Growatt PV-Only Commissioning (Shiner) (INS-SOP-0264-01)

Overview

Link to CURRENT version of this SOP

This SOP describes the commissioning of PV-only Growatt inverters using the Shiner App.

Legend

General	
	Ensure all Arc Flash PPE is worn during the shown portion of the Installation SOP.
	This symbol indicates a safety-specific call out
	Photo or screenshot required for the Foreperson Installation Checklist (FIC).
	Pro Tip to help the installation procedure.
	Indicates to Tap on a screen or device within an application or website.

Safety Hazards		
 Health Hazard	 Explosive Hazard	 Environmental Hazard
 Acutely Toxic	 Oxidizing Hazard	 Flammable
 Pressurized Gas Hazard	 Corrosive Hazard	 Eye irritant, skin irritant, or both
See the Safety Data Sheet in the Related Documents list for additional information relating to OSHA Hazard Pictograms.		

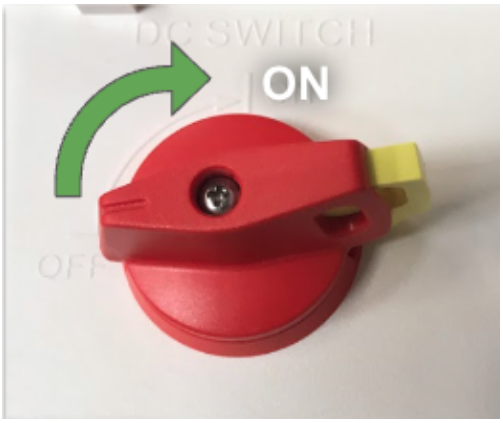
Tools & Materials Required

Estimated Time:	20 minutes
Tools	• Multimeter • Electrical PPE

Materials:	• Iphone • The most recent version of the Shiner App
Resources:	• Growatt Customer support: **1(866)686-0298 ext. 2, then ext. 2** (Sunrun dedicated line)

Step 1: Turn on the Inverter/Open App

1. Turn on the inverter, then all associated AC breakers and disconnects



IMPORTANT: The inverter must be powered fully by both AC and DC for firmware updates to successfully load.

DC voltage shall be at least 80v or greater to complete commissioning.

If the remote rapid shutdown trigger has been installed, ensure the green band is visible, indicating it is on.

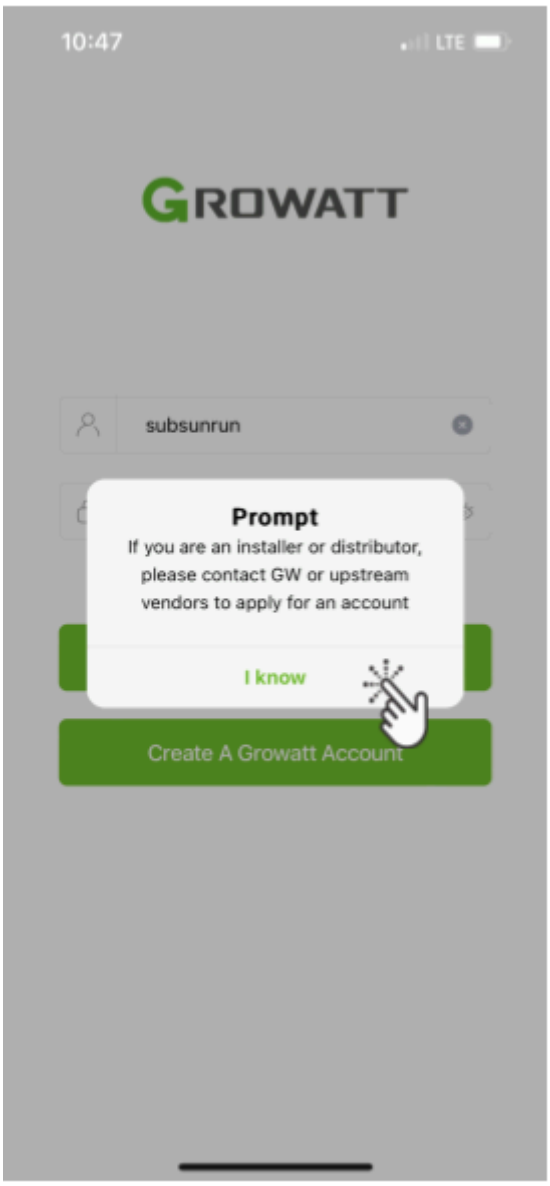
2. Open the Shiner App and allow access to Bluetooth

3. Read and agree to the user agreement/privacy policy

4. Enter login credentials:

Account: temp_sunrun_installer

Password: w3_w!ll_delete


10:47
LTE
GROWATT
subsunrun
Prompt
If you are an installer or distributor, please contact GW or upstream vendors to apply for an account
I know
Create A Growatt Account

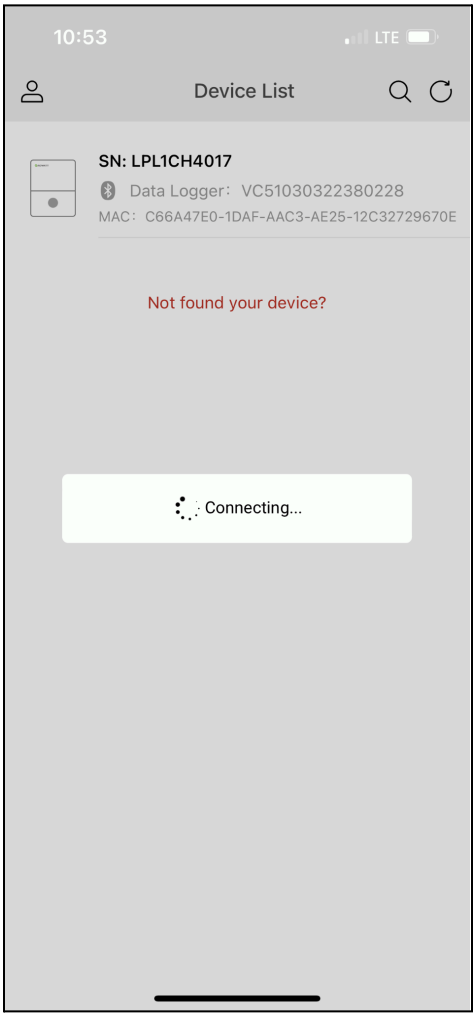

GROWATT
temp_sunrun_installer
w3_w!ll_delete
Login
Create A Growatt Account

Step 2: Connect to the Inverter, Update FW

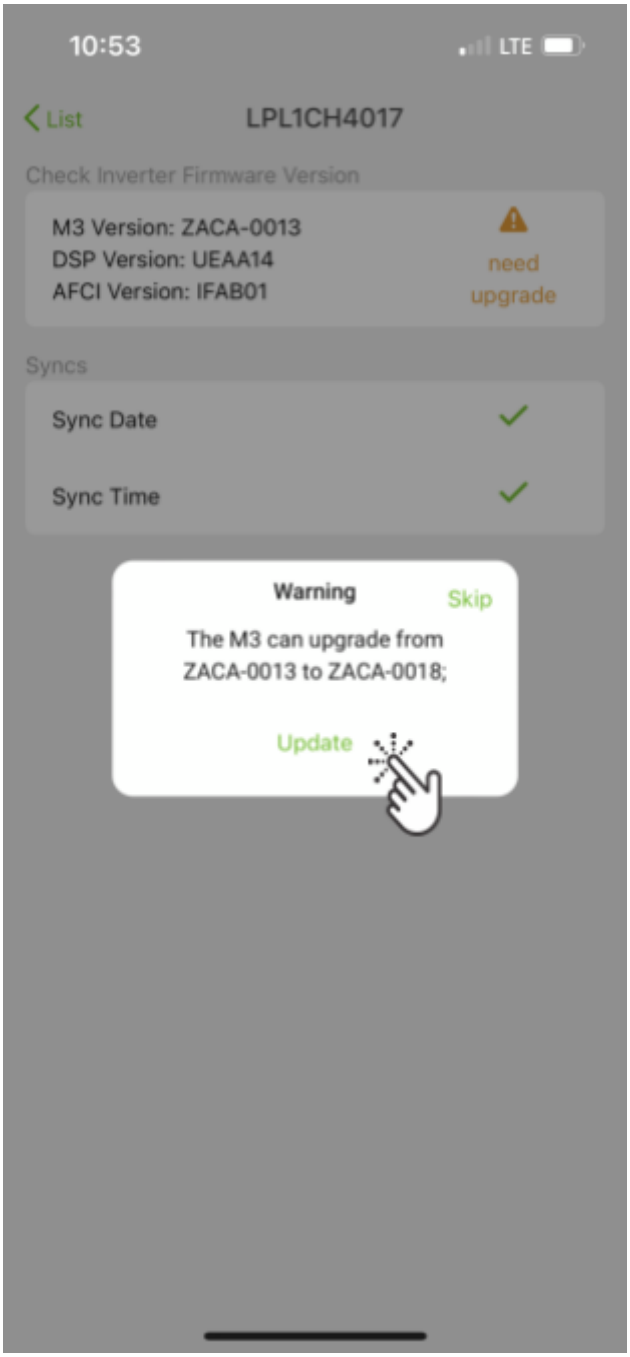
1. Tap the **inverter** to connect via bluetooth. Tap the **Refresh button** to scan for new devices if the inverter does not show up automatically.

2. Input the CC found on the side of the inverter

3. Allow the app to connect

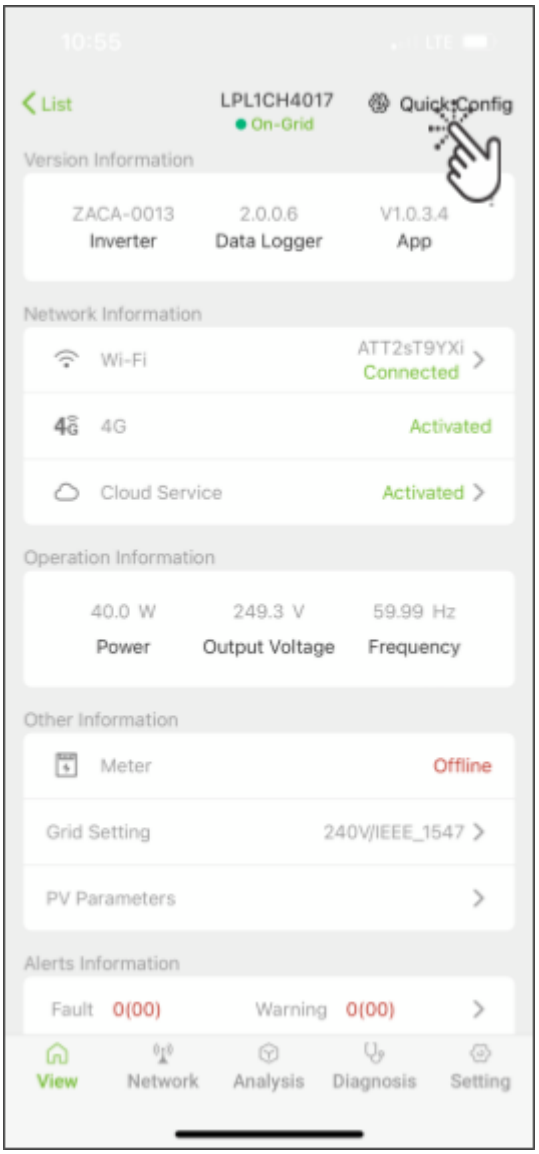


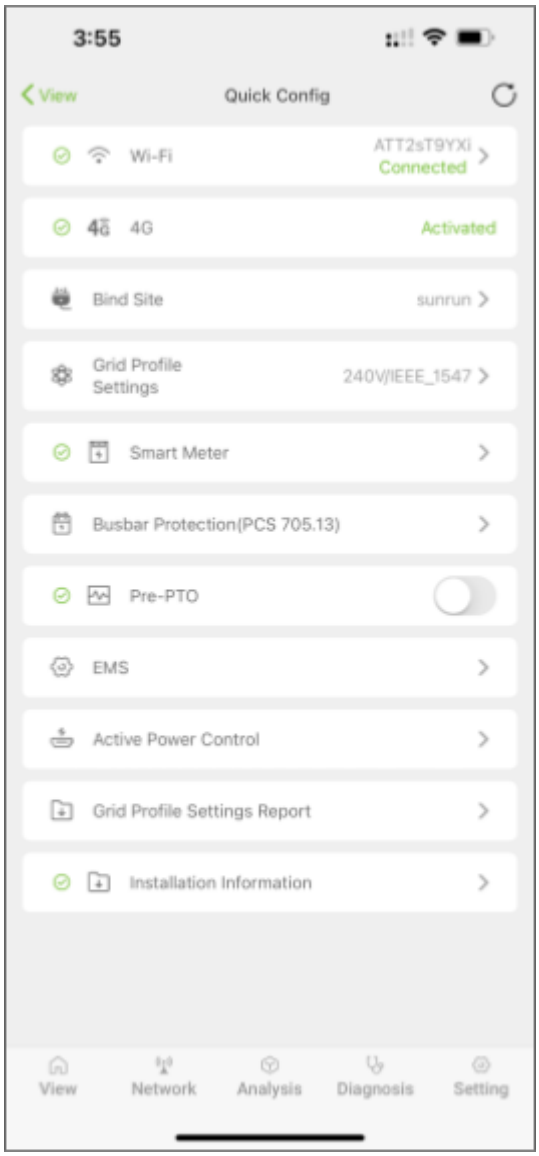
4. If prompted, tap **Update** to update the inverter firmware.



Step 3: Quick Configuration

1. Tap **Quick Config** to enter the configuration menu.


List
LPL1CH4017
On-Grid
Quick Config
Version Information
ZACA-0013
Inverter
2.0.0.6
Data Logger
V1.0.3.4
App
Network Information
Wi-Fi
ATT2sT9YXi
Connected
4G
Activated
Cloud Service
Activated
Operation Information
40.0 W
Power
249.3 V
Output Voltage
59.99 Hz
Frequency
Other Information
Meter
Offline
Grid Setting
240V/IEEE_1547
PV Parameters
Alerts Information
Fault 0(00)
Warning 0(00)
View
Network
Analysis
Diagnosis
Setting


3:55
View
Quick Config
Wi-Fi
ATT2sT9YXi
Connected
4G
Activated
Bind Site
sunrun
Grid Profile Settings
240V/IEEE_1547
Smart Meter
Busbar Protection(PCS 705.13)
Pre-PTO
EMS
Active Power Control
Grid Profile Settings Report
Installation Information
View
Network
Analysis
Diagnosis
Setting

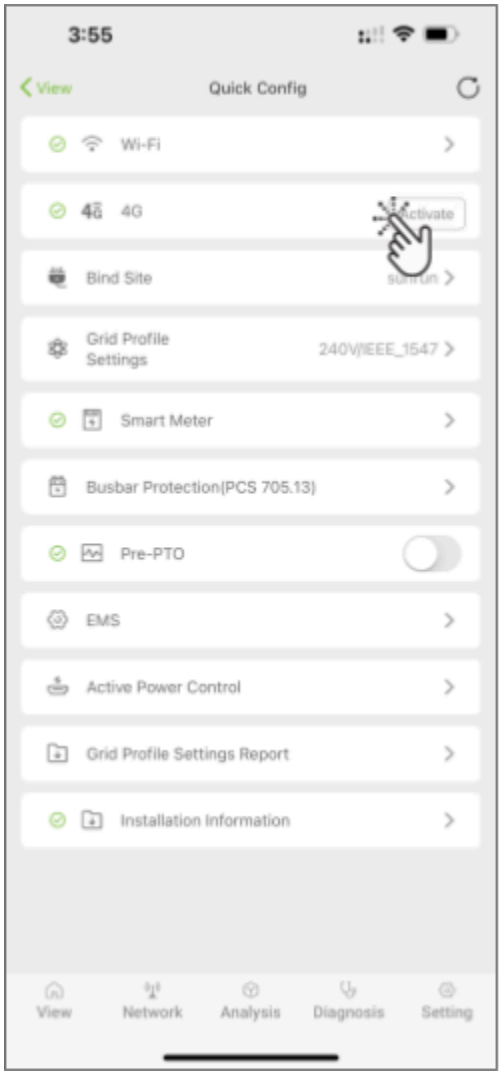
Step 4: Network Communication

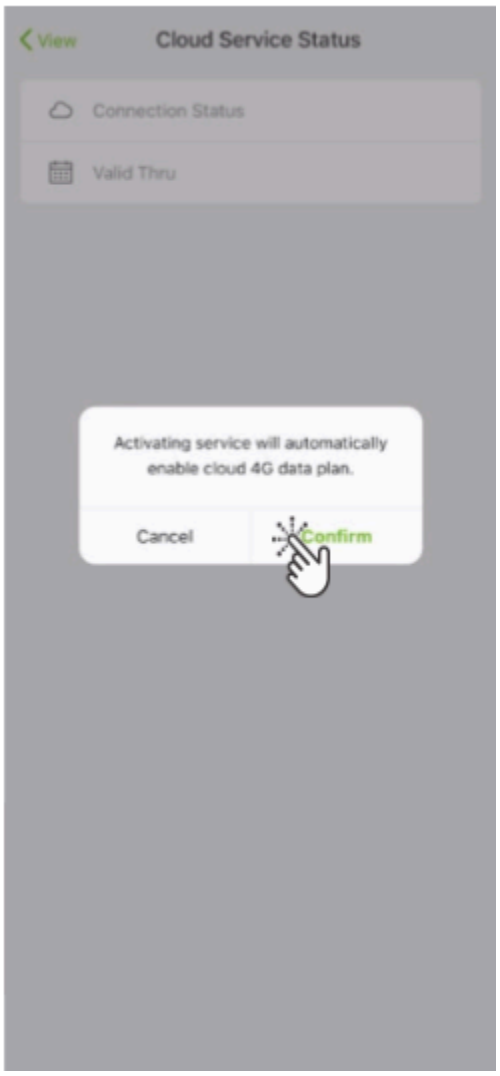
IMPORTANT: 4G is the preferred connection. Customer WiFi shall only be used if 4G signal is weak.

Customer WiFi must be a 2.4ghz network. 5ghz networks are not supported.

4G

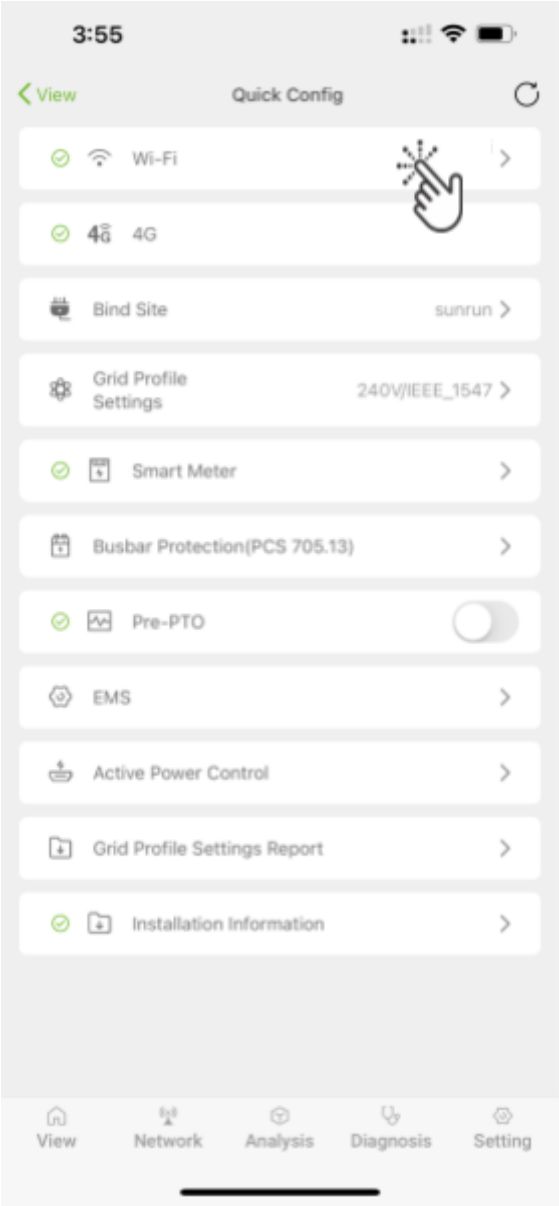
1. In **Quick Config**, Tap **4G** > **Activate** > **Confirm**



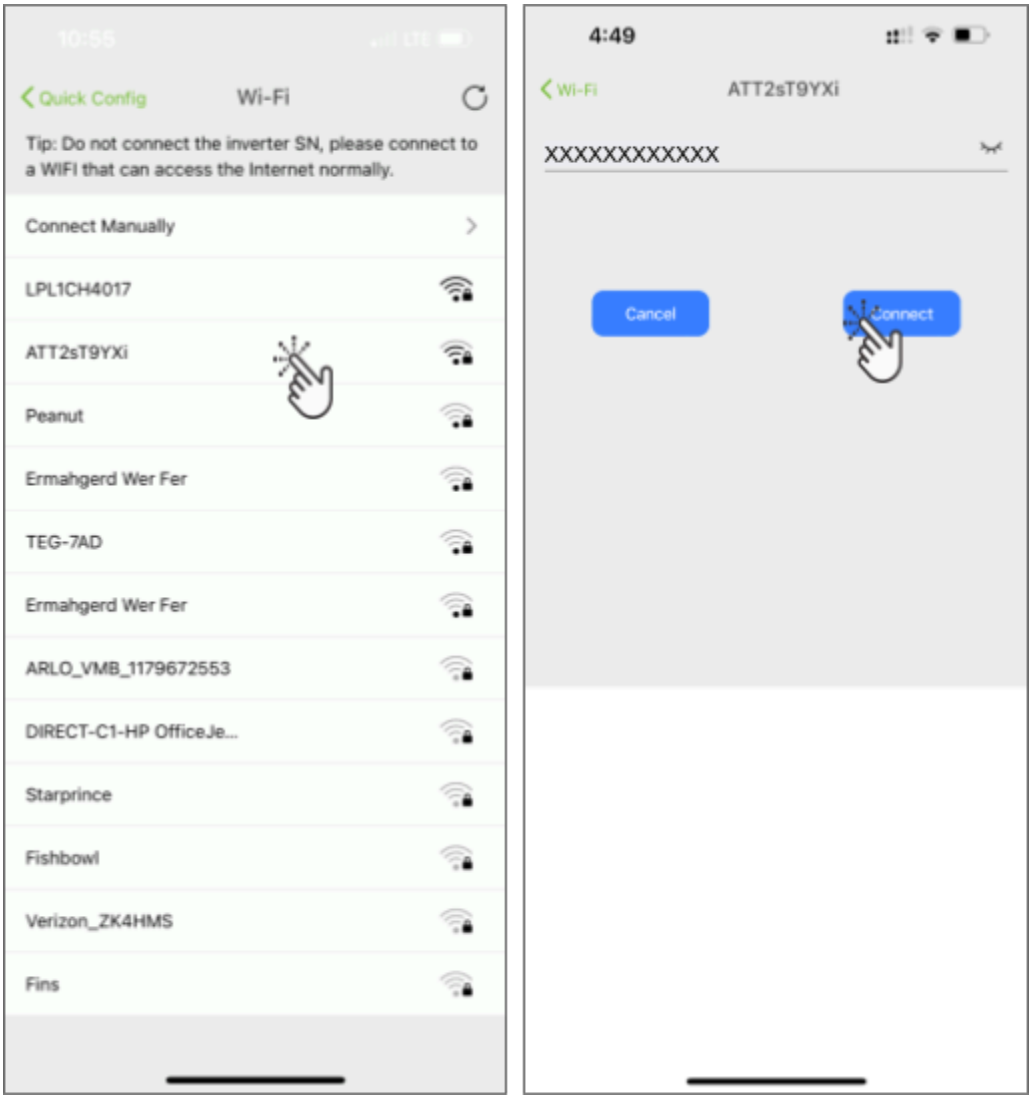


WiFi

1. Tap **Wi-Fi**

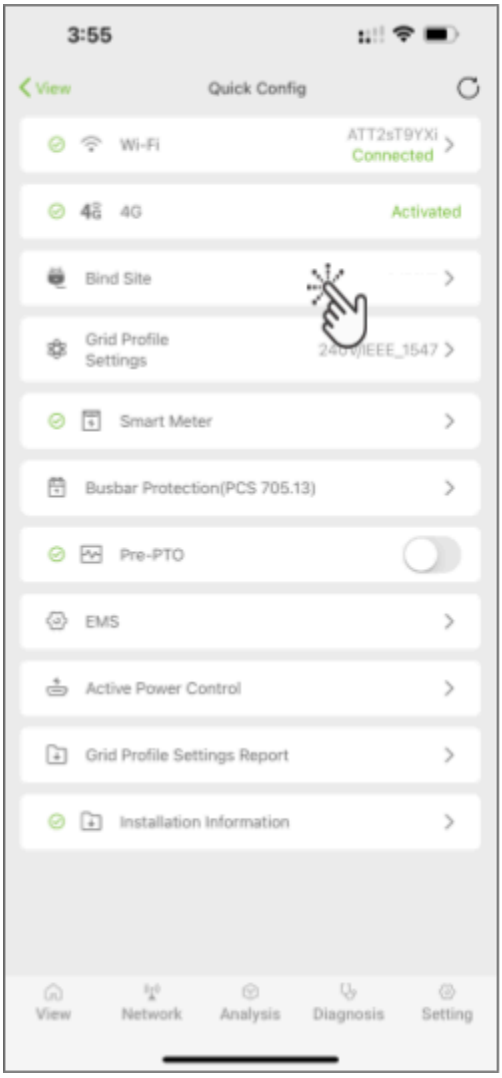


2. Select the customer WiFi, enter credentials, and tap **Connect.**



Step 5: Bind Inverter

1. Tap **Bind Site**, Tap **Site Name** and Search for the job code. Once selected, tap **Bind**.



IMPORTANT: In this example a test site is used. If the job code is not listed, email vendorsites@sunrun.com

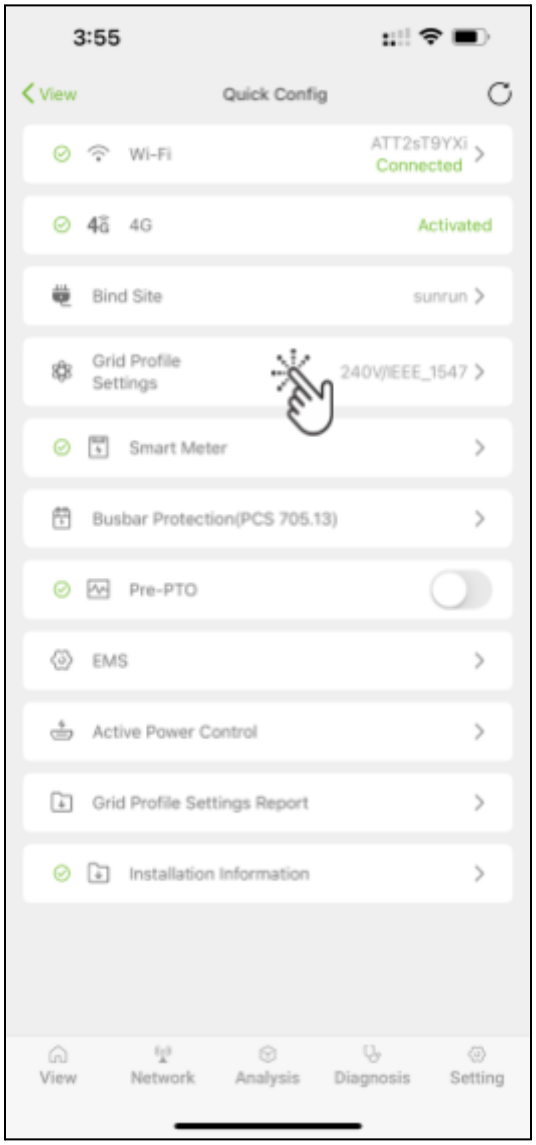
Step 6: Grid Code

NOTE: A list of available codes will open, default is set to IEEE1547-240.

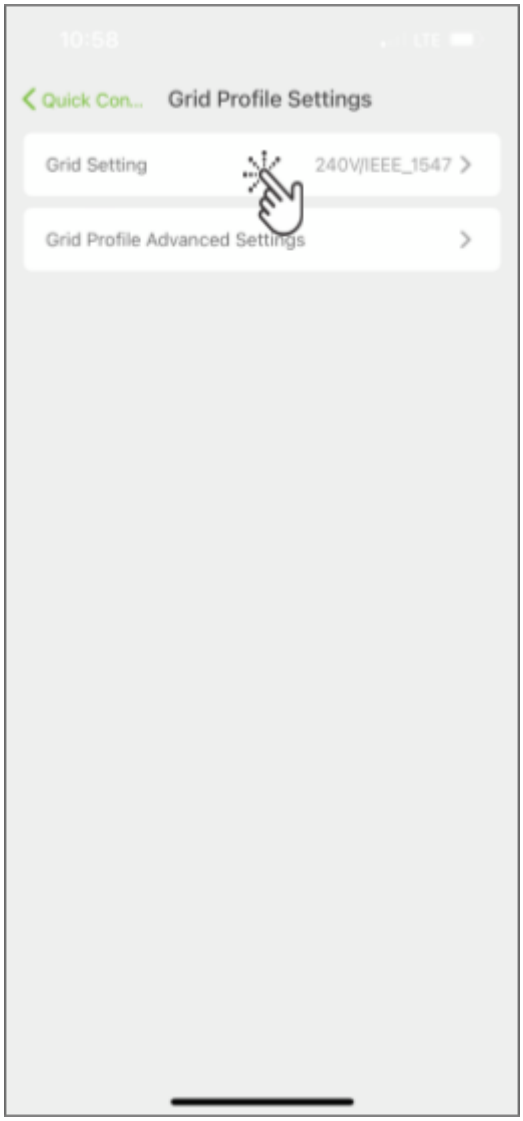
Contact the local utility company for the region's grid code.

If the Grid code is changed, the inverter will place itself into standby and begin a grid sense timer before returning to On Grid mode. The timer countdown length varies depending upon grid code.

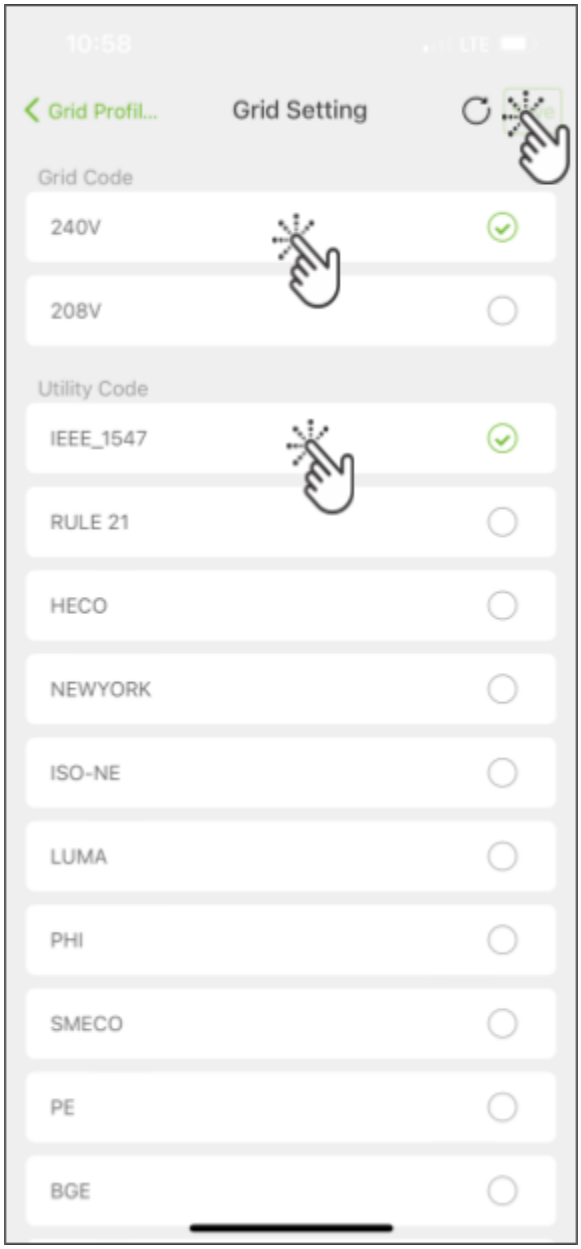
1. Tap **Grid Profile Settings**



2. Tap **Grid Setting**



3. Select the proper voltage and grid code for the region, tap **Save**.

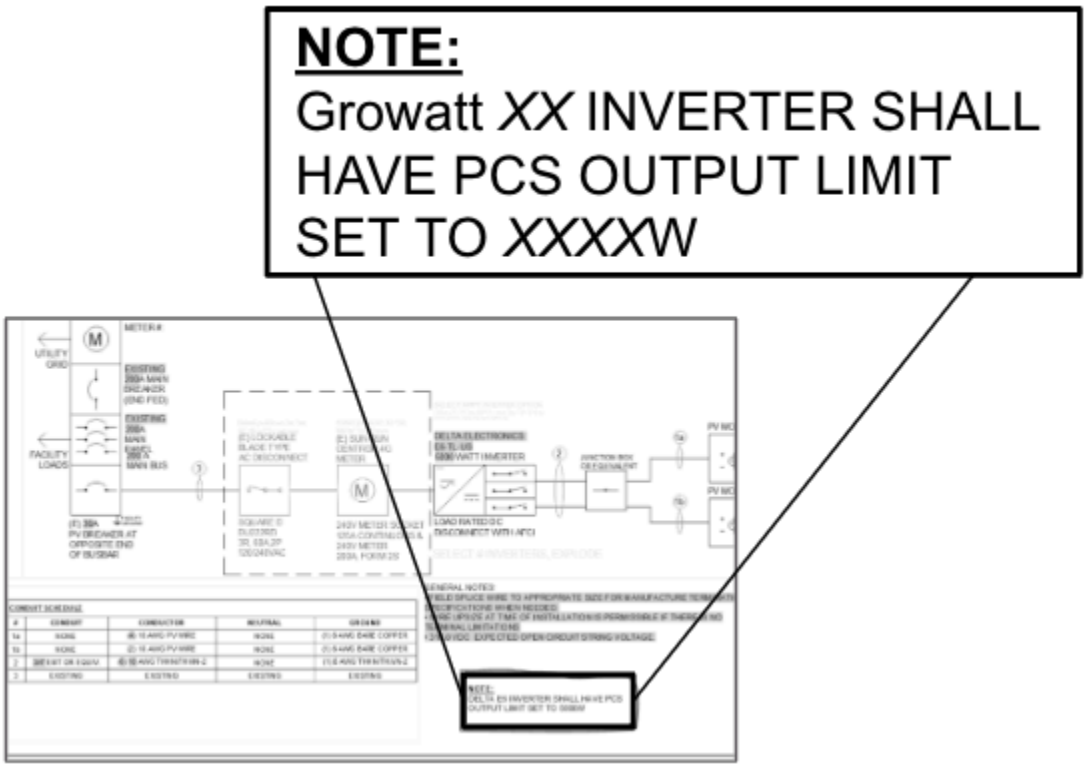


Step 7: PCS: Output Limit/Busbar Protection

NOTE: This step is only required for setting output limits or busbar protection. If the plan set does not indicate setting these, skip this step.

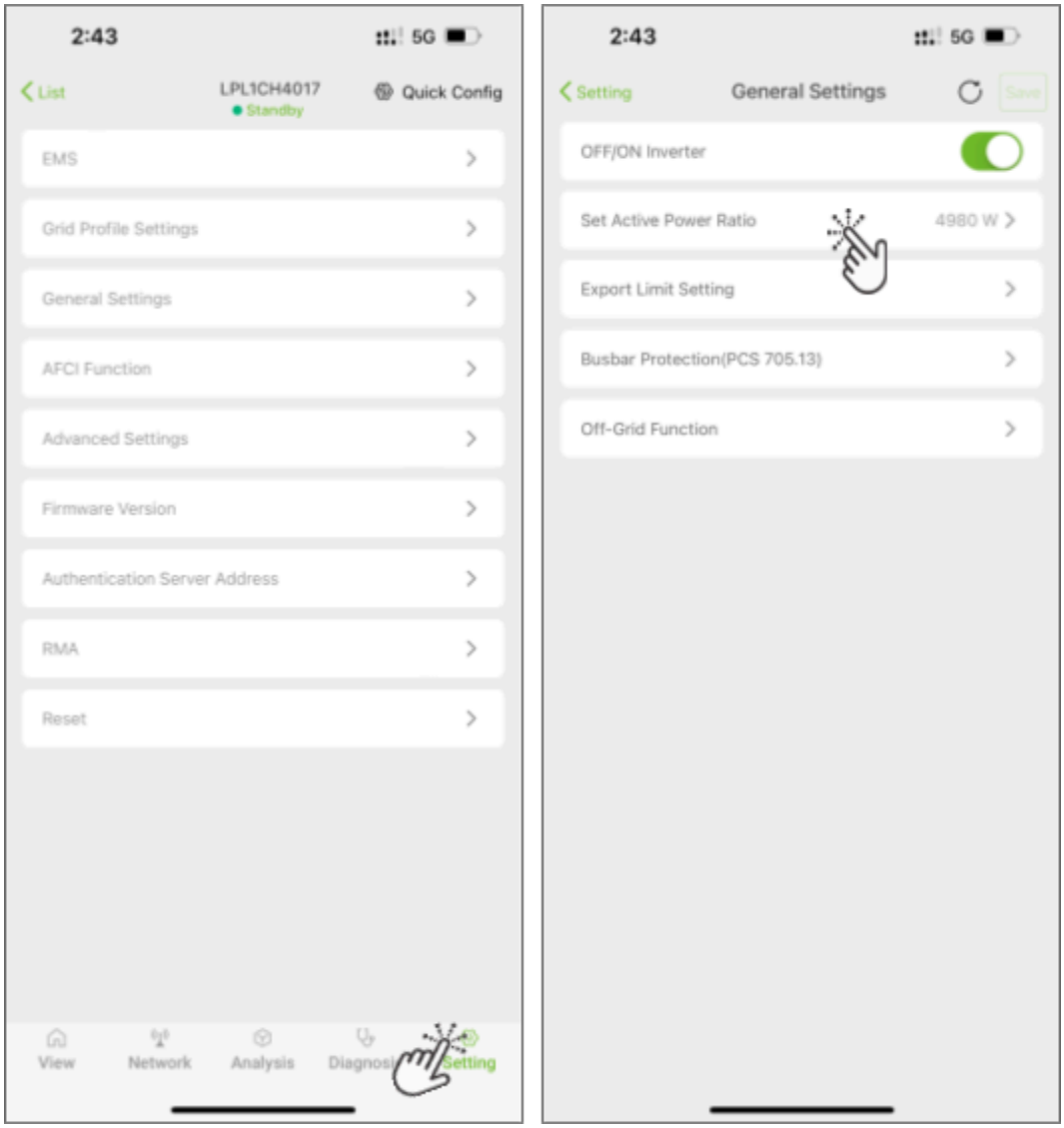
Output Limit

Output limit settings will be noted on the ELECTRICAL page of the plan set.

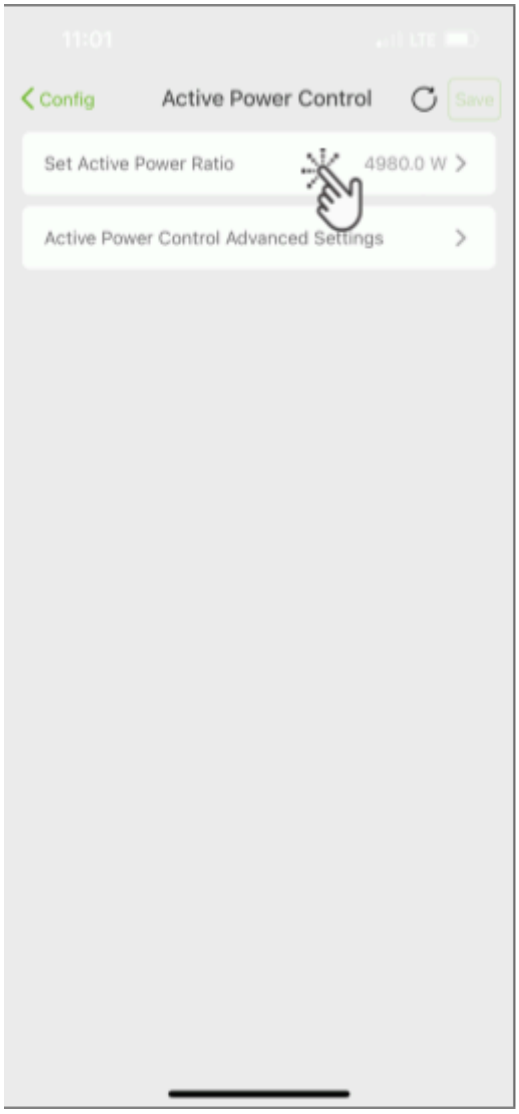


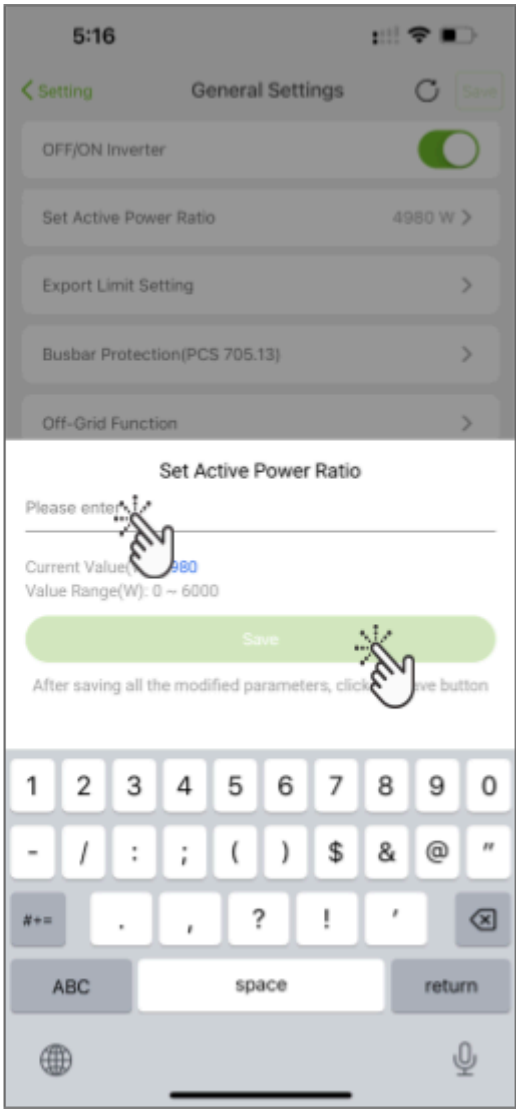
NOTE: A meter and CTs are not required for setting output limits.

1. From the main **View** page, tap **Setting > General Setting.**



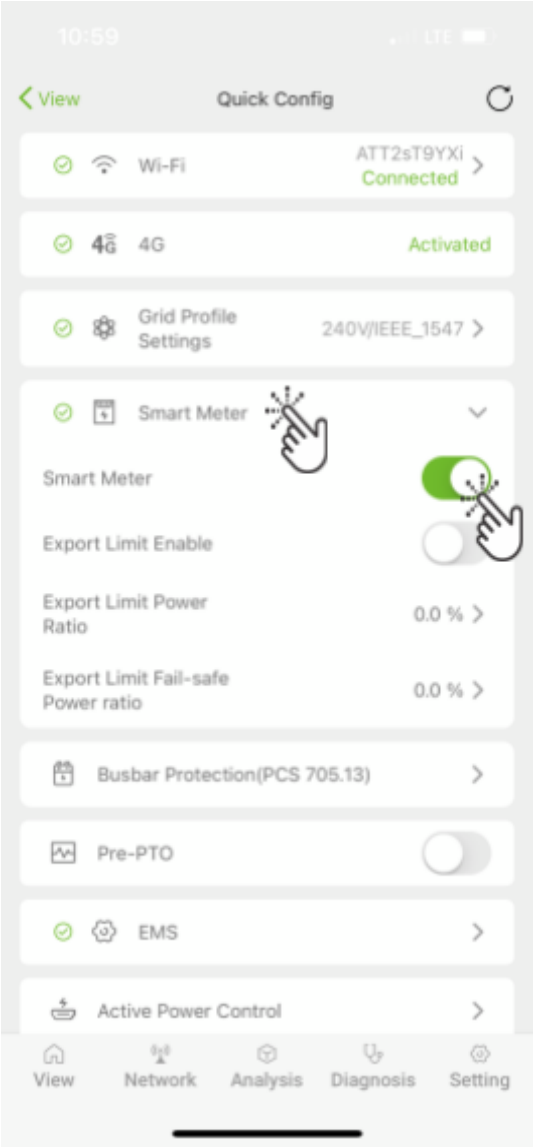
2. Tap **Set Active Power Ratio,** enter the value and tap **Save**.



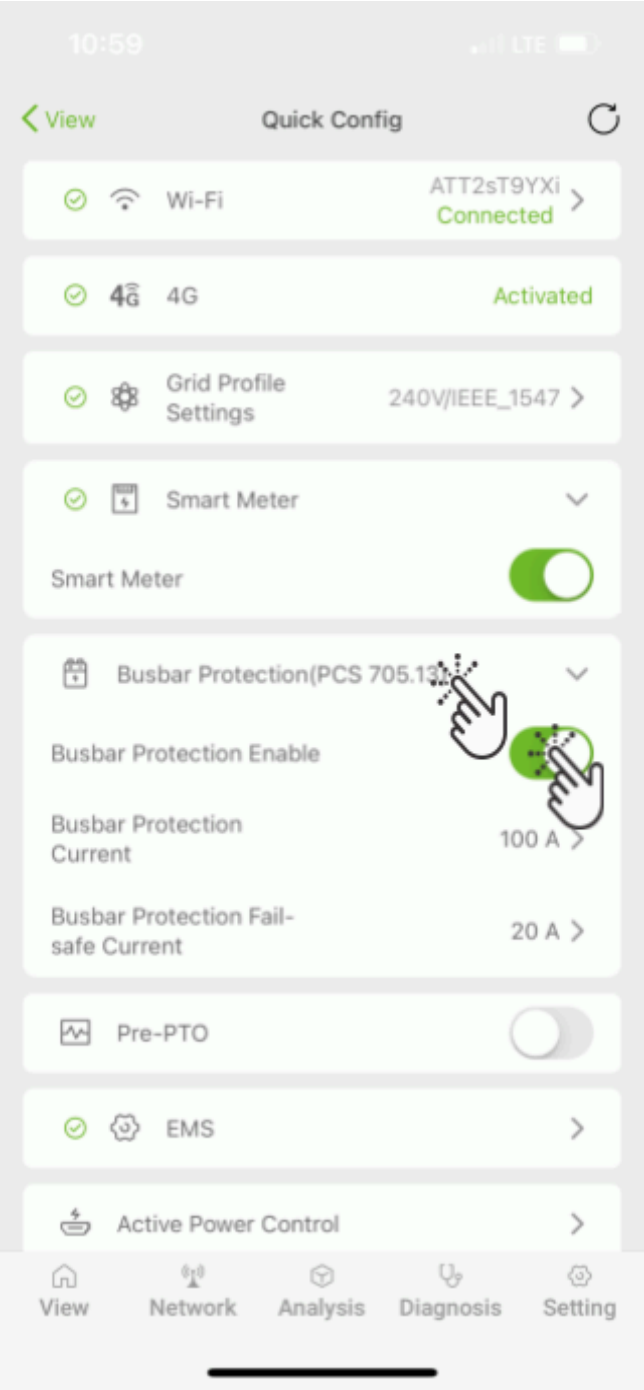


Busbar Protection

1. From the Quick Config screen, Tap **Smart Meter.**
2. Tap the slider to enable the meter.

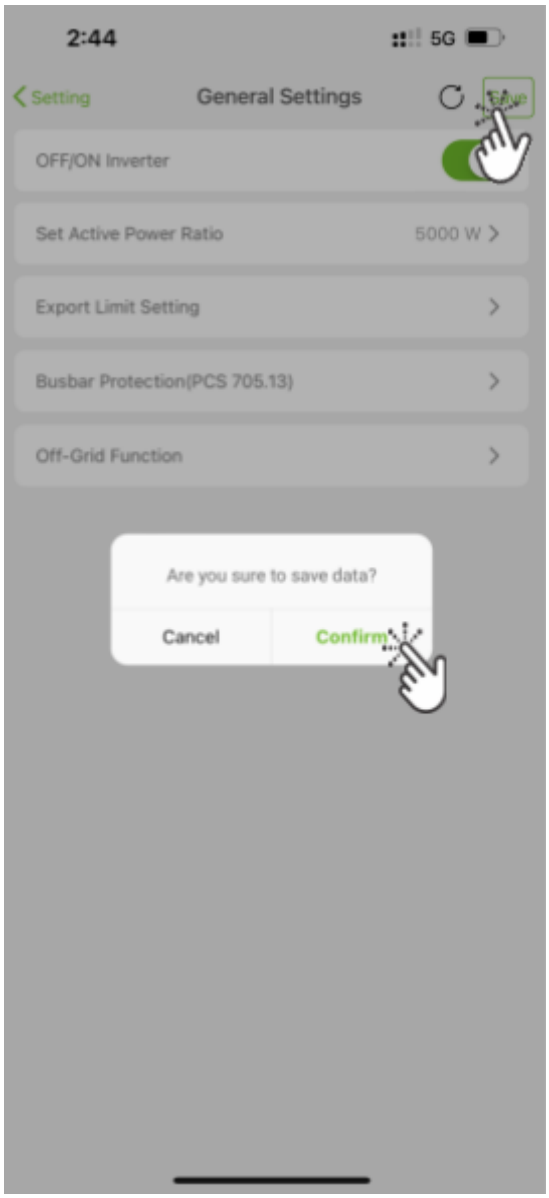


2. Tap **Busbar Protection** and tap the slider to enable.



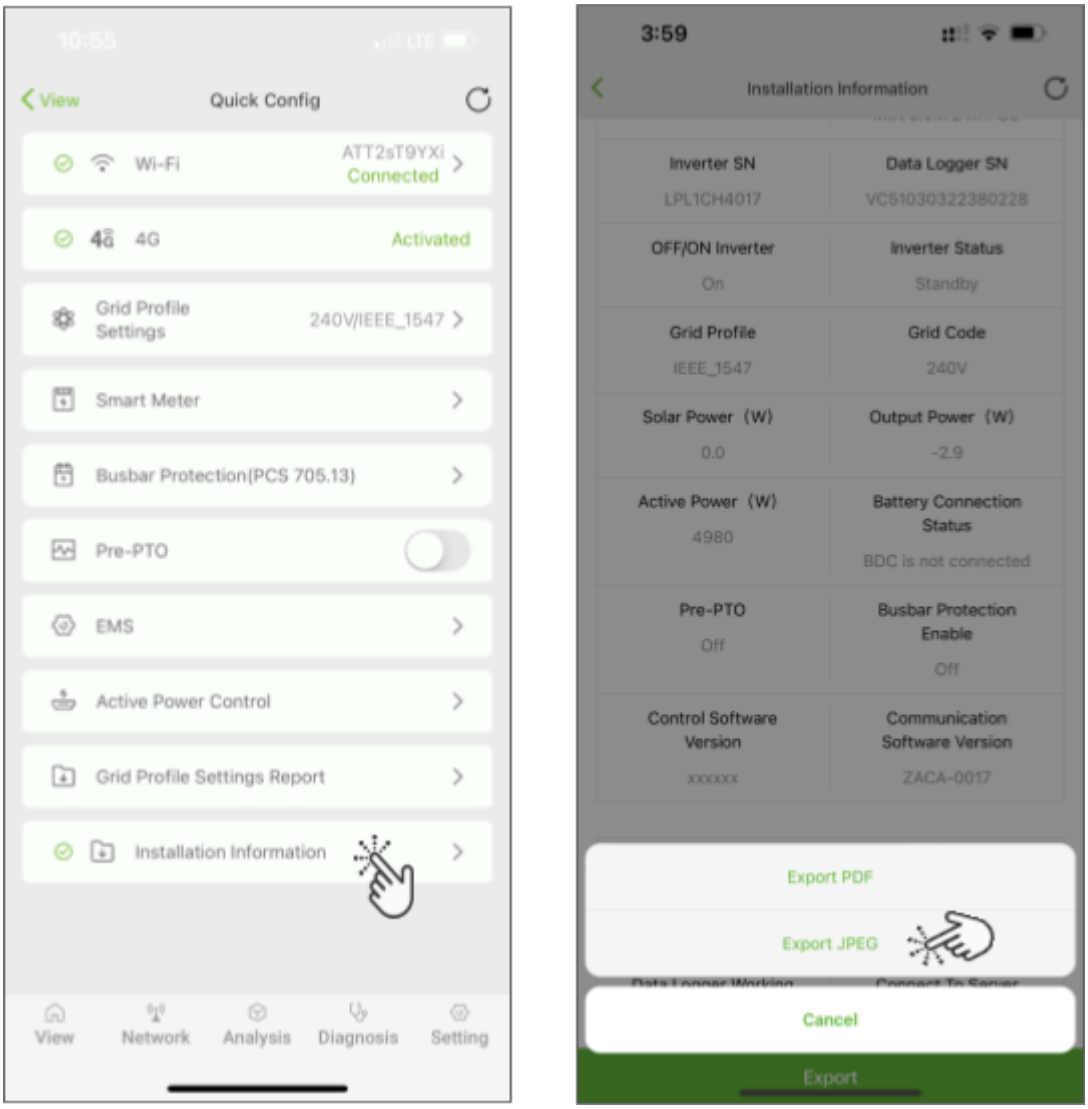
3. Enter the values listed on the plan set, tap **Save.**

Shiner App Description		Plan Set Description
Busbar Protection Current	=	*XXA* MAXIMUM TOTAL CURRENT ON THE CONTROLLED PANEL
Busbar Protection Fail-safe Current		*XXA* FAIL SAFE GENERATION BACKFEED CURRENT SUPPLY

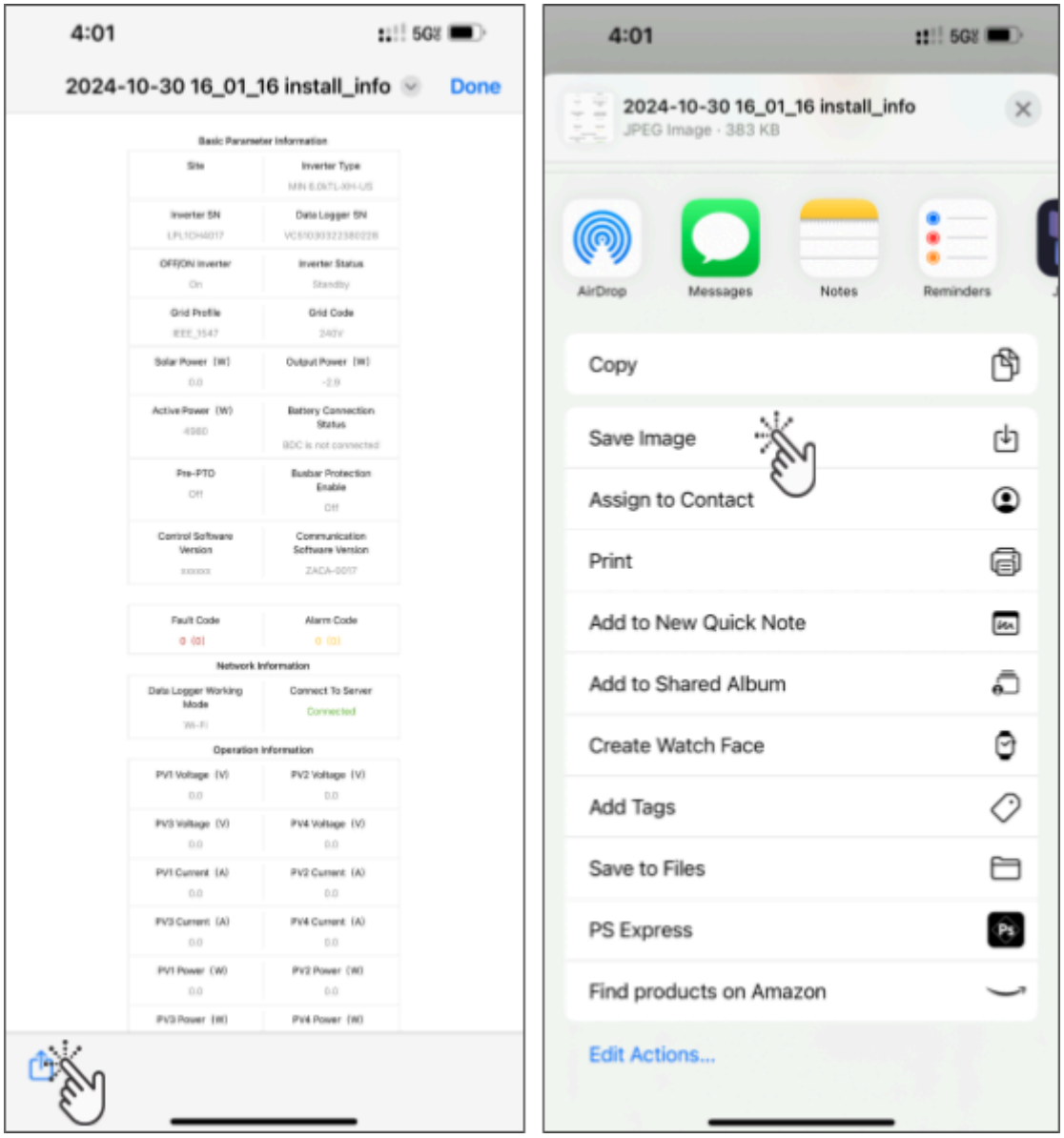


Step 8: System Operation Verification (Summary)

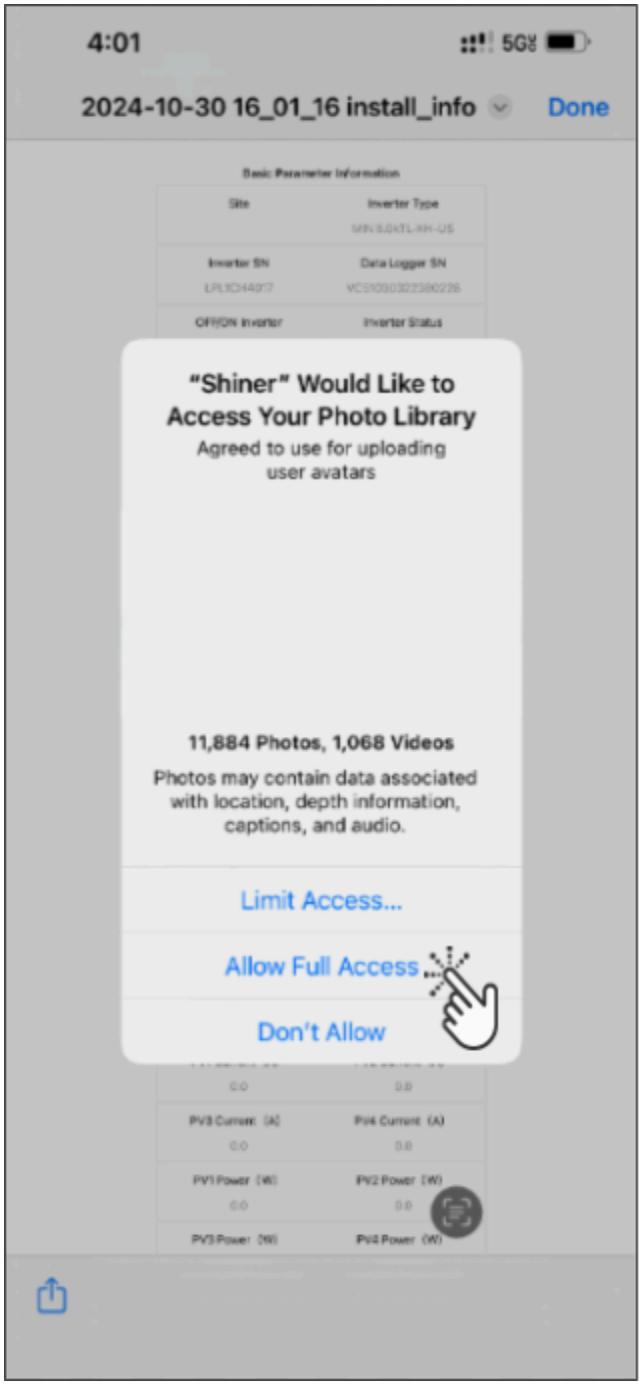
1. From **Quick Config**, Tap **Installation Information**, verify all settings are correct with no errors, and tap **Export > Export JPEG**.

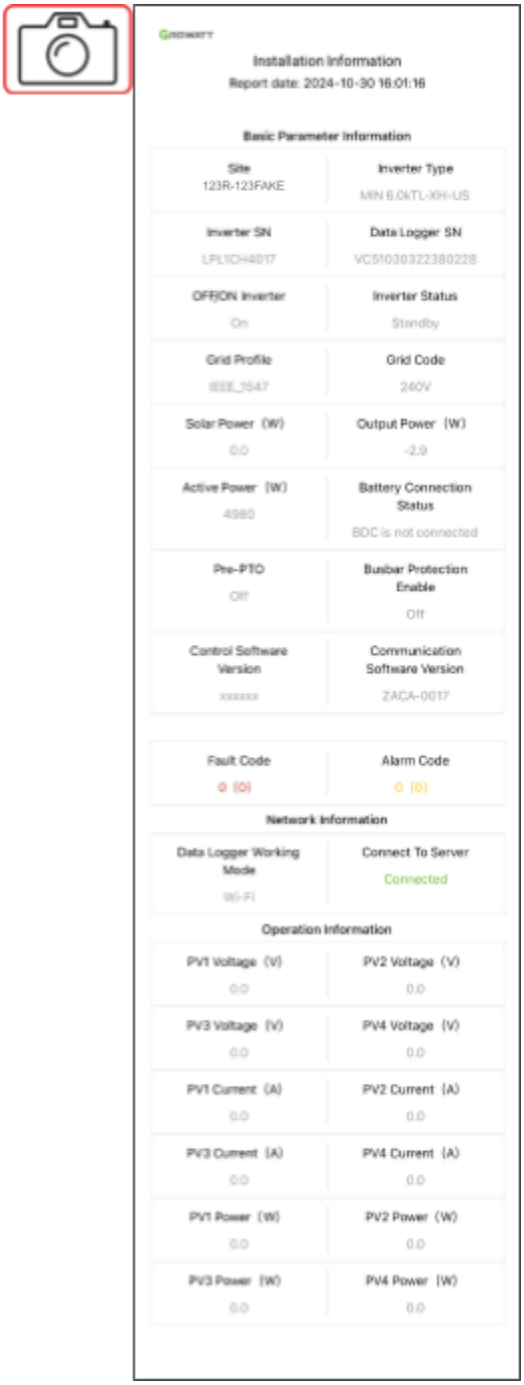


2. Tap the **Share** Icon > **Save Image.**



3. Tap **Allow full access** if prompted and upload the summary report.





Installation Information

Report date: 2024-10-30 16:01:16

Basic Parameter Information

Site: 123R-123FAKE	Inverter Type: MIN 6.0kTL-XH-US
Inverter SN: LPL1CH4017	Data Logger SN: VC51030322380228
OFF/ON Inverter: On	Inverter Status: Standby
Grid Profile: IEEE_1547	Grid Code: 240V
Solar Power (W): 0.0	Output Power (W): -2.9
Active Power (W): 4980	Battery Connection Status: BDC is not connected
Pre-PTO: Off	Busbar Protection Enable: Off
Control Software Version: xxxxxx	Communication Software Version: ZACA-0017
Fault Code: 0 (0)	Alarm Code: 0 (0)

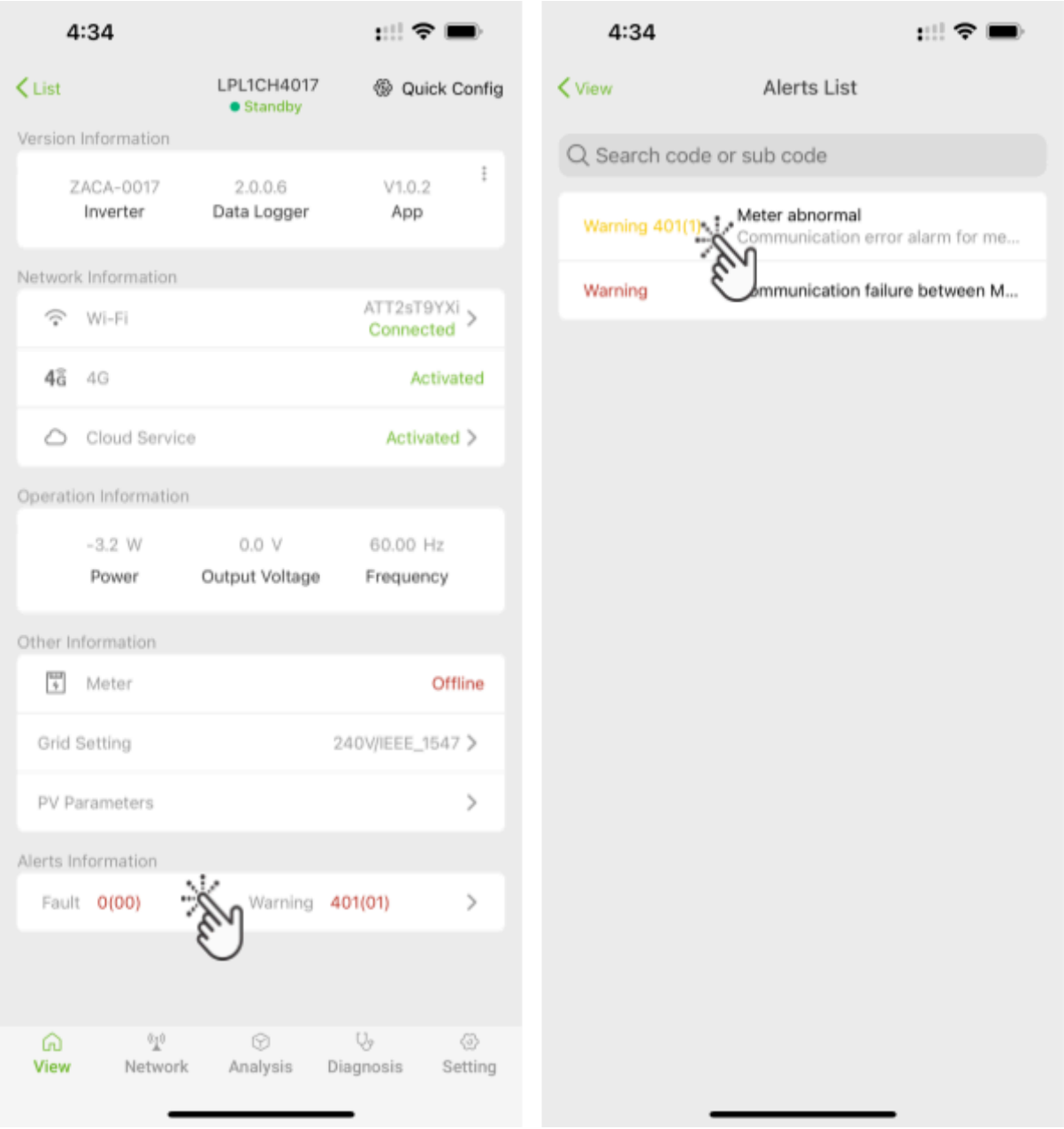
Network Information

Data Logger Working Mode: Wi-Fi	Connect To Server: Connected

Operation Information

PV1 Voltage (V): 0.0	PV2 Voltage (V): 0.0
PV3 Voltage (V): 0.0	PV4 Voltage (V): 0.0
PV1 Current (A): 0.0	PV2 Current (A): 0.0
PV3 Current (A): 0.0	PV4 Current (A): 0.0
PV1 Power (W): 0.0	PV2 Power (W): 0.0
PV3 Power (W): 0.0	PV4 Power (W): 0.0

NOTE: If errors are present, return to the **View** screen and tap the **Fault** or **Warning** code, then tap a specific code for more information. Returning to the **View** screen after resolving error, will refresh and clear the warning.



309 Warning Code Suffix	Meaning
(00)	Abnormal CT wiring
(01)	CT1 reversed, CT2 normal
(02)	CT1 normal, CT2 reversed
(03)	CT1 reversed, CT2 reversed
(04)	CT1 disconnected, CT2 normal
(06)	CT1 disconnected, CT2 reversed
(08)	CT1 normal, CT2 disconnected
(09)	CT1 reversed, CT2 disconnected
(12)	CT1 disconnected, CT2 disconnected

Acrel Meter LED Indications

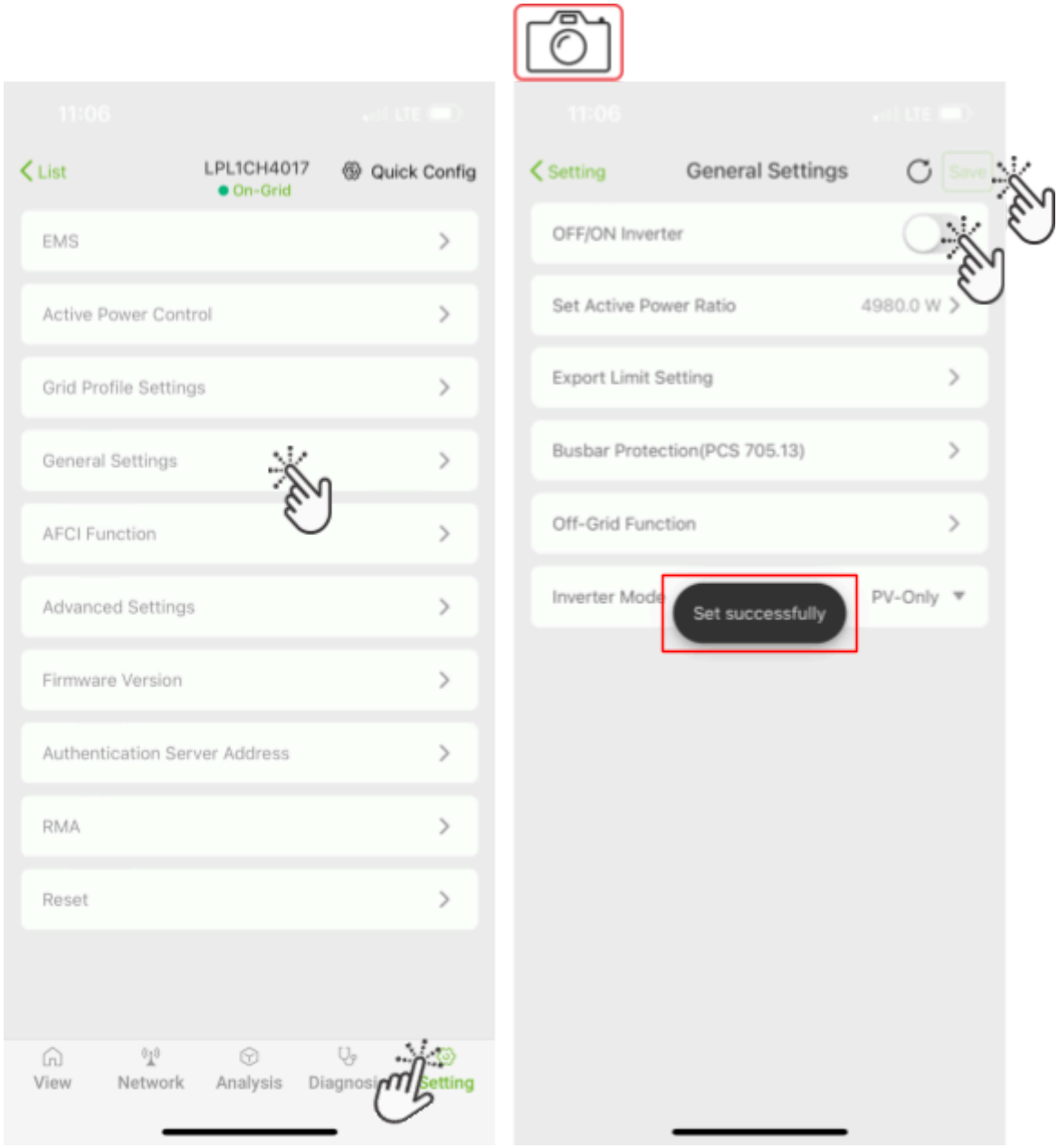
LED	LED color	Fuction	Indication	Troubleshooting
Run	Green	Flashing ON/OFF (for 1 second)	Working normally	
	Red	ON for > 3 seconds	Internal error	Contact support
	Yellow	Flashing ON/OFF (for 1 second)	No communication	Check that the communication wires are connected correctly.
L1 / L2	Green	ON for > 3 seconds	No current	
		Flashing ON/OFF (for 1 second)	Positive power	
	Red	Flashing ON/OFF (for 1 second)	Negative power	Check for reversed CTs, swapped CT wires, or CTs not matched with the lines.
		Flashing with green LED	High voltage > 130 V	Check the line voltages and the meter rating.
		Flashing with yellow LED	Low voltage < 70 V	
	Yellow	Flashing ON/OFF (for 1 second)	Break fault < 70 V	
		ON for > 3 seconds	Frequency is below 45 Hz or above 70 Hz	Check for the presence of high noise.

LED indicators on Acrel meter

Step 9: Leave State (Remote Activation)

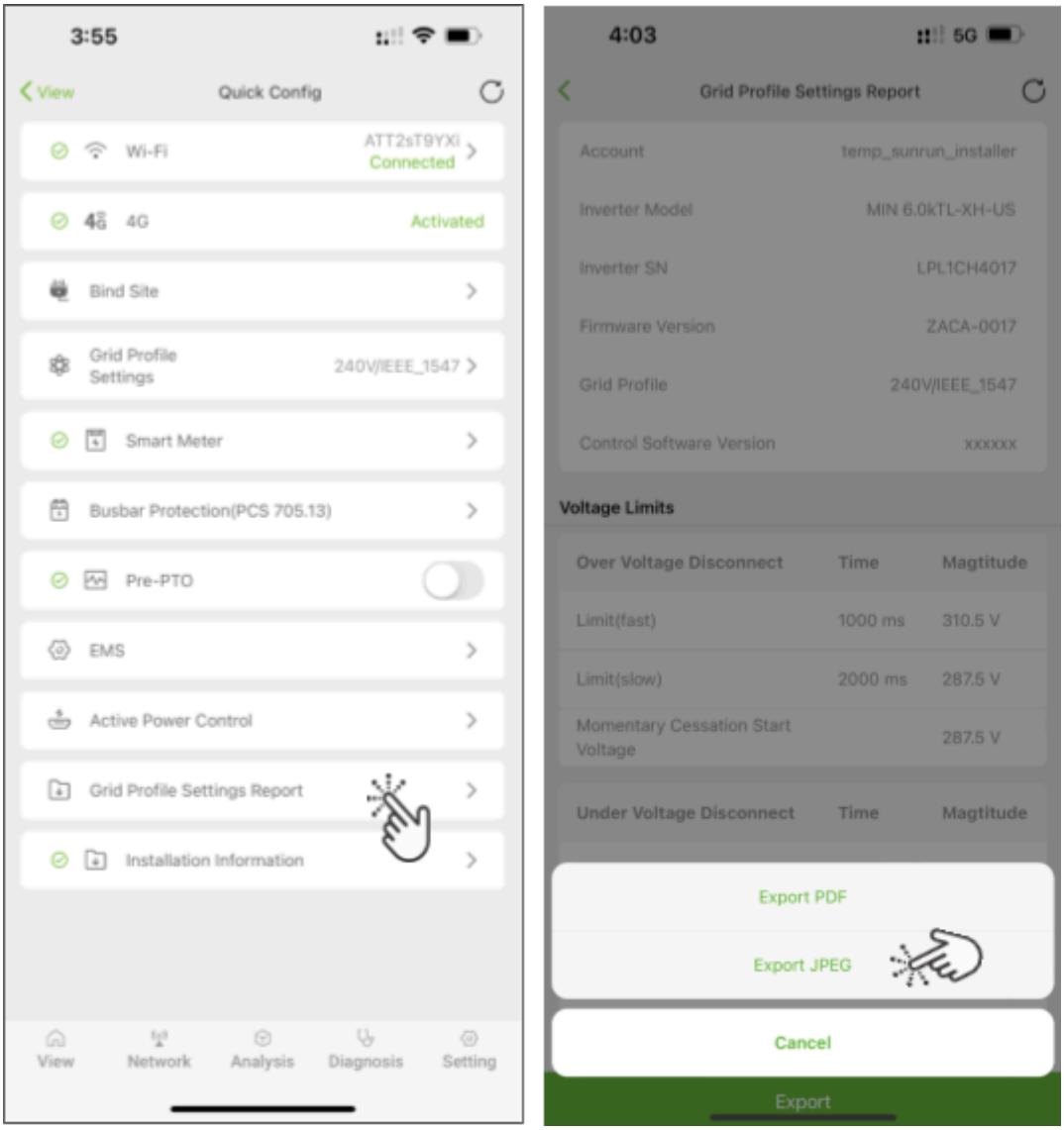
This setting is only to be used if the local jurisdiction allows for remote activation.

1. Tap **Setting** > **General Setting**, and tap the slider for **OFF/ON inverter**.
2. Tap **Save.**
3. **Set successfully** will pop up and the slider will be grayed out, confirming standby mode is enabled.

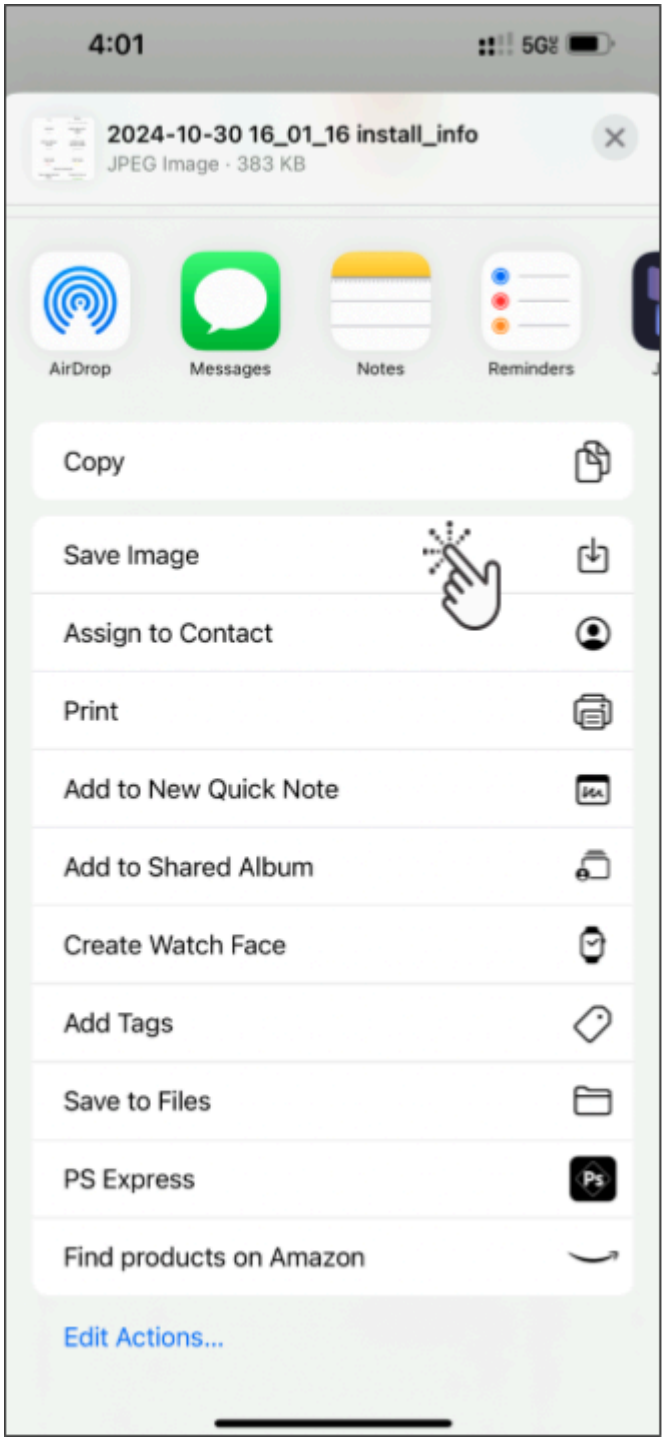


Step 10: Grid Profile Settings Report (if required by AHJ)

1. From **Quick Config**, Tap **Grid Profile Settings Report**, tap **Export > Export JPEG**.

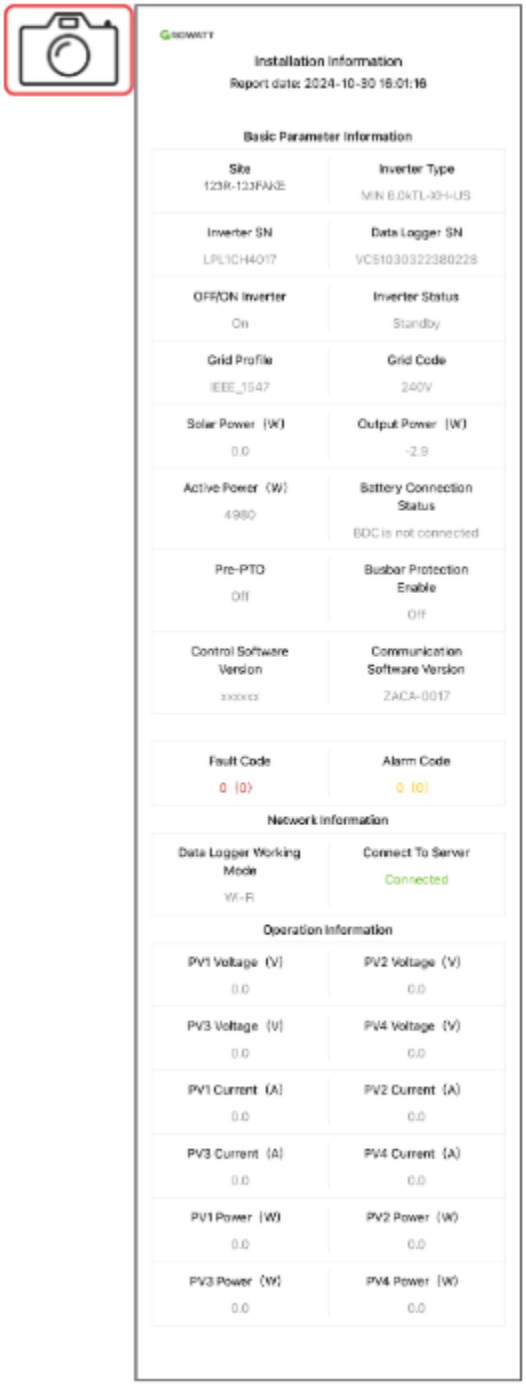


2. Tap the **Share** Icon > **Save Image.**


4:01
5G
2024-10-30 16_01_16 install_info
JPEG Image · 383 KB
AirDrop
Messages
Notes
Reminders
Copy
Save Image
Assign to Contact
Print
Add to New Quick Note
Add to Shared Album
Create Watch Face
Add Tags
Save to Files
PS Express
Find products on Amazon
Edit Actions...

Required Photos

- Summary Report



Installation Information

Report date: 2024-10-30 16:01:16

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Pre-PTO: Off	Busbar Protection Enable: Off
Control Software Version: xxxxx	Communication Software Version: ZACA-0017
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Data Logger Working Mode: Wi-Fi	Connect To Server: Connected

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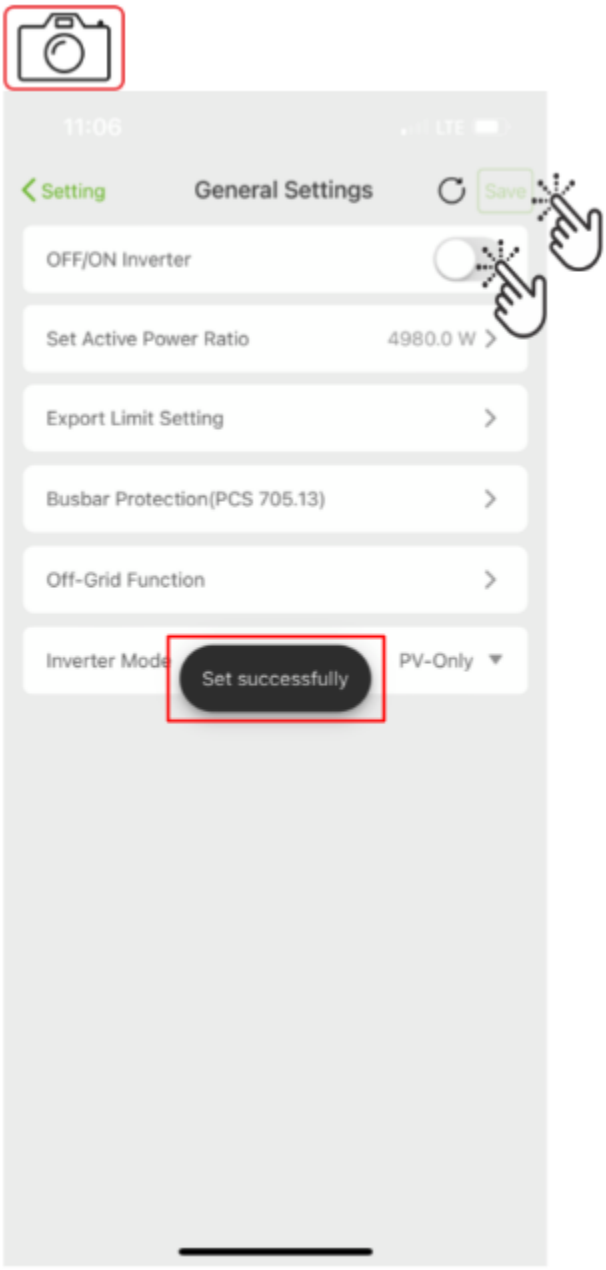
PV3 Voltage (V): 0.0	PV4 Voltage (V): 0.0
PV1 Current (A): 0.0	PV2 Current (A): 0.0
PV3 Current (A): 0.0	PV4 Current (A): 0.0
PV1 Power (W): 0.0	PV2 Power (W): 0.0
PV3 Power (W): 0.0	PV4 Power (W): 0.0

- Standby Mode Enabled



Verification

- ❏ All string voltages tested as expected
- ❏ Grid profile was set correctly

- ❏ PCS settings (if applicable) match the plan set.
- ❏ Inverter is connected to the Internet either via 4G (or WiFi).
- ❏ Inverter firmware is up to date
- ❏ Inverter produces power with no error codes
- ❏ Inverter was left in the proper leave state for the region
- ❏ All necessary photos/screenshots taken for the FIC

Product Feedback

Use the links below to provide feedback on SOPs and/or products:

- SOP/Work Instruction Feedback
- Product Feedback

Approvals

Approvals			
Prepared by: J. Costner	1/8/2025	Training: D. Van Kuren	1/9/2025
Reviewed by: J. Ferreira	1/9/2025	Safety:	
Electrical:		Structural:	
Design:		CRT: Z. Thibert	1/9/2025

Product:		Other:	
Quality: A. Chiu	1/13/2025	Other:	

Revision History

Revision	Date	Description	Approval
1	1/14/2025	Initial Release	J. Costner