ENPHASE.

# Application filing handbook for Enphase expansion systems

January 2025

# System expansion application process overview by utility

| | Permission to Operate (PTO) application process status | Application method | Application fee | Online tool | Application support documentation required | Application steps | Configuring system to zero export |
|---|---|---|---|---|---|---|---|
| Pacific Gas and Electric Company | Accepting and approving PTO applications | Online | $800 | PG&E Your Projects Portal | • Anti-islanding method letter<br>• Building permit and inspection certificate<br>• Single-line drawing<br>• Site plan | See slides 3–9 | New system must be configured to zero export<br><br>See slides 42-44 |
| SOUTHERN CALIFORNIA EDISON An EDISON INTERNATIONAL Company | Accepting and approving PTO applications | Online | $800 | Grid Interconnection Processing Tool (GIPT) | • Single-line drawing showing the location of all Current Transformers (CTs) in the new and existing systems (sample on slide 22)<br>• UL3141 PCS Certificate of Compliance<br>• PCS Sequence of Operations<br>• Homeowner proof of insurance | See slides 10-24 | New system must be configured to zero export<br><br>See slides 42-44 |
| SDGE | Accepting and approving PTO applications | Online | $800 | Distribution Interconnection Information System (DIIS) | • Single-line drawing showing the location of all Current Transformers (CTs) in the new and existing systems<br>• UL3141 PCS Certificate of Compliance<br>• Homeowner proof of insurance | See slides 25-41 | New system must be configured to zero export<br><br>See slides 42-44 |

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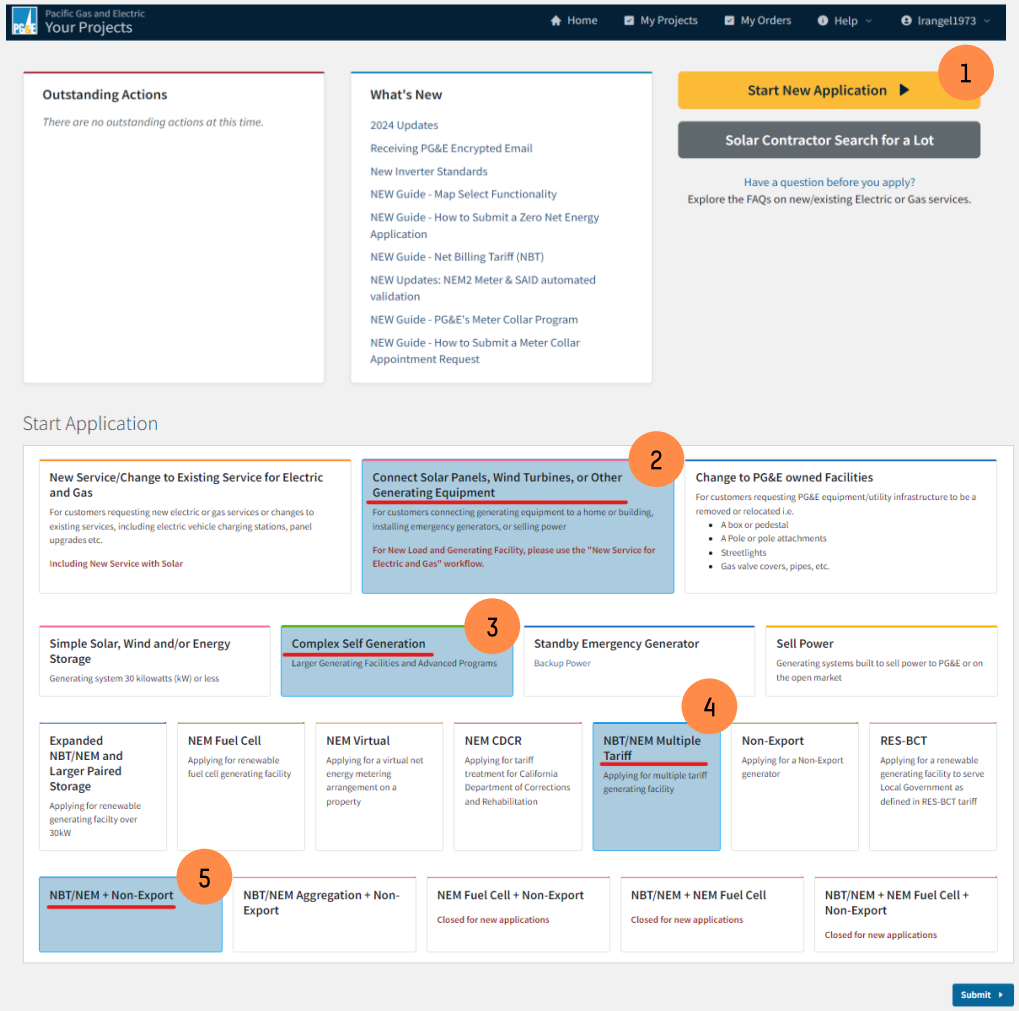
Note: Expansion applications are submitted under NEM-MT, which is part of the Rule 21 tariff and may be subject to Rule 21 application fees. Confirm current NEM-MT application cost with utility company.

# Application process steps for Pacific Gas & Electric Company (PG&E)

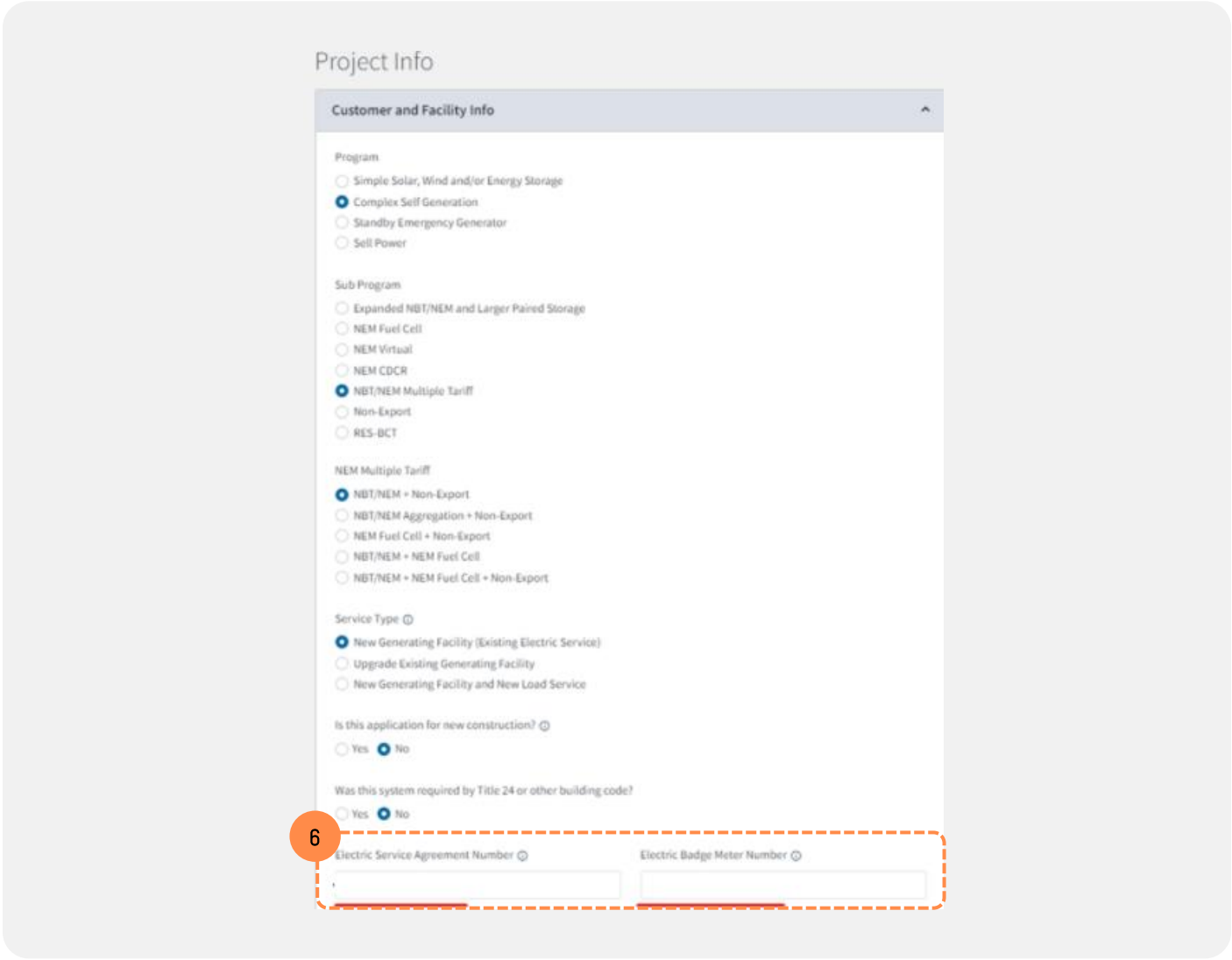
# PG&E application process (1 of 6)

1. Log in to the PG&E Your Projects portal and click **Start New Application.**
2. Select **Connect Solar Panels, Wind Turbines, or Other Generating Equipment.**
3. Choose **Complex Self Generation.**
4. Select **NBT/NEM Multiple Tariff.**
5. Choose **NBT/NEM + Non-Export.**



# PG&E application process (2 of 6)

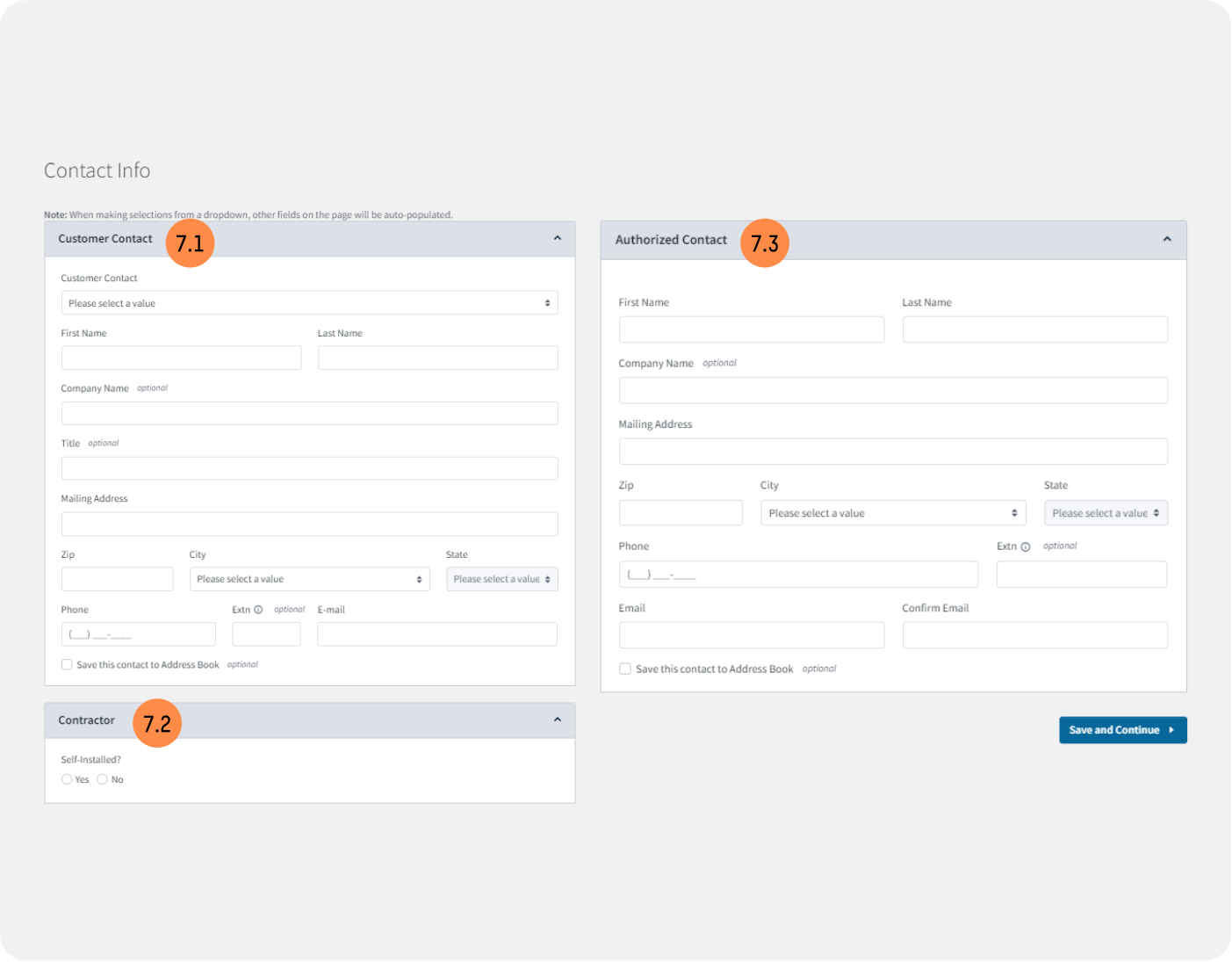
6 Enter the **Electric Service Agreement Number** and **Electric Badge Meter Number.**



# PG&E application process (3 of 6)

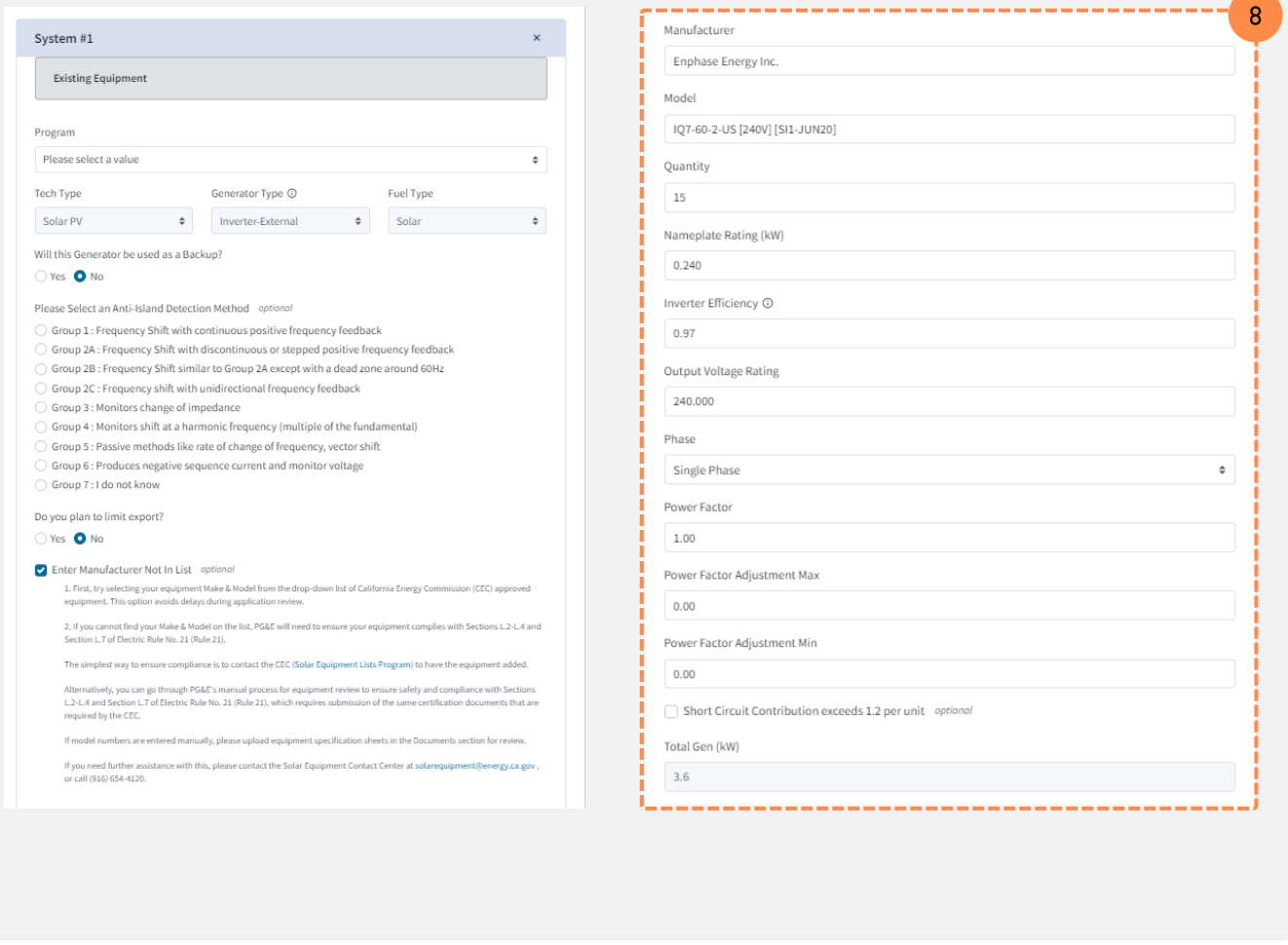
In the **Contact Info** section, complete the required fields for:

- 7.1 **Customer Contact**
- 7.2 **Contractor**
- 7.3 **Authorized Contact**



# PG&E application process (4 of 6)

8 The existing system information will populate into the form.

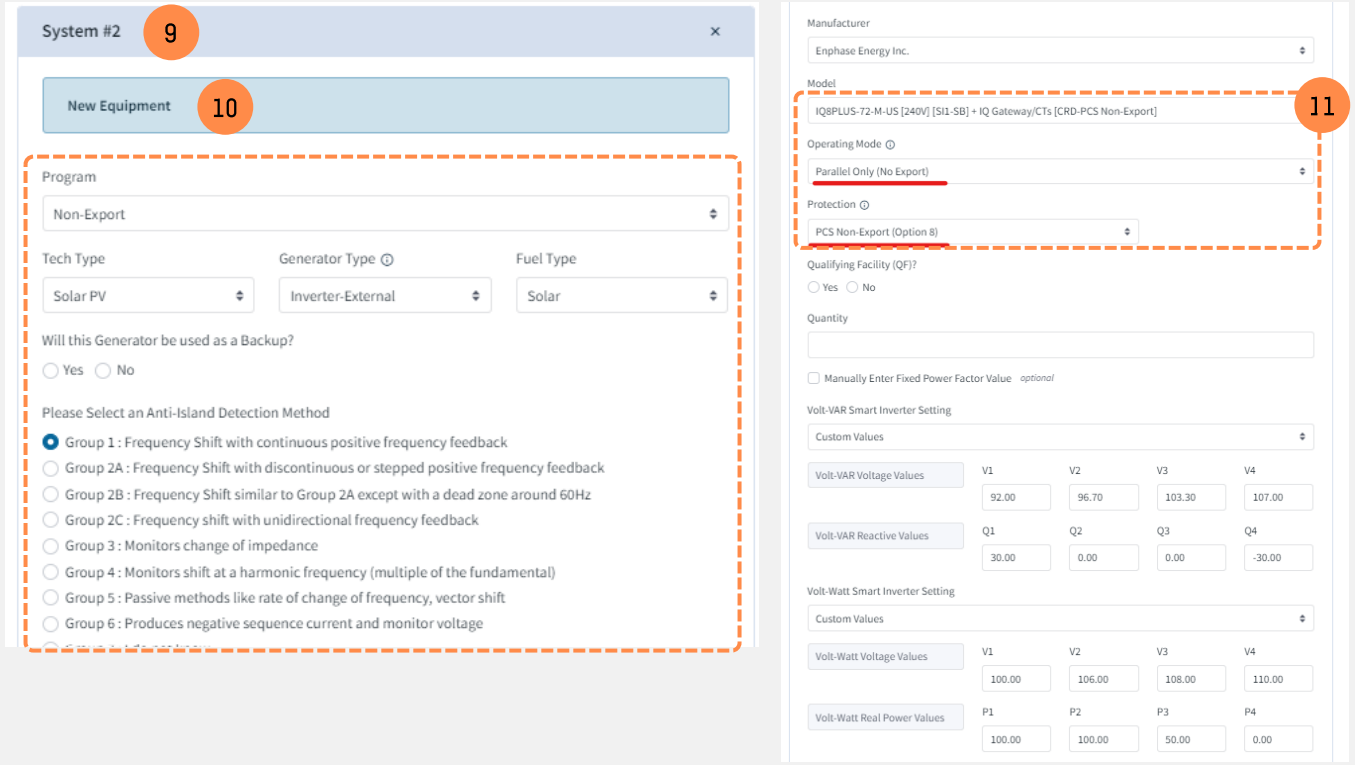


# PG&E application process (5 of 6)

9 Click **Add New System**, and **System #2** will appear.

10 When using zero export with Enphase Power Control, choose **Non-Export** in the **Program** field and **Group 1** as the **Anti-Island Detection Method.**

11 In the **Operating Mode** field, choose **Parallel Only (No Export)** and then **PCS Non-Export (Option 8)** in the **Protection** field.



# PG&E application process (6 of 6)

12 Add the requested documents, along with other required information, as shown at right:

**Anti-islanding Method**
**Building Permit & Inspection Certificate**
**Single-Line Drawing**
**Site Plans and Diagrams**

13 Review and submit the application.

14 Email rule21gen@pge.com with the application number, explaining that this is a NEM expansion system (see sample email below). Copy your regional Enphase FAE.

Subject: NEM expansion application #XXXXXX

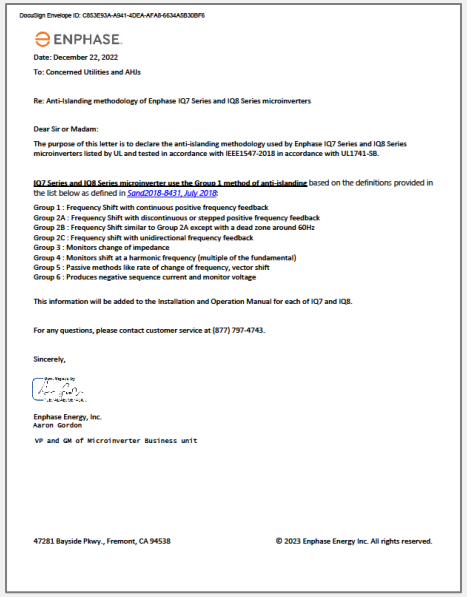
Dear PG&E interconnection team,

Application #XXXXXX for a NEM expansion system has been submitted for your review and approval.

Please acknowledge receipt of this application and let us know if you have any questions.

Thank you,
[Your name, business name, and phone number]

Click here to download
the manufacturer's declaration of anti-islanding



DocuSign Envelope ID: C853E93A-A941-4DEA-AFA8-6634A5B30BF6

ENPHASE.

Date: December 22, 2022

To: Concerned Utilities and AHJs

Re: Anti-Islanding methodology of Enphase IQ7 Series and IQ8 Series microinverters

Dear Sir or Madam:

The purpose of this letter is to declare the anti-islanding methodology used by Enphase IQ7 Series and IQ8 Series microinverters listed by UL and tested in accordance with IEEE1547-2018 in accordance with UL1741-SB.

IQ7 Series and IQ8 Series microinverter use the Group 1 method of anti-islanding based on the definitions provided in the list below as defined in Sand2018-8431, July 2018:

Group 1 : Frequency Shift with continuous positive frequency feedback
Group 2A : Frequency Shift with discontinuous or stepped positive frequency feedback
Group 2B : Frequency Shift similar to Group 2A except with a dead zone around 60Hz
Group 2C : Frequency shift with unidirectional frequency feedback
Group 3 : Monitors change of impedance
Group 4 : Monitors shift at a harmonic frequency (multiple of the fundamental)
Group 5 : Passive methods like rate of change of frequency, vector shift
Group 6 : Produces negative sequence current and monitor voltage

This information will be added to the Installation and Operation Manual for each of IQ7 and IQ8.

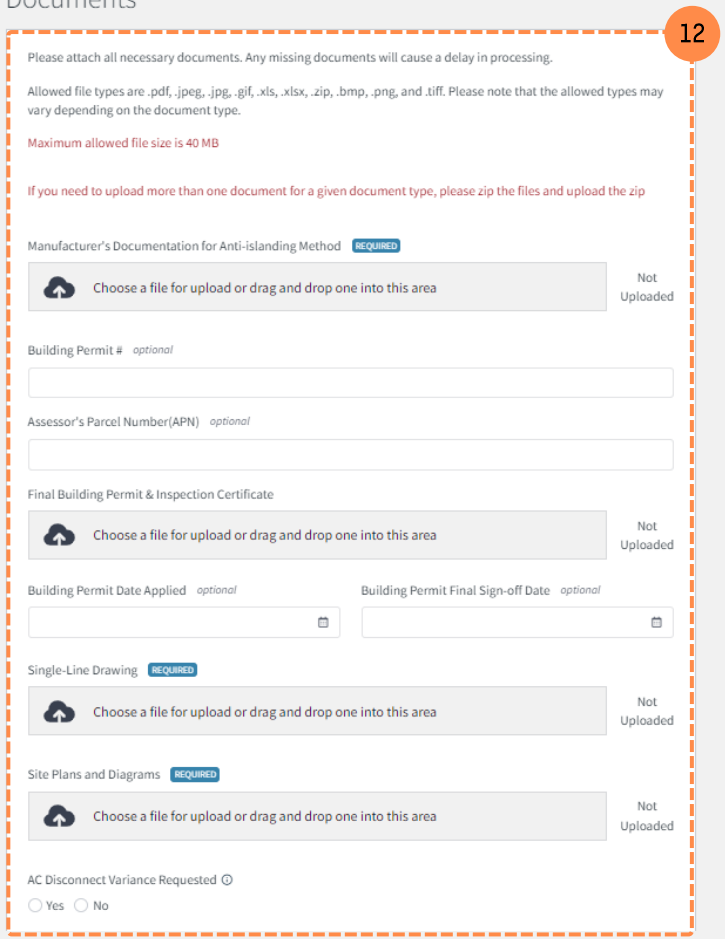
For any questions, please contact customer service at (877) 797-4743.

Sincerely,

Enphase Energy, Inc.
Aaron Gordon
VP and GM of Microinverter Business unit

47281 Bayside Pkwy., Fremont, CA 94538





Documents

12

Please attach all necessary documents. Any missing documents will cause a delay in processing.

Allowed file types are .pdf, .jpeg, .jpg, .gif, .xls, .xlsx, .zip, .bmp, .png, and .tiff. Please note that the allowed types may vary depending on the document type.

Maximum allowed file size is 40 MB

If you need to upload more than one document for a given document type, please zip the files and upload the zip

Manufacturer's Documentation for Anti-islanding Method REQUIRED

Choose a file for upload or drag and drop one into this area — Not Uploaded

Building Permit # *optional*

Assessor's Parcel Number(APN) *optional*

Final Building Permit & Inspection Certificate

Choose a file for upload or drag and drop one into this area — Not Uploaded

Building Permit Date Applied *optional*

Building Permit Final Sign-off Date *optional*

Single-Line Drawing REQUIRED

Choose a file for upload or drag and drop one into this area — Not Uploaded

Site Plans and Diagrams REQUIRED

Choose a file for upload or drag and drop one into this area — Not Uploaded

AC Disconnect Variance Requested

Yes No

# Application process steps for Southern California Edison (SCE)

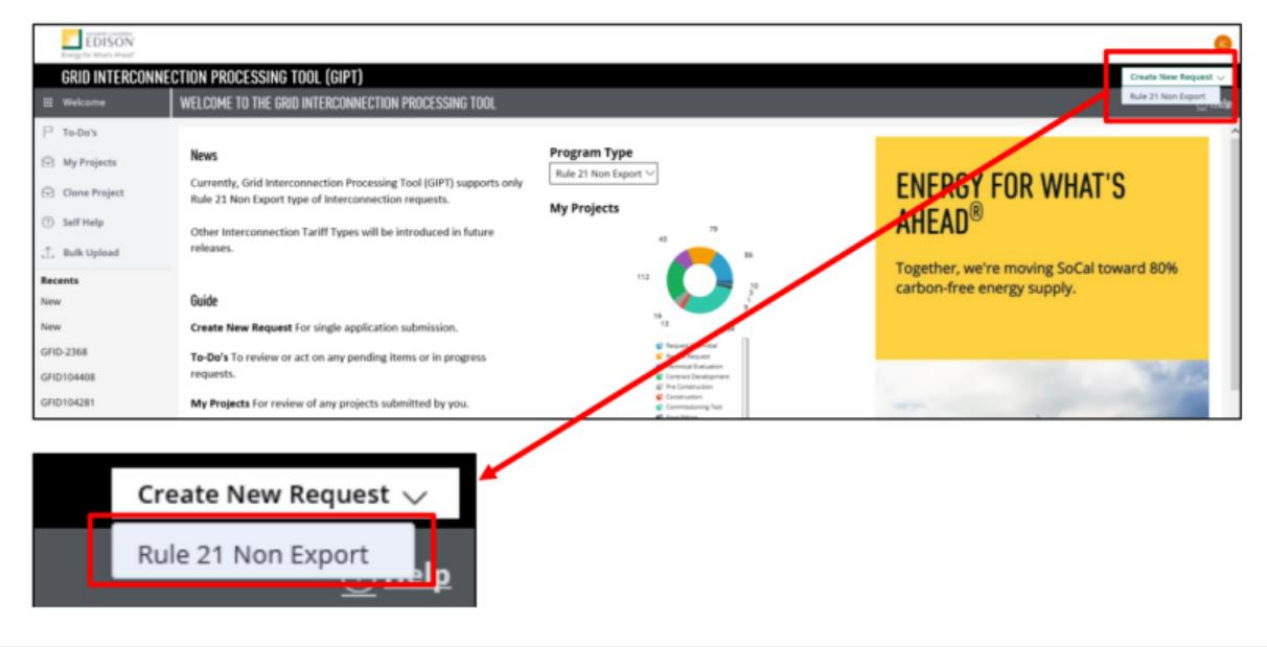
The original document can be found here.

# SCE application process (1 of 14)

## Creating a new request

To create a new interconnection request:

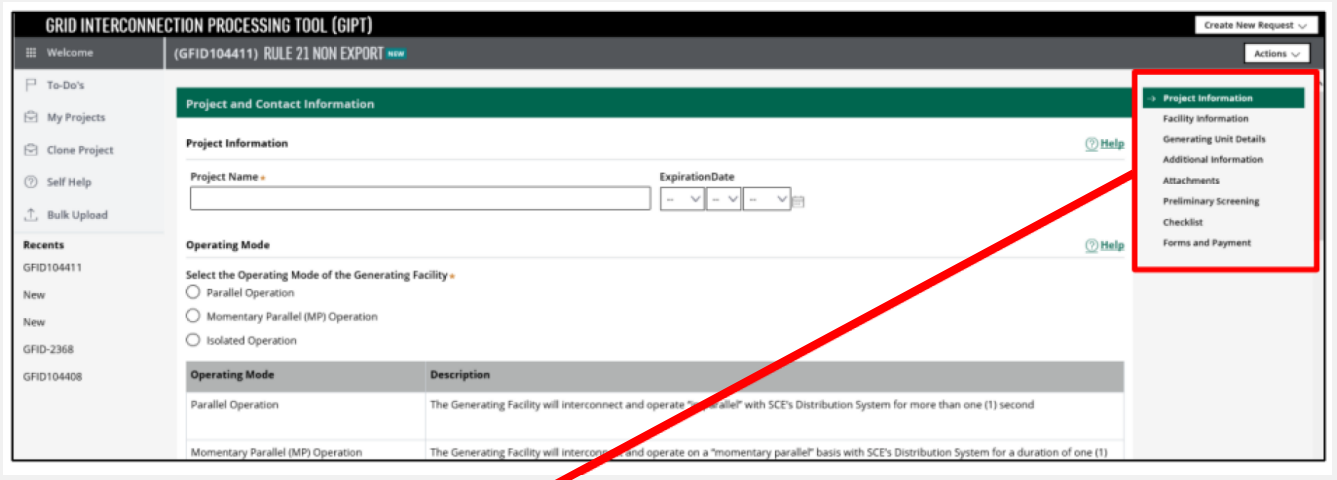
1. Log on to GIPT. Registration is mandatory for first-time users. For a complete guide, please see Grid Interconnection Processing Tool (GIPT) information.
2. From the **Create New Request** drop-down list on the upper right, select **Rule 21 Non Export.**

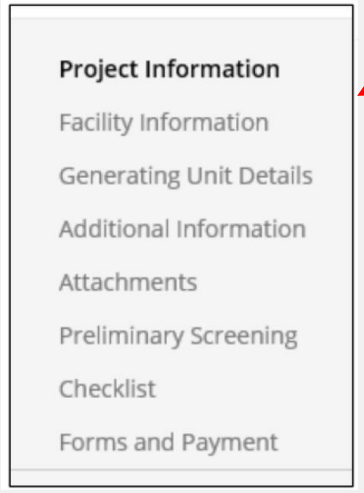


# SCE application process (2 of 14)

## Overview of interconnection request sections

To create a new interconnection request, you must complete all required areas on the right. SCE's guidance, shown in the following screenshots, covers only the most common deficiency sections and fields.

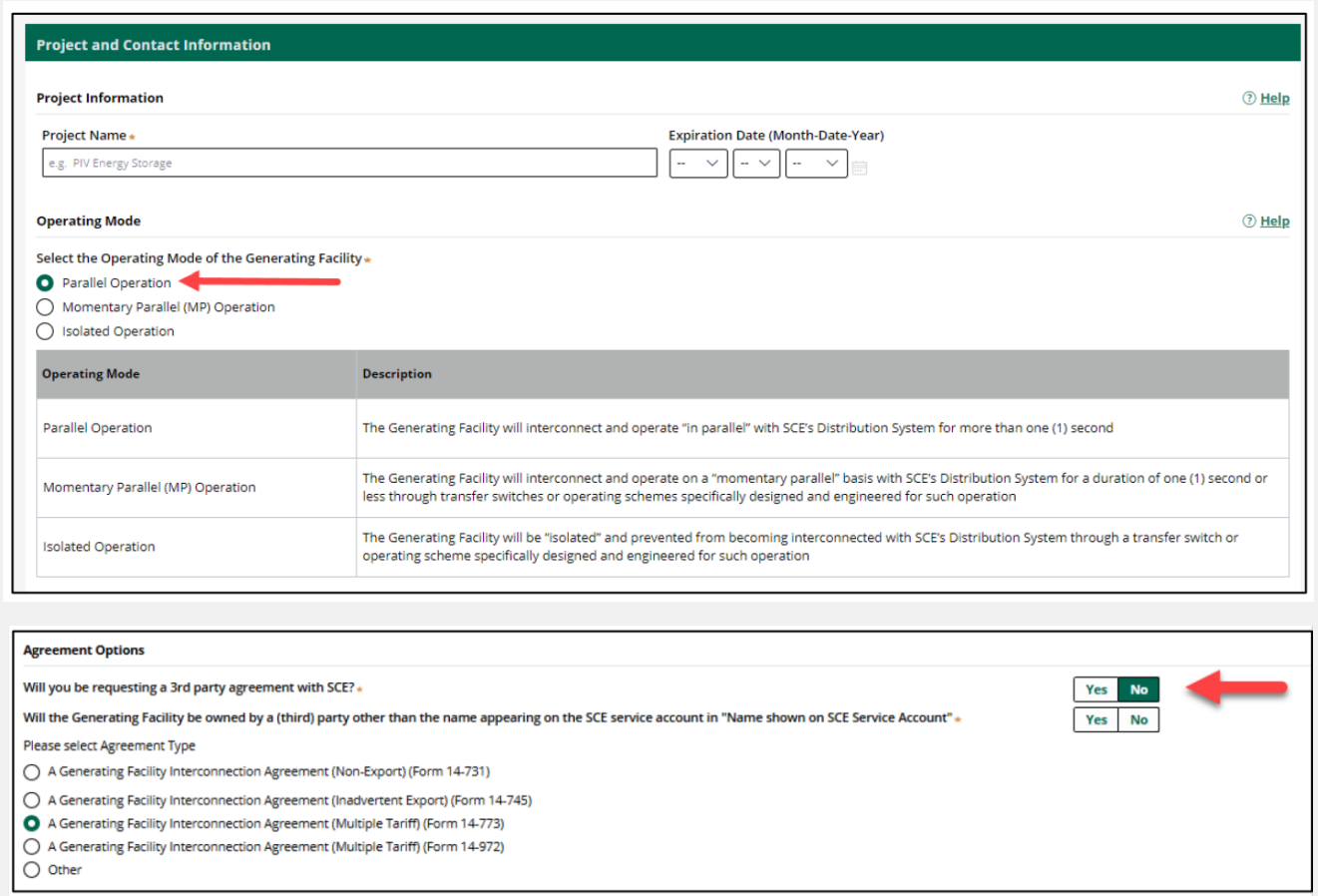


# SCE application process (3 of 14)

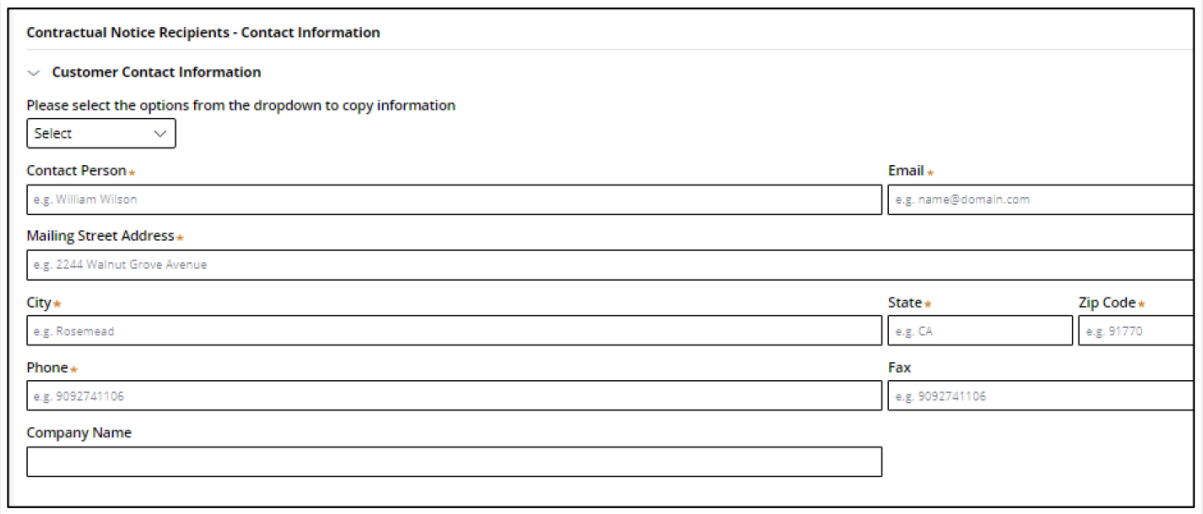
## Project and Contact information

1. The **Parallel Operation** mode must be selected.
2. In the **Agreement Options** section, "Will you be requesting a 3rd party agreement with SCE?" must be answered **No** for the correct options to appear.
3. A **Generating Facility Interconnection Agreement (Multiple Tariff) (Form 14-773)** must be the selected **Agreement Type.**



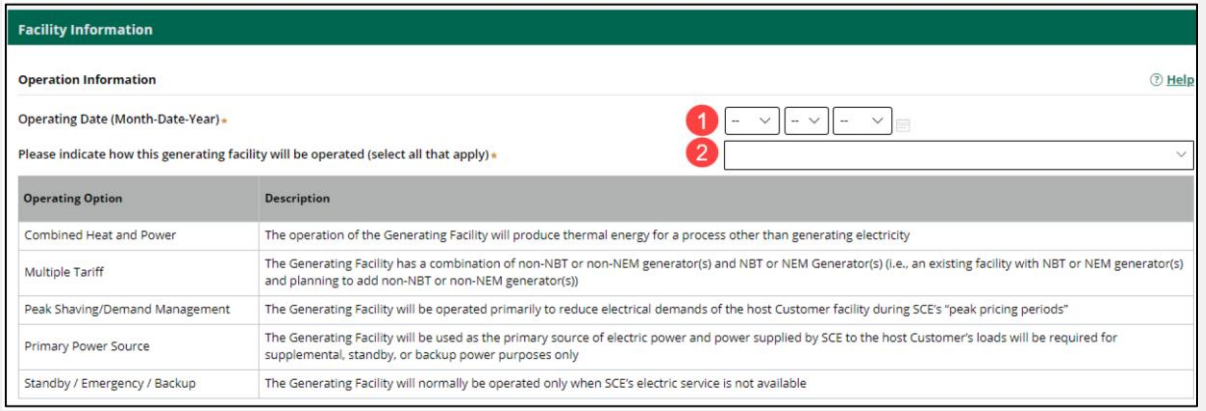
# SCE application process (4 of 14)

4. The **Contractual Notice Recipients - Contact Information** should be the **Customer Contact Information** as any future notices regarding the interconnection agreement will be sent to that address.




## Facility Information

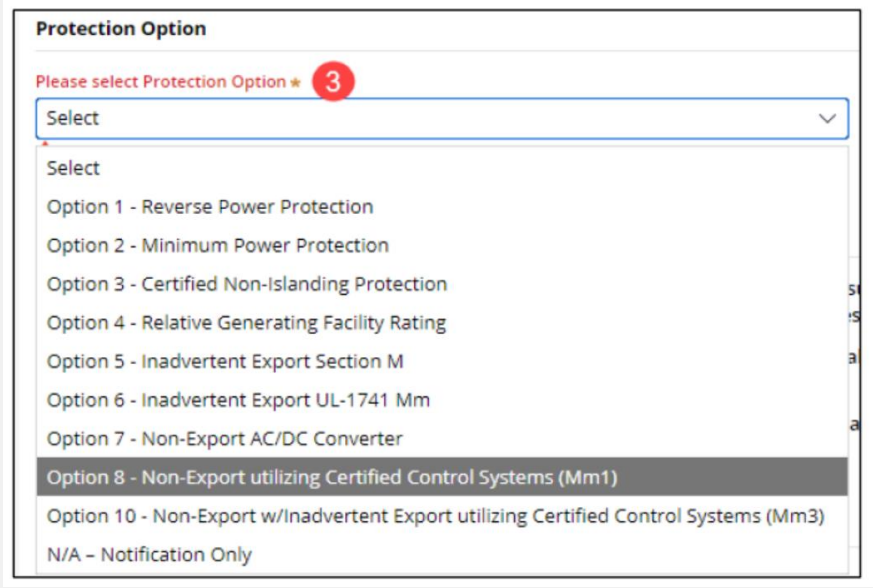
1. The **Operating Date** must be at least 60 calendar days in the future.
2. **Multiple Tariff** must be selected under **Operating Option.**

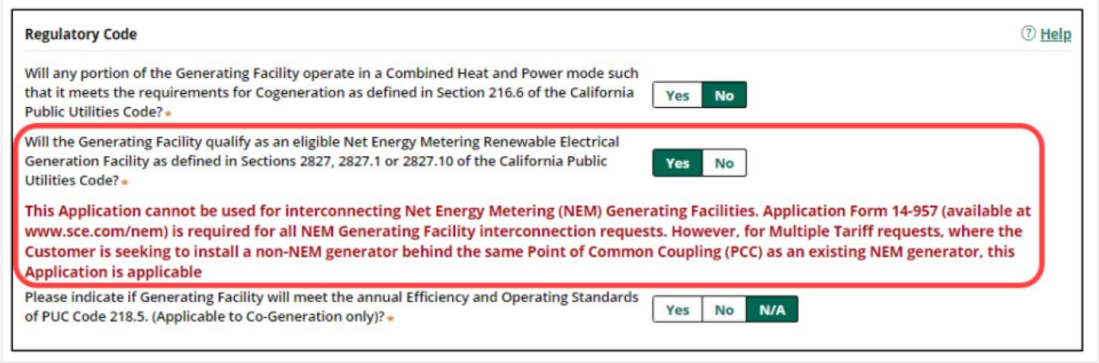



| Operating Option | Description |
|---|---|
| Combined Heat and Power | The operation of the Generating Facility will produce thermal energy for a process other than generating electricity |
| Multiple Tariff | The Generating Facility has a combination of non-NBT or non-NEM generator(s) and NBT or NEM Generator(s) (i.e., an existing facility with NBT or NEM generator(s) and planning to add non-NBT or non-NEM generator(s)) |
| Peak Shaving/Demand Management | The Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during SCE's "peak pricing periods" |
| Primary Power Source | The Generating Facility will be used as the primary source of electric power and power supplied by SCE to the host Customer's loads will be required for supplemental, standby, or backup power purposes only |
| Standby / Emergency / Backup | The Generating Facility will normally be operated only when SCE's electric service is not available |

# SCE application process (5 of 14)

3. **Option 8 - Non-Export utilizing Certified Control Systems (Mm1)** must be selected in the **Protection Option** drop-down.
4. The **Regulatory Code** question “Will the Generating Facility qualify as an eligible Net Metering Renewable Electrical Generation Facility as defined in sections 2827, 2827.1 or 2827.10 of the California Public Utilities code?" must be answered **Yes** where the customer is seeking to install a non-NEM generator behind the same point of common coupling (PCC) as an existing NEM generator.



# SCE application process (6 of 14)

## Generating Unit Details

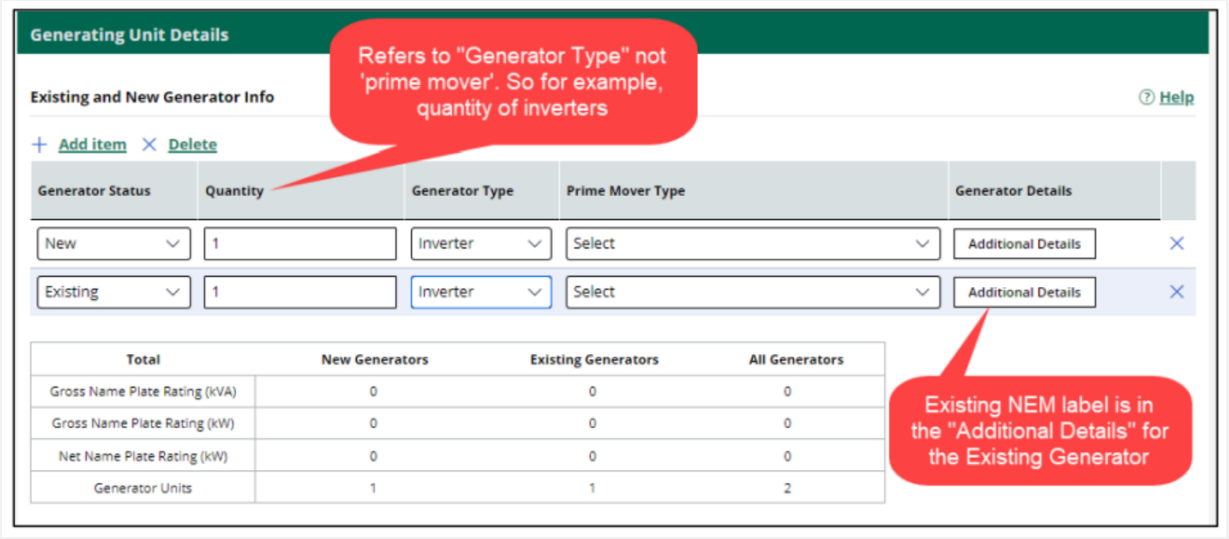
1. Click **Add Item** to add **New** and **Existing Generator(s).**

For the new and existing generators, add the number of inverters, manufacturer, and model number, and nameplate rating. This information must match the SLD.

a. Please note the following:

   i. The application **does not** require Solar PV module information listed as a “Generator” Instead list the inverter information.

   ii. If unable to obtain existing equipment SLD/information, site verification will be necessary to input **Existing Generator Info.** Please see “Checklist” section (see step 10 of 12) on how to add applicant comment.



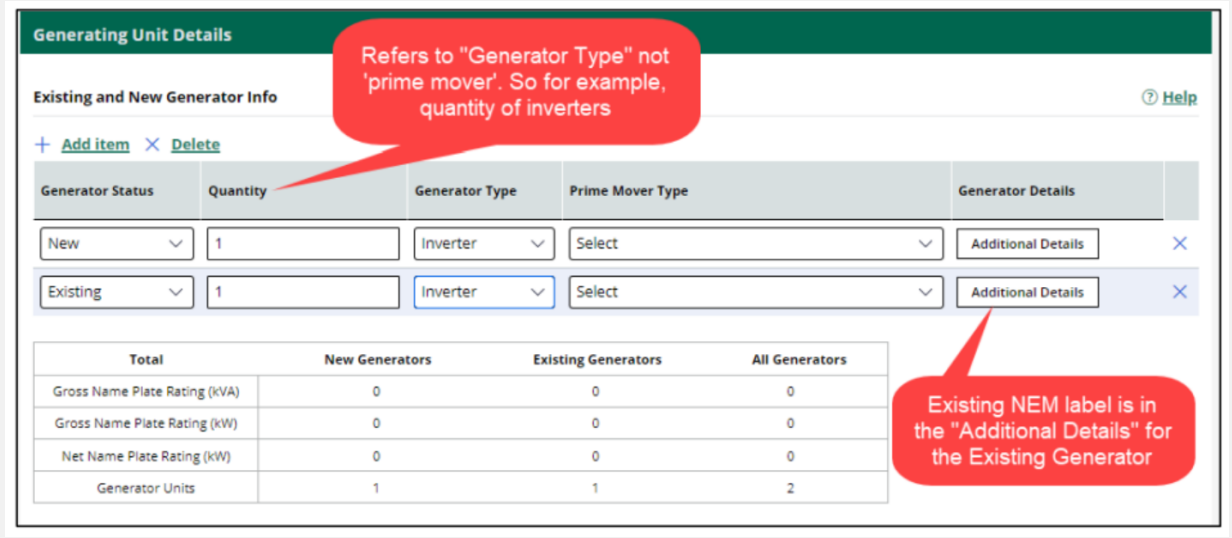
# SCE application process (7 of 14)

2. Under **Additional Details,** please note the following:

a. Check your inverter specification sheet or the California Energy Commission (CEC) list of eligible inverter equipment for individual unit Nameplate Ratings.

   i. **Gross Nameplate Rating (kVA) (individual unit)** – The total gross generating capacity of a Generator or Generating Facility as designed by the manufacturer(s) or Generator(s)

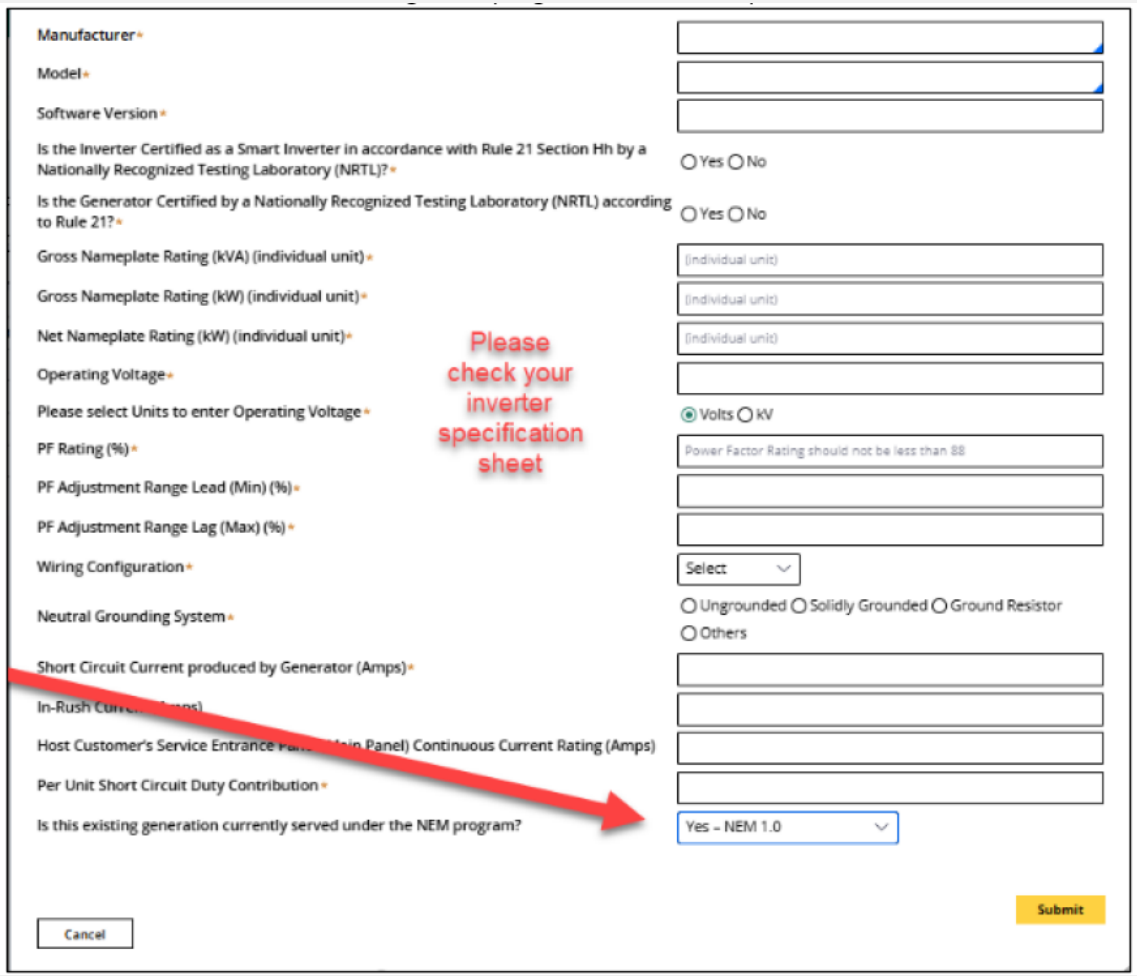
   ii. **Gross Nameplate Rating (kw) (individual unit)** – the total gross generating capacity of a Generator or Generating Facility as designed by the manufacturer(s) or the Generator(s)



# SCE Application Process (8 of 14)

iii. **Net Nameplate Rating (kW) (individual unit)** – The Gross Rating minus the consumption of electrical power of the auxiliary load.

b. Please select the existing NEM program from the drop-down.



# SCE application process (9 of 14)

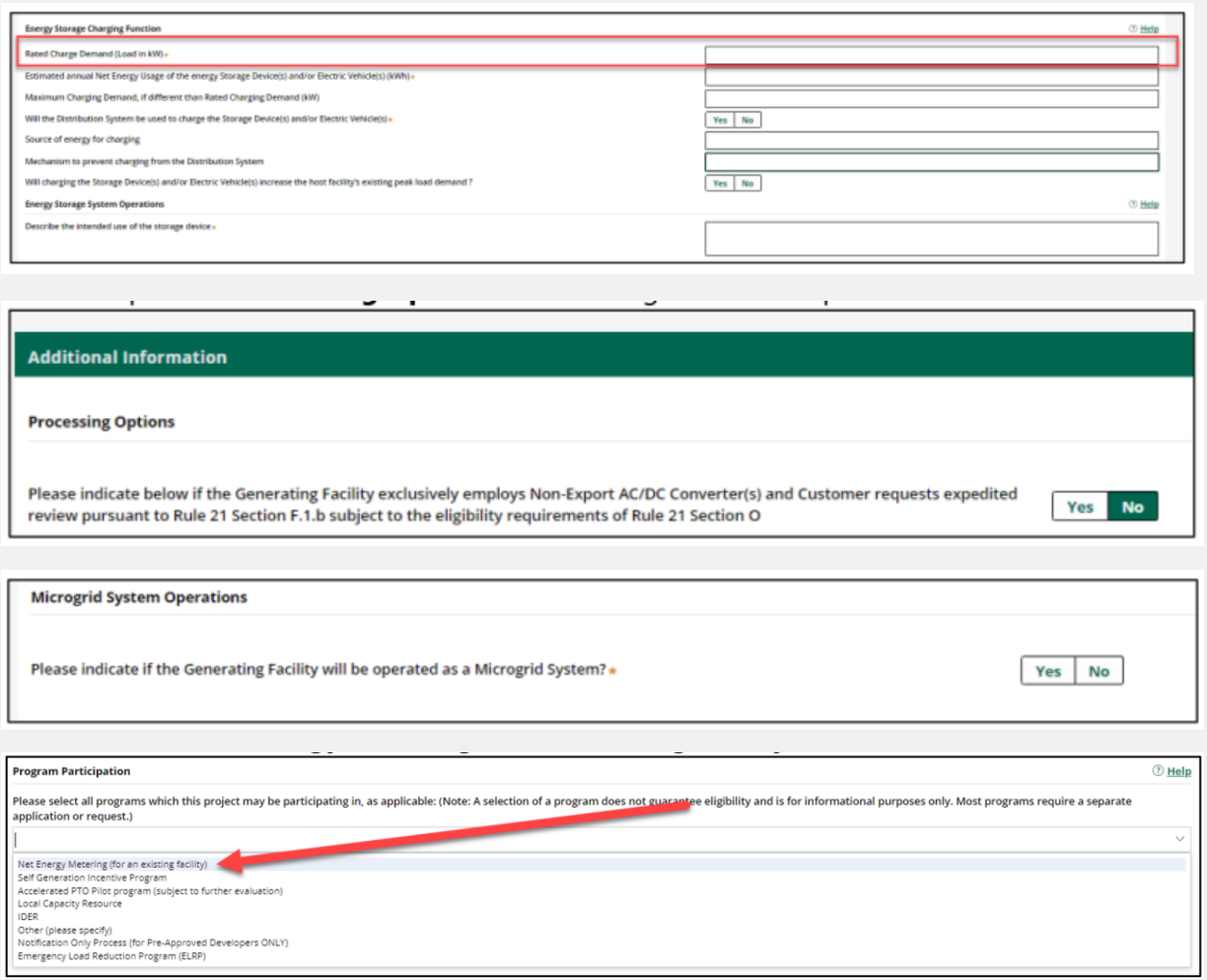
Energy Storage Charging Function

The **Rated Charge Demand** [Rated Discharge] **(Load in kW)** is for the energy storage/battery only. Please refer to the manufacturer specification sheet.

## Additional Information

1. Expedited **Processing Options** are not eligible for Multiple Tariff.
2. Please note the following for **Microgrid System Operations:**
   - If **Yes** is selected for microgrid, additional technical requirements will be needed such as sequence of operations to ensure microgrid system complies with all Rule 21 section Hh.h requirements
3. Complete the **Program Participation** section by selecting all programs that your project participates in or intends to participate in. This is not an application for any particular program.

   **Net Energy Metering (for an existing facility)** should be selected.

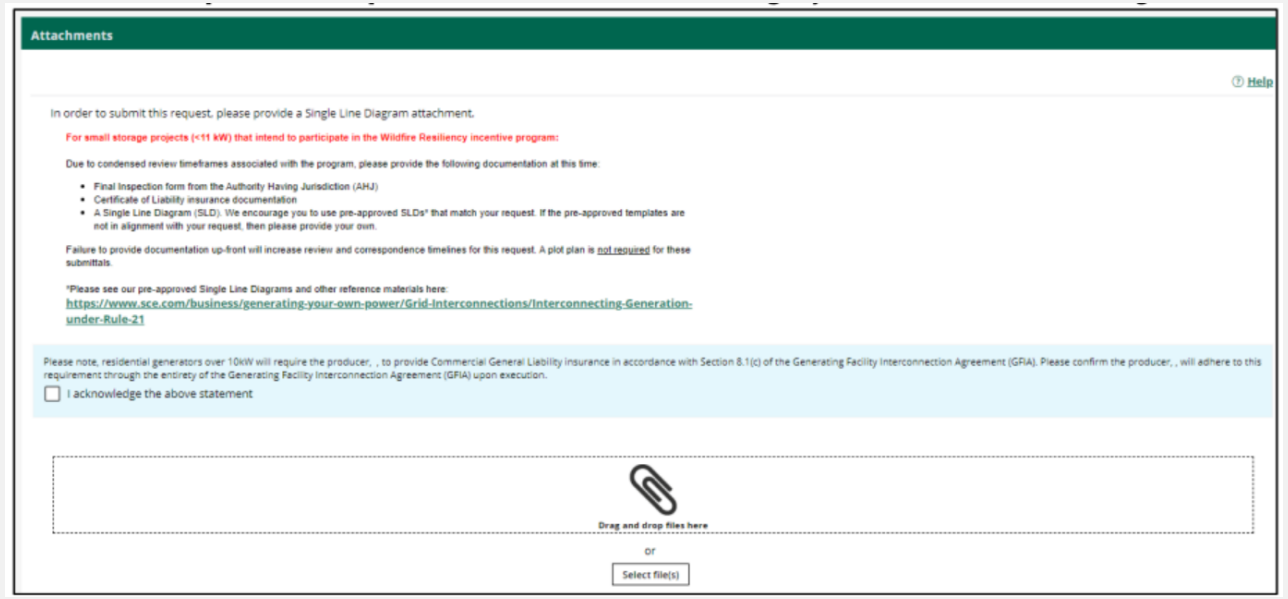


# SCE application process (10 of 14)

4. In the **Additional Technical Information** section, the answer to “Is a Control Scheme being used?” must be **Yes.** Additionally, UL 3141 certified equipment must be selected from the **SCE Approved Control System** list.
    - If not listed, please select “other” and input the equipment make and model. Supporting documentation will be required to verify UL 3141 certification and compliance.

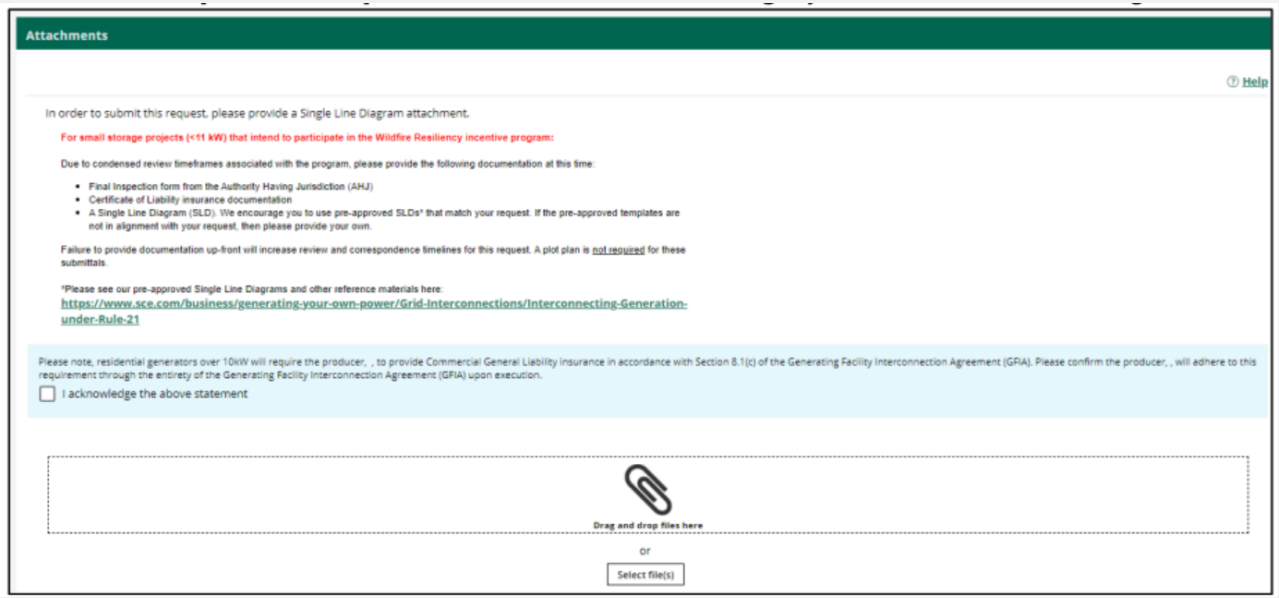
## Attachments

1. Upload all required technical documentation in the **Attachments** section.
    - **Single Line Diagrams (SLD)** – on the single line diagram, indicate the location of all power control system CTs. The placement of these CTs is crucial for achieving UL 3141 certification and maintaining NEM integrity. Please refer to NEM interconnection handbook Section 5 for detailed Single Line Diagram requirements.

# SCE application process (11 of 14)

- **Plot Plan** – Plot plan is required for Line Side Taps and construction projects requiring “new service” connection. Sample can be found here (on page 10)
- **Certification of Compliance** – Only needed if not an SCE approved Control system
- **Sequence of operations** (ensure NEM integrity). Attach Enphase Sequence of operations document.



# SCE application process (12 of 14)

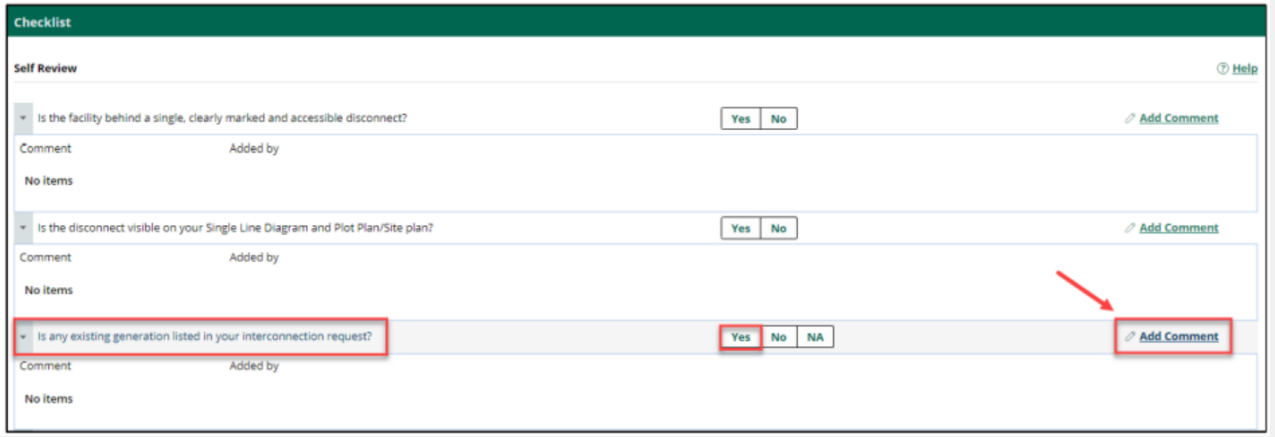
2. When done, click **continue** or use the topics on the right to proceed to the next area until you get to the **Forms and Payment** section.

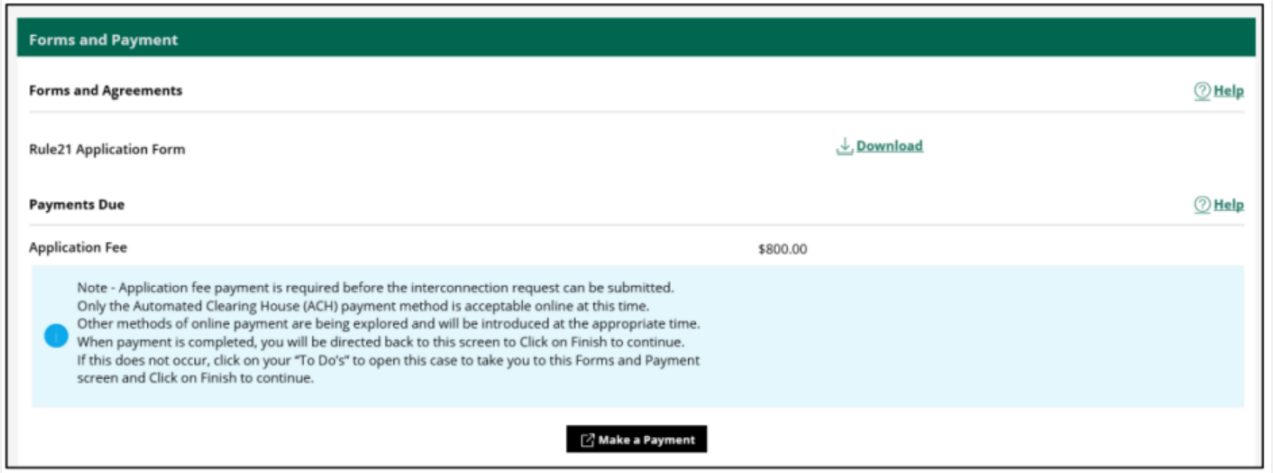
## Checklist

1. Under **Self Review** in the **Checklist** section, select **Yes** for “Is any existing generation listed in your interconnection request?” and **Add Comment** if existing equipment was site verified and include the date of verification in the event SCE records differ from what is at the site.

## Forms and Payment

1. The application review requires a non-refundable fee of $800. Payment is mandatory for Parallel options. Instructions on how to make this payment are included in the GIPT user guide.



# SCE Application Process (13 of 14)

2. Click **Download** to review the Rule 21 application form. It includes all the information you provided. If you have any questions, contact SCE. Otherwise, proceed with completing the payment.
3. Click **Make a Payment** to proceed to payment.
4. Refer to the section: Making a Payment for information on how to make a payment.
5. Click **Save.**
6. Click **Finish.**

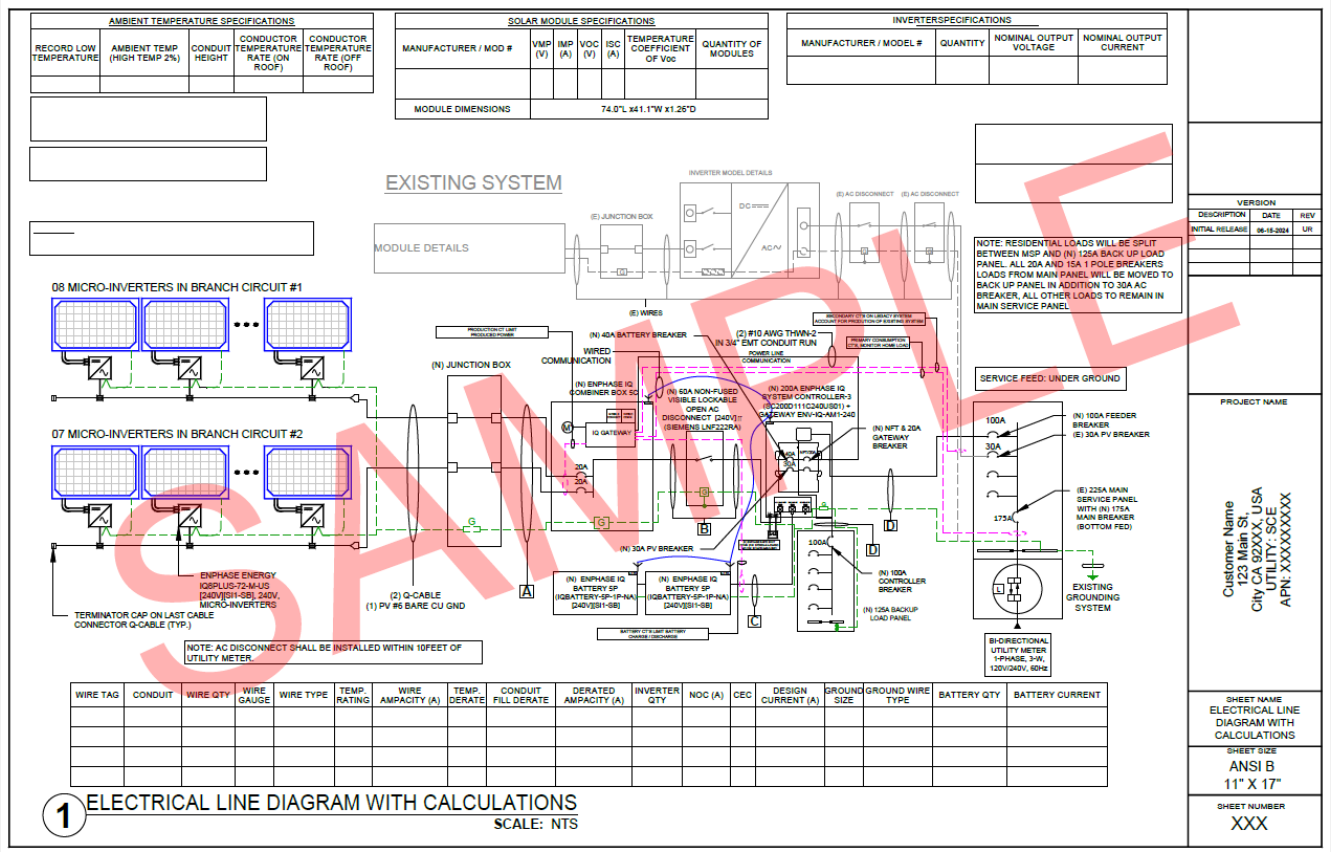
Your payment transaction is incomplete until you click **Finish**; you must click **Finish** for the case to move forward.

# SCE application process (14 of 14)

## Informational sample line diagram

This diagram can be used as a template for what SCE requires to be submitted as an attachment to the application.

(See step 10 for further information on exact attachments to include in your application.)



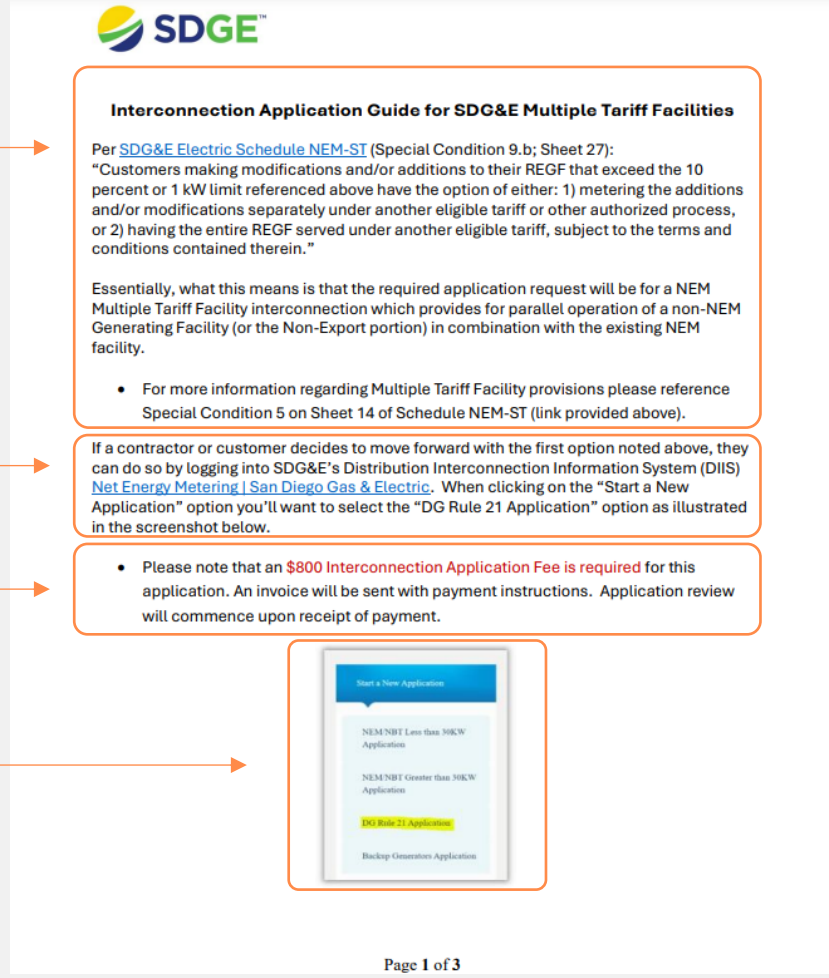
# Application process steps for San Diego Gas & Electric (SDG&E)

The original document can be found here.

# SDG&E application process (1 of 16)

## Starting an SDG&E application

- The first paragraphs are informational, describing SDG&E's multiple tariff use case.
- To begin an application, visit SDG&E's Distribution Interconnection Information System (DIIS).
- Note: An $800 interconnection application fee applies to multiple tariff applications.
- Once logged into the DIIS portal, choose **DG Rule 21 Application.**



SDGE

**Interconnection Application Guide for SDG&E Multiple Tariff Facilities**

Per SDG&E Electric Schedule NEM-ST (Special Condition 9.b; Sheet 27):
"Customers making modifications and/or additions to their REGF that exceed the 10 percent or 1 kW limit referenced above have the option of either: 1) metering the additions and/or modifications separately under another eligible tariff or other authorized process, or 2) having the entire REGF served under another eligible tariff, subject to the terms and conditions contained therein."

Essentially, what this means is that the required application request will be for a NEM Multiple Tariff Facility interconnection which provides for parallel operation of a non-NEM Generating Facility (or the Non-Export portion) in combination with the existing NEM facility.

- For more information regarding Multiple Tariff Facility provisions please reference Special Condition 5 on Sheet 14 of Schedule NEM-ST (link provided above).

If a contractor or customer decides to move forward with the first option noted above, they can do so by logging into SDG&E's Distribution Interconnection Information System (DIIS) Net Energy Metering | San Diego Gas & Electric. When clicking on the "Start a New Application" option you'll want to select the "DG Rule 21 Application" option as illustrated in the screenshot below.

- Please note that an $800 Interconnection Application Fee is required for this application. An invoice will be sent with payment instructions. Application review will commence upon receipt of payment.

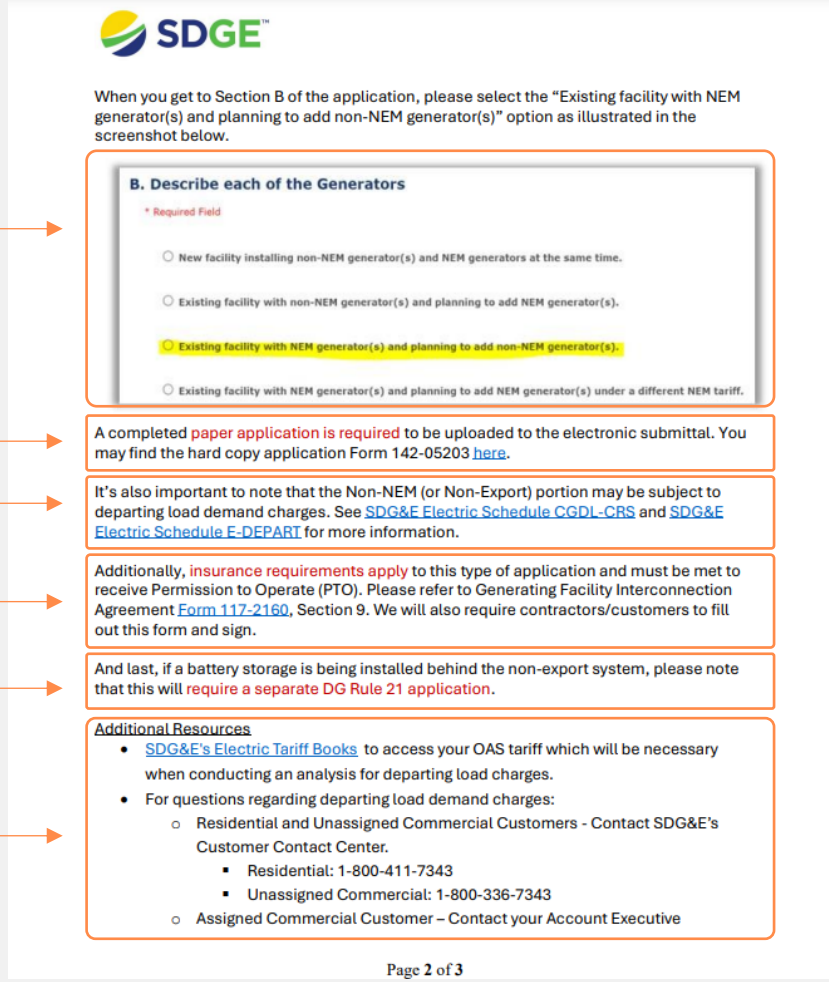



Page 1 of 3

# SDG&E application process (2 of 16)

## Continuing an SDG&E application

- In section B of the DIIS application, choose **Existing facility with NEM generator(s) and planning to add non-NEM generator(s).**
- Applicants must fill out a separate PDF (Form 142-05203) and upload the completed form to the application. For full instructions on Form 142-05203, see step 4 in subsequent slides.
- Departing load changes will apply to NEM-MT applications in SDG&E territory.
- System owners must have a homeowner's insurance policy and show proof of this during the application phase. Complete Form 117-2160.
- If the expansion system has batteries attached, two 142-05203 forms are required—one for the PV system, and one for the battery system.
- This section contains informational notes:
  - Link to full SDG&E tariff
  - Customer support phone numbers



SDGE

When you get to Section B of the application, please select the "Existing facility with NEM generator(s) and planning to add non-NEM generator(s)" option as illustrated in the screenshot below.

**B. Describe each of the Generators**

* Required Field

- New facility installing non-NEM generator(s) and NEM generators at the same time.
- Existing facility with non-NEM generator(s) and planning to add NEM generator(s).
- Existing facility with NEM generator(s) and planning to add non-NEM generator(s).
- Existing facility with NEM generator(s) and planning to add NEM generator(s) under a different NEM tariff.

A completed paper application is required to be uploaded to the electronic submittal. You may find the hard copy application Form 142-05203 here.

It's also important to note that the Non-NEM (or Non-Export) portion may be subject to departing load demand charges. See SDG&E Electric Schedule CGDL-CRS and SDG&E Electric Schedule E-DEPART for more information.

Additionally, insurance requirements apply to this type of application and must be met to receive Permission to Operate (PTO). Please refer to Generating Facility Interconnection Agreement Form 117-2160, Section 9. We will also require contractors/customers to fill out this form and sign.

And last, if a battery storage is being installed behind the non-export system, please note that this will require a separate DG Rule 21 application.

Additional Resources

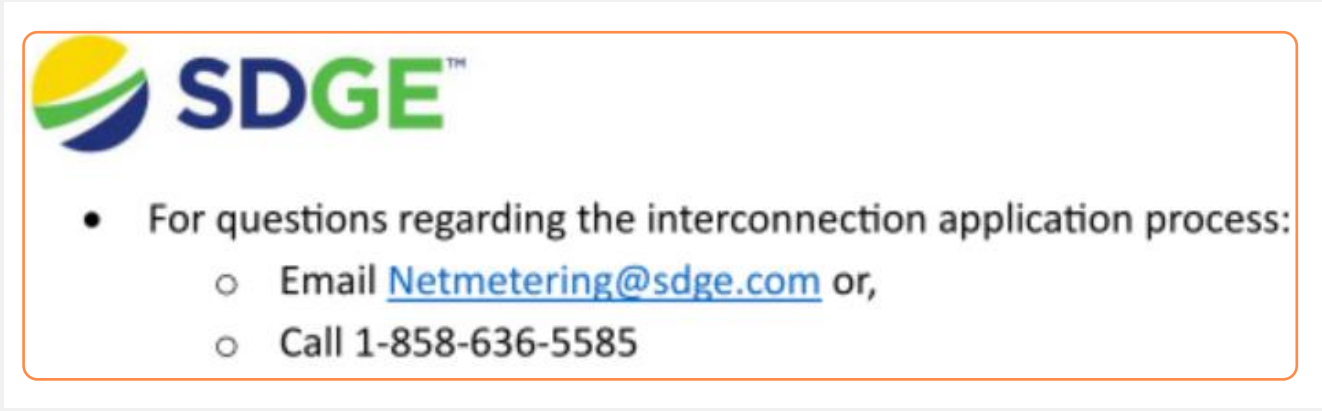
- SDG&E's Electric Tariff Books to access your OAS tariff which will be necessary when conducting an analysis for departing load charges.
- For questions regarding departing load demand charges:
  - Residential and Unassigned Commercial Customers - Contact SDG&E's Customer Contact Center.
    - Residential: 1-800-411-7343
    - Unassigned Commercial: 1-800-336-7343
  - Assigned Commercial Customer – Contact your Account Executive

Page 2 of 3

# SDG&E application process (3 of 16)

## Continuing an SDG&E application

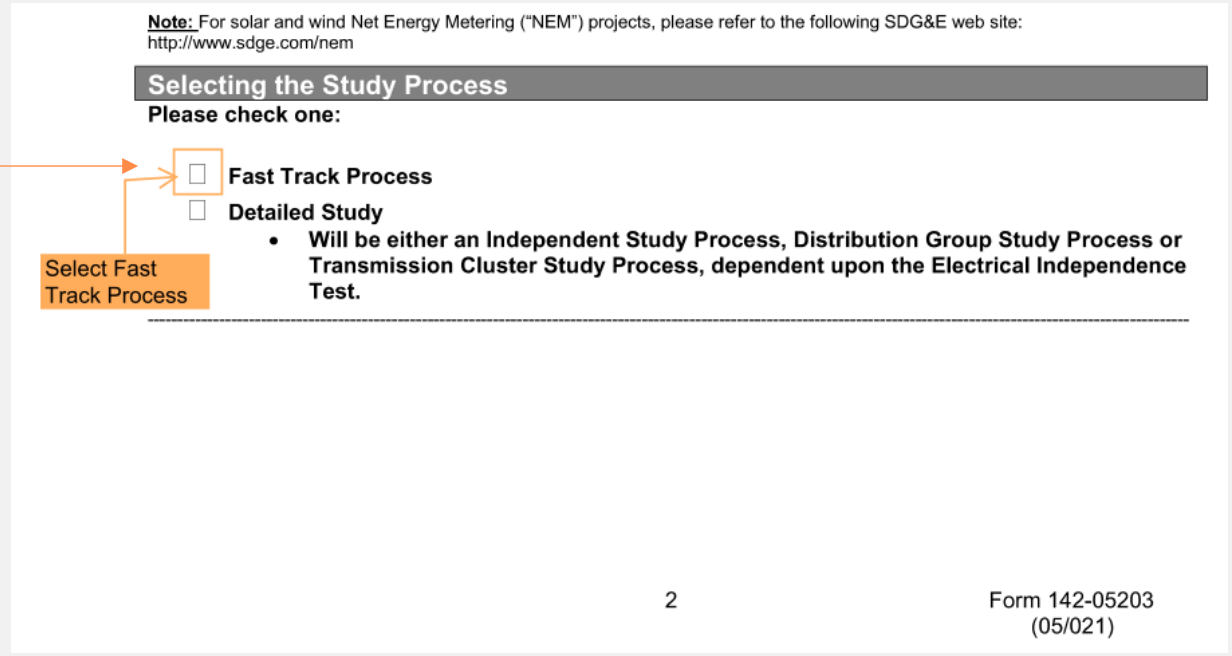
- For additional interconnection questions, SDG&E customer support can be contacted through these channels



# SDG&E application process (4 of 16)

Instructions for filling out **Form 142-05203**

- This application must be filled out and attached to the applicant's submittal in the DIIS system.
- If batteries are attached to the expansion system, one PV and one ESS application must be submitted.
- Scroll to the bottom of page 2 and select **Fast Track Process.**

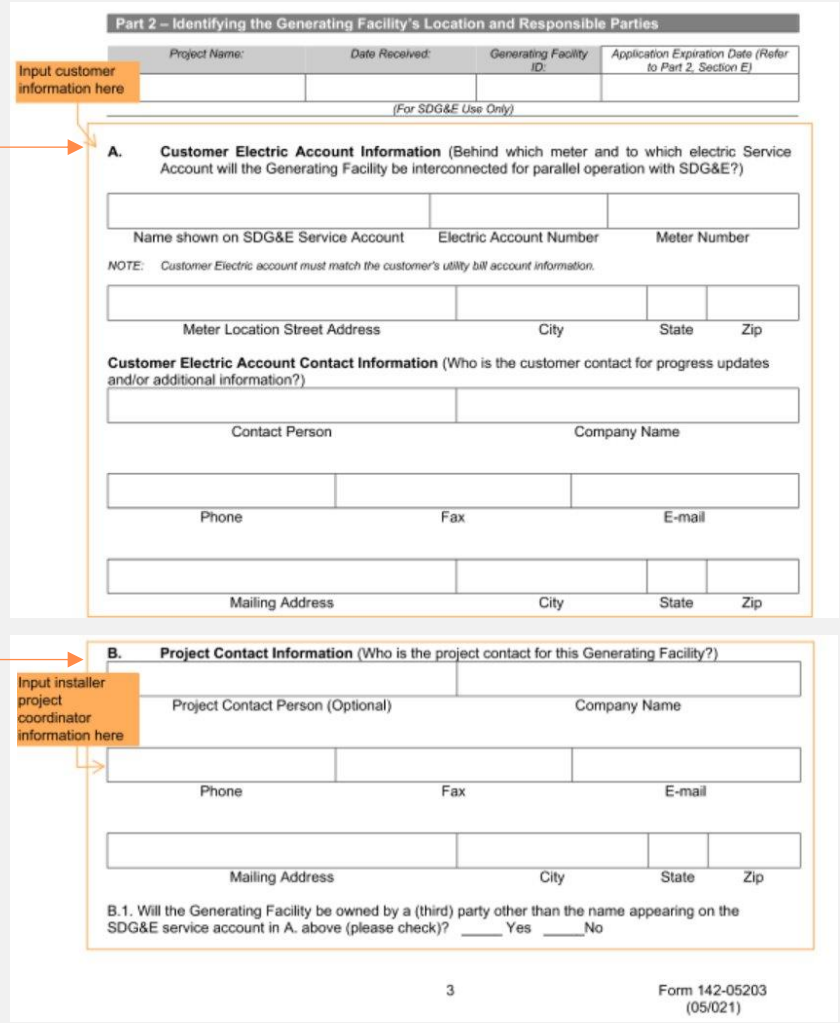


# SDG&E application process (5 of 16)

## Continuing an SDG&E application

Page 3:

- Input the **Customer Election Account Information** in Section A.
- Input the **Project Contact Information** for the generating facility in Section B.

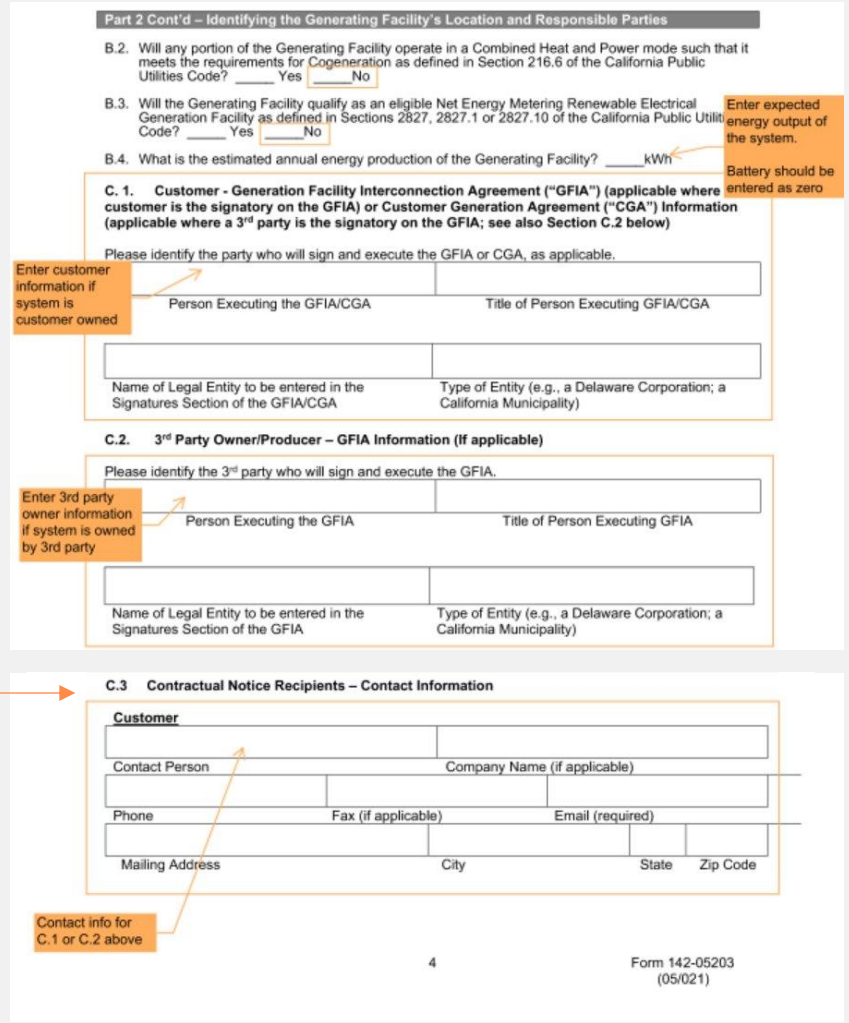


# SDG&E application process (6 of 16)

## Continuing an SDG&E application

Page 4

- Input expected energy output, and contact person who will execute the utility agreement
  - Choose C.1 if Customer owned
  - Choose C.2 if third party owned
- Input contact information from customer or 3rd party



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

B.2. Will any portion of the Generating Facility operate in a Combined Heat and Power mode such that it meets the requirements for Cogeneration as defined in Section 216.6 of the California Public Utilities Code? _____ Yes _____No

B.3. Will the Generating Facility qualify as an eligible Net Energy Metering Renewable Electrical Generation Facility as defined in Sections 2827, 2827.1 or 2827.10 of the California Public Utilities Code? _____ Yes _____No

B.4. What is the estimated annual energy production of the Generating Facility? _____kWh

Enter expected energy output of the system.

Battery should be entered as zero

**C. 1. Customer - Generation Facility Interconnection Agreement ("GFIA") (applicable where customer is the signatory on the GFIA) or Customer Generation Agreement ("CGA") Information (applicable where a 3rd party is the signatory on the GFIA; see also Section C.2 below)**

Please identify the party who will sign and execute the GFIA or CGA, as applicable.

Enter customer information if system is customer owned

Person Executing the GFIA/CGA | Title of Person Executing GFIA/CGA

Name of Legal Entity to be entered in the Signatures Section of the GFIA/CGA | Type of Entity (e.g., a Delaware Corporation; a California Municipality)

**C.2. 3rd Party Owner/Producer – GFIA Information (If applicable)**

Please identify the 3rd party who will sign and execute the GFIA.

Enter 3rd party owner information if system is owned by 3rd party

Person Executing the GFIA | Title of Person Executing GFIA

Name of Legal Entity to be entered in the Signatures Section of the GFIA | Type of Entity (e.g., a Delaware Corporation; a California Municipality)

**C.3 Contractual Notice Recipients – Contact Information**

**Customer**

Contact Person | Company Name (if applicable)

Phone | Fax (if applicable) | Email (required)

Mailing Address | City | State | Zip Code

Contact info for C.1 or C.2 above

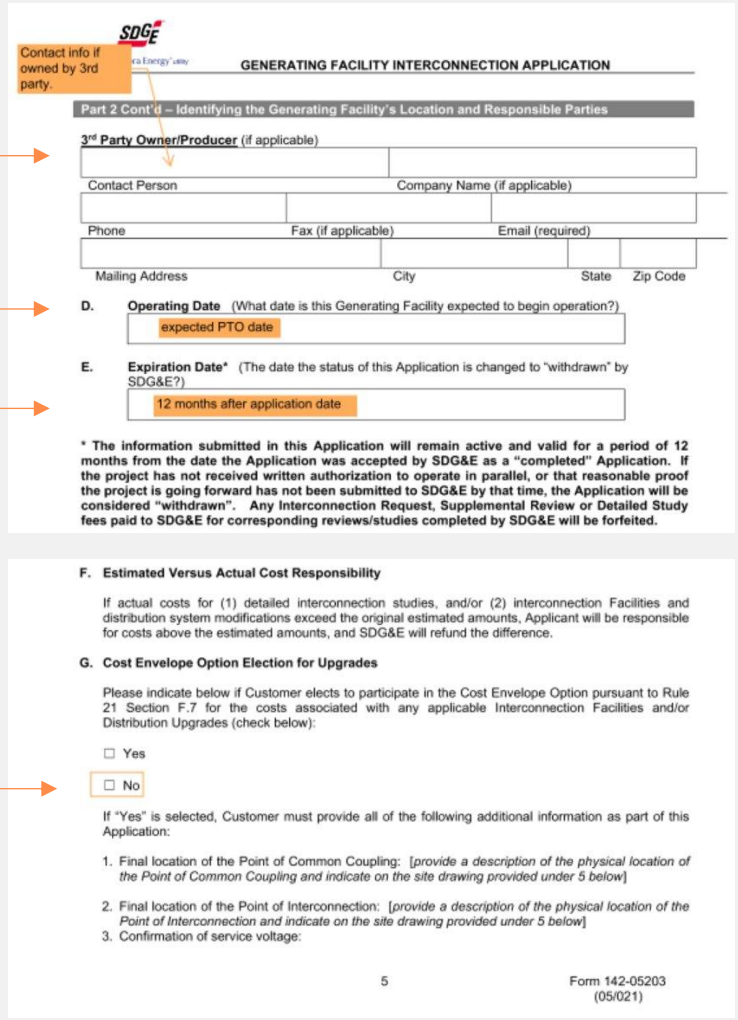
4 Form 142-05203 (05/021)

# SDG&E application process (7 of 16)

## Continuing an SDG&E application

Page 5

- Input contact information if owned by 3rd party
- Operating Date: Input expected PTO date
- Expiration date: Input 12 months after the application date
- Input **No** for Cost Envelope Option Election for upgrades



SDGE

Contact info if owned by 3rd party.

GENERATING FACILITY INTERCONNECTION APPLICATION

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

3rd Party Owner/Producer (if applicable)

Contact Person | Company Name (if applicable)

Phone | Fax (if applicable) | Email (required)

Mailing Address | City | State | Zip Code

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

expected PTO date

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

12 months after application date

*** 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 SDG&E as a "completed" Application. If the project has not received written authorization to operate in parallel, or that reasonable proof the project is going forward has not been submitted to SDG&E by that time, the Application will be considered "withdrawn". Any Interconnection Request, Supplemental Review or Detailed Study fees paid to SDG&E for corresponding reviews/studies completed by SDG&E will be forfeited.**

F. **Estimated Versus Actual Cost Responsibility**

If actual costs for (1) detailed interconnection studies, and/or (2) interconnection Facilities and distribution system modifications exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts, and SDG&E will refund the difference.

G. **Cost Envelope Option Election for Upgrades**

Please indicate below if Customer elects to participate in the Cost Envelope Option pursuant to Rule 21 Section F.7 for the costs associated with any applicable Interconnection Facilities and/or Distribution Upgrades (check below):

☐ Yes

☐ No

If "Yes" is selected, Customer must provide all of the following additional information as part of this Application:

1. Final location of the Point of Common Coupling: [*provide a description of the physical location of the Point of Common Coupling and indicate on the site drawing provided under 5 below*]
2. Final location of the Point of Interconnection: [*provide a description of the physical location of the Point of Interconnection and indicate on the site drawing provided under 5 below*]
3. Confirmation of service voltage:

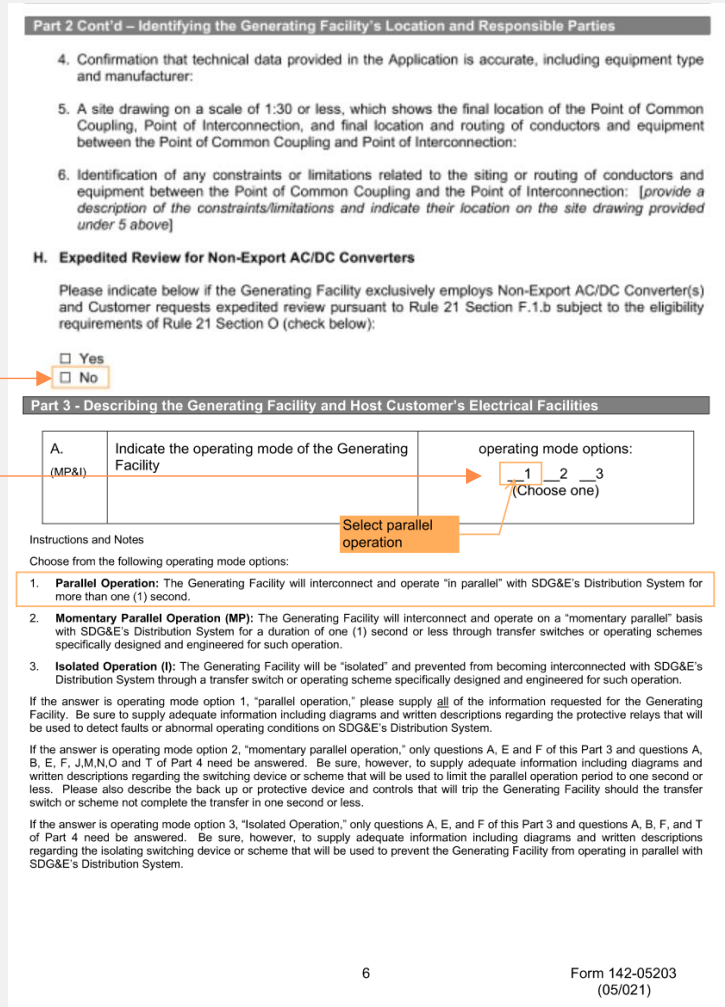
5 Form 142-05203 (05/021)

# SDG&E application process (8 of 16)

## Continuing an SDG&E application

Page 6

- H does not apply to AC NEM expansion systems. Select **No**
- Select option 1: Parallel Operation



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

4. Confirmation that technical data provided in the Application is accurate, including equipment type and manufacturer:

5. A site drawing on a scale of 1:30 or less, which shows the final location of the Point of Common Coupling, Point of Interconnection, and final location and routing of conductors and equipment between the Point of Common Coupling and Point of Interconnection:

6. Identification of any constraints or limitations related to the siting or routing of conductors and equipment between the Point of Common Coupling and the Point of Interconnection: [*provide a description of the constraints/limitations and indicate their location on the site drawing provided under 5 above*]

**H. Expedited Review for Non-Export AC/DC Converters**

Please indicate below if the Generating Facility exclusively employs Non-Export AC/DC Converter(s) and Customer requests expedited review pursuant to Rule 21 Section F.1.b subject to the eligibility requirements of Rule 21 Section O (check below):

☐ Yes
☐ No

**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) |

Select parallel operation

Instructions and Notes

Choose from the following operating mode options:

1. **Parallel Operation:** The Generating Facility will interconnect and operate "in parallel" with SDG&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 SDG&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 SDG&E's Distribution System through a transfer switch or operating scheme specifically designed and engineered for such operation.

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 SDG&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, J,M,N,O and T 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 T 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 SDG&E's Distribution System.

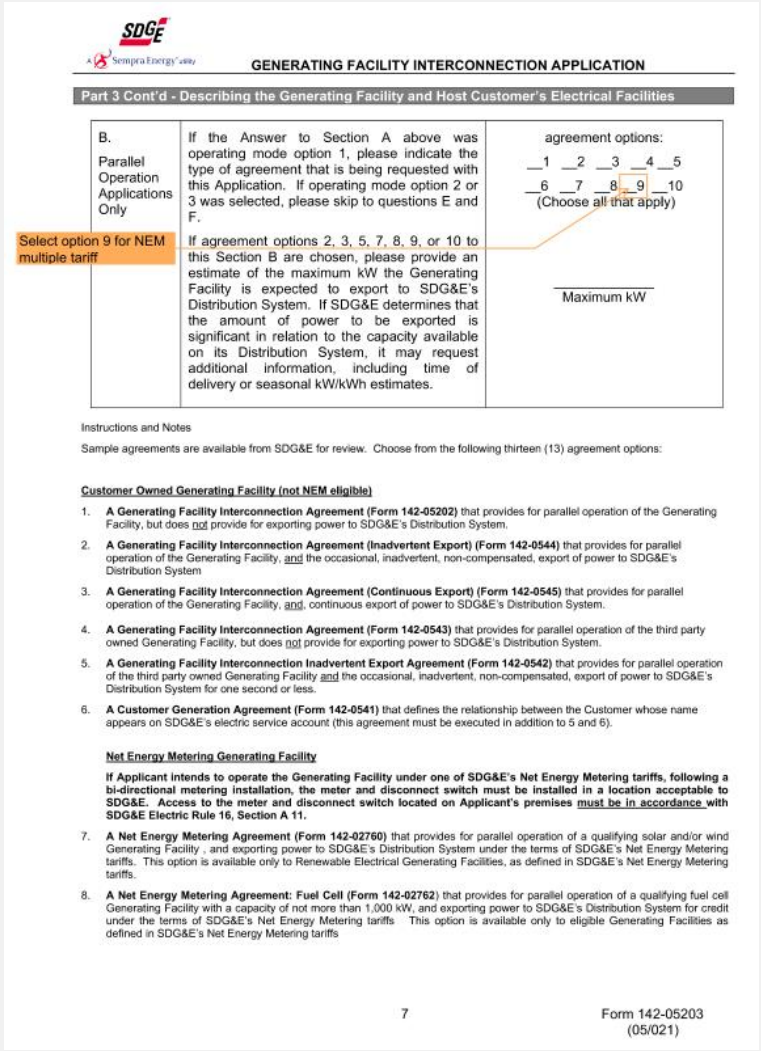
6 Form 142-05203 (05/021)

# SDG&E application process (9 of 16)

## Continuing an SDG&E application

Page 7

- Select option 9 for “Net Energy Metering Agreement: Multiple Tariff”



SDGE
A Sempra Energy utility

**GENERATING FACILITY INTERCONNECTION APPLICATION**

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

| | | |
|---|---|---|
| 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. | agreement options: |
| Select option 9 for NEM multiple tariff | 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 SDG&E's Distribution System. If SDG&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. | __1 __2 __3 __4 __5<br>__6 __7 __8 __9 __10<br>(Choose all that apply)<br><br>_____<br>Maximum kW |

Instructions and Notes

Sample agreements are available from SDG&E for review. Choose from the following thirteen (13) agreement options:

**Customer Owned Generating Facility (not NEM eligible)**

1. **A Generating Facility Interconnection Agreement (Form 142-05202)** that provides for parallel operation of the Generating Facility, but does not provide for exporting power to SDG&E's Distribution System.
2. **A Generating Facility Interconnection Agreement (Inadvertent Export) (Form 142-0544)** that provides for parallel operation of the Generating Facility, and the occasional, inadvertent, non-compensated, export of power to SDG&E's Distribution System
3. **A Generating Facility Interconnection Agreement (Continuous Export) (Form 142-0545)** that provides for parallel operation of the Generating Facility, and, continuous export of power to SDG&E's Distribution System.
4. **A Generating Facility Interconnection Agreement (Form 142-0543)** that provides for parallel operation of the third party owned Generating Facility, but does not provide for exporting power to SDG&E's Distribution System.
5. **A Generating Facility Interconnection Inadvertent Export Agreement (Form 142-0542)** that provides for parallel operation of the third party owned Generating Facility and the occasional, inadvertent, non-compensated, export of power to SDG&E's Distribution System for one second or less.
6. **A Customer Generation Agreement (Form 142-0541)** that defines the relationship between the Customer whose name appears on SDG&E's electric service account (this agreement must be executed in addition to 5 and 6).

**Net Energy Metering Generating Facility**

**If Applicant intends to operate the Generating Facility under one of SDG&E's Net Energy Metering tariffs, following a bi-directional metering installation, the meter and disconnect switch must be installed in a location acceptable to SDG&E. Access to the meter and disconnect switch located on Applicant's premises must be in accordance with SDG&E Electric Rule 16, Section A 11.**

7. **A Net Energy Metering Agreement (Form 142-02760)** that provides for parallel operation of a qualifying solar and/or wind Generating Facility , and exporting power to SDG&E's Distribution System under the terms of SDG&E's Net Energy Metering tariffs. This option is available only to Renewable Electrical Generating Facilities, as defined in SDG&E's Net Energy Metering tariffs.
8. **A Net Energy Metering Agreement: Fuel Cell (Form 142-02762)** that provides for parallel operation of a qualifying fuel cell Generating Facility with a capacity of not more than 1,000 kW, and exporting power to SDG&E's Distribution System for credit under the terms of SDG&E's Net Energy Metering tariffs This option is available only to eligible Generating Facilities as defined in SDG&E's Net Energy Metering tariffs

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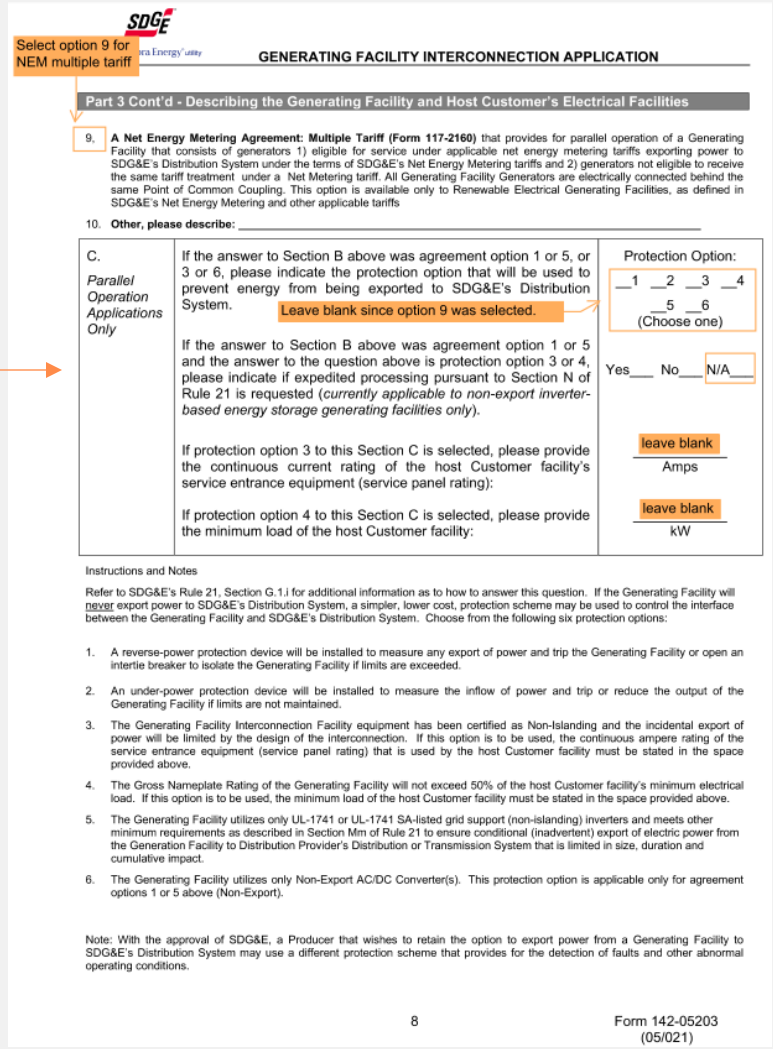
# SDG&E application process (10 of 16)

## Continuing an SDG&E application

Page 8

- Leave table C blank since option 9 was selected



Select option 9 for NEM multiple tariff

GENERATING FACILITY INTERCONNECTION APPLICATION

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

9. **A Net Energy Metering Agreement: Multiple Tariff (Form 117-2160)** that provides for parallel operation of a Generating Facility that consists of generators 1) eligible for service under applicable net energy metering tariffs exporting power to SDG&E's Distribution System under the terms of SDG&E's Net Energy Metering tariffs and 2) generators not eligible to receive the same tariff treatment under a Net Metering tariff. All Generating Facility Generators are electrically connected behind the same Point of Common Coupling. This option is available only to Renewable Electrical Generating Facilities, as defined in SDG&E's Net Energy Metering and other applicable tariffs

10. **Other, please describe:** _____

| C. *Parallel Operation Applications Only* | | Protection Option: |
|---|---|---|
| | If the answer to Section B above was agreement option 1 or 5, or 3 or 6, please indicate the protection option that will be used to prevent energy from being exported to SDG&E's Distribution System. Leave blank since option 9 was selected. | __1 __2 __3 __4 __5 __6 (Choose one) |
| | If the answer to Section B above was agreement option 1 or 5 and the answer to the question above is protection option 3 or 4, please indicate if expedited processing pursuant to Section N of Rule 21 is requested (*currently applicable to non-export inverter-based energy storage generating facilities only*). | Yes___ No___ N/A___ |
| | 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): | leave blank / Amps |
| | If protection option 4 to this Section C is selected, please provide the minimum load of the host Customer facility: | leave blank / kW |

Instructions and Notes

Refer to SDG&E's Rule 21, Section G.1.i for additional information as to how to answer this question. If the Generating Facility will never export power to SDG&E's Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and SDG&E's Distribution System. Choose from the following six protection 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.
5. The Generating Facility utilizes only UL-1741 or UL-1741 SA-listed grid support (non-islanding) inverters and meets other minimum requirements as described in Section Mm of Rule 21 to ensure conditional (inadvertent) export of electric power from the Generation Facility to Distribution Provider's Distribution or Transmission System that is limited in size, duration and cumulative impact.
6. The Generating Facility utilizes only Non-Export AC/DC Converter(s). This protection option is applicable only for agreement options 1 or 5 above (Non-Export).

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

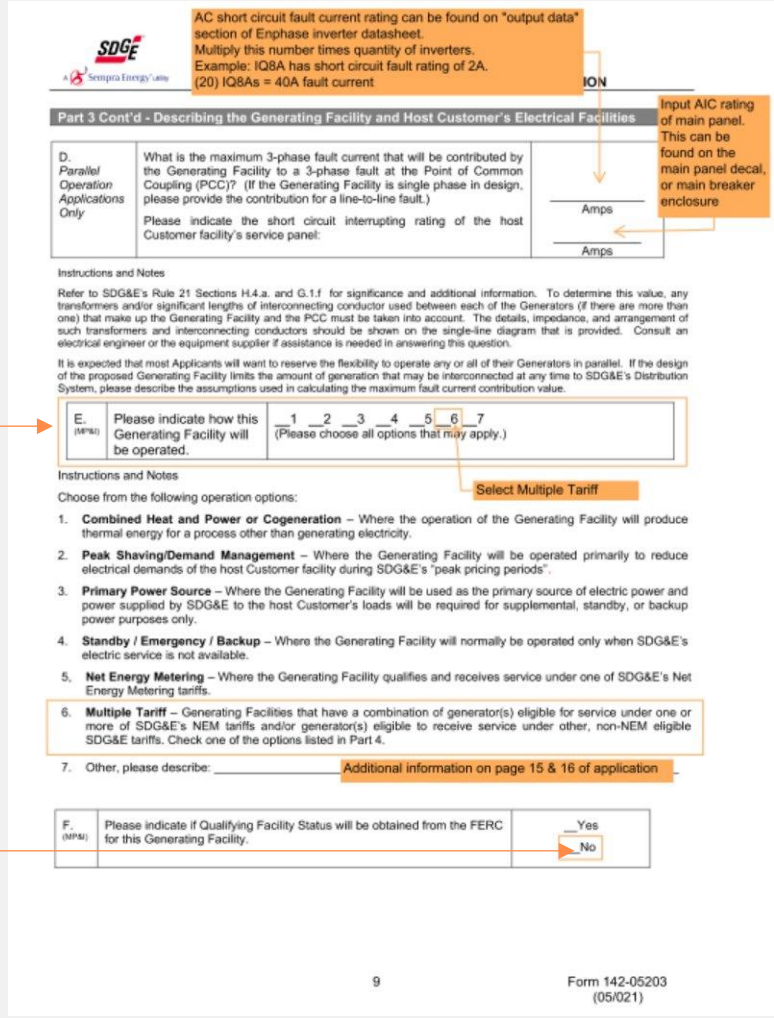
8 Form 142-05203 (05/021)

# SDG&E application process (11 of 16)

## Continuing an SDG&E application

Page 9

- Select option 6: Multiple Tariff
- Residential systems will not be a FERC qualifying facility. Select NO



AC short circuit fault current rating can be found on "output data" section of Enphase inverter datasheet.
Multiply this number times quantity of inverters.
Example: IQ8A has short circuit fault rating of 2A.
(20) IQ8As = 40A fault current

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

| | | |
|---|---|---|
| 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.)<br>Please indicate the short circuit interrupting rating of the host Customer facility's service panel: | ____ Amps<br>____ Amps |

Input AIC rating of main panel. This can be found on the main panel decal, or main breaker enclosure

Instructions and Notes

Refer to SDG&E's Rule 21 Sections H.4.a. and G.1.f 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 SDG&E's Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

| | | |
|---|---|---|
| E. (MPS) | Please indicate how this Generating Facility will be operated. | __1 __2 __3 __4 __5 __6 __7<br>(Please choose all options that may apply.) |

Select Multiple Tariff

Instructions and Notes

Choose from the following 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 SDG&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 SDG&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 SDG&E's electric service is not available.
5. **Net Energy Metering** – Where the Generating Facility qualifies and receives service under one of SDG&E's Net Energy Metering tariffs.
6. **Multiple Tariff** – Generating Facilities that have a combination of generator(s) eligible for service under one or more of SDG&E's NEM tariffs and/or generator(s) eligible to receive service under other, non-NEM eligible SDG&E tariffs. Check one of the options listed in Part 4.
7. Other, please describe: _____ Additional information on page 15 & 16 of application

| | | |
|---|---|---|
| F. (MPS) | Please indicate if Qualifying Facility Status will be obtained from the FERC for this Generating Facility. | __Yes<br>__No |

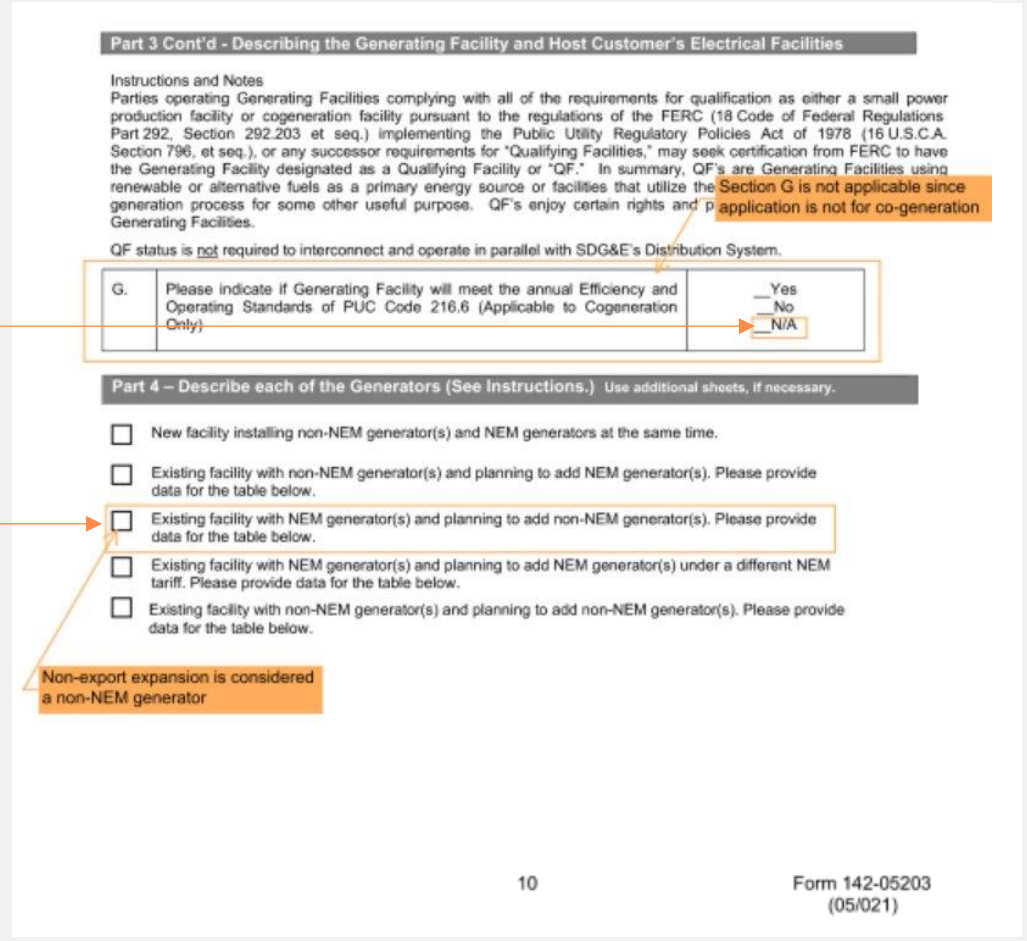
9 Form 142-05203 (05/021)

# SDG&E application process (12 of 16)

## Continuing an SDG&E application

Page 10

- Select Not Applicable since cogeneration does not apply
- Input existing facility with NEM generator(s) and planning to add non-NEM generator(s)



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

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 generation process for some other useful purpose. QF's enjoy certain rights and p Generating Facilities.

QF status is not required to interconnect and operate in parallel with SDG&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<br>__No<br>__N/A |

Section G is not applicable since application is not for co-generation

**Part 4 – Describe each of the Generators (See Instructions.)** Use additional sheets, if necessary.

- ☐ New facility installing non-NEM generator(s) and NEM generators 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.
- ☐ Existing facility with non-NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.

Non-export expansion is considered a non-NEM generator

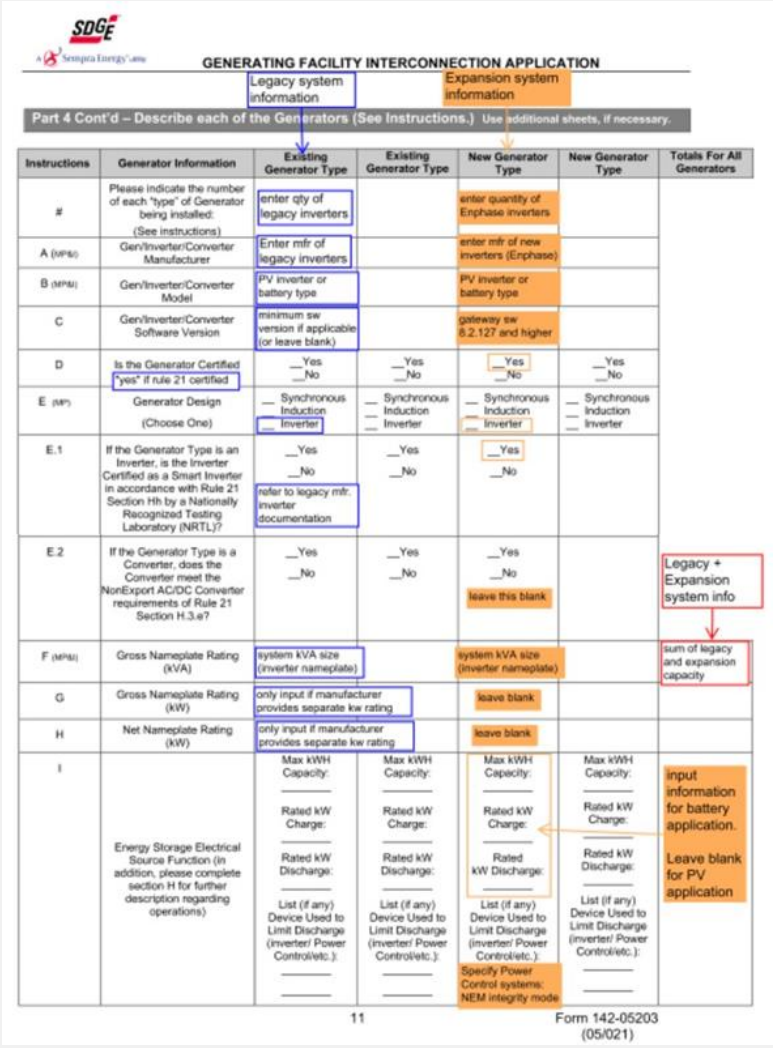
10 Form 142-05203 (05/021)

# SDG&E application process (13 of 16)

## Continuing an SDG&E application

Page 11

- Input fields for legacy and expansion systems as shown to the right



GENERATING FACILITY INTERCONNECTION APPLICATION

Legacy system information

Expansion system information

Part 4 Cont'd – Describe each of the Generators (See Instructions.) Use additional sheets, if necessary.

| Instructions | Generator Information | Existing Generator Type | Existing Generator Type | New Generator Type | New Generator Type | Totals For All Generators |
|---|---|---|---|---|---|---|
| # | Please indicate the number of each "type" of Generator being installed: (See instructions) | enter qty of legacy inverters | | enter quantity of Enphase inverters | | |
| A (MPIA) | Gen/Inverter/Converter Manufacturer | Enter mfr of legacy inverters | | enter mfr of new inverters (Enphase) | | |
| B (MPIA) | Gen/Inverter/Converter Model | PV inverter or battery type | | PV inverter or battery type | | |
| C | Gen/Inverter/Converter Software Version | minimum sw version if applicable (or leave blank) | | gateway sw 6.2.127 and higher | | |
| D | Is the Generator Certified "yes" if rule 21 certified | __Yes __No | __Yes __No | __Yes __No | __Yes __No | |
| E (MP) | Generator Design (Choose One) | __ Synchronous __ Induction __ Inverter | __ Synchronous __ Induction __ Inverter | __ Synchronous __ Induction __ Inverter | __ Synchronous __ Induction __ Inverter | |
| E.1 | If the Generator Type is an Inverter, is the Inverter Certified as a Smart Inverter in accordance with Rule 21 Section Hh by a Nationally Recognized Testing Laboratory (NRTL)? | __Yes __No refer to legacy mfr. inverter documentation | __Yes __No | __Yes __No | | |
| E.2 | If the Generator Type is a Converter, does the Converter meet the NonExport AC/DC Converter requirements of Rule 21 Section H.3.e? | __Yes __No | __Yes __No | __Yes __No leave this blank | | Legacy + Expansion system info |
| F (MPIA) | Gross Nameplate Rating (kVA) | system kVA size (inverter nameplate) | | system kVA size (inverter nameplate) | | sum of legacy and expansion capacity |
| G | Gross Nameplate Rating (kW) | only input if manufacturer provides separate kw rating | | leave blank | | |
| H | Net Nameplate Rating (kW) | only input if manufacturer provides separate kw rating | | leave blank | | |
| I | Energy Storage Electrical Source Function (in addition, please complete section H for further description regarding operations) | Max kWH Capacity: ____ Rated kW Charge: ____ Rated kW Discharge: ____ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ____ ____ | Max kWH Capacity: ____ Rated kW Charge: ____ Rated kW Discharge: ____ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ____ ____ | Max kWH Capacity: ____ Rated kW Charge: ____ Rated kW Discharge: ____ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): Specify Power Control systems: NEM integrity mode | Max kWH Capacity: ____ Rated kW Charge: ____ Rated kW Discharge: ____ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ____ ____ | input information for battery application. Leave blank for PV application |

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# SDG&E application process (14 of 16)

## Continuing an SDG&E application

Page 12

- Continue filling out the table as shown to the right.

**Part 4 Cont'd – Describe each of the Generators (See Instructions.)** Use additional sheets, if necessary.

| Instr. | Generator Information | Existing Generator Type | Existing Generator Type | New Generator Type | New Generator Type |
|---|---|---|---|---|---|
| J (MP) | Operating Voltage (Volts or kV) | 240V | | 240V | |
| K | Power Factor Rating (%) | Min. _____ Max. _____ | | Min. 0.85 Max. 0.85 | Min. _____ Max. _____ |
| L | PF Adjustment Range (%) | | | | |
| M(MP) | Wiring Configuration (Choose One) | __Single-Phase __Three-Phase | | __Single-Phase __Three-Phase | __Single-Phase __Three-Phase |
| N (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 Wy Leave Blank __4 Wire Wye | __3 Wire Delta __3 Wire Wye __4 Wire Wye |
| O (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 |
| P | *For Synchronous Generators Only:* Synchronous Reactance: Transient Reactance: Subtransient Reactance: | _____ (Xd %) _____ (X'd %) _____ (X"d %) | _____ (Xd %) _____ (X'd %) _____ (X"d %) | Leave Blank _____ (Xd %) _____ (X'd %) _____ (X"d %) | _____ (Xd %) _____ (X'd %) _____ (X"d %) |
| Q | *For Induction Generators Only:* Locked Rotor Current: *OR* Stator Resistance: Stator Leakage Reactance: Rotor Resistance: Rotor Leakage Reactance: | _____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%) | _____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%) | Leave Blank _____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%) | _____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%) |
| R | Short Circuit Current Produced by Generator: | _____ (Amps) | _____ (Amps) | _____ (Amps) | input same value from part 3, box D _____ (Amps) |
| S | *For Generators that are Started as a "Motor" Only* 1. In-Rush Current: 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating: | _____ (Amps) _____ (Amps) | _____ (Amps) _____ (Amps) | Leave Blank _____ (Amps) _____ (Amps) | _____ (Amps) _____ (Amps) |

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# SDG&E application process (15 of 16)

## Continuing an SDG&E application

Page 13

- Continue filling out table as shown to the right.

9 = PV panels

**Part 4 Cont'd – Describe each of the Generators (See Instructions.)** Use additional sheets, if necessary.

| Instructions | Generator Information | Existing Generator Type | Existing Generator Type | New Generator Type | New Generator Type |
|---|---|---|---|---|---|
| T (MP&I) | (Circle One) | 1 2 3 4 5 6 7 8 **9** 10 11 12 13 14 15 16 | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 | 1 2 3 4 5 6 7 8 **9** 10 11 12 13 14 15 16 | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 |
| U | AC Disconnect | Manufacturer<br>Model#<br>Rating (amps) | Manufacturer<br>Model#<br>Rating (amps) | Manufacturer<br>Only fill out if AC disconnect is required<br>Rating (amps) | Manufacturer<br>Model#<br>Rating (amps) |
| V | Photovoltaic (PV) Panel | Manufacturer<br>Add Legacy system PV module details<br>Nameplate Rating (kW/unit)<br>CEC Rating (kW/unit)<br>Quantity of Panels<br>Total Capacity (kW) | Manufacturer<br>Model#<br>Nameplate Rating (kW/unit)<br>CEC Rating (kW/unit)<br>Quantity of Panels<br>Total Capacity (kW) | Manufacturer<br>Add Expansion system PV module details<br>Nameplate Rating (kW/unit)<br>CEC Rating (kW/unit)<br>Quantity of Panels<br>Total Capacity (kW) | Manufacturer<br>Model#<br>Nameplate Rating (kW/unit)<br>CEC Rating (kW/unit)<br>Quantity of Panels<br>Total Capacity (kW) |
| W | Energy Storage (ES) System | Manufacturer<br>Model#<br>Quantity of Units | Manufacturer<br>Model#<br>Quantity of Units | Manufacturer<br>expansion battery details if applicable.<br>Leave blank for PV only application | Manufacturer<br>Model#<br>Quantity of Units |
| X | Lineside Tap | __Yes<br>__No | __Yes<br>__No | __Yes<br>__No | |

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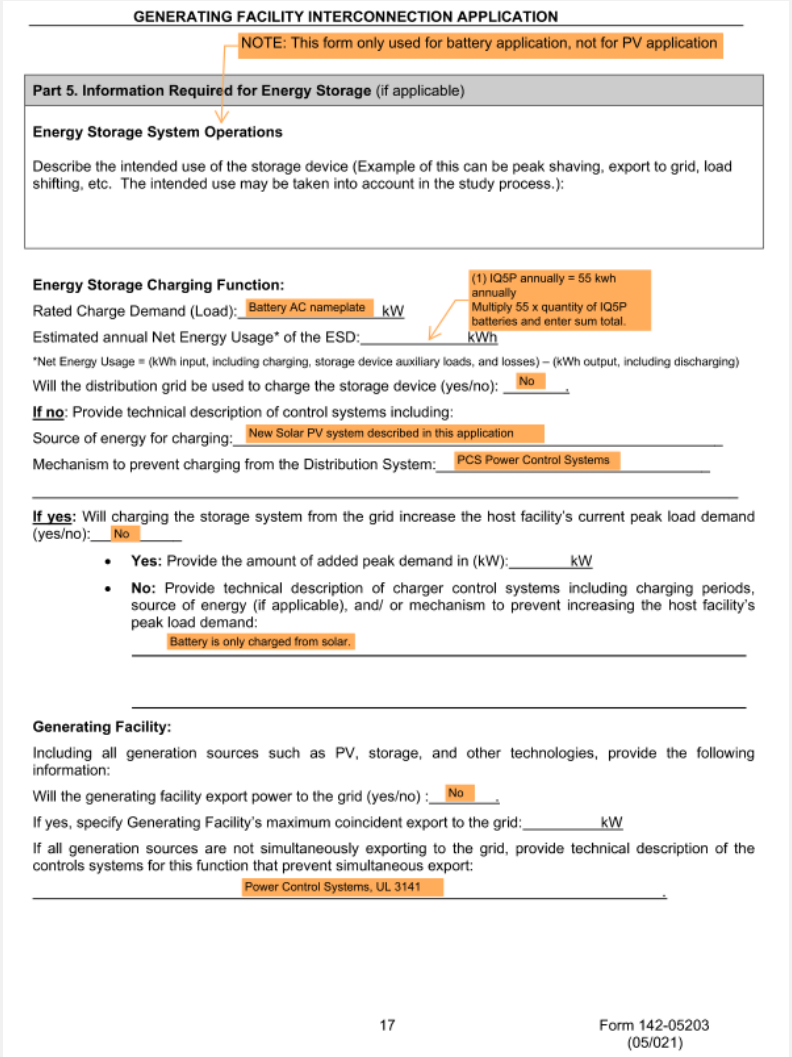
# SDG&E application process (16 of 16)

## Continuing an SDG&E application

In Form 142-05203, skip ahead to page 17 (pages 14-16 are instructional notes only).

Page 17

- Input battery information as shown to the right.
  - NOTE: If no batteries, all fields are left blank.



GENERATING FACILITY INTERCONNECTION APPLICATION

NOTE: This form only used for battery application, not for PV application

**Part 5. Information Required for Energy Storage** (if applicable)

**Energy Storage System Operations**

Describe the intended use of the storage device (Example of this can be peak shaving, export to grid, load shifting, etc. The intended use may be taken into account in the study process.):

**Energy Storage Charging Function:**

Rated Charge Demand (Load): Battery AC nameplate kW

Estimated annual Net Energy Usage* of the ESD: _____ kWh

(1) IQ5P annually = 55 kwh annually
Multiply 55 x quantity of IQ5P batteries and enter sum total.

*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): No

**If no**: Provide technical description of control systems including:

Source of energy for charging: New Solar PV system described in this application

Mechanism to prevent charging from the Distribution System: PCS Power Control Systems

**If yes:** Will charging the storage system from the grid increase the host facility's current peak load demand (yes/no): No

- **Yes:** Provide the amount of added peak demand in (kW): _____ kW
- **No:** Provide technical description of charger control systems including charging periods, source of energy (if applicable), and/ or mechanism to prevent increasing the host facility's peak load demand:
  Battery is only charged from solar.

**Generating Facility:**

Including all generation sources such as PV, storage, and other technologies, provide the following information:

Will the generating facility export power to the grid (yes/no) : No

If yes, specify Generating Facility's maximum coincident export to the grid: _____ kW

If all generation sources are not simultaneously exporting to the grid, provide technical description of the controls systems for this function that prevent simultaneous export:

Power Control Systems, UL 3141

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# How to configure an expansion system for zero export

For all system expansions, the new system must be configured to zero export.

There are two ways to do this:

- Using the Enphase Installer App
- Using Enphase Enlighten Manager

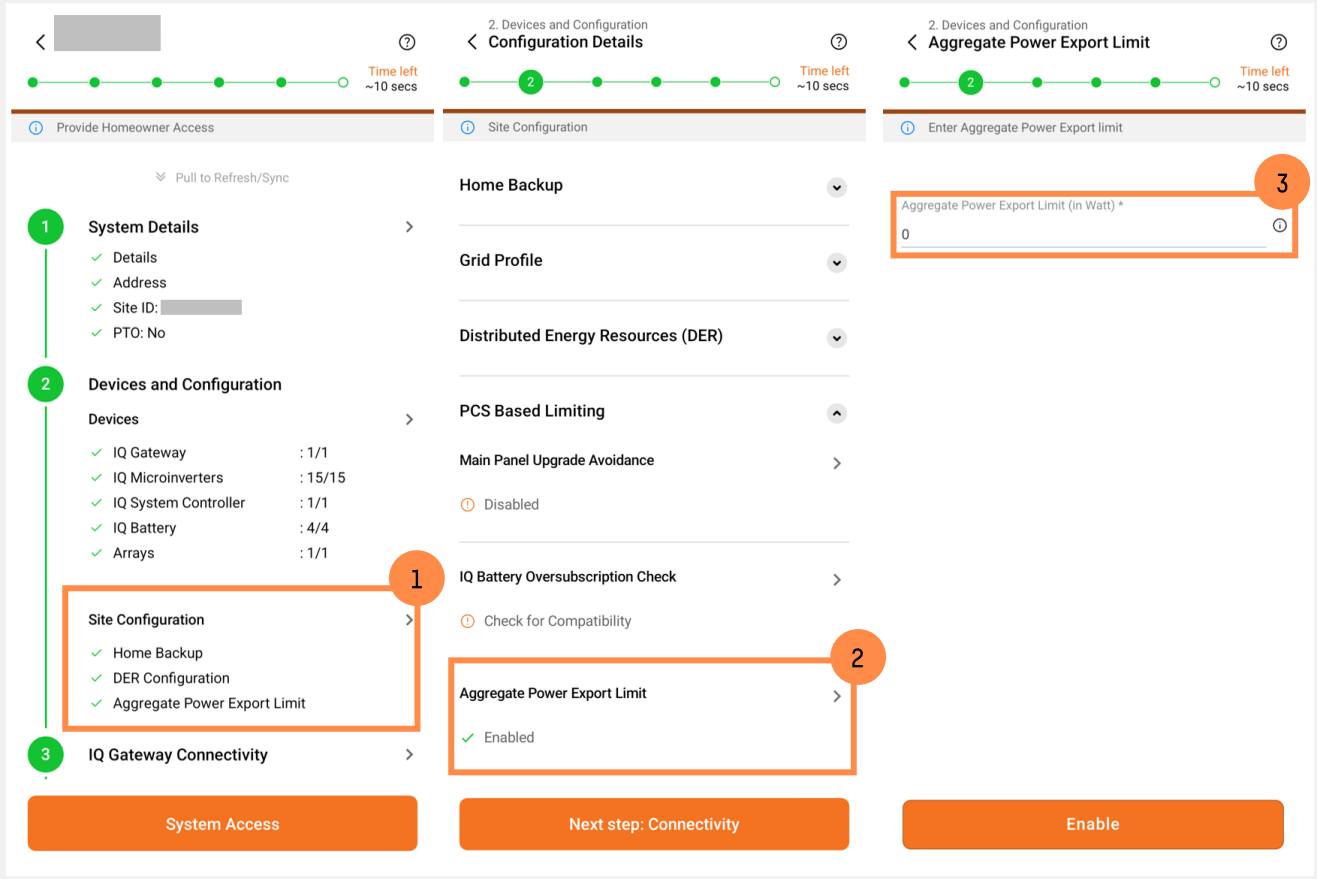
Follow the steps on the next slides to ensure that the system expansion is properly configured.

# Option 1: Setting zero export using the Enphase Installer App

APEL (aggregate power export limiting) is required for all systems participating in NEM zero export system expansions.

To configure APEL using the Enphase Installer App, follow these steps while commissioning the system:

1. Tap **Site Configuration** in step 2 of the Installer App.
2. Tap the **Aggregate Power Export Limit** submenu.
3. Set **Aggregate Power Export Limit (in Watt)** to 0 and tap **Enable.**

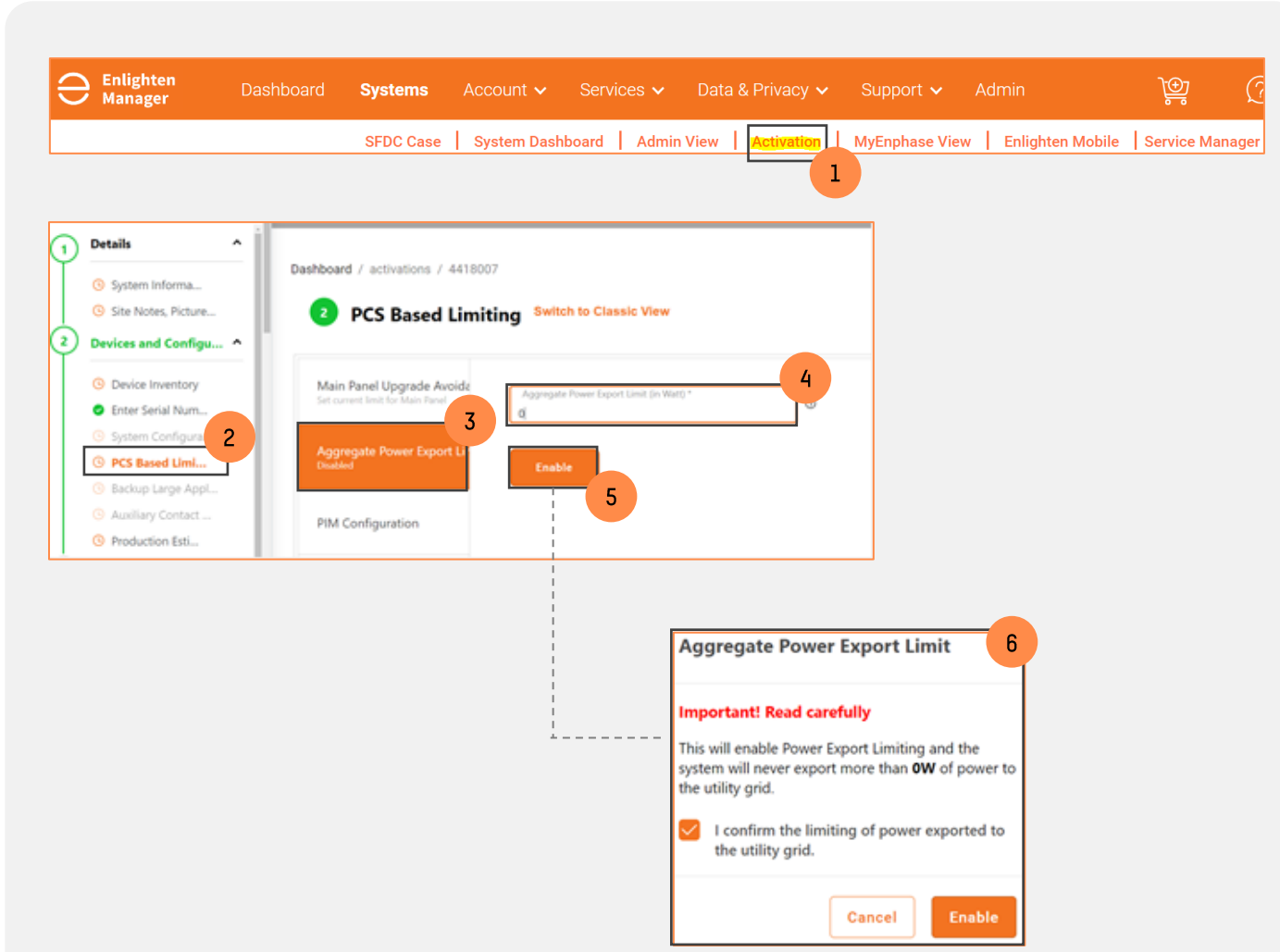


# Option 2: Setting zero export using Enlighten Manager

APEL (aggregate power export limiting) is required for all systems participating in NEM zero export system expansions.

To configure APEL using Enlighten Manager, follow these steps:

1. Click the **Activation** tab.
2. Click **PCS Based Limiting.**
3. Click **Aggregate Power Export Limit.**
4. Set **Aggregate Power Export Limit (in Watt)** to 0.
5. Click **Enable.**
6. Confirm the configuration is **0 W** and click **Enable.**



# Revision history

| Revision | Date | Description |
|---|---|---|
| MKT-00914-4.0 | January 2025 | Added instruction obtained from SCE and SDG&E application guidance documents. |
| MKT-00914-3.0 | November 2024 | Corrected SCE screenshot that showed incorrect parameter selected |
| MKT-00914-2.0 | November 2024 | Added instructions for configuring an expansion system for zero export |
| MKT-00914-1.0 | October 2024 | Initial release |