

Commissioning of grid-tied PV-only Enphase Energy System

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Applicable country

- South Africa

Overview

This document is for installers who commission Enphase Energy system in grid-tied applications. Follow the steps to complete the successful commissioning of the Enphase PV system.

Preparing for Enphase Installer App (Installer Toolkit) communications

The following process assumes that all IQ8 Series microinverters have been installed per local standards and best practices, tested for appropriate voltages, and are ready to be energized.

Always follow the safety warnings and instructions for all the products in the Enphase quick install guides and installation manuals.



NOTE: For IQ8 Series microinverter system commissioning, the Enphase Installer App (ITK) version 3.31.x or greater and IQ Gateway software 7.6.168 or greater are required.

The upgrade is part of the commissioning if your IQ Gateway software version is less than 7.6.168. It may take approximately 20–30 minutes for a software upgrade.

Legacy Enphase Installer App
2.0
(Not used for IQ Microinverter
commissioning)



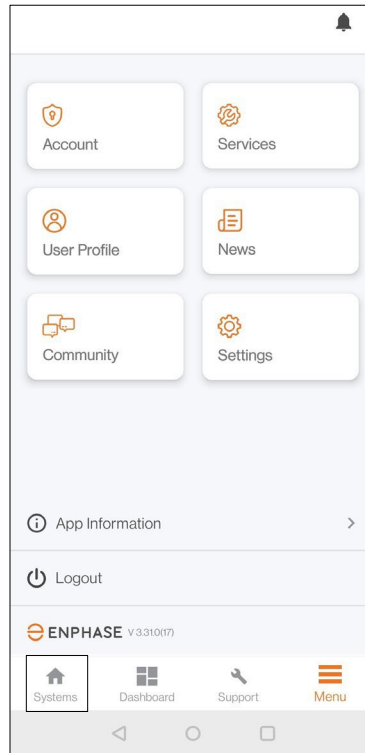
New Enphase Installer App 3.31.x
or above
(Used for IQ Microinverter
commissioning)

You can install the Enphase Installer App using the following links:

- [iOS](#)
- [Android](#)

Commissioning process

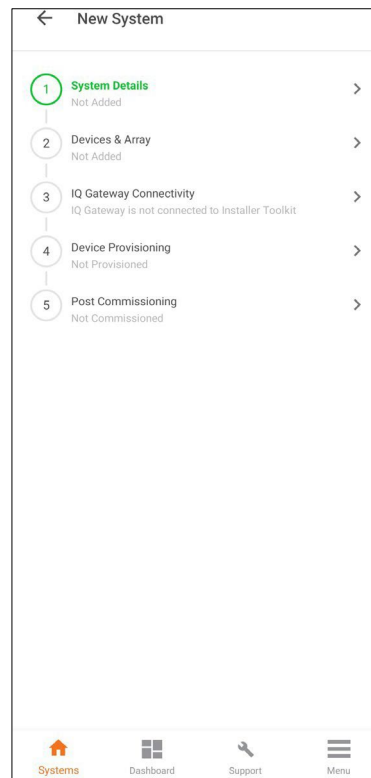
1. On the Enphase Installer App (ITK) homepage, select **Systems**.



2. Log in to the app and click the + button to create a site.

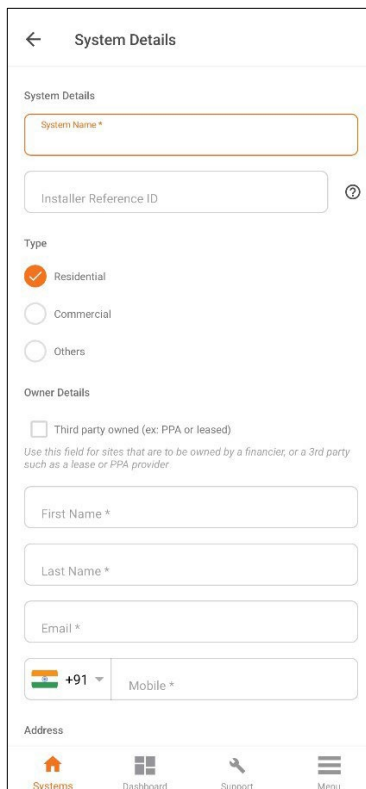
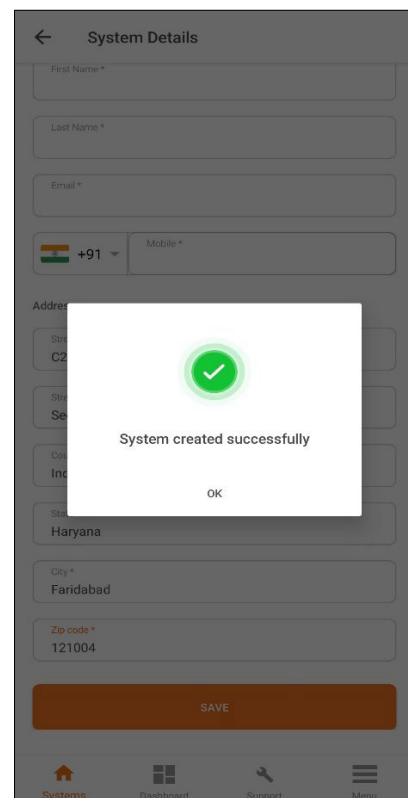


3. In the **New System** homepage, click **System Details** to start the wizard.



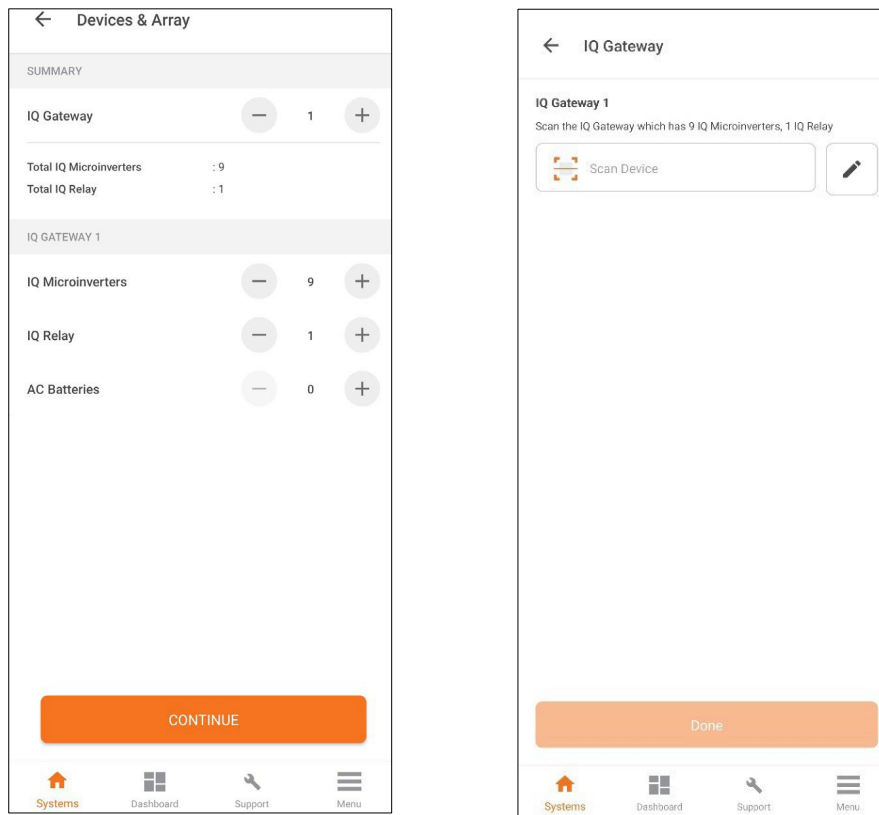
Step 1: System Details

Fill in the site information and customer details.

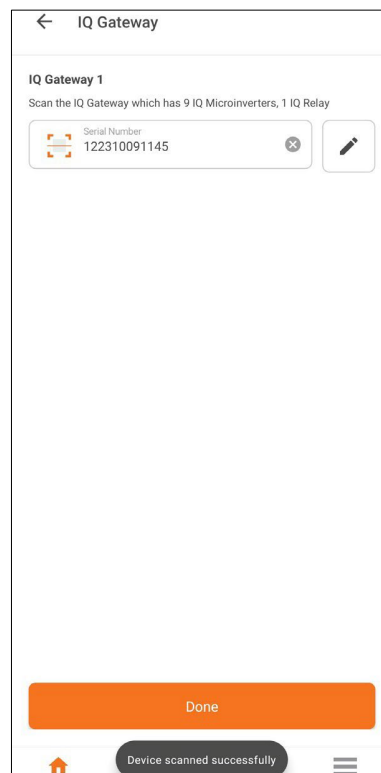



Step 2: Devices & Array

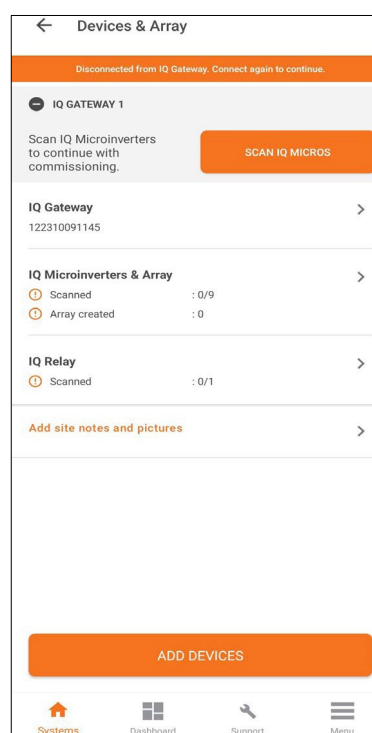
2.1 Click **Devices & Array** and add the devices, then follow the prompts to scan **IQ Gateway**, as shown in the following screen.



2.2 Scan all the IQ Gateways by scanning the barcode located on their flap.

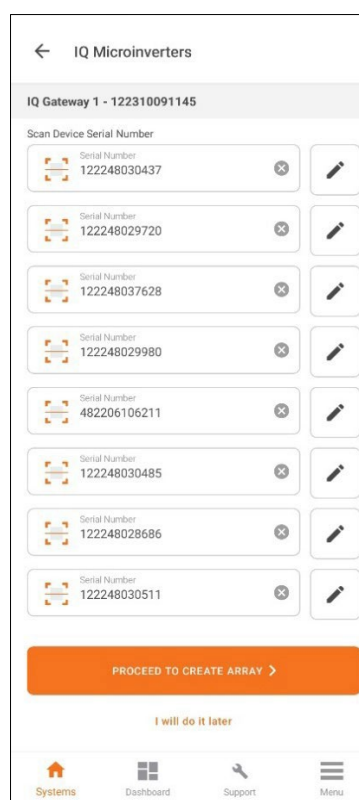
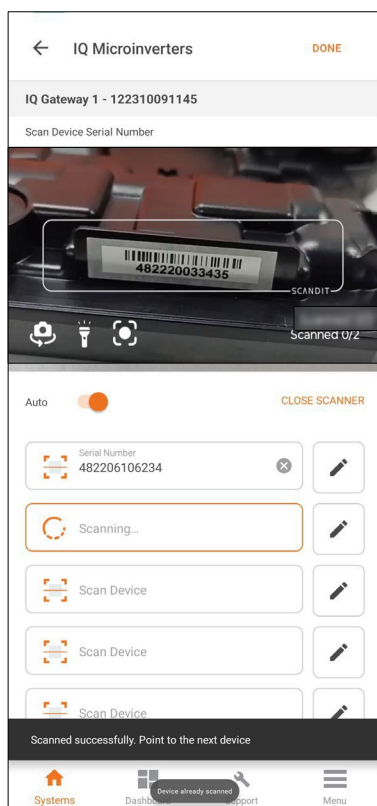


2.3 Select the grid profile based on the region.

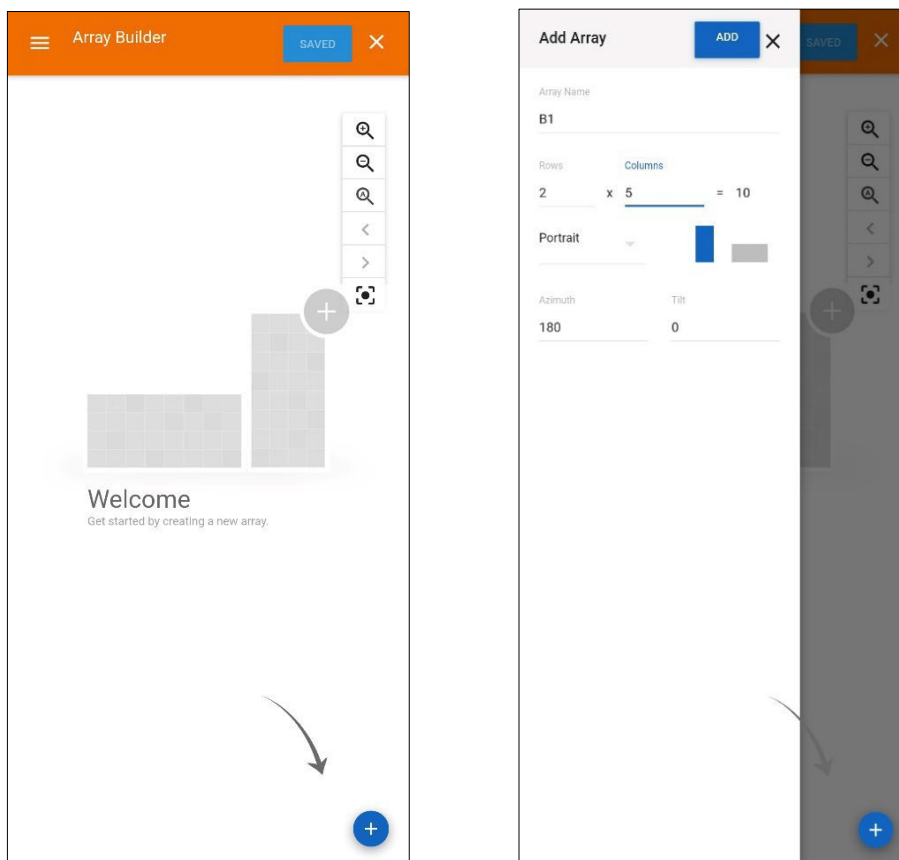


NOTE: Ensure that **NERSA 3.0:2019/NRS 097-2-1:2017 ED2.1 zero injection enabled (1.2.6)** is selected.

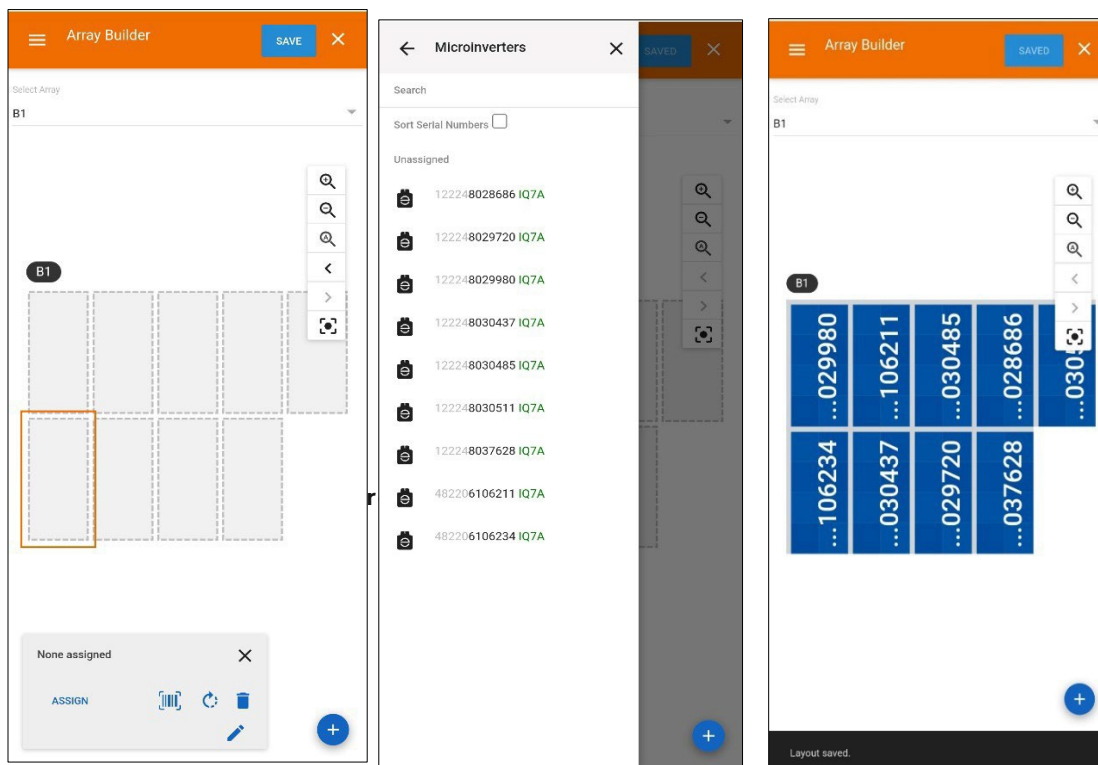
2.4 Scan all IQ8 Series microinverters by scanning the barcode located on them.



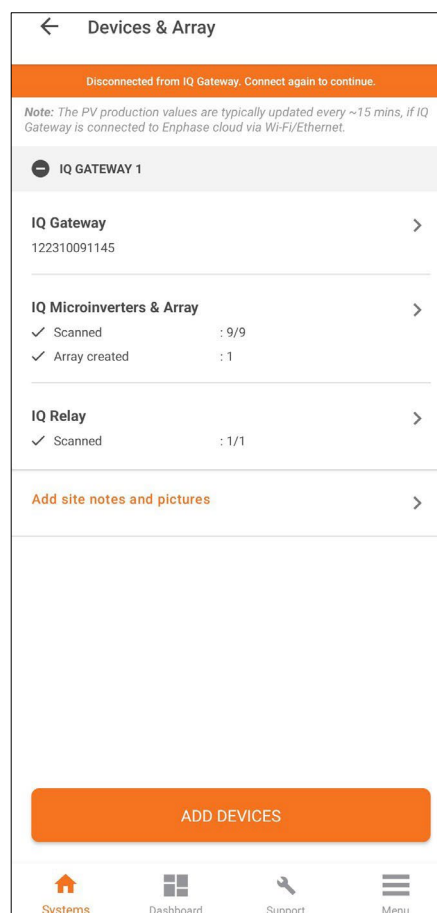
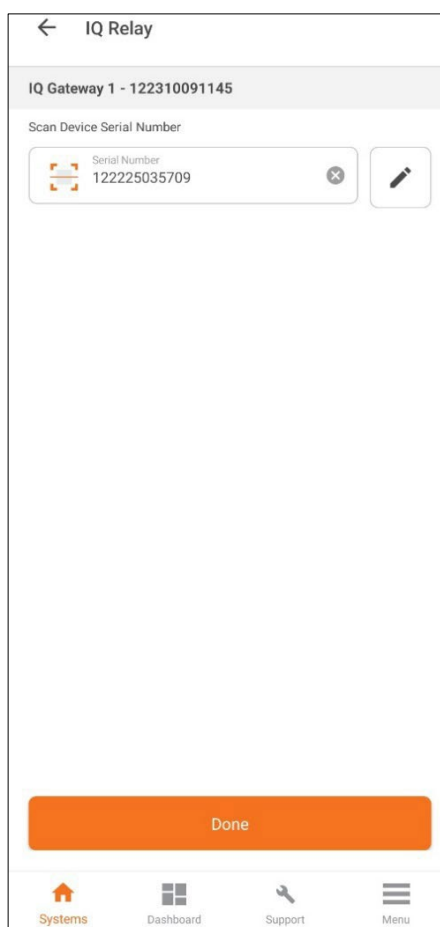
2.5 Create an array as per the rows and columns on site.



2.6 Select the module, click **ASSIGN**, and select the microinverter from the available scanned list. Repeat the step to assign all the microinverters' serial numbers.



2.7 Scan the IQ Relay.

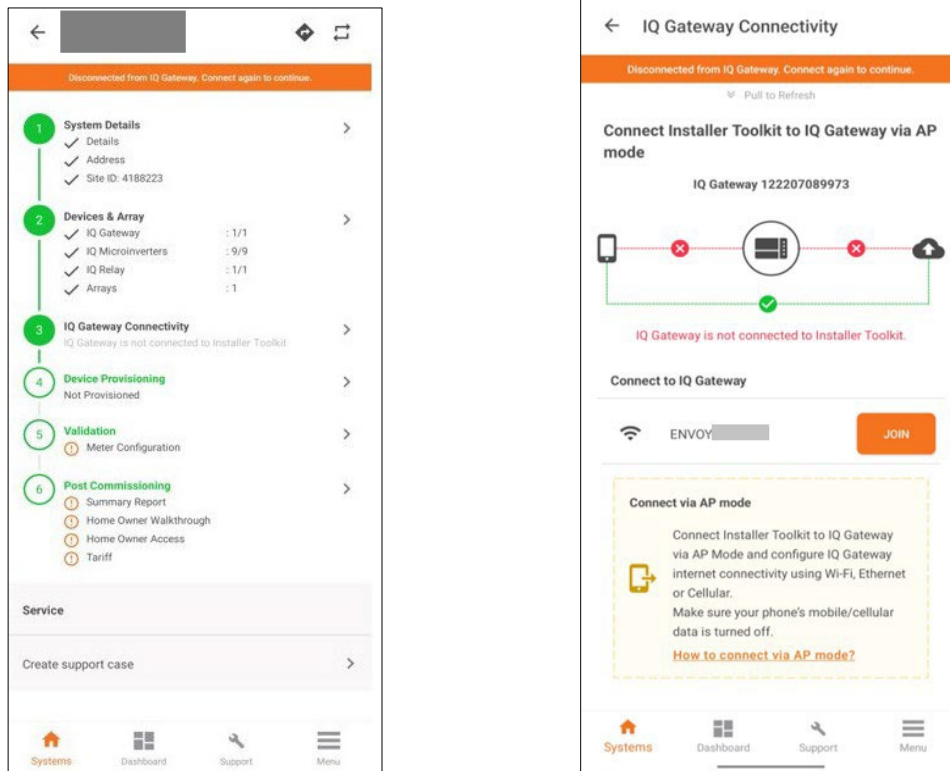


Step 3: IQ Gateway Connectivity

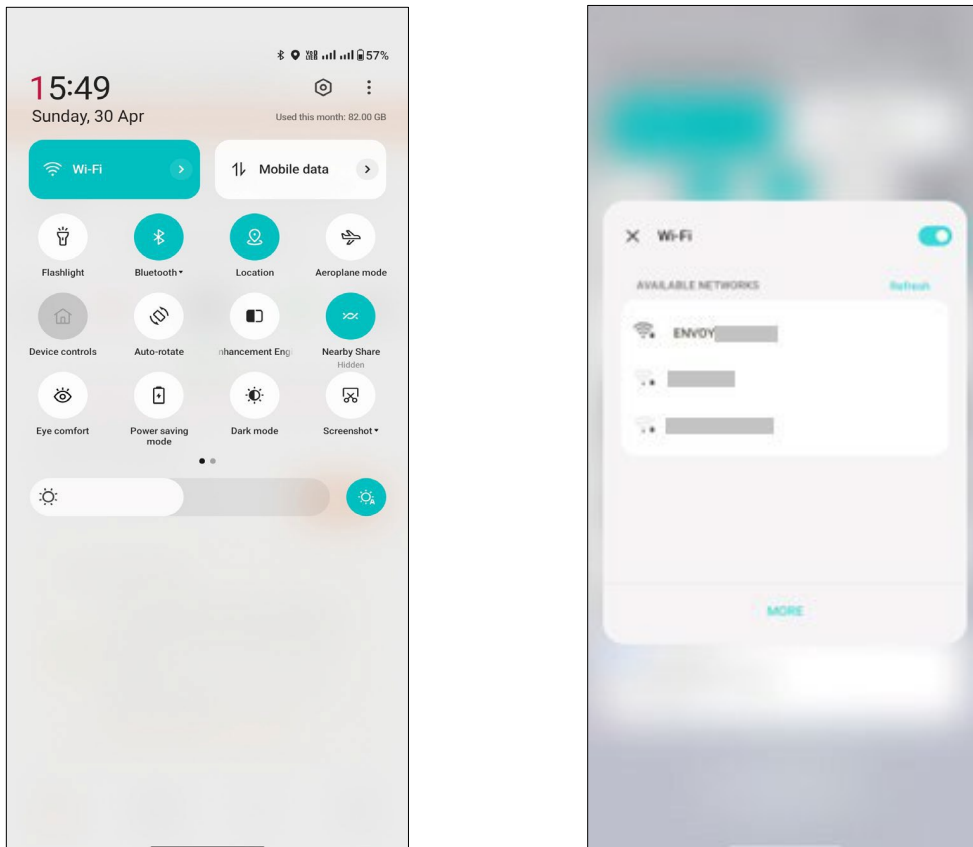
3.1. Turn ON IQ Gateway AP mode.



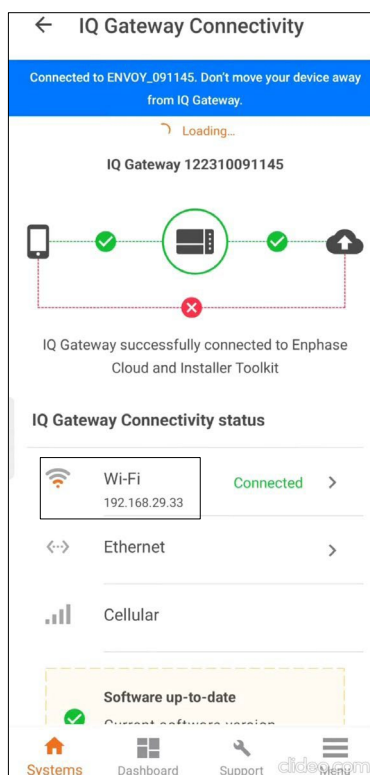
3.2. Activate Gateway Wi-Fi Access Point, then click **JOIN** to connect to the network.



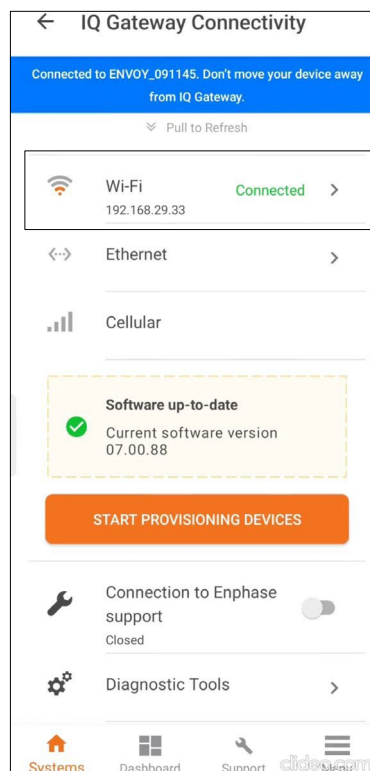
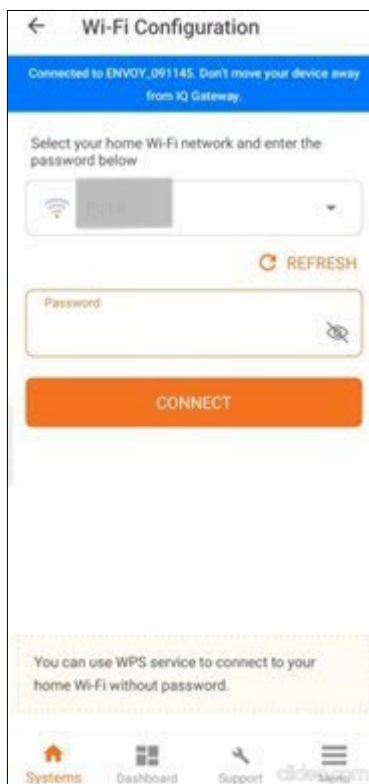
3.3. To connect the mobile device to the IQ Gateway, turn OFF mobile data and turn ON Wi-Fi. Click Gateway_XXXXXX Wi-Fi network in the available Wi-Fi networks.



- 3.4. Once connected, the status tab changes from orange to blue. Connect the IQ Gateway to the customer's Wi-Fi or Ethernet.

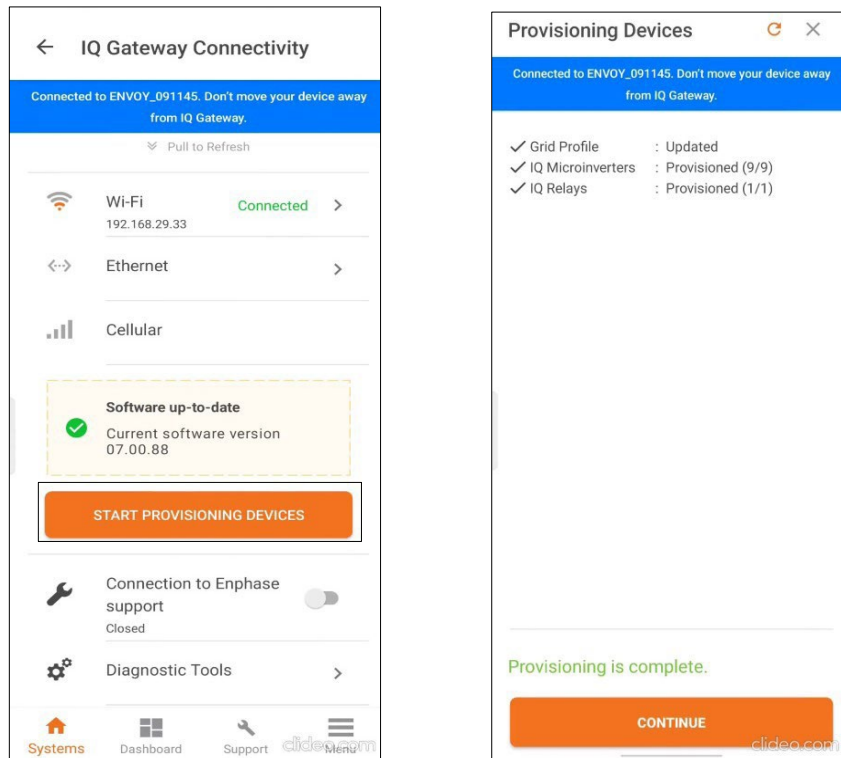


- 3.5. The customer's Wi-Fi login credentials are required to connect to the IQ Gateway via Wi-Fi.



Step 4: Device Provisioning

- 4.1. The Enphase Installer App requests a software update if the software does not match the required version. Wait for the software update to finish.
- 4.2. Click **START PROVISIONING DEVICES**.



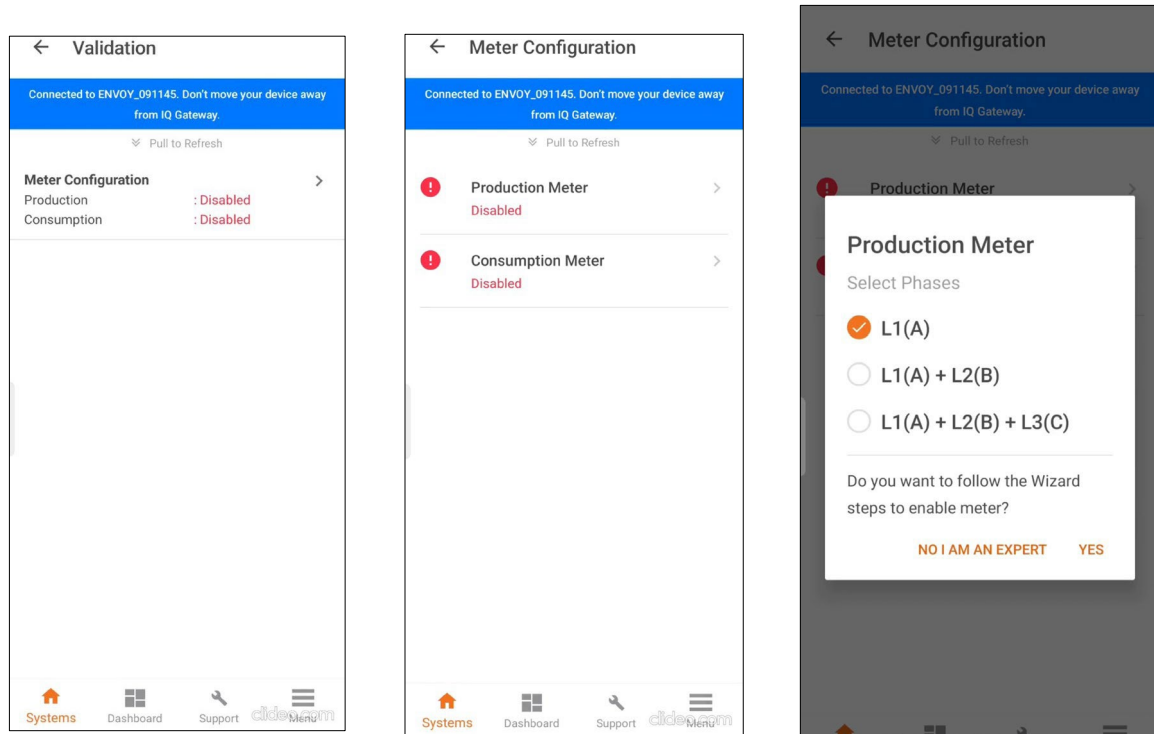
- 4.3. Once provisioned, the status tab changes to green (step 4).



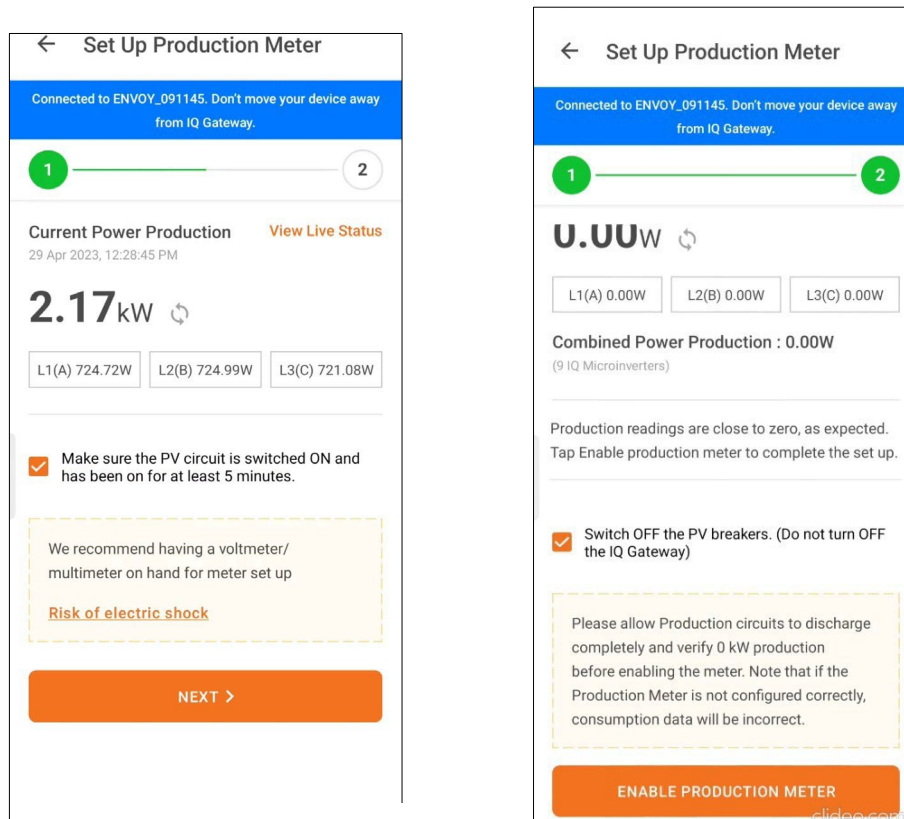
NOTE: After provisioning is complete, the IQ8 Series microinverters take around 20-30 minutes to start production.

Step 5: System Validation

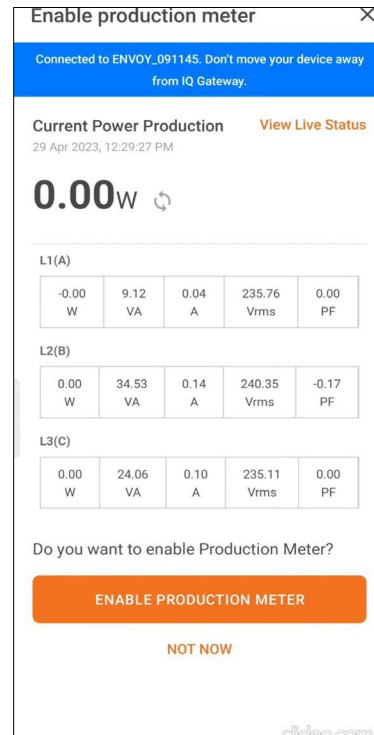
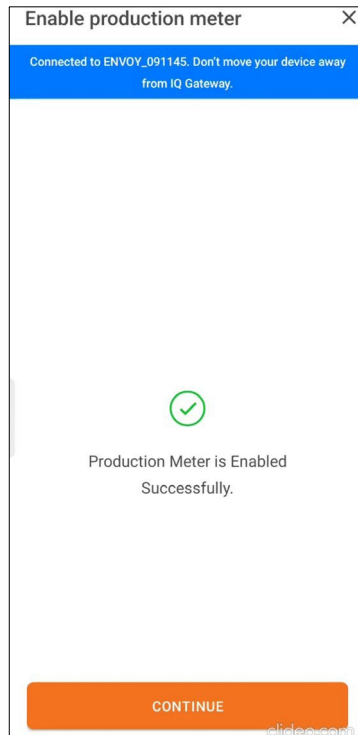
5.1. Configuring Production meter/CTs.



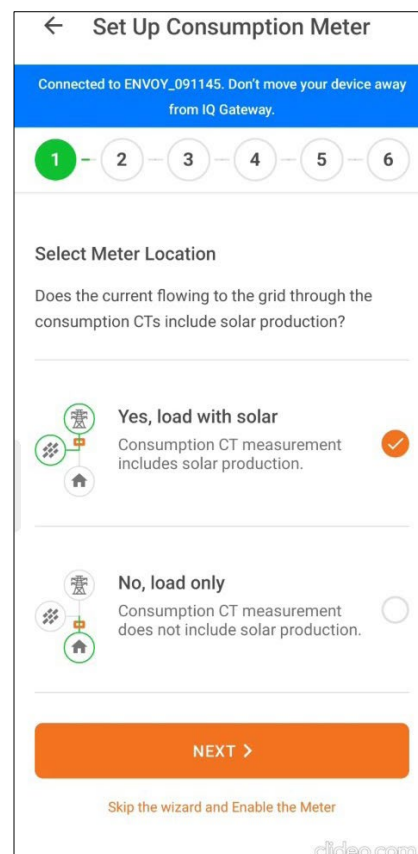
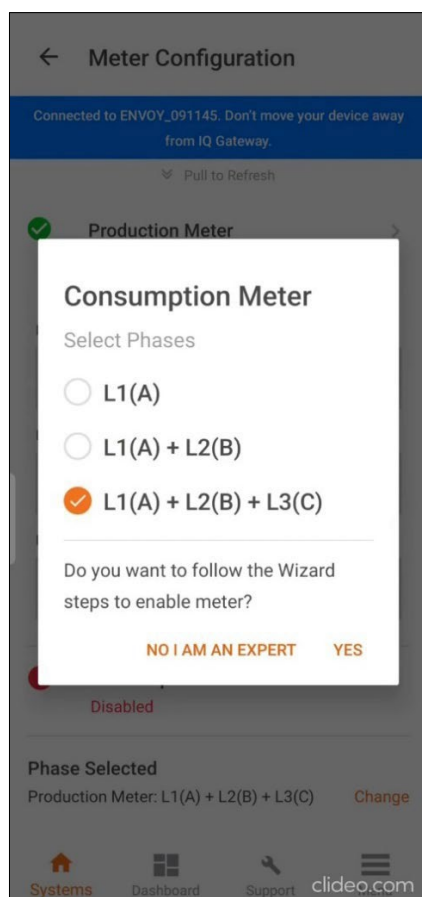
5.2. Click **Production Meter** and follow the wizard instructions to set up the production meter.



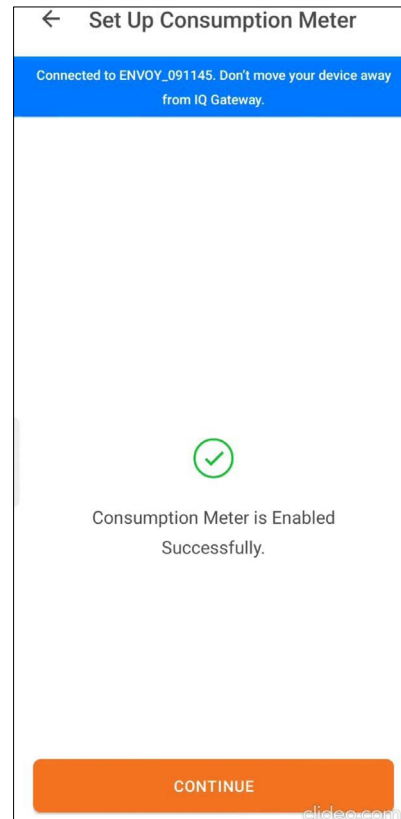
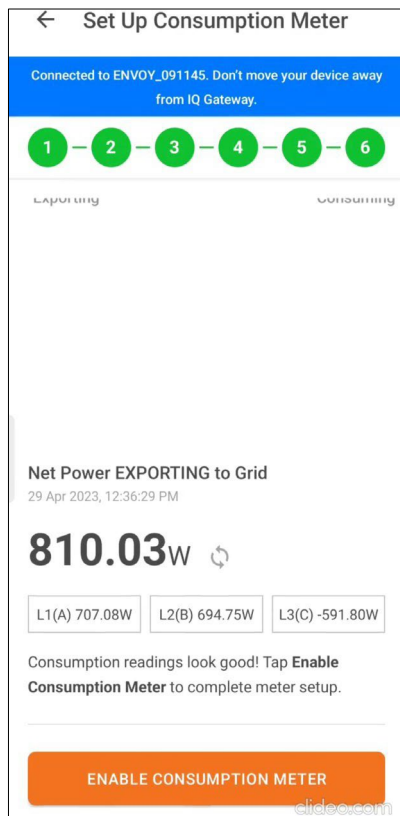
5.3. For an expert mode, click **ENABLE PRODUCTION METER**.



5.4. Configuring Consumption meter/CTs. Click **Consumption Meter** and follow the wizard instructions to set up the consumption meter.

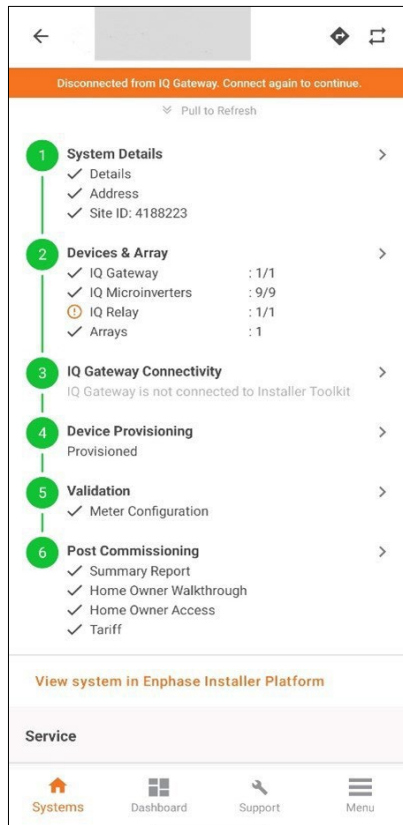


5.5. Select the meter location. Typically, it is **Load with Solar**.

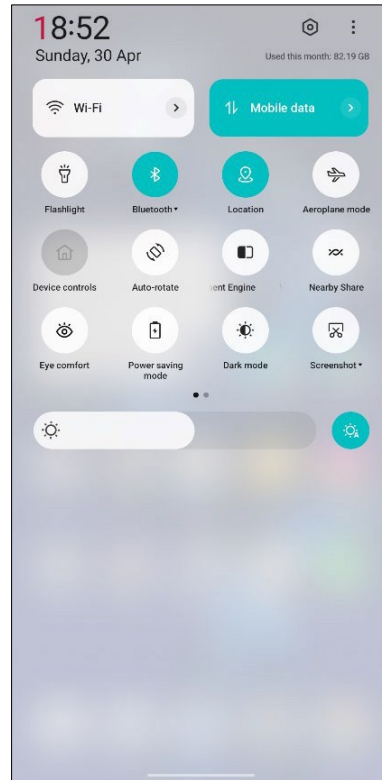
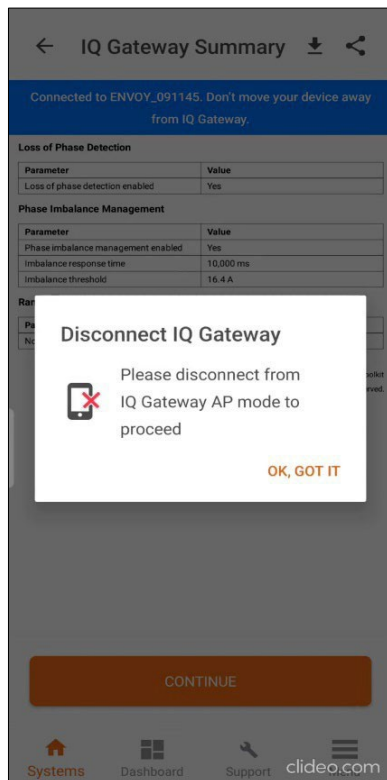


Step 6: Post Commissioning

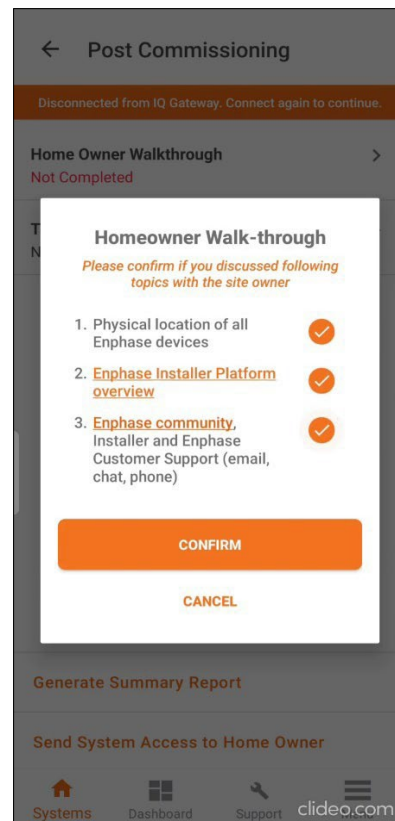
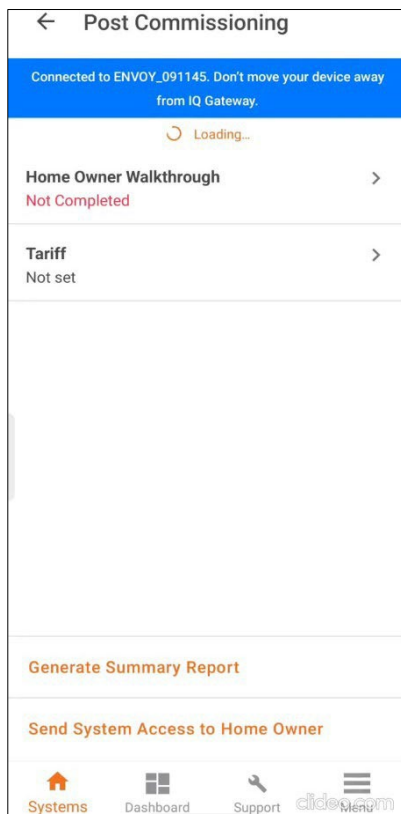
6.1. Click **CONTINUE** once the provisioning and validation are complete.



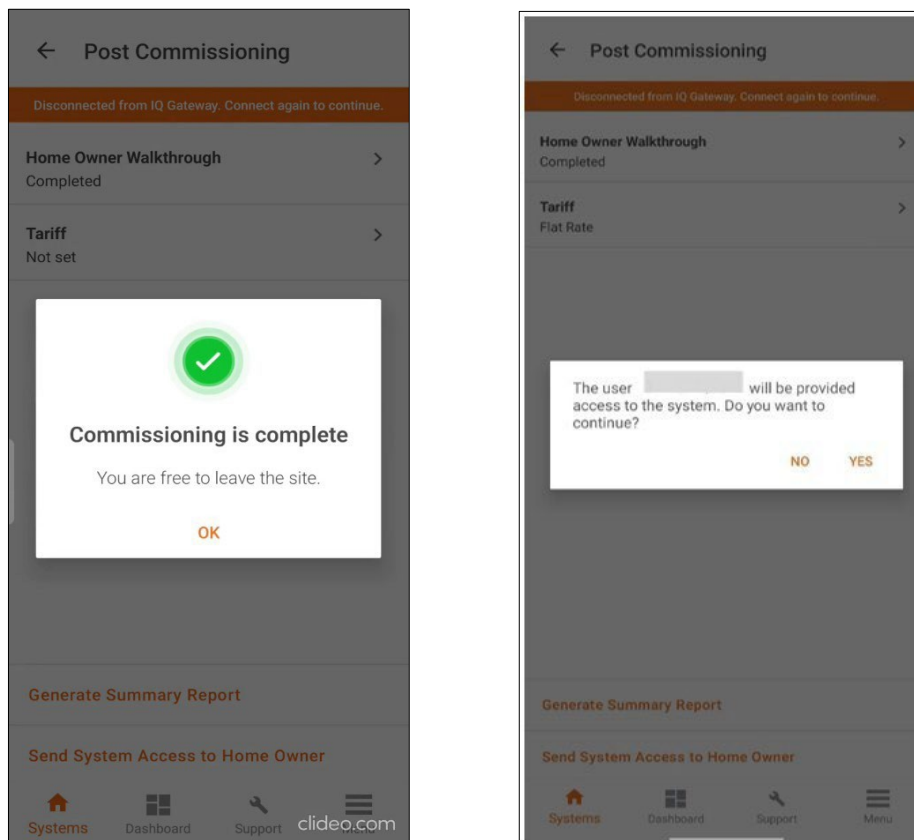
6.2. Disconnect IQ Gateway AP mode and turn ON your cellular or connect your mobile to a local Wi-Fi.



6.3. Select **Post Commissioning > Home Owner Walkthrough**. Confirm home owner walk-through and click **CONFIRM**.



6.4. Provide access to the homeowner and then follow the prompts.



Revision history

Revision	Date	Description
TEB-00080-1.0	September 2023	Initial release