Grid Interconnection Processing Tool (GIPT) User Guide: Submitting an Interconnection Request in GIPT for Multiple Tariff - Rule 21 Non Export adding to existing NEM using Protection Option #8 with UL3141 Certified Equipment

For a complete User Guide on navigating the Interconnection Request screens for Rule 21 Non Export, please see: Grid Interconnection Processing Tool (GIPT) Information

The information provided in this User Guide is intended as a summary of the process for submitting applications in GIPT. In the event of any discrepancy between this User Guide and the applicable Rule 21 tariff provisions, the tariff shall govern and prevail.



Prepared by:
Grid Contract Development & Management Department

Revision Date: 11/17/2026

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Goal

This user guide explains the specific requirements for submitting a GIPT Interconnection Request[1] for a **Multiple Tariff project that adds a Rule 21 Non Export generator to an existing NEM system using Protection Option 8 with UL3141-certified equipment**. Following these instructions can help prevent application deficiencies and processing delays. This guide does not apply to other types of interconnection requests.

For a complete User Guide on submitting an Interconnection Request for Rule 21 Non-Export, please see: GIPT User Guide

What is Multiple Tariff?

A "multiple tariff" refers to multiple generating resources with different tariff treatments to operate behind the same point of service under a single interconnection framework. For the purposes of this job aid, a multi-tariff application is used when a non export generator is being added to an existing NEM generating system.

If you already have a Net Billing Tariff agreement, you can submit an NBT expansion request to add more generating capacity and keep your current tariff benefits without submitting a multi-tariff application.

GIPT Field Requirements

To help prevent deficiencies and ensure compliance, complete the following GIPT sections and fields when submitting a Rule 21 Non Export Interconnection Request for a Multiple Tariff project that adds generation to an existing NEM system using Protection Option 8[2] with UL 3141-certified equipment.

[1] For Multiple Tariff requests, where the Customer is seeking to install a non-NBT or non-NEM generator behind the same Point of Common Coupling (PCC) as an existing NBT or NEM generator, Generating Facility Interconnection Application Form 14-732 is applicable.

[2] For further details on option 8, please see Rule 21 Section Mm1.

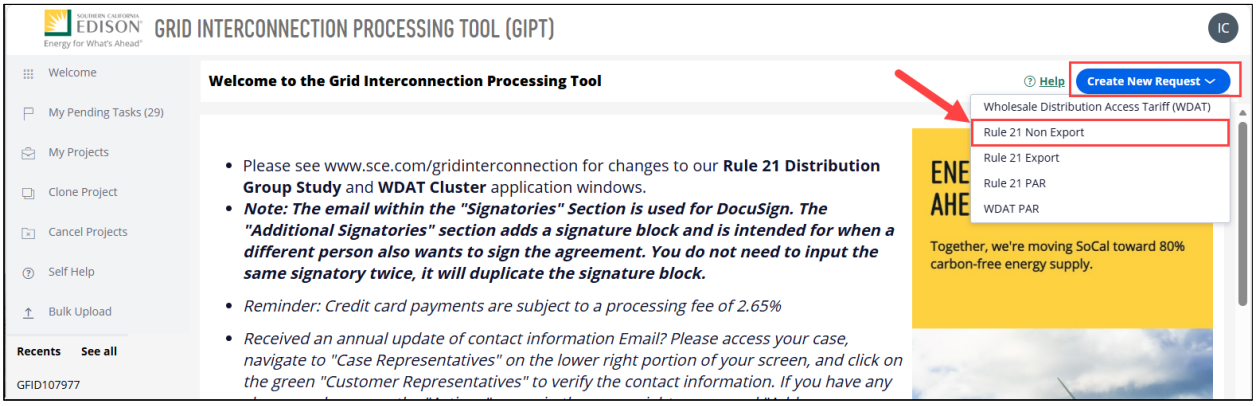
Creating a New Request

Follow these steps to create a new interconnection request:

1. Sign in to GIPT. First-time users must register before signing in. For detailed instructions, see the *Grid Interconnection Processing Tool (GIPT) Information page.*

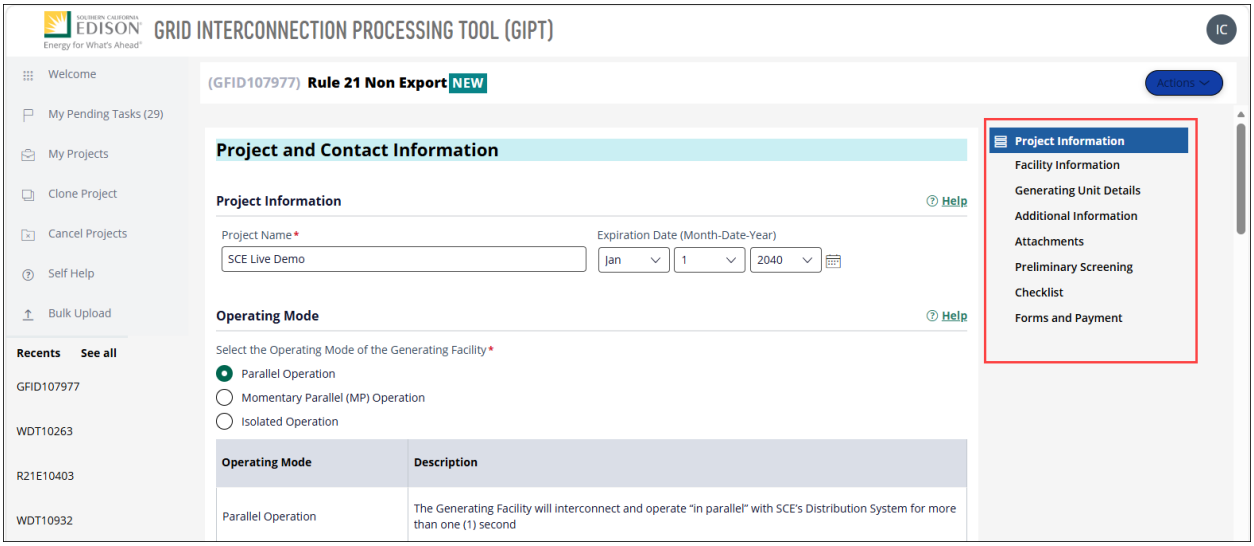
   The landing page appears.

2. In the upper-right corner, open the **Create New Request** drop-down menu and select **Rule 21 Non Export**.



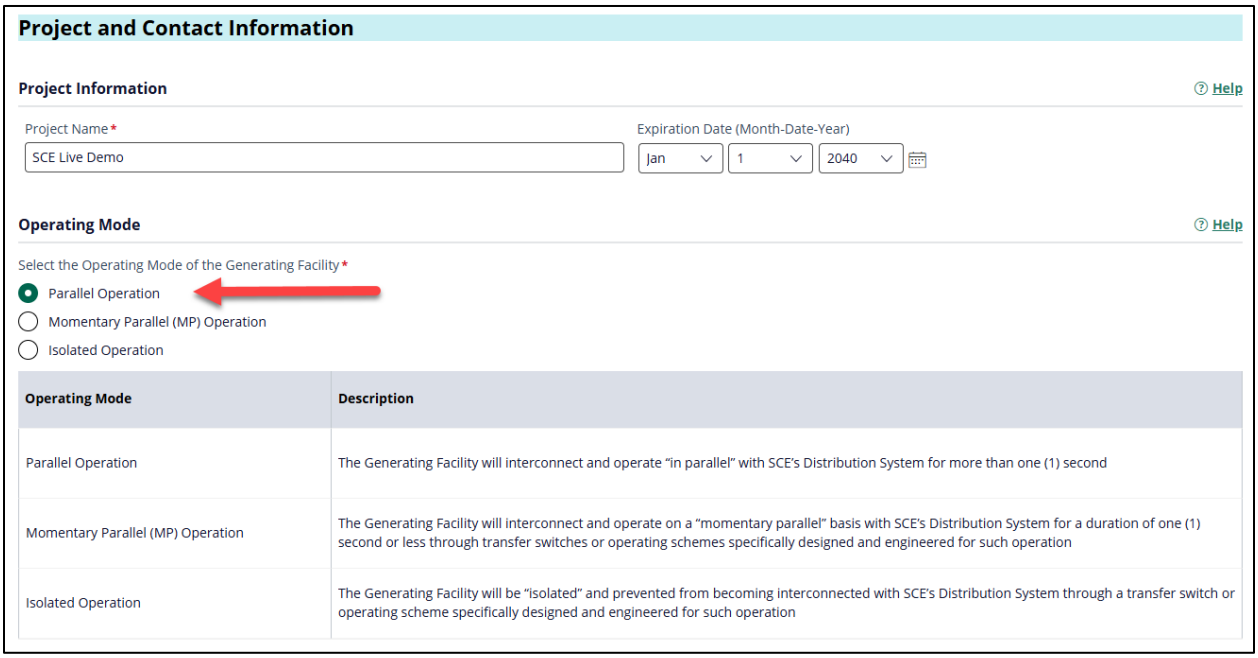
Overview of Interconnection Request Sections

To create a new interconnection request, complete all required sections listed on the right. This guide focuses on the sections and fields where deficiencies most commonly occur.



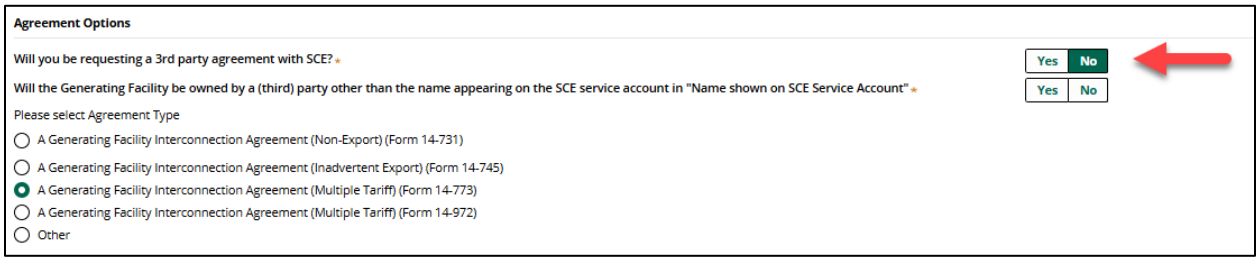
Project Information

1. Select **Parallel Operation** as the Operating Mode.

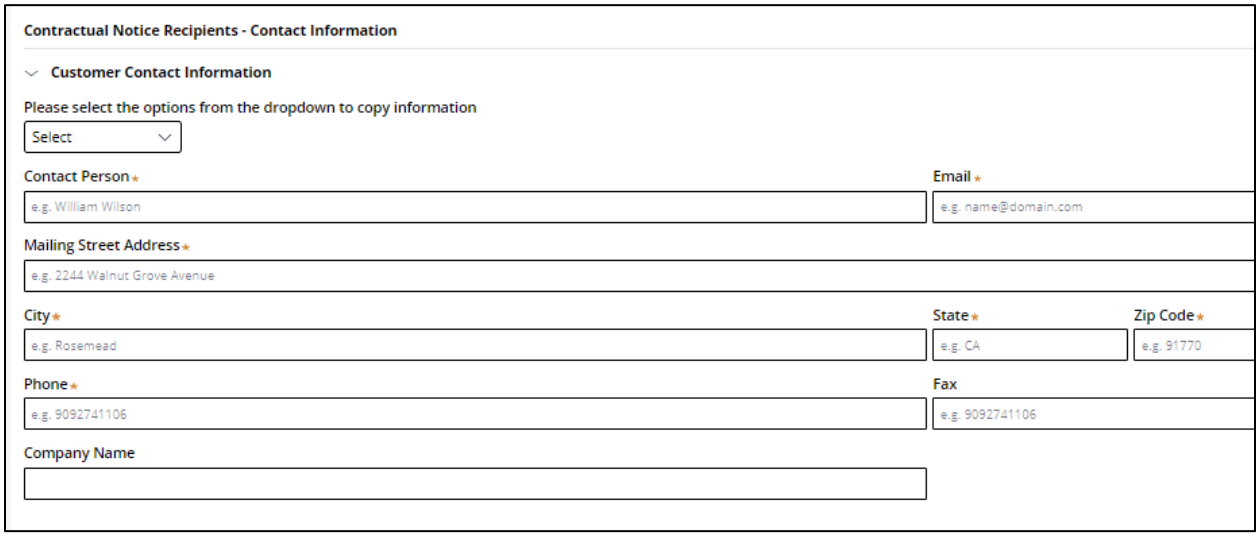


2. In the **Agreement Options** section, select **No** for "Will you be requesting a 3rd party agreement with SCE?" This displays the applicable agreement options.

3. Select **Generating Facility Interconnection Agreement (Multiple Tariff) (Form 14-773)** as the Agreement Type.

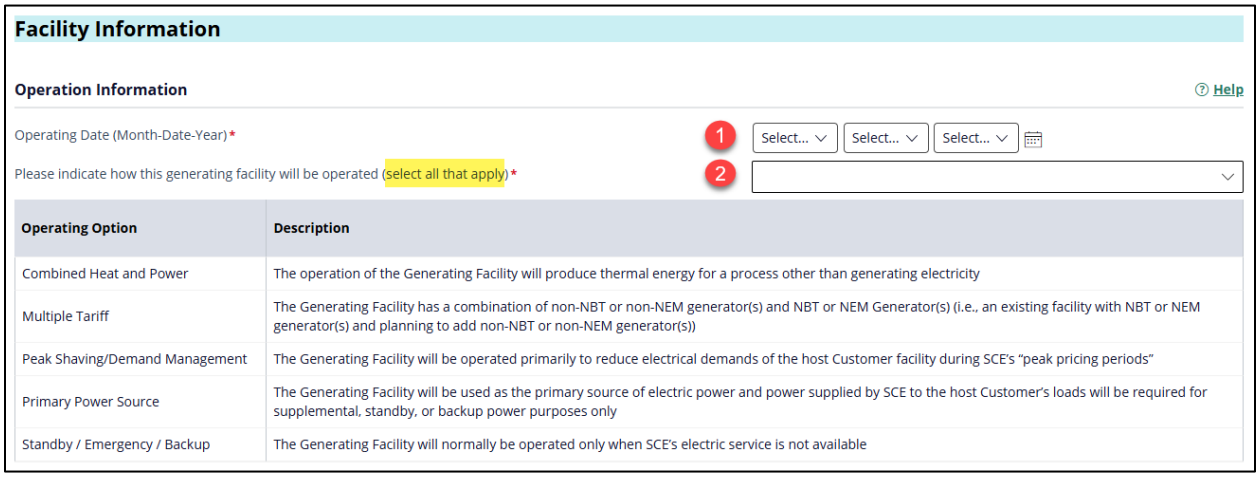


4. The **Contractual Notice Recipients - Contact Information** should be the **Customer Contact Information** as any future notices regarding the interconnection agreement will be sent to that address.



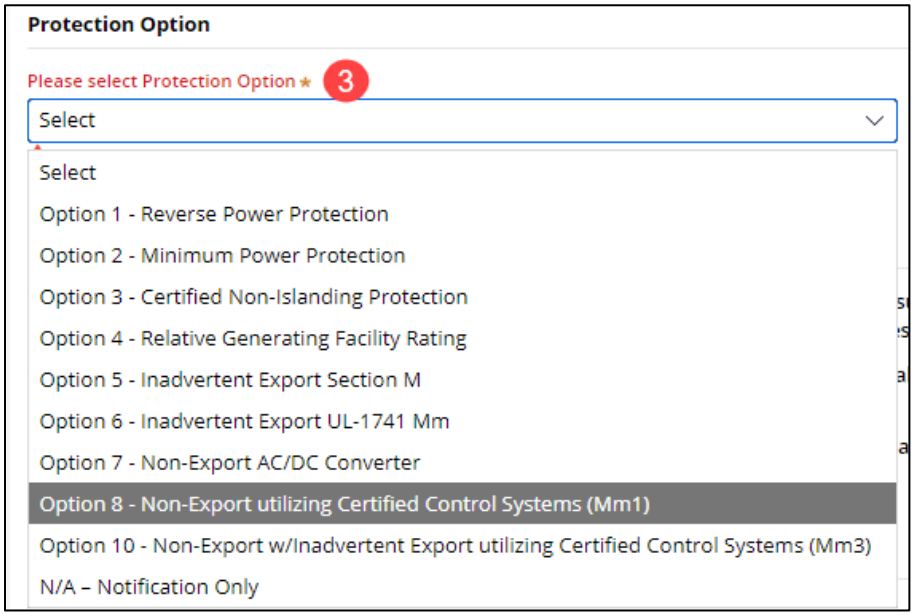
Facility Information

1. Enter an **Operating Date** that is at least **60 calendar days in the future.**
2. Under **Operating Option**, select Multiple Tariff in addition to the applicable operating mode for the new generating facility, such as Peak Shaving, Standby, and/or Emergency Backup.

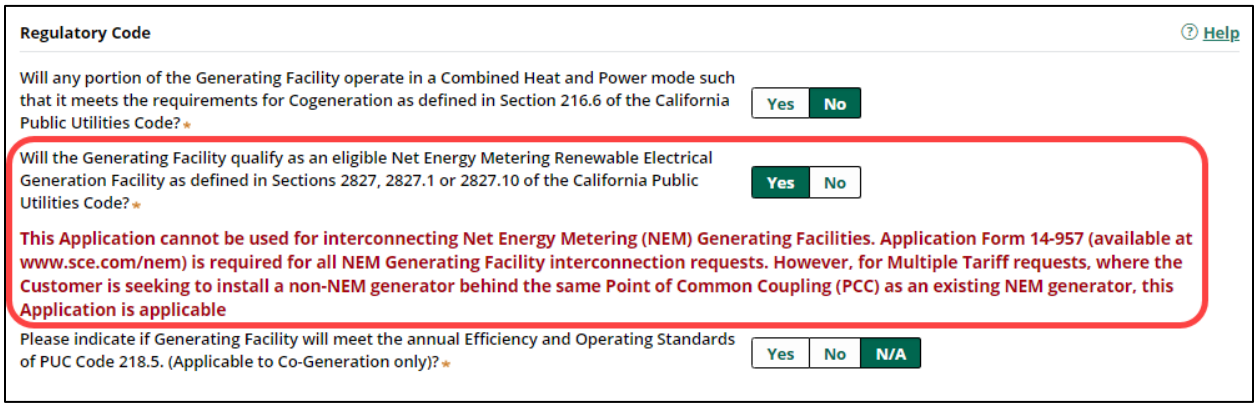


Operating Option	Description
Combined Heat and Power	The operation of the Generating Facility will produce thermal energy for a process other than generating electricity
Multiple Tariff	The Generating Facility has a combination of non-NBT or non-NEM generator(s) and NBT or NEM Generator(s) (i.e., an 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

3. From the **Protection Option** drop-down menu, select **Option 8 - Non-Export Utilizing Certified Control Systems (Mm1)**.[3]



4. For the **Regulatory Code** question, "*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?*" select **Yes** when adding a non-NEM generator behind the same Point of Common Coupling (PCC) as an existing NEM generator.



[3] For further details on option 8, please see Rule 21 Section Mm1.

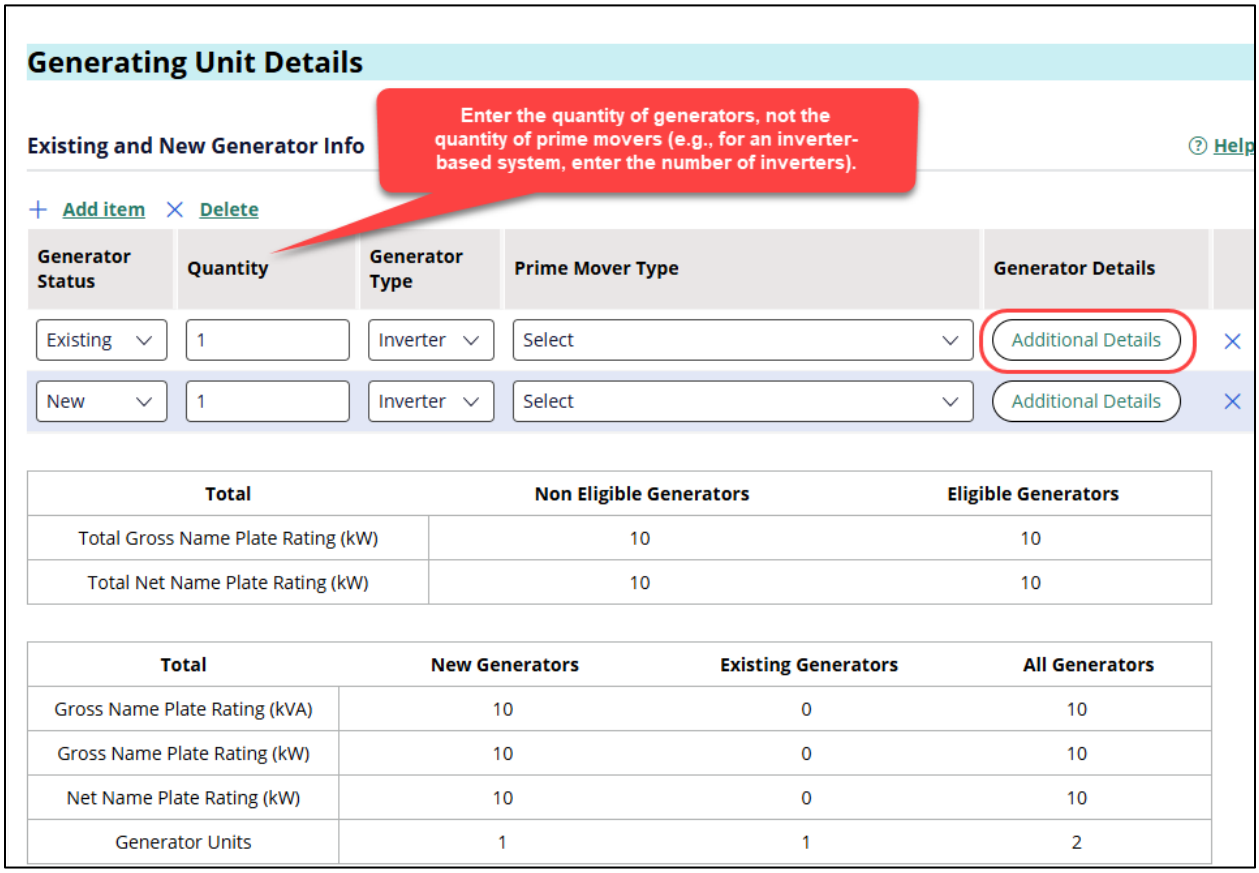
Generating Unit Details

1. Click **Add Item** to enter both the **New** and **Existing Generator(s)**.

   For each new and existing generator, enter the number of **inverters**, manufacturer, model number, and nameplate rating. The information entered must match the Single Line Diagram (SLD).

   i. Please note:
      a. Do not enter Solar PV modules as a "Generator" for Rule 21 applications, as this may result in incorrect total rating values.

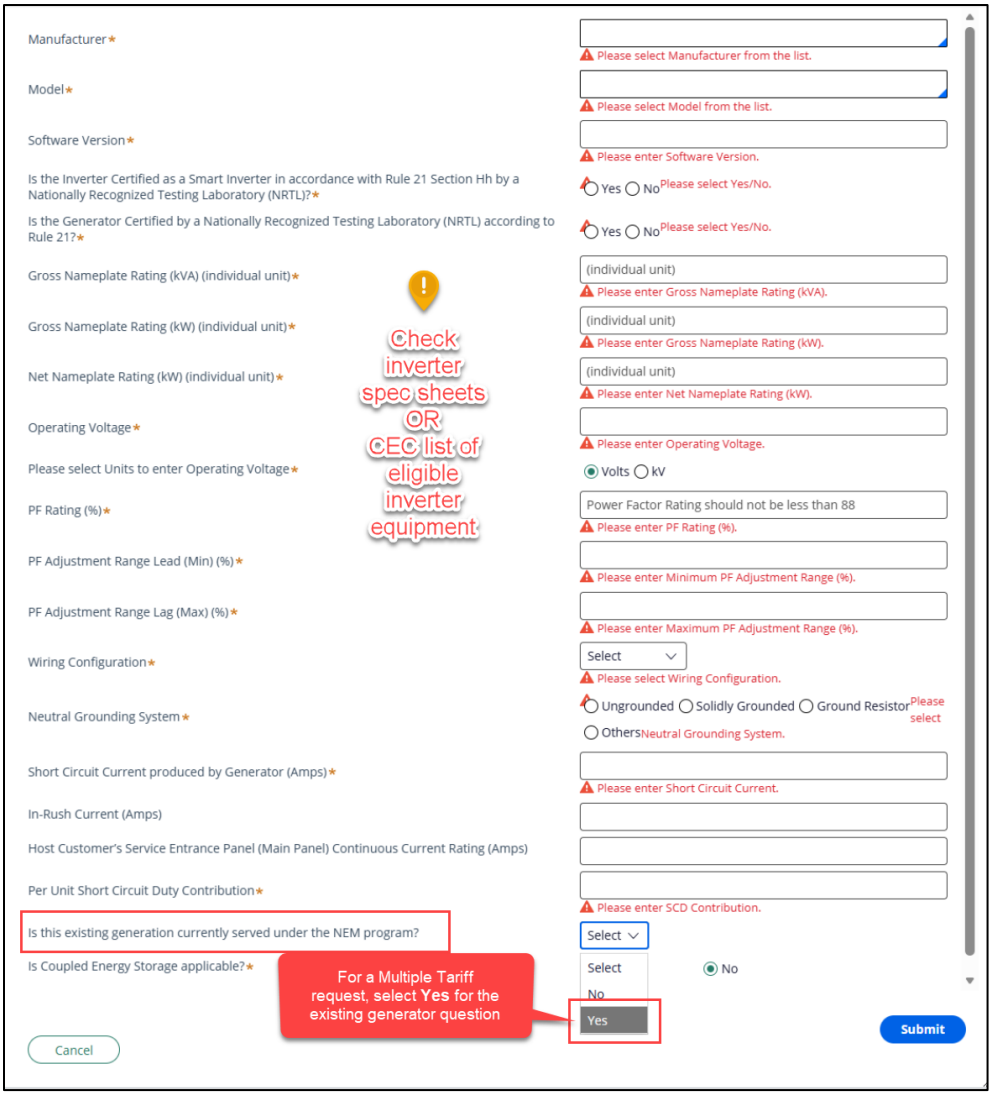
      b. If the existing equipment information or Single Line Diagram (SLD) is unavailable, complete a *site verification* to obtain the information needed for **Existing Generator Info**. See the **Checklist** section for instructions on adding an applicant comment.



2. For the **Additional Details** section, please review the following information:

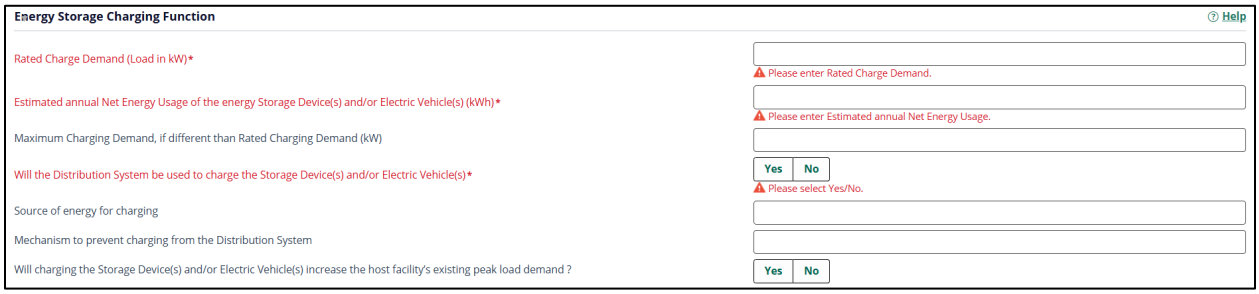
    a. Check your *inverter specification sheet* **OR** the California Energy Commission (CEC) **list of eligible inverter equipment** for individual unit **Nameplate Ratings**.
        i. **Gross Nameplate Rating (kVA) (individual unit)** – The total gross generating capacity of a Generator or Generating Facility as designated by the manufacturer(s) of the Generator(s).
        ii. **Gross Nameplate Rating (kW) (individual unit)** – The total gross generating capacity of a Generator or Generating Facility as designated by the manufacturer(s) of the Generator(s).
        iii. **Net Nameplate Rating (kW) (individual unit)** – The Gross Rating minus the consumption of electrical power of the auxiliary load.

    b. For a **Multiple Tariff** request, select **Yes** for the **existing generator** question: "*Is this existing generation currently served under the NEM program?*"



Energy Storage Charging Function Section

3. For **Rated Charge Demand** [Rated Discharge] **(Load in kW)**, enter the combined rated charge demand of the energy storage/battery units **ONLY**. For example, two Powerwall 3 units rated at 11.5 kW each have a combined rated charge demand of 23 kW (11.5 × 2).
    i. Use the manufacturer's specification sheet to answer the first three questions in this section.
    ii. Answer the next four questions based on how the energy storage system will operate.



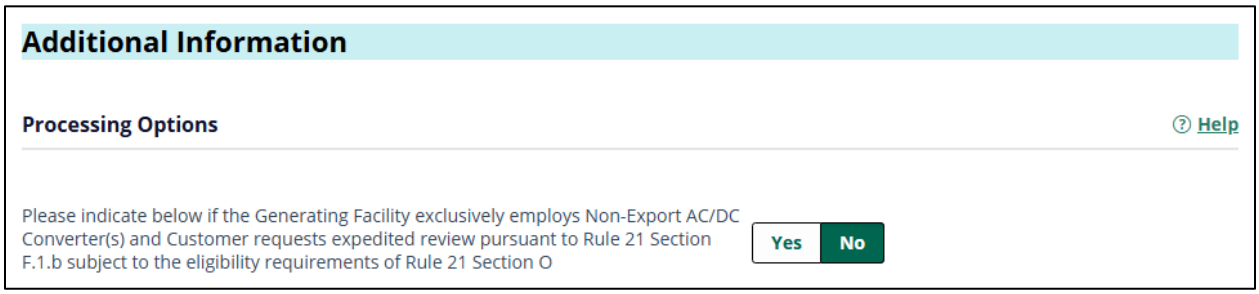
Energy Storage System Operations

4. Describe the intended use of the storage device. For example, Peak Shaving/Demand Management/Standby/Backup.

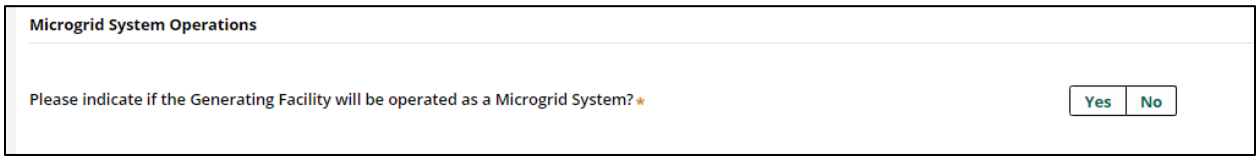


Additional Information

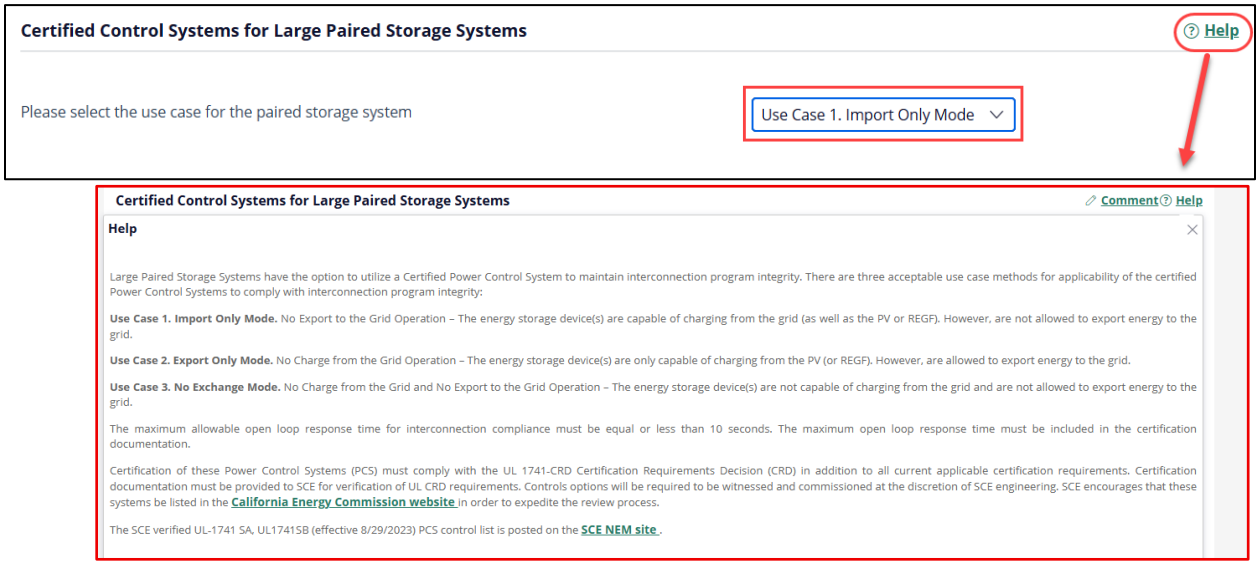
1. Expedited **Processing Options** are NOT eligible for Multiple Tariff.



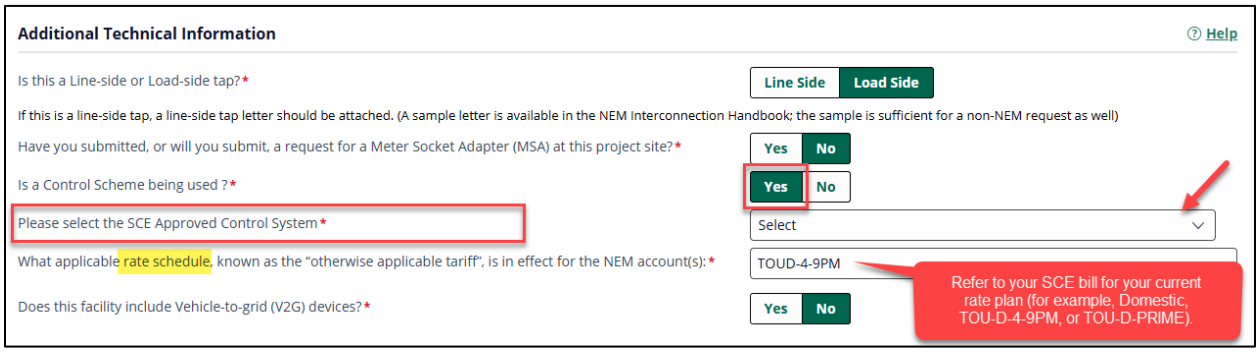
2. In the **Microgrid System Operations** section, select **Yes** for "*Please indicate if the Generating Facility will be operated as a Microgrid System?*" only if it applies to your project. Otherwise, select No.
    i. If you select **Yes** for microgrid operation, provide additional technical information, such as a sequence of operations, to demonstrate compliance with all requirements in Rule 21 Section Hh.h.
    ii. Make sure your response matches your Operating Options selections. If you select Yes for microgrid operation, also select the applicable standby, backup, or emergency operating options.



3. In the **Certified Control Systems for Large Paired Storage Systems** section, select the appropriate use case for the paired storage system.
    i. Click on "Help" to expand and view use case descriptions.



4. **Additional Technical Information**
    a. For "*Is a Control Scheme being used?*" select **Yes**. Then select the UL 3141-certified equipment from the **SCE Approved Control Systems** list*.
        i. *If not listed, please select 'Other' and input the equipment make/model. Supporting documentation will be required to verify UL3141 certification and compliance.
    b. Refer to your **SCE bill** to identify the applicable rate schedule (for example, Domestic, TOU-D-4-9PM, or TOU-D-PRIME)

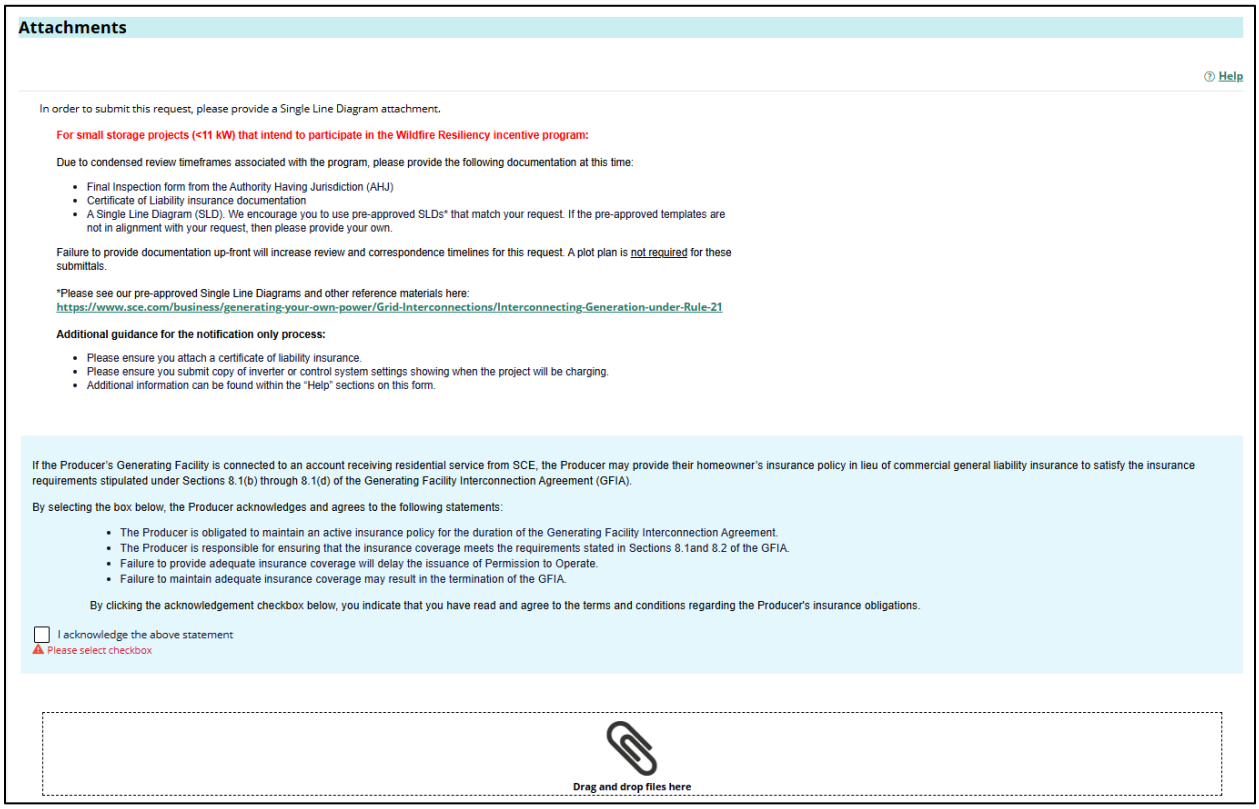


Attachments[4]

1. Upload required documentation in **Attachments** section to deem the application valid.
    - **Single Line Diagram (SLD)** – On the single line diagram, indicate the location of all power control system CTs. If the CT make/model is specified on the UL3141 certification, the make/model should also be specified on the SLD. The placement of these CTs is crucial for achieving UL3141 certification and maintaining NEM integrity. *Please refer to* NEM Interconnection Handbook *Section 5 for detailed Single Line Diagram requirements.*
    - **Plot Plan** – Plot Plan is required for Line Side Taps, for projects that have non-self-contained meters 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) *Prior to Commissioning Test*

[4] Please note additional technical documents may be required based on system configuration.

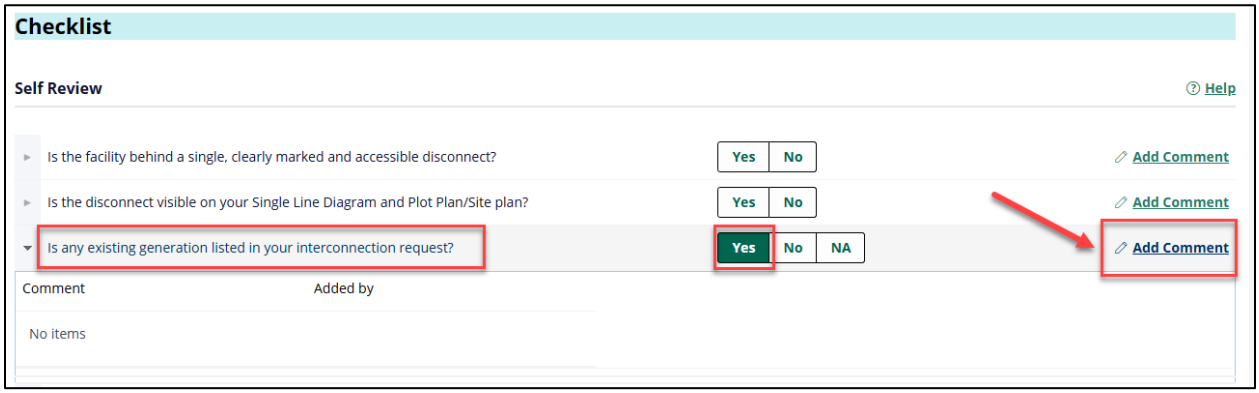
2. **Final Documents required for PTO** (*Note*: Applicants are encouraged to submit these documents as soon as possible)
    - **Final Inspection** Form from the Authority Having Jurisdiction (AHJ)
    - **Certificate of Liability Insurance (COI)** – Must meet the insurance requirements in *Section 8* of Form 14-773.



3. 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.

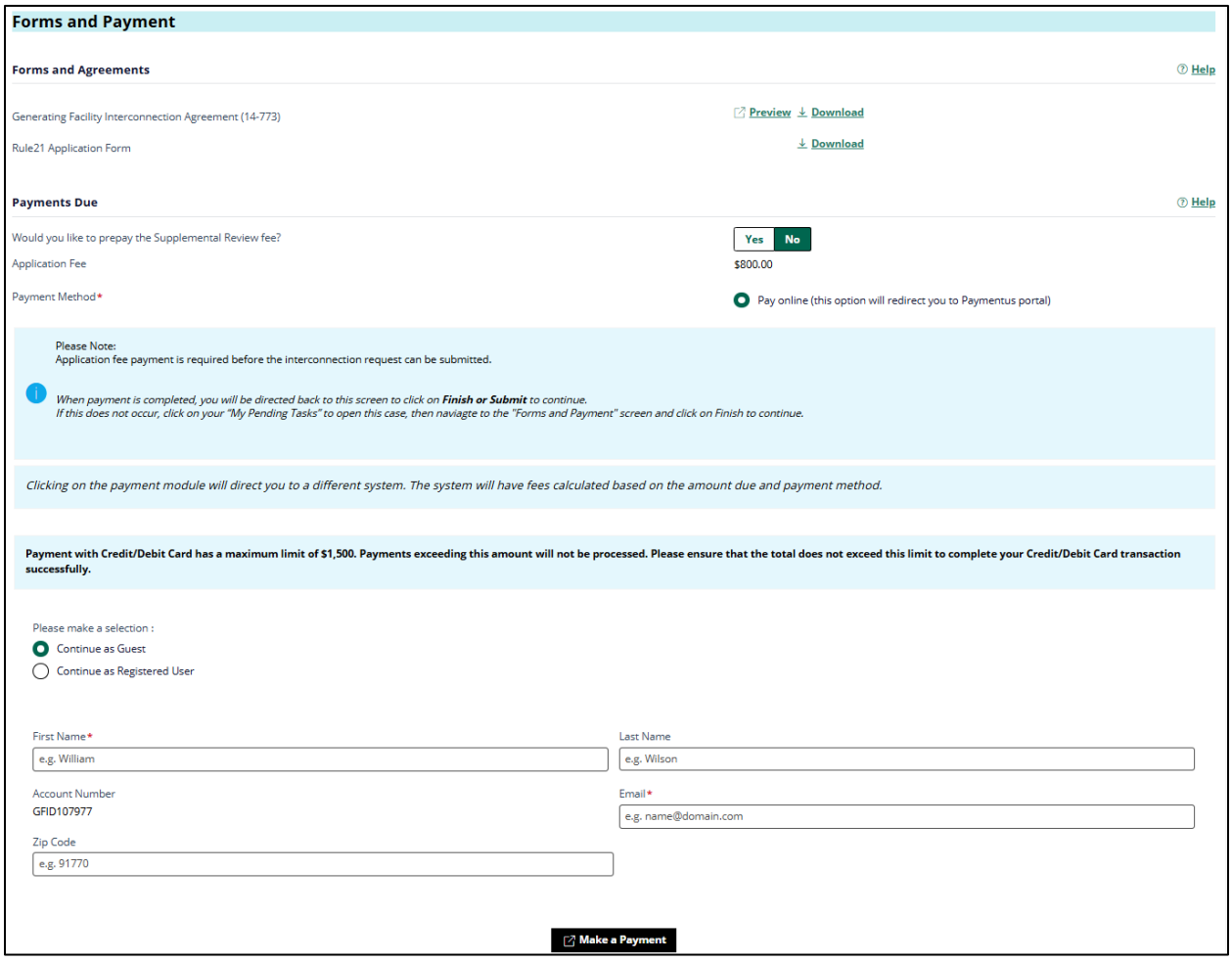
Checklist

1. In **Checklist > Self Review**, select **Yes** for "*Is any existing generation listed in your interconnection request?*" If the existing equipment was verified during a site visit, select **Add Comment** and enter the verification date. This information helps SCE address any differences between its records and the equipment at the site.



Forms and Payment

1. Submit the non-refundable **$800 application review fee** required for all Parallel Operation requests. For step-by-step payment instructions, see the GIPT User Guide.



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. For payment instructions, see *Making a Payment* in the GIPT User Guide.
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.

Online Help

Most screens include **Help** links with information about specific areas. Select a **Help** link whenever you need assistance.



Additional Help and SCE Help Line

If you still need assistance after using the Online Help links, contact SCE by email or phone:

Contact Method	Contact	Details
Email	interconnectionQA@sce.com	Email is the preferred contact method. Include details about your question so the GIPT team can route it to the appropriate team member.
Phone	909-274-1106 or 626-302-3688	These phone lines support Rule 21 Export and Non Export requests. Please leave a message, and a team member will return your call between 7:00 a.m. and 4:00 p.m. Pacific Time on business days.

Appendix

Sample Documents

- SLD
- Certification of Compliance
- Sequence of Operations

AMBIENT TEMPERATURE SPECIFICATIONS				
RECORD LOW TEMPERATURE	AMBIENT TEMP (HIGH TEMP 2%)	CONDUIT HEIGHT	CONDUCTOR TEMPERATURE RATE (ON ROOF)	CONDUCTOR TEMPERATURE RATE (OFF ROOF)

SOLAR MODULE SPECIFICATIONS						
MANUFACTURER / MOD #	VMP (V)	IMP (A)	VOC (V)	ISC (A)	TEMPERATURE COEFFICIENT OF Voc	QUANTITY OF MODULES
MODULE DIMENSIONS	74.0"L x41.1"W x1.26"D					

INVERTERSPECIFICATIONS			
MANUFACTURER / MODEL #	QUANTITY	NOMINAL OUTPUT VOLTAGE	NOMINAL OUTPUT CURRENT

EXISTING SYSTEM

MODULE DETAILS

INVERTER MODEL DETAILS

08 MICRO-INVERTERS IN BRANCH CIRCUIT #1

07 MICRO-INVERTERS IN BRANCH CIRCUIT #2

ENPHASE ENERGY IQ8PLUS-72-M-US [240V][SI1-SB], 240V, MICRO-INVERTERS

TERMINATOR CAP ON LAST CABLE CONNECTOR Q-CABLE (TYP.)

(2) Q-CABLE
(1) PV #6 BARE CU GND

(E) JUNCTION BOX

(E) WIRES

(N) JUNCTION BOX

PRODUCTION CT LIMIT PRODUCED POWER

WIRED COMMUNICATION

(N) ENPHASE IQ COMBINER BOX 5C

IQ GATEWAY

20A
20A

(N) 40A BATTERY BREAKER

(2) #10 AWG THWN-2 IN 3/4" EMT CONDUIT RUN

POWER LINE COMMUNICATION

SECONDARY CT'S ON LEGACY SYSTEM ACCOUNT FOR PRODUTION OF EXISTING SYSTEM

PRIMARY CONSUMPTION CT'S, MONITOR HOME LOAD

(N) 60A NON-FUSED VISIBLE LOCKABLE OPEN AC DISCONNECT [240V] (SIEMENS LNF222RA)

(N) 200A ENPHASE IQ SYSTEM CONTROLLER-3 (SC200D111C240US01) + GATEWAY ENV-IQ-AM1-240

(N) NFT & 20A GATEWAY BREAKER

40A
30A

(N) 30A PV BREAKER

(N) ENPHASE IQ BATTERY 5P (IQBATTERY-5P-1P-NA) [240V][SI1-SB]

(N) ENPHASE IQ BATTERY 5P (IQBATTERY-5P-1P-NA) [240V][SI1-SB]

BATTERY CT'S LIMIT BATTERY CHARGE / DISCHARGE

100A

(N) 100A CONTROLLER BREAKER

(N) 125A BACKUP LOAD PANEL

SERVICE FEED: UNDER GROUND

100A
30A
175A

(N) 100A FEEDER BREAKER
(E) 30A PV BREAKER

(E) 225A MAIN SERVICE PANEL WITH (N) 175A MAIN BREAKER (BOTTOM FED)

EXISTING GROUNDING SYSTEM

BI-DIRECTIONAL UTILITY METER 1-PHASE, 3-W, 120V/240V, 60Hz

(E) AC DISCONNECT

(E) AC DISCONNECT

NOTE: AC DISCONNECT SHALL BE INSTALLED WITHIN 10FEET OF UTILITY METER.

NOTE: RESIDENTIAL LOADS WILL BE SPLIT BETWEEN MSP AND (N) 125A BACK UP LOAD PANEL. ALL 20A AND 15A 1 POLE BREAKERS LOADS FROM MAIN PANEL WILL BE MOVED TO BACK UP PANEL IN ADDITION TO 30A AC BREAKER, ALL OTHER LOADS TO REMAIN IN MAIN SERVICE PANEL

WIRE TAG	CONDUIT	WIRE QTY	WIRE GAUGE	WIRE TYPE	TEMP. RATING	WIRE AMPACITY (A)	TEMP. DERATE	CONDUIT FILL DERATE	DERATED AMPACITY (A)	INVERTER QTY	NOC (A)	CEC	DESIGN CURRENT (A)	GROUND SIZE	GROUND WIRE TYPE	BATTERY QTY	BATTERY CURRENT

1 ELECTRICAL LINE DIAGRAM WITH CALCULATIONS

SCALE: NTS

VERSION		
DESCRIPTION	DATE	REV
INITIAL RELEASE	06-15-2024	UR

PROJECT NAME

Customer Name
123 Main St,
City CA 92XXX, USA
UTILITY: SCE
APN: XXXXXXXXX

SHEET NAME
ELECTRICAL LINE DIAGRAM WITH CALCULATIONS

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
XXX

SAMPLE

PCS Certificate of Compliance

October 11, 2024

Project #Y0510
Report #LIT10240510

Sangam Baligar
Enphase Energy, Inc.
47281 Bayside Pkwy,
Fremont, CA 94538
sbaligar@enphaseenergy.com

Subject: UL3141 PCS NEM Integrity Mode Testing for the Enphase PV + Battery Energy storage system

Dear Mr. Baligar

This test report represents the results of our evaluation/testing of the PV + Battery Energy storage system to the requirements contained in following standards:

UL3141 Issue 2 Outline of Investigation for Power Control Systems (PCS) Dated Oct 9, 2024

Compliance includes management, control, and limitation of power exchange between PV and Energy Storage Systems and Area EPS/AC utility systems.

The PCS evaluation was conducted on a representative Enphase Energy System 3.0 and the certification applies to the following configurations which were part of the tested system in the PCS modes defined below.

PCS Modes	PV Model[2]	ESS Model[2]	Max PV Ratings	Max ESS Ratings	Max PV+ESS Rating	Additional Devices needed for PCS functionality	Optional Devices	Measured Average/ Maximum OLRT	Max Settling Time
NEM Integrity Mode	IQ8 PV	None	64A/ 15.36kVA	N/A	64A/ 15.36kVA	IQ Gateway/ CT's	IQ System Controller[2]	1.15s / 2s	4.25s
	IQ8 PV	IQ Battery 5P	64A/ 15.36kVA	128A/ 30.72kVA	192A/ 46.08kVA	IQ Gateway/ CT's	IQ System Controller[2]		
		IQ Battery 3T/10T		64A/ 15.36kVA	128A/ 30.72kVA				

[1] Tested with PCS eSW 1.3.0
[2] Please see System configuration table further for exact variations of SKU model numbers.

NEM Integrity Mode:
This is a PCS mode where the PV and energy storage system (ESS) was evaluated for its ability to limit export levels of a PCS controlled PV / ESS system to the grid, when operated in the presence of a uncontrolled PV / ESS Legacy System. In this mode, the output power of the PCS controlled PV and ESS are controlled such that the instantaneous power being exported by the combined system does not exceed the power being generated by the Legacy System. Export levels and power being generated by the PV and ESS were monitored during the test. The test verified that when system was subjected to step changes in load and step changes in generation, the instantaneous power exported to the grid did not exceed the power produced by the Legacy system. The test was conducted at various Legacy system generation and Load power levels.

SAMPLE

Bureau Veritas Consumer Products Services
1 Distribution Center Circle, Suite #1, Littleton, MA 01460
+1978-486-8880 / cps.bureauveritas.com

The table below describes the System configuration and SKUs associated with tested PCS mode(s)

System Component	Product SKUs	Equipment required in PCS mode?
Enphase PV	IQ8H-240-72-2-US, IQ8-60-2-US, IQ8PLUS-72-2-US, IQ8M- 72-2-US, IQ8A-72-2-US, IQ8-60-M-US, IQ8PLUS-72-M-US, IQ8M-72-M-US, IQ8A-72-M-US, IQ8H-240-72-M-US, IQ8MC- 72-M-US, IQ8AC-72-M-US, IQ8HC-72-M-US, IQ8X-80-M-US	Required
Enphase Battery	Enphase IQ Battery 5P (Encharge battery 3rd generation): IQBATTERY-5P-1P-NA, B05-T02-US00-1-3-RMA consisting of UL (Listed) IQ8D- BAT/IQ8D-BAT-240 Inverter(s) rated 120/240Vac, intended to be connected to a battery and will charge and discharge the battery. Enphase IQ Battery 3T/10T (Encharge battery 2nd generation): ENCHARGE-3T-1P-NA, ENCHARGE-10T-1P-NA. consisting of UL (Listed) IQ8X-BAT-US/IQ8X-BAT-US-NB Inverter(s) rated 120/240Vac, intended to be connected to a battery and will charge and discharge the battery.	Optional
Enphase IQ Gateway	X-IQ-AM1-240-5, X-IQ-AM1-240-5C, ENV-IQ-AM1-240, ENV2-IQ-AM1-240, ENV-S-AM1-120, X-IQ-AM1-240-3, X-IQ- AM1-240-3C, X-IQ-AM1-240-3-ES, X-IQ-AM1-240-3C-ES, X-IQ-AM1-240-4, X-IQ-AM1-240-4C, X2-IQ-AM1-240-4, X2-IQ- AM1-240-4C	Required
CTs	For solar production monitoring: At least 1 unit CT-200-SOLID For consumption monitoring: At least 2 units of CT-200-SPLIT or CT-200-CLAMP For battery monitoring: At least 1 unit of CT-200-SPLIT or CT- 200-CLAMP	Required
Enphase IQ System Controller	IQ System Controller 3/3G: SC200D111C240US01, SC200G111C240US01 IQ System Controller 2: EP200G101-M240US01	Optional

This PCS supports:

- Up to 3 circuit inputs, one PV and two ESS, each with up to 8 daisy-chained IQ Battery 5P units (or)
- Up to 2 circuit inputs, one PV and one ESS with 12 IQ Battery 3T units.

Each ESS circuits' charge/discharge current with IQ Battery 5P can be limited from 64 Amps to 8 Amps continuous.

1. PV inverter breakers on the combiner box and system controller must be properly sized.
    a. The maximum breaker size for a PV inverter branch in a combiner box is 20A.
    b. The maximum breaker size for PV inverter circuits in the system controller is 80A.
2. Battery inverter breakers on the combiner box or system controller must be properly sized
    a. The maximum breaker size for a single IQ Battery 5P-based branch in a combiner box is 20A
    b. The maximum breaker size for the batteries in the system controller input is 80A per circuit.
3. The back feed breaker in the Main Panel must be sized properly based on the main panel busbar and grid breaker, maximum breaker size of 80A is tested with the test setup.
4. Please refer to the equipment installation instructions for system configuration details.

If there are any questions regarding the results contained in this report, please contact me or any Bureau Veritas CPS customer service representative.

Sincerely,

Dishant Patel

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Reviewed by,

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SAMPLE

Answers for SCE Request about *Manufacturer* System sequence of operation

1.) **How will the generating facility normally operate with the existing and new generation?**

2.) **Where will the PCS be obtaining its data to prevent export from the new generation?**

3.) **How will the generating facility maintain no export to the grid?**

4.) **How will the project operate and achieve option 8?**

SAMPLE