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Grid+storage system without PV Solution

User Manual

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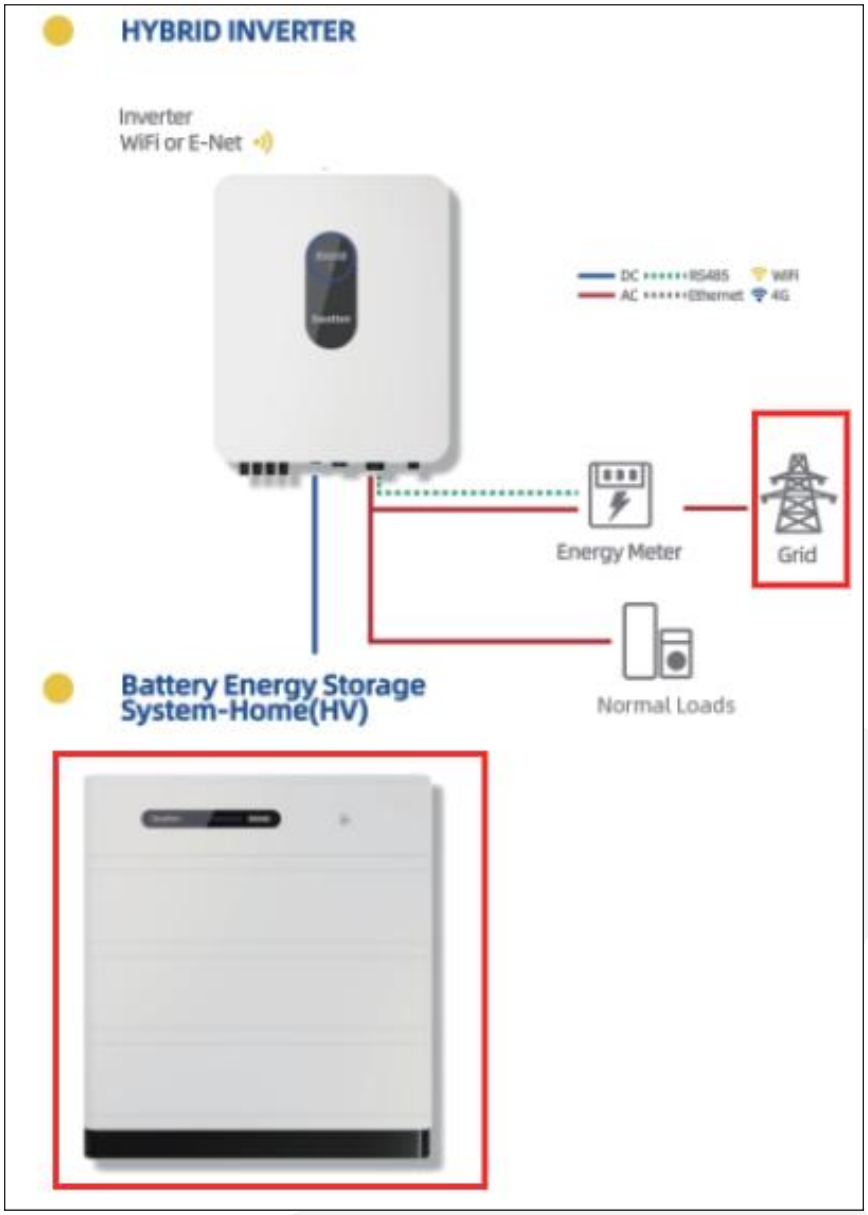
1. Introduction to Grid+storage system without PV

In this mode, the inverter is connected to the utility grid, which serves as the primary power source. The system utilizes the battery for energy storage and discharge. When the grid is operating normally, the battery is charged from the grid to store energy. In the event of a grid failure or during periods of high electricity prices, the battery discharges to provide power support to the loads.

This mode is suitable for areas where the grid is stable but electricity prices fluctuate significantly or where there is a risk of power outages. By leveraging battery energy storage, the system can provide emergency backup, thereby optimizing electricity costs and enhancing the reliability of power supply.



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2. Installation Preparation and Precautions

Load and Port Connection
Please correctly connect all electrical devices (loads) to the BACKUP port of the inverter, ensuring that the connections are secure to prevent equipment malfunction or circuit failure due to poor contact.

Grid Connection Requirements
Ensure that the grid connection is stable and reliable. Verify that the grid voltage and frequency parameters match the rated operating parameters of the inverter.

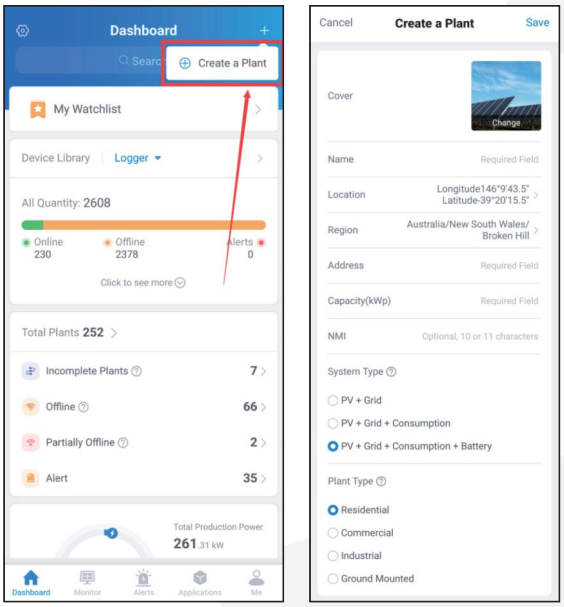
Installation and Wiring Operations
During the installation of the inverter and the wiring connections, please strictly follow the steps and diagrams provided in the Quick Start Guide to ensure standardized operations.

Pre-power-on Inspection and Operations
After completing the above installation steps, it is necessary to conduct a comprehensive inspection once again to ensure that all wiring terminals are secure and that the circuit connections are correct. Once it is confirmed that the wiring is correct and complies with safety regulations, all circuit breakers may be turned on to power up and activate the inverter.

3. Solarman Commissioning Method

3.1. Download and Register

Please download the Solarman Business App from the app store, register an account, and log in with an email address. (Downloading, registration, and login steps are omitted here.)



On the Dashboard interface, click the "+" icon in the upper right corner, select "create a plant", then fill in the relevant information in sequence according to system prompts and click "save" after completion.

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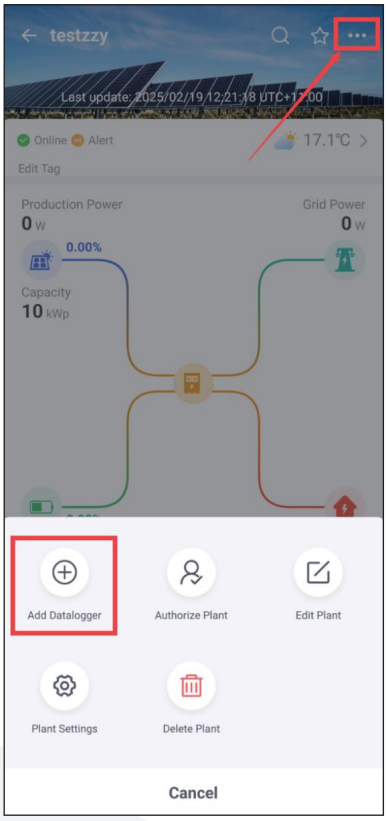
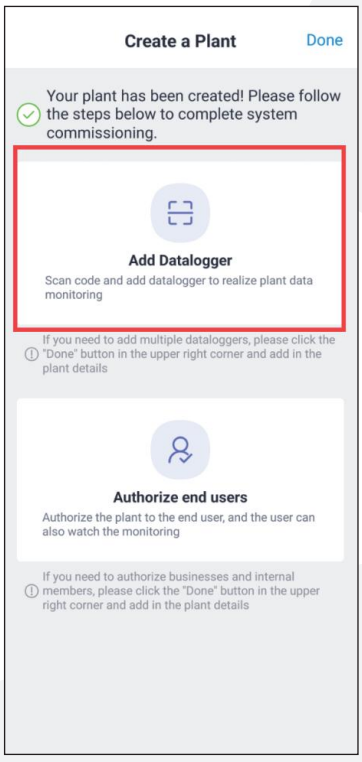
3.2. Add Datalogger

Please scan the QR code on the logger.

Enter the Dashboard interface of the newly created plant, click the "..." icon in the upper right corner, select "add datalogger", then scan the QR code on the WiFi logger to complete the binding operation.





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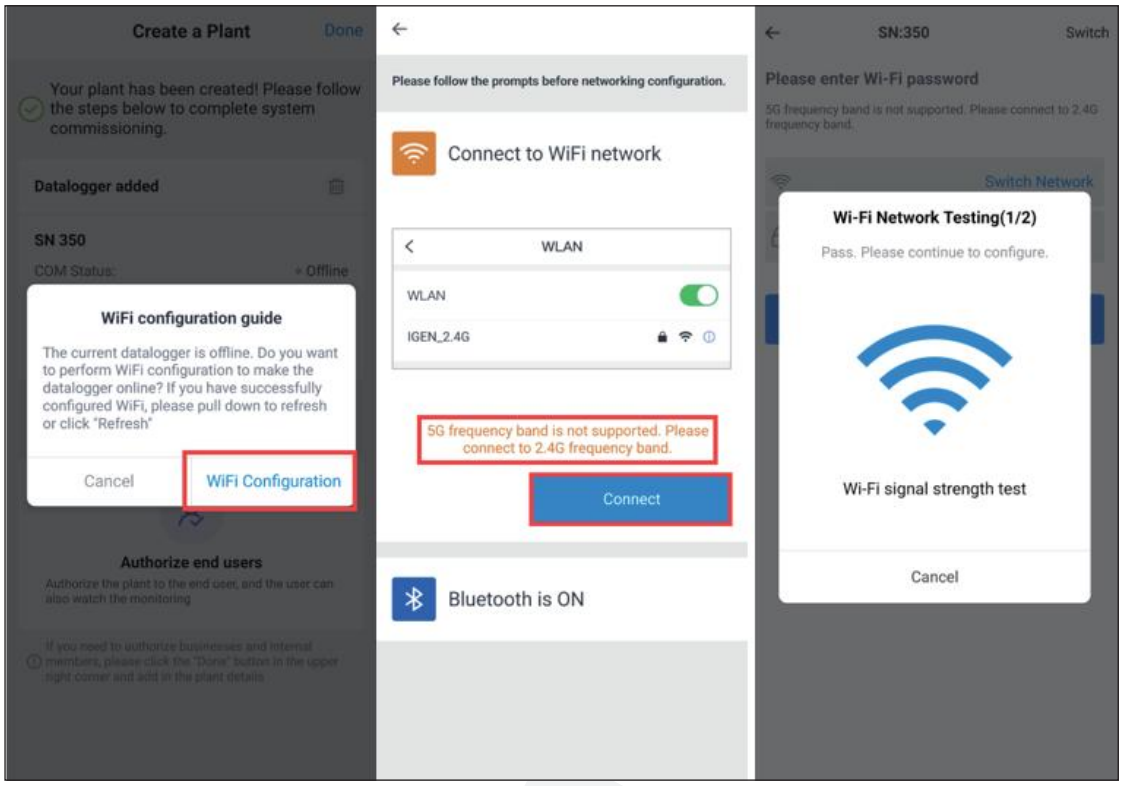
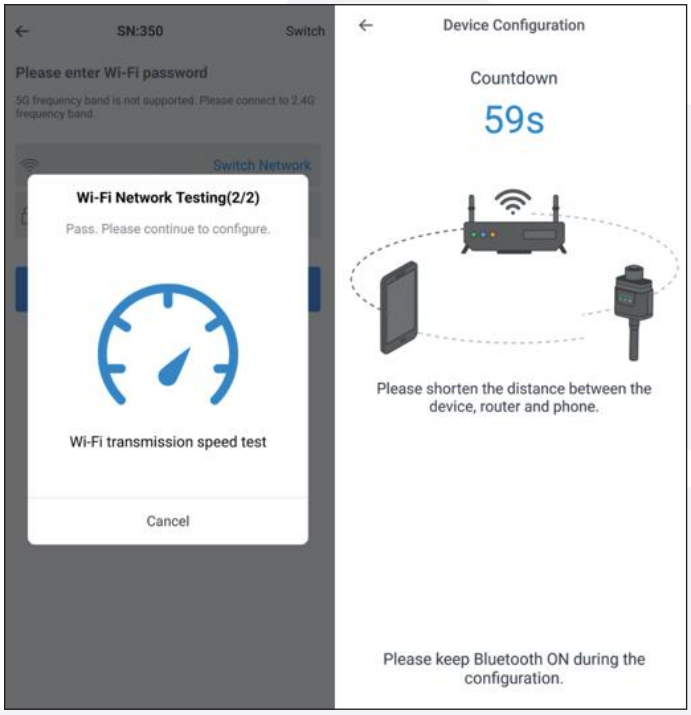
3.3. WiFi Configuration

Complete the WiFi connection according to on-screen prompts.

Ensure the Logger receives a good WiFi signal (only 2.4GHz is supported).





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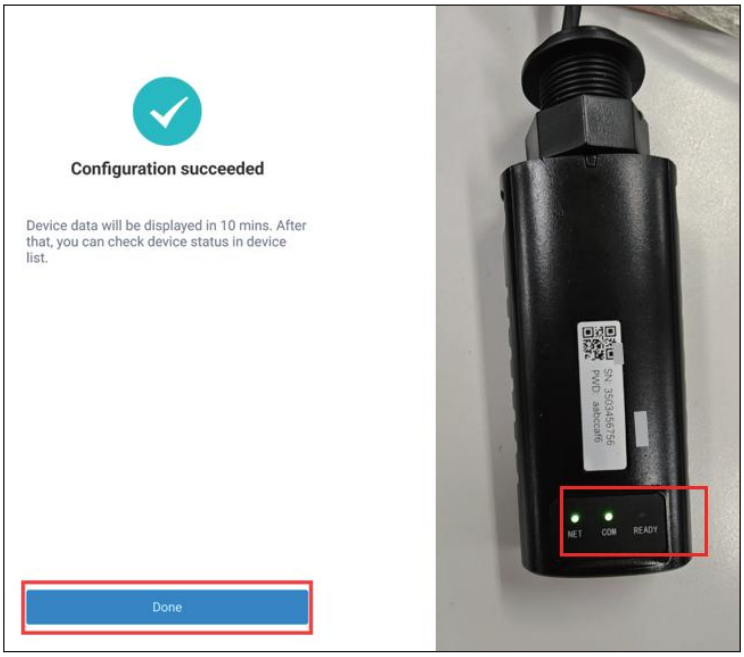
3.4. After WiFi Connection

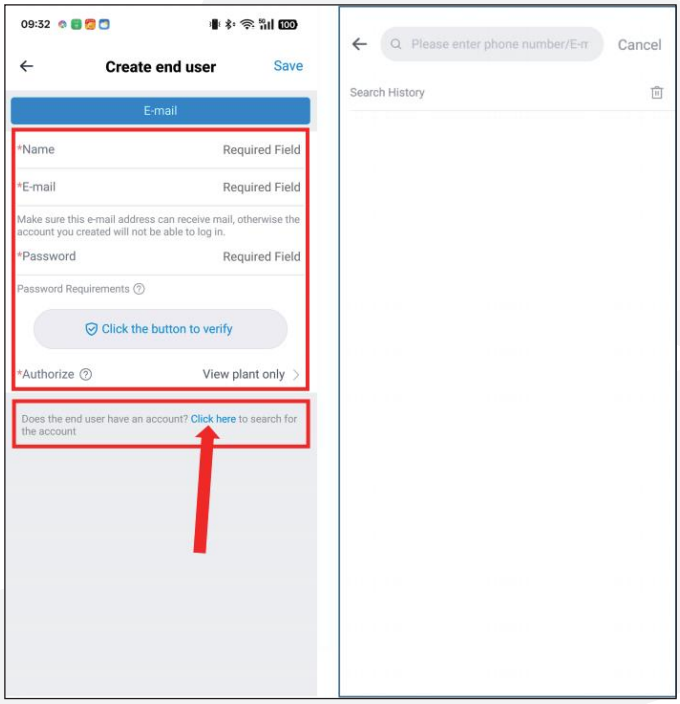
The NET and COM indicators will stay on.
The READY indicator will flash.



3.5. Share the plant to end-users

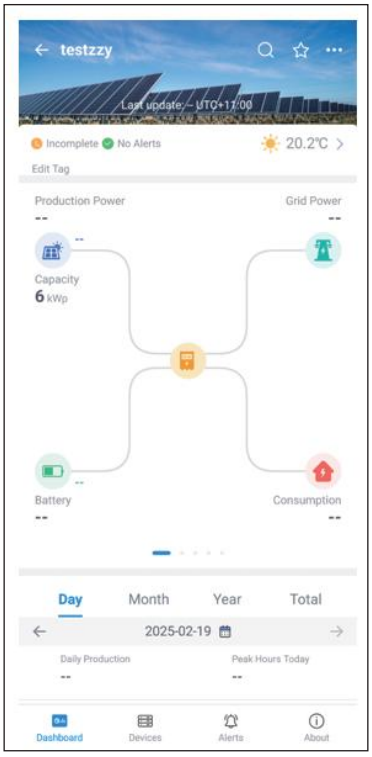
Fill in the information for the end user, and invite the end user to download the Solarman Smart App from the app store.

They can log in using the email address and password you've filled in as their account credentials. If the end user has already registered for Solarman Smart, please search for the end user's mobile phone number or email address through the "Click here" option below to complete the authorization process.



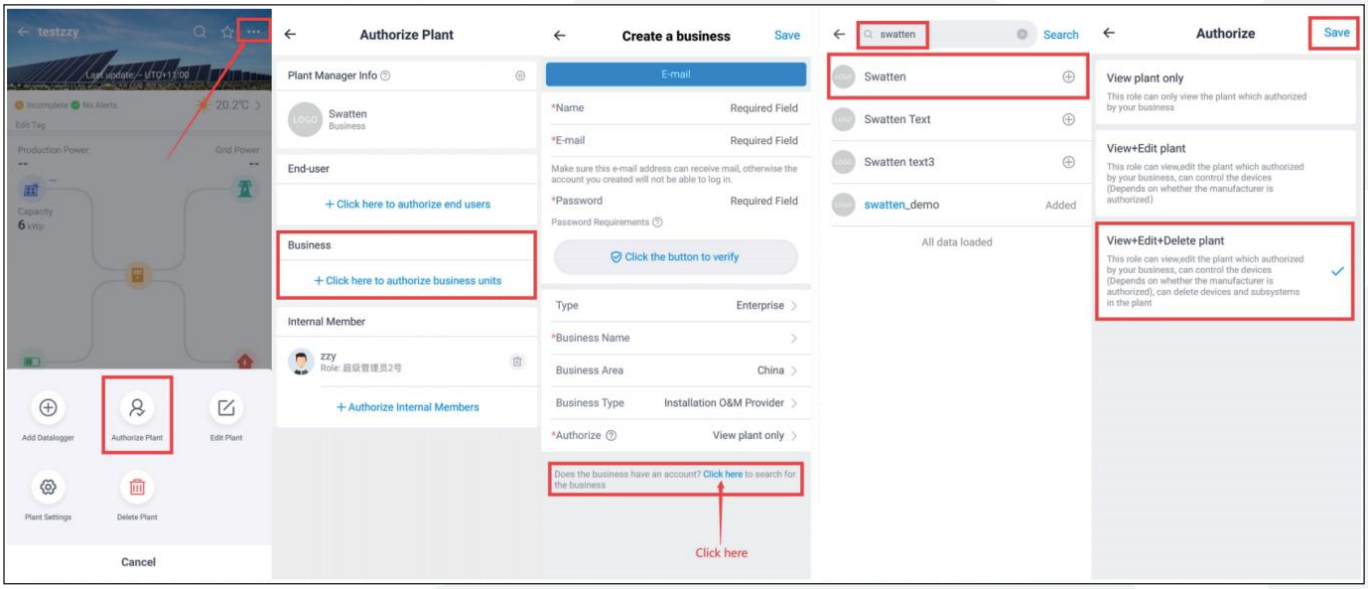
3.6. System Update

After completing the above operations, the system status will be updated in approximately 10 minutes.



3.7. Share the plant to end-users

To facilitate technical support and issue resolution after installation, it is highly advisable to authorize the power station to Swatten.



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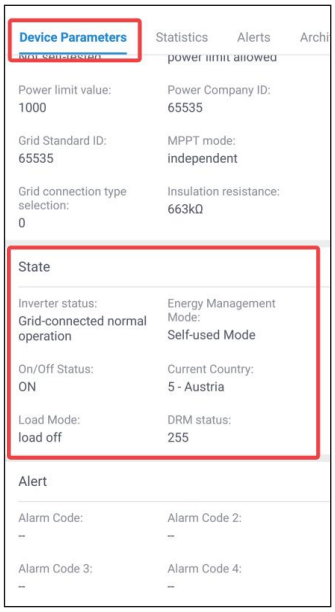
4. App Working Mode Selection and Settings

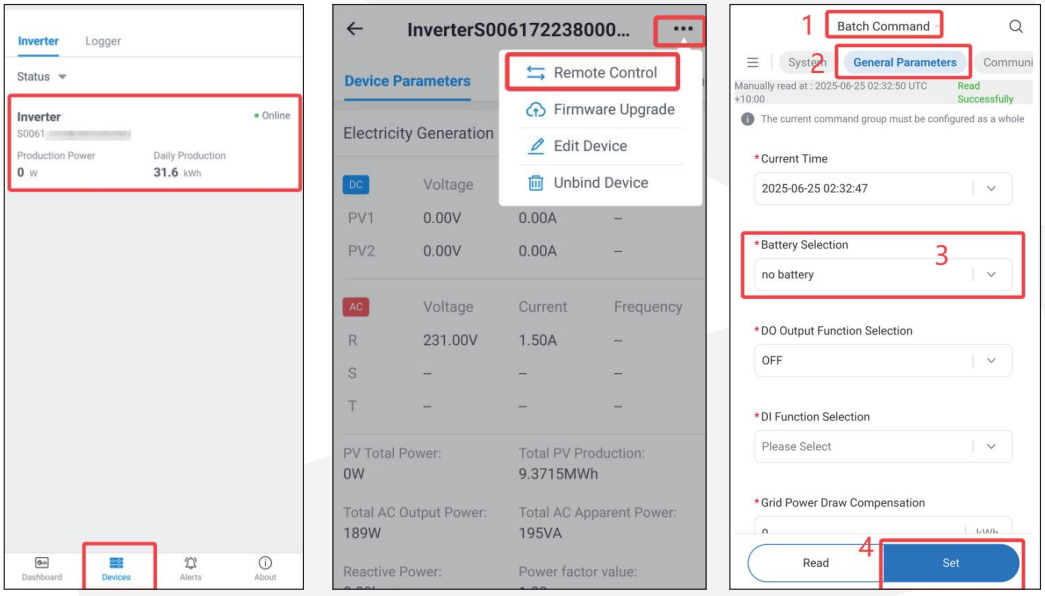
4.1. Operation Mode Confirmation

After installation and power-on, the inverter will automatically detect the operating conditions and directly enter the grid-tied mode. If you need to check the real-time operating status of the inverter, you can enter the “Devices parameters - status” interface to verify each parameter and confirm that the device is operating normally.



4.2. Set Battery Off-Grid Reserve Power

We recommend setting the "battery off-grid reserve power" to a higher value according to actual needs, to ensure sufficient power supply in emergency situations. On the Device interface, click on the inverter, then select the “...” icon in the upper right corner - remote control. In the batch command - general parameters - battery off-grid reserve power section, modify the parameter value.



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5. On-site Inspection after Completing Installation and App Setting

5.1. On-site Verification

If the critical load is connected to the BACKUP port, please turn off the circuit breaker on the Grid side at daytime to simulate the situation of a power outage, and confirm whether the PV can supply power to the critical load normally.

If it fails to supply power after the above operations, please check the wiring again, or contact us for assistance through the contact information at the end of this document.

5.2. App Verification

In the energy flow diagram, the grid provides power for both load consumption and battery charging. When the battery SOC exceeds the off-grid reserve SOC value, the grid stops charging the battery.

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