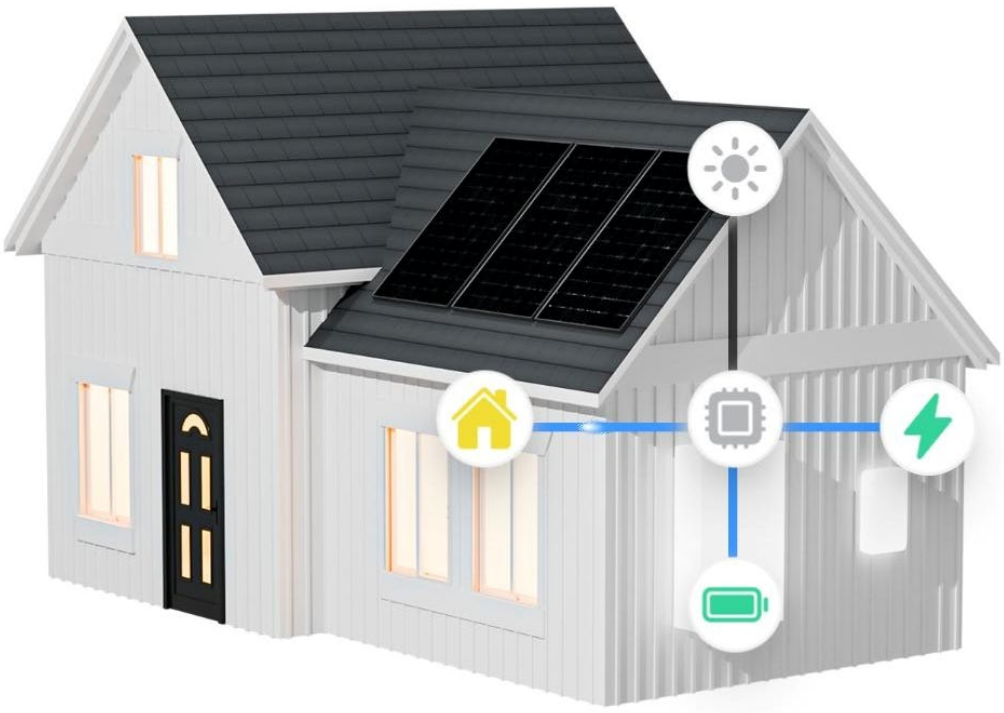
EG4® CONNECT APP

OVERVIEW & CONFIGURATION GUIDE



VERSION 1.0 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.

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1. SYSTEM OVERVIEW

The EG4® Connect app allows users to view real-time system information for supported EG4 inverters, batteries, and communication dongles. The app is designed to be simple, clean, and easy to use for everyday monitoring, while still providing expanded tools for installers through advanced features. The images and descriptions in this guide will provide an overview of the EG4 Connect app, the commissioning process, and included configurable settings. The EG4 Connect app can be downloaded and installed on Android and iOS devices from their respective app stores using the QR code below:

Connect App for Android

Connect App for iOS

Once installed, the app allows users to view real-time and historical system data, configure system settings/working modes, and easily commission systems.

2. USER TYPE

The EG4 Connect app focuses on clean navigation, reduced complexity, and improved reliability. Switch user type in Profile in the Account Menu options. The app supports two user types:

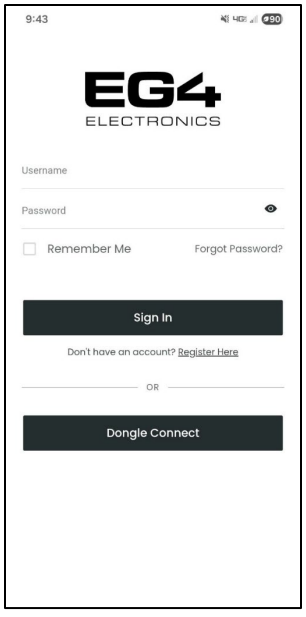
- **Simple** - A simplified interface intended for everyday monitoring and basic operating mode configuration.
- **Advanced** - Expanded configuration and setting options for advanced users and installers.

NOTE:

Available features and settings depend on user type, account type, inverter model and system type (Hybrid or Off-Grid).

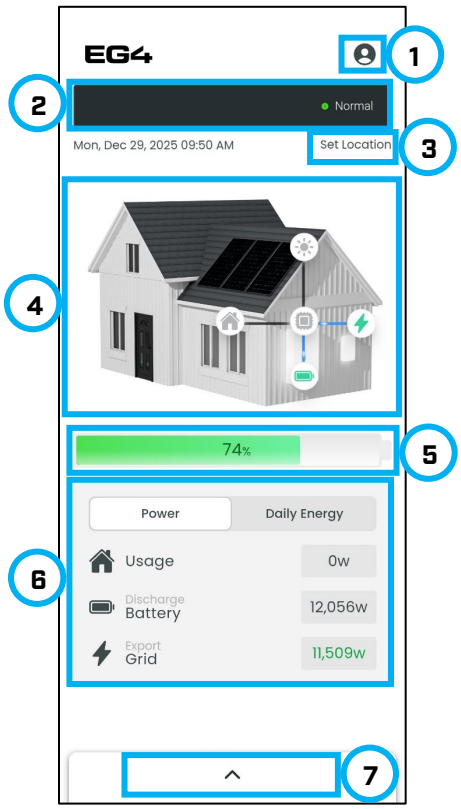
3. LOGIN

Sign In using an existing EG4® Monitor Center account or select **Create New Account** and follow the steps shown in section 7 to register a new user account. Selecting “Remember Me” stores login credentials for future sessions. Credentials are stored securely, and the system will automatically log in even if the session expires.



4. HOME SCREEN

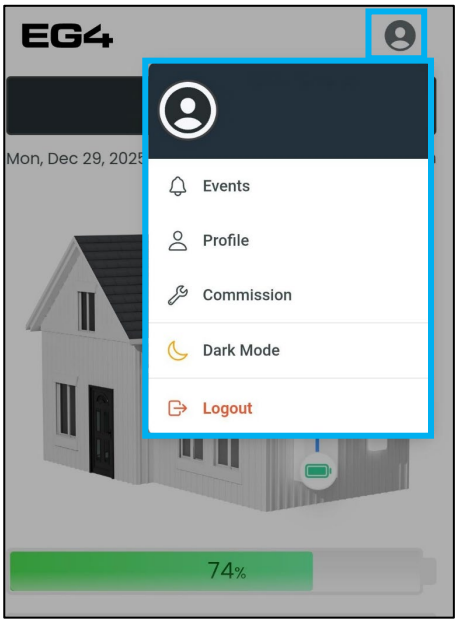
After signing in, the Home screen is displayed. The Home screen provides at-a-glance station status and real-time system behavior. The numbered callout on the image corresponds to the subsection containing the information for the menu item.



4.1 ACCOUNT MENU

The account menu gives the user access to event history data, account information, commissioning process, and app appearance.

1. **Events** - Shows a log of recent system reported messages, including errors, warnings, and status notifications. Each event includes information on the type of event, time the event occurred, and the time the event was cleared.
2. **Profile** - Displays user account information and allows editing of profile details.
3. **Commission** - Navigates the user to the Commissioning Menu, where users can register a new system, add dongles, link dongles to an account, perform firmware updates, and perform full station commissioning.
4. **Dark mode/Light Mode** - Changes the appearance of the app interface.
5. **Logout** - Signs the user out and returns to the Login screen.

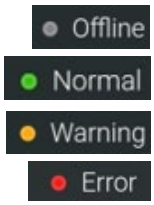


4.2 STATION AND OPERATING STATUS

This area shows the selected station and device serial number. Selecting this area opens a station/device list where the user can select the station/device or search for a specific device serial number.

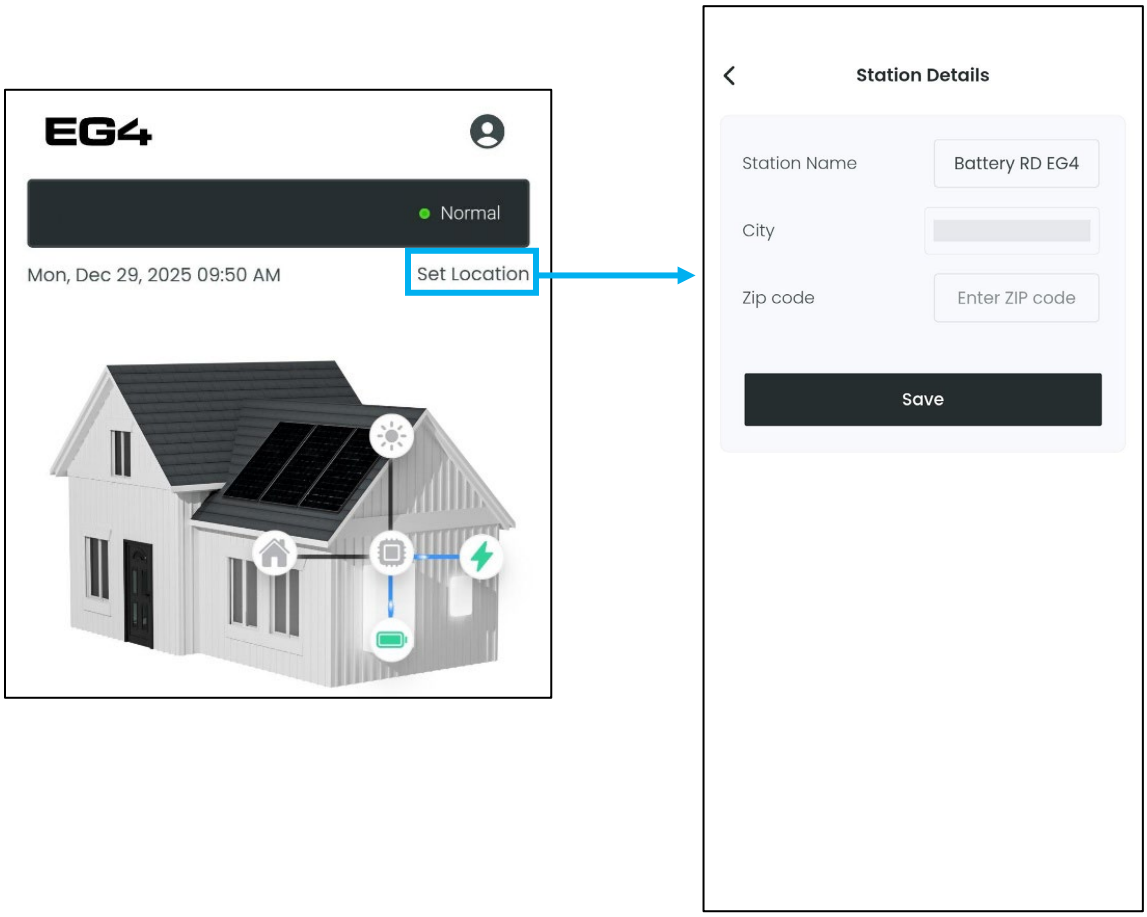
The operating status of the inverter is displayed as:

1. **Grey color:** Inverter is offline and not producing or consuming power.
2. **Green color:** Inverter is functioning normally.
3. **Orange color:** Inverter has active warnings or non-critical events.
4. **Red color:** Inverter has active faults or errors.



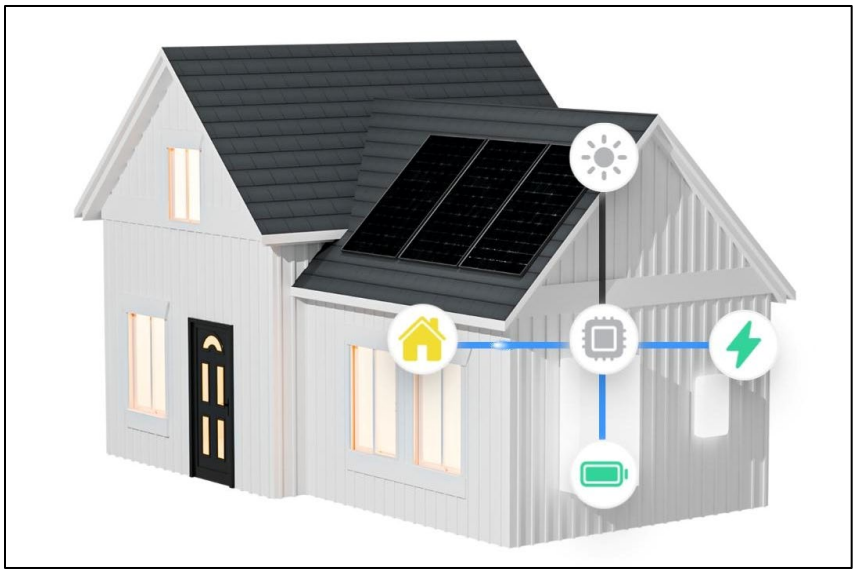
4.3 SET LOCATION

Selecting the area will navigate the user to the **Station Details** page. Enter the station location using the zip code to display localized weather.



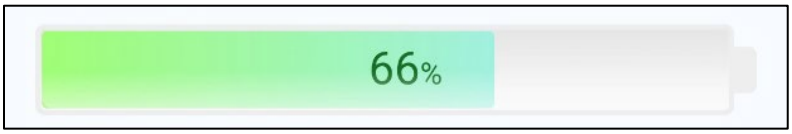
4.4 SYSTEM ENERGY FLOW DIAGRAM

The central diagram provides a live visualization of power flow through the system. Icons for the solar array, home loads, battery, and grid use animated indicators to show real-time direction of energy flow. Icons may vary depending on connected equipment. When warning or error events occur, selectable icons appear on the diagram, and selecting an icon displays the event details. This display gives users a quick understanding of where power is coming from and how it is being used.



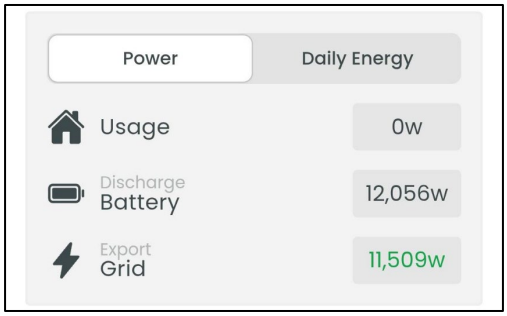
4.5 BATTERY STATE OF CHARGE (SOC%) INDICATOR

This dynamic bar graph displays the battery bank state of charge (SOC%) and updates continuously based on real-time battery status.



4.6 SYSTEM INFORMATION

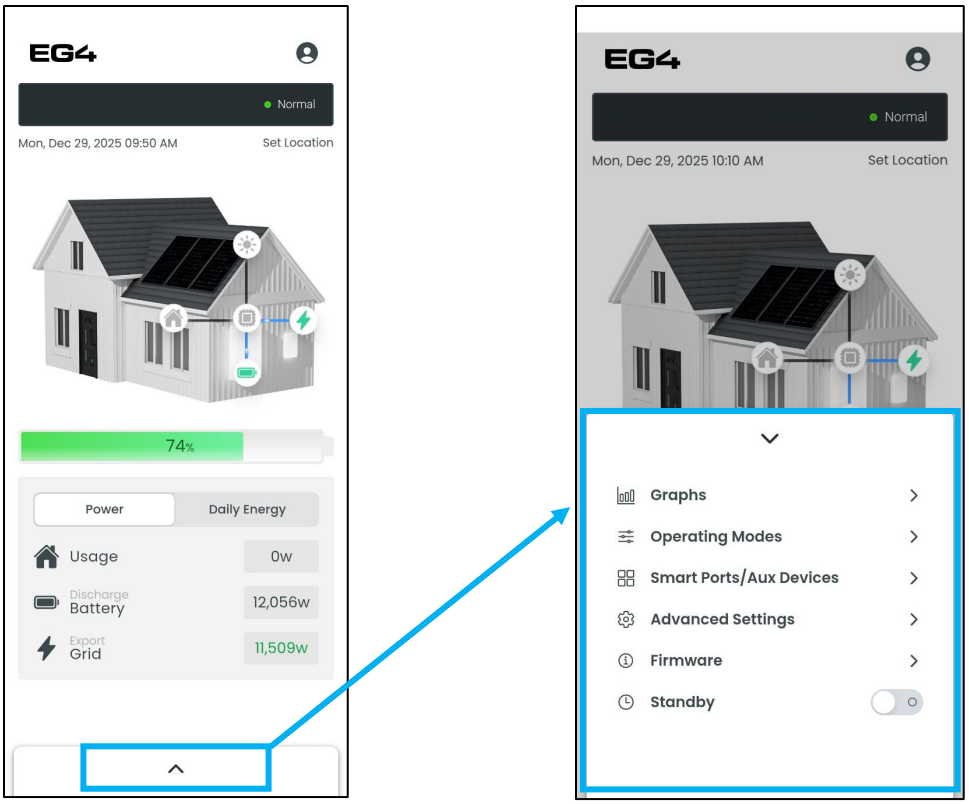
This section displays current real-time power values in watts (W) and total daily energy totals in kilowatt-hours (kWh) for major components within the system:



- **Solar** - The current amount of PV energy generated by the solar array.
- **Usage** - The system's total energy consumption to power loads.
- **Battery** - The amount of energy being charged or discharged from the battery bank.
- **Grid** - Shows how much energy is being imported or exported to the grid.

4.7 NAVIGATION BAR

The Navigation Bar provides quick access to primary app features. The bar can be pressed or pulled upward to open the Navigation Menu.



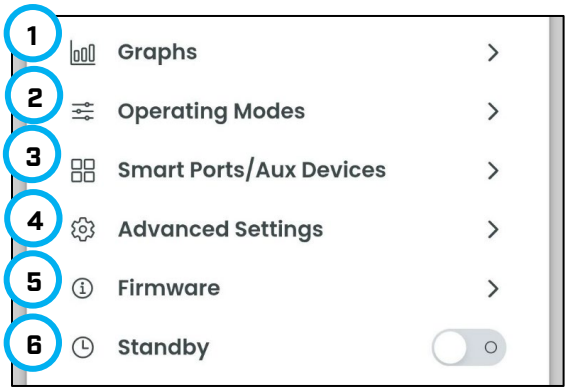
Navigation menu options include:

- **Graphs**
- **Operating Mode / Advanced Operating Modes**
- **Smart Ports/Aux Devices**
- **Advanced Settings**
- **Firmware**
- **Standby**

For more information on each selection and included settings proceed to the next section.

5. NAVIGATION MENU

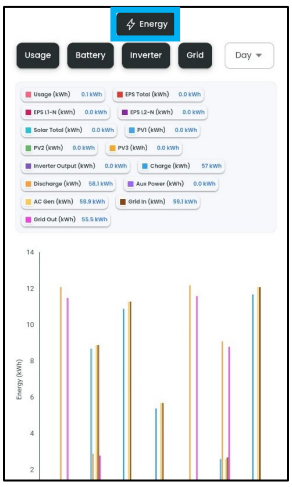
The numbered callout on the image corresponds to the subsection containing the information for the menu item.



5.1 GRAPHS

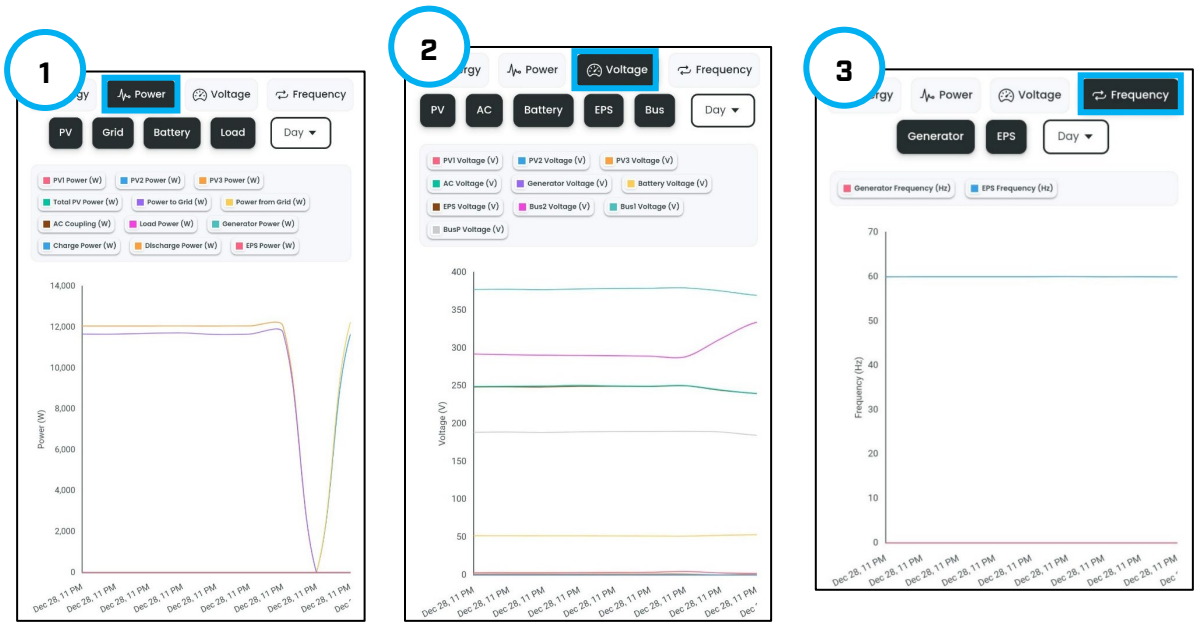
When selecting the Graphs section in the Navigation Menu, depending on user type the user is presented with graph categories that can be shown in ranges by day, week, month, year, or a custom range of dates. Select the monitoring tabs to show or hide values for the specific tab. Available graph types depend on user type and system configuration.

SIMPLE USER TYPE



1. **Energy** - Displays energy values in kilowatt hours (kWh) for usage, battery, inverter, and grid.

ADVANCED USER TYPE



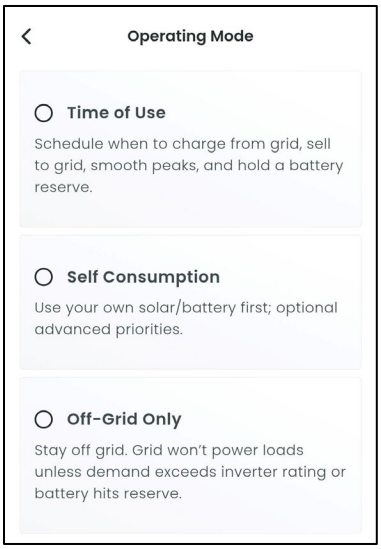
1. **Power** - Displays values in watts (W) for PV, grid, battery, and load.
2. **Voltage** - Displays values in volts (V) for PV, AC, battery, EPS, and bus.
3. **Frequency** - Displays values in hertz (Hz) for generator and EPS.

5.2 OPERATING MODES & ADVANCED OPERATING MODES

Operating Modes define how the system prioritizes solar, battery, grid, and load interaction. Available modes depend on the system configuration (hybrid or off-grid) and user type (Simple or Advanced). To configure operating mode settings, select the operating mode or arrow icon next to the respective operating mode.

SIMPLE USER TYPE OPERATING MODES

All operating modes within this user type utilize a Reserve SOC% setting. This setting defines the minimum battery SOC% the system will maintain for backup power. Once the Reserve SOC% is reached, battery discharging stops and loads are powered by the grid (if available).

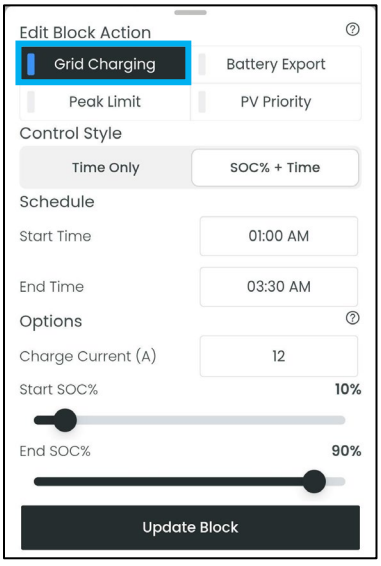


Time of Use Mode: Operates based on 24-hour scheduling allowing users to define when the inverter charges the battery using the grid, discharges the battery to the grid, prioritizes solar charging, and enforces Peak Limit.

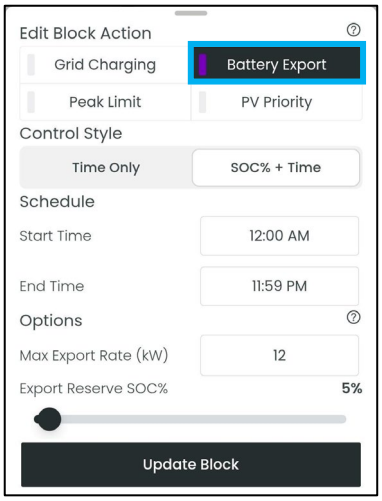
NOTE:
Due to inverter limitations, **Time Only** and **SOC% + Time** blocks must not be mixed.

Configurable Time of Use block actions and included settings for hybrid inverters:

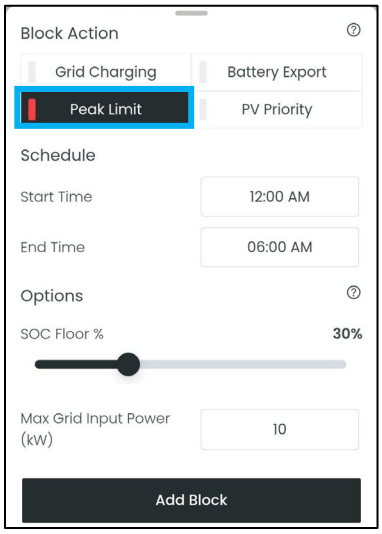
1. **Grid Charging:** Charge the battery using grid power during configured periods. Configure up to three block actions. Control based on Time Only or SOC% and Time.
   - **Start/End Time:** Set the start/end time that grid charging is active.
   - **Charge Current (A):** Set the maximum battery charging current drawn from the grid.
   - **Start/End SOC%:** Set the start/end SOC% grid charging range. Charging starts when battery SOC% reaches the start threshold and stops when the end SOC% is reached.



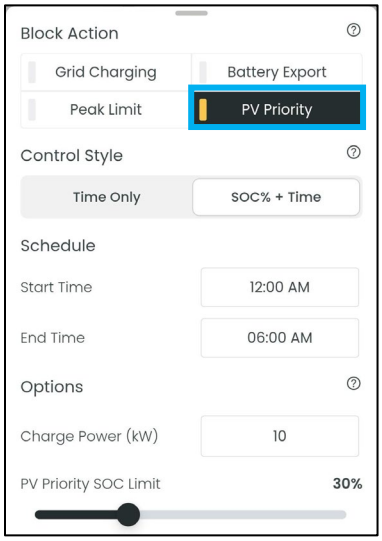
2. **Battery Export:** Send excess power to the grid. Configure up to three block actions. Control based on Time Only or SOC% and Time.
    - **Start/End Time:** Set the start/end time that battery export is active.
    - **Max Export Rate (kW):** Set the maximum power that can be exported to the grid.
    - **Export Reserve SOC%:** Sets the minimum battery SOC% to be maintained. Battery export stops once this reserve SOC% limit is reached.



3. **Peak Limit:** Limits the maximum amount of power imported from the grid during peak demand periods. Configure up to three block actions. Control based on Time Only or SOC% and Time.
    - **Start/End Time:** Set the start/end time during which peak limit is enforced.
    - **SOC Floor %:** Set the minimum battery SOC% required for peak limiting to function. When SOC% falls below this level, peak limiting is disabled.
    - **Max Grid Input Power (kW):** Set the maximum allowable grid import power.

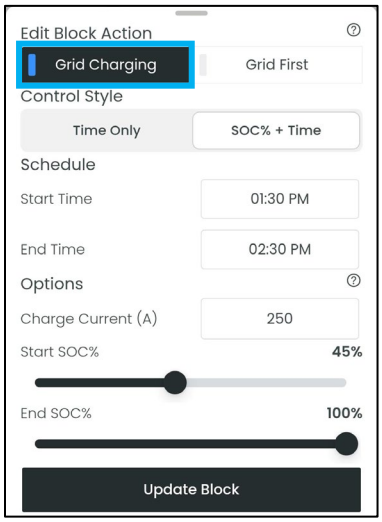


4. **PV Priority:** Prioritizes solar power to maintain the battery at or above the reserve level for outages and protection. Configure up to two block actions. Control based on Time Only.
    - **Start/End Time:** Set the start/end time during which PV Priority is active.
    - **Charge Power (kW):** Set the maximum power used to charge the battery from solar.
    - **PV Priority SOC Limit:** Set the battery SOC% target that PV charging will maintain or reach during the scheduled PV Priority time.

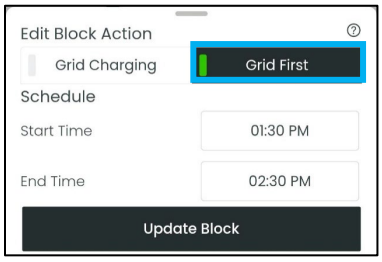


Configurable Time of Use block actions and included settings for Off-grid inverters:

1. **Grid Charging:** Charge the battery using grid power. Configure up to three block actions. Control based on Time Only or SOC% and Time.
   - **Start/End Time:** Set the start/end time that Grid Charging is active.
   - **Charge Current (A):** Set the maximum battery charging current drawn from the grid.
   - **Start/End SOC%:** Set the start/end SOC% grid charging range. Charging starts when battery SOC% reaches the start threshold and stops when the end SOC% is reached.



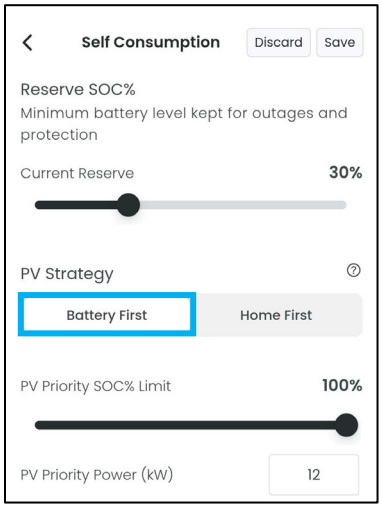
2. **Grid First:** Prioritize powering loads with grid power during selected time periods. Configure up to three block actions.
   - **Start/End Time**: Set the start/end time during which grid power is prioritized over battery discharge.



Self-Consumption Mode - Prioritizes on-site energy usage by directing generated PV energy to power loads and charge the battery before relying on the grid. Self-Consumption is the default operating mode.

Configurable Self-Consumption PV Strategies and included settings:

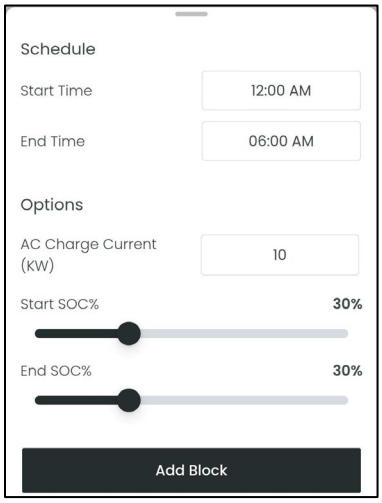
1. **Home First:** Prioritizes supplying load with available solar power first, followed by battery charging. Grid power is used only if solar and battery are insufficient.
2. **Battery First:** Prioritizes charging the battery with available solar power before supplying power to loads.
   - **PV Priority SOC% Limit:** Set the battery SOC% that must be reached before solar power is redirected to loads.
   - **PV Priority Power (kW):** Set the maximum usable solar power for battery charging during Battery First operation.



Off-Grid Only Mode (Hybrid systems only) – Off-grid Only Mode disables grid interaction and export functions. The system relies on available solar and battery energy to power loads. If demand exceeds available solar and battery energy, the inverter switches to grid power (if available). Control based on Time Only or SOC% and Time.

Configurable Off-Grid settings include:

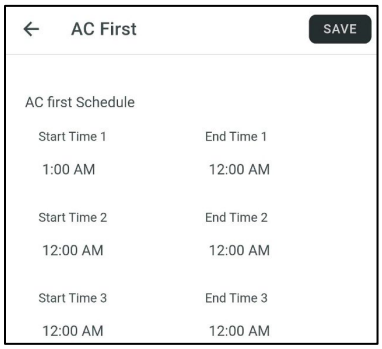
- **Start/End Time:** Set the start/end time during which Off-Grid Only mode is active.
- **AC Charge Current (kW):** Set the maximum charging power drawn from the grid when AC charging is enabled.
- **Start/Stop SOC%:** Set the start/stop battery SOC% thresholds for starting and stopping AC charging.



ADVANCED USER TYPE OPERATING MODES

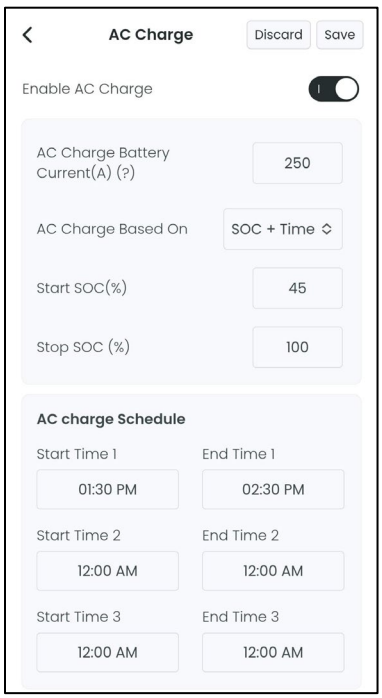
AC First: Prioritizes utilizing AC power to power loads and charge batteries. (Off-grid inverter only)

- **Start Time/End Time 1/2/3:** Set up to three different start and stop times for the AC First working mode.



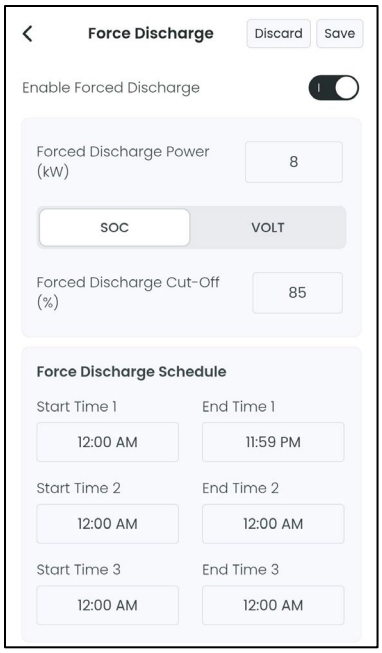
AC Charge: Allows the grid to both charge batteries and power loads.

- **Enable AC Charge:** Allows the inverter to charge the battery from the grid during user defined time periods.
- **AC Charge Power (kW):** Set the maximum power drawn from the grid to charge batteries.
- **AC Charge Battery Current (A):** Set the maximum DC charging current applied to the battery when charging from AC grid power. (Off-grid inverter only)
- **AC Charge Based On:** Configure how the system will charge batteries from the grid by setting custom voltage points, SOC of batteries, or by time.
- **Start SOC (%)/Volt (V):** Set the starting point of AC Charging when using SOC/voltage setpoints for batteries.
- **Stop SOC (%)/Volt (V):** Set the stopping point of AC Charging when using SOC/voltage setpoints for batteries.
- **Start Time/End Time 1/2/3:** Set up to three different start and end times for AC Charge mode depending on SOC/voltage as configured above.



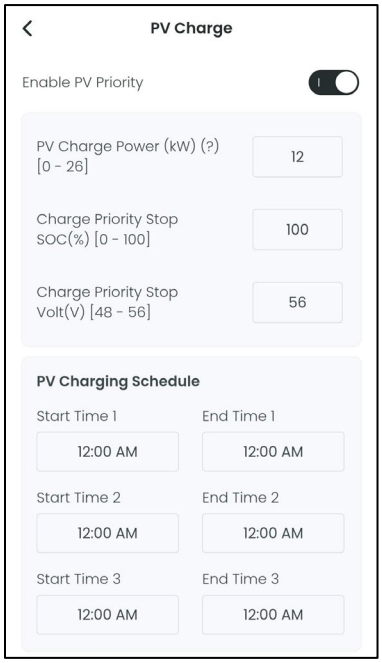
Force Discharge: Forced Discharge prioritizes battery power for powering loads and grid sell back.

- **Forced Discharge Power (kW):** Set the maximum power limit of battery discharge.
- **Forced Discharge Cut-Off (%)/(V):** Stop the forced discharge upon reaching the set SOC/voltage cut-off value.
- **Start Time/End Time 1/2/3:** Set up to three different start and stop times for the Force Discharge working mode.



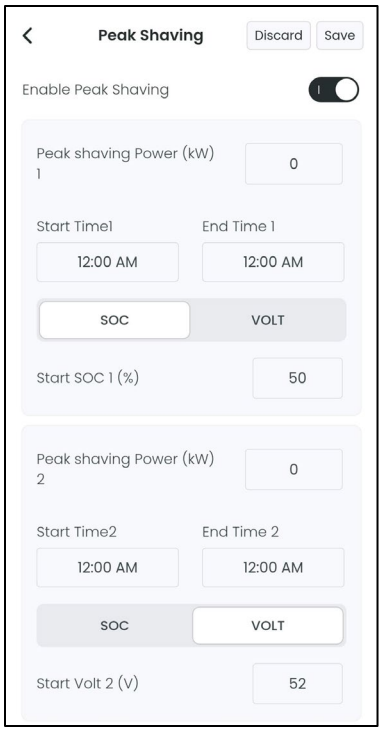
PV Charge: Prioritizes PV power to charge batteries.

- **PV Charge Power (kW):** Set the maximum amount of power to charge the batteries from solar.
- **Charge Priority Stop SOC(%)/Volt(V):** Set the stop point for PV Charge according to SOC or voltage.
- **Start Time/End Time 1/2/3:** Set up to three different start and stop times for the PV Charge working mode.



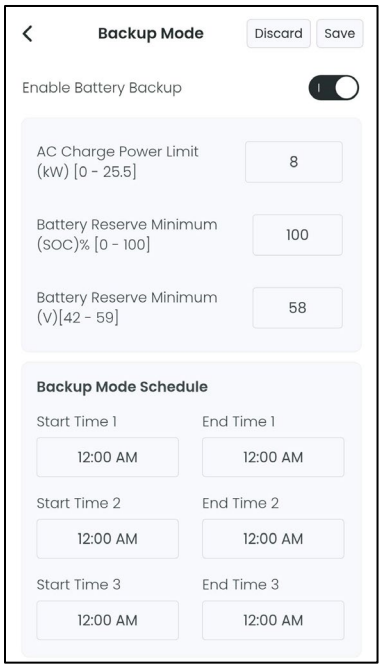
Peak Shaving: The user can define a timeframe of when the system will compensate for the power pulled from the grid for loads during peak demand times to avoid higher electricity rates.

- **Peak shaving Power (kW) 1/2:** Set the maximum amount of power that will be drawn from the grid.
- **Start SOC 1/2 (%):** Set the starting point of peak-shaving when using SOC% setpoints for batteries.
- **Start Volt 1/2 (V):** Set the starting point of peak-shaving when using voltage setpoints for batteries.
- **Start/End Time 1/2:** Set the start/end time of peak-shaving depending on SOC/voltage as configured above.



Backup Mode: The system prioritizes battery backup/storage by ensuring the battery is only used as a last resort when PV and Grid power is not sufficient for powering loads.

- **AC Charge Power Limit (kW):** The maximum charging power form the grid.
- **Battery Reserve Minimum (SOC%):** Set the maximum SOC% for backup. This parameter is the same as Stop AC Charge SOC%.
- **Battery Reserve Minimum (V):** Set the maximum voltage for backup. This parameter is the same as Stop AC Charge Volt.
- **Start/End Times:** Set up to three different start and end times for the Backup working mode.



Self-Consumption: Prioritizes the energy stored/generated from the system to power loads. Self-Consumption mode will increase the usage rate of solar power generated and reduce energy bills significantly. The system will default to Self-Consumption mode.

5.3 SMART PORTS/AUX DEVICES

The Auxiliary Devices section allows the configuration of supported external devices such as Smart Loads, Existing PV Link, and a Generator. Select Add Device or an existing auxiliary device to configure. Available devices depend on inverter model and system configuration.

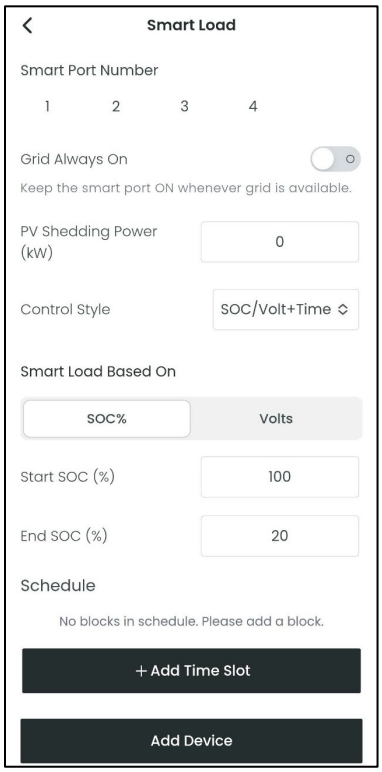
NOTE: GridBOSS Only Setting

- **Smart Port Number:** Select which smart port the auxiliary device is connected to.

SMART LOAD

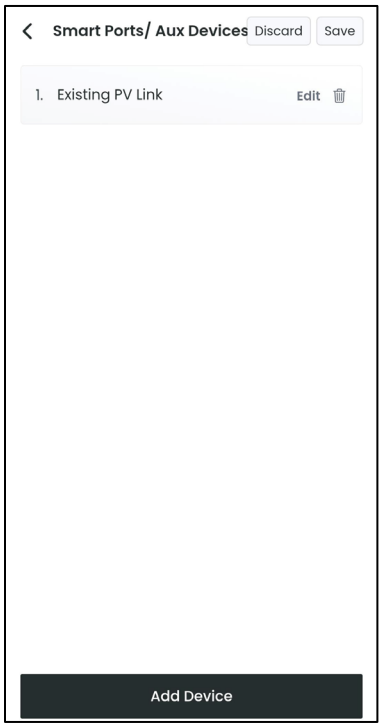
A Smart Load is a controllable, non-critical load that can automatically turn ON or OFF based on system configuration. The Smart Load feature is designed to optimize energy usage by consuming power only when sufficient solar or battery capacity is available. Smart Load configuration settings include:

- **Grid Always On:** When enabled, smart load will always function when grid power is on.
- **PV Power:** This is the minimum PV power limit to function with smart load output.
- **PV Shedding Power:** This is the minimum PV power limit to function with smart load output.
- **Control Style:** Configure how the system will control the Smart Load using SOC/Volt or SOC/Volt + Time.
- **Start SOC (%)/Voltage (V):** The high limit for battery to turn on smart load.
- **End SOC (%)/Voltage (V):** The low limit for battery to turn off smart load.
- **+Add Time Slot:** Set up to three different start and end times for the Smart Load to function.



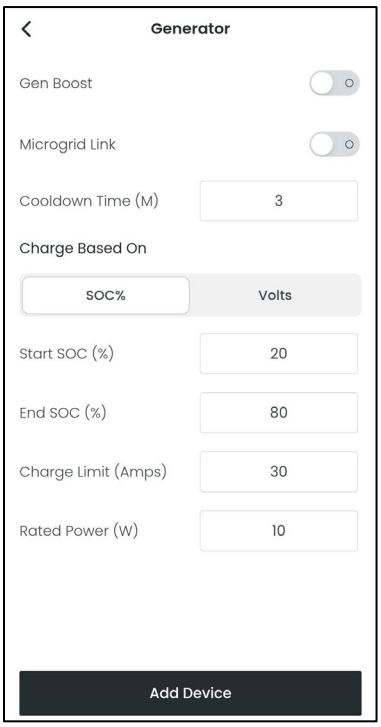
EXISTING PV LINK

The Existing PV Link allows the integration of an existing AC-coupled PV system into the current system. The inverter will utilize the AC solar energy by first powering loads, then charging the battery, and finally exporting excess energy to the grid.



GENERATOR

The Generator section allows users to add and configure a backup generator as a power source within the system. When enabled, the system provides operational parameters, and protection features for proper integration. Generator configuration settings include:



- **Gen Boost:** Enable to allow the inverter to pull supplemental power from both PV and battery whenever the generator power is not sufficient to power all loads.
- **Microgrid Link:** Only set this when generator is connected to the inverter's grid terminal. With this enabled, the inverter will use AC power to charge the battery and will not export any power.
- **Cooldown Time (M):** Set the cool-down time period for the generator before re-engaging the generator's output to the inverter.
- **Start SOC (%)/Voltage (V):** While using auto-start function of the generator, the "Start SOC (%)/Voltage (V)" can be limited to start up the generator automatically.
- **Stop SOC (%)/Voltage (V):** While using auto-start function of the generator, the "Stop SOC (%)/Voltage (V)" can be limited to turn off the generator automatically.
- **Charge Limit (Amps):** Battery charge current limitation from generator.
- **Rated Power (W):** The battery charge power can be limited based on the detected inverter's load consumption and generator input power limitations.

NOTE: GridBOSS Generator Settings

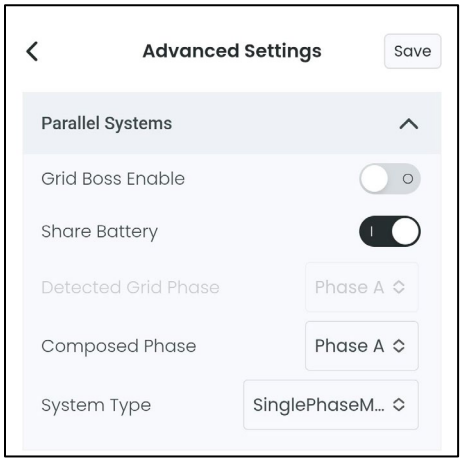
- **Generator Manual Start:** Enable to allow manual control of dry contact 1 for generator start/stop.
- **Warmup Time (S):** Sets the "Generator Warmup Time" in seconds. The generator relay will close only after the warmup time is complete. GridBOSS will restart the warmup period if the generator's voltage is detected as abnormal during the warm-up process.
- **Remote Turn Off Time (M):** Sets the generator "Remote Turn Off Time" in minutes. GridBOSS will automatically power off the generator according to the Remote Turn Off Time. This setting can also be used for a generator exercise function.

5.4 ADVANCED SETTINGS

The Settings menu provides access to detailed configuration parameters for system behavior, power control, parallel operation, safety, and grid interaction.

PARALLEL SYSTEMS

Defines system type and paralleled inverter behavior.

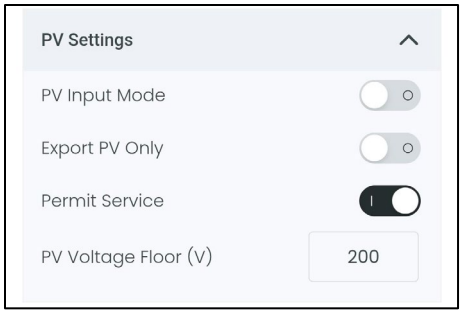


- **Grid Boss Enable:** Set to enable if the system is utilizing a GridBOSS.
- **Share Battery:** In paralleled systems, if all inverters connect to the same battery bank “Share Battery” must be enabled. The master inverter will broadcast the battery information to all other inverters in the system.
- **Detected Grid Phase:** Manually adjust the auto-detected phase if the inverter is part of a three-phase system configuration and the phase mapping needs correction.
- **Composed Phase:** When using ≥ 3 inverters to compose a three-phase system, the AC terminals of the inverter must be connected to a three-phase grid. If the system is connected to the grid, the inverter will detect the phase it connects to automatically, record it, and output the phase as it was detected. If the user setting is different from the phase the inverter detected, it will output the phase detected. The output phase will be cleared if the user clears it. If the system is not connected to the grid, the inverter will use the user output phase setting to compose the three-phase output. If the user sets the wrong phase (i.e., 2 U phase and no W phase) the system will report an error.
- **System Type:** EG4® inverters support paralleling of multiple inverters. In this scenario, one of the inverters must be set to “Master” and the others set to “Slave”. If all inverters are installed as single-phase, be sure to set one of the inverters to “1 Phase Master”. If a three-phase system is needed, set one of the inverters to “3 Phase Master”. All inverters are set to “Slave” by default.
    - **Single Phase Master** - Select for standalone systems or the master inverter in a parallel single-phase system.
    - **Slave** - Select for secondary units that follow a master inverter.
    - **3-Phase Master** - Select for the master inverter in a three-phase configuration or if the master inverter is the only inverter in a three-phase system.
    - **208 Master** – Select when two inverters are configured to form a 208V three-phase system and this is the master inverter.

PV SETTINGS

Controls PV input behavior and solar related configuration.

- **PV Input Mode:** Enable when PV strings are connected to the inverter's MPPT inputs.
- **Export PV Only:** Enable this setting to sell back generated PV power to the grid.
- **PV Voltage Floor (V):** The minimum PV DC voltage at which the inverter begins producing output power.



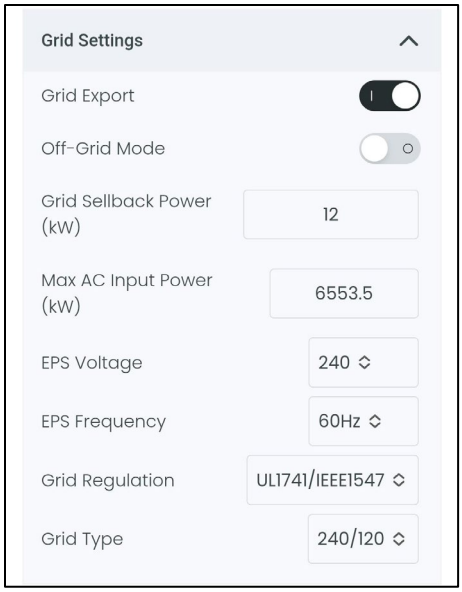
NOTE: Installer Only PV Settings

- **Permit Service:** Setting is used to enable or disable the inverter's ability to receive remote messages from the utility or its agent. This includes starting or shutting down the inverter and completing parameter settings in accordance with regulatory requirements.

GRID SETTINGS

Controls export permissions, grid limits, and grid behavior settings.

- **Grid Export:** Enable if local regulations and/or utility agreements allow exporting power to the grid. Disable for no export to the grid.
- **Grid Sellback Power (kW):** Defines the maximum allowable power able to be exported to the grid.
- **Max AC Input Power (kW):** Sets the maximum AC power the inverter may import from the grid when charging batteries. If grid import exceeds this limit, the inverter will automatically reduce charging power to remain within the limit.
- **Grid Type:** Select the proper grid configuration, such as split phase: 240/120V or 208/120V.
- **Battery Eco Enable:** If enabled, when the battery reaches on grid EOD value and AC charge is disabled, the inverter will switch to bypass mode until battery is being charged again. Switch time may go up to 15 ms. (Off-grid only)



NOTE: Advanced User Type/Installer Only Grid Settings

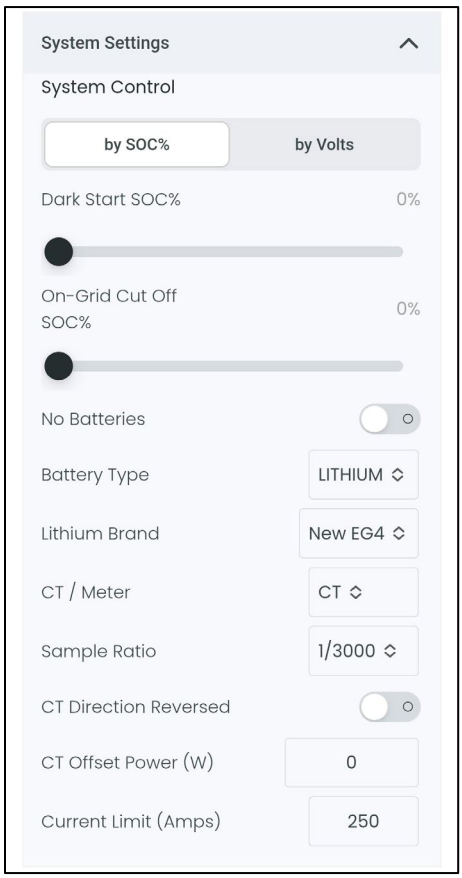
- **Off-Grid Mode:** Enable for nominal Off-Grid operations while utilizing AC input as a backup power source, allowing for absolute zero export.

NOTE: Installer Only Grid Settings

- **EPS Voltage:** Sets the output voltage to accommodate the rated grid voltage.
- **EPS Frequency:** Sets the output frequency to accommodate the rated grid frequency.
- **Grid Regulation:** Select the grid compliance profile based on installation region.

SYSTEM SETTINGS

Controls system logic, battery type, CT/Meter setup, and battery limits.



- **System Control:** Allows the user to select system wide control logic based on SOC% or battery voltage.
- **Dark Start SOC%/Voltage:** The set SOC%/voltage threshold where the inverter enters Dark Start Mode. In this mode, the inverter will not power loads until the battery SOC% rises by 5% or the voltage rises 2V above the set threshold.
- **No Batteries:** Allows access to off-grid mode when only solar input is available without battery storage.
- **Battery Type:** Select the correct battery chemistry.
- **Lithium Brand:** Select the brand/model of the connected lithium battery to enable proper closed-loop communication.
- **CT / Meter:** Select either CT (Current Transformer) or meter for AC power measurement.
- **Sample Ratio:** Select the correct sample ratio to ensure accurate current measurement.
- **CT Direction Reversed:** Enable if the CT is physically installed in reverse.
- **CT Offset Power (W):** Enter an offset value to correct minor CT drift and confirm 0W reading when no power is flowing.
- **Current Limit (Amps):** Sets the maximum DC charging and discharging current for the battery.

NOTE: Advanced User Type/Installer Only System Setting

- **On-Grid Cut Off SOC%:** When the inverter connects to the grid and if the battery is discharging to take the load, it will stop discharging when the SOC% is lower than this limit. (Advanced user type)

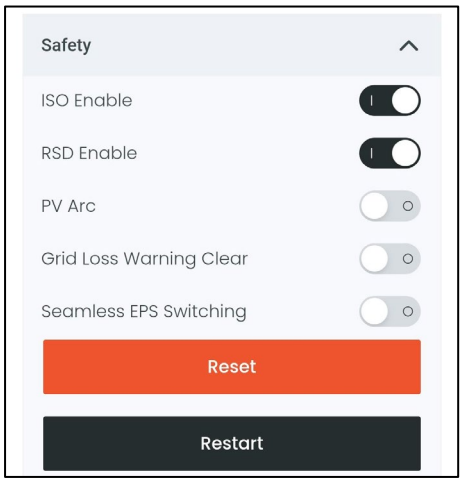
NOTE: Installer Only System Settings

- **On-Grid Cut Off SOC%:** When the inverter connects to the grid and if the battery is discharging to take the load, it will stop discharge when the SOC% is lower than this limit. (Off grid only)
- **Off-Grid Cut Off SOC%:** When the inverter is not connected to the grid and the battery is discharging to take the load, the battery will stop discharging when the SOC% is lower than this limit. (Off grid only)

SAFETY

Controls protective features and maintenance-related controls.

- **Green Function Enable:** When green function is enabled, if the EPS load reading is lower than 60W for more than 10 minutes, the EPS output will be cut off. (Off-grid only)
- **Buzzer Enable:** Enable/disable the alarm buzzer. (Off-grid only)
- **Seamless EPS Switching:** When power is interrupted, the inverter will seamlessly switch to EPS mode unless there is a grid voltage fluctuation issue; in which case, we suggest setting to “Disable” to avoid misjudgment.
- **Reset:** Reset all settings to default.
- **Restart:** Restarts the device.



NOTE: Installer Only Safety Settings

- **ISO Enable:** When enabled, the inverter will monitor PV wiring insulation integrity and suppress operation if leakage exceeds safety thresholds.
- **RSD Enable:** Enable or disable the rapid shut-down detection of the PV inputs.
- **PV Arc:** The inverter will detect when there is an arc fault on the PV inputs in order to protect the inverter from potential damage.
- **Grid Loss Warning Clear:** Enable after grid supply has returned to normal, to clear “Grid Loss” warnings that may appear after a utility outage or grid instability.

5.5 FIRMWARE

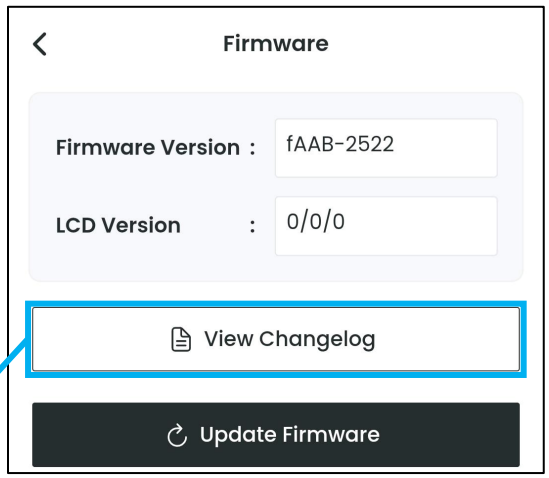
The Firmware screen displays current firmware versions installed on system components and allows users to manage firmware updates.

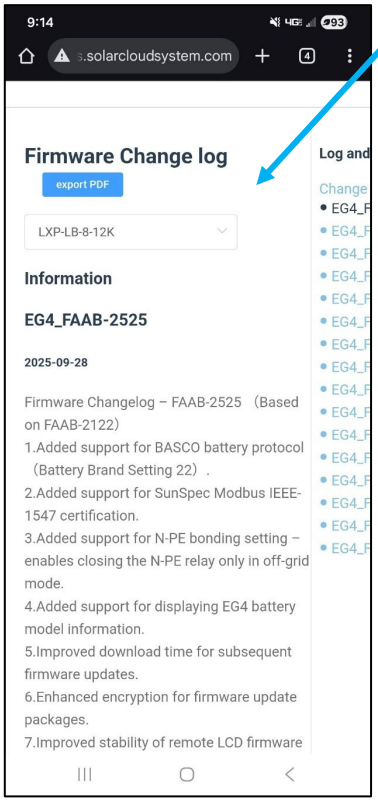
VIEW CHANGELOG

Selecting View Changelog navigates the user to an external browser page listing firmware history and version change details.

UPDATE FIRMWARE

Selecting Update Firmware begins the firmware update process. During an update, firmware is downloaded and installed to the inverter before other connected devices.





IMPORTANT:

Do not power off the inverter or connected components while a firmware update is in progress.

5.6 STANDBY

The Standby option places the inverter into a paused state, stopping normal operation. This allows installers to safely perform troubleshooting and maintenance without shutting down the entire system.

6. DONGLE CONNECT

The Dongle Connect screen is used to connect an EG4® communication dongle to a local Wi-Fi network. This process allows the dongle to transmit system data to the EG4 Connect app and Monitor Center. During this process, the mobile device connects to the dongle's built-in Wi-Fi hotspot so that network credentials can be securely transferred to the dongle.

The Dongle Connect screen includes the following primary actions to assist with dongle connection:

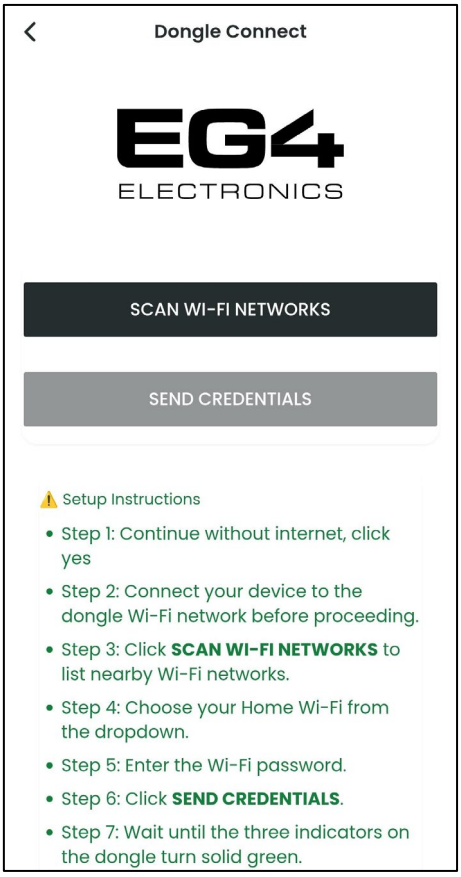
- **Scan Wi-Fi Networks:** Scans for nearby available Wi-Fi networks once the mobile device is connected to the dongle's Wi-Fi hotspot.
- **Send Credentials:** Sends the selected Wi-Fi network name and password to the dongle. This option becomes available after a network is selected and credentials are entered.

6.1 DONGLE CONNECTION PROCESS

To connect the communication dongle to Wi-Fi, complete the following steps:

1. Continue setup without internet access when prompted by the mobile device.
2. Connect the mobile device to the dongle's Wi-Fi network (the network name typically matches the dongle serial number).
3. On the Dongle Connect screen, select "**Scan Wi-Fi Networks**" to display nearby networks.
4. Select the Wi-Fi network the device will connect to from the available list.
5. Enter the network's Wi-Fi password.
6. Select "**Send Credentials**" to transmit the network information to the dongle.
7. Wait until the three indicator LEDs on the dongle turn solid green, confirming a successful connection.

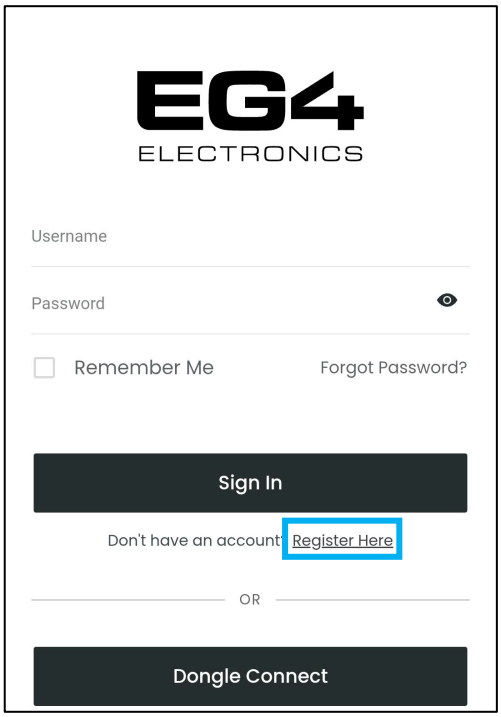
Once the dongle is connected, the mobile device may automatically reconnect to the home Wi-Fi network.



7. ACCOUNT REGISTRATION

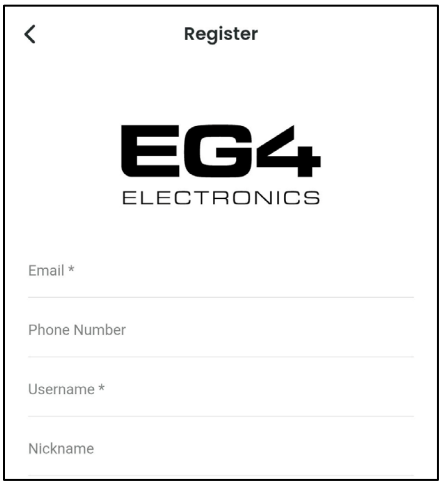
Fields with an asterisk (*) are required to proceed.

1. On the Login screen, select “**Register Here**” to begin the user registration process.

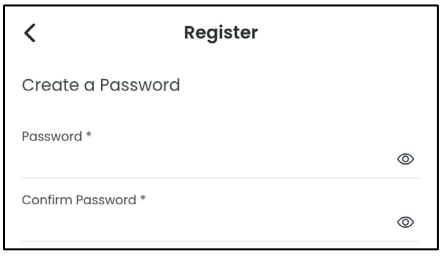


2. On the Register screen, enter the following information into the form:
   - Email address*
   - Phone number
   - Username*
   - Nickname

   Once the information is entered, select “**Continue**”.

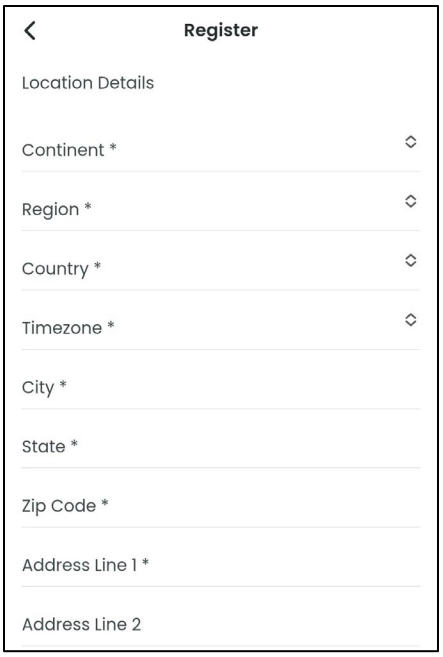


3. On the Create a Password screen, enter and confirm the password. Then select “**Continue**”.



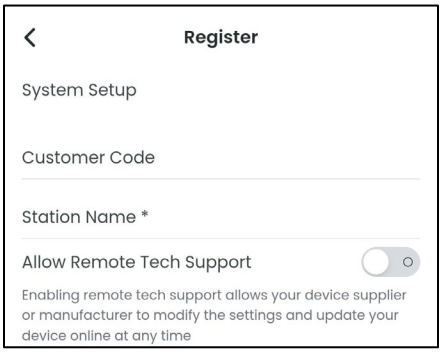
4. On the Location Details screen, provide the required location information:
   - Continent*
   - Region*
   - Country*
   - Time zone*
   - City*
   - State*
   - Zip Code*
   - Address Line 1*
   - Address Line 2 (Optional)

   After entering all required information, select **“Continue”**.



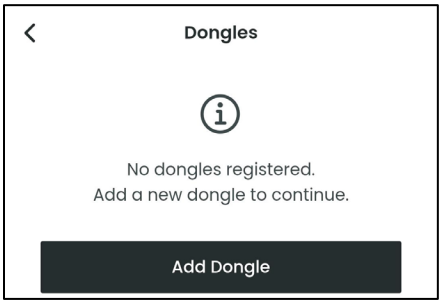
5. On the System Setup screen, enter the following information:
   - Customer Code (if applicable)
   - Station Name
   - Enable Allow Remote Tech Support to allow the distributor or installer to remotely adjust settings and perform updates.

   Select “**Setup Dongles**” to continue.

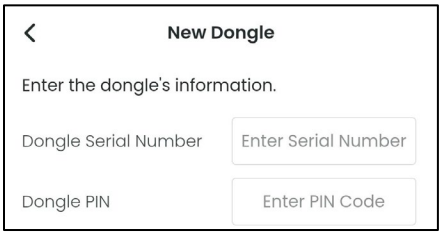


6. On the Dongles screen, select “**Add Dongle**” to register a communication dongle. At least one dongle will have to be added to continue.

IMPORTANT:
Before adding any dongles to the station, the user must first connect each dongle to the Wi-Fi network. Follow the steps in section 6.1 to connect the dongle to Wi-Fi.



7. On the New Dongle screen, enter the dongle serial number and dongle PIN. The dongle serial number and PIN are located on the label attached to the dongle. Then select “**Add Dongle**”.



8. On the Dongles list screen, confirm the dongle(s) appears on the Dongles list.
   - To add additional dongles, select “**Add Dongle**” again and repeat step 7.

   Once all dongles have been added, select “**Continue**”.

After selecting “Continue” the user will begin the commissioning steps. See the next section for commissioning instructions.

8. COMMISSIONING

The Commissioning process guides the user through configuring a station before it becomes operational. Using a series of guided screens, the EG4® Connect app ensures the station, inverter, battery, phase type, operating mode, and smart ports/aux devices are correctly defined.

8.1 SYSTEM COMMISSIONING WORKFLOW

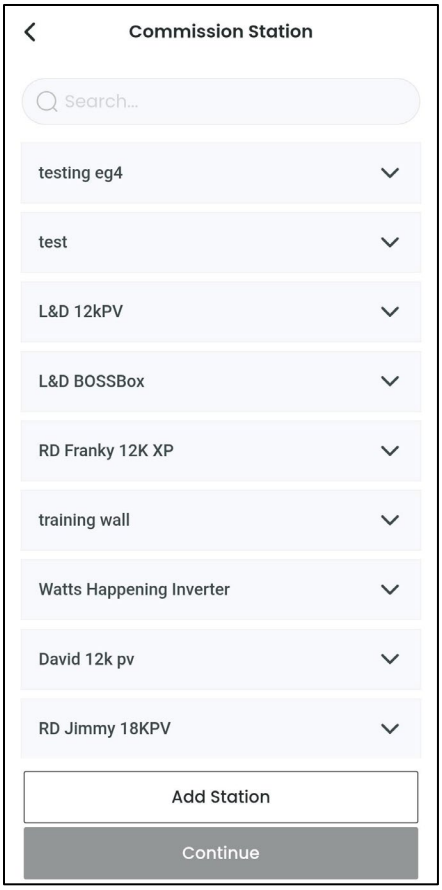
From the Account Menu, select "**Commission**" to open the Commission Station menu.

1. **Commission Station Screen**

   This screen displays a list of stations connected to the account.

   - Select the station to be commissioned.
   - To create a new station, select "**Add Station**".

   Once the station is selected, select "**Continue**".

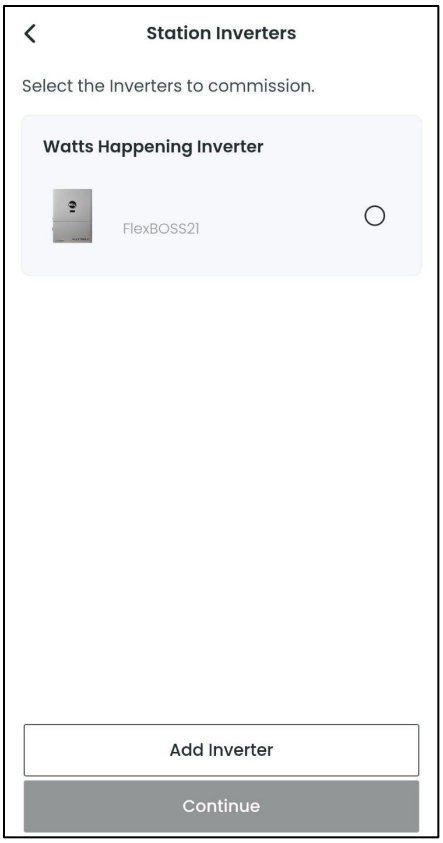


2. **Station Inverters Screen**

   On the Station Inverters screen, select the inverter(s) to be commissioned.

   - Select the inverter(s) to be commissioned.
   - To add an inverter that is not listed, select "**Add Inverter**".

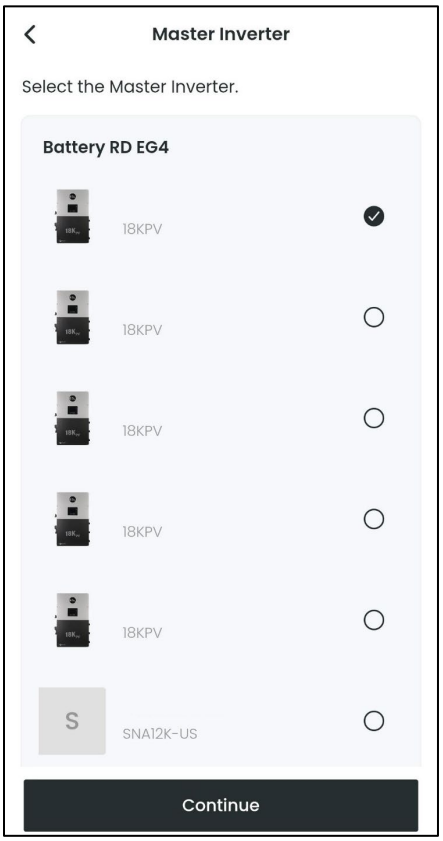
   After selecting the inverter(s), select "**Continue**".



   a. **Master Inverter Screen** (when commissioning paralleled inverters):

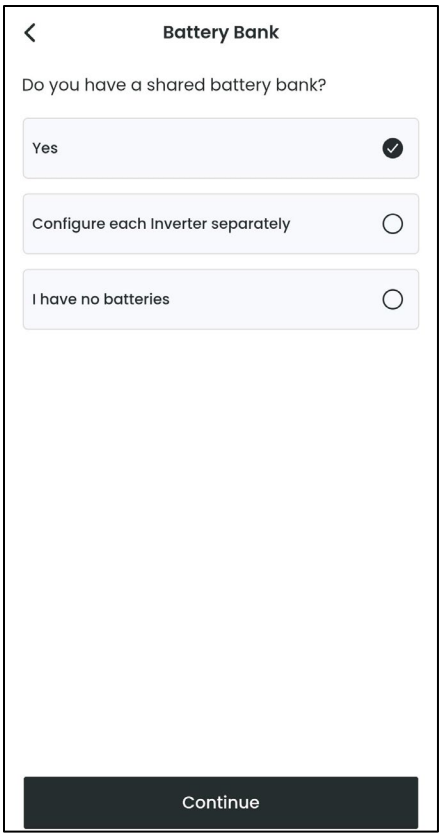
      - Select the Master Inverter of the system.

      After selecting the master inverter, select "**Continue**".



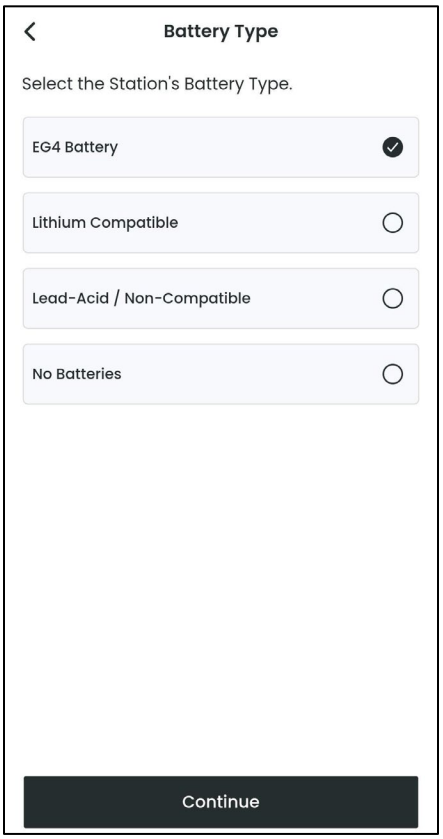
b. **Battery Bank Screen** (when commissioning paralleled inverters):
   - Select “**Yes**” if all inverters are connected to a single battery bank.
   - Select “**Configure each Inverter separately**” if each inverter uses a separate battery configuration. Configure each battery in the system.
   - Select “**I have no batteries**” if no battery storage is available.

   After selecting the system’s shared battery configuration, select “**Continue**”.



3. **Battery Type Screen**
   On the Battery Type screen, select the type of battery used by the station:
   - EG4 Battery
   - Lithium Compatible
   - Lead-Acid / Non-compatible
   - No Batteries

   Select “**Continue**” to proceed.

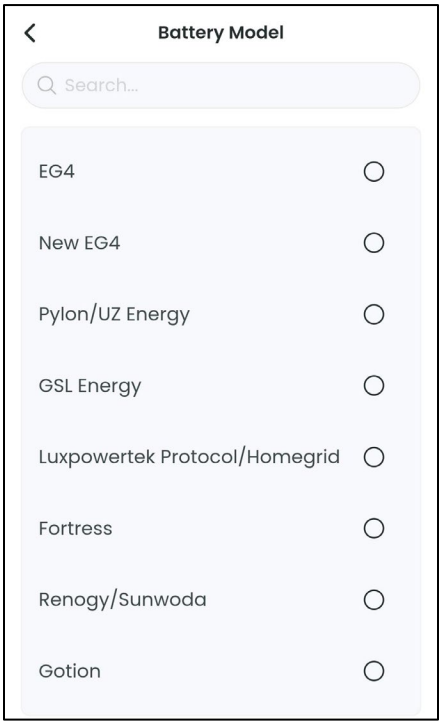


a. **Battery Model Screen** (when using Lithium compatible)

On the Battery Model screen, select the battery brand used by the system.

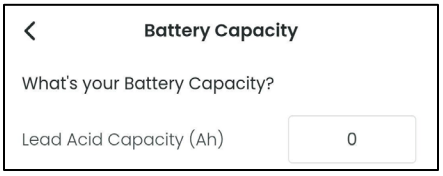
- EG4
- New EG4
- Pylon/UZ Energy
- GSL Energy
- Luxpowertek Protocol/Homegrid
- Fortress
- Renogy/Sunwoda
- Gotion

Select the correct battery model, then select "**Continue**".



b. **Battery Capacity Screen** (when using Lead-Acid/Non-compatible)

The Battery Capacity screen will only be displayed when selecting Lead-Acid/Non-compatible.



- Enter the total battery capacity in amp-hours (Ah) for the system.

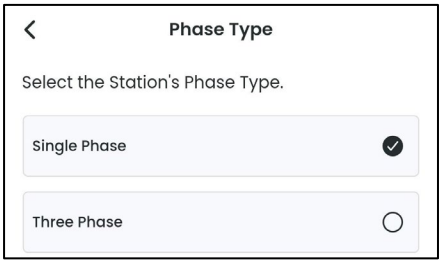
After entering the capacity value, select "**Continue**".

4. **Phase Type Screen**

On the Phase Type screen, select the station's phase configuration:

- Single Phase
- Three Phase

Select the correct phase type, then select "**Continue**". After making this selection while commissioning an Off-grid inverter, the next step will be step 8 "Operating Mode" screen.

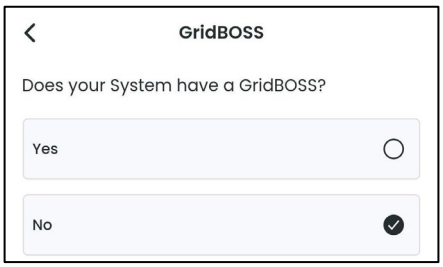


5. **GridBOSS Screen** (Hybrid systems only)

On the GridBOSS screen, select if the system has a GridBOSS device installed.

- Select "**Yes**" if the system includes a GridBOSS.
- Select "**No**" if the system does not include a GridBOSS.

Select "**Continue**" to proceed.

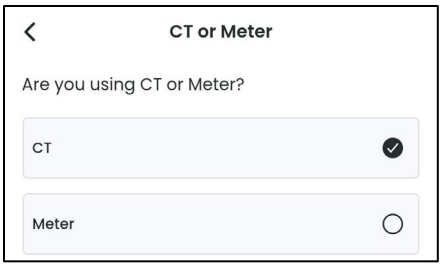


6. **CT or Meter Screen** (Hybrid systems only)

   On the CT or Meter screen, select the method used to measure AC power:

   - CT
   - Meter

   See section 5.4 for more information on CT / Meter settings and descriptions. Once the correct option is selected, select "**Continue**".

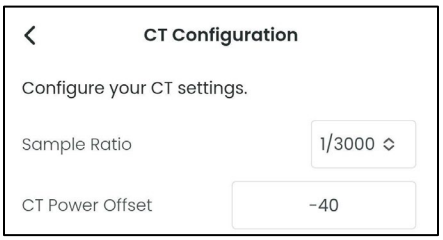


   a. **CT Configuration Screen**

   If CT is selected, the CT Configuration screen is displayed, and the user will need to configure the following:

   - Sample Ratio
   - CT Power Offset

   After completing the CT configuration, select "Continue".

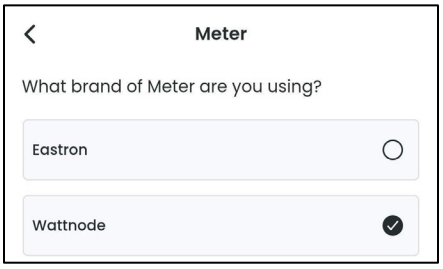


   b. **Meter Screen**

   If Meter is selected, the Meter screen is displayed. The user will need to select the brand of meter being used:

   - Eastron
   - Wattnode

   After choosing the correct meter brand, select "**Continue**".



7. **Export to Grid Screen** (Hybrid systems only)

IMPORTANT:

Utility provider permission is required to export power to the grid.

On the Export to Grid screen, select whether the system is permitted to export power to the grid.

- Select "**Yes**" to enable exporting power to the grid. When selecting "Yes" a pop-up prompt will appear asking to confirm exporting power to the grid.
- Select "**No**" to disable exporting power to the grid.

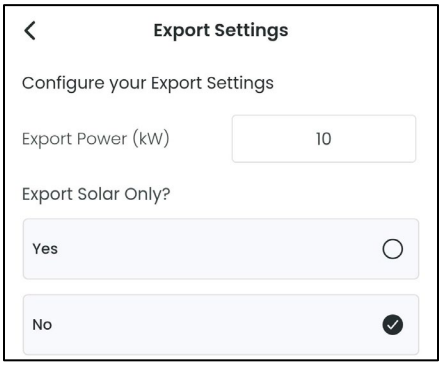
Select "**Continue**" to proceed.

   a. **Export Settings Screen**

   If Export to Grid is enabled, the Export Settings screen is displayed. Configure the following:

   - Export Power (kW)
   - Export Solar Only

   After configuring the export settings, select "**Continue**".

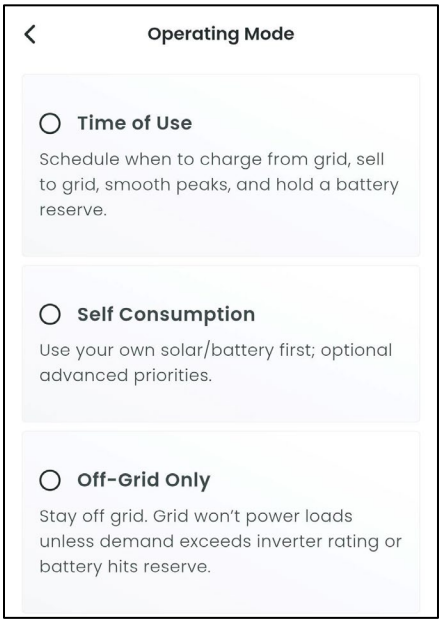


8. **Operating Mode Screen**

On the Operating Mode screen, select how the system will prioritize power flow:

- Time of Use
- Self-Consumption
- Off-Grid Only (Hybrid systems only)

See section 5.2 for more information on each block action and included settings. Select the desired operating mode to configure parameters.

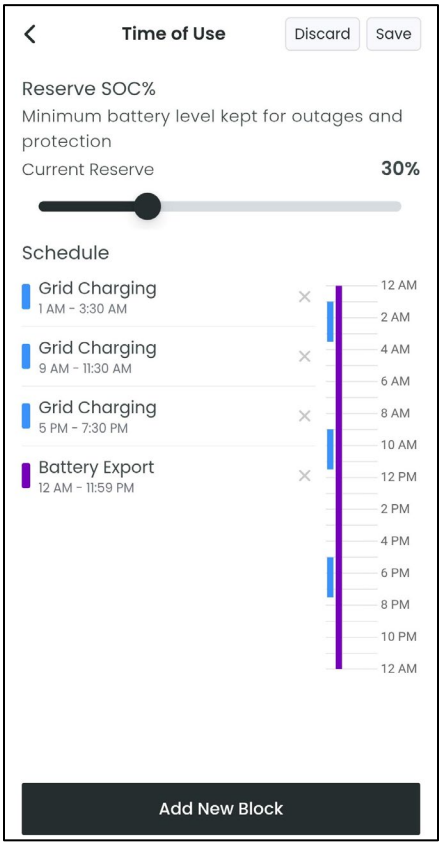


a. **Time of Use Configuration Screen**

If Time of Use is selected, configure the following:

- Reserve SOC%
- Select "**Add New Block**" to schedule block actions for functions such as Grid Charging, Battery Export, Peak Limit, and PV Priority.

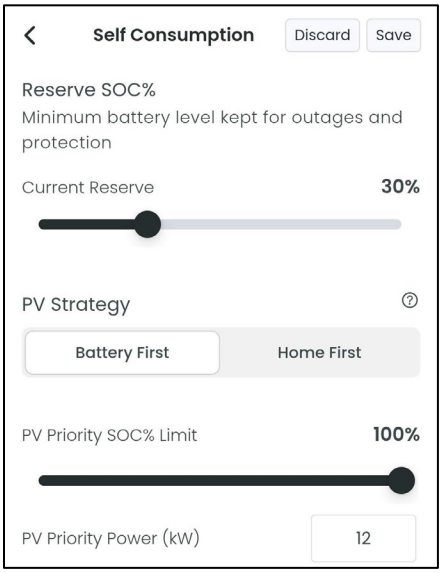
Select "**Save**" to apply the configuration.



b. **Self-Consumption Configuration Screen**
If Self-Consumption is selected, configure the following:

- Reserve SOC%
- Set how PV power will be utilized by selecting Battery First or Home First.

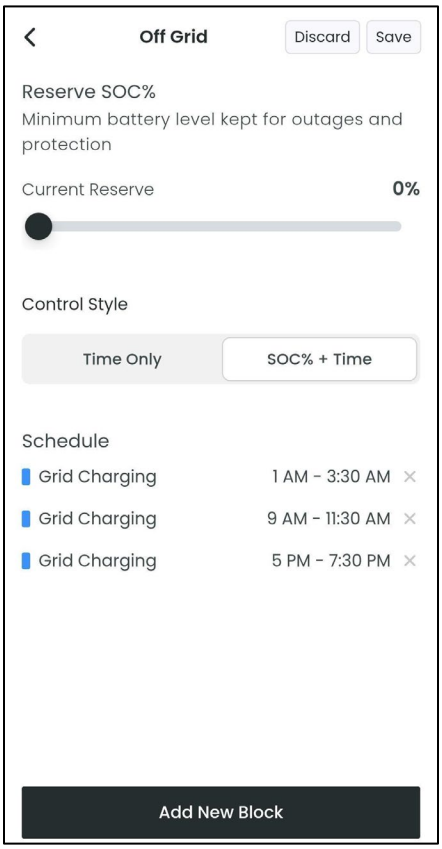
Select "**Save**" to apply the configuration.



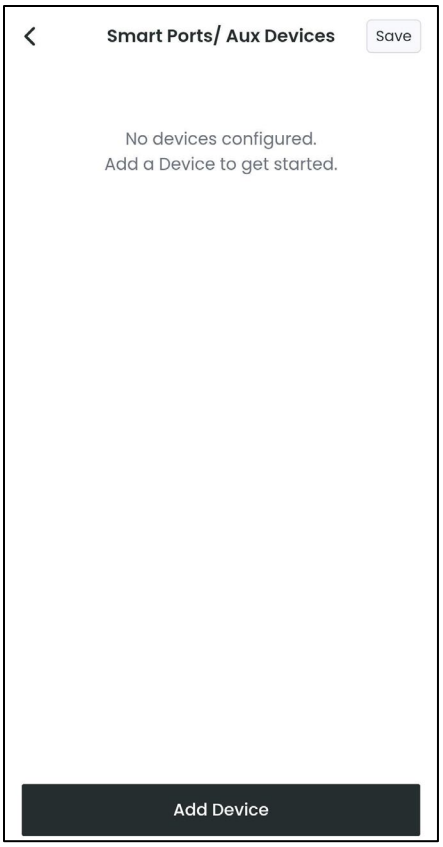
c. **Off-grid Only Configuration Screen** (Hybrid systems only)
If Off-Grid Only is selected, configure the following:

- Reserve SOC%
- Select between control based on Time Only or SOC% + Time.
- Select "**Add New Block**" to schedule start/end times and SOC% limits.

Select "**Save**" to apply the configuration.

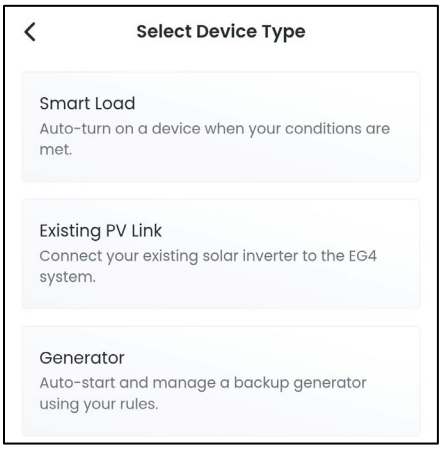


9. **Smart Ports / Aux Devices Screen**
   On the Smart Ports / Aux Devices screen, users can configure supported auxiliary devices.
   - Select “**Add Device**” to begin configuring an auxiliary device.
   - Select “**Save**” to continue if no auxiliary devices are required. If no auxiliary devices are required, proceed to step 12.



10. **Select Device Type Screen**
    On the Select Device Type screen, choose the type of auxiliary device to add:
    - Smart Load
    - Existing PV Link
    - Generator

    See section 5.3 for more information on Smart Ports / Aux Devices settings and descriptions. Select the desired device type to configure parameters.

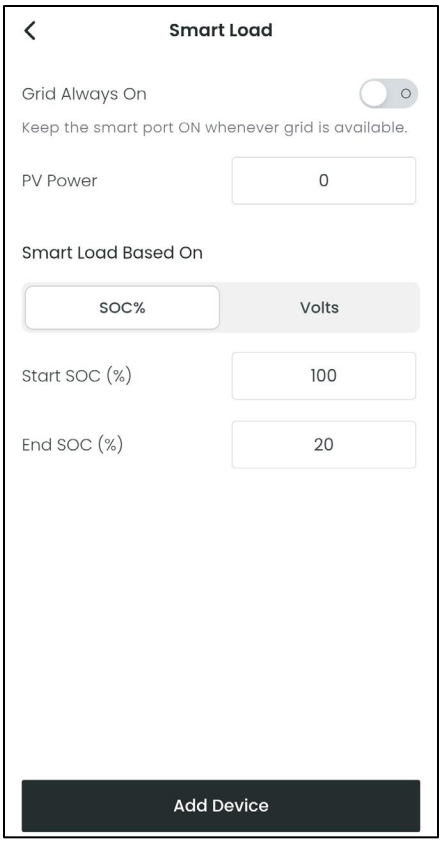


a. **Smart Load Configuration Screen**

If Smart Load is selected, configure the following:

- Grid Always On
- PV Power
- Smart Load Based On
- Start/End SOC%

After configuring these parameters, select "**Add Device**" to save the smart load settings.

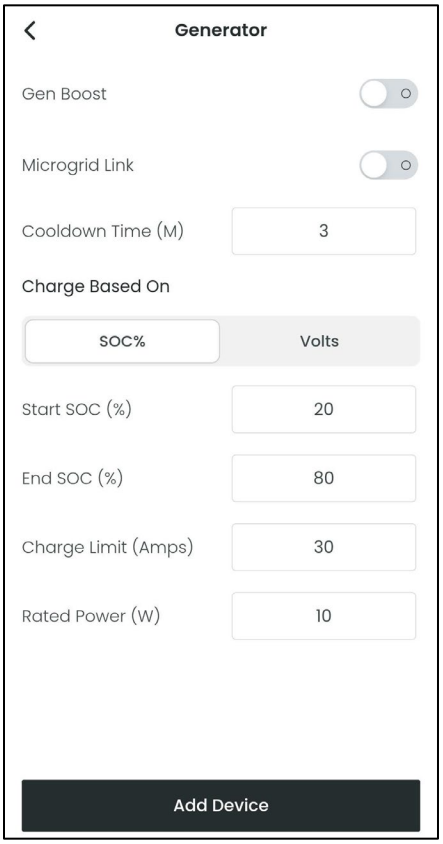


b. **Generator Configuration Screen**

If Generator is selected, configure the following generator operating parameters:

- Gen Boost
- Microgrid Link
- Cooldown Time (M)
- Charge Based On
- Start/End SOC%
- Charge Limit (Amps)
- Rated Power (W)
- Remote Turn Off (GridBOSS only)
- Warmup Time (GridBOSS only)
- Remote Turn Off Time (GridBOSS only)

See section 5.3 for more information on Generator settings. After configuring these parameters, select "**Add Device**" to save the generator settings.

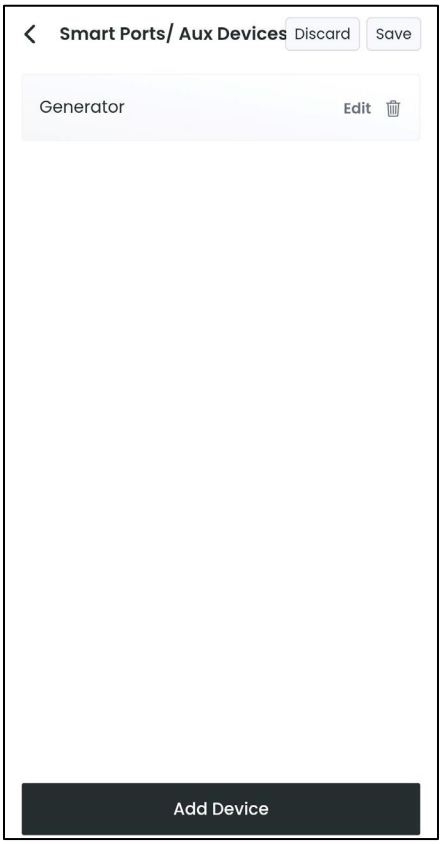


11. **Smart Ports / Aux Devices Summary Screen**

After adding an auxiliary device, the screen displays a list of configured devices.

- Select “**Edit**” to modify an existing device.
- Select the trash icon to remove a device.
- Select “**Add Device**” to configure additional auxiliary devices.

Once all devices are properly configured, select “**Save**” to continue.

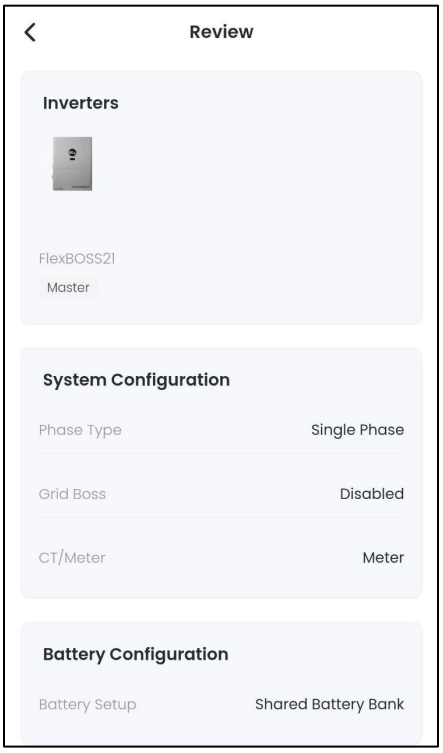


12. **Review Screen**

The Review screen provides a summary of the station configuration, including:

- Inverters and master designation
- System configuration
- Battery configuration
- Smart Ports / Auxiliary device configuration

Review all system information carefully. After verifying all information, select “**Commission**” to proceed.

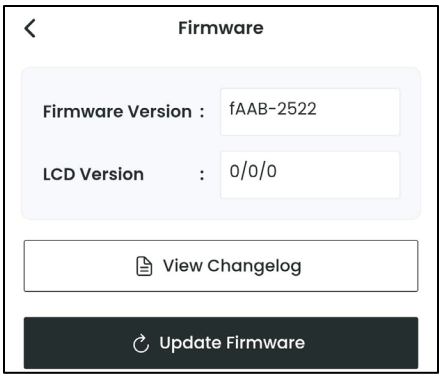


13. **Firmware Screen**

    After Commissioning, the Firmware screen displays the current inverter and LCD screen

    firmware versions. From this screen users may:

    - Select “**View Changelog**” to review firmware update notes.
    - Select “**Update Firmware**” to begin the firmware update process.



Commissioning is now complete, and the station is fully configured and ready for normal operation.

EG4
ELECTRONICS

support@eg4electronics.com
(903) 609-1988
www.eg4electronics.com