial changes. PG&E has made changes consistent with the requests of the protesting parties and Energy Division Staff.

Sincerely,

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

Edward F. Randolph, Director
Energy Division

December 13, 2011

Advice 3969-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Modification of PG&E Rate Schedules NEM, NEMV, NEMFC and
NEMBIO and Associated Forms Pursuant to Senate Bill 489**

Pacific Gas and Electric Company ("PG&E") hereby submits for filing revisions to its electric tariff sheets and standard form contracts. The affected tariff sheets and contracts are listed on the enclosed Attachment 1.

Purpose

Pursuant to Senate Bill (SB) 489, PG&E submits this advice letter to modify the following Rate Schedules and associated filed forms:

- NEM – Net Energy Metering Service
- NEMV – Solar and/or Wind Virtual Net Energy Metering For Multiple Tenants Served At The Same Service Delivery Point¹
- NEMFC – Net Energy Metering Service for Fuel Cell Customer-Generators
- NEMBIO – Net Energy Metering Service for Biogas Customer-Generator
- 79-974 – Generating Facility Interconnection Application
- 79-998 – Renewable And Expanded Net Energy Metering (NEM) Supplemental Application
- 79-1137 – Interconnection Agreement for Net Energy Metering For A Renewable Electrical Generation Facility Of 1,000 Kilowatts Or Less
- 79-1069 – Generating Facility Interconnection Agreement Multiple Tariff
- 79-1125 – NEM / NEMVMASH Inspection Report
- 79-978 – Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of Other Than Residential or Small Commercial Facilities of 30 Kilowatts or Less

¹ Pending CPUC approval, see note at end of Background, Section 2

Background

On October 8, 2011, SB 489 was signed by the Governor modifying various parts of Public Utility Code Section (PU Code §) 2827. SB 489 will become effective January 1, 2012 necessitating significant changes to PG&E's net electric metering (NEM) tariffs and rate schedules. Due to the recent passage of this legislation and its rapidly approaching effective date, PG&E asks that the Commission act quickly to ensure it and other utilities are able to comply. The Commission may also see the need to further explore the impacts of this legislation to existing NEM programs beyond the minimal changes proposed here to facilitate basic compliance with the new statute. Specifically four existing NEM programs are impacted by the changes directed by SB 489:

1. Schedule NEM: Pursuant to PU Code § 2827, PG&E's Schedule NEM for net energy metering is currently available to an eligible customer-generator with a generating facility of no more than 1 megawatt that uses a photovoltaic (PV²) generator or wind turbine, or a hybrid system of both. SB489 retains the 1 megawatt limit but expands the definition of an eligible customer-generator to include any renewable source, or combination of several. Here eligible renewable electric generation types generation types are described as those listed under the Renewable Energy Resources Program administered by the State Energy Resources Conservation and Development Commission (California Energy Commission or CEC)..

Paragraph (1) of subdivision (a) of Section 25741³ of the Public Resources Code Public is explicitly cited in SB 489 and lists these eligible generating technologies to be "*biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.*" SB 489 also adds specific additional requirements for small hydroelectric generation facilities that go beyond Section 25741. Detailed definitions of these latter generating technology categories are included in the California Energy Commission's Renewable Portfolio Standard eligibility guidebooks and are adopted for use in the tariff. However, the foregoing reflects PG&E interpretation and specific definitions are not explicitly indicated by the legislation.

The current PU Code § 2827 and PU Code § 2827.8 are also the basis for a provision in PG&E's NEM schedule referred to as wind energy co-metering in Special Condition 5 of Schedule NEM. This arrangement is available to wind generators sized greater than 50 kilowatts, but less than 1 megawatt. Special Condition 5 of Schedule NEM allows an eligible wind energy co-metering

² PG&E uses PV here to distinguish it from solar thermal, another *solar* generation technology now included in SB 489.

³ As amended by the relevant subpart of Senate Bill 2 (Simitian), effective January 1, 2012, and available at http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0001-0050/sbx1_2_bill_20110412_chaptered.pdf.

customer-generator to received generation-only credit. Now under SB 489, wind (up to 1 megawatt) meets the definition of a renewable electrical generation facility, and thus becomes eligible for the more favorable credit based on full retail prices. PG&E therefore believes SB 489 renders the wind energy co-metering section of the NEM tariff superfluous and removes that section from the tariff to avoid confusion.

PU Code § 2827 (e)(1) and (2) requires that requests for an interconnection agreement and for establishment of net energy metering are processed in a time period not to exceed 30 working days from the date it receives a completed application. With the inclusion Renewable Electrical Generation Facilities some of which are non-inverter based, PG&E may not be able to always process these requests within 30 days due to the potential for additional testing and interconnection requirements. To deal with this possibility and set expectations, PG&E notes that pursuant to PU Code § 2827 (e)(3), if PG&E is unable to process a request within the 30 day timeframe, it shall notify the eligible customer-generator and the CPUC of the reason for its inability to process the request and the expected completion date.

2. Schedule NEMV: Another PV and wind net energy metering program, general market, multi-tenant Virtual Net Energy Metering, is also based on PU Code 2827. It arose from ordering paragraph 2 in Decision (D.)11-07-031 (in R. 10-05-004). To comply with this decision, PG&E submitted Advice Letter (AL) 3902-E on September 12, 2011, (and subsequently AL 3902-E-A) seeking to create a new schedule NEMV. Approval of these advice letters is pending before the CPUC, with workshops planned shortly. However since SB 489 becomes effective January 1, 2012, generators served under Schedule NEMV would also enjoy the expanded definition of generator technologies in SB 489⁴ beginning on that same date, or once Schedule NEMV advice letters become effective, whichever occurs first. One additional note: As NEMV has not been formally approved, PG&E can only submit pro-forma changes to reflect SB 489 changes in NEMV in this Advice Letter⁵. PG&E seeks the CPUC's guidance on whether it should file a new supplement with SB 489 language superseding AL 3902-E and AL 3902-A; or alternatively wait for the CPUC to issue a resolution for AL 3902-E and AL 3902-A that would direct us to include the SB 489 changes in NEMV in a subsequent compliance filing.
3. Schedule NEMBIO: Prior to SB 489, PU Code § 2827.9 established a pilot program to provide energy net metering for eligible biogas digester customer-generators. SB 489 repeals PU Code Section § 2827.9 which is the basis for

⁴ D. 11-07-031 that created the multi-tenant expanded virtual net metering states in Conclusions of Law 5), "The expanded VNM tariff can apply to any DG technology that is eligible for a full retail rate credit under net energy metering."

⁵ PG&E would also need to update the interconnection agreement for NEMV, PG&E form 79-1131-*NEMV Application and Interconnection Agreement for an Eligible Generating Facility of 1 Megawatt or Less Serving Multiple Tenants Served at a Single Service Delivery Point*

PG&E's Schedule NEMBIO, effectively closing Schedule NEMBIO to new customers. Due to the dairy farm load aggregation option in the NEMBIO program, PG&E proposes to allow the few customers on this schedule to remain on this tariff for the life of their current generating facility if it better suits them, rather than eliminating the program altogether.

4. Schedule NEMFC: Prior to SB 489, PU Code § 2827.10 established a net energy metering program for fuel a cell customer-generator. The existing definition of an eligible fuel cell customer-generator requires that the customer use technology that meets the definition of "ultra-clean and low-emission distributed generation" in a specified statute. SB 489 instead requires that the customer use technology that the CPUC determines will achieve reductions in emissions of greenhouse gases and meets emissions requirements for eligibility for funding pursuant to the self-generation incentive program (SGIP)⁶.

Given that the effective date of SB 489 is January 1, 2012, PG&E requests this advice letter be approved with an effective date of January 1, 2012.

Tariff Revisions

1. Schedule NEM –
 - a. Adds the term "Renewable Electrical Generation Facility" to the Applicability Section from the changes made to PU Code § 2827(b)(5) by SB 489.
 - b. Includes a new definition of a Renewable Electrical Generation Facility based on the definition in Public Resource Code § 25741. PG&E refers to the definition of the renewable generating technologies in the latest version of the California Energy Commission's (CEC's) Renewables Portfolio Standard (RPS) Eligibility Guidebook and the Overall Program Guidebook.
 - c. For a customer who interconnects a Renewable Electrical Generation Facility other than PV or wind, a new affidavit has been created that will be incorporated in the applicable interconnection agreement the customer submits. It requires that the customer sign and date an affirmation that their generating facility meets, and will continue to meet the eligibility requirements for the specific type of Renewable Electrical Generation Facility they install pursuant to the CEC RPS guidebooks and PU Code § 2827; if the Renewable Electrical Generation Facility is required to use a renewable fuel such as biogas (e.g. landfill gas, digester gas, eligible "directed" biogas), that fuel must be its sole fuel source as long as the

⁶ Legislative Counsel's Digest, Paragraph 6, http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0451-0500/sb_489_bill_20111008_chaptered.html

customer is served on schedule NEM or NEMV, and mixtures of renewable and non-renewable fuels will not be deemed eligible; and that specific small hydro requirements are met and maintained as specified on SB 489.

- d. For change of parties (a new customer takes over an account) where there is an existing Renewable Electrical Generation Facility other than PV and Wind less than 30 kW, the new customer will be required to complete a new interconnection agreement and sign a new affidavit, and may be required to have their facility inspected (pursuant to the statutory requirement reflected in Special Condition 5 of the NEM tariff). Customers with PV and Wind generation facilities up to 30 kW (both currently, and as proposed in this advice letter) do not typically have this requirement. As PG&E gains more experience with other Renewable Electrical Generation Facility types, it may be able to waive this requirement for other generation types as well.
 - e. Special Condition 5 on Wind Energy Co-metering in the current NEM tariff is removed. PG&E believes wind customers will always prefer to receive full retail credit by virtue of such a generating facility being a "Renewable Electrical Generation Facility," rather than taking service under the generation-credit-only Wind Co-energy Metering provisions.
 - f. Special Condition 5 regarding NEMMT (more than one generator interconnected behind a customer's meter, subject to multiple tariff treatment) – expands "groups" that could only contain wind and PV generating facilities to groups that contain wind PV and any other Renewable Electrical Generation Facility since they are all now eligible for the same tariff treatment.
 - g. Special Condition 6 regarding AB920 and net surplus compensation at the true-up – makes minor changes to the language to permit a Renewable Electrical Generation Facility beyond just PV and wind to be eligible to receive net surplus compensation.
- 2. Schedule NEMV – refers to the revised definition in the schedule NEM, and makes similar changes to those in NEM.
 - 3. Schedule NEMBIO – closes the schedule to new customers, but leaves it open for existing customers.
 - 4. Schedule NEMFC – adds language to the Applicability section as spelled out in SB 489.

5. Interconnection Forms - in modifying the interconnection forms for the net energy metering programs affected by SB 489, PG&E's goal was, as much as possible to leave the existing PV and wind interconnection forms and processes intact, due to high volume of applications being received daily and since it is anticipated that these two types of interconnections will continue to constitute the majority of new interconnections.

With regard to implementation, the modifications required by SB 489 require that only one new form (79-1137) be created to support other than PV/wind generators up to 1 MW. Form 79-1101 is unchanged. Modifications were required in all other forms.

For convenience Table 1 summarizes the existing, new and modified forms that will be used for the different programs, as proposed in this advice letter. The changes to each form are described in detail below.

Table 1 – Summary of Basic Interconnection Forms

Form: Tariff	Generator Type	Application	Interconnection Agreement	Inspection Form
NEM & NEMV***	PV/wind ≤30kw	79-1101*	Combined with Application 79-1101	79-1025
	PV/wind > 30kw up to 1MW	79-974 79-998	79-978	79-1025
	Other** up to 1MW	79-974 79-998	79-1137**** (new form)	79-1025
NEM MT	All	79-974 79-998	79-1069****	79-1025

* Existing form is not changed

** Renewable Electrical Generation Facility other than PV or Wind

*** Proposed for when PG&E files an update to NEMV to comply with SB 48 as noted in the Background above, section 2 on NEMV.

**** Includes a new Affidavit.

- a. 79-1101 - *Application and Interconnection Agreement for Customers with Solar and/or Wind Electric Generating Facilities of 30 Kilowatts or Less* - Applicable to a Schedule NEM (and proposed for NEMV) PV and Wind generating facility sized less than or equal to 30 kW (for what PG&E refers to as "standard NEM"). While no changes are made to this form, it is mentioned here to convey an understanding of the full interconnection requirements.
- b. 79-974 - *Generating Facility Interconnection Application* – Applicable to Schedule NEM (and proposed for NEMV), PV and wind generating facility sized greater than 30 kW (what PG&E refers to as "expanded NEM") and for all the other new RPS eligible generation sized from 0-1MW, customers will use this form (it is also the Rule 21 Generating Facility

Interconnection Application). This form has been marked up to reflect the additional types of Renewable Electrical Generation Facilities.

- c. 79-998 – *Renewable And Expanded Net Energy Metering (NEM) Supplemental Application*⁷ – the Schedule NEM (and proposed for NEMV) supplemental application form; For use with 79-974. This form has been revised up to reflect the additional types eligible Renewable Electrical Generation Facilities.
- d. 79-978 – *Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of Other than Residential or Small Commercial Facilities of 30 Kilowatts or Less* - This is the existing interconnection agreement for the Schedule NEM if the generating facility is PV or wind greater than 30 kW (what was refers to as “expanded NEM”). It will be used with form 79-974. This form is updates the schedule NEM references to the special conditions, which have changed due to the removal of wind energy co-metering.
- e. 79-1137 – *Interconnection Agreement for Net Energy Metering for a Renewable Electrical Generation Facility of 1,000 Kilowatts or Less* – This is a new interconnection agreement form created from existing form 79-978. It incorporates a small portion of 79-973 – the Rule 21 *Generating Facility Interconnection Agreement* – specifically, sections 2.9, 2.10 and 2.11. It will be used with the 79-974 application. This form will constitute the interconnection agreement if the generating facility is a Renewable Electrical Generation Facility *other than PV or wind*, that is sized up to 1 MW. It is likely that because many of the new types of generators will be non-inverter-based, they may require testing per Rule 21 prior to interconnection. Form 79-1137 also includes a new affidavit in Appendix C which affirms the applicant will meet, and will continue to meet, the requirements of the definition of a Renewable Electrical Generation Facility in Schedule NEM and per the CEC RPS guidebooks and PU Code § 2827, while they are on either Schedule NEM or NEMV.
- f. Form 79-1069 – *Generating Facility Interconnection Agreement (Multiple Tariff)* – For multiple tariff arrangements, this form was modified to add a place for applicants to list the new Renewable Electrical Generation Facility types. Form 79-974 also now includes a new affidavit in Appendix H that affirms the applicant will meet, and continue to meet, the requirements of the definition of a Renewable Electrical Generation Facility in Schedule NEM and per the CEC RPS guidebooks and PU Code § 2827, while they are on either Schedule NEM or NEMV.

⁷ Proposed new name. Currently it is *Expanded Net Energy Metering (NEM) Supplemental Application*

- g. Form 79-1025 – *NEM / NEMVMASH Inspection Report* - For the re-inspection of SB 489 Renewable Electrical Generation Facilities, this form was modified to include Renewable Electrical Generation Facilities other than PV and wind generators.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **January 3, 2012**, which is 21 days⁸ after the date of this filing. Protests should be mailed to:

CPUC Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: ijnj@cpuc.ca.gov and mas@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 also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

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

Facsimile: (415) 973-6520
E-mail: PGETariffs@pge.com

Effective Date

PG&E requests that this Tier 2 advice filing be approved on regular notice with an effective date of **January 1, 2012**, which is the effective date of SB 489.

⁸ The 20-day protest period ends on a holiday so the protest period end date is extended to the next business day.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for A.10-03-001 and R.10-05-004. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs>

A handwritten signature in cursive script that reads "Brian Cherry". To the right of the name, there is a smaller, less legible signature or set of initials.

Vice President, Regulation and Rates

Attachments

cc: Service Lists: A.10-03-001 and R.10-05-004

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

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

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

Utility type:

☒ ELC

☐ GAS

☐ PLC

☐ HEAT

☐ WATER

Contact Person: Greg Backens

Phone #: 415-973-4390

E-mail: gab4@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) #: **3969-E**

Tier: 2

Subject of AL: **Modification of PG&E Rate Schedules NEM, NEMV, NEMFC and NEMBIO and Associated Forms Pursuant to Senate Bill 489**

Keywords (choose from CPUC listing): Compliance, Forms, Self-Generation, Text Changes

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? No. If so, identify the prior AL: N/A

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Is AL requesting confidential treatment? No.

If so, what information is the utility seeking confidential treatment for: N/A

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: N/A

Resolution Required? ☐ Yes ☒ No

Requested effective date: **January 1, 2012**

No. of tariff sheets: 34

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: NEM, NEMV, NEMFC, NEMBIO, Forms 79-974, -998, -1137, -1069, -1125, -978

Service affected and changes proposed: Revisions to comply with Senate Bill 489

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

CPUC, Energy Division

Tariff Files, Room 4005

DMS Branch

505 Van Ness Ave., San Francisco, CA 94102

jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Brian K. Cherry, Vice President, Regulation and Rates

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

**ATTACHMENT 1
Advice 3969-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
30771-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 1	30728-E
30772-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 2	
30773-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 3	30485-E
30774-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 4	30486-E
30775-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 5	27238-E
30776-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 6	27239-E
30777-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 7	27240-E
30778-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 8	27241-E
30779-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 9	30487-E
30780-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 10	27243-E
30781-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 11	30729-E
30782-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 12	30488-E

**ATTACHMENT 1
Advice 3969-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
30783-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 13	27246-E
30784-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 14	26128-E
30785-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 15	26129-E
30786-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 16	27247-E
30787-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 17	30490-E
30788-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 18	30491-E
30789-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 19	30492-E
30790-E	ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE Sheet 20	30730-E
30791-E	ELECTRIC SCHEDULE NEMBIO NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATOR Sheet 1	27253-E
30792-E	ELECTRIC SCHEDULE NEMBIO NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATOR Sheet 9	27258-E
30793-E	ELECTRIC SCHEDULE NEMFC NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS Sheet 1	28566-E

**ATTACHMENT 1
Advice 3969-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
30794-E	ELECTRIC SCHEDULE NEMFC NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS Sheet 7	26136-E
30795-E	ELECTRIC SAMPLE FORM NO. 79-974 GENERATING FACILITY INTERCONNECTION APPLICATION	27259-E
30796-E	ELECTRIC SAMPLE FORM NO. 79-978 Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of Other than Residential or Small Commercial Facilities of 30 Kilowatts or Less	27260-E
30797-E	Electric Sample Form No. 79-998 Renewable and Expanded Net Energy Metering (NEM) Supplemental Application	22698-E
30798-E	Electric Sample Form No. 79-1069 Generating Facility Interconnection Agreement (Eligible/Non-Eligible Net Generating Facility Export)	26150-E
30799-E	Electric Sample Form 79-1125 NEM / NEMVMASH Inspection Report Sheet 1	30737-E
30800-E	ELECTRIC SAMPLE FORM 79-1137 INTERCONNECTION AGREEMENT FOR NET METERING FOR A RENEWABLE ELECTRICAL GENERATION FACILITY OF 1,000 KILOWATTS OR LESS Sheet 1	
30801-E	ELECTRIC TABLE OF CONTENTS Sheet 1	30699-E
30802-E	ELECTRIC TABLE OF CONTENTS RATE SCHEDULES Sheet 6	30700-E
30803-E	ELECTRIC TABLE OF CONTENTS SAMPLE FORMS Sheet 24	30372-E

**ATTACHMENT 1
Advice 3969-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
30804-E	ELECTRIC TABLE OF CONTENTS SAMPLE FORMS Sheet 27	30740-E



ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 1

APPLICABILITY: This net energy-metering schedule is applicable to a customer who uses a Renewable Electrical Generation Facility as defined below with a capacity of not more than 1,000 kilowatts that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with PG&E's transmission and distribution systems, including wind energy co-metering customers as defined in California Public Utilities Code Section 2827.8, and is intended primarily to offset part or all of the customer's own electrical requirements (hereinafter "eligible customer-generator" or "customer"). Certain incremental billing and metering costs set forth in this schedule that are related to net energy metering are applicable to Energy Service Providers (ESPs) serving eligible customer-generators. (T)
 (T)

This service is not applicable to a Direct Access (DA) customer where the customer's ESP does not offer a net energy metering tariff. In addition, if an eligible customer-generator participates in direct transactions with an ESP that does not provide distribution service for the direct transactions, the ESP, and not PG&E, is obligated to provide net energy metering to the customer.

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

The total rated generating capacity will be calculated as the sum of all of the following:

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

PG&E's aggregate customer peak demand will be based on the highest, published peak demand shown in the Federal Energy Regulatory Commission (FERC) Form 1, Page 401b as reported by PG&E. Once the Cap has been reached, Schedule NEM will be closed to new customers.

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

(Continued)

ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 2

APPLICABILITY
(Cont'd):

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

(N)

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

and any additions or enhancements to the facility using that technology pursuant to paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code. These renewable sources are defined in the latest version of the California Energy Commission's (CEC's) Renewables Portfolio Standard (RPS) Eligibility Guidebook and the Overall Program Guidebook¹

(N)

¹ The RPS Guidebooks can be found at: <http://www.energy.ca.gov/renewables/documents/index.html#rps>

(Continued)

ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 3

APPLICABILITY:
(Cont'd.)

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

$$\begin{array}{c} (L) \\ | \\ | \\ | \\ | \\ | \\ | \\ (L,T) \\ (L) \end{array}$$

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

$$\begin{array}{c} | \\ (L, T) \\ (L) \\ | \end{array}$$

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

$$\begin{array}{c} | \\ | \\ | \\ | \\ | \\ | \\ | \\ | \\ | \\ (L) \\ (L,T) \\ (L) \\ (L) \\ (N) \\ | \\ | \\ | \\ (N) \end{array}$$

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

$$\begin{array}{c} (L) \\ (L) \\ (L,T) \\ (L,T) \\ (L) \end{array}$$

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

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

TERRITORY:

The entire territory served.

(L)

(Continued)

ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 4

RATES:

All rates charged under this schedule will be in accordance with the eligible customer-generator's PG&E otherwise-applicable metered rate schedule (OAS). An eligible customer-generator served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges. The "Average Rate Limiter" for general service OAS's and all other demand charges will be based on the demand in kilowatts as measured only on the energy being consumed by the customer from PG&E. The power factor, when it applies on the OAS, will be based on the energy consumed by the customer-generator from PG&E and the average power factor over the past 12 billing months of operation prior to starting on NEM. Customer-generators without 12 billing months of power factor history, will have their power factor estimated based on the nature of the connected facilities and their hours of operation. Power factor will be subsequently applied to the customer-generator's bill until the customer-generator demonstrates to PG&E's satisfaction that adequate correction had been provided. PG&E will continue to monitor and review the power factor and if warranted, change the power factor correction on the customer-generator's bills. Charges for energy (kWh) supplied by PG&E, ESP or Community Choice Aggregator (CCA), as applicable, will be based on the net metered usage in accordance with Billing (Special Condition 2, below).

For PG&E customer-generators, the energy charges will be in accordance with the customer-generator's OAS. For ESP or CCA customer-generators, the ESP or CCA is responsible for providing the billing information regarding the applicable generation-related bill charges or credits to PG&E on a timely basis.

Customer-generators eligible for service under this schedule are exempt from the requirements of Schedule S—Standby Service except Multiple Tariff Facilities interconnected under the terms of Special Condition 5, may be subject to the requirements of Schedule S.

The charges and credits for Multiple Tariff Facilities taking service on this rate schedule under the provisions of Special Condition 5, will be calculated using the applicable OAS identified by the customer-generator in its application for interconnection and its interconnection agreement with PG&E or as subsequently changed by the customer-generator in accordance with PG&E's electric Rule 12.

Customer-generators with Multiple Tariff Facilities with existing NEM, NEMBIO and/or NEMFC eligible generators interconnecting additional generators, will receive a bill true-up prior to taking service under Special Condition 5. This ensures that all NEM accounts have the same Relevant Period, as defined in Special Condition 2, going forward.

$$\begin{array}{c} \vdots \\ \text{(L)} \\ \vdots \\ \text{(L,T)} \\ \text{(L)} \\ \vdots \\ \text{(L)} \\ \text{(L,T)} \\ \text{(L)} \\ \vdots \\ \text{(L)} \\ \text{(L,T)} \\ \text{(L)} \end{array}$$

(Continued)

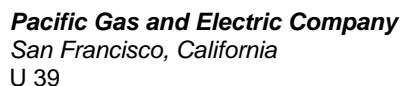


ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 5

SUB-SCHEDULES:	Eligible customer-generators will be placed on the appropriate sub-schedule as described below:	(L)
	1. NEMS – For Small Customer (as defined in Rule 1) customer-generators taking service with solar and/or wind generating facilities, the combined total of which is not more than 30 kW.	
		(L)
	2. NEMEXP – For Small Customer (as defined in Rule 1) customer-generators with (i) solar generating facilities, the combined total of which is greater than 30 kW, or (ii) any other Renewable Electrical Generation Facility.	(L,T)
		(L,T)
		(L)
	3. NEMEXPM – For all other commercial, industrial customer-generators, and agricultural customers billed monthly under Special Condition 2 with (i) solar generating facilities, the combined total of which is greater than 30 kW, (ii) or any other Renewable Electrical Generation Facility.	(L)
		(L,T)
		(L,T)
		(L)
		(D)
		(L)
	4. NEMMT – For customer-generators taking service as a Multiple Tariff Facility under Special Condition 5 of this tariff.	(L,T)
		(L,T)

(Continued)



<i>Cancelling</i>	Revised Revised
-------------------	--------------------

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

30776-E
27239-E

ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 6

SPECIAL
CONDITIONS:

- | | | |
|----|---|--------------|
| 1. | METERING: Multiple Tariff Facilities will be metered under one of the options described in Special Condition 5. All other net energy metering shall be accomplished using a single meter capable of registering the flow of electricity in two directions. If the eligible customer-generator's existing electrical meter is not capable of measuring the flow of electricity in two directions, the eligible customer-generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to measure electricity flow in two directions. An additional meter or meters, installed in a dual meter socket ("dual metering"), to monitor the flow of electricity in each direction may be installed with the consent of the eligible customer-generator, at the expense of PG&E, and the dual metering shall be used only to provide the information necessary to accurately bill or credit the customer according to the utility's OAS or to collect Renewable Electrical Generation Facility electric generating system performance information for research purposes. PG&E shall determine whether dual metering is required under this provision. If dual metering is installed, the net energy metering calculation (see below) shall yield a result identical to that of a single meter capable of measuring the flow of electricity in two directions. | (D)
(D,T) |
| | PG&E shall not require dual metering except where necessary for billing accuracy. If none of the normal metering options available at PG&E's disposal which are necessary to render accurate billing are acceptable to the customer-generator, PG&E shall have the right to refuse interconnection. | (T)
(T) |
| | Customer-generators eligible for Special Condition 4 shall not be responsible for replacing, nor be obligated to replace, their existing meter unless the customer-generator's existing electrical meter is not capable of measuring the flow of electricity in two directions. | (L) |

(Continued)

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

<i>Date Filed</i>	<u>December 13, 2011</u>
<i>Effective</i>	<u>January 1, 2012</u>
<i>Resolution No.</i>	



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 7

SPECIAL
 CONDITIONS:
 (Cont'd.)

2. BILLING: Facilities qualifying under multiple tariffs, see Special Condition 5. (T) (L)
- For customer-generators taking service on OAS's, any net monthly consumption or production shall be valued as follows: (T)
- a. For an OAS with Baseline Rates
- Any net consumption or production shall be valued monthly as follows:
- If the eligible customer-generator is a net consumer, the eligible customer-generator will be billed in accordance with the eligible customer-generator's OAS.
- If the eligible customer-generator is a net generator, the net kWh generated shall be valued at the rate for the kWh up to the baseline quantity, with any excess kWh generated, valued at the rate for the appropriate tier level in which the equivalent kWh of usage would fall.
- If the eligible customer-generator is being served under DA or CCA Service, ESP or CCA charges will be specified by their ESP or CCA in accordance with the eligible customer-generator's OAS and PG&E's Direct Access or Community Choice Aggregation tariffs. Applicable PG&E charges or credits will be valued as described in this Section 2.
- For a DA or CCA Service customer-generator, Generation Rate Component credits, if any, do not reduce the charges owed to PG&E for energy supplied to the eligible customer-generator.
- b. For an OAS with Time of Use (TOU):
- If the eligible customer-generator is a net consumer during any discrete TOU period, the net kWh consumed shall be billed in accordance with that same TOU period in the eligible customer-generator's OAS.
- If the eligible customer-generator is a net generator during any discrete TOU period, the net kWh produced shall be valued at the same price per kWh at the same TOU period in the eligible customer generator's OAS.
- In the event that at the end of the monthly billing cycle, an eligible customer-generator's net usage for all TOU periods totals zero (i.e. net generation in one or more periods exactly offsets the net usage in all other periods), then the value of usage and/or generation will be calculated using Tier 1 rates (as set forth in the OAS).
- If the eligible customer-generator is being served under DA or CCA Service, ESP or CCA charges will be specified by their ESP or CCA in accordance with the eligible customer-generator's OAS and PG&E's Direct Access or Community Choice Aggregation tariffs. Applicable PG&E charges or credits will be valued as described in this Section 2.
- For an DA or CCA Service customer-generator, Generation Rate Component credits, if any, do not reduce the charges owed to PG&E for energy supplied to the eligible customer-generator. (L)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 8

SPECIAL
CONDITIONS:
(Cont'd.)

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

(L)

c. For an OAS with Minimum Charges:

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

d. Payment Options:

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

e. Relevant Period:

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

(L)

(Continued)



ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 9

SPECIAL
 CONDITIONS:
 (Cont'd.)

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

f. Energy True Up:

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

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

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

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

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

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

(L)

(T)
 (T)

(L)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 10

SPECIAL
CONDITIONS:
(Cont'd.)

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

(L)

g. Billing Information:

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

h. Energy Service Providers (ESP) Charges:

If PG&E provides direct access (DA) metering for the ESP, UDC consolidated billing (that is, PG&E Consolidated Billing as described on PG&E's Rule 22), or ESP dual or consolidated billing support services for DA customer-generators served under PG&E's rates or their ESP's rates, PG&E may recover the incremental costs related to net energy metering from the customer's ESP as follows:

Metering services: \$104 Metering Service Base charge, plus \$73/hour for on-site work, plus materials.

Billing: \$85/hour plus materials.

(L)

(Continued)

ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 11

SPECIAL
CONDITIONS:
(Cont'd.)

3. **INTERCONNECTION:** Prior to receiving approval for Parallel Operation, the customer-generator must submit a completed PG&E application form and interconnection agreement as follows:

$$\begin{array}{c} (L) \\ | \\ (L) \end{array}$$

Rate Option

Application

Interconnection Agreement

(L)

NEMS

For Solar and/or Wind Electric Generating Facilities of 30
Kilowatts or less

$$\begin{array}{c} (L, T) \\ (L, T) \\ (L) \end{array}$$

*Net Energy Metering Application and Interconnection Agreement
for Customers with Solar and/or Wind Electric Generating
Facilities of 30 Kilowatts or less*

(Form 79-1101)

For a Renewable Electrical Generation Facility other than Solar and/or Wind Electric Generating Facilities of 30 Kilowatts or less, see NEMEXP.

$$\begin{array}{c} (L \\ (L, T) \\ (L, T) \\ (L, T) \end{array}$$

NEMEXP

*Generating Facility
Interconnection Application,
(Form 79-974)*

For Solar or Wind Electric
Generating Facilities of 1,000
Kilowatts or Less, other than
Facilities of 30 Kilowatts or
Less:

$$\begin{array}{c} (L,T) \\ | \\ | \\ | \\ | \\ (L,T) \end{array}$$

*Expanded Net Energy
Metering (NEM) Supplemental
Application Form
(Form 79-998)*

**Interconnection Agreement for
Net Energy Metering of Solar
or Wind Electric Generating
Facilities of 1,000 Kilowatts or
Less, other than Facilities of
30 Kilowatts or Less
(Form 79-978)**

$$\begin{array}{c} (L, T) \\ (L) \\ | \\ | \\ | \\ | \\ | \\ | \end{array}$$

For Renewable Electrical
Generating Facilities other
than Solar or Wind Electric
Generating Facilities:

$$\begin{pmatrix} (L) \\ (L, T) \end{pmatrix}$$

*Interconnection Agreement for
Net Energy Metering For A
Renewable Electrical
Generation Facility Of 1,000
Kilowatts Or Less
(79-1137*

()

NEMEXPM

(same as for NEMEXP)

(same as for NEMEXP)

$$(L, T)$$

NEMMT (Multiple Tariff Facilities – See Special Condition 5)

(same as for NEMEXP)

*Generating Facility
Interconnection Agreement
(Multiple Tariff)
(Form 79-1069)*

(L,D)

NEM inspection report, to accompany a new interconnection agreement as required under Special Condition 7 of this tariff

NEM / NEMVMASH Inspection
Report -
(Form 79-1125)

$$\begin{array}{c} (L) \\ (L) \\ (L, T) \\ (L) \\ (L) \\ | \\ | \\ | \\ (L, T) \end{array}$$

(Continued)

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

<i>Date Filed</i>	<u>December 13, 2011</u>
<i>Effective</i>	<u>January 1, 2012</u>
<i>Resolution No.</i>	

11H13



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 12

SPECIAL
CONDITIONS:
(Cont'd.)

3. INTERCONNECTION: (Cont'd.) (L)
- The eligible customer-generator must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the California Public Utilities Commission regarding safety and reliability. |
4. EXEMPTIONS FROM CERTAIN CHARGES: Per Section 2827.7 of the California Public Utilities Code, eligible customer-generators who have all local and state permits required to commence construction of their generating facilities on or before December 31, 2002, and have completed construction on or before September 30, 2003, shall not be required to pay non-bypassable charges on Departing Load including Public Purpose Program charges and shall be entitled to the net energy metering terms in effect on the date the local and state permits were acquired, for the life of the generating facility, regardless of any change in customer or ownership of the generating facility. |
- (L)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 13

SPECIAL
CONDITIONS:
(Cont'd.)

5. MULTIPLE TARIFF FACILITIES:

(T)

Multiple Tariff Facilities have the following additional provisions:

- a. When Net Generation Output Metering (NGOM) is required, such NGOM must conform to the requirements set forth in Electric Rule 21, Section F.
- b. A NEM-eligible Constituent Generator Group is defined as a constituent generator group that is eligible for service under the provisions of either schedule NEM, NEMBIO or NEMFC or their sub-schedules.
- c. A non-NEM-eligible Constituent Generator Group is defined as a constituent generator group that does not take service under the provisions of schedules NEM, NEMBIO or NEMFC, but interconnects under the provisions of Electric Rule 21.
- d. All metering for Multiple Tariff Facilities called for in this special condition must meet the requirements needed to bill under the customer-generator's OAS. All metering, equipment and Non Export relays necessary to implement the provisions in this section will be provided at the Customer-Generator's expense.
- e. Any generators eligible for tariff NEMBIOA (accounts with the loads from eligible accounts aggregated on the main NEMBIO account pursuant to Special Condition 4 of the NEMBIO tariff) will be treated as a separate Constituent Generator Group.

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 14

SPECIAL
CONDITIONS:
(Cont'd.)

5. MULTIPLE TARIFF FACILITIES (Cont'd):

(T)

f. Where multiple NEM-eligible Constituent Generator Groups are present, and energy (kWh) is exported to the grid at the PCC, the billing credit will be based upon the proportional contribution of the energy production (kWh) of each NEM-eligible Constituent Generator Group over the billing period as follows:

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

(T)

(T)

(T)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 15

SPECIAL
CONDITIONS:
(Cont'd.)

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

(Continued)



ELECTRIC SCHEDULE NEM NET ENERGY METERING SERVICE

Sheet 16

SPECIAL
 CONDITIONS:
 (Cont'd.)

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

(Continued)



ELECTRIC SCHEDULE NEM **NET ENERGY METERING SERVICE**

Sheet 17

SPECIAL
CONDITIONS:
(Cont'd.)

6. Net Surplus Electricity Compensation (NSC): (T)

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

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

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

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

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 18

SPECIAL
CONDITIONS:
(Cont'd.)

6. Net Surplus Electricity Compensation (NSC) (Cont'd): (T)

(b) **The NSC Rate** – The NSC Rate is defined as the simple rolling average of PG&E's default load aggregation point (DLAP) price from 7 a.m. to 5 p.m., for a 12-month period. PG&E shall use the NSC Rate as the value of the electricity portion of its net surplus compensation rate.

PG&E will calculate the NSC Rate each month. It will be effective on the first day of that month and PG&E will use it in the NSC Calculation for any Net Surplus Generators with a Relevant Period completed in that month (True-Up Month).

The **DLAP Cutoff Date** will be defined as the twentieth (20th) day of the month prior to the True-Up Month.

PG&E will wait five (5) days after the DLAP Cutoff Date for the CAISO to have time to finalize the day-ahead PG&E DLAP prices. The NSC Rate will then be calculated as the simple average of the prices for all hours between 7 a.m. and 5 p.m. over a one (1) year period ending on the DLAP Cutoff Date.

(c) Pursuant to D. 11-06-016, PG&E will modify this tariff to include a Renewable **Attribute Adder (RAA)** once the California Energy Commission (CEC) determines the implementation methodology. (T)

(d) **Calculation of the NSC** – NSC is calculated by multiplying any Net Surplus Electricity (kWh) by the NSC Rate in (b) above.

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 19

SPECIAL
CONDITIONS:
(Cont'd.)

6. Net Surplus Electricity Compensation (NSC) (Cont'd): (T)

(e) Options for receiving NSC – A NEM customer with NSC will automatically have their NSC applied to any amounts owed to PG&E and then may choose to:

(1) take no action and roll any remaining NSC amounts forward to offset subsequent PG&E charges; or

(2) request that PG&E issue a check if the remaining NSC amount is greater than one dollar (\$1). A customer can select this option by calling PG&E. If the customer is closing all their accounts with PG&E, PG&E will automatically send a check; or

(3) elect not to receive any NSC by completing and submitting form 79-1130 (*Customer Request Form not to Receive Net Surplus Compensation*) to PG&E to confirm that they do not want to participate. In this case PG&E will zero out any NSC the NEM customer may be otherwise eligible to receive.

(f) QF Status – Customers receiving net surplus compensation must first demonstrate to PG&E that they are Qualifying Facilities in order to receive NSC. Since all NEM customer-generators currently meet the requirements for a qualifying facility exempt from certification filing at the Federal Energy Regulatory Commission (FERC), no further documentation is required at this time.

(g) Generator Size – Nothing in this Special Condition alters the existing NEM system sizing requirement. Specifically, in order to be eligible for NSC, a system must be intended primarily to offset part or all of the customer's own electrical requirements. Systems that are sized larger than the customer's electrical requirements are not eligible for NEM and therefore, are not eligible for NSC either. (T)

(Continued)



ELECTRIC SCHEDULE NEM
NET ENERGY METERING SERVICE

Sheet 20

SPECIAL
CONDITIONS:
(Cont'd.)

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

(T)



ELECTRIC SCHEDULE NEMBIO

NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATOR

Sheet 1

APPLICABILITY: This schedule is applicable to Bundled Service and Community Choice Aggregation Service (CCA Service) Customers who are served under a Time-of-Use (TOU) rate schedule, and who (1) interconnect and operate in parallel with PG&E's electrical system an Eligible Biogas Digester Electrical Generating Facility, as defined below, with a generating capacity no greater than 1,000 kW, located on or adjacent to the Biogas Customer-Generators' premises intended to offset part or all of the Biogas Customer-Generators' electrical requirements, and (2) are the recipient of local, state, or federal funds, or who self-finance projects designed to encourage the development of Biogas Digester Electrical Generating Facilities (Biogas Customer-Generator). Customers eligible for service under this Schedule are exempt from any new or additional charges not included in their Otherwise Applicable Schedule (OAS).

This schedule is closed to new customers and Public Utilities (PU) Code Section 2827.9 upon which this tariff is based is repealed pursuant to Senate Bill 489 (Chapter 593, 2011). All references in this tariff to PU Code 2827.9 are to it prior to its repeal.

(N)
 |
 (N)

This service is not applicable to a CCA Service Biogas Customer-Generator where the customer's Community Choice Aggregator (CCA) does not offer a biogas net energy metering tariff. In addition, if an eligible Biogas Customer-Generator participates in direct transactions with a CCA that does not provide distribution service for the direct transactions, the CCA, and not PG&E, is obligated to provide net energy metering to the customer.

An Eligible Biogas Digester Electrical Facility is defined as a generating facility that meets all applicable safety and performance standards in accordance with PG&E's Electric Rule 21 and pursuant to California Public Utilities Code Section 2827.9 (PU Code Section 2827.9) produces electricity by a manure methane production project or as a byproduct of the anaerobic digestion of bio-solids and animal waste.

Pursuant to PU Code Section 2827.9, this Schedule is available on a first-come, first-serve basis and will be closed to new customers once the combined statewide cumulative rated generating capacity used by the eligible biogas digester customer-generators in the service territories of the three largest electrical corporations in the state reaches 50,000 kW. No Biogas Customer-Generator shall be eligible for participation on NEMBIO that has not commenced operation by December 31, 2009. A biogas digester customer-generator shall be eligible for the tariff established pursuant to this section, only for the operating life of the Biogas Customer-Generator.

(Continued)



ELECTRIC SCHEDULE NEMBIO NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATOR

Sheet 9

SPECIAL
 CONDITIONS:
 (Cont'd.)

6. Multiple Tariff Facilities: (Cont'd.)
 - g. Multiple Tariff Facility Configurations and Metering. (Cont'd.)
 - 1) For two or more types of NEM-eligible Constituent Generator Groups (Cont'd)
 - b) If the customer-generator has no Constituent Generator Group(s) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM consisting of one or more Renewable Electrical Generation Facilities, the customer-generator may elect to take service for such under either Schedules NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).

(T)
(T,D)
(D,T)
 - 2) For both, NEM-eligible and non-NEM-eligible Constituent Generator Groups, the Customer-Generator must select one of the following options:
 - a) **The Non Export Relay Option:** A customer-generator must install a non-export relay on their non-NEM Constituent Generator Groups and install metering as follows: 1) If there is only one type of Constituent Generator Group then metering at the PCC is all that is required and the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then Metering at the PCC and NGOM metering of each NEM-eligible Constituent Generator Group is required. The requirements of Special Condition 6(f) and 6(g) apply.
 - b) **The Load Metering Option:** The customer-generator must install NGOM on each NEM-eligible Constituent Generator Group, install energy consumption metering at the load, and install metering at the PCC as follows: 1) If there is one type of NEM-eligible Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) apply.
 - c) **The Interval Meter Option:** The customer-generator must install interval NGOM on each NEM-eligible Constituent Generator Group and install interval metering at the PCC as follows: 1) If there is one type of Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) for interval metering apply. Energies (kWh) generated in an interval are aggregated over a billing period according to the OAS.
 - h. Multiple Tariff Facilities, served under CCA Service, may only participate to the extent their CCA offers net metering for the specific constituent generator group(s).

(N)
|
(N)



ELECTRIC SCHEDULE NEMFC NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER- GENERATORS

Sheet 1

APPLICABILITY: This schedule is applicable to Bundled Service and Community Choice Aggregation Service (CCA Service) Customers who are served under a Time-of-Use (TOU) rate schedule, and who (1) interconnect and operate in parallel with PG&E's electrical system an Eligible Fuel Cell Electrical Generating Facility, as defined below, with a generating capacity no greater than 1,000 kW, located on or adjacent to the customers' owned, leased or rented premises, (2) is interconnected and operates in parallel with PG&E grid while the grid is operational, and is sized to offset part or all of the Customers' electrical requirements, (3) are the recipient of local, state, or federal funds, or who self-finance projects designed to encourage the development of Eligible Fuel Cell Electrical Generating Facilities, and (4) use technology the California Public Utilities Commission (CPUC) has determined will achieve reductions in emissions of greenhouse gases pursuant to subdivision (b), and meets the emission requirements for eligibility for funding set forth in subdivision (c), of Section 379.6. . Such a customer will be referred to hereafter as a "Fuel Cell Customer-Generator." Customers eligible for service under this schedule are exempt from any new or additional charges not included in their Otherwise Applicable Schedule (OAS).

(D,T)
 (D,T)
 (T)
 (T)

This service is not applicable to a CCA Service Fuel-Cell Customer-Generator where the customer's Community Choice Aggregator (CCA) does not offer a fuel cell net energy metering tariff. In addition, if an eligible Fuel Cell Customer-Generator participates in direct transactions with a CCA that does not provide distribution service for the direct transactions, the CCA, and not PG&E, is obligated to provide net energy metering to the customer.

The Eligible Fuel Cell Generating Facility is defined as a generating facility that meets all applicable safety and performance standards in accordance with PG&E's Electric Rule 21 and pursuant to PU Code Section 2827.10 includes 1) an integrated powerplant systems containing a stack, tubular array, or other functionally similar configuration used to electrochemically convert fuel to electric energy; 2) an inverter and fuel processing system where necessary, and 3) other plant equipment, including heat recovery equipment necessary to support the plant's operation or its energy conversion.

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

(Continued)



ELECTRIC SCHEDULE NEMFC **NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS**

Sheet 7

SPECIAL
 CONDITIONS:
 (Cont'd.)

5. MULTIPLE TARIFF FACILITIES: (Cont'd)

- 5) Determine the bill credit for the customer-generator as provided under the customer-generator's OAS in combination with the net energy metered tariff billing treatment type for each NEM-eligible Constituent Generator Group.
- 6) If interval metering is chosen per, Special Condition 5(g)(2)(c) below, this allocation of bill credit will be done on the aggregated intervals over a billing period. If the OAS is a time-of-use (TOU) rate schedule, the allocation will be performed for each aggregated TOU period separately.

g. Multiple Tariff Facility Configurations and Metering.

- 1) For two or more types of NEM-eligible Constituent Generator Groups, the customer-generator must select one of the following options:
 - a) Install NGOM on each Constituent Generator Group. In addition, metering is required at the PCC capable of separately registering the flow of energy (kWh) in two directions. Billing credit will be calculated as provided for in Special Condition 5(f). Billing credit will be applied consistent with the appropriate net metering tariff as follows:
 - i. First, apply NEMBIO credits (if any) to Generation Rate Component charges on any aggregated accounts, and then to Generation Rate Charges on account served by the generating facility (Host Account).
 - ii. Second, apply NEMFC credits (if any) to Generation Rate Component charges on the account served by the generating facility.
 - iii. Third, apply NEM credits (if any) as appropriate to the remainder of the energy charges on the account served by the generating facility.
 - b) If the customer-generator has no Constituent Generator Group(s) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM consisting of one or more Renewable Electrical Generation Facilities, the customer-generator may elect to take service for such under either NEM Sub-schedule NEMW or Schedule NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).

(D,T)
 (T)

(Continued)



Pacific Gas and Electric Company
San Francisco, California
U 39

	Revised	Cal. P.U.C. Sheet No.	30795-E
Cancelling	Revised	Cal. P.U.C. Sheet No.	27259-E

ELECTRIC SAMPLE FORM NO. 79-974
GENERATING FACILITY INTERCONNECTION APPLICATION

**Please Refer to Attached
Sample Form**

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed	December 13, 2011
Effective	January 1, 2012
Resolution No.	

Part 1 – Introduction and Overview

- A. Applicability:** This Generating Facility Interconnection Application (Application) is used to request the interconnection of a Generating Facility to Pacific Gas and Electric Company's (PG&E) Distribution System (over which the California Public Utilities Commission (CPUC) has jurisdiction). Refer to PG&E's Rule 21 to determine the specific requirements for interconnecting a Generating Facility. Capitalized terms used in this Application, and not otherwise defined herein, shall have the same meanings as defined in PG&E's Rule 21 and Rule 1.

Except as noted in the next paragraph, this Application may be used for any Generating Facility to be operated by, or for, a Customer and/or Producer to supplement or serve part or all of its electric energy requirements that would otherwise be provided by PG&E, including "distributed generation", "cogeneration," emergency, backup, and standby generation, and Net Energy Metered Generating Facilities. A simpler, shorter form is also available from PG&E for Net Energy Metering Customers with Solar and/or Wind Electric Generating Facilities less than 30kW (Form 79-1101). This form is available upon request by telephoning 415-972-5676 or on PG&E's website at <http://www.pge.com/gen>. While Customers operating Generating Facilities isolated from PG&E's Distribution System are not obligated to enter into an Interconnection Agreement with PG&E, parts of this Application will still need to be completed to satisfy PG&E's notice requirements for operating an isolated Generating Facility as specified in the California Health and Safety Code Section 119085 (b).

This Application may not be used to apply for interconnecting Generating Facilities used to participate in transactions where all, or a portion of, the electrical output of the Generating Facility is scheduled with the California Independent System Operator. Such transactions are subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) and require a different application available from PG&E.

This Application is not applicable for incentives and/or rebates offered by the Energy Resources Conservation and Development Commission ("CEC") or the CPUC. Please contact those agencies directly or on their respective websites (www.energy.state.ca.us and www.cpuc.ca.gov).

Guidelines and Steps for Interconnection: This Application must be completed and sent to PG&E along with the additional information indicated in Part 1, Section C below to initiate PG&E's interconnection review of the proposed Generating Facility. An Initial Review fee of \$800 (payable by check or money order to PG&E must accompany the Applications except those Applications for isolated Generating Facilities and Net Energy Metering Generating Facilities. Supplemental Review and Interconnection Study fees may be required for large capacity and/or more complex Generating Facility Interconnections; see PG&E's Rule 21, Section C.1.b. & c. for more information regarding interconnection of a generator to PG&E's Distribution System. Please refer to the California Energy Commission's website: http://www.energy.ca.gov/distgen/interconnection/guide_book.html.

This document is only an Application. Upon acceptance of the Generating Facilities, PG&E will prepare an Interconnection Agreement for execution by the "Producer," the party that will be responsible for the Generating Facility. PG&E may also require an inspection and testing of the Generating Facility and installation of any related Interconnection Facilities prior to giving the Producer written authorization to operate in parallel. **Unauthorized Parallel Operation may be dangerous and may result in injury to persons and/or may cause damage to equipment and/or property for which a Producer/Customer may be liable!**

Please note, other approvals may need to be acquired, and/or other agreements may need to be formed with PG&E or regulatory agencies, such as the Air Quality Management Districts and local governmental building and planning commissions prior to operating a Generating Facility. PG&E's authorization to operate in parallel does not satisfy the need for an Applicant to acquire such other approvals.

- B. Required Documents:** Four (4) copies of this Application and each of the following documents **are required to be submitted** before this application will be processed. Drawings must conform to accepted engineering standards and must be legible. 11"x17" drawings are preferred.
1. A **Single-line drawing** showing the electrical relationship and descriptions of the significant electrical components such as the primary switchgear, secondary switchboard, protective relays, transformers, generators, circuit breakers, with operating voltages, capacities, and protective functions of the Generating Facility, the Customer's loads, and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the single line drawing.
 2. **Site plans and diagrams** showing the physical relationship of the significant electrical components of the Generating Facility such as generators, transformers, primary switchgear/secondary switchboard, and control panels, the Customer's loads and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the site plans.
 3. If **transformers** are used to interconnect the Generating Facility with PG&E's Distribution System, please provide transformer nameplate information (voltages, capacity, winding arrangements, connections, impedance, et cetera).
 4. If a **transfer switch** or scheme is used to interconnect the Generating Facility with PG&E Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate.
 5. If **protective relays** are used to control the interconnection, provide protection diagrams or elementary drawings showing relay wiring and connections, proposed relay settings, and a description of how the protection scheme is intended to function.
 6. An Initial Review fee check or money order in the amount of \$800, if applicable, made out to PG&E referencing the electric service agreement ID number and "Initial Interconnection Review Fee."

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 1 Cont'd – Introduction and Overview

- C. Mailing Instructions, Assistance:** When this application has been completed it may be printed and mailed, along with the required attachments to:

**Pacific Gas and Electric Company
Attn: Manager, Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California, 94177**

Alternatively, you may contact PG&E at (415) 972-5676 or e-mail at gen@pge.com

Part 2 – Identifying the Generating Facility's Location and Responsible Parties

Project Name:	Date Received:	Generating Facility ID:	Application Expiration Date (Refer to Part 2, Section E)

(For PG&E Use Only)

A. Customer Electric Account Information (What electric service will the Generating Facility be interconnected for parallel operation with PG&E? For aggregated electric accounts (under NEMBIO, dairy operations only) provide the primary and all associated accounts/meter information)

--	--	--

Name shown on PG&E service account

Electric Service
agreement ID number

Electric Badge (Meter)
Number

NOTE: Customer Electric account must match the customer's utility bill account information.

--	--	--	--

Meter Location Street Address

City

State

Zip

Please check all that apply:

- ☐ A New Generating Facility interconnection (at an existing service)
- ☐ For Physical Changes to an interconnected Generating Facility with previous approval by PG&E (adding PV panels, changing inverters/turbines or changing load and/or operations).
- ☐ A New interconnection in conjunction with a new service
 - An **Application for Service** must be completed. Additional fees may be required if a service or line extension is required (in accordance with PG&E Electric Rules 15 and 16). Please contact PG&E at 1-800-PGE-5000.
- ☐ An Interconnection under Direct Access (DA)
 - Customers applying for interconnection who are served under Direct Access by an Energy Service Provider (ESP) must contact their ESP directly for information regarding the options available under their Direct Access contract.
- ☐ An Interconnection under Community Choice Aggregation Service (CCA Service)
 - Customers applying for interconnection who are served under Community Choice Aggregation Service (CCA Service) by an Community Choice Aggregator (CCA) must contact their CCA directly for information regarding the options available under their CCA Service Program.
- ☐ An interconnected non-exporting Generating Facility (load always exceeds generation)

GENERATING FACILITY INTERCONNECTION APPLICATION

Customer Electric Account Contact Information (Who is the customer contact for progress updates and/or additional information?)

Contact Person		Company Name	
Phone	Fax	E-mail	
Mailing Address	City	State	Zip

B. Project Contact Information (Who is the project manager for this Generating Facility?)

Project Contact Person (Optional)		Company Name	
Phone	Fax	E-mail	
Mailing Address	City	State	Zip

B.1. Will the Generating Facility be owned by a (third) party other than the name appearing on the PG&E service account in A. above (please check)? ____ Yes ____ No

Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

C.1. Customer - Generating Facility Interconnection Agreement ("GFIA") or Customer Generation Agreement ("CGA") (for 3rd Party Generator on Premises) Information (Please identify the party that will execute the applicable agreement.) This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on GFIA/CGA	Legal Title of Company to be entered on GFIA/CGA
Person Executing the GFIA/CGA	Title of Person Executing the GFIA/CGA

Mailing Address	Phone	E-Mail

C.2. 3rd Party Owner – GFIA Information (Please identify the Party, if known, that will execute the GFIA). This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on GFIA/CGA	Legal Title of Company to be entered on GFIA/CGA
Person Executing the GFIA	Title of Person Executing GFIA
Mailing Address	Phone
	E-Mail

D. Operating Date (What date is this Generating Facility expected to begin operation?)

--

E. Expiration Date* (The date the status of this Application is changed to "withdrawn" by PG&E?)

--

- The information submitted in this Application will remain active and valid for a period of 12 months from the date the Application was accepted by PG&E as a "completed" Application. If the project has not been interconnected, or that reasonable proof the project is going forward has not been submitted to PG&E by that time, the Application will be considered "withdrawn" and removed from the queue. To the extent that the Initial Review, Supplemental Review, or Detailed Interconnection Study fees have been paid to and the corresponding reviews/study completed by PG&E, Applicant will only be entitled to a return of one-half of the Initial Review fee of \$400. All other fees will be forfeited.

Part 2 Cont'd – Electing Interconnection Cost Responsibilities
F. Estimated Versus Actual Cost Responsibility

Under Rule 21 Applicants can elect estimated or actual costs for (1) detailed interconnection studies, and/or (2) Interconnection Facilities and distribution system modifications. This election must be made at the time of application submission. Under both cost options, an estimate is prepared. If the Applicant elects the actual cost option, there will be a true-up after the completion of the work. If actual costs exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts. Conversely, if actual costs are less than the original estimated amounts, PG&E will refund the difference.

Applicants seeking interconnection under PG&E's Net Energy Metering tariffs are not responsible for Initial Review, Supplemental Review and Detailed Interconnection Study fees, nor for distribution system modifications' costs.

Selection of detailed interconnection study cost responsibility* (Non-NEM only):

_____ **Estimated Cost**

_____ **Actual Cost**

Selection of Interconnection Facilities and distribution system modifications' (if applicable) cost responsibility*:

_____ **Estimated Cost**

_____ **Actual Cost**

* **Note:** If no selections are made, estimated cost responsibility will apply.

Part 3 - Describing the Generating Facility and Host Customer's Electrical Facilities

A.
(MP&I)

Indicate the operating mode of the Generating Facility

operating mode
options:

___1___2___3
(Choose one)

Instructions and Notes

Choose from the following operating mode options:

1. **Parallel Operation:** The Generating Facility will interconnect and operate "in parallel" with PG&E's Distribution System for more than one (1) second.
2. **Momentary Parallel Operation (MP):** The Generating Facility will interconnect and operate on a "momentary parallel" basis with PG&E's Distribution System for a duration of one (1) second or less through transfer switches or operating schemes specifically designed and engineered for such operation.
3. **Isolated Operation (I):** The Generating Facility will be "isolated" and prevented from becoming interconnected with PG&E's Distribution System through a transfer switch or operating scheme specifically designed and engineered for such operation.

Part 3 – Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

If the answer is operating mode option 1, "parallel operation," please supply all of the information requested for the Generating Facility. Be sure to supply adequate information including diagrams and written descriptions regarding the protective relays that will be used to detect faults or abnormal operating conditions on PG&E's Distribution System.

If the answer is operating mode option 2, "momentary parallel operation," only questions A, E and F of this Part 3 and questions A, B, E, F, I, L, M, N, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the switching device or scheme that will be used to limit the parallel operation period to one second or less. Please also describe the back up or protective device and controls that will trip the Generating Facility should the transfer switch or scheme not complete the transfer in one second or less.

If the answer is operating mode option 3, "Isolated Operation," only questions A, E, and F of this Part 3 and questions A, B, F, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the isolating switching device or scheme that will be used to prevent the Generating Facility from operating in parallel with PG&E's Distribution System.

B.

*Parallel
Operation
Applications
Only*

If the Answer to Section A above was operating mode option 1, please indicate the type of agreement that is being requested with this Application. If operating mode option 2 or 3 was selected, please skip to questions E and F.

If agreement options 2, 3, 5, 7, 8, 9, or 10 to this Section B are chosen, please provide an estimate of the maximum kW the Generating Facility is expected to export to PG&E's Distribution System. If PG&E determines that the amount of power to be exported is significant in relation to the capacity available on its Distribution System, it may request additional information, including time of delivery or seasonal kW/kWh estimates.

agreement options:

 1 2 3 4 5
 6 7 8 9 10
(Choose all that apply)

Maximum kW

Instructions and Notes

Sample agreements are available from PG&E for review. Choose from the following ten (10) agreement options:

Customer Owned Generating Facility (non-NEM)

1. **A Generating Facility Interconnection Agreement** that provides for parallel operation of the Generating Facility, but does not provide for exporting power to PG&E's Distribution System. This non-export agreement, however does allow the occasional and uncompensated export of energy to PG&E's Distribution System for less than 2 seconds in duration.
2. **A "Qualifying Facility" Power Purchase Agreement** that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
3. **A Generating Facility Interconnection Export Addendum** that provides for parallel operation of the Generating Facility and the occasional, continuous, non-compensated, export of inverter-based technology solar and wind energy, 1 MW or less to PG&E's Distribution System. Continuous export is export greater than 60 seconds in duration. This addendum must be executed in concert with Agreement 1.

Third Party Owned Generating Facility (non-NEM)

4. **A Generating Facility Interconnection Agreement** that provides for parallel operation of the 3rd Party owned Generating Facility, but does not provide for exporting energy to PG&E's Distribution System.
5. **A "Qualifying Facility" Power Purchase Agreement** that provides for parallel operation of the 3rd Party owned Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
6. **A Customer Generation Agreement** that defines the relationship between the Customer whose name appears on PG&E's electric service account. This agreement must be executed in addition agreements 4 and 5.

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities
Net Energy Metering Generating Facility

If you wish to have your Generating Facility participate on one of PG&E's Net Energy Metering tariffs, following your bi-directional meter installation, your meter and disconnect switch must be installed in a safe PG&E accessible location and remain unobstructed by plants, structures, locked gates or pets. Meter and disconnect switch access must be maintained at all times for your safety and PG&E's electrical system safety. Additionally, unencumbered access is required for meter reading, system maintenance, and operations. Any animals owned by the customer, for example pet dogs, should be kept clear from these areas to avoid hindering PG&E service personnel from completing their work.

Are there any meter access issues? Please check all that apply to avoid interconnection delays.

- ☐ Dog, or other animals at Residence
- ☐ Locked Gate
- ☐ Shrubs or Bushes
- ☐ Other (please explain) _____

7. **A Net Energy Metering Agreement: Solar and Wind**, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs pursuant to Public Utility Code Section 2827 for solar pv and/ or wind Generating Facilities greater than 30 kw to 1MW or a Renewable Electrical Generation Facility (as defined in Schedule NEM) sized less than 1 MW, or any combination of these with a total size of no more than 1MW. This agreement also requires submittal of an expanded net energy metered supplemental application. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs.
8. **A Net Energy Metering Agreement: Fuel Cell**, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for fuel-cell Generating Facilities. This option is available only to eligible Generating Facilities as defined in PG&E's NEMFCs.
9. **Multiple Tariff Generating Facility Agreement**, that provides for the parallel operation of multiple Generating Facilities that are electrically connected behind the same Point of Common Coupling at least one of which is a Generator Facility eligible for service under NEM or other applicable Net Energy Metering tariffs, and may include a Generating Facility not eligible to receive service under a Net Energy Metering tariff.
10. **Other, please describe:** _____

C. <i>Parallel Operation Applications Only</i>	<p>If the answer to Section B above was agreement option 1 or 4, please indicate the protection option that will be used to prevent energy from being exported to PG&E's Distribution System.</p> <p>If protection option 3 to this Section C is selected, please provide the continuous current rating of the host Customer facility's service entrance equipment (service panel rating):</p> <p>If Protection Option 4 to this Section C is selected, please provide the minimum load of the host Customer facility:</p>	<p>Protection Option: ___1___2___3___4 (Choose one)</p> <p>_____ Amps</p> <p>_____ kW</p>
--	--	---

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions and Notes

Refer to PG&E's Rule 21, Section I.2., for additional information as to how to answer this question. If the Generating Facility will never export power to PG&E's Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and PG&E's Distribution System. Choose from the following four options:

1. A reverse-power protection device will be installed to measure any export of power and trip the Generating Facility or open an intertie breaker to isolate the Generating Facility if limits are exceeded.
2. An under-power protection device will be installed to measure the inflow of power and trip or reduce the output of the Generating Facility if limits are not maintained.
3. The Generating Facility Interconnection Facility equipment has been certified as Non-Islanding and the incidental export of power will be limited by the design of the interconnection. If this option is to be used, the continuous ampere rating of the service entrance equipment (service panel rating) that is used by the host Customer facility must be stated in the space provided above.
4. The Gross Nameplate Rating of the Generating Facility will not exceed 50% of the host Customer facility's minimum electrical load. If this option is to be used, the minimum load of the host Customer facility must be stated in the space provided above.

Note: With the approval of PG&E, a Producer that wishes to retain the option to export power from a Generating Facility to PG&E's Distribution System may use a different protection scheme that provides for the detection of faults and other abnormal operating conditions.

D.

*Parallel
Operation
Applications
Only*

What is the maximum 3-phase fault current that will be contributed by the Generating Facility to a 3-phase fault at the Point of Common Coupling (PCC)? (If the Generating Facility is single phase in design, please provide the contribution for a line-to-line fault.)

Please indicate the short circuit interrupting rating of the host Customer facility's service panel:

_____ Amps

_____ Amps

Instructions and Notes

Refer to PG&E's Rule 21 Sections D.4.a. and I.3.g. for significance and additional information. To determine this value, any transformers and/or significant lengths of interconnecting conductor used between each of the Generators (if there are more than one) that make up the Generating Facility and the PCC must be taken into account. The details, impedance, and arrangement of such transformers and interconnecting conductors should be shown on the single-line diagram that is provided. Consult an electrical engineer or the equipment supplier if assistance is needed in answering this question.

It is expected that most Applicants will want to reserve the flexibility to operate any or all of their Generators in parallel. If the design of the proposed Generating Facility limits the amount of generation that may be interconnected at any time to PG&E's Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

E.
(MP&I)

Please indicate how this Generating Facility will be operated.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

(Please choose all options that may apply.)

Choose from the following six operation options:

1. **Combined Heat and Power or Cogeneration** – Where the operation of the Generating Facility will produce thermal energy for a process other than generating electricity.
2. **Peak Shaving/Demand Management** – Where the Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during PG&E's "peak pricing periods".
3. **Primary Power Source** – Where the Generating Facility will be used as the primary source of electric power and power supplied by PG&E to the host Customer's loads will be required for supplemental, standby, or backup power purposes only.
4. **Standby / Emergency / Backup** – Where the Generating Facility will normally be operated only when PG&E's electric service is not available.
5. **Net Energy Metering** – Where the Generating Facility qualifies and receives service under PG&E's Net Energy Metering tariffs. For applicants for service under Schedule NEM as described in Part 3 B (7.) and (9.), a supplemental application (Form Number 79-998) is also required.
6. **Multiple Tariff** - Generating Facilities that have one or more Net Energy Metering (NEM) generator(s) and optionally a non-Net Energy Metering (non-NEM) generator(s). Check one of the following four options on the next sheet.

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

For **Multiple Tariff** Generating Facilities, check one of the following:

- ☐ New facility installing non-NEM generator(s) and NEM generator(s) at the same time.
- ☐ Existing facility with non-NEM generator(s) and planning to add NEM generator(s). Please provide data for the table below.
- ☐ Existing facility with NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.
- ☐ Existing facility with NEM generator(s) and planning to add NEM generator(s) under a different NEM tariff. Please provide data for the table below.

Instructions (From Part 4)	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type	Generating Facility Totals
#	Please indicate the number of each "type" of Generator being installed: (see Instruction)					
A	Gen/Inverter Manufacturer					
B	Generator/Inverter Model					
C	Gen/Inverter software Version					
D	Is the Gen/Inverter certified	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
E	Generator design	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	
F	Gross Nameplate Rating					
I	Operating Voltage					
J	Power Factor rating					
K	PF Adjustment Range					
L	Wiring Configuration					

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions From Part 4	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type
M (MP)	3-Phase Winding Configuration (Choose One)	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye
N (MP)	Neutral Grounding System Used (Choose One)	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms
O	<i>For Synchronous Generators Only:</i> Synchronous Reactance: _____ (Xd %) Transient Reactance: _____ (X'd %) Subtransient Reactance: _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)
P	<i>For Induction Generators Only:</i> Locked Rotor Current: _____ (Amps) OR Stator Resistance: _____ (%) Stator Leakage Reactance: _____ (%) Rotor Resistance: _____ (%) Rotor Leakage Reactance: _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)
Q	Short Circuit Current Produced by Generator:	_____ (Amps)	_____ (Amps)	_____ (Amps)	_____ (Amps)
R	<i>For Generators that are Started as a "Motor" Only</i> 1. In-Rush Current: 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating:	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)
S (MP&I)	Prime Mover Type: (Circle One)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

F.
(MP&I)

Please indicate if Qualifying Facility Status will be obtained from the FERC for this Generating Facility.

☐ Yes

☐ No

Instructions and Notes

Parties operating Generating Facilities complying with all of the requirements for qualification as either a small power production facility or cogeneration facility pursuant to the regulations of the FERC (18 Code of Federal Regulations Part 292, Section 292.203 et seq.) implementing the Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A. Section 796, et seq.), or any successor requirements for "Qualifying Facilities," may seek certification from FERC to have the Generating Facility designated as a Qualifying Facility or "QF." In summary, QF's are Generating Facilities using renewable or alternative fuels as a primary energy source or facilities that utilize the thermal energy given off by the generation process for some other useful purpose. QF's enjoy certain rights and privileges not available to non-QF Generating Facilities.

QF status is not required to interconnect and operate in parallel with PG&E's Distribution System.

G.

Please indicate if Generating Facility will meet the annual Efficiency and Operating Standards of PUC Code 216.6 (Applicable to Cogeneration Only)

☐ Yes

☐ No

☐ N/A

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
#	Please indicate the number of each "type" of Generator being installed:	Please provide the following information for each Generator "type". Be sure all Generators classified as one "type" are identical in all respects. If only one type of Generator is to be used, only one column needs to be completed. Please be sure the information in the "Totals" column is correct and reflects the total number of Generator units to be installed.
A	Generator/Inverter Manufacturer	Enter the brand name of the Generator.
B	Generator/Inverter Model	Enter the model name or number assigned by the manufacturer of the Generator.
C	Generator/Inverter Software Version	If this Generator's control and or protective functions are dependent on a "software" program supplied by the manufacturer of the equipment, please provide the version or release number for the software that will be used.
D	Is the Generator Certified by a Nationally Recognized Testing Laboratory (NRTL) according to Rule 21?	Answer "Yes" only if the Generator manufacturer can or has provided certification data. See PG&E's Rule 21, Section J for additional information regarding Generator certification.

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
E	Generator Design	Please indicate the design of each Generator. Designate “Inverter” anytime an inverter is used as the interface between the Generator and the electric system regardless of the primary power production/storage device used.
F	Gross Nameplate Rating (kVA)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator’s “nameplate”. This value is not required where the manufacturer provides only a “kW” rating. However, where both kVA and kW values are available, please indicate both.
G	Gross Nameplate Rating (kW)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator’s “nameplate”. This value is not required where the manufacturer provides only a “kVA” rating. However, where both kVA and kW values are available, please indicate both.
H	Net Nameplate Rating (kW)	This capacity value is determined by subtracting the “auxiliary” or “station service” loads used to operate the Generator or Generating Facility. Applicants are not required to supply this value but, if it is not supplied, applicable standby charges may be based on the higher “gross” values.
I	Operating Voltage	This value should be the voltage rating designated by the manufacturer and used in this Generating Facility. Please indicate phase-to-phase voltages for 3-phase installations. See PG&E’s Rule 21, Section D.2.b. for additional information.
J	Power Factor Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See PG&E’s Rule 21, Section D.2.i. for additional information.
K	PF Adjustment Range	Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values. See PG&E’s Rule 21, Section D.2.i.
L	Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See PG&E’s Rule 21, Section D.3.
M	3-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator’s windings or inverter systems.
N	Neutral Grounding	Wye connected generating units are often grounded – either through a resistor or directly, depending upon the nature of the electrical system to which the Generator is connected. If the grounding method used at this facility is not listed, please attach additional descriptive information.

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
O	<i>For Synchronous Generators Only:</i>	If the Generator is of a “synchronous” design, please provide the synchronous reactance, transient reactance, and subtransient reactance values supplied by the manufacturer. This information is necessary to determine the short circuit contribution of the Generator and as data in load flow and short circuit computer models of PG&E’s Distribution System. If the Generator’s Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
P	<i>For Induction Generators Only:</i>	If the Generator is of an “induction” design, please provide the “locked rotor current” value supplied by the manufacturer. If this value is not available, the stator resistance, stator leakage reactance, rotor resistance, rotor leakage reactance values supplied by the manufacturer may be used to determine the locked rotor current. If the Generator’s Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
Q	Short Circuit Current Produced by Generator	Please indicate the current each Generator can supply to a three-phase fault across its output terminals. For single phase Generators, please supply the phase-to-phase fault current.
R	<i>For Generators that are Started as a “Motor” Only:</i> 1. In-Rush Current 2. Host Customer’s Service Entrance Panel (Main Panel) Continuous Current Rating	This information is needed only for Generators that are started by “motoring” the generator. See PG&E’s Rule 21, Section I.3.e. for significance and additional information. If this question was answered in Part 3, question C of this Application, it need not be answered here.
S	Prime Mover Type	Please indicate the type and fuel used as the “prime mover” or source of energy for the Generator. 1 = Internal Combustion Engine – Natural Gas 2 = Internal Combustion Engine – Diesel Fueled 3 = Internal Combustion Engine - Other Fuel 4 = Microturbine– Natural Gas 5 = Microturbine – Other Fuel 6 = Combustion Turbine Natural Gas 7 = Combustion Turbine - Other Fuel 8 = Steam Turbine 9 = Photovoltaic Panels 10 = Solar-thermal engine 11 = Fuel Cell– Natural Gas 12 = Fuel Cell– Other Fuel 13 = Hydroelectric Turbine 14 = Wind Turbine 15 = Other (please describe)



Pacific Gas and Electric Company
San Francisco, California
U 39

	Revised	Cal. P.U.C. Sheet No.	30796-E
Cancelling	Revised	Cal. P.U.C. Sheet No.	27260-E

ELECTRIC SAMPLE FORM NO. 79-978

Interconnection Agreement for Net Energy Metering of Solar or Wind Electric
Generating Facilities
of Other than Residential or Small Commercial Facilities of 30 Kilowatts or Less

**Please Refer to Attached
Sample Form**

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed	December 13, 2011
Effective	January 1, 2012
Resolution No.	



This "Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of 1,000 Kilowatts or Less, Other Than Facilities of 30 Kilowatts or Less" ("Agreement")¹ is entered into by and between _____

("Customer-Generator"), and Pacific Gas and Electric Company ("PG&E"), a California Corporation. Customer-Generator and PG&E are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party." In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

1. SCOPE AND PURPOSE

This Agreement provides for Customer-Generator to interconnect and operate a Generating Facility in parallel with PG&E's Distribution System to serve the electrical loads connected to the electric service agreement ID number that PG&E uses to interconnect Customer-Generator's Generating Facility. Customer-Generator's Generating Facility is intended primarily to offset part or all of the Customer-Generator's own electrical requirements. Consistent with, and in order to effectuate, the provisions of Sections 2827, 2827.7 and 2827.8 of the California Public Utilities Code and PG&E's electric rate Schedule NEM ("NEM"), Parties enter into this Agreement. This Agreement applies to the Customer-Generator's Generating Facilities identified below with the specified characteristics and generating capacity, and does not allow interconnection or operation of facilities different than those described.

2. SUMMARY AND DESCRIPTION OF CUSTOMER-GENERATOR'S GENERATING FACILITY AND DESIGNATION OF OTHERWISE-APPLICABLE RATE SCHEDULE

2.1 A description of the Generating Facility, including a summary of its significant components and a single-line diagram showing the general arrangement of how Customer-Generator's Generating Facility and loads are interconnected with PG&E's Distribution System, is attached to and made a part of this Agreement. (This description is supplied by Customer-Generator as Appendix A).

2.2 Generating Facility identification number: _____ (Assigned by PG&E)

2.3 Customer-Generator's electric service agreement ID number: _____
(Assigned by PG&E)

2.4 Name and address used by PG&E to locate the electric service agreement ID number used to interconnect the Generating Facility with PG&E's Distribution System:

Name: _____

Address: _____

City/Zip Code: _____

¹ Additional forms are available upon request by telephoning 415-972-5676 or on PG&E's website at <http://www.pge.com/gen>).

**INTERCONNECTION AGREEMENT FOR NET ENERGY METERING OF SOLAR OR WIND ELECTRIC
GENERATING FACILITIES OF 1,000 KILOWATTS OR LESS, OTHER THAN FACILITIES OF 30 KILOWATTS OR LESS**

2.5 Interconnected Equipment:

List of generating equipment interconnected with, or without, an inverter to PG&E. (For those generators interconnecting without an inverter, write in "N/A" in the right three columns. If an inverter is shared by more than one generator, write "shared" on the same line as that generator under the manufacturer column and do not enter the inverter rating. Attach list of additional equipment, if applicable.)

	Type of Generator (Solar / Wind / Hybrid)	Generator Rating (watts)	Manufacturer of Inverter used with Generator (if Applicable)	Inverter Model Number (if Applicable)	Inverter Rating (watts) ² (if Applicable)
1					
2					

2.6 Customer-Generator's otherwise-applicable rate schedule under the provisions of Schedule NEM will be _____.

2.7 The Generating Facility's expected date of Initial Operation is _____.
The expected date of Initial Operation shall be within two years of the date of this Agreement.

2.8 If the date of the permits allowing the Customer-Generator to commence construction of the Generating Facility is prior to January 1, 2003, please provide the date the permits were issued: _____.

² If installing an inverter, the inverter rating equals: (the CEC efficiency for each installed inverter) TIMES (the nameplate rating, in kW, of each inverter). The CEC efficiency is obtained on the CEC website at http://www.consumerenergycenter.org/erprebate/eligible_inverters.html as listed on the date the application is reviewed. Enter the total of all inverter ratings for multiple inverter installations in the Table above.

3. DOCUMENTS INCLUDED AND DEFINED TERMS

- 3.1 This Agreement includes the following exhibits that are specifically incorporated herein and made a part of this Agreement.

Appendix A Description of Generating Facility and Single-Line Diagram (Supplied by Customer-Generator).

Appendix B A Copy of PG&E's Agreement for Installation or Allocation of Special Facilities (Forms 79-255, 79-280, 79-702) or Agreements to Perform Any Tariff Related Work (62-4527), if applicable (Formed by the Parties).

In addition, PG&E Electric Tariff Rules and Rates, including but not limited to Electric Rules 2, 14, 15, 16, and 21, Schedule NEM, and Customer-Generator's otherwise-applicable rate schedule, available at PG&E's website at www.pge.com or by request, are specifically incorporated herein and made part of this Agreement.

- 3.2 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in PG&E's Electric Rule 21, Section H.

4. CUSTOMER BILLING AND PAYMENT

Customer-Generator initially selects Pacific Gas and Electric Company's electric rate schedule referenced in Section 2.6 of this Agreement as its otherwise-applicable rate schedule. Customer-Generator understands that they will be billed according to the otherwise-applicable rate schedule and Schedule NEM.

5. TERM AND TERMINATION

- 5.1 This Agreement shall become effective as of the last date entered in Section 18 below. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:

- (a) The Parties agree in writing to terminate the Agreement.
- (b) Unless otherwise agreed in writing by the Parties, at 12:01 A.M. on the day following the date the electric service agreement ID number through which Customer-Generator's Generating Facility is interconnected to PG&E is closed or terminated.
- (c) At 12:01 A.M. on the 61st day after Customer-Generator or PG&E provides written Notice pursuant to Section 11 below to the other Party of Customer-Generator's or PG&E's intent to terminate this Agreement.

- 5.2 Customer-Generator may elect to terminate this Agreement pursuant to the terms of Section 5.1(c) for any reason. PG&E may elect to terminate this Agreement pursuant to the terms of Section 5.1(c) for one or more of the following reasons:

- (a) A change in applicable rules, tariffs, or regulations, as approved or directed by the Commission, or a change in any local, state or federal law, statute or

regulation, either of which materially alters or otherwise affects PG&E's ability or obligation to perform PG&E's duties under this Agreement; or,

- (b) Customer-Generator fails to take all corrective actions specified in PG&E's Notice that Customer-Generator's Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice; or,
 - (c) Customer-Generator abandons the Generating Facility. PG&E shall deem the Generating Facility to be abandoned if PG&E determines, in its sole opinion, the Generating Facility is nonoperational and Customer-Generator does not provide a substantive response to PG&E Notice of its intent to terminate this Agreement as a result of Customer-Generator's apparent abandonment of the Generating Facility affirming Customer-Generator's intent and ability to continue to operate the Generating Facility; or,
 - (d) Customer-Generator's Generating Facility ceases to meet all applicable safety and performance standards set out in Section 6.
- 5.3 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application to terminate this Agreement.
- 5.4 Any agreements attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

6. GENERATING FACILITY REQUIREMENTS

- 6.1 Customer-Generator's Generating Facility must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Commission regarding safety and reliability including Rule 21.
- 6.2 Customer-Generator shall: (a) maintain the Generating Facility and Interconnection Facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Section 6.1, and (b) obtain any governmental authorizations and permits required for the construction and operation of the Generating Facility and Interconnection Facilities. Customer-Generator shall reimburse PG&E for any and all losses, damages, claims, penalties, or liability it incurs as a result of Customer-Generator's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Customer-Generator's Generating Facility.
- 6.3 Customer-Generator shall not commence parallel operation of the Generating Facility until PG&E has provided express written approval. Such approval shall normally be provided no later than thirty (30) business days following PG&E's receipt of: (1) a completed *Generating Facility Interconnection Application* (Form 79-974), including all supporting documents and payments as described in the Application; (2) a completed *Expanded Net Energy Metering (NEM) Supplemental Application* (Form 79-998); (3) a signed and completed *Interconnection Agreement* (Form 79-978); and (4) a copy of the Customer-Generator's final inspection clearance from the governmental authority having jurisdiction over the Generating Facility. Such

approval shall not be unreasonably withheld. PG&E shall have the right to have representatives present at the Commissioning Test as defined in Rule 21. Customer-Generator shall notify PG&E at least five (5) business days prior to the initial testing.

7. INTERCONNECTION FACILITIES

- 7.1 Customer-Generator and/or PG&E, as appropriate, shall provide Interconnection Facilities that adequately protect PG&E's Distribution System, personnel, and other persons from damage or injury, which may be caused by the operation of Customer-Generator's Generating Facility.
- 7.2 Customer-Generator shall be solely responsible for the costs, design, purchase, construction, permitting, operation, and maintenance of the Interconnection Facilities that Customer-Generator owns.
- 7.3 If the provisions of PG&E's Electric Rule 21, or any other tariff or rule approved by the Commission, require PG&E to own and operate a portion of the Interconnection Facilities, Customer-Generator and PG&E shall promptly execute a Special Facilities Agreement that establishes and allocates responsibility for the design, installation, operation, maintenance, and ownership of the Interconnection Facilities. This Special Facilities Agreement shall be attached to and made a part of this Agreement as Appendix B.

8. LIMITATION OF LIABILITY

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

9. INSURANCE

Customer-Generator Facility is required to comply with standards and rules set forth in section 6 and provide the following for insurance policies in place.

Customer-Generator shall furnish the required certificates and all endorsements to PG&E prior to Parallel Operation.

The certificate shall provide thirty (30) calendar days' written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.

PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance.

- 9.1 If at any time during this agreement the Customer-Generator fails to meet the requirements in section 6, the following insurance shall apply:

Customer-Generator shall procure and maintain a commercial general liability insurance policy at least as broad as the Insurance Services Office (ISO) commercial general liability coverage "occurrence" form; or, if Customer-Generator is an individual, then liability coverage with respect to premises and use at least as broad as the ISO homeowners' or personal liability Insurance occurrence policy form, or substitute, providing equivalent coverage no less than the following limits, based on generator size:

- (a) Two million dollars (\$2,000,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is greater than one hundred (100) kW; or
- (b) One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; or
- (c) Five hundred thousand dollars (\$500,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is twenty (20) kW or less;
- (d) Two hundred thousand dollars (\$200,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is ten (10) kW or less and the Generating Facility is connected to an account receiving residential service from PG&E.

The insurance shall, by endorsement, shall:

- (a) Add PG&E as an additional insured;
- (b) State that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by PG&E.
- (c) Contain a severability of interest clause or cross-liability clause.

- 9.2 If Customer-Generator's Generating Facility is connected to an account receiving residential service from PG&E and the requirement of Section 9.1 prevents Customer-Generator from obtaining the insurance required in this Section, then upon Customer-Generator's written Notice to PG&E in accordance with Section 11.1, the requirements of Section 9.1 may be waived.

- 9.3 Customer-Generator may self-insure with approval from PG&E. Evidence of an acceptable plan to self-insure, at least thirty (30) calendar days' prior to operations shall be submitted.

If Customer-Generator ceases to self-insure to the level required hereunder, or if Customer-Generator is unable to provide continuing evidence of Customer-Generator's ability to self-insure, Customer-Generator agrees to immediately obtain the coverage required under agreement.

- 9.4 All required certificates, endorsements or letters of self-insurance shall be issued and

**INTERCONNECTION AGREEMENT FOR NET ENERGY METERING OF SOLAR OR WIND ELECTRIC
GENERATING FACILITIES OF 1,000 KILOWATTS OR LESS, OTHER THAN FACILITIES OF 30 KILOWATTS OR LESS**

submitted to the following:

Pacific Gas and Electric Company
Attn: Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California 94177

10. INDEMNITY FOR FAILURE TO COMPLY WITH INSURANCE PROVISIONS

- 10.1 If Customer-Generator fails to comply with the insurance provisions of this Agreement, Customer-Generator shall, at its own cost, defend, save harmless and indemnify PG&E, its directors, officers, employees, agents, assignees, and successors in interest from and against any and all loss, liability, damage, claim, cost, charge, demand, or expense of any kind or nature (including attorney's fees and other costs of litigation) resulting from the death or injury to any person or damage to any property, including the personnel and property of the utility, to the extent that the utility would have been protected had Customer-Generator complied with all such insurance provisions. The inclusion of this Section 10.1 is not intended to create any expressed or implied right in Customer-Generator to elect not to provide any such required insurance.
- 10.2 The provisions of this Section 10 shall not be construed to relieve any insurer of its obligations to pay any insurance claims in accordance with the provisions of any valid insurance policy.

11. NOTICES

- 11.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the person specified below:

If to PG&E: Pacific Gas and Electric Company
Attention: Manager, Business Customer Center
P.O. Box 770000
Mail Code B19C
San Francisco, California 94177
Phone: (800) 468-4743
FAX: (415) 972-5309

If to Customer-Generator:

Customer-Generator Name: _____

Address: _____

City: _____

Phone: (____) _____

FAX: (____) _____

- 11.2 A Party may change its address for Notices at any time by providing the other Party notice of the change in accordance with Section 11.1.

- 11.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

12. REVIEW OF RECORDS AND DATA

- 12.1 PG&E shall have the right to review and obtain copies of Customer-Generator's operations and maintenance records, logs, or other information such as Generating Facility availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Customer-Generator's Generating Facility or its interconnection to PG&E.
- 12.2 Customer-Generator authorizes to release to the California Energy Commission (CEC) information regarding Customer-Generator's facility, including customer name and Generating Facility location, size, and operational characteristics, as requested from time to time pursuant to the CEC's rules and regulations.

13. ASSIGNMENT

Customer-Generator shall not voluntarily assign its rights nor delegate its duties under this Agreement without PG&E's written consent. Any assignment or delegation Customer-Generator makes without PG&E's written consent shall not be valid. PG&E shall not unreasonably withhold its consent to Customer-Generator's assignment of this Agreement.

14. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

15. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF PG&E's TARIFF SCHEDULES AND RULES

- 15.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 15.2 This Agreement shall, at all times, be subject to such changes or modifications by the Commission as it may from time to time direct in the exercise of its jurisdiction.
- 15.3 The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Tariff Schedules and Rules applicable to the electric service provided by PG&E, which Tariff Schedules and Rules are hereby incorporated into this Agreement by this reference.
- 15.4 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and

**INTERCONNECTION AGREEMENT FOR NET ENERGY METERING OF SOLAR OR WIND ELECTRIC
GENERATING FACILITIES OF 1,000 KILOWATTS OR LESS, OTHER THAN FACILITIES OF 30 KILOWATTS OR LESS**

regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

16. AMENDMENT AND MODIFICATION

This Agreement can only be amended or modified by a writing signed by both Parties.

17. ENTIRE AGREEMENT

This Agreement, including any incorporated Tariff Schedules and Rules, contains the entire Agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated Tariff Schedules and Rules.

18. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

CUSTOMER-GENERATOR'S NAME

PACIFIC GAS AND ELECTRIC COMPANY

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: Manager,
Generation Interconnection Services

Date: _____

Date: _____

APPENDIX A
DESCRIPTION OF GENERATING FACILITY
AND SINGLE-LINE DIAGRAM
(Provided by Customer-Generator)

APPENDIX B

(If Applicable)

**Any Rule 2 or Rule 21 Agreements for the Installation or Allocation of Special Facilities (Forms 79-255, 79-280, 79-702) or Agreements to Perform Any Tariff Related Work (62-4527)
(Formed between the Parties)**



Pacific Gas and Electric Company
San Francisco, California
U 39

Revised
Cancelling Revised

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

30797-E
22698-E

Electric Sample Form No. 79-998
Renewable and Expanded Net Energy Metering (NEM) Supplemental Application (T)

**Please Refer to Attached
Sample Form**

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed December 13, 2011
Effective January 1, 2012
Resolution No. _____



All Applicants for service on a Net Energy Metering rate schedule pursuant to Public Utilities Code Section 2827 who are required to complete a *GENERATING FACILITY INTERCONNECTION APPLICATION* (Form 79-974) must also complete this form. Please answer the questions below. Use additional sheets, if necessary.

A	<p>What are the specifications for the single disconnect switch that will be used at this Generating Facility?</p> <p>Note: The disconnect switch must be installed in a readily accessible location normally within ten (10) feet of the service panel and in a location where PG&E can operate the switch.</p>	<p>Disconnect Switch Manufacturer _____</p> <p>Disconnect Switch Model Number _____</p> <p>Disconnect Switch Rating _____ Amps</p>																
	<p>Can PG&E readily access the <u>disconnect switch</u> for this Generating Facility year-round?</p>	<p>Yes _____</p> <p>No _____</p> <p>_____</p> <p>_____</p> <p>(Please explain why)</p>																
B	<p>What is the otherwise-applicable rate schedule that you are requesting under PG&E's Net Energy Metering tariff?</p>	<p>PG&E Otherwise-Applicable Rate Schedule _____</p>																
C	<p>What is the power source of the Generating Facility?</p>	<p>Circle all that apply:</p> <table border="1"> <tr> <td data-bbox="378 1455 492 1486">biomass</td> <td data-bbox="800 1455 946 1486">geothermal</td> <td data-bbox="1174 1455 1433 1486">municipal solid waste</td> </tr> <tr> <td data-bbox="345 1507 524 1539">solar thermal</td> <td data-bbox="816 1507 930 1539">fuel cell</td> <td data-bbox="1239 1507 1369 1539">landfill gas</td> </tr> <tr> <td data-bbox="345 1560 524 1591">photovoltaic</td> <td data-bbox="686 1560 1044 1591">small hydroelectric generation</td> <td data-bbox="1222 1560 1385 1591">ocean wave</td> </tr> <tr> <td data-bbox="394 1612 475 1644">wind</td> <td data-bbox="784 1612 946 1644">digester gas</td> <td data-bbox="1206 1612 1401 1644">ocean thermal</td> </tr> <tr> <td data-bbox="345 1665 524 1696">tidal current</td> <td></td> <td></td> </tr> </table>		biomass	geothermal	municipal solid waste	solar thermal	fuel cell	landfill gas	photovoltaic	small hydroelectric generation	ocean wave	wind	digester gas	ocean thermal	tidal current		
biomass	geothermal	municipal solid waste																
solar thermal	fuel cell	landfill gas																
photovoltaic	small hydroelectric generation	ocean wave																
wind	digester gas	ocean thermal																
tidal current																		



**RENEWABLE AND EXPANDED NET
ENERGY METERING (NEM)
SUPPLEMENTAL APPLICATION**

D	When did/will you have all permits required to commence construction of the Generating Facility, and when will construction be completed?	Date permitted to commence construction _____ Date construction completed _____
E	Can PG&E readily access the Customer's <u>service panel</u> to read the PG&E meter year-round?	Yes _____ No _____ _____ _____ (Please explain why)
F	How many Customer-owned locked gates will PG&E need to pass through to access the PG&E meter and disconnect switch?	Number of locked gates _____
G	Will PG&E need access to any planks or platforms, or need to cross over/under any hot-wire fences to access the disconnect switch or access the meter?	Yes _____ _____ (Please explain why) No _____
H	Does Customer receives 3 phase service from PG&E: a) What Voltage is this service? b) Is the service 3 wires (ungrounded) or 4 wires?	Yes _____ (Please answer a and b below) No _____ (Please do not answer a and b below) 240 V _____ 480 V _____ Other Voltage _____ 3 wires _____ 4 wires _____
I	If the Generating Facility will be associated with an Agricultural rate schedule per Question B, what is the total horsepower of the agricultural pump(s)?	If applicable, Horsepower (hp) _____



Pacific Gas and Electric Company
San Francisco, California
U 39

Cancelling	Revised	Cal. P.U.C. Sheet No.	30798-E
	Original	Cal. P.U.C. Sheet No.	26150-E

Electric Sample Form No. 79-1069
Generating Facility Interconnection Agreement (Eligible/Non-Eligible Net Generating
Facility Export)

**Please Refer to Attached
Sample Form**

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed	December 13, 2011
Effective	January 1, 2012
Resolution No.	



WE DELIVER ENERGY.™

This Generating Facility Interconnection Agreement (Multiple Tariff) ("Agreement") is entered into by and between _____ ("Producer"), and Pacific Gas and Electric Company ("PG&E") a California Corporation. Producer and PG&E are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party." In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

1. SCOPE AND PURPOSE

- 1.1 This Agreement provides for Producer to interconnect and operate a Generating Facility in parallel with PG&E's Distribution System to serve the electrical loads at the location identified in Section 2.4 (or for the qualifying energy where permitted under Section 218 of the California Public Utilities Code ("PUC"). The Generating Facility may be any combination of "Eligible customer-generators" ("Eligible Generator(s)") as defined in PU Code Section 2827 through 2827.10. and/or other Generator(s) ("Non-Eligible Generator(s)"). Eligible customer-generators can consist of any of the following technologies: solar, wind, biogas digester or fuel cell.
- 1.2 This Agreement provides for Producer to operate the Eligible Generator(s) pursuant to the provisions of Section 2827 et seq. of the PU Code and the applicable PG&E tariffs for net energy metering. This Agreement also provides for Producer to operate its Non-Eligible Generator(s). This Agreement does not provide for retail electrical service by PG&E to Producer. Such arrangements must be made separately between PG&E and Producer.
- 1.3 This Agreement does not address Producer's account billing and payment for energy consumption. For the Generating Facility as specified in Section 2 of this Agreement, please refer to the applicable PG&E net-energy-metered (NEM) tariff schedules for billing and payment protocol,

2. SUMMARY AND DESCRIPTION OF PRODUCER'S GENERATING FACILITY

- 2.1 A description of the Generating Facility, including a summary of its significant components and a single-line diagram showing the general arrangement of how Producer's Generating Facility and loads are interconnected with PG&E's Distribution System, are attached to and made a part of this Agreement. (Supplied by Producer as Appendix A).
- 2.2 Generating Facility identification number: _____ (Assigned by PG&E)
- 2.3 Producer's electric service agreement ID number: _____ (Assigned by PG&E)
- 2.4 Name and address used by PG&E to locate the electric service account used to interconnect the Generating Facility with PG&E's Distribution System:

Name: _____

GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY

Address: _____

City/Zip Code: _____

2.5 The Gross Nameplate Rating of the Generating Facility is:

2.5.1 Eligible Generator(s):

Biomass _____ kW	digester gas _____ kW
solar thermal _____ kW	municipal solid waste _____ kW
Photovoltaic _____ kW	landfill gas _____ kW
Wind _____ kW	Ocean wave _____ kW
Geothermal _____ kW	ocean thermal _____ kW
Fuel cell _____ kW	tidal current _____ kW
small hydroelectric generation _____ kW	

2.5.2 Non-Eligible Generator(s): _____ kW

2.5.3 **Total Gross** Nameplate Rating of the Generating Facility: _____ kW

2.6 The Net Nameplate Rating of the Generating Facility is:

2.6.1 Eligible Renewable Electrical Generation Facility Generator(s):

Biomass _____ kW	digester gas _____ kW
solar thermal _____ kW	municipal solid waste _____ kW
Photovoltaic _____ kW	landfill gas _____ kW
Wind _____ kW	Ocean wave _____ kW
Geothermal _____ kW	ocean thermal _____ kW
Fuel cell _____ kW	tidal current _____ kW
small hydroelectric generation _____ kW	

2.6.2 Non-Eligible Generator(s): _____ kW

2.6.3 **Total Net** Nameplate Rating of the Generating Facility: _____ kW

2.7 The maximum level of power that may be exported by the Generating Facility to PG&E's Distribution System is expected to be:

GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY

2.7.1 Eligible Generator(s):

Biomass _____ kW	digester gas _____ kW
solar thermal _____ kW	municipal solid waste _____ kW
Photovoltaic _____ kW	landfill gas _____ kW
Wind _____ kW	Ocean wave _____ kW
Geothermal _____ kW	ocean thermal _____ kW
Fuel cell _____ kW	tidal current _____ kW
small hydroelectric generation _____ kW	

2.7.2 Non-Eligible Generator(s):
_____ kW

2.7.3 **Total maximum level of power** that may be exported by the
Generating Facility: _____ kW

2.8 For the purpose of securing the Competition Transition Charge exemption available under Section 372 of the California Public Utilities Code ("PUC"), Producer hereby declares that the portion of the Generating Facility that is generating in a combined heat and power mode ☒ **does** / ☐ **does not** meet the requirements for "Cogeneration" as such term is used in Section 218.5 of the California Public Utilities Code.

2.9 The Generating Facility's expected date of Initial Operation is _____.
The expected date of Initial Operation shall be within two years of the date of this Agreement.

2.10 For the purpose of securing certain tariff charge exemptions available under the PU Code, Producer hereby declares the following for each Generator technology of the Generating Facility:

Requirements for "Distributed Energy Resource Generation" as such term is used in Section 353.1 of the PU Code

Biomass	are met <input type="checkbox"/> are not met <input type="checkbox"/>	digester gas	are met <input type="checkbox"/> are not met <input type="checkbox"/>
solar thermal	are met <input type="checkbox"/> are not met <input type="checkbox"/>	municipal solid waste	are met <input type="checkbox"/> are not met <input type="checkbox"/>
Photovoltaic	are met <input type="checkbox"/> are not met <input type="checkbox"/>	landfill gas	are met <input type="checkbox"/> are not met <input type="checkbox"/>
Wind	are met <input type="checkbox"/> are not met <input type="checkbox"/>	Ocean wave	are met <input type="checkbox"/> are not met <input type="checkbox"/>
Geothermal	are met <input type="checkbox"/> are not met <input type="checkbox"/>	ocean thermal	are met <input type="checkbox"/> are not met <input type="checkbox"/>
Fuel cell	are met <input type="checkbox"/> are not met <input type="checkbox"/>	tidal current	are met <input type="checkbox"/> are not met <input type="checkbox"/>
small hydroelectric generation	are met <input type="checkbox"/> are not met <input type="checkbox"/>		

Biogas Digester (under NEMBIO):	<u>are met <input type="checkbox"/></u>	<u>are not met <input type="checkbox"/></u>
Fuel Cell (under NEMFC):	<u>are met <input type="checkbox"/></u>	<u>are not met <input type="checkbox"/></u>
Other technology:	<u>are met <input type="checkbox"/></u>	<u>are not met <input type="checkbox"/></u>

2.11 What applicable rate schedule, known as the “otherwise applicable schedule” will be selected for the net-energy-metering account(s):

3. DOCUMENTS INCLUDED; DEFINED TERMS

3.1 This Agreement includes the following exhibits which are specifically incorporated herein and made a part of this Agreement.

Appendix A- Description of Generating Facility and Single-Line Diagram
(Supplied by Producer)

Appendix B- Web-site references to Rules 2 and 21 and other selected rules and tariffs of PG&E (Supplied by PG&E)

Appendix C- A Copy of PG&E's Agreement for Installation of Allocation of Special Facilities for Parallel Operation of Nonutility-Owned Generation and/or Electrical Standby Service (Form 79-280)

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

("Special Facility Agreement"), if applicable, (Formed by the Parties)

- Appendix D - Producer's warranty that the Generating Facility meets the requirements for a "Cogeneration facility" pursuant to Section 218.5 of the PU Code (When applicable)
- Appendix E - Producer's warranty that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as defined in Section 353.1 of the PU Code (When applicable)
- Appendix F - Listing of eligible service accounts, as defined in PG&E's Schedule NEMBIO to be included in Net Energy Metering calculations (When applicable)
- Appendix G - Producer's warranty that it meets the requirements for an "Eligible Biogas Digester Electrical Generating Facility," (applicable Generator(s) only) as defined in Section 2827.9 of the PU Code (When applicable).
- Appendix H - Schedule NEM / NEMV Customer-Generator Warranty That It Meets The Requirements For An Eligible Customer-Generator And Is An Eligible Renewable Electrical Generation Facility Pursuant To Section 2827 Of The California Public Utilities Code

3.2 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in PG&E's Rule 21, Section H.

4. TERM AND TERMINATION

4.1 This Agreement shall become effective as of the last date entered in Section 16, below. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:

- (a) The Parties agree in writing to terminate the Agreement, or
- (b) Unless otherwise agreed in writing by the Parties, at 12:01 A.M. on the day following the date the electric service account through which Producer's Generating Facility is interconnected to PG&E's Distribution System is closed or terminated, or
- (c) At 12:01 A.M. on the 61st day after Producer or PG&E provides written Notice pursuant to Section 9 below to the other Party of Producer's or PG&E's intent to terminate this Agreement.

4.2 Producer may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for any reason. PG&E may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for one or more of the following reasons:

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

- (a) A change in applicable rules, tariffs, and regulations, as approved or directed by the California Public Utilities Commission "Commission," or a change in any local, state or federal law, statute or regulation, either of which materially alters or otherwise affects PG&E's ability or obligation to perform PG&E's duties under this Agreement; or,
 - (b) Unless otherwise agreed to in writing by the Parties, Producer fails to take all corrective actions specified in PG&E's Notice that Producer's Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice; or,
 - (c) Producer fails to interconnect and operate the Generating Facility per the terms of this Agreement prior to 120 days after the date set forth in Section 2.9, above, as the Generating Facility's expected date of Initial Operation; or,
 - (d) Producer abandons the Generating Facility. PG&E shall deem the Generating Facility to be abandoned if PG&E determines, in its sole opinion, the Generating Facility is non-operational and Producer does not provide a substantive response to PG&E Notice of its intent to terminate this Agreement as a result of Producer's apparent abandonment of the Generating Facility affirming Producer's intent and ability to continue to operate the Generating Facility.
 - (e) Producer makes a change to the physical configuration of the Generating Facility, as declared in Section 2 and Appendix A of this Agreement.
- 4.3 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application to terminate this Agreement.
- 4.4 Any agreements attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

5. GENERATING FACILITY AND OPERATING REQUIREMENTS

- 5.1 Except for that energy delivered to PG&E's Distribution System, electric energy produced by Producer's Generating Facility shall be used solely to serve electrical loads connected to the electric service account that PG&E uses to interconnect Producer's Generating Facility (or, where permitted under Section 218 of the PUC, the electric loads of an on-site or neighboring party lawfully connected to Producer's Generating Facility through Producer's circuits). Producer shall not use the Generating Facility to serve electrical loads that will cause Producer to be considered an "electrical corporation" as such term is used in Section 218 of the California Public Utilities Code.
- 5.2 Unless otherwise agreed upon in writing by the Parties, this Agreement does not provide for, nor otherwise require PG&E to purchase, transmit, distribute, or store the electrical energy produced by Producer's Generating Facility.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

- 5.3 Producer is responsible for operating the Generating Facility in compliance with all of PG&E's tariffs, including but not limited to PG&E's Rule 21 and applicable NEM tariff schedules, and applicable safety and performance standards established by the National Electric Code, Institute of Electrical and Electronic Engineers, accredited testing laboratories such as Underwriters Laboratories, rules of the Commission regarding safety and reliability, and any other regulations and laws governing the Interconnection of the Generating Facility.
- 5.4 Producer shall: (a) maintain the Generating Facility and Interconnection Facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Section 5.3, and (b) obtain any governmental authorizations and permits required for the construction and operation of the Generating Facility and Interconnection Facilities. Producer shall reimburse PG&E for any and all losses, damages, claims, penalties, or liability it incurs as a result of Producer's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Producer's Generating Facility.
- 5.5 Producer shall not commence parallel operation of the Generating Facility until PG&E has provided express written approval. Such approval shall normally be provided per the timelines established by the applicable PUC 2827 section, or by Rule 21. Such approval will be provided after PG&E's receipt of: (1) a completed *Generating Facility Interconnection Application* (Form 79-974) including all supporting documents and payments as described in the Application; (2) any required NEM supplemental application forms; (3) a signed and completed Generating Facility Interconnection Agreement (Eligible/Non-Eligible NEM Generating Facility Export) Agreement (Form 79-1069); (4) a copy of the Producer's final inspection clearance from the governmental authority having jurisdiction over the Generating Facility; and (5) submission of all applicable payments for reviews, studies, Interconnection Facilities, and Distribution System Modifications. Such approval will not be unreasonably withheld. PG&E shall have the right to have representatives present at the Commissioning Test as defined in Rule 21. Producer shall notify PG&E at least five (5) business days prior to the initial testing.
- 5.6 In no event shall the delivery of the maximum electric power to PG&E's Distribution System exceed the amount or other limitations specified in Section 2 and Appendix A of this Agreement. If Producer does not regulate its Generating Facility in compliance with the limitations set forth in this Agreement, PG&E may require Producer to disconnect its Generating Facility from PG&E's Distribution System until Producer demonstrates to PG&E's sole satisfaction that Producer has taken adequate measures to regulate the output of its Generating Facility and control its deliveries of electric power to PG&E. Further, should PG&E determine that Producer's operation of the Generating Facility is causing an unsafe condition or is adversely affecting PG&E's ability to utilize its Distribution System in any manner, even if Producer's deliveries of electric power to PG&E's Distribution System are within the limitations specified in this Agreement, PG&E may require Producer to temporarily or permanently reduce or cease deliveries of electric power to PG&E's Distribution System. Alternatively, the Parties may agree to other corrective measures so as to mitigate the effect of electric power flowing from the Generating Facility to PG&E's Distribution System. Producer's failure to comply with the terms of this Section shall constitute a material breach of this Agreement and PG&E may initiate termination in accordance with the terms of Section 4.2(b).

GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY

- 5.7 Producer shall not deliver reactive power to PG&E's Distribution System unless the Parties have agreed otherwise in writing.
- 5.8 The Generating Facility shall be operated with all of Producer's Protective Functions in service whenever the Generating Facility is operated in parallel with PG&E's Distribution System. Any deviation from these requirements may occur only when the Parties have agreed to such deviations in writing.
- 5.9 If Producer declares that its Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PUC (or any successor definition of "Cogeneration") ("Cogeneration Requirements"), Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet such Cogeneration Requirements, per Appendix D of this Agreement.

6. INTERCONNECTION FACILITIES

- 6.1 Producer and/or PG&E, as appropriate, shall provide Interconnection Facilities that adequately protect PG&E's Distribution System, personnel, and other persons from damage or injury, which may be caused by the operation of Producer's Generating Facility.
- 6.2 Producer shall be solely responsible for the costs, design, purchase, construction, operation, and maintenance of the Interconnection Facilities that Producer owns.
- 6.3 If the provisions of PG&E's Rule 21, or any other tariff or rule approved by the Commission, requires PG&E to own and operate a portion of the Interconnection Facilities, Producer and PG&E shall promptly execute an Special Facilities Agreement that establishes and allocates responsibility for the design, installation, operation, maintenance, and ownership of the Interconnection Facilities. This Special Facilities Agreement shall be attached to and made a part of this Agreement as Appendix C.
- 6.4 The Interconnection Facilities may include Net Generation Output Metering for determination of standby charges and applicable non-bypassable charges, and/or other meters required for PG&E's administration and billing pursuant to PG&E's tariffs for net energy metering.

7. LIMITATION OF LIABILITY

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

8. INSURANCE

- 8.1 In connection with Producer's performance of its duties and obligations under this Agreement, Producer shall maintain, during the term of this Agreement, general liability insurance with a combined single limit of not less than:
- (a) Two million dollars (\$2,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than one hundred (100) kW;
 - (b) One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; and
 - (c) Five hundred thousand dollars (\$500,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is twenty (20) kW or less.
 - (d) Two hundred thousand dollars (\$200,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is ten (10) kW or less and Producer's Generating Facility is connected to an account receiving residential service from PG&E.

Such general liability insurance shall include coverage for "Premises-Operations, Owners and Contractors Protective, Products/Completed Operations Hazard, Explosion, Collapse, Underground, Contractual Liability, and Broad Form Property Damage including Completed Operations."

- 8.2 The general liability insurance required in Section 8.1 shall, by endorsement to the policy or policies, (a) include PG&E as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that PG&E shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.
- 8.3 If Producer's Generating Facility employs solely of Renewable Electrical Generation Facilities the requirements of Section 8.1 shall be waived. However, to the extent that Producer has currently in force Commercial General Liability or Personal (Homeowner's) Liability insurance, Producer agrees that it will maintain such insurance in force for the duration of this Agreement in no less than amounts currently in effect. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance prior to commencing operations. Such insurance shall provide for thirty (30) calendar days written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.
- 8.4 Evidence of the insurance required in Section 8.2 shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by PG&E.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

- 8.5 Producer agrees to furnish the required certificates and endorsements to PG&E prior to Initial Operation. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance.
- 8.6 If Producer is self-insured with an established record of self-insurance, Producer may comply with the following in lieu of Sections 8.1 through 8.4:
- (a) Producer shall provide to, PG&E, at least thirty (30) calendar days prior to the date of Initial Operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 8.1.
 - (b) If Producer ceases to self-insure to the level required hereunder, or if Producer are unable to provide continuing evidence of Producer's ability to self-insure, Producer agrees to immediately obtain the coverage required under Section 8.1.
- 8.7 All insurance certificates, statements of self insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

Pacific Gas and Electric Company
Attention: Manager, Generation Interconnection Services
PO Box 770000
Mail Code N7L
San Francisco, California 94177

9. NOTICES

- 9.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the address specified below:

If to PG&E: Pacific Gas and Electric Company
Attention: Manager, Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California 94177

If to Producer: Producer Name: _____
Address: _____
City: _____
Phone: () _____
FAX: () _____

- 9.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 9.1.
- 9.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

10. REVIEW OF RECORDS AND DATA

- 10.1 PG&E shall have the right to review and obtain copies of Producer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Producer's Generating Facility or its interconnection with PG&E's Distribution System.
- 10.2 Producer authorizes to release to the California Energy Commission (CEC) information regarding Producer's facility, including customer name, location, size, and operational characteristics of the unit, as requested from time to time pursuant to the CEC's rules and regulations.

11. ASSIGNMENT

Producer shall not voluntarily assign its rights nor delegate its duties under this Agreement without PG&E's written consent. Any assignment or delegation Producer makes without PG&E's written consent shall not be valid. PG&E shall not unreasonably withhold its consent to Producer's assignment of this Agreement.

12. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

13. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF PG&E's TARIFF SCHEDULES AND RULES

- 13.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 13.2 This Agreement shall, at all times, be subject to such changes or modifications by the Commission as it may from time to time direct in the exercise of its jurisdiction.
- 13.3 The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Tariff Schedules and Rules applicable to the electric service provided by, PG&E, which Tariff Schedules and Rules are hereby incorporated into this Agreement by this reference.
- 13.4 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

14. AMENDMENT AND MODIFICATION

This Agreement can only be amended or modified in writing, signed by both Parties.

15. ENTIRE AGREEMENT

This Agreement, including any incorporated Tariff Schedules and rules, contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated tariff schedules and rules.

16. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

PRODUCER'S NAME

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: _____
Title: _____
Date: _____

By: _____
Name: _____
Title: _____
Date: _____

APPENDIX A

DESCRIPTION OF GENERATING FACILITY
AND SINGLE-LINE DIAGRAM,
(Provided by Producer)

(Note: The Description of the Generating Facility should include, but not limited to, for each of the technology types of generation: spatial configuration, net and gross nameplate ratings, manufacturer, if the generators are certified under Rule 21, protection equipment, and intended mode of operation (i.e. non-export: export up to 2 seconds; inadvertent export: export between 2 seconds and 60 seconds; and continuous export: export greater than 60 seconds). Additionally points of interconnection with PG&E, as well as locations and type of protection equipment and disconnect switches should be identified.

GENERATING FACILITY INTERCONNECTION AGREEMENT
(ELIGIBLE/NON-ELIGIBLE NEM GENERATING FACILITY EXPORT)
PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX B
RULES "2" AND "21"

(Note: PG&E's electric Rules "2" and "21" may be subject to such changes or modifications by the Commission as the Commission may, from time to time, direct in the exercise of its jurisdiction. PG&E's tariffs, including Rules "2" and "21" can be accessed via the PG&E website at www.pge.com/tariffs. Upon request, PG&E can provide copies to Producer of Rules "2" and "21.")

GENERATING FACILITY INTERCONNECTION AGREEMENT
(ELIGIBLE/NON-ELIGIBLE NEM GENERATING FACILITY EXPORT)
PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX C
(If Applicable)
RULE 21 "SPECIAL FACILITIES" AGREEMENT
(Formed between the Parties)

**APPENDIX D
(When applicable)**

PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "COGENERATION FACILITY" PURSUANT TO SECTION 218.5 OF THE CALIFORNIA PUBLIC UTILITIES CODE

For the purpose of securing the Competition Transition Charge exemption available under Section 372 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PU Code ("Cogeneration Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, the Generating Facility shall continue to meet the Cogeneration Requirements. If Producer becomes aware that its Generating Facility has ceased to meet the Cogeneration Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Cogeneration Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Cogeneration Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Cogeneration Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Cogeneration Requirements, then the Cogeneration status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Cogeneration facility (the "Cogeneration Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Cogeneration Status Change and provide Notice to Producer of the Cogeneration Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Cogeneration Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Cogeneration Requirements. PG&E shall invoice the Producer's electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for Competition Transition Charges ("CTCs") that were not previously billed during the period between the effective date of the Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Cogeneration Requirements and therefore was eligible for the exemption from CTCs available under Section 372 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

**APPENDIX E
(When applicable)**

**PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "DISTRIBUTED ENERGY
RESOURCES GENERATION" FACILITY PURSUANT TO SECTION 353.1 OF THE
CALIFORNIA PUBLIC UTILITIES CODE**

For the purpose of securing the tariff charge exemption available under Section 353.3 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as such term is used in Section 353.1 of the PU Code ("DERG Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the DERG Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the DERG Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the DERG Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the DERG Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the DERG Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the DERG Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "DERG Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the DERG Status Change and provide Notice to Producer of the DERG Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the DERG Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the DERG Requirements. PG&E shall invoice the Producer electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for any tariff charges that were not previously billed during the period between the effective date of the DERG Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the DERG Requirements and therefore was eligible for the exemption from tariff charges available under Section 353.3 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

APPENDIX F

(When applicable)

**PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS
AN ELIGIBLE BIOGAS ELECTRICAL GENERATING FACILITY
PURSUANT TO SECTION 2827.9 OF THE CALIFORNIA PUBLIC UTILITIES CODE**

Producer has declared that the Generating Facility meets the requirements for an "Eligible Biogas Electrical Generating Facility", as defined in Section 2827.9 of the California Public Utilities Code. ("Eligibility Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the Eligibility Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the Eligibility Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Eligibility Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Eligibility Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Eligibility Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Eligibility Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "Eligibility Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Eligibility Status Change and provide Notice to Producer of the Eligibility Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Eligibility Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Eligibility Requirements. PG&E shall invoice the Producer for any tariff charges that were not previously billed during the period between the effective date of the Eligibility Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Eligibility Requirements and therefore was eligible for the rate treatment available under the Net Energy Metering provisions of PG&E's Schedule NEM-BIO, Experimental Biogas Net Energy Metering.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

GENERATING FACILITY INTERCONNECTION AGREEMENT
(ELIGIBLE/NON-ELIGIBLE NEM GENERATING FACILITY EXPORT)
PACIFIC GAS AND ELECTRIC COMPANY

Appendix H

SCHEDULE NEM / NEMV CUSTOMER-GENERATOR WARRANTY
THAT IT MEETS THE REQUIREMENTS FOR AN ELIGIBLE
CUSTOMER-GENERATOR AND IS AN ELIGIBLE RENEWABLE
ELECTRICAL GENERATION FACILITY PURSUANT TO SECTION
2827 OF THE CALIFORNIA PUBLIC UTILITIES CODE

(This Affidavit needs to be completed and submitted to PG&E by the Customer-Generator every time a new NEM or NEMV interconnection agreement for a Renewable Electrical Generation Facility is executed or whenever there is a change in ownership of the Generating Facility)

Circle Type of Renewable Electrical Generation Facility:

Biomass	geothermal	municipal solid waste
solar thermal	Fuel cell	landfill gas
small hydroelectric generation	Ocean wave	digester gas
ocean thermal	tidal current	

NEM / NEMV Customer-Generator ("Customer") declares that

- (1) it meets the requirements to be an "Eligible Customer-Generator" and its Generating Facility
- (2) (a) meets the requirements of an "Renewable Electrical Generation Facility", as defined in Section 2827(b)(5) of the California Public Utilities Code and
(b) satisfies the definitions of the renewable resource for the Renewable Electrical Generation Facility in the latest version of the California Energy Commission's (CEC's) Renewables Portfolio Standard (RPS) Eligibility Guidebook and the Overall Program Guidebook ¹. ("Eligibility Requirements").

Included in these eligibility requirements (check as applicable) pursuant to Public Utilities Code section 2827(b)(5) and Public Resource Code Section 25741 paragraph 1(a):

☐ If the Renewable Electrical Generation Facility is a fuel cell, or otherwise uses renewable biogas or otherwise, Eligible Customer-Generator warrants that the fuel cell is powered solely with renewable fuel.

☐ If the Renewable Electrical Generation Facility is a Small hydroelectric generating facility, customer warrants that it will not cause an adverse impact on instream beneficial uses, nor cause a change in the volume or timing of streamflow).

If the Customer uses biogas or a renewable fuel as the fuel for their Renewable Electrical Generation Facility:

☐ Eligible Customer-Generator warrants that the Renewable Electrical Generation Facility is powered solely with renewable fuel.

Eligible Customer-Generator warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, Eligible Customer-Generator and the Generating Facility shall

¹ The RPS Guidebooks can be found at:

<http://www.energy.ca.gov/renewables/documents/index.html#rps>

GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY

continue to meet the Eligibility Requirements. If Eligible Customer-Generator or the Generating Facility ceases to meet the Eligibility Requirements, Eligible Customer-Generator shall promptly provide PG&E with Notice of such change pursuant to Section 11 of this Agreement. If at any time during the term of this Agreement PG&E determines, at its sole discretion, that Eligible Customer-Generator or Generating Facility may no longer meet the Eligibility Requirements, PG&E may require Eligible Customer-Generator to provide evidence, that Eligible Customer-Generator and/or Generating Facility continues to meet the Eligibility Requirements, within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Eligible Customer-Generator to monitor the Generating Facility's compliance with the Eligibility Requirements. If PG&E determines in its sole judgment that Eligible Customer-Generator either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Eligibility Requirements, then the Eligibility Status shall be deemed ineffective until such time as Eligible Customer-Generator again demonstrates to PG&E's reasonable satisfaction that Eligible Customer-Generator meets the requirements for an Eligible Customer-Generator and/or the Generating Facility meets the requirements for a Eligible electrical generating facility (the "Eligibility Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Eligibility Status Change and provide Notice to Eligible Customer-Generator of the Eligibility Status Change pursuant to Section 11 of this Agreement. Such Notice shall specify the effective date of the Eligibility Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Eligible Customer-Generator and/or Generating Facility first ceased to meet the Eligibility Requirements. PG&E shall invoice the Eligible Customer-Generator for any tariff charges that were not previously billed during the period between the effective date of the Eligibility Status Change and the date of the Notice in reliance upon Eligible Customer-Generator's representations that Eligible Customer-Generator and/or Generating Facility complied with the Eligibility Requirements and therefore was eligible for the rate treatment available under the Net Energy Metering provisions of PG&E's Schedule NEM or NEMV, Net Energy Metering Service for Eligible Customer-Generators.

Any amounts to be paid or refunded by Eligible Customer-Generator, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Eligible Customer-Generator's receipt of such invoice.

Unless otherwise ordered by the CPUC, this Agreement at all times shall be subject to such modifications as the CPUC may direct from time to time in the exercise of its jurisdiction.

I certify the above is true and correct,

Customer-Generator Signature: _____

Name: _____

Title: _____

Date: _____



Pacific Gas and Electric Company
San Francisco, California
U 39

Revised
Cancelling Revised

Cal. P.U.C. Sheet No. 30799-E
Cal. P.U.C. Sheet No. 30737-E

Electric Sample Form 79-1125
NEM / NEMVMASH Inspection Report

Sheet 1

**Please Refer to Attached
Sample Form**

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed December 13, 2011
Effective January 1, 2012
Resolution No. _____



Pacific Gas and
Electric Company®



NEM / NEMVMASH Inspection Report¹

Who needs to complete this Inspection Report?

A customer:

- who becomes a PG&E customer at a home, office or other facility having with an existing Renewable Electrical Generation Facility with plans to remain interconnected with PG&E on Rate Schedule NEM and
- who must complete a new net energy metering contract (for example, form no 79-978 NEMEXP *Interconnection Agreement*) with PG&E for the existing generating facility and
- whose electrical generating facility and meter have not been installed or inspected within the previous three years and
- who must arrange to have their generating facility inspected and the Contractor section of this report completed by a California licensed electrician who is not the owner or operator of the facility and meter.

This *NEM / NEMVMASH INSPECTION REPORT* ("Report"), pursuant to Public Utilities Code Section 2827c(2), shall be completed and submitted by a PG&E customer who enters into a new net energy metering contract (for example, form 79-978 NEMEXP *Interconnection Agreement*) for an existing and unmodified NEM eligible electrical generating facility (Generating Facility) and meter. The customer shall submit to PG&E this completed inspection report with the interconnection agreement for the Generating Facility, that passes all the Operational Tests in Part II Section I, unless the Generating Facility and meter have been installed or inspected within the previous three years. Part II of the inspection report shall be prepared by a California licensed contractor who is not the owner or operator of the Generating Facility and meter. A California licensed electrician ("Inspector") shall perform the inspection of the electrical portion of the Generating Facility and meter.

Instructions

- 1) The Customer shall complete all of Part I and complete Section A of Part II. The Customer information in Section A of Part II should match that in Part I.
- 2) The Customer should arrange to have the Inspector inspect their Generating Facility and complete the remainder of Part II of this form and sign it.
- 3) The customer shall then submit the fully completed Report to PG&E.

If this form is not submitted within 90 days of the Customer becoming the customer of record for this account, Customer agrees to disconnect their Generating Facility and inform PG&E it no longer will take service on schedule NEM or NEMVMASH.

For the safety of the Customer and PG&E employees, under no circumstances shall the Generating Facility be operated while interconnected with PG&E if it does not pass the Operational Test in Part II, Section I.

¹ Automated Document, Preliminary Statement, Part A.

Part I – Customer Information

A. Customer Generating Facility Information – Who is the PG&E Customer for this Generating Facility?

Generating Facility PG&E Account Holder Name (Must Match Customer Name on PG&E Blue Bill for generator)		PG&E Account Number for Generating Facility	Meter Number (Meter Badge ID)
Account Holder Street Address			
Account Holder City		Account Holder State	Account Holder Zip
Account Holder Billing Mail Address			
Billing City		Billing State	Billing Zip
Business Phone	Cell Phone	Fax	Email

B. Generator Location – Where is the Generating Facility Located?

Contact at Generator Location			
Generator Address			
Generator City		Generator State	Generator Zip
Generator Contact Phone	Fax	Email	
<input type="checkbox"/> This contact person is to be used as PG&E contact and is authorized by Customer to receive confidential Customer information and act on behalf of Customer with respect to this agreement. ²			

C. Modifications

To your knowledge, has the system been modified in any way? ☐ No ☐ Yes

D. Installation Date

Do you know when this Generating Facility was installed?

☐ No

☐ Yes, Installed on? (_____ (date))

E. Last Inspection Date

Do you know if this Generating Facility had a prior PG&E inspection?

☐ No

☐ Yes

² Customer must utilize the "Authorization to Receive Customer Information or Act on a Customer's Behalf" form, which may be found at www.pge.com/includes/docs/pdfs/shared/newgenerator/solarwindgenerators/standardenet/customer_behalf_app.pdf.

Date of last inspection? _____

- F. By the Customer signing the attached new NEM Interconnection Agreement form 79-978, or other new NEM, or NEMVMASH interconnection agreement as specified form 79-_____, this NEM / NEMVMASH Inspection Report is hereby incorporated into that interconnection agreement.

A copy of this signed report should be retained with the "Permission to Operate" letter to confirm successful Generating Facility inspection.

Mailing Instructions and Assistance:

When this report has been completed it should be mailed to:

PG&E'S P.O. BOX ADDRESS	PG&E'S STREET ADDRESS
Pacific Gas and Electric Company Attention: Generation Interconnection Services Mail Code N7L P.O. Box 770000 San Francisco, California 94177	Pacific Gas and Electric Company Attention: Generation Interconnection Services Mail Code N7L 245 Market St. San Francisco, California 94105

If this Report has been completed electronically, it may be submitted to PG&E via e-mail or U.S. mail. Copies or forms requiring a signature, attachments or any applicable fees described in Part II must be mailed to PG&E at the address noted in Section IV (F), Notices.

Phone calls and questions may be directed to the Generation Interconnection Services hotline at: 415-972-5676 or email gen@pge.com

Part II –Electrical Inspector Section

A. Inspection Information (to be filled in by the Customer – must match information in Part I)

Generating Facility PG&E Account Holder Name (Must Match Customer Name on PG&E Blue Bill for generator)	PG&E Account Number for Generating Facility	Meter Number (Meter Badge ID)
Generator Address		

----- To be completed by Inspector -----

B. Inspector Information

California licensed Electrician Name		Company Name	
Currently Valid California Electrician License Number			
Mailing Address			
City		State	Zip
Business Phone	Fax	Email	

C. Inverters interconnected with PG&E

List all the inverters that currently are interconnected to PG&E at this Generating Facility.

No.	Inverter Manufacturer	Inverter Model Number	Inverter Nameplate Rating ³ kW (per unit)	Inverter CEC Rating kW (per unit)	Quantity of Inverters	Inverter Output Voltage	Single or Three phase?
1							
2							

D. Inverter CEC Approved

Are all the inverter models listed above currently listed on the <http://www.gosolarcalifornia.ca.gov/equipment/> website?

☐ Yes ☐ No⁴

³ The inverter rating equals the nameplate rating, in kW. If there are more than one inverter of one type being installed, the inverter rating equals the nameplate rating of one unit of the model being installed.

E. Photovoltaic Generator Equipment (if applicable)

List the photovoltaic (PV) panel information requested below. If the panels are not all identical modules, list the total capacity connected to each inverter you listed above. (Please attach additional sheets if more space is needed.)

No.	PV Panel Manufacturer	PV Panel Model	PV Panel Nameplate Rating ⁵ kW (per unit)	PV Panel CEC Rating kW (per unit)	Quantity of PV Panels	Total Capacity ⁶ (kW)	Inverter number from (C.) above (1 or 2)
1							
2							

F. PV Panels CEC Approved

Are all the PV panel models listed above currently listed on the <http://www.gosolarcalifornia.ca.gov/equipment/> website?

☐ Yes ☐ No⁷

G. Wind Turbine Equipment (if applicable)

List the wind turbine information requested below. Write NONE if the inverter is incorporated in the wind turbine and no inverter is required.

No.	Wind Turbine Manufacturer	Wind Turbine Model	Wind Turbine Nameplate Rating ⁸ kW (per unit)	Wind Turbine CEC Rating (kW) per unit	Quantity of Wind Turbines	Total Capacity (kW) ⁸	Turbine Output Voltage	Single or Three Phase	Inverter number from (C.) above (1 or 2)
1									

H. Wind Turbine CEC Approved

Are all the wind turbine models listed above currently listed on the <http://www.gosolarcalifornia.ca.gov/equipment/> website?

☐ Yes ☐ No⁹

I. Renewable Electrical Generation Facility (if applicable)

Identify the Renewable Electrical Generation Facility generator type code(s) from the table below and write it into the following table. Write NONE if no inverter is incorporated in each Generating Facility.

⁴ Equipment not currently listed on the Go Solar website, or equipment formerly listed but no longer listed, may be subject to additional review or testing before being authorized to continue interconnection with PG&E, depending on the reason it is no longer listed.

⁵ For all generation equipment ratings, please use the nameplate rating found on the equipment or in the equipment specifications.

⁶ The total capacity is the photovoltaic (PV) panel (or wind turbine) rating times the quantity.

⁷ Id. Footnote 4 above.

⁸ Id. Footnote 6 above.

⁹ Id. Footnote 4 above.

Generator Type Code Table		
A – biomass	B – solar thermal	C – geothermal
D – fuel cell	E – small hydroelectric generation	F – digester gas
G – municipal solid waste	H – landfill gas	I – ocean wave
J – ocean thermal	K – tidal current	

No.	Generator Type Code(s) for Renewable Electrical Generation Facility	Model	Nameplate Rating ¹⁰ kW (per unit)	Quantity (if multiple units)	Total Capacity (kW) ⁸	Output Voltage	Single or Three Phase	Inverter number from (C) above (1 or 2)
1								

Customers with non-certified generation equipment, such as synchronous generators, shall retain qualified testing personnel to perform the necessary tests specified in Rule 21 to meet this requirement. Customer or Inspector shall provide PG&E with 30 days notice of such facility testing, the testing shall be conducted at a mutually agreeable time, and PG&E shall be given the opportunity to witness the tests.

J. Other Interconnected Generators

Are there other generators interconnected on this account at this location? ☐ Yes ☐ No

If Yes, list generator technology and capacity for all generators

Are there any backup generators? ☐ Yes ☐ No

If yes, there are backup generators, is the back-up generator is open or close transition?
☐ Open ☐ Closed

K. Operational Tests

1.) Anti-islanding test

Pursuant to PG&E's Electric Rule 21 section D.1.a.(3) verify the Generating Facility ceases to output within two seconds of opening the disconnect switch or otherwise disconnecting the Generating Facility from PG&E electrical system.

Passes test? ☐ Yes

2.) Reclose and return to service within Rule 21 guidelines

¹⁰ Id. Footnote 6 above.

Pursuant to PG&E's Electric Rule 21 section D.1.a.(2), verify that the time-delay function reconnects the Generating Facility with PG&E's Distribution System after at least 60 seconds.

Passes test? ☐ Yes

L. Governing Authority

The terms and conditions of this inspection report shall at all times be subject to such changes or modification by the Public Utilities Commission of the State of California as said Commission may, from time to time, direct in the exercise of its jurisdiction.

M. Inspector Signature

I certify that I am currently a California licensed electrician, that the responses given in Part II of this Report for the Generating Facility are true and accurate to the best of my knowledge, and that the Generating Facility satisfies the Operational Tests in Part II, Section I.

Name California licensed electrical contractor
(Please Print): _____

Name California licensed electrical contractor _____ Date: _____
Signature: _____

California licensed electrician License No: _____



Pacific Gas and Electric Company
San Francisco, California
U 39

Original
Cancelling

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

30800-E

ELECTRIC SAMPLE FORM 79-1137
INTERCONNECTION AGREEMENT FOR NET METERING FOR A
RENEWABLE ELECTRICAL GENERATION FACILITY OF 1,000 KILOWATTS OR
LESS

Sheet 1 (N)
(N)
(N)

PLEASE REFER TO
ATTACHED SAMPLE FORM
79-1137

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed December 13, 2011
Effective January 1, 2012
Resolution No. _____



This "Interconnection Agreement for Net Energy Metering for a Renewable Electrical Generation Facility of 1,000 Kilowatts or Less" ("Agreement")¹ is entered into by and between _____ ("Customer-Generator"), and Pacific Gas and Electric Company ("PG&E"), a California Corporation. Customer-Generator and PG&E are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party." In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

1. SCOPE AND PURPOSE

This Agreement provides for Customer-Generator to interconnect and operate a Renewable Electrical Generation Facility as defined in Schedule NEM (If this is a NEM Solar or Wind Generating Facility, please use form 79-978) ("Generating Facility") in parallel with PG&E's Distribution System to serve the electrical loads connected to the electric service account that PG&E uses to interconnect Customer-Generator's Generating Facility. Customer-Generator's Generating Facility is intended primarily to offset part or all of the Customer-Generator's own electrical requirements. Consistent with, and in order to effectuate, the provisions of Sections 2827 of the California Public Utilities Code and PG&E's electric rate Schedule NEM ("NEM"), Parties enter into this Agreement. This Agreement applies to the Customer-Generator's Generating Facilities identified below with the specified characteristics and generating capacity, and does not allow interconnection or operation of facilities different than those described.

2. SUMMARY AND DESCRIPTION OF CUSTOMER-GENERATOR'S GENERATING FACILITY AND DESIGNATION OF OTHERWISE-APPLICABLE RATE SCHEDULE

- 2.1 A description of the Generating Facility, including a summary of its significant components and a single-line diagram showing the general arrangement of how Customer-Generator's Generating Facility and loads are interconnected with PG&E's Distribution System, is attached to and made a part of this Agreement. (This description is supplied by Customer-Generator as Appendix A).
- 2.2 Generating Facility identification number: _____ (Assigned by PG&E)
- 2.3 Customer-Generator's electric service agreement ID number: _____
(Assigned by PG&E)
- 2.4 Name and address used by PG&E to locate the electric service account used to interconnect the Generating Facility with PG&E's Distribution System:

Name: _____

Address: _____

City/Zip Code: _____

¹ Additional forms are available upon request by telephoning 415-972-5676 or on PG&E's website at <http://www.pge.com/gen>).

2.5 Interconnected Equipment:

List all the generating equipment interconnected with, or without, an inverter to PG&E, using the code in the Generation Type Code Table below. (For those generators interconnecting without an inverter, write in "N/A" in the right three columns. If an inverter is shared by more than one generator, write "shared" on the same line as that generator under the manufacturer column and do not enter the inverter rating. Attach list of additional equipment, if applicable.)

Generator Type Code Table		
A – biomass	B – solar thermal	C – geothermal
D – fuel cell	E – small hydroelectric generation	F – digester gas
G – municipal solid waste	H – landfill gas	I – ocean wave
J – ocean thermal	K – tidal current	

	Type of Generator (Enter Generator Type Code)	Generator Rating (kilowatts)	Manufacturer of Inverter used with Generator (if Applicable)	Inverter Model Number (if Applicable)	Inverter Rating (kilowatts) ² (if Applicable)
1					
2					
3					

2.6 Customer-Generator's otherwise-applicable rate schedule under the provisions of Schedule NEM will be _____.

2.7 The Generating Facility's expected date of Initial Operation is _____.
The expected date of Initial Operation shall be within two years of the date of this Agreement.

2.8 If the date of the permits allowing the Customer-Generator to commence construction of the Generating Facility is prior to January 1, 2003, please provide the date the permits were issued: _____.

2.9 If this Generating Facility is non-inverter based, provide the Gross Nameplate Rating of the Generating Facility: _____ kW.

2.10 If this Generating Facility is non-inverter based, provide the Net Nameplate Rating of the Generating Facility _____ kW.

2.11 The expected annual energy production of the Generating Facility is _____ kWh.

² If installing an inverter, the inverter rating equals: (the CEC efficiency for each installed inverter) TIMES (the nameplate rating, in kW, of each inverter). The CEC efficiency is obtained on the CEC website at http://www.consumerenergycenter.org/erprebate/eligible_inverters.html as listed on the date the application is reviewed. Enter the total of all inverter ratings for multiple inverter installations in the Table above.

3. DOCUMENTS INCLUDED AND DEFINED TERMS

- 3.1 This Agreement includes the following exhibits that are specifically incorporated herein and made a part of this Agreement.

Appendix A	Description of Generating Facility and Single-Line Diagram (Supplied by Customer-Generator).
Appendix B	A Copy of PG&E's Agreement for Installation or Allocation of Special Facilities (Forms 79-255, 79-280, 79-702) or Agreements to Perform Any Tariff Related Work (62-4527), if applicable (Formed by the Parties).
Appendix C	Schedule NEM / NEMV Customer-Generator Warranty That It Meets The Requirements For An Eligible Customer-Generator And Is An Eligible Renewable Electrical Generation Facility Pursuant To Section 2827 Of The California Public Utilities Code

In addition, PG&E Electric Tariff Rules and Rates, including but not limited to Electric Rules 2, 14, 15, 16, and 21, Schedule NEM, and Customer-Generator's otherwise-applicable rate schedule, available at PG&E's website at www.pge.com or by request, are specifically incorporated herein and made part of this Agreement.

- 3.2 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in PG&E's Electric Rule 21, Section H.

4. CUSTOMER BILLING AND PAYMENT

Customer-Generator initially selects Pacific Gas and Electric Company's electric rate schedule referenced in Section 2.6 of this Agreement as its otherwise-applicable rate schedule. Customer-Generator understands that they will be billed according to the otherwise-applicable rate schedule and Schedule NEM.

5. TERM AND TERMINATION

- 5.1 This Agreement shall become effective as of the last date entered in Section 18 below. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:

- (a) The Parties agree in writing to terminate the Agreement.
- (b) Unless otherwise agreed in writing by the Parties, at 12:01 A.M. on the day following the date the electric service account through which Customer-Generator's Generating Facility is interconnected to PG&E is closed or terminated.
- (c) At 12:01 A.M. on the 61st day after Customer-Generator or PG&E provides written Notice pursuant to Section 11 below to the other Party of Customer-Generator's or PG&E's intent to terminate this Agreement.

- 5.2 Customer-Generator may elect to terminate this Agreement pursuant to the terms

of Section 5.1(c) for any reason. PG&E may elect to terminate this Agreement pursuant to the terms of Section 5.1(c) for one or more of the following reasons:

- (a) A change in applicable rules, tariffs, or regulations, as approved or directed by the Commission, or a change in any local, state or federal law, statute or regulation, either of which materially alters or otherwise affects PG&E's ability or obligation to perform PG&E's duties under this Agreement; or,
- (b) Customer-Generator fails to take all corrective actions specified in PG&E's Notice that Customer-Generator's Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice; or,
- (c) Customer-Generator abandons the Generating Facility. PG&E shall deem the Generating Facility to be abandoned if PG&E determines, in its sole opinion, the Generating Facility is nonoperational and Customer-Generator does not provide a substantive response to PG&E Notice of its intent to terminate this Agreement as a result of Customer-Generator's apparent abandonment of the Generating Facility affirming Customer-Generator's intent and ability to continue to operate the Generating Facility; or,
- (d) Customer-Generator's Generating Facility ceases to meet all applicable safety and performance standards set out in Section 6.

5.3 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application to terminate this Agreement.

5.4 Any agreements attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

6. GENERATING FACILITY REQUIREMENTS

6.1 Customer-Generator's Generating Facility must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Commission regarding safety and reliability including Rule 21.

6.2 Customer-Generator shall: (a) maintain the Generating Facility and Interconnection Facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Section 6.1, and (b) obtain any governmental authorizations and permits required for the construction and operation of the Generating Facility and Interconnection Facilities. Customer-Generator shall reimburse PG&E for any and all losses, damages, claims, penalties, or liability it incurs as a result of Customer-Generator's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Customer-Generator's Generating Facility.

6.3 Customer-Generator shall not commence parallel operation of the Generating Facility until PG&E has provided express written approval. Such approval shall normally be provided no later than thirty (30) business days following PG&E's receipt of: (1) a completed *Generating Facility Interconnection Application* (Form 79-974), including all supporting documents and payments as described in the Application; (2) a

completed *Expanded Net Energy Metering (NEM) Supplemental Application* (Form 79-998); (3) a signed and completed *Interconnection Agreement* (Form 79-978); and (4) a copy of the Customer-Generator's final inspection clearance from the governmental authority having jurisdiction over the Generating Facility. Such approval shall not be unreasonably withheld. PG&E shall have the right to have representatives present at the Commissioning Test as defined in Rule 21. Customer-Generator shall notify PG&E at least five (5) business days prior to the initial testing.

7. INTERCONNECTION FACILITIES

- 7.1 Customer-Generator and/or PG&E, as appropriate, shall provide Interconnection Facilities that adequately protect PG&E's Distribution System, personnel, and other persons from damage or injury, which may be caused by the operation of Customer-Generator's Generating Facility.
- 7.2 Customer-Generator shall be solely responsible for the costs, design, purchase, construction, permitting, operation, and maintenance of the Interconnection Facilities that Customer-Generator owns.
- 7.3 If the provisions of PG&E's Electric Rule 21, or any other tariff or rule approved by the Commission, require PG&E to own and operate a portion of the Interconnection Facilities, Customer-Generator and PG&E shall promptly execute an Special Facilities Agreement that establishes and allocates responsibility for the design, installation, operation, maintenance, and ownership of the Interconnection Facilities. This Special Facilities Agreement shall be attached to and made a part of this Agreement as Appendix B.

8. LIMITATION OF LIABILITY

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

9. INSURANCE

Customer-Generator Facility is required to comply with standards and rules set forth in section 6 and provide the following for insurance policies in place.

Customer-Generator shall furnish the required certificates and all endorsements to PG&E prior to Parallel Operation.

The certificate shall provide thirty (30) calendar days' written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.

PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance.

- 9.1 If at any time during this agreement the Customer-Generator fails to meet the requirements in section 6, the following insurance shall apply:

Customer-Generator shall procure and maintain a commercial general liability insurance policy at least as broad as the Insurance Services Office (ISO) commercial general liability coverage "occurrence" form; or, if Customer-Generator is an individual, then liability coverage with respect to premises and use at least as broad as the ISO homeowners' or personal liability Insurance occurrence policy form, or substitute, providing equivalent coverage no less than the following limits, based on generator size:

- (a) Two million dollars (\$2,000,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is greater than one hundred (100) kW; or
- (b) One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; or
- (c) Five hundred thousand dollars (\$500,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is twenty (20) kW or less;
- (d) Two hundred thousand dollars (\$200,000) for each occurrence if the Gross Nameplate Rating of the Generating Facility is ten (10) kW or less and the Generating Facility is connected to an account receiving residential service from PG&E.

The insurance shall, by endorsement, shall:

- (a) Add PG&E as an additional insured;
- (b) State that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by PG&E.
- (c) Contain a severability of interest clause or cross-liability clause.

- 9.2 If Customer-Generator's Generating Facility is connected to an account receiving residential service from PG&E and the requirement of Section 9.1 prevents Customer-Generator from obtaining the insurance required in this Section, then upon Customer-Generator's written Notice to PG&E in accordance with Section 11.1, the requirements of Section 9.1 may be waived.

- 9.3 Customer-Generator may self-insure with approval from PG&E. Evidence of an acceptable plan to self-insure, at least thirty (30) calendar days' prior to operations shall be submitted.

If Customer-Generator ceases to self-insure to the level required hereunder, or if Customer-Generator is unable to provide continuing evidence of Customer-Generator's ability to self-insure, Customer-Generator agrees to immediately obtain the coverage required under agreement.

- 9.4 All required certificates, endorsements or letters of self-insurance shall be issued and submitted to the following:

Pacific Gas and Electric Company
Attn: Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California 94177

10. INDEMNITY FOR FAILURE TO COMPLY WITH INSURANCE PROVISIONS

- 10.1 If Customer-Generator fails to comply with the insurance provisions of this Agreement, Customer-Generator shall, at its own cost, defend, save harmless and indemnify PG&E, its directors, officers, employees, agents, assignees, and successors in interest from and against any and all loss, liability, damage, claim, cost, charge, demand, or expense of any kind or nature (including attorney's fees and other costs of litigation) resulting from the death or injury to any person or damage to any property, including the personnel and property of the utility, to the extent that the utility would have been protected had Customer-Generator complied with all such insurance provisions. The inclusion of this Section 10.1 is not intended to create any expressed or implied right in Customer-Generator to elect not to provide any such required insurance.
- 10.2 The provisions of this Section 10 shall not be construed to relieve any insurer of its obligations to pay any insurance claims in accordance with the provisions of any valid insurance policy.

11. NOTICES

- 11.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the person specified below:

If to PG&E: **Pacific Gas and Electric Company**
Attn: Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California 94177

If to Customer-Generator:

Customer-Generator Name: _____

Address: _____

City: _____

Phone: (_____)

FAX: (_____) _____

- 11.2 A Party may change its address for Notices at any time by providing the other Party notice of the change in accordance with Section 11.1.
- 11.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers

may be communicated or revised by one Party's Notice to the other.

12. REVIEW OF RECORDS AND DATA

- 12.1 PG&E shall have the right to review and obtain copies of Customer-Generator's operations and maintenance records, logs, or other information such as Generating Facility availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Customer-Generator's Generating Facility or its interconnection to PG&E.
- 12.2 Customer-Generator authorizes to release to the California Energy Commission (CEC) information regarding Customer-Generator's facility, including customer name and Generating Facility location, size, and operational characteristics, as requested from time to time pursuant to the CEC's rules and regulations.

13. ASSIGNMENT

Customer-Generator shall not voluntarily assign its rights nor delegate its duties under this Agreement without PG&E's written consent. Any assignment or delegation Customer-Generator makes without PG&E's written consent shall not be valid. PG&E shall not unreasonably withhold its consent to Customer-Generator's assignment of this Agreement.

14. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

15. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF PG&E's TARIFF SCHEDULES AND RULES

- 15.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 15.2 This Agreement shall, at all times, be subject to such changes or modifications by the Commission as it may from time to time direct in the exercise of its jurisdiction.
- 15.3 The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Tariff Schedules and Rules applicable to the electric service provided by PG&E, which Tariff Schedules and Rules are hereby incorporated into this Agreement by this reference.
- 15.4 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

16. AMENDMENT AND MODIFICATION

This Agreement can only be amended or modified by a writing signed by both Parties.

17. ENTIRE AGREEMENT

This Agreement, including any incorporated Tariff Schedules and Rules, contains the entire Agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated Tariff Schedules and Rules.

18. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

CUSTOMER-GENERATOR'S NAME

PACIFIC GAS AND ELECTRIC COMPANY

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: Manager,
Generation Interconnection Services

Date: _____

Date: _____

APPENDIX A
DESCRIPTION OF GENERATING FACILITY
AND SINGLE-LINE DIAGRAM
(Provided by Customer-Generator)

APPENDIX B

(If Applicable)

Any Rule 2 or Rule 21 Agreements for the Installation or Allocation of Special Facilities (Forms 79-255, 79-280, 79-702) or Agreements to Perform Any Tariff Related Work (62-4527)
(Formed between the Parties)

Appendix C

SCHEDULE NEM CUSTOMER-GENERATOR WARRANTY THAT
IT MEETS THE REQUIREMENTS FOR AN ELIGIBLE CUSTOMER-
GENERATOR AND IS AN ELIGIBLE RENEWABLE ELECTRICAL
GENERATION FACILITY PURSUANT TO SECTION 2827 OF THE
CALIFORNIA PUBLIC UTILITIES CODE

(This Affidavit needs to be completed and submitted to PG&E by the Customer-Generator every time a new NEM or NEMV interconnection agreement for a Renewable Electrical Generation Facility is executed or whenever there is a change in ownership of the Generating Facility)

Circle Type of Renewable Electrical Generation Facility:

Biomass	geothermal	municipal solid waste
solar thermal	fuel cell	landfill gas
small hydroelectric generation	ocean wave	digester gas
ocean thermal	tidal current	

NEM / NEMV Customer-Generator ("Customer") declares that

- (1) it meets the requirements to be an "Eligible Customer-Generator" and its Generating Facility
- (2) (a) meets the requirements of an "Renewable Electrical Generation Facility", as defined in Section 2827(b)(5) of the California Public Utilities Code and
(b) satisfies the definitions of the renewable resource for the Renewable Electrical Generation Facility in the latest version of the California Energy Commission's (CEC's) Renewables Portfolio Standard (RPS) Eligibility Guidebook and the Overall Program Guidebook ³. ("Eligibility Requirements").

Included in these eligibility requirements (check as applicable) pursuant to Public Utilities Code section 2827(b)(5) and Public Resource Code Section 25741 paragraph 1(a):

☐ If the Renewable Electrical Generation Facility is a fuel cell, or otherwise uses renewable biogas or otherwise, Eligible Customer-Generator warrants that the fuel cell is powered solely with renewable fuel.

☐ If the Renewable Electrical Generation Facility is a Small hydroelectric generating facility, customer warrants that it will not cause an adverse impact on instream beneficial uses, nor cause a change in the volume or timing of streamflow).

If the Customer uses biogas or a renewable fuel as the fuel for their Renewable Electric Generation Facility:

☐ Eligible Customer-Generator warrants that the Renewable Generation Facility is powered solely with renewable fuel.

Eligible Customer-Generator warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, Eligible Customer-Generator and the Generating Facility shall continue to meet the Eligibility Requirements. If Eligible Customer-Generator or the Generating

³ The RPS Guidebooks can be found at:

<http://www.energy.ca.gov/renewables/documents/index.html#rps>

INTERCONNECTION AGREEMENT FOR NET ENERGY METERING FOR A
RENEWABLE ELECTRICAL GENERATION FACILITY OF 1,000 KILOWATTS OR LESS

Facility ceases to meet the Eligibility Requirements, Eligible Customer-Generator shall promptly provide PG&E with Notice of such change pursuant to Section 11 of this Agreement. If at any time during the term of this Agreement PG&E determines, at its sole discretion, that Eligible Customer-Generator or Generating Facility may no longer meet the Eligibility Requirements, PG&E may require Eligible Customer-Generator to provide evidence that Eligible Customer-Generator and/or Generating Facility continues to meet the Eligibility Requirements, within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Eligible Customer-Generator to monitor the Generating Facility's compliance with the Eligibility Requirements. If PG&E determines at its sole judgment that Eligible Customer-Generator either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Eligibility Requirements, then the Eligibility Status shall be deemed ineffective until such time as Eligible Customer-Generator again demonstrates to PG&E's reasonable satisfaction that Eligible Customer-Generator meets the requirements for an Eligible Customer-Generator and/or the Generating Facility meets the requirements for a Eligible electrical generating facility (the "Eligibility Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Eligibility Status Change and provide Notice to Eligible Customer-Generator of the Eligibility Status Change pursuant to Section 11 of this Agreement. Such Notice shall specify the effective date of the Eligibility Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Eligible Customer-Generator and/or Generating Facility first ceased to meet the Eligibility Requirements. PG&E shall invoice the Eligible Customer-Generator for any tariff charges that were not previously billed during the period between the effective date of the Eligibility Status Change and the date of the Notice in reliance upon Eligible Customer-Generator's representations that Eligible Customer-Generator and/or Generating Facility complied with the Eligibility Requirements and therefore was eligible for the rate treatment available under the Net Energy Metering provisions of PG&E's Schedule NEM or NEMV, Net Energy Metering Service for Eligible Customer-Generators.

Any amounts to be paid or refunded by Eligible Customer-Generator, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Eligible Customer-Generator's receipt of such invoice.

Unless otherwise ordered by the CPUC, this Agreement at all times shall be subject to such modifications as the CPUC may direct from time to time in the exercise of its jurisdiction.

I certify the above is true and correct,

Customer-Generator Signature: _____

Name: _____

Title: _____

Date: _____



Pacific Gas and Electric Company
San Francisco, California
U 39

Revised
Cancelling Revised

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

30801-E
30699-E

ELECTRIC TABLE OF CONTENTS

Sheet 1

TABLE OF CONTENTS

SCHEDULE	TITLE OF SHEET	CAL P.U.C. SHEET NO.	
	Title Page	30801-E	(T)
	Rate Schedules	30580,30704,30582,30290 ,30802,30098,30747, 29897, 30472-E	(T)
	Preliminary Statements	30068,29900,30376,30262,30174,30405,30383-E	
	Rules	30402, 30473, 30476-E	
	Maps, Contracts and Deviations.....	29909-E	
	Sample Forms	29910,30353,30803,29913,30354,30804,29916,29917,30748,29919,29920,29921-E	(T)

(Continued)

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed December 13, 2011
Effective January 1, 2012
Resolution No. _____



ELECTRIC TABLE OF CONTENTS RATE SCHEDULES

Sheet 6

SCHEDULE	TITLE OF SHEET	CAL P.U.C. SHEET NO.
	Rate Schedules Other	
S	Standby Service	28399,28400, 30059,29885,28238,28239, 29240-28245, 30291, 29886,28401-28404-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... ..	27453,28955,28956,28957, 28958,28959,26704,26705, 26706,26707,26708-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.....	30771-30790-E (T)
NEMFC	Net Energy Metering Service For Fuel Cell Customer-Generators.....	30793 ,28567, (T)27250,27251,26134,26135, 30794 ,27252-E (T)
NEMBIO	Net Energy Metering Service for Biogas Customer-Generators	30791 , 27254-27255, (T)26140,27256,26142,27257,26144, 30792-E (T)
NEMCCSF	Net Energy Metering Service for City and County of San Francisco	28176,28177,28178,28179-E
NEMVMASH	Net Energy Metering – Virtual Net Energy Metering.....	30514–30522,30731-30736-E
E-ERA	Energy Rate Adjustments.....	30019,30020,30021,30022-E
E-OBF	On-Bill Financing Balance Account (OBFA).....	29490-29492-E

(Continued)

Advice Letter No: 3969-E
 Decision No.

Issued by
Brian K. Cherry
 Vice President
 Regulation and Rates

Date Filed	December 13, 2011
Effective	January 1, 2012
Resolution No.	



ELECTRIC TABLE OF CONTENTS
SAMPLE FORMS

Sheet 24

FORM	TITLE OF SHEET	CAL P.U.C. SHEET NO.
------	----------------	-------------------------

Sample Forms

Rule 20 Replacement of Overhead with Underground Electric Facilities

79-1113	Agreement to Perform Tariff Schedule Related Work, Electric Rule 20A (Replacement of Overhead with Underground Electric Facilities) - Electric Panel Service Conversions...	28920-E
---------	---	---------

Sample Forms

Rule 21 Generating Facility Interconnections

79-280	Agreement for Installation or Allocation of Special Facilities for Parallel Operation of Nonutility-Owned Generation and/or Electrical Standby Service.....	11581-E
79-702	Appendix to Form 79-280 - Detail of Special Facilities Charges	11582-E
79-973	Generating Facility Interconnection Agreement	26478-E
79-1070	Addendum to Form 79-973 - Export Addendum for Generators Sized 2 Megawatts or Less	30370-E
79-974	Generating Facility Interconnection Application	30795-E
79-988	Generating Facility Interconnection Agreement Third Party Non-Exporting	18918-E
79-992	Generating Facility Interconnection Agreement Third Party Generation or Premise Non-Exporting	18919-E
79-1100	Agreement to Install Applicant Requested NGOM Special Facilities for Solar Performance Metering.....	28689-E

(T)

(Continued)

Advice Letter No: 3969-E
Decision No.

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed	December 13, 2011
Effective	January 1, 2012
Resolution No.	



**ELECTRIC TABLE OF CONTENTS
 SAMPLE FORMS**

Sheet 27

FORM	TITLE OF SHEET	CAL P.U.C. SHEET NO.
Sample Forms Net Energy Metering		
79-854	Interconnection Agreement for Net Energy Metering for Residential and Small Commercial Solar or Wind Electric Generating Facilities of 10 kW or Less	22694-E
79-978	Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities 1,000 Kilowatts or less, other than Residential or Small Commercial Facilities of 10 kW or Less.....	30796-E (T)
79-994	Interconnection Application for Net Energy Metering (E-NET) for Residential or Small Commercial Customers with Solar or Wind Generating Facilities of 10 Kilowatts or Less.....	25580-E
79-997	Interconnection Agreement for Net Energy Metering of Qualifying Biogas Digester Generating Facilities.....	22697-E
79-998	Expanded Net Energy Metering (E-Net) Supplemental Application	30797-E (T)
79-999	Agreement for Limited Optional Remote Metering Service	20195-E
79-1010	Interconnection Agreement for Net Energy Metering of Fuel Cell Generating Facilities...	28568-E
79-1069	Generating Facility Interconnection Agreement (Eligible/Non-Eligible Net Generating Facility Export)	30798-E (T)
79-1101	Application and Interconnection Agreement for Customers with Solar and/or Wind Electric Generating Facilities of 30 kilowatts or Less	29712-E
79-1106	PG&E Customer Declaration Regarding Rate E-7/EL-7 Eligibility as a California Energy Commission's New Solar Homes Partnership (NSHP) Rebate Recipient for a Single Family Custom Home.....	27600-E
79-1109	Net Energy Metering Application and Interconnection Agreement for the Building Owner of a Multifamily Affordable Solar Housing Facility with a Solar Generating Facility of 1 Megawatt or Less	30526-E
79-1112	Local Government Application for an LGRR Arrangement to Take Service on Rate Schedule RES-BCT With Interconnection Eligible Renewable Generation of Not More Than 1 Megawatt.....	29215-E
79-1114	NEM 2010 Early True-up Request Form.....	28929-E
79-1124	Eligible Low Income Development Virtual Net Energy Metering Application and Interconnection Agreement for Multi-Family Affordable Housing with Solar Generation Totaling 1 Megawatt or Less.....	30527-E
79-1125	NEM / NEMVMASH Inspection Report.....	30799-E (T)
79-1130	Customer Request Form not to Receive Net Surplus Compensation	30639-E
79-1137	Interconnection Agreement for Net Metering for a Renewable Electrical Generation Facility of 1,000 Kilowatts or Less	30800-E (T)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 1 (N)
 (N)
 (N)

APPLICABILITY: This virtual net energy-metering schedule is applicable to multiple, individually metered tenants served at the same Service Delivery Point (SDP),¹ with the following- (N)

a. A Generator Account that:

- (i) consists of a a Renewable Electrical Generation Facility, or a combination of those facilities as defined below single solar photovoltaic and/or wind generating facility ("Eligible Generating Facility") sized no larger than the energy requirements of all Benefitting Accounts but with a maximum total size of no larger than one megawatt (1,000 kiloWatts), and where the wind generator if any, has a maximum size of no larger than fifty (50) kilowatts; and
- (ii) is interconnected with PG&E through a single meter located at the same Service Delivery Point as all Benefitting Accounts; and
- (iii) has no load other than that required by the Renewable Electric Generating Facility or the combination of such Eligible Generating Facility's inverter; and
- (iv) takes bundled service, with the generator owner or their designee as the Customer of record ("Owner"); and

b. Benefitting Account(s), each of which:

- (i) takes bundled service from PG&E; and
- (ii) is an individually metered, electric account serving a tenant or common area with no other generating facility interconnected with PG&E on the account; and
- (iii) is served from the same Service Delivery Point as the Eligible Generating Facility Renewable Electric Generating Facility, and
- (iv) does not participate in a PG&E electric demand response program, another virtual net energy metering program or the RES-BCT program.

The exports from the Generating Account are allocated to the Benefitting Accounts as described in the Special Condition 3 below.

The Generator Account and the Benefitting Accounts will be referred to collectively in this tariff as a "NEMV Arrangement."

(N)

¹ As defined in Rule 16, section H, *Definitions for Rule 16.*

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 2 (N)
(N)
(N)

APPLICABILITY:
(Cont'd.)

NEMV is available on a first-come, first-served basis to Customers that provide PG&E with:

(N)

- a. a completed, signed NEMV application and interconnection agreement as described in Special Condition 4, including all supporting documents and required payments; AND
- b. evidence of the Customer's final inspection clearance from the governmental authority having jurisdiction over the generating facility;

until such time as the total rated generating capacity used by eligible Customer-generators on Rate Schedule NEM, NEMV and NEMVMASH, exceeds five (5) percent of PG&E's aggregate customer peak demand. (calculation as described in Rate Schedule NEM).

Network Grid Limitations – Portions of San Francisco and Oakland, where PG&E has a network grid, have generation export limitations. Customers seeking generator interconnections in San Francisco and Oakland must contact PG&E before beginning any work.

Owner Obligations – The Owner must:

- a. comply with all applicable safety and performance standards as delineated in PG&E's Electric Rule 21 and other applicable tariffs, safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the California Public Utilities Commission regarding safety and reliability. The Owner is solely responsible for the ongoing maintenance and operation of the Solar Generating Facility; and
- b. keep in force the amount of property, commercial general liability and/or personal liability insurance the Owner has in place at the time they initiate service on this tariff; and

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 3 (N)
(N)
(N)

APPLICABILITY: **Owner Obligations – The Owner must: (Cont'd.)**
(Cont'd.)

(N)

- c. agree that PG&E may from time to time release to the California Energy Commission and/or the California Public Utilities Commission, information regarding the NEMV Arrangement, including the Owner's name, and Eligible Generating Facility Renewable Electric Generating Facility location, capacity and operational characteristics, and Customer names at the Benefitting Accounts; and
- d. agree to and comply with all applicable rules and requirements of this NEMV Rate Schedule; and
- e. comply with all applicable safety and performance standards as delineated in PG&E's Electric Rule 21 and other applicable tariffs, safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the California Public Utilities Commission regarding safety and reliability. The Owner is solely responsible for the ongoing maintenance and operation of the Eligible Generating Facility Renewable Electric Generating Facility.

Modifications to Eligible Generating Facility Renewable Electric Generating Facility – If the NEMV Arrangement's Solar Generating Facility has not been previously approved for interconnection by PG&E, or where any modification to the previously approved Eligible Generating Facility Renewable Electric Generating Facility has been made, the Owner must complete the interconnection process in Special Condition 4 of this tariff.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 4 (N)
 (N)
 (N)

APPLICABILITY:
 (Cont'd.)

Change in Owner – A change in the Owner responsible for the NEMV Arrangement (“Change of Owner”), where no modification to the solar and/or wind Eligible Generating Facility Renewable Electric Generating Facility has been made, does not need to complete the interconnection process in Special Condition 3, as long as the requirements of this section are met. (However, see Special Condition 6 for any re-inspection requirements.)

(N)

RATES:

For a Renewable Electric Generating Facility other than a solar and/or wind Generating Facility, or for a solar and/or wind Generating Facility with a capacity of more than 30kW, a change in the Owner responsible for the NEMV Arrangement (“Change of Owner”), where no modification to the Generating Facility has been made, may at PG&E’s request, need to complete a new Interconnection Agreement and/or interconnection agreement Appendix C (affidavit).

The rate and charges for each Benefitting Account under this schedule will be in accordance with its PG&E otherwise-applicable metered rate schedule (OAS). The Customer at each Benefitting Account served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges.

For Benefitting Accounts on general service OASs, the “Average Rate Limiter” and all other demand charges will be based on the demand in kilowatts as measured only on the energy being consumed at the Benefitting Account from PG&E. The power factor, when it applies on the OAS, will be based on the energy consumed at the Benefitting Account from PG&E and the average power factor over the past 12 billing months of operation prior to starting on NEMV. A Benefitting Account, without 12 billing months of power factor history, will have its power factor estimated based on the nature of the connected loads and their hours of operation. Power factor will be subsequently applied to the bill at the Benefitting Account until the Customer demonstrates to PG&E’s satisfaction that adequate correction had been provided. PG&E will continue to monitor and review the power factor and if warranted, change the power factor correction on the Benefitting Account’s bills.

(N)

Charges for energy (kWh) supplied by PG&E will be based on the net metered usage in accordance with Billing (Special Condition 3, below).

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 5 (N)
(N)
(N)

RATES:
(Cont'd.)

The Owner of the Generator Account served under this schedule will be billed under the OAS that contains the appropriate customer-, minimum- and/or meter charges. Customers who have elected to pay a one-time fee for the installation of a TOU meter pursuant to Special Condition 1.a.(ii) of this Schedule NEMV will be placed on an OAS that does not contain a meter charge. If the Owner elects the monthly meter charge option pursuant to Special Condition 1.a. (ii), the Generator Account shall be placed on an OAS containing a meter charge. The Owner at the Generating Account served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges, as well as the charges in this Schedule NEMV, including those in Special Conditions 1(a) and 2, where applicable.

Generator Accounts eligible for service under NEMV are exempt from the requirements of Schedule S—*Standby Service*.

SPECIAL
CONDITIONS:

1. **METERING:** NEMV net energy metering shall be accomplished at:

- a. -The Generator Account where the Eligible Generating Facility Renewable Electric Generating Facility is located, using either:
 - (i) a PG&E interval meter (capable of recording the Eligible Generating Facility Renewable Electric Generating Facility's- output in up to fifteen minute increments), if required by PG&E to allocate the Eligible Energy Credit based on the OAS of the Benefitting Accounts in an NEMV Arrangement. The Owner shall be responsible for, and shall bear all costs associated with PG&E providing and installing an interval meter for the Generator Account. The cost of the interval meter installation will be determined by PG&E and will vary on a site specific basis.
 - (ii) a PG&E "time-of-use" (TOU) meter, if based on review of the Benefitting Accounts' OASs PG&E is able to allocate the Eligible Energy Credits. This option will only be available until any Benefitting Account OAS change necessitates that the Owner provide an interval meter per (i) in order to properly allocate Eligible Energy Credits. The Owner shall be responsible for, and shall bear all costs associated with, PG&E providing and installing a TOU meter for the Generator Account (or upgrading to an interval meter if required in the future). For the TOU option, the Owner may choose charges based on either a one-time, up-front fee or as a monthly meter charge. Prices are as follows:

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 6 (N)
(N)
(N)

SPECIAL
CONDITIONS:
(Cont'd.)

1. METERING: NEMV net energy metering shall be accomplished at: (Cont'd.)

(N)

a. The Generator Account where the Eligible Generating Facility Renewable Electric Generating Facility is located, using either: (Cont'd.)

(ii) (Cont'd.):

TOU Meter Option	One Time upfront fee	Monthly Meter Charge
Single Phase	\$755.00	Based on the OAS monthly meter charge
Three Phase	\$890.00	Based on the OAS monthly meter charge

If the Generator Account is found to have any load in addition to that of the Eligible Generating Facility Renewable Electric Generating Facility's inverter(s), PG&E reserves the right to require the Owner to install a bi-directional PG&E meter appropriate to its otherwise applicable rate schedule and a generator output meter to determine the total generation and total usage at the Account. Additionally, the Owner will need to furnish at the Owner's expense a meter socket for the generation output meter and provide PG&E with unrestricted access to that meter and socket. If the Generator Account's existing electrical meter, together with the generation output meter, is not capable of determining the total usage necessary to bill its otherwise applicable rate schedule, the Owner shall be responsible for all expenses involved in purchasing and installing such metering.

b. each Benefitting Account using PG&E metering appropriate to its otherwise applicable rate schedule.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 7 (N)
(N)
(N)

SPECIAL
CONDITIONS:
(Cont'd.)

2. ONE-TIME SETUP CHARGES:

(N)

PG&E will bill the Owner a one-time setup charge of **\$12.00** per Benefitting Account in the NEMV Arrangement when the Owner submits Appendix A to first establish service for a Benefitting Account, as described Special Condition 3 (b).

PG&E will bill the Owner a one-time modification charge of **\$3.00** for each Benefitting Account with a changed allocation when the Owner submits a new Appendix A with a change to the Annual Eligible Energy Credit Allocation, as described Special Condition 3 (f).

PG&E will bill the Owner a one-time Service Delivery Point and NEMV Arrangement assessment charge of **\$550.00**. If the Owner's site includes more than one NEMV Arrangement, for any additional NEMV Arrangement assessments performed at the same time as the first, the Owner will be billed a charge of **\$91** for each additional Generator Account.

3. BILLING:

For each Benefitting Account, Consumption or production shall be valued as follows:

a. Annual Eligible Energy Credit

The Annual Eligible Energy Credit is the total energy (in kilowatt hours or kWh) exported to PG&E by the Generator Account over the Relevant Period as defined in Special Condition 3 f.

b. The Annual Eligible Energy Credit Allocation

The Owner at the time the NEMV Arrangement first takes service under NEMV shall determine the initial percentage of Annual Eligible Energy Credits allocated to the Benefitting Accounts.

This allocation percentage will be established by the Owner on Appendix A of the NEMV application and interconnection agreement as described in Special Condition 4.

Once allocated, Credits (in dollars) will be calculated per the OAS for each Benefitting Account as described in Special Condition 3.c.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 8 (N)
 (N)
 (N)

SPECIAL
 CONDITIONS:
 (Cont'd.)

3. BILLING (Cont'd.):

(N)

c. Monthly Energy Charge/Credit For an OAS with Baseline Rates

A Customer is a net consumer if the Benefitting Account's Eligible Energy Allocation percentage (A%) times the ~~Eligible Generating Facility~~ Renewable Electric Generating Facility's output (in kWh) is less than the Customer's usage (Customer Usage), and its net consumption in kWh is equal to:

$$\frac{\text{Customer usage} - (A\% \times \text{Eligible Generating Facility Renewable Electric Generating Facility's output})}{\text{net consumption}} = \underline{\hspace{2cm}}$$

Otherwise the Benefitting Account is a net producer and its net production in kWh is equal to:

$$\frac{-(A\% \times \text{Eligible Generating Facility Renewable Electric Generating Facility's output}) - \text{Customer Usage}}{\text{net production}} = \underline{\hspace{2cm}}$$

If the Customer is a net consumer, the Benefitting Account will be billed for its net consumption in accordance with the Benefitting Account's OAS.

If the Customer is a net generator, the net production shall be valued at the rate for the kWh up to the baseline quantity, if applicable, with any excess kWh generated, valued at the rate for the appropriate tier level in which the equivalent kWh of usage would fall in accordance with the Benefitting Account's OAS.

d. Monthly Energy Charge/Credit For an OAS with Time of Use (TOU)

A Customer is a net consumer for a discrete TOU period if the Benefitting Account's Eligible Energy Allocation Percentage (A%) times the ~~Eligible Generating Facility~~ Renewable Electric Generating Facility's output (in kWh) for that TOU period (TOU ~~Eligible Generating Facility~~ Renewable Electric Generating Facility's output) is less than the Customer's usage (Customer TOU usage) for the TOU period, and its net consumption in kWh is equal to:

(N)

$$\frac{\text{Customer TOU usage} - (A\% \times \text{Eligible Generating Facility Renewable Electric Generating Facility's output})}{\text{net consumption}} = \underline{\hspace{2cm}}$$

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 8 (N)
(N)
(N)

Otherwise the Customer is a net producer and its net production in KWh is
equal to:

(A% x TOU ~~Eligible Generating Facility~~ Renewable Electric Generating Facility's
output) – Customer TOU usage – _____
_____ net production

Pro Forma

(Continued)

Advice Letter No: 3902-E
Decision No. 11-07-031

Issued by
Brian K. Cherry
Vice President
Regulation and Rates

Date Filed September 12, 2011
Effective _____
Resolution No. _____



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 9 (N)
(N)
(N)

SPECIAL
CONDITIONS:
(Cont'd.)

3. BILLING (Cont'd.):

(N)

d. Monthly Energy Charge/Credit For an OAS with Time of Use (TOU)
(Cont'd.):

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

- If the Customer is a net consumer during any discrete TOU period, the net consumption shall be billed in accordance with that same TOU period in the Benefitting Account's OAS.
- If the Customer is a net generator during any discrete TOU period, the net production shall be valued at the price per kWh at the same TOU period in the Benefitting Account's OAS.

For Customers on tiered rates, in the event that at the end of the monthly billing cycle, a Customer's net consumption (kWh) for all TOU periods totals zero (i.e. net production in one or more periods exactly offsets the net consumption in all other periods), then the value of usage and/or generation will be calculated using Tier 1 rates (as set forth in the OAS).

e. For an OAS With Monthly Minimum Charges

For Benefitting Accounts taking service on a residential OAS, the minimum charges have a customer-related component and an energy-related component. The applicable customer-related components of such minimum charges shall be treated as described in the OAS and billed monthly. The energy (kWh) related component shall be treated in the same manner as energy (kWh) consumed, as described in Special Condition 3 g below, unless otherwise provided for in the Benefitting Account's OAS.

For Benefitting Accounts, the net balance of all moneys owed for the net energy (kWh) consumed must be paid on each monthly billing cycle. When Benefitting Accounts are a net electricity producer over a monthly billing cycle, the value of any excess kWh generated during the billing cycle shall be carried over to the following billing period and appear as a credit on the Customer's account, until the end of the Relevant Period.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 10 (N)
(N)
(N)

SPECIAL
CONDITIONS
: (Cont'd.)

3. BILLING (Cont'd.)

(N)

f. Relevant Period

A Relevant Period consists of any twelve monthly billing cycles commencing on the date PG&E provides the Owner with PG&E's written approval to begin parallel operation of the ~~Eligible Generating Facility~~ Renewable Electric Generating Facility for purposes of participating in NEMV, and on every subsequent anniversary thereof.

If a Benefitting Account terminates service with PG&E or there is a change of party at a Benefitting Account, prior to the end of any 12 monthly billing cycles, the Relevant Period for that Benefitting Account will consist of that period from the anniversary date until the effective date of that termination or Change of Party.

The subsequent Customer after a Change of Party at a Benefitting Account will start a new Relevant Period commencing on the date the new Customer takes service under this rate, and every subsequent anniversary thereafter.

On a going forward basis, the Owner may add, remove Benefitting Accounts, and/or change the Annual Eligible Energy Credit Allocation to existing Benefitting Accounts. It is the responsibility of the Owner of the Generator Account to notify all Benefitting Accounts in the NEMV Arrangement of any change in their Annual Eligible Energy Credit Allocation. In order to elect this option, the Owner must submit (i) a revised Appendix A with the new allocations as described in Special Condition 3 and (ii) a new Appendix B, and (iii) payment of the one-time allocation modification charge described in Special Condition 2. The submission of these three items must be made at least thirty business days prior to the next ~~the~~ Billing Cycle start date, for it to be effective upon the first day of the next Billing Cycle. There will be no change to any of the (remaining) Benefitting Accounts' existing Relevant Period.

If an Owner terminates service under this rate schedule for the NEMV Arrangement prior to the end of any 12 monthly billing cycles, then the Relevant Period for all Benefitting Accounts will end as described in the previous paragraph upon reaching the effective date of the service termination.

If there is a Change of Owner then the existing Benefitting Account will not result in a new Relevant Period. If a new Annual Eligible Energy Credit Allocation is made to some or all of the Benefitting Accounts it will be treated as described in the section above.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 11 (N)
(N)
(N)

**SPECIAL
CONDITIONS:
(Cont'd.)**

3. BILLING (Cont'd.):

(N)

g. Relevant Period True Up

A true up is performed by PG&E at the end of each Relevant Period for each Benefitting Account.

Where the residential minimum bill applies at the true up for a Bundled Service Benefitting Account, no further amounts will be billed to that Customer as a result of the true up.

If a Benefitting Account's Relevant Period ends under any of the circumstances described in 3.f above:

- a) The Customer will pay all charges owed at that time;
- b) No payments shall be made for credits remaining after the true-up; However, in the event the Benefitting Account's allocation of energy (kWh), generated at the associated Generator Account and fed back to the electric grid, exceeds the energy (kWh) consumed during the Relevant Period, compensation shall be made for the excess energy (kWh) as described in Special Condition 5.

h. Billing Information

PG&E shall provide each Benefitting Account with its net energy (kWh) consumption information with each regular bill. That information shall include the current monetary balance owed PG&E for the net energy (kWh) consumed since the start of the current Relevant Period.

i. OAS Payment Option

Eligible Small Customer (as defined in Rule 1) Benefitting Accounts will be required to pay monthly, unless they specifically request to pay annually, for the net energy (kWh) consumed. For commercial Benefitting Accounts other than Small Commercial, the net balance of all moneys owed must be paid on each monthly billing cycle. When the Customer is a net electricity producer over a monthly billing cycle, the value of any excess kilowatt-hours generated during the billing cycle shall be carried over to the following billing period and appear as a credit on the Customer's account, until the end of the Relevant Period.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 12 (N)
(N)
(N)

SPECIAL
CONDITIONS:
(Cont'd.)

4. INTERCONNECTION:

(N)

In order to receive approval for Parallel Operation of the Eligible Generating Facilities, the Owner must submit a completed PG&E application form and interconnection agreement as follows:

Interconnection Costs: The Owner or Operator of the Eligible Generator must pay all interconnection costs required under Rule 21, including but not limited to re-wiring, trenching, conduit, and other facility costs that are needed.

Facility Type
For a NEMV
Arrangement

Form

NEMV Application and Interconnection Agreement for an ~~Eligible Generating Facility~~ Renewable Electric Generating Facility of 1 Megawatt or Less Serving Multiple Tenants Served at a Single Service Delivery Point. (Form 79-1131).

Appendix A – Designation of NEMV Generating Account and Benefitting Accounts and their respective Eligible Energy Credit Allocation

Appendix B – Owner Affidavit Warranting That NEMV Arrangement Is Sized to Load.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV Sheet 13 (N)
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE (N)
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT (N)

**SPECIAL
CONDITIONS:**
(Cont'd.)

5. NET SURPLUS ELECTRICITY COMPENSATION (NSC): (N)

Pursuant to P.U. Code Section 2827 (h)(4)(A), this Special Condition was established to provide a NEMV Benefitting Account having Net Surplus Electricity, (defined as all electricity generated by an eligible Benefitting Account Customer measured in kilowatt-hours over a Relevant Period – as defined in Special Condition 3(f) of this tariff – that exceeds the amount of electricity consumed by that eligible Benefitting Account Customer), with Net Surplus Electricity Compensation (NSC) for the Net Surplus Electricity, while leaving other ratepayers unaffected. A NEMV Benefitting Account Customer who has Net Surplus Electricity will be known as a Net Surplus Generator.

- (a) NSC Applicability – All bundled Net Surplus Generators that satisfy the conditions in the Applicability Section of this tariff and take service under this rate schedule are eligible to receive NSC if they have a true-up on, or following, the effective date below.

The effective date for a Net Surplus Generator Benefitting Account to begin to be eligible to receive NSC on a NEMV Benefitting Account's true-up will be at the end of its first and every subsequent Reconciliation Period under the NEMV tariff following January 1, 2011.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 14 (N)
(N)
(N)

SPECIAL
CONDITIONS:
(Cont'd.)

5. NET SURPLUS ELECTRICITY COMPENSATION (NSC) (Cont'd):

(N)

- (b) The **NSC Rate** – The NSC Rate is defined as the simple rolling average of PG&E's default load aggregation point (DLAP) price from 7 a.m. to 5 p.m., for a 12-month period. PG&E shall use the NSC Rate as the value of the electricity portion of its net surplus compensation rate.

PG&E will calculate the NSC Rate each month. It will be effective on the first day of that month and PG&E will use it in the NSC Calculation for any Net Surplus Generators with a Relevant Period completed in that month (True-Up Month).

The **DLAP Cutoff Date** will be defined as the twentieth (20th) day of the month prior to the True-Up Month.

PG&E will wait five (5) days after the DLAP Cutoff Date for the CAISO to have time to finalize the day-ahead PG&E DLAP prices. The NSC Rate will then be calculated as the simple average of the prices for all hours between 7 a.m. and 5 p.m. over a one (1) year period ending on the DLAP Cutoff Date.

- (c) Pursuant to D. 11-06-016, PG&E will modify this tariff to include a **Renewable Attribute Adder (RAA)** once the California Energy Commission (CEC) determines the implementation methodology.
- (d) Calculation of the NSC – NSC is calculated by multiplying any Net Surplus Electricity (kWh) by the NSC Rate in (b) above.

(N)

(Continued)



ELECTRIC SCHEDULE NEMV
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 15 (N)
 (N)
 (N)

SPECIAL
 CONDITIONS:
 (Cont'd.)

5. NET SURPLUS ELECTRICITY COMPENSATION (NSC) (Cont'd.): (N)
- (e) Options for receiving NSC – A NEMV Customer with NSC will automatically have their NSC applied to any amounts owed to PG&E and then may choose to:
 - (1) take no action and roll any remaining NSC amounts forward to offset subsequent PG&E charges; or
 - (2) request that PG&E issue a check if the NSC remaining amount is greater than one dollar (\$1). A Customer can select this option by calling PG&E. If the Customer is closing all their accounts with PG&E, PG&E will automatically send a check; or.
 - (3) elect not to receive any NSC by completing and submitting form 79-1130 (*Customer Request Form not to Receive Net Surplus Compensation*) to PG&E to confirm that they do not want to participate. In this case PG&E will zero out any NSC the NEMV Customer may be otherwise eligible to receive.
 - (f) QF Status – Customers receiving net surplus compensation must first demonstrate to PG&E that the Generator Account from which they receive their generation allocation as described in Special Condition 2(b) are Qualifying Facilities in order to receive NSC. Since the Generator Accounts serving all NEMV Customer-generators currently meet the requirements for a qualifying facility exempt from certification filing at the Federal Energy Regulatory Commission (FERC), no further documentation is required at this time.
 - (g) Generator Size – Nothing in this Special Condition alters the existing NEMV system sizing requirement. Specifically, in order to be eligible for NSC, the Generator Account system must be intended primarily to offset part or all of the Benefitting Account Customers' own electrical requirements. Systems that are sized larger than the electrical requirements are not eligible for NEMV and therefore, are not eligible for NSC either.
- (N)

(Continued)

ELECTRIC SCHEDULE NEMV She
SOLAR AND/OR WIND VIRTUAL NET ENERGY METERING FOR MULTIPLE
TENANTS SERVED AT THE SAME SERVICE DELIVERY POINT

Sheet 16 (N)
 PLE (N)
 (N)

**SPECIAL
CONDITIONS:
(Cont'd.)**

6. RE-INSPECTION

Pursuant to Public Utilities Code Section 2827(c)(2), any Customer with an existing electrical generating facility and meter who enters into a new net energy metering contract (for example, form 79-1131 *NEMV Application and Interconnection Agreement for an Eligible Generating Facility Renewable Electric Generating Facility* of 1 Megawatt or Less Serving Multiple Tenants Served at a Single Service Delivery Point.) shall complete and submit a copy of form 79-1125 – NEM / NEMV / NEMVMASH Inspection Report to PG&E, unless the electrical generating facility and meter have been installed or inspected within the previous three years. The NEM Inspection Report shall be prepared by a California licensed contractor who is not the Owner or operator of the facility and meter. A California licensed electrician shall perform the inspection of the electrical portion of the facility and meter and sign the NEM / NEMV / NEMVMASH Inspection Report. If an inspection is required, the Customer shall submit the fully completed NEM / NEMV / NEMVMASH Inspection Report to PG&E within 90 days of the Customer becoming the Customer of record at this account, or else the Customer agrees to disconnect their Generating Facility and inform PG&E it no longer will take service on schedule NEM, NEMV, or NEMVMASH. By signing the interconnection agreement, the NEM / NEMV / NEMVMASH Inspection Report shall be incorporated into it.

$$\begin{array}{c} \text{(N)} \\ \vdots \\ \text{(N)} \end{array}$$

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

AT&T	Department of Water Resources	North Coast SolarResources
Alcantar & Kahl LLP	Dept of General Services	Northern California Power Association
Ameresco	Douglass & Liddell	Occidental Energy Marketing, Inc.
Anderson & Poole	Downey & Brand	OnGrid Solar
Arizona Public Service Company	Duke Energy	Praxair
BART	Economic Sciences Corporation	R. W. Beck & Associates
Barkovich & Yap, Inc.	Ellison Schneider & Harris LLP	RCS, Inc.
Bartle Wells Associates	Foster Farms	Recurrent Energy
Bloomberg	G. A. Krause & Assoc.	SCD Energy Solutions
Bloomberg New Energy Finance	GLJ Publications	SCE
Boston Properties	GenOn Energy, Inc.	SMUD
Braun Blaising McLaughlin, P.C.	Goodin, MacBride, Squeri, Schlotz & Ritchie	SPURR
Brookfield Renewable Power	Green Power Institute	San Francisco Public Utilities Commission
CA Bldg Industry Association	Hanna & Morton	Seattle City Light
CLECA Law Office	Hitachi	Sempra Utilities
CSC Energy Services	In House Energy	Sierra Pacific Power Company
California Cotton Ginners & Growers Assn	International Power Technology	Silicon Valley Power
California Energy Commission	Intestate Gas Services, Inc.	Silo Energy LLC
California League of Food Processors	Lawrence Berkeley National Lab	Southern California Edison Company
California Public Utilities Commission	Los Angeles Dept of Water & Power	Spark Energy, L.P.
Calpine	Luce, Forward, Hamilton & Scripps LLP	Sun Light & Power
Cardinal Cogen	MAC Lighting Consulting	Sunshine Design
Casner, Steve	MBMC, Inc.	Sutherland, Asbill & Brennan
Chris, King	MRW & Associates	Tabors Caramanis & Associates
City of Palo Alto	Manatt Phelps Phillips	Tecogen, Inc.
City of Palo Alto Utilities	McKenzie & Associates	Tiger Natural Gas, Inc.
City of San Jose	Merced Irrigation District	TransCanada
City of Santa Rosa	Modesto Irrigation District	Turlock Irrigation District
Clean Energy Fuels	Morgan Stanley	United Cogen
Coast Economic Consulting	Morrison & Foerster	Utility Cost Management
Commercial Energy	NLine Energy, Inc.	Utility Specialists
Consumer Federation of California	NRG West	Verizon
Crossborder Energy	NaturEner	Wellhead Electric Company
Davis Wright Tremaine LLP	Navigant Consulting	Western Manufactured Housing Communities Association (WMA)
Day Carter Murphy	Norris & Wong Associates	eMeter Corporation
Defense Energy Support Center	North America Power Partners	