



Electric Sample Form No. 79-1211
Generating Facility Material Modification Notification Worksheet

Sheet 1

(N)

(N)

**Please Refer to Attached
Sample Form**

(Continued)

Advice 6155-E-A
Decision D.19-03-013

Issued by
Robert S. Kenney
Vice President, Regulatory Affairs

Submitted June 29, 2021
Effective June 29, 2021
Resolution Res. E-5035



GENERATING FACILITY MATERIAL MODIFICATION NOTIFICATION WORKSHEET

APPLICABILITY AND GUIDELINES

Pursuant to California Public Utilities Commission (CPUC) Decision 19-03-013, this worksheet shall be used to notify Pacific Gas and Electric Company (“PG&E”) when Generating Facilities make qualifying material modifications (e.g. Maintenance, Retrofit).

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 Notification Worksheet or in PG&E’s CPUC-approved Electric Rule 21 (Rule 21).

- **Upon meeting the qualifications for notification only, the customer may proceed with specific modifications to the Generating Facility and turning it on without waiting for PG&E approval.**
- **As applicable, customer is solely responsible for obtaining approval from the local Authority Having Jurisdiction (AHJ) when making modifications to its Generating Facility. Customer is encouraged to contact its local AHJ to determine if a permit is required for the specific modifications.**
- **By submitting this notification worksheet, the customer affirms that they have met all requirements for notification-only eligible modifications as set forth in Rule 21 prior to energizing the systems**
- **This Generating Facility Material Modification Notification Worksheet (Notification Worksheet) only applies to inverter-based Generating Facilities that are currently authorized by PG&E to operate in parallel with the PG&E electric system. All modifications to non-inverter based Generating Facilities require a new Interconnection Request.**
- **If the customer is replacing equipment with exact same equipment type (i.e. same make and model) or performing upgrades to inverter firmware that do not affect grid interactions, a Notification Worksheet is not required.**

This Notification Worksheet does not authorize a customer to operate its Generating Facility in parallel with the PG&E electric system unless the project meets the self-verification of material modification criteria herein. If the customer does not meet the self-verification qualification requirements, it must submit a new Interconnection Request to PG&E in order to receive permission to safely interconnect and operate in parallel with PG&E’s electric system. 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 the customer may be liable. All modifications to the Generating Facility must maintain and satisfy all of the requirements for PG&E’s Rule 21, interconnection program tariff (e.g., Net Energy Metering [NEM] and Interconnection Handbook and Electric Service Requirements (ESRs), as applicable. Please reference the documentation for more information regarding the interconnection of a Generating Facility to the PG&E distribution system. Notification Worksheets submitted with blank fields (as applicable) will be deemed incomplete and will be returned for completion. The Applicant is also responsible for updating this Notification Worksheet, should the information submitted change between system design and installation.

Please check this box to indicate acknowledgment of the information provided above, and in this worksheet.

Overall steps regarding when a Notification Worksheet is required:

This Notification Worksheet is divided into four sections. Section one (1) determines if and when a Notification Worksheet submittal is required. If a Notification Worksheet is required per section (1), then sections 2, 3, and 4 must be completed by the Applicant and sent via email to

- SNEMprocessing@pge.com for Standard NEM (Solar and/or Wind 30 kW and less) interconnections: or



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- NEMExpFollowups@pge.com for Expanded NEM interconnections (Solar and/or Wind over 30 kW up to 1 MW); or
- Rule21gen@pge.com for all other Rule 21 interconnections.
This **Notification Worksheet** must be submitted at least **2 Business days** prior to operation of the Generating Facility in parallel with the distribution system, until this form is replaced by an online submission option.

SECTION 1 – Material Modification Qualification Self-Check

A. This Application is for:

A-1 **Physical changes to an existing Generating Facility** that currently has Permission to Operate (PTO) from PG&E. If this box is selected, please continue to section B questions in the next box below. Examples include adding energy storage capacity, changing inverters, replacing equipment, changing load, and/or changing operations.

A-2 **A new Generating Facility interconnection or changing inverter operating characteristics.** If this box is selected, you **do not** meet the requirements for the use of this Notification Worksheet and must submit a new Interconnection Request.

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SECTION 1 – Material Modification Qualification Self-Check (Continued)

B. Inverter/Equipment Modification Section – Qualification when notification is required:

B-1 Are you replacing inverter/equipment with the exact same inverter/equipment type (e.g. same make, model) or performing upgrades to inverter firmware that do not affect grid interactions?

- Yes – PG&E notification is not required. You do not need to submit this form.
 No – Please continue to B-2.

B-2 Are you replacing inverter with “Like-for-Like”* where Generating Facility output will not exceed the inverter nameplate capacity listed in the current and effective Interconnection Agreement (IA) and the operating mode is not being adjusted?

- Yes – Please skip to Section 1.C.
 No – Please continue B-3.

* **Like-for-Like definition:** For inverters, Like-for-Like means certified, same nameplate or smaller, same fault current or smaller. For solar panels, Like-for-Like means certified, same CEC-AC rating of the system or smaller. For batteries, Like-for-Like means same or less kWh & kW rating, and same operating profile. For transformers, Like-for-Like means same connection type, same or smaller impedance and capacity.

B-3 Are you replacing inverter with an inverter type that increases the inverter nameplate capacity listed in the current and effective IA?

- Yes – Please continue to B-4.

B-4 If the inverter nameplate capacity is increasing, will certified power controls limit the real power output to the inverter capacity listed in the current and effective IA?

- Yes – Please continue to B-5.
 No – You must submit a new Interconnection Request. You do not need to submit this form.

B-5 Is the Generating Facility nameplate change resulting in a capacity rating less than or equal to 100 kW?

- Yes – Please skip to section 1.C
 No – Please continue to B-6.

B-6 Is the Generating Facility nameplate change resulting in a capacity rating greater than 100 kW and the increase is > 110% of the original nameplate?

- Yes - You must submit a new Interconnection Request. You do not need to submit this form.
 No - Please continue to section 1.C

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SECTION 1 – Material Modification Qualification Self-Check (Continued)

C. Storage Modification Section – Qualification when notification required:

C-1 Are you adding storage to an existing Generating Facility that does not have storage?

- Yes – You must submit a new Interconnection Request. You do not need to submit this form.
- No - Please continue to C-2.

C-2 Are you adding/ storage capacity to a Generating Facility with an existing storage device without changing the inverter?

- Yes/No – Please continue to Section 2.



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<i>For PG&E Use Only</i>			
Project Name:	Project ID:	Date Application Received:	Date Application Screened:

SECTION 2 – Customer and Contractor/Installer Information

A. Customer Electric Account and Contact Information
 This is the electric service account where the Generating Facility is interconnected for Parallel Operation with the PG&E electric system. The Customer Name and Service Account # listed below must match the account information on the Customer's PG&E electric bill.

PG&E Service Account #	Meter #	Service Voltage of Main Panel (Volts)		
Customer Name <i>(i.e., name shown on PG&E Service Account)</i>		Customer (Service Account Holder) Title <i>(e.g., Homeowner)</i>		
Generating Facility (Service Account) Street Address		City	State	Zip Code
County				
Customer Contact Name <i>(if different from above)</i>		Company Name <i>(if different from Customer)</i>		
Phone <i>(required)</i>	Fax <i>(if applicable)</i>	Customer Email <i>(required)</i>		
Mailing Address <i>(if different from above)</i>		City	State	Zip Code



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SECTION 2 – Customer and Contractor/Installer Information (Continued)			
B. Contractor / Installer Information			
<input type="checkbox"/> Please check here if this is a Self-Installation (i.e., installed by Service Account holder) (Proceed to Section 1.C)			
Contractor / Installer Contact Name		Company Name	CSLB # (required*)
Contractor Mailing Address		City	State Zip Code
Phone (required)	Fax (if applicable)	Contractor Email (required)	

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SECTION 3 –Generating Facility Description / Technical Information

The information provided in this section is for Generating Facilities that currently exist behind the same PG&E meter and meet the qualifications in Section 1 of this worksheet document.

ONLY WRITE DOWN WHAT IS DIFFERENT FROM WHAT IS LISTED IN THE CURRENT AND EFFECTIVE IA

3A. Which generating program tariff is the Generating Facility served under? (If NEMMT list all)

3B. Is the Inverter(s) Certified as a Smart Inverter(s) in accordance with Rule 21 Section Hh by a Nationally Recognized Testing Laboratory (NRTL)?

Yes

No – Please explain:

3C. Existing Generating Facility Description *(see Appendix A for help)*

For unknown fields, please indicate "0" and "N/A"

	Inverter Replaced	New Inverter
a) Number of Inverters modified/replaced		
b) Replaced Inverter Manufacturer(s)		
c) Replaced Inverter Model Number(s)		
d) Will the system use certified controls? If yes, is this certified by a NRTL (e.g. UL, CSA, etc.) to a national certification standard? Answer "Yes" or "No"		
e) Gross Nameplate Rating (each) (kVA)		
f) Gross Nameplate Rating (each) (kW)		
g) CEC-AC Nameplate Rating (kW)		
h) Net Nameplate Rating (kW)		
i) Operating Voltage (Volts or kV)		
j) Power Factor (PF) Rating (%)		
k) Wiring Configuration (Choose One)	<input type="checkbox"/> Single-Phase <input type="checkbox"/> Three-Phase	<input type="checkbox"/> Single-Phase <input type="checkbox"/> Three-Phase
l) 3-Phase Winding Configuration (Choose One)	<input type="checkbox"/> 3 Wire Delta <input type="checkbox"/> 3 Wire Wye <input type="checkbox"/> 4 Wire Wye	<input type="checkbox"/> 3 Wire Delta <input type="checkbox"/> 3 Wire Wye <input type="checkbox"/> 4 Wire Wye
m) Neutral Grounding Systems Used (Choose One)	<input type="checkbox"/> Underground <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor	<input type="checkbox"/> Underground <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor
n) Short Circuit Current capable of being produced by Generating Facility (Amps)		

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SECTION 4 – Safety and Consumer Protection Acknowledgements

Safety and Consumer Protection Acknowledgements

A. Equipment Verification

- For Applicants with Solar Generating Facilities** - By checking this box, Applicant verifies that all major solar system components (including PV panels and other generation equipment, inverters and meters) are on a verified equipment list maintained by the California Energy Commission. This requirement is subject to additional verification by PG&E.

Note: For all Generating Facilities, PG&E may require the Applicant to verify that other equipment, as determined by PG&E requirements, has safety certification from a NRTL.

B. Warranty Verification

- By checking this box, Applicant verifies that a warranty of at least 10 years has been provided on all equipment and the installation of that equipment. In appropriate circumstances conforming to industry practice, satisfaction of this requirement may rely on manufacturers' warranties for equipment and separate contractors' warranties for workmanship (i.e., installation). Warranties or service agreements conforming to requirements applicable to the Self-Generation Incentive Program (SGIP) may be used to satisfy this requirement for Generating Facilities with technologies eligible for the SGIP. This requirement is subject to additional verification by PG&E.

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Appendix A – Instructions for Completing Sections 3	
Manufacturer	Enter the brand name of the generator.
Model Number	Enter the model number assigned by the manufacturer of the generator.
CEC-AC Nameplate Rating	<p>For NEM Generating Facilities, this value is the CEC-AC Net Nameplate Rating and is not the same as the Net Nameplate that accounts for auxiliary loads or station service loads. The calculations used are as follows:</p> <p>Technology CEC-AC Nameplate Calculation</p> <p>Solar PV $(Qty \text{ of Modules}) \times (PTC \text{ Rating}) \times (Inverter \text{ Efficiency } \%) / 1000 = \text{ ____ kW}$</p> <p>Wind $(Qty \text{ of Turbines}) \times (Power \text{ Output}) \times (Inverter \text{ Efficiency } \%) / 1000 = \text{ ____ kW}$</p> <p>Fuel Cell $(Qty \text{ of Cells}) \times (Rated \text{ Output}) \times (Inverter \text{ Efficiency } \%) / 1000 = \text{ ____ kW}$</p>
Inverter Manufacturer	Enter the brand name of the inverter.
Inverter Model Number	Enter the model number assigned by the manufacturer of the inverter.
Module Manufacturer	Enter the brand name of the modules.
Module Model Number	Enter the model number assigned by the manufacturer of the modules.
Certified Controls NRTL Certification	Answer “yes” only if the generator manufacturer can or has provided certification data to allow certified controls to limit the real power output to the inverter listed size in the original agreement?
Smart Inverter Certification	Answer “yes” only if the inverter manufacturer can or has provided certification data. Please see PG&E ’s Rule 21, Section Hh for Smart Inverter requirements, and Section L for additional information regarding certification.
Inverter Software Version	If the 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.
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 provide both.
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 provide both. For NEM generating facilities, the “gross” value is DC power.
Net Nameplate Rating (kW)	<ul style="list-style-type: none"> For NEM generating facilities, this value is the CEC-AC Net Nameplate Rating and is not the same as the Net Nameplate that accounts for auxiliary loads or station service loads. For non-NEM generating facilities (e.g., those included in an NEM-MT installation), 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.

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Appendix A – Instructions for Completing Sections 3 (Continued)	
Operating Voltage	This value should be the voltage rating designated by the manufacturer and used in the Generator. Please indicate phase-to-phase voltages for 3-phase installations. See PG&E 's Rule 21, Section H.2.b. for additional information.
Power Factor (PF) Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See PG&E's Rule 21, Section H.2.i. For additional information.
Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See PG&E 's Rule 21, Section H.3.
3-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.
Neutral Grounding System Used	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.
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. See manufacturer specifications or contact manufacturer for data.