



# AGREEMENT AND CUSTOMER AUTHORIZATION

## Net Energy Metering Interconnection For Solar And/Or Wind Electric Generating Facilities Of 30 Kilowatts Or Less

### IMPORTANT NOTES:

- Customers may not operate their Generating Facility while interconnected to the PG&E system until they receive written permission from PG&E.
- City and County of San Francisco ("CCSF") owned generating facilities seeking Schedule NEMCCSF and participants in the Demand Response Programs below are not eligible to participate in NEM.
  - Peak Day Pricing (PDP)
  - Scheduled Load Reduction Program (SLRP)
  - SmartRate
- Customers who participate in Direct Access and Community Choice Aggregation must contact their Energy Service Provider directly regarding their NEM program.

### Part I – Generating Facility Information and Responsible Parties

#### A. Customer and Generating Facility Information (\*as it appears on the PG&E bill):

Standard NEM Agreement Type:  Single Account  Multiple Aggregated Accounts

Note: Net Energy Metering Aggregation (NEMA) is a program that allows customers with multiple meters to use the renewable energy generated at one meter (up to 1MW) to be credited against other meters that are located on parcel(s) that is/are contiguous or adjacent to the parcel that has the renewable generator.

Customer Sector (check only one):  Residential  Educational  
 Commercial  Military  
 Industrial  Other Government  
 Non-Profit

Account Holder Name* (Individual or Company)	Electric Service Agreement ID *	Meter Number*
		CA
Service Address*	City*	State Zip*

Customer Phone Number Email (if blank, Permission to Operate (PTO) letter will be mailed to mailing address on record)

#### B. Meter Access Issues (if applicable, check all that apply and provide contact information to request access):

Meter in building or  Unrestrained animal at meter or  Other: \_\_\_\_\_  
behind locked gate AC Disconnect Switch

Contact Name to Request Access (if access issues exist) Contact Phone

#### C. Authorized Contact Information (required if Customer is authorizing a third party to act on Customer's behalf):

Company Name	Contact Person
Contact Phone Number	Email

By checking this box and signing this Agreement, I (Customer) authorize PG&E to release my PG&E Electric Account information to the Company above limited to kilowatt hour (kWh) usage, operational characteristics, and other information related to my Generating Facility application. Company is also authorized to submit Application Form 79-1151B and act on my behalf with regard to the interconnection and receive copies of this executed Interconnection Agreement and the Permission to Operate Letter when issued.



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### Part II – NEM Generator System Size

#### A. Interconnection Study and Requirements

This Agreement covers the installed Generating Facility nameplate listed in the accompanying Application Form 79-1151B.

The interconnection study will use the nameplate to determine if Interconnection Facilities or Distribution or Network Upgrades are required and the responsible party for the associated costs. If upgrades are required, this will increase the time it will take for PG&E to approve your interconnection.

In order for PG&E to approve your system, you will need to provide (1) this signed Agreement, (2) Application Form 79-1151B, and (3) a copy of the final signed jurisdiction approval (building permit) for your project.

NEM systems should be sized with an estimated annual production no larger than 110% of the Customer's total previous 12 months of usage (annual usage) and projected future increase. For customers on a Time-of-Use rate, sizing your system to offset 80%-85% of your average electricity usage could be an effective way to minimize your electricity bill. For customer who are not on a Time-of-Use rate, you might want to size your system larger (90-95% of your annual load), in order to minimize your electricity bill. Of course, individual circumstances may vary. Customers can obtain their usage data from [www.pge.com/greenbutton](http://www.pge.com/greenbutton). System sizing eligibility will be reviewed using the criteria below.

#### B. Generator System Sizing

Generator System Type:  Solar       Wind       Both

##### Estimated Annual Production:

- Solar Systems > 5 kW (CEC-AC kW) or any system with wind, size is determined below. Please continue to fill out all of Section B.
- The Solar CEC-AC kW calculated from the Application cannot exceed 5% of the CEC-AC kW listed above

(1) Solar CEC-AC rating <sup>A</sup>	(kW)	X 1,498 <sup>B</sup>	=	(kWh)
AND/OR (2) Wind Nameplate rating	(kW)	X 2,190 <sup>C</sup>	=	(kWh)
(3) Total Energy Production	(1) + (2)		(kWh)	

##### Estimated Annual Energy Usage:

(4) Recent annual usage	(kWh)	X 1.1	=	(kWh)
OR (If 12 months usage not available) (5) Building size	(sq ft)	X 3.00 <sup>D</sup>	=	(kWh)
AND (6) I plan to increase my annual usage (kWh) by			(kWh)	
(7) Total Energy Usage	(4 or 5) + (6)		(kWh)	

##### Net Generation:

(8) Production - Usage	(3) - (7)	=	(kWh)*
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\*Positive number indicates that the system is estimated to generate more than the estimated usage. Please refer to Part IV, Section J to read the provisions around Net Surplus Compensation (NSC).

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

<sup>B</sup> 8,760 hrs/yr x 0.171 solar capacity factor = 1,498

<sup>C</sup> 8,760 hrs/yr x 0.25 wind capacity factor = 2,190

<sup>D</sup> 2 watts/ sq ft x 1/1,000 watts x 8,760 hrs/yr x 0.171 solar capacity factor = 3.00



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### Part III – Rate Selection

**A. Current Rate:** Please identify your existing rate by reviewing your PG&E energy statement or by calling the phone number listed below.

**Otherwise Applicable Rate Schedule (OAS) for NEM Account:** Select one rate from the category applicable to you. Visit [www.pge.com/rateoptions](http://www.pge.com/rateoptions) or call (800)-PGE-5000 for rate information.

**Residential Service Rate (Select one):**

- E-1 – Non-Time-of-Use
- E-6 – Time-of-Use
- E-7<sup>E</sup> – Time-of-Use
- E-8<sup>F</sup> – Non-Time-of-Use
- E-9A<sup>F</sup> – Time-of-Use for Customers with a single meter for Electric Vehicle (EV) recharging station and home
- E-9B<sup>F</sup> – Time-of-Use for Customers with a separately metered EV recharging station
- EV-A<sup>F</sup> – Time-of-Use for Customers with a single meter for Electric Vehicle (EV) recharging station and home
- EV-B<sup>G</sup> – Time-of-Use for Customers with a separately metered EV recharging station
- Other (\_\_\_\_\_)

**Small and Medium Commercial Service Rate (Select one rate and primary or secondary service voltage):**

- |   | <b>Primary</b>           | <b>Secondary</b>         |
|---|--------------------------|--------------------------|
| <input type="checkbox"/> A-1 – Small General Service                  | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> A-6 – Small General Time-of-Use Service      | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> A-10 – Medium General Demand-Metered Service | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> A-10 – Medium General Time-of-use Service    | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> B-1 – Small General Service                  | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> B-6 – Small General Time-of-Use Service      | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> B-10 – Medium General Time-of-Use Service    | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Other (_____)                                | <input type="checkbox"/> | <input type="checkbox"/> |

**Agricultural Power Service Rate: (Select one rate and rate option):**

- |   | <b>A</b>                 | <b>B</b>                 | <b>C</b>                 | <b>D</b>                 | <b>E</b>                 | <b>F</b>                 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> AG-1                                       | <input type="checkbox"/> | <input type="checkbox"/> |                          |                          |                          |                          |
| <input type="checkbox"/> AG-R <sup>F</sup> – Split-Week Time-of-Use | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> AG-V <sup>F</sup> – Short-Peak Time-of-Use | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> AG-4 – Time-of-Use                         | <input type="checkbox"/> |
| <input type="checkbox"/> AG-5 – Time of Use                         | <input type="checkbox"/> |
| <input type="checkbox"/> Other (_____)                              | <input type="checkbox"/> |

If your current rate is a closed rate, as identified in Footnote F, and you are now opting to move to a non-closed rate per the Otherwise Applicable Rate Schedule (OAS) for NEM Account, please check the box below acknowledging that you are leaving the closed rate and will not be able to select the closed rate in the future.

- I acknowledge and consent to leaving my current rate that is a closed rate

<sup>E</sup> E-7, E-8, E-9A, E-9B, AG-R, and AG-V are closed to all new customers and are only available to Customers that are currently on the rate

<sup>F</sup> Rates effective August 1, 2013 for Customers with Electric Vehicles. Please visit [www.pge.com/electricvehicles](http://www.pge.com/electricvehicles) for more rate information



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## **Net Energy Metering Interconnection**

### **For Solar And/Or Wind Electric Generating**

### **Facilities Of 30 Kilowatts Or Less**

#### **Part IV – Interconnection Agreement Provisions**

##### **A. Purpose**

The purpose of this Net Energy Metering (NEM) Application and Interconnection Agreement for Solar and/or Wind Electric Generating Facilities of 30 Kilowatts or Less (Agreement) is to allow Customer to interconnect with Pacific Gas and Electric Company's (PG&E) Distribution System, subject to the provisions of this Agreement and PG&E's Electric Schedule Net Energy Metering (NEM). Customer has elected to interconnect and operate its solar and/or wind electric Generating Facility in parallel with PG&E's Distribution System to offset part or all of the Customer's own electrical requirements at this service point. Customer shall comply at all times with this Agreement as well as with all applicable laws, tariffs and requirements of the California Public Utilities Commission (CPUC).

##### **B. Applicability**

This Agreement applies to Electric Schedule NEM Customer-Generators (Customer) who interconnect a solar and/or wind turbine electrical Generating Facility, or a hybrid system of both, with an aggregate capacity of 30 kilowatts or less that is located on Customer's premises and that operates in parallel with PG&E's Distribution System.

##### **C. NEM Transition**

Customers receiving service on the current NEM tariff prior to the date that PG&E reaches its NEM Cap or July 1, 2017, whichever is earlier, are subject to the NEM Transition Provisions outlined in Rate Schedule NEM. Please see Rate Schedule NEM at [https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC\\_SCHEDS\\_NEM.pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_NEM.pdf) for more details.

##### **D. Permission to Operate**

Customer may not operate their generator while interconnected to the PG&E system until receiving written permission from PG&E. Unauthorized Parallel Operation could result in injury to persons and/or damage to equipment and/or property for which the Customer may be liable.

##### **E. Safety**

Customer shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, accredited testing laboratories such as Underwriters Laboratories and, where applicable, PG&E's Electric Rule 21, and other rules approved by the CPUC regarding safety and reliability. A Customer with a solar or wind-turbine electrical generating system, or a hybrid system of both, that meets those standards and rules shall not be required to install additional controls, perform or pay for additional tests, or purchase additional liability insurance.

##### **F. Safe Operation of your Generating Facility**

Notwithstanding any other provision of this Agreement, if at any time PG&E determines that the Customer's Facility, or its operation, may endanger (a) the public, (b) PG&E personnel, or (c) the safe and reliable operation of PG&E's electrical system, PG&E shall have the right to disconnect the Facility from PG&E's system. Customer's Facility shall remain disconnected until such time as PG&E is satisfied that the unsafe condition(s) have been corrected.

##### **G. AC Disconnect Switch**

PG&E recommends that a customer installing an inverter-based generator consider also installing an AC Disconnect Switch to facilitate maintenance of the Customer's equipment (i.e. inverter, PV arrays, etc.). If an AC Disconnect Switch is not installed, the revenue meter may be temporarily removed by PG&E due to an emergency or maintenance on PG&E's system to isolate the Customer's generator from the electric distribution system. Removal of the revenue meter will result in loss of electrical service to the Customer's facility or residence. AC Disconnect Switch requirements are available in PG&E's Greenbook [www.pge.com/greenbook](http://www.pge.com/greenbook).



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#### **H. Rate**

Customer has confirmed their otherwise applicable rate schedule (OAS), establishing how Customer's monthly usage or net generation will be charged/credited when submitting this Agreement. Further Customer-initiated rate changes are governed in accordance with PG&E's Electric Rule 12.

#### **I. NEM Billing**

PG&E installs a "net meter" on a customer's property that measures the net energy, defined as the difference between the amount of electricity supplied by the energy provider and the amount of electricity exported to the grid over the course of a month. The Customer's account is enrolled in the NEM program and put on an annual (12-billing months) true-up cycle.

The meter is read monthly and an amount is calculated based on the net energy recorded in kilowatt hours (kWh). If a customer exported more electricity than they drew from PG&E in a given billing cycle, the amount is deemed a surplus. If a customer received more electricity from PG&E than they exported, the amount is deemed a charge. The rate at which the charge or surplus is calculated is based on the customer's OAS which is requested by the Customer in this Agreement.

After 12 billing cycles, the corresponding charges and surpluses are reconciled in the annual true-up bill. Any remaining charges must be paid and any excess surpluses are typically zeroed out. More information about NEM billing is available at [www.pge.com/nembilling](http://www.pge.com/nembilling).

#### **J. Net Surplus Compensation (NSC)**

NSC payments are made to NEM customers who produce more electricity than they use during the Relevant Period. The payment rate is based on a rolling 12-month average of spot market prices and may fluctuate on a monthly basis. The historical range of the NSC rate at the time of this Advice Filing is approximately \$0.03 to \$0.04. A history of NSC rates is available at [www.pge.com/nembilling](http://www.pge.com/nembilling). If a customer would like to opt out from receiving this payment, please visit [www.pge.com/nscoptout to complete Form 79-1130](http://www.pge.com/nscoptout to complete Form 79-1130). Participants in NEMA, please see provisions in Form 79-1153.

#### **K. Limitation of Liability**

PG&E's and Customer's (Individually Party or together Parties) 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.

#### **L. Governing Law**

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.

#### **M. Governing Authority**

This Agreement shall at all times be subject to such changes or modification by the CPUC as said Commission may, from time to time, direct in the exercise of its jurisdiction.

#### **N. Term of Agreement**

This Agreement shall become effective as of the date of PG&E's issuance of the permission to operate letter after receipt of all applicable fees, required documents, and this completed Agreement. This Agreement shall continue in



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full force and effect until terminated by either Party providing 30-days prior written notice to the other Party, or when a new Customer takes service with PG&E operating this approved generating facility. This new Customer will be interconnected subject to the terms and conditions as set forth in Schedule NEM.

#### **O. Meter Access**

The electric meter must be installed in a safe location easily accessible upon PG&E request.

#### **P. Stale Agreements**

If this agreement is still pending one year from the date it is received by PG&E and Customer has not met all of the requirements, PG&E will close this application and Customer will be required to submit a new Agreement and Application should Customer wish to take service on Schedule NEM.

#### **Q. Smart Inverters**

For Customer applications received on or after September 9, 2017, the Customer certifies that their inverter-based Generating Facilities fully comply with Section Hh of Rule 21, including configuration of protective settings and default settings, in accordance with the specifications therein.

Distribution Provider may require a field verification of the Customer's inverter. Customer further agrees to cooperate fully with any such request and make their inverter available to the Distribution Provider for such verification. Customer understands that in the event the inverter is not set in accordance with Section Hh of Rule 21, Customer will need to cease operation of generating facility until verification is confirmed by Distribution Provider.

(Solar inverter models and firmware versions that comply with Rule 21 Section Hh can be found at <http://www.gosolarcalifornia.org/equipment/inverters.php>.)

Verification of compliance with such requirements shall be provided by the Customer upon request by PG&E in accordance with PG&E's Electric Rule 21.

An "existing inverter" is defined as an inverter that is a component of an existing Generating Facility that meets one or more of the following conditions:

- (a) it is already approved by PG&E for interconnection prior to September 9, 2017
- (b) the Customer has submitted the interconnection application prior to September 9, 2017,
- (c) the Customer provides evidence of having applied for an electrical permit for the Generating Facility installation that is dated prior to September 9, 2017 and submitted a complete interconnection application<sup>G</sup> no later than March 31, 2018, or
- (d) the Customer provides evidence of a final inspection clearance from the governmental authority having jurisdiction over the Generating Facility prior to September 9, 2017.

All "existing inverters" are not required to be Smart Inverters and are only subject to Section H of Rule 21. Customer replacing an "existing inverter" certifies it is being replaced with either:

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<sup>G</sup> A complete application consists all of the following without deficiencies:

1. A completed Interconnection Application including all supporting documents and required payments,
2. A completed signed Interconnection Agreement,
3. Evidence of the Customer final inspection clearance from the governmental authority having jurisdiction over the generating system.



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- (i) inverter equipment that complies with Section Hh of Rule 21, (encouraged); or
- (ii) a conventional inverter that is of the same size and equivalent ability to that of the inverter being replaced, as allowed in Rule 21 Section H.3.d.ii.

### Part IV – Interconnection Agreement Provisions – Continued

**IMPORTANT INFORMATION FOR CUSTOMERS – BE SURE TO READ THIS ENTIRE DOCUMENT BEFORE SIGNING – THIS IS A LEGALLY BINDING CONTRACT – READ IT CAREFULLY.**

**THIS FORM MUST BE SIGNED BY AN EXISTING PG&E CUSTOMER.**

Under Pacific Gas and Electric Company's (PG&E's) privacy policies, which can be found at [www.pge.com/about/company/privacy/customer], PG&E generally does not sell or disclose personal information about you, such as your name, address, phone number, or electric account and billing information, to third parties unless you expressly authorize us to do so. The purpose of this form is to allow you, the customer, to exercise your right to choose whether to disclose your personal electricity usage data and other personal information to a third party. Once you authorize a third party to access personal information about you, you are responsible for ensuring that the third party safeguards the personal information from further disclosure without your consent.

By signing below, I declare under penalty of perjury under the laws of the State of California that:

- 1) The information provided in this Agreement is true and correct.
- 2) By completing the fields and checking the box in Part I Section C, I authorize the identified third party (Company) to receive my information and act on my behalf, which includes submitting or revising my Interconnection Application.
- 3) I have completed and reviewed Part II to determine if my system is sized to meet no more than my projected energy usage.
- 4) I have read in its entirety and agree to all the terms and conditions in this Interconnection Agreement and agree to comply with PG&E's Electric Rule 21.

\_\_\_\_\_  
(Print Customer Name as it appears on the PG&E Bill)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print name and title of signee, applicable if customer is a Company)  
(e.g. John Doe, Manager)

\_\_\_\_\_  
(Date)

Note: PG&E will accept electronic signatures that are verified by qualified Third Parties such as, Adobe EchoSign, e-SignLive, and DocuSign for this Agreement if the Agreement is completed in its entirety before signing.

To confirm project approval, the Customer should retain a copy of this signed agreement and a copy of the Permission to Operate (PTO) letter from PG&E authorizing the Customer to operate the Generating Facility after PG&E deems satisfactory compliance with all NEM requirements.