



Electric Sample Form No. 79-1212
Rule 21 Non-Export Generator Interconnection Notification

Sheet 1

(N)

(N)

**Please Refer to Attached
Sample Form**

(Continued)

Advice 6249-E-B
Decision D.21-06-002

Issued by
Robert S. Kenney
Vice President, Regulatory Affairs

Submitted August 10, 2021
Effective July 19, 2021
Resolution _____



RULE 21 NON-EXPORT GENERATOR INTERCONNECTION NOTIFICATION (Form 79-1212)

Part I - Introduction and Overview

A. Applicability: This Non-Export Generating Facility Interconnection Notification (Notification Form) is used to notify Pacific Gas and Electric Company (PG&E) of a new Non-Export interconnection to its Electric System (over which the California Public Utilities Commission (CPUC) has jurisdiction).

This application only applies to a Generating Facility that meets all of the following requirements:

1. Total system size less than or equal to 30 kilovolt-amperes (kVA) and consisting of one of the following:
 - a. One new non-export energy storage system; or
 - b. One new non-export system including energy storage and solar PV; or
 - c. One new non-export energy storage system added to an existing non-export Generating Facility.
2. Represents one of no more than ten (10) non-export notification-only projects connected to the circuit by the eligible developer; and
3. Generating Facility includes a Underwriter Laboratories (UL) certified Power Control System (PCS) with an Open Loop response time of two seconds or less and set to non-export mode; and
4. Interconnected to a 120 Volt or 240 Volt service that uses a self-contained meter; and
5. Not located on a networked secondary portion of PG&E's electric system; and
6. Operating in a manner that does not increase customer's peak load; and
7. Includes inverters pre-approved by PG&E; and
8. Installed such that when connected to a single-phase transformer with 120/240 Volts secondary voltage the aggregated gross output is balanced as practicable between the two phases of the 240 Volt service; and
9. Installed by an eligible developer previously approved by PG&E.

Refer to PG&E's Electric Rule 21 and program tariffs to determine the specific requirements for interconnecting a Generating Facility. Capitalized terms used in this Notification Form, and not otherwise defined herein, shall have the same meanings as defined in PG&E's Rule 21 and Rule 1.

B. Guidelines and Steps for Interconnection: This Notification Form must be completed and sent to PG&E at Rule21gen@pge.com along with the additional information indicated in Part II below to initiate PG&E's review of the submitted Notification-Only Non-Export Generating Facility and receive written authorization to operate in parallel. When applicable per Rule 21, unless exempted by CPUC Decision, a non-refundable Interconnection Request fee shall be invoiced and must be paid by Interconnection Customer. Pursuant to PG&E's Rule 21, there may be additional study and other costs; see PG&E's Rule 21, Sections E.2.c and E.3., for more information regarding interconnection of a generator to PG&E's Electric System.

Upon receipt of this Application, PG&E will review submitted documentation for accuracy and completeness and to confirm eligibility. If deficiencies are identified or the Generating Facility is found to be ineligible, PG&E will issue a deficiency notice within fifteen (15) days of Notification Form submittal.

Please note, other approvals may need to be acquired, and/or other agreements may need to be formed with other regulatory agencies, such as 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 Interconnection Customer to acquire such other approvals.

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Part II – Describing the Generating Facility and Host Customer’s Electrical Facilities

Required Documents: Each of the following documents **is required to be submitted** with this Notification Form in order to be eligible for the Notification-Only process. Drawings must conform to accepted engineering standards and must be legible. Electronic documents are required.

1. **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 Electric 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, when required. A Simplified Single-line Diagram Template may be used if the Generating Facility meets the stated requirements.
2. **Agreement and Customer Authorization (Form 79-1213)** - Customer signed Agreement and Customer Authorization (Form 79-1213), including signed Developer and Customer Attestation Appendix A confirming:
 - a. Generating Facility meets each of the eligibility criteria indicated in Part I Section A of this Notification Form;
 - b. Recognition and understanding of the Notification-Only process auditing conditions;
 - c. Generating Facility, when deployed on a 240-volt service, is deployed across the entire 240-volt service; and
 - d. If Generating Facility is found to be noncompliant, developer will work with the utility and customer to bring the Generating Facility into compliance and will pursue authorization to operate in parallel through the standard Rule 21 Interconnection Application process.
3. **Authority Having Jurisdiction Electrical Release** - Evidence of final electric inspection clearance from the Governmental Authority having jurisdiction over the Generating Facility. Evidence must display the same service address as the PG&E account where the Generating Facility is interconnected.

Part III Application Appendices

Application Instructions: Complete this application for the complete Generating Facility or enter this information into PG&E’s web-based form, when available. (PG&E strongly recommends preparing all information and materials before starting the online application.) Once available, the online web-based form can be found at: yourprojects.pge.com

Questions concerning PG&E's Notification For or Online Application process can be directed to the Electric Grid Interconnection Department at rule21gen@pge.com.

For each new generating facility you are applying to interconnect, please complete and submit the applicable appendices.

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Part IV Attachments / On-Line Form - Overview

Table 1 - Summary of the attachment to this form.

	Attachment	Project Type
1	A	Customer Project Information
2	B	Non-Export
3	C	Energy Storage
4	D	Solar (PV)
5	E	Wind (existing only)
6	F	Machine-Based (existing only)
7	G	Fuel Cell (existing only)



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**ATTACHMENT A
CUSTOMER AND PROJECT INFORMATION**

Part I – Identifying the Generating Facility Location and Responsible Parties

Project Name:

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A. Generating Facility Account Information (What electric service will the Generating Facility be interconnected for parallel operation with PG&E? For aggregated electric accounts provide the primary account and meter information).

Name shown on PG&E service account	Electric Service Agreement ID number - 10-digits	Electric Badge (Meter) Number - 6-10 digits (alpha numeric)

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

		CA	
Meter Location Street Address	City	State	Zip - 5-digits

Please check all that apply:

- A New Generating Facility interconnection (at an existing service).
- Adding Energy Storage to an existing Non-Export Generating Facility with previous approval by PG&E.

B. Customer Account Contact Information -

Mailing Address			
City	State	Zip - 5-digits	
() - _____	() - _____		
Business Phone	Home Phone	Fax	Email



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C. Developer Information (Must be completed even if Developer will not serve as a PG&E contact).

Contact		Company Name	
Mailing Address			
City		State	Zip - 5-digits
() -	() -		
Business Phone	Fax	Email	
<input type="checkbox"/> Yes <input type="checkbox"/> No			
Does Contractor have Contractors State License Board (CSLB) Number?	Contractors State License Board Number		

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

Contact		Company Name	
Mailing Address			
City		State	Zip - 5-digits
() -	() -		
Business Phone	Fax	Email	

**ATTACHMENT B
NON-EXPORT**

Operating Mode

Please confirm by selecting below:

- Parallel Operation (no export):** The Generating Facility will interconnect and operate “in parallel” with PG&E’s Electric System for more than one (1) second.

Protection Options

Please confirm by selecting below:

- Power Control System (PCS) Non-Export:** A PCS is employed to prevent export. For this option, the open loop response time of the PCS must be less than 2 seconds.



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**ATTACHMENT C
ENERGY STORAGE TECHNOLOGY**

Please complete the following table for the specific generator technology indicated.

Instructions				
Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
Please indicate the number of each “type” and quantity of Generator being installed. 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.				
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/Inverter certified? Applicant has verified that all major solar system components are on the verified equipment list maintained by the California Energy Commission and other equipment, as determined by PG&E, has been verified by the customer as having safety certification from a nationally recognized testing laboratory. See PG&E’s Rule 21, Section L for additional information regarding Generator certification.	<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 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.	<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



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Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
<p>F - Gross Nameplate Rating (kVA)</p> <p>This is the capacity value normally supplied by the manufacturer and stamped on the Generator's nameplate. Total Generating Facility Gross Nameplate Rating must be 30 kVA or less.</p> <p>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.</p>				
<p>G - Energy Storage Electrical Source Function (in addition, please complete section: "Additional Information Required for Energy Storage")</p>	<p>Max kWh Capacity:</p> <hr/> <p>Rated kW Discharge:</p> <hr/>	<p>Max kWh Capacity:</p> <hr/> <p>Rated kW Discharge:</p> <hr/>	<p>Max kWh Capacity:</p> <hr/> <p>Rated kW Discharge:</p> <hr/>	<p>Max kWh Capacity:</p> <hr/> <p>Rated kW Discharge:</p> <hr/>
<p>H - Operating Voltage</p> <p>This value should be the voltage rating designated by the manufacturer and used in this Generating Facility.</p> <p>Please indicate phase-to-phase voltages for 3-phase installations.</p> <p>See PG&E's Rule 21, Section H.2.b. and Table H.1., for additional information.</p>				
<p>I - Power Factor Rating</p> <p>This value should be the nominal power factor rating designated by the manufacturer for the Generator.</p> <p>See PG&E's Rule 21, Section H.2.i. for additional information.</p>				
<p>J - PF Adjustment Range</p> <p>Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values.</p> <p>See PG&E's Rule 21, Section H.2.i.</p>				
<p>K - Wiring Configuration</p> <p>Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section H.3.</p>				



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Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
<p>L - (MP) 3-Phase Winding Configuration (Choose One)</p> <p>For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.</p>	<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	<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
<p>M - (MP) Neutral Grounding System Used (Choose One)</p> <p>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.</p> <p>If the grounding method used at this facility is not listed, please attach additional descriptive information.</p>	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms
<p>N - Short Circuit Current Produced by Generator:</p>	<input type="text"/> (Amps)	<input type="text"/> (Amps)	<input type="text"/> (Amps)	<input type="text"/> (Amps)
<p>O – Prime Mover Type</p> <p>Please indicate the type and fuel used as the prime mover or source of energy for the Generator.</p> <p>1 = Natural Gas 2 = Diesel Fueled 3 = Other Fuel</p>	<input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3	<input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3	<input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3	<input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3
<p>P - AC Disconnect</p> <p>For systems requiring an AC Disconnect only, please include the requested information about the AC Disconnect.</p> <p>See PG&E's Rule 21, Section H.1.d</p> <p>Located within 10 feet of the PG&E meter?</p>	<input type="text"/> Manufacturer <input type="text"/> Model # <input type="text"/> Rating (amps)	<input type="text"/> Manufacturer <input type="text"/> Model # <input type="text"/> Rating (amps)	<input type="text"/> Manufacturer <input type="text"/> Model # <input type="text"/> Rating (amps)	<input type="text"/> Manufacturer <input type="text"/> Model # <input type="text"/> Rating (amps)
	<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



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Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
Q - Energy Storage (ES) System (For important sizing information related to DC-Coupled configurations, see sizing note below).	_____ Manufacturer _____ Model # _____ Quantity of Units	_____ Manufacturer _____ Model # _____ Quantity of Units	_____ Manufacturer _____ Model # _____ Quantity of Units	_____ Manufacturer _____ Model # _____ Quantity of Units
R - Distribution Interconnect Handbook (DIH) and Greenbook Requirements Does this interconnection meet the DIH and Greenbook Requirements	____ Yes ____ No	____ Yes ____ No	____ Yes ____ No	____ Yes ____ No
S - Gas Clearance Requirements Certify that this interconnection meets Greenbook Gas Clearance Requirements?	____ Yes ____ No	____ Yes ____ No	____ Yes ____ No	____ Yes ____ No
T - Basic Single Line Diagram (SLD) If the interconnection is eligible to use a Basic SLD, please include the requested information. Can this system be used as a back-up generator? If so, please include the requested information for the back-up controller or other device.	_____ Panel Voltage (Volts) _____ Main Breaker (Amps) _____ Storage Breaker Size (Amps) ____ Yes ____ No _____ Manufacturer _____ Make _____ Model No.	_____ Panel Voltage (Volts) _____ Main Breaker (Amps) _____ Storage Breaker Size (Amps) ____ Yes ____ No _____ Manufacturer _____ Make _____ Model No.	_____ Panel Voltage (Volts) _____ Main Breaker (Amps) _____ Storage Breaker Size (Amps) ____ Yes ____ No _____ Manufacturer _____ Make _____ Model No.	_____ Panel Voltage (Volts) _____ Main Breaker (Amps) _____ Storage Breaker Size (Amps) ____ Yes ____ No _____ Manufacturer _____ Make _____ Model No.
U - Back-up Generator Operation Will the generator be operated as a back-up? If yes, please indicate control device.	____ Yes ____ No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	____ Yes ____ No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	____ Yes ____ No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	____ Yes ____ No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker



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Energy Storage Charging Function:

Rated Charge Demand (Load): _____ kW

Estimated annual Net Energy Usage* of the energy storage device(s): _____ kWh

*Net Energy usage = (kWh input, including charging, storage device auxiliary loads and losses) – (kWh output including discharging)

Will the Distribution Grid be used to charge the storage device: Yes No

If no: Provide technical description of control systems including (e.g. Nationally-certified piece of equipment, Relays/metering):

Source of energy for Charging: _____

Mechanism to prevent charging from the Distribution System: _____

If Yes: Will charging the storage device(s) increase the host facility's existing peak load demand:

Yes No

If Yes: Provide the following loading information:

Amount of added peak demand: _____ kW

If no: Provide technical description of controls systems including:

Charging periods: _____

Mechanism to prevent charging from the Distribution System during host facility peak:

Expedited Interconnection Process Selection for Non-Export Energy Storage:

This project meets the requirements identified in Rule 21 Section N and this process is being selected for expedited interconnection.

Note on Sizing (DC-Coupled Configurations)

The size of the storage system in DC-coupled NEM-eligible generator plus storage systems is the lesser of the shared inverter's (or inverters') nameplate capacity (capacities summed) and the storage device's (devices') maximum continuous discharge capacity (capacities summed) listed on the device's (devices') technical specifications sheets. A storage device's maximum continuous discharge capacity may be listed on technical specification sheets using different terminology. Note: PG&E will use common sense to determine whether a device's technical specification sheet includes the appropriate metric for purposes of determining system size, regardless of the terminology used. If that metric is not included, PG&E may rely on the inverter's nameplate rating.



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For example:

- What is the maximum continuous discharge capability for each storage unit?
_____ + _____ + _____ + _____ + _____ =.
total _____
- What is each inverter's nameplate rating?
_____ + _____ + _____ + _____ + _____ =.
total _____



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**ATTACHMENT D
SOLAR (PV) TECHNOLOGY**

Please complete the following table for the specific generator technology indicated.

Instructions				
Inverter	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
<p>Please indicate the number of each “type” and quantity of Generator being installed</p> <p>Be sure all Generators classified as one “type” are identical in all respects.</p> <p>If only one type of Generator is to be used, only one column needs to be completed.</p>				
<p>A - Generator/Inverter Manufacturer</p> <p>Enter the brand name of the Generator.</p>				
<p>B - Generator/Inverter Model</p> <p>Enter the model name or number assigned by the manufacturer of the Generator.</p>				
<p>C - Generator/Inverter Software Version</p> <p>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.</p>				
<p>D - Is the Generator/Inverter certified?</p> <p>Applicant has verified that all major solar system components have appropriate safety certification from a nationally recognized testing laboratory.</p> <p>See PG&E’s Rule 21, Section L for additional information regarding Generator certification.</p>	<p align="center">___ Yes</p> <p align="center">___ No</p>	<p align="center">___ Yes</p> <p align="center">___ No</p>	<p align="center">___ Yes</p> <p align="center">___ No</p>	<p align="center">___ Yes</p> <p align="center">___ No</p>



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Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
E - Modules.	<u>Manufacturer</u> <u>Model #.</u> <u>Quantity</u>	<u>Manufacturer</u> <u>Model #.</u> <u>Quantity</u>	<u>Manufacturer</u> <u>Model #.</u> <u>Quantity</u>	<u>Manufacturer</u> <u>Model #.</u> <u>Quantity</u>
F - Gross Nameplate Rating (kVA) This is the capacity value normally supplied by the manufacturer and stamped on the Generator's nameplate. Total Generating Facility Gross Nameplate Rating must be 30 kVA or less. 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 - 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 H.2.b. and Table H.1., for additional information.				
H - 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 H.2.i. for additional information.				
I - 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 H.2.i.				



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Generator Information	Existing Generator type 1	Existing Generator type 2	New Generator type 1	New Generator type 2
J - Wiring Configuration Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section H.3.				
K - AC Disconnect For systems requiring an AC Disconnect only, please include the requested information about the AC Disconnect. See PG&E's Rule 21, Section H.1.d Located within 10 feet of the PG&E meter?	_____ Manufacturer _____ Model # _____ Rating (amps) <input type="checkbox"/> Yes <input type="checkbox"/> No	_____ Manufacturer _____ Model # _____ Rating (amps) <input type="checkbox"/> Yes <input type="checkbox"/> No	_____ Manufacturer _____ Model # _____ Rating (amps) <input type="checkbox"/> Yes <input type="checkbox"/> No	_____ Manufacturer _____ Model # _____ Rating (amps) <input type="checkbox"/> Yes <input type="checkbox"/> No
L - Distribution Interconnect Handbook (DIH) and Greenbook Requirements Does this interconnection meet the DIH and Greenbook Requirements	<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
M - Gas Clearance Requirements Certify that this interconnection meets Greenbook Gas Clearance Requirements?	<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
N - Back-up Generator Operation Will the generator be operated as a back-up? If yes, please indicate the control device that will be used.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker



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**ATTACHMENT E
WIND TURBINE TECHNOLOGY
(EXISTING ONLY)**

Please complete the following table for the specific generator technology indicated.

Instructions		
Generator Information	Existing Generator type 1	Existing Generator type 2
<p>Please indicate the number of each “type” and quantity of Generator being installed</p> <p>Be sure all Generators classified as one “type” are identical in all respects.</p> <p>If only one type of Generator is to be used, only one column needs to be completed.</p>	<p>Type: _____</p> <p>Qty.: _____</p>	<p>Type: _____</p> <p>Qty.: _____</p>
<p>A - Generator/Inverter Manufacturer Enter the brand name of the Generator.</p>		
<p>B - Generator/Inverter Model Enter the model name or number assigned by the manufacturer of the Generator.</p>		
<p>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.</p>		
<p>D - Is the Inverter certified? Applicant has verified that all major solar system components are on the verified equipment list maintained by the California Energy Commission and other equipment, as determined by PG&E, has been verified by the customer as having safety certification from a nationally recognized testing laboratory. See PG&E’s Rule 21, Section L for additional information regarding Generator certification.</p>	<p>____ Yes ____ No</p>	<p>____ Yes ____ No</p>
<p>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.</p>	<p>____ Synch ____ Induct. ____ Inverter</p>	<p>____ Synch ____ Induct. ____ Inverter</p>



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Generator Information	Existing Generator type 1	Existing Generator type 2
<p>F - Gross Nameplate Rating (kVA)</p> <p>This is the capacity value normally supplied by the manufacturer and stamped on the Generator's nameplate. Total Generating Facility Gross Nameplate Rating must be 30 kVA or less.</p> <p>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.</p>		
<p>G - Operating Voltage</p> <p>This value should be the voltage rating designated by the manufacturer and used in this Generating Facility.</p> <p>Please indicate phase-to-phase voltages for 3-phase installations.</p> <p>See PG&E's Rule 21, Section H.2.b. and Table H.1., for additional information.</p>		
<p>H - Power Factor Rating</p> <p>This value should be the nominal power factor rating designated by the manufacturer for the Generator.</p> <p>See PG&E's Rule 21, Section H.2.i. for additional information.</p>		
<p>I - PF Adjustment Range</p> <p>Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values.</p> <p>See PG&E's Rule 21, Section H.2.i.</p>		
<p>J - Wiring Configuration</p> <p>Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section H.3.</p>		
<p>K - (MP) 3-Phase Winding Configuration</p> <p>(Choose One)</p> <p>For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.</p>	<p><input type="checkbox"/> 3 Wire Delta</p> <p><input type="checkbox"/> 3 Wire Wye</p> <p><input type="checkbox"/> 4 Wire Wye</p>	<p><input type="checkbox"/> 3 Wire Delta</p> <p><input type="checkbox"/> 3 Wire Wye</p> <p><input type="checkbox"/> 4 Wire Wye</p>

Generator Information	Existing Generator type 1	Existing Generator type 2
-----------------------	------------------------------	------------------------------



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<p>Q - Gas Clearance Requirements</p> <p>Certify that this interconnection meets Greenbook Gas Clearance Requirements?</p>	<p style="text-align: center;">___ Yes</p> <p style="text-align: center;">___ No</p>	<p style="text-align: center;">___ Yes</p> <p style="text-align: center;">___ No</p>
<p>R - Back-up Generator Operation</p> <p>Will the generator be operated as a back-up?</p> <p>If yes, please indicate control device.</p>	<p style="text-align: center;">___ Yes</p> <p style="text-align: center;">___ No</p> <p><input type="checkbox"/> Automatic Transfer Switch</p> <p><input type="checkbox"/> Contactor</p> <p><input type="checkbox"/> Breaker</p>	<p style="text-align: center;">___ Yes</p> <p style="text-align: center;">___ No</p> <p><input type="checkbox"/> Automatic Transfer Switch</p> <p><input type="checkbox"/> Contactor</p> <p><input type="checkbox"/> Breaker</p>



**RULE 21 NON-EXPORT GENERATOR
INTERCONNECTION NOTIFICATION
(Form 79-1212)**

**ATTACHMENT F
MACHINE-BASED TECHNOLOGY
(EXISTING ONLY)**

Please complete the following table for the specific generator technology indicated.

Instructions		
Generator Information	Existing Generator type 1	Existing Generator type 2
<p>Please indicate the number of each “type” and quantity of Generator being installed.</p> <p>Be sure all Generators classified as one “type” are identical in all respects.</p> <p>If only one type of Generator is to be used, only one column needs to be completed.</p>		
<p>A - Generator/Inverter Manufacturer Enter the brand name of the Generator.</p>		
<p>B - Generator/Inverter Model Enter the model name or number assigned by the manufacturer of the Generator.</p>		
<p>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.</p>		
<p>D - Is the Generator/Inverter certified? Applicant has verified that all major solar system components are on the verified equipment list maintained by the California Energy Commission and other equipment, as determined by PG&E, has been verified by the customer as having safety certification from a nationally recognized testing laboratory. See PG&E’s Rule 21, Section L for additional information regarding Generator certification.</p>	<p>___ Yes ___ No</p>	<p>___ Yes ___ No</p>
<p>F - Gross Nameplate Rating (kVA) This is the capacity value normally supplied by the manufacturer and stamped on the Generator’s nameplate. Total Generating Facility Gross Nameplate Rating must be 30 kVA or less. 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.</p>		



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Generator Information	Existing Generator type 1	Existing Generator type 2
<p>G - Operating Voltage</p> <p>This value should be the voltage rating designated by the manufacturer and used in this Generating Facility.</p> <p>Please indicate phase-to-phase voltages for 3-phase installations.</p> <p>See PG&E's Rule 21, Section H.2.b. and Table H.1., for additional information.</p>		
<p>H - Power Factor Rating</p> <p>This value should be the nominal power factor rating designated by the manufacturer for the Generator.</p> <p>See PG&E's Rule 21, Section H.2.i. for additional information.</p>		
<p>I - PF Adjustment Range</p> <p>Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values.</p> <p>See PG&E's Rule 21, Section H.2.i.</p>		
<p>J - Wiring Configuration</p> <p>Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section H.3.</p>		
<p>K - (MP) 3-Phase Winding Configuration (Choose One)</p> <p>For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.</p>	<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
<p>L - (MP) Neutral Grounding System Used (Choose One)</p> <p>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.</p> <p>If the grounding method used at this facility is not listed, please attach additional descriptive information.</p>	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms



RULE 21 NON-EXPORT GENERATOR INTERCONNECTION NOTIFICATION (Form 79-1212)

Generator Information	Existing Generator type 1	Existing Generator type 2
<p>M – Synchronous Generators Only: 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 Electric 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 Electric System.</p> <p style="text-align: right;">Synchronous Reactance: _____ (Xd %)</p> <p style="text-align: right;">Transient Reactance: _____ (Xd %)</p> <p style="text-align: right;">Subtransient Reactance: _____ (Xd %)</p>	<p>_____ (Xd %)</p> <p>_____ (Xd %)</p> <p>_____ (Xd %)</p>	<p>_____ (Xd %)</p> <p>_____ (Xd %)</p> <p>_____ (Xd %)</p>
<p>N - Induction Generators Only:</p> <p style="text-align: right;">Locked Rotor Current: _____ (Amps)</p> <p style="text-align: right;">Stator Resistance: _____ (%)</p> <p style="text-align: right;">Stator Leakage Reactance: _____ (%)</p> <p style="text-align: right;">Rotor Resistance: _____ (%)</p> <p style="text-align: right;">Rotor Leakage Reactance: _____ (%)</p> <p>If the Generator is of an induction design, please provide the "locked rotor current" value supplied by the manufacturer.</p> <p>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.</p> <p>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 Electric System.</p>	<p>_____ (Amps)</p> <p>_____ (%)</p> <p>_____ (%)</p> <p>_____ (%)</p> <p>_____ (%)</p>	<p>_____ (Amps)</p> <p>_____ (%)</p> <p>_____ (%)</p> <p>_____ (%)</p> <p>_____ (%)</p>
<p>O - Short Circuit Current Produced by Generator:</p>	<p>_____ (Amps)</p>	<p>_____ (Amps)</p>



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Generator Information	Existing Generator type 1	Existing Generator type 2
<p>P – For Generators that are Started as a “Motor” Only: This information is needed only for Generators that are started by “motoring” the generator.</p> <p>See PG&E’s Rule 21, Sections L.3.d. and L.7.b. for significance and additional information.</p> <p>If this question was answered in Part IV, question C of this Application, it need not be answered here.</p> <p>1. In-Rush Current:</p> <p>2. Host Customer’s Service Entrance Panel (Main Panel) Continuous Current Rating:</p>	<p>_____</p> <p>(Amps)</p> <p>_____</p> <p>(Amps)</p>	<p>_____</p> <p>(Amps)</p> <p>_____</p> <p>(Amps)</p>
<p>Q – Prime Mover Type</p> <p>Please indicate the type and fuel used as the prime mover or source of energy for the Generator.</p> <p>1 = Natural Gas 2 = Diesel Fueled 3 = Other Fuel</p>	<p>1 2 3</p>	<p>1 2 3</p>
<p>R - AC Disconnect</p> <p>For systems requiring an AC Disconnect only, please include the requested information about the AC Disconnect.</p> <p>See PG&E’s Rule 21, Section H.1.d</p> <p>Located within 10 feet of the PG&E meter?</p>	<p>_____</p> <p>Manufacturer</p> <p>_____</p> <p>Model #</p> <p>_____</p> <p>Rating (amps)</p> <p>___ Yes ___ No</p>	<p>_____</p> <p>Manufacturer</p> <p>_____</p> <p>Model #</p> <p>_____</p> <p>Rating (amps)</p> <p>___ Yes ___ No</p>
<p>S - Cogeneration</p> <p>Please indicate whether this Generating Facility meets the definition of cogeneration in PUC 216.6 (5% useful thermal and 42.5% efficient):</p>	<p>___ Yes ___ No</p>	<p>___ Yes ___ No</p>
<p>T - Distribution Interconnect Handbook (DIH) and Greenbook Requirements</p> <p>Does this interconnection meet the DIH and Greenbook Requirements</p>	<p>___ Yes ___ No</p>	<p>___ Yes ___ No</p>
<p>U - Gas Clearance Requirements</p> <p>Certify that this interconnection meets Greenbook Gas Clearance Requirements?</p>	<p>___ Yes ___ No</p>	<p>___ Yes ___ No</p>



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<p>V - Back-up Generator Operation</p> <p>Will the generator be operated as a back-up?</p> <p>If yes, please indicate control device.</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker</p>
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**ATTACHMENT G
FUEL CELL TECHNOLOGY
(EXISTING ONLY)**

Please complete the following table for the specific generator technology indicated.

Instructions		
Generator Information	Existing Generator type 1	Existing Generator type 2
<p>Please indicate the number of each “type” and quantity of Generator being installed.</p> <p>Be sure all Generators classified as one “type” are identical in all respects.</p> <p>If only one type of Generator is to be used, only one column needs to be completed.</p>		
<p>A - Generator/Inverter Manufacturer</p> <p>Enter the brand name of the Generator.</p>		
<p>B - Generator/Inverter Model</p> <p>Enter the model name or number assigned by the manufacturer of the Generator.</p>		
<p>C - Generator/Inverter Software Version</p> <p>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.</p>		
<p>D - Is the Generator/Inverter certified?</p> <p>Applicant has verified that all major solar system components are on the verified equipment list maintained by the California Energy Commission and other equipment, as determined by PG&E, has been verified by the customer as having safety certification from a nationally recognized testing laboratory.</p> <p>See PG&E’s Rule 21, Section L for additional information regarding Generator certification.</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>



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Generator Information	Existing Generator type 1	Existing Generator type 2
<p>E - Generator Design Please indicate the design of each Generator.</p> <p>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.</p>	<p>___ Synch</p> <p>___ Induct.</p> <p>___ Inverter</p>	<p>___ Synch</p> <p>___ Induct.</p> <p>___ Inverter</p>
<p>F - Gross Nameplate Rating (kVA) This is the capacity value normally supplied by the manufacturer and stamped on the Generator's nameplate. Total Generating Facility Gross Nameplate Rating must be 30 kVA or less.</p> <p>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.</p>		
<p>G - Operating Voltage This value should be the voltage rating designated by the manufacturer and used in this Generating Facility.</p> <p>Please indicate phase-to-phase voltages for 3-phase installations.</p> <p>See PG&E's Rule 21, Section H.2.b. and Table H.1., for additional information.</p>		
<p>H - Power Factor Rating This value should be the nominal power factor rating designated by the manufacturer for the Generator.</p> <p>See PG&E's Rule 21, Section H.2.i. for additional information.</p>		
<p>I - PF Adjustment Range Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values.</p> <p>See PG&E's Rule 21, Section H.2.i.</p>		
<p>J - Wiring Configuration Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section H.3.</p>		
<p>K - (MP) 3-Phase Winding Configuration (Choose One)</p> <p>For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.</p>	<p>___ 3 Wire Delta</p> <p>___ 3 Wire Wye</p> <p>___ 4 Wire Wye</p>	<p>___ 3 Wire Delta</p> <p>___ 3 Wire Wye</p> <p>___ 4 Wire Wye</p>



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Generator Information	Existing Generator type 1	Existing Generator type 2
<p>L - (MP) Neutral Grounding System Used (Choose One)</p> <p>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.</p> <p>If the grounding method used at this facility is not listed, please attach additional descriptive information.</p>	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms	<input type="checkbox"/> Ungrounded <input type="checkbox"/> Solidly Grounded <input type="checkbox"/> Ground Resistor <input type="checkbox"/> Ohms
<p>M - Short Circuit Current Produced by Generator:</p>	<p>_____</p> <p>(Amps)</p>	<p>_____</p> <p>(Amps)</p>
<p>N – Prime Mover Type</p> <p>Please indicate the type and fuel used as the prime mover or source of energy for the Generator.</p> <p>1 = Natural Gas 2 = Diesel Fueled 3 = Other Fuel</p>	<p>1 2 3</p>	<p>1 2 3</p>
<p>O - AC Disconnect</p> <p>For systems requiring an AC Disconnect only, please include the requested information about the AC Disconnect.</p> <p>See PG&E's Rule 21, Section H.1.d</p> <p>Located within 10 feet of the PG&E meter?</p>	<p>_____</p> <p>Manufacturer</p> <p>_____</p> <p>Model #</p> <p>_____</p> <p>Rating (amps)</p> <p>_____ Yes _____ No</p>	<p>_____</p> <p>Manufacturer</p> <p>_____</p> <p>Model #</p> <p>_____</p> <p>Rating (amps)</p> <p>_____ Yes _____ No</p>
<p>P - Cogeneration</p> <p>Please indicate whether this Generating Facility meets the definition of cogeneration in PUC 216.6 (5% useful thermal and 42.5% efficient):</p>	<p>_____ Yes _____ No</p>	<p>_____ Yes _____ No</p>
<p>Q - Distribution Interconnect Handbook (DIH) and Greenbook Requirements</p> <p>Does this interconnection meet the DIH and Greenbook Requirements</p>	<p>_____ Yes _____ No</p>	<p>_____ Yes _____ No</p>
<p>R - Gas Clearance Requirements</p> <p>Certify that this interconnection meets Greenbook Gas Clearance Requirements?</p>	<p>_____ Yes _____ No</p>	<p>_____ Yes _____ No</p>



RULE 21 NON-EXPORT GENERATOR INTERCONNECTION NOTIFICATION (Form 79-1212)

Generator Information	Existing Generator type 1	Existing Generator type 2
<p>S - Back-up Generator Operation</p> <p>Will the generator be operated as a back-up?</p> <p>If yes, please indicate control device.</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Automatic Transfer Switch <input type="checkbox"/> Contactor <input type="checkbox"/> Breaker</p>