S-Miles Cloud Monitoring Platform

USER MANUAL

CONTENTS

1. Introduction

The S-Miles Cloud (Hoymiles Monitoring Platform) is a smart energy storage operation monitoring and management system developed by Hoymiles specifically for distributors, installers, and end users of distributed PV power plants.

At present, the system has Installer version and End-user version, with the corresponding webpage and mobile application available.

This platform provides an easy-to-use procedure for accounts under monitoring. It enables installers to configure the monitored accounts quickly and provides them with power generation data of both plant and device, as well as detailed alarm information about the power plant regarding commissioning and diagnostics. This manual is intended to guide users in operating and managing S-Miles Cloud.

1.1 System Composition

Install the DTU, inverter, smart meter and battery before using the monitoring system. DTU is a communication gateway which is used to collect status and operation data from inverter and transmit control commands to it. At the same time, the DTU also connects to the Internet through a router and sends inverter data to the Hoymiles Monitoring Server to achieve remote control of the whole system.

1.2 Installer & End-user App/Platform

1.2.1 App Download

S-Miles Installer is a mobile application developed by Hoymiles especially for installers of distributed plants. It is committed to better performing installation and maintenance.

S-Miles End-user is a mobile application developed by Hoymiles especially for owners of distributed plants. It can absorb the operating data of plants from S-Miles Cloud.

a. Scan the QR code to download.

S-Miles Installer

S-Miles End-user

b. Search “Hoymiles” in the Google Play or App Store.

S-Miles Installer

S-Miles End-user

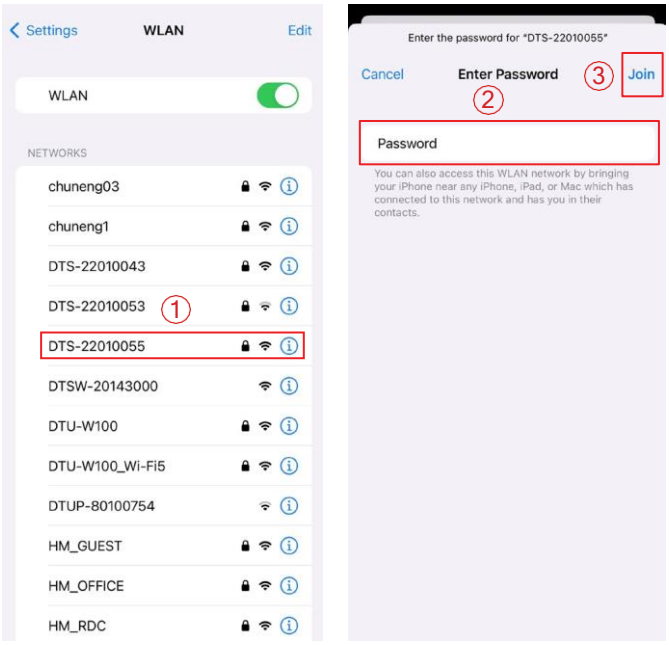
1.2.2 Platform

Open the browser, and then enter https://global.hoymiles.com in the address bar to enter the login interface. Please use the latest version of Google Chrome at a resolution of 1366×768 or above.

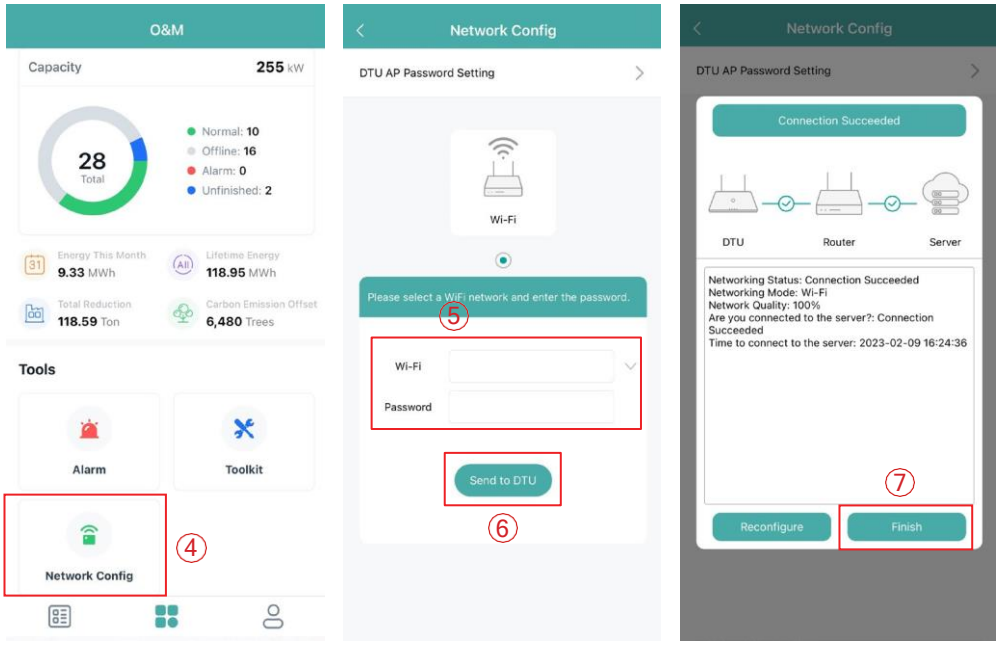
2. App Settings and Data Query

2.1 Configure the Network of DTU

a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the default password “**ESS12345**” to connect DTU.

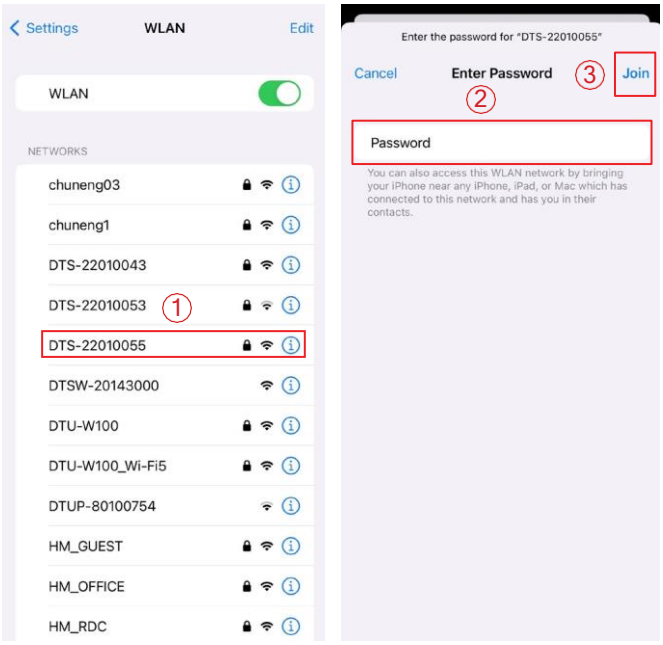


b. Open the S-Miles Installer App and choose the “O&M → Network Config”. Enter the account and password of nearby stable wireless network, click the button of “Send to DTU”, and wait until the “Connection Succeeded” appears to click “Finish”.

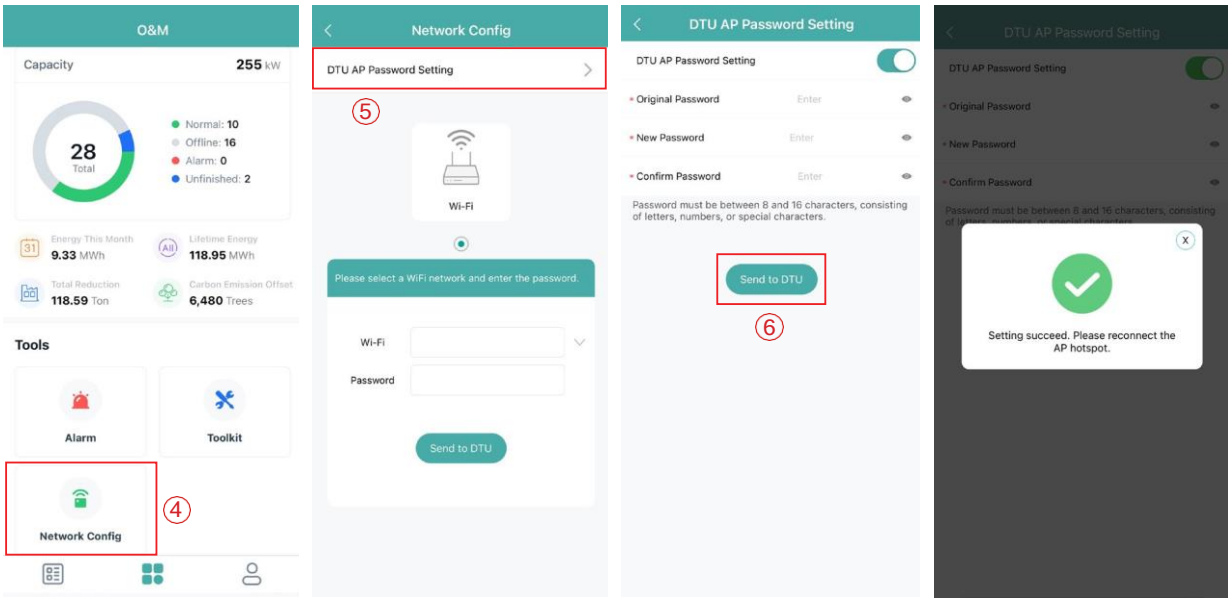


2.2 Change the Default Password

a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the default password “**ESS12345**” to connect DTU.



b. Open the App and choose the “O&M → Network Config → DTU AP Password Setting”. Enter the original password and new password, click the button of “Send to DTU”, and wait until “Setting succeed” appears to reconnect the DTU.



Note:

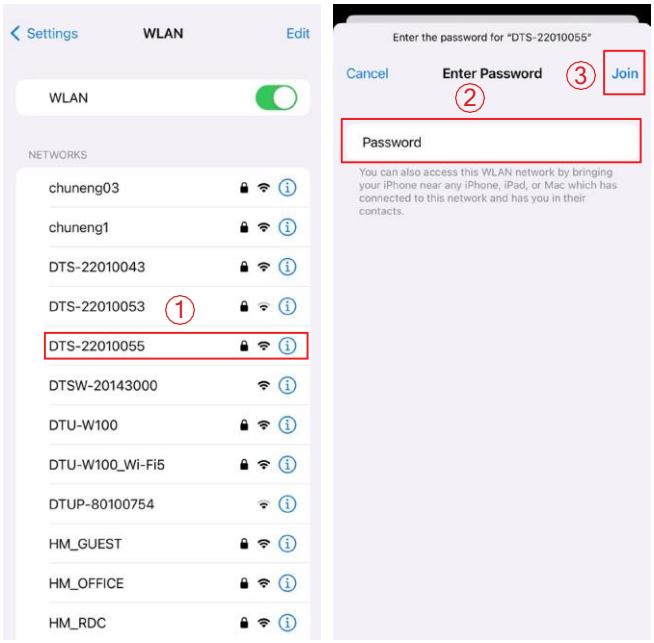
The Wi-Fi name and password do not support special characters such as spaces.

2.3 Reset the Password of DTU

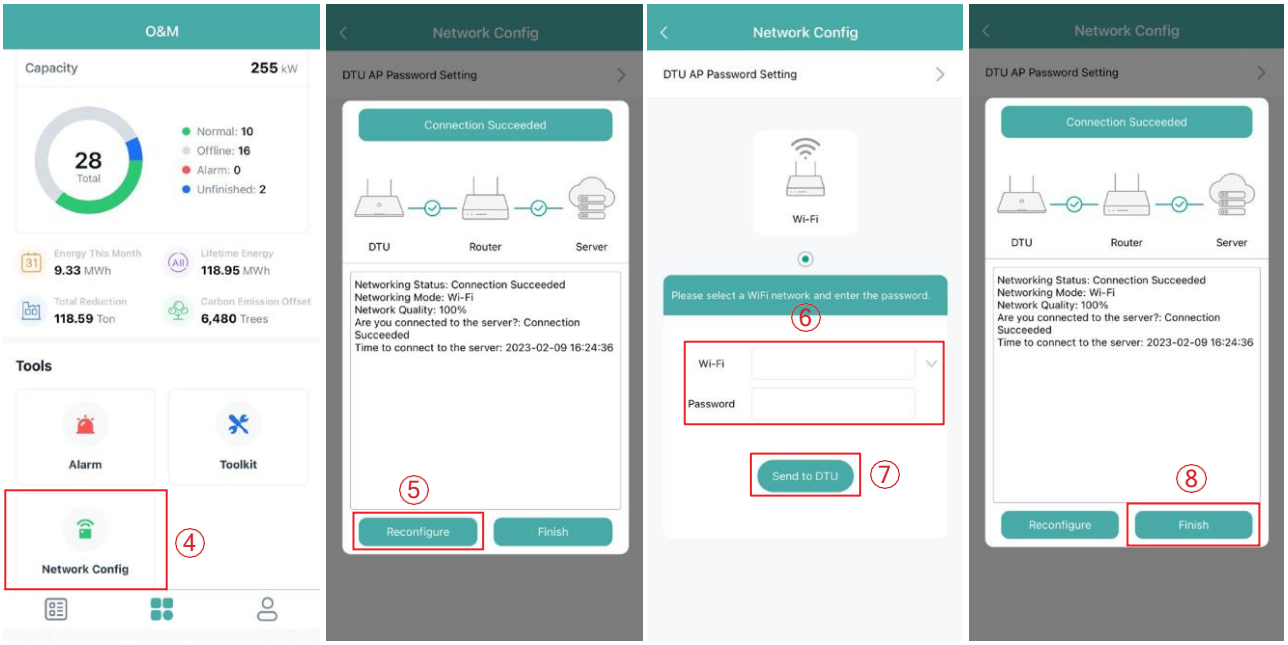
When the DTU is powered on, long press the “SET” button on the left of DTU for 5 seconds (DTU indicators will be off during the long press), and then the DTU password will be restored to default password “**ESS12345**”.

2.4 Reconfigure the Network of DTU

a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the password to connect DTU.

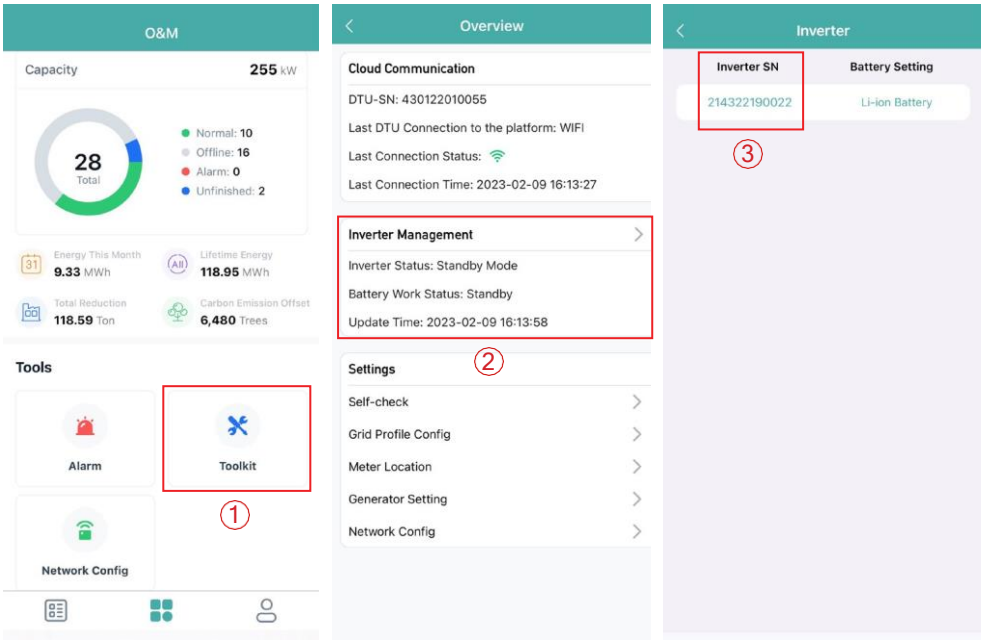


b. Open the App, choose “O&M → Network Config”, click the “Reconfigure”, and then choose a new wireless network. Enter the account and password, click the button of “Send to DTU”, and wait until “Connection Succeeded” appears to click “Finish”.

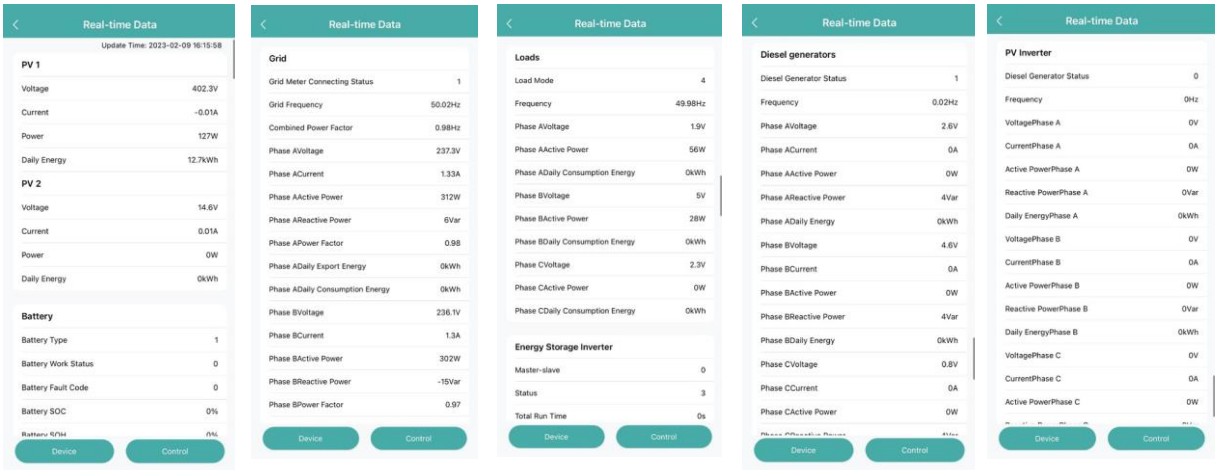


2.5 App Local Data Query

Click “Toolkit → Inverter Management”, and then choose “Inverter SN”.



You can check the real-time data of PV, battery, grid, load, diesel generator and PV inverter here.



3. About Monitoring Account

3.1 Get a Hoymiles Distributor/Installer Account

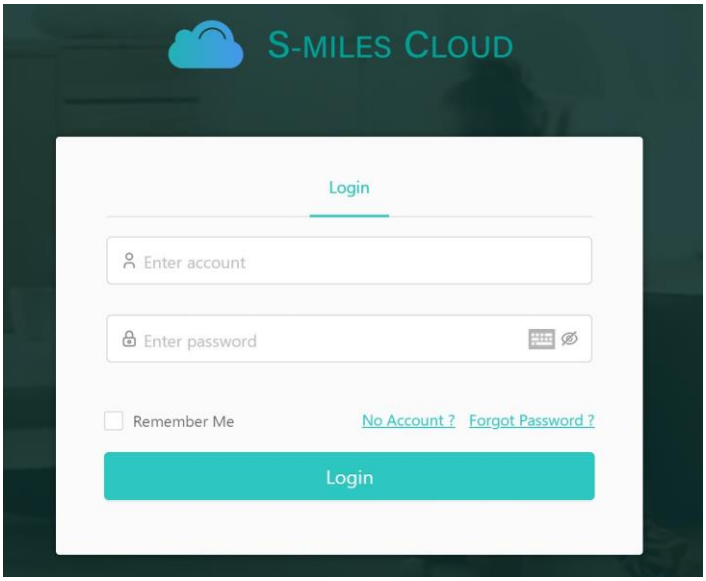
(1) If you are a new distributor, send an email to service@hoymiles.com. The Hoymiles Technical Service Center will apply for an account for you.

(2) If you are a new installer with Hoymiles and don't have an installer account, approach your distributor to create an account for you.

(3) If you are an installer/distributor and have an installer/distributor account, you can directly create subaccounts and plants under your existing account.

3.2 Log in to the S-Miles

Go to https://global.hoymiles.com/ and log in to the S-Miles Cloud (Hoymiles Monitoring Platform) with your account.



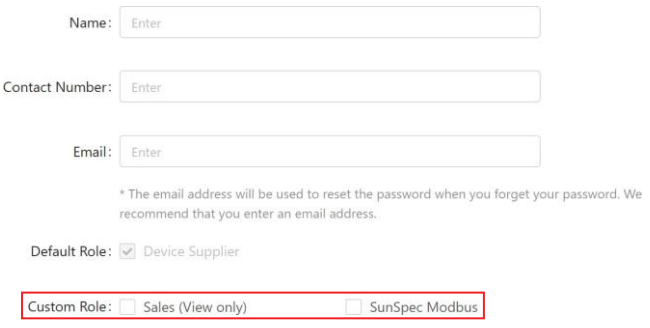
Note:

(1) The end-user only has the authority to check the plant data and perform smart control settings.

(2) Dealers can create distributor and installer organizations, while installers can create installer organizations and organization users.

(3) Regular users have two user-defined roles: sub-installer and normal installer. Sub-installers can only create and edit plants and issue networking command.

(4) No matter the account you are creating is a dealer or installer organization, there are two custom roles. You can only check the plant information and are not allowed to edit the plant when the "sales (view only)" role is selected.



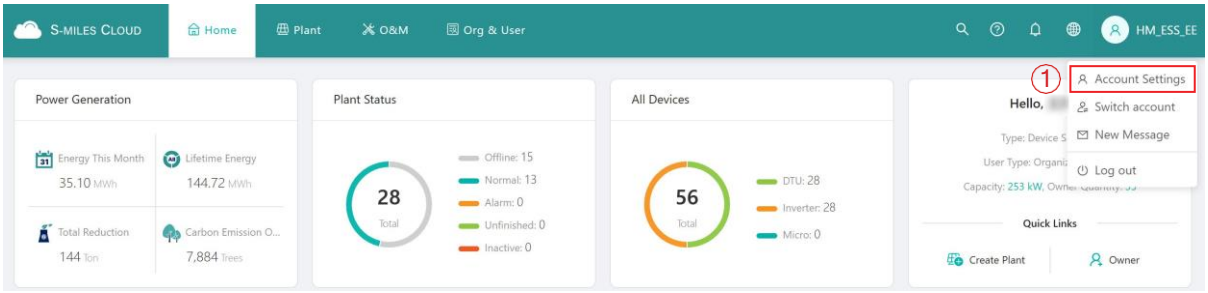
(5) An organization can have numerous login accounts, so just select the organization name and add organization users.

(6) Email can also be used as a login account.

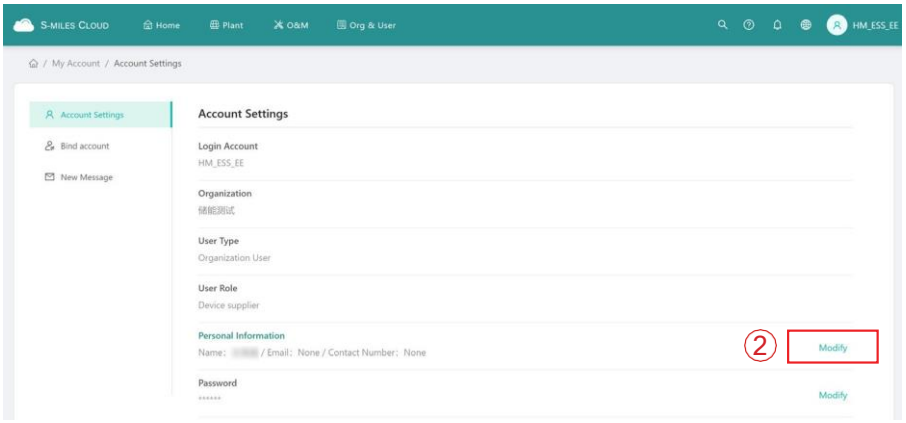
3.3 Change Email and Password

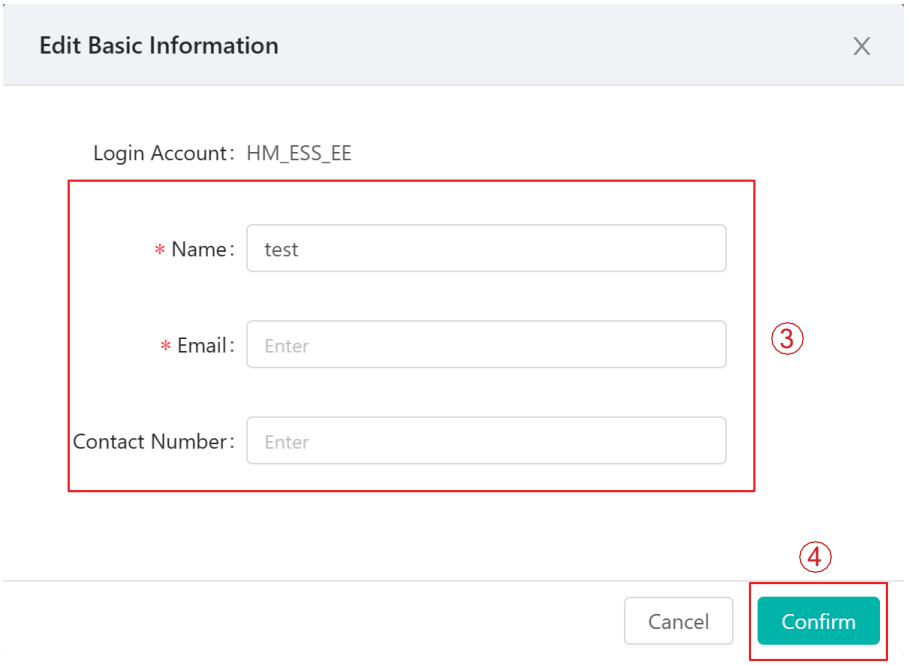
a. Enter your account and password and log in to the Hoymiles monitoring platform.

b. Select the person icon on the top right corner and click the “Account Settings” button.

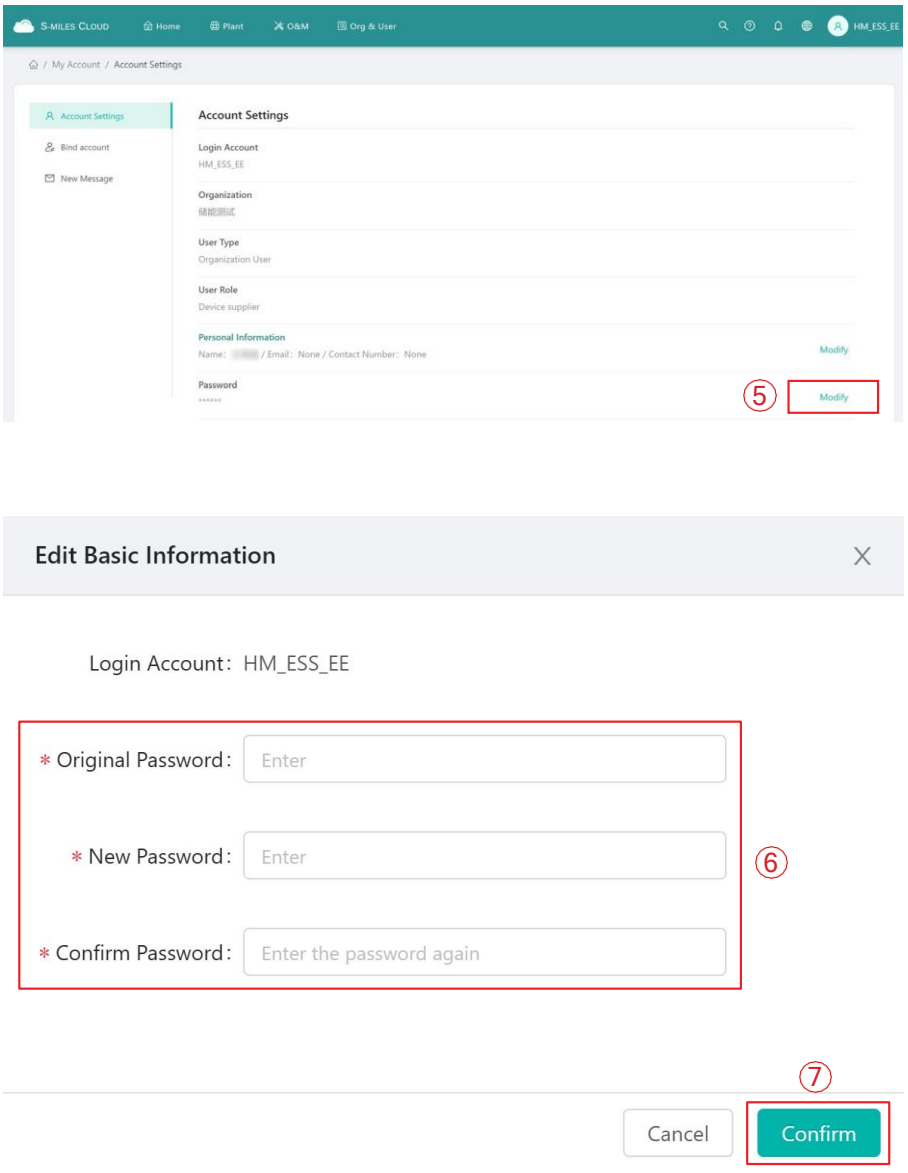


c. Click “Modify” button on the right of personal information, enter new Email, and then click “Confirm”.



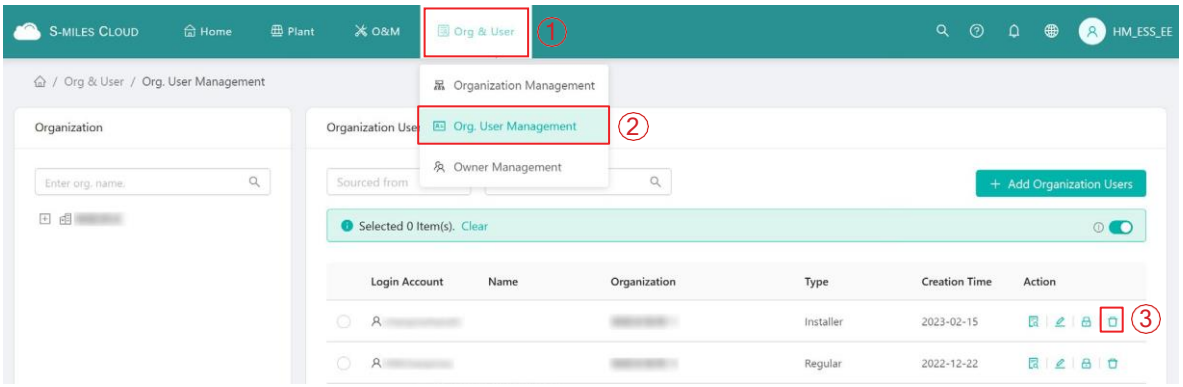


d. Click “Modify” button on the right of password, enter original password and new password, and then click “Confirm”.

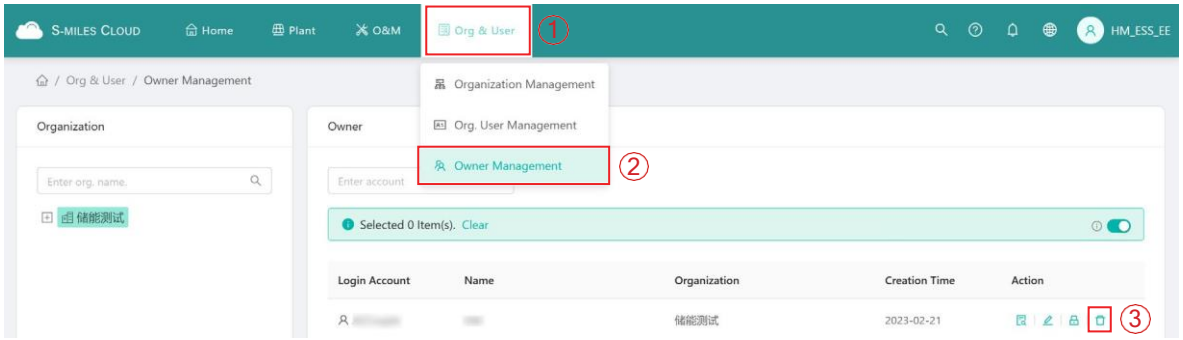


3.4 Delete an Account

a. Select “Org. User Management” on the menu bar under “Org & User”, choose the organization, and then click the “Delete” button to complete deletion.



b. Select “Owner Management” on the menu bar under “Org & User”, choose the organization, and then click the “Delete” button to complete deletion.

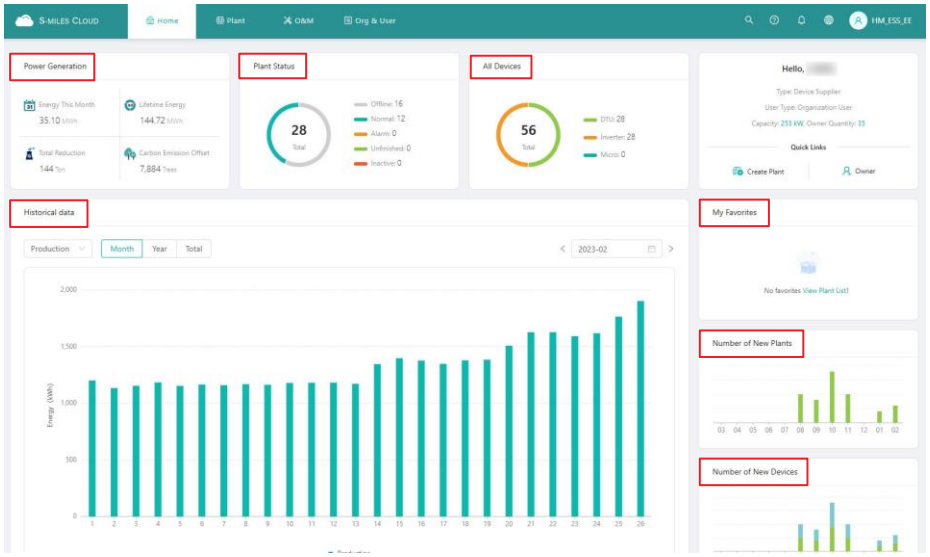


4. Web Page Introduction

The menu bar shows the main functions of S-Miles Cloud, so the user can select the corresponding pages and perform corresponding operations.

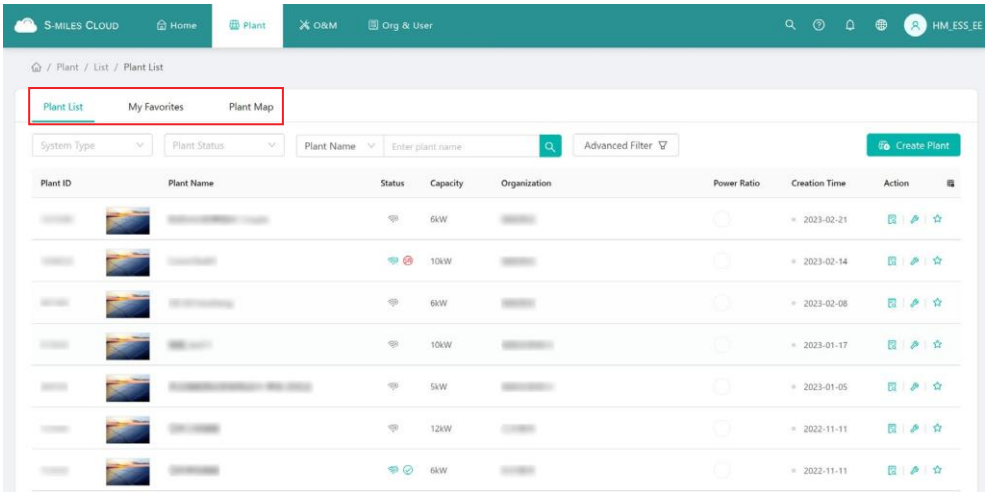
4.1 Home Page

The Home page includes the power generation, plant status, all devices, historical power generation data, number of new plants, number of new devices and your favorites.



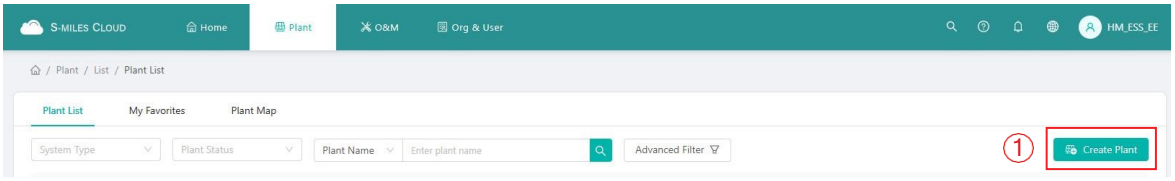
4.2 Plant Page

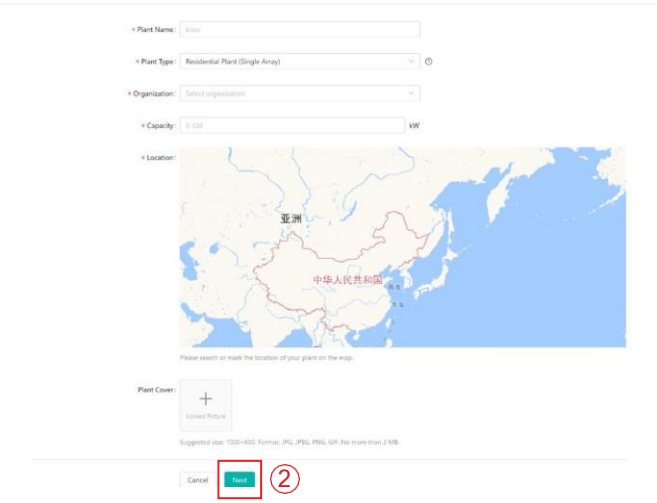
The Plant page includes the plant list, your favorites and the plant map.



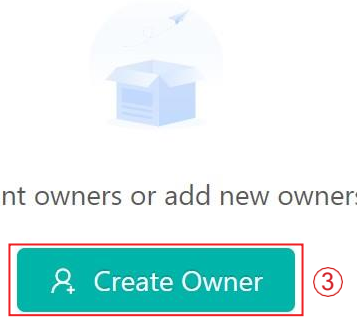
4.2.1 Create a Plant

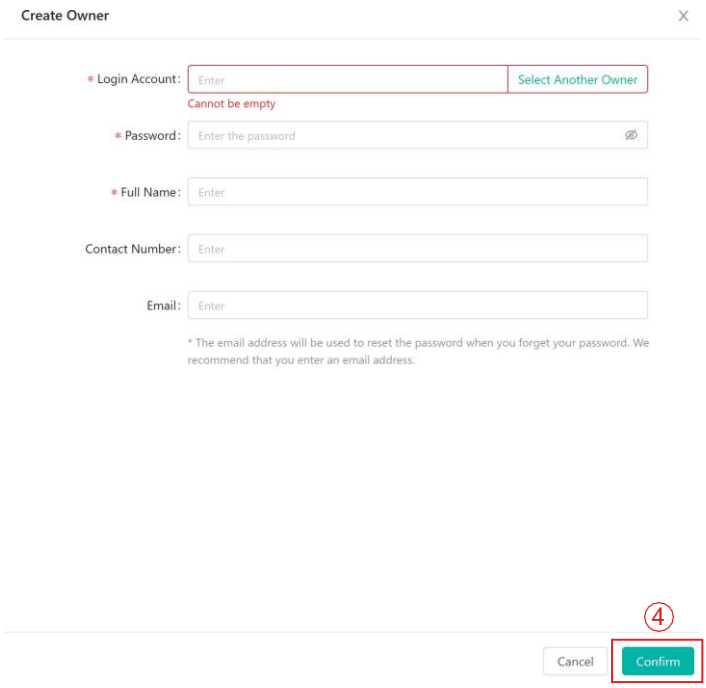
a. Click “Create Plant”, fill in the basic information, and then click “Next”.



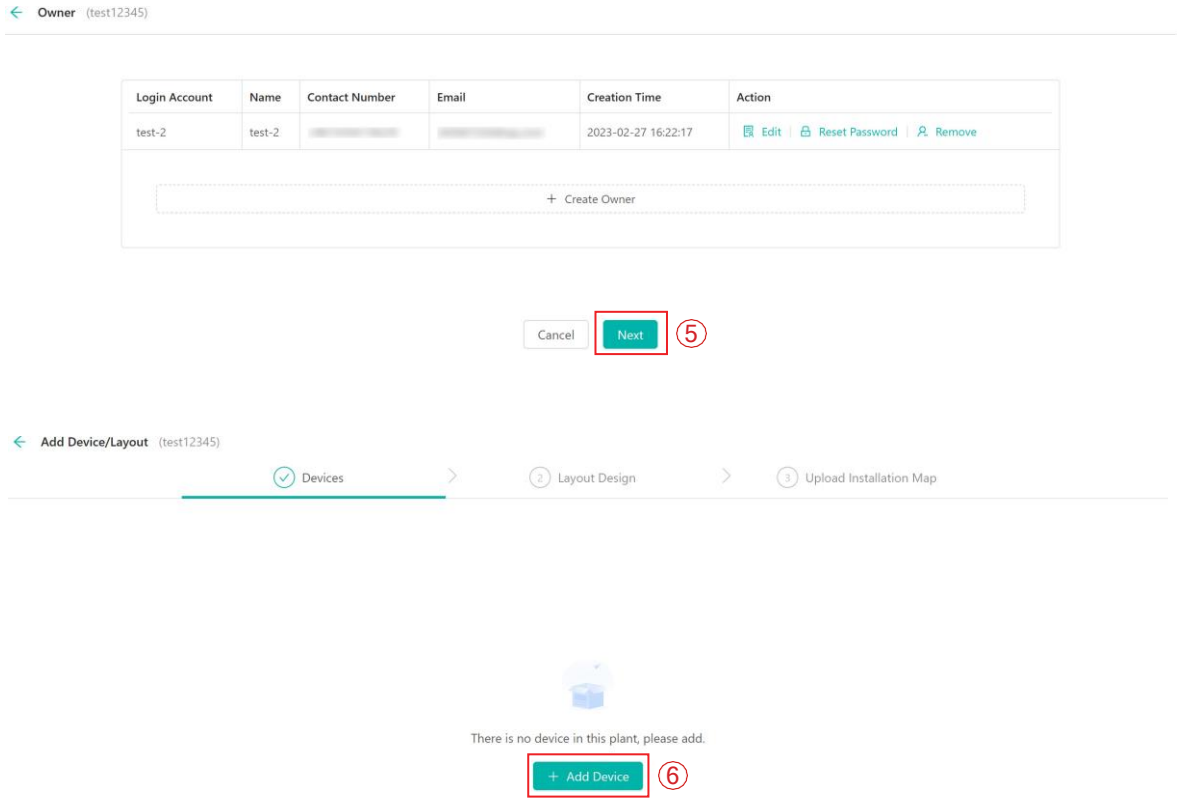


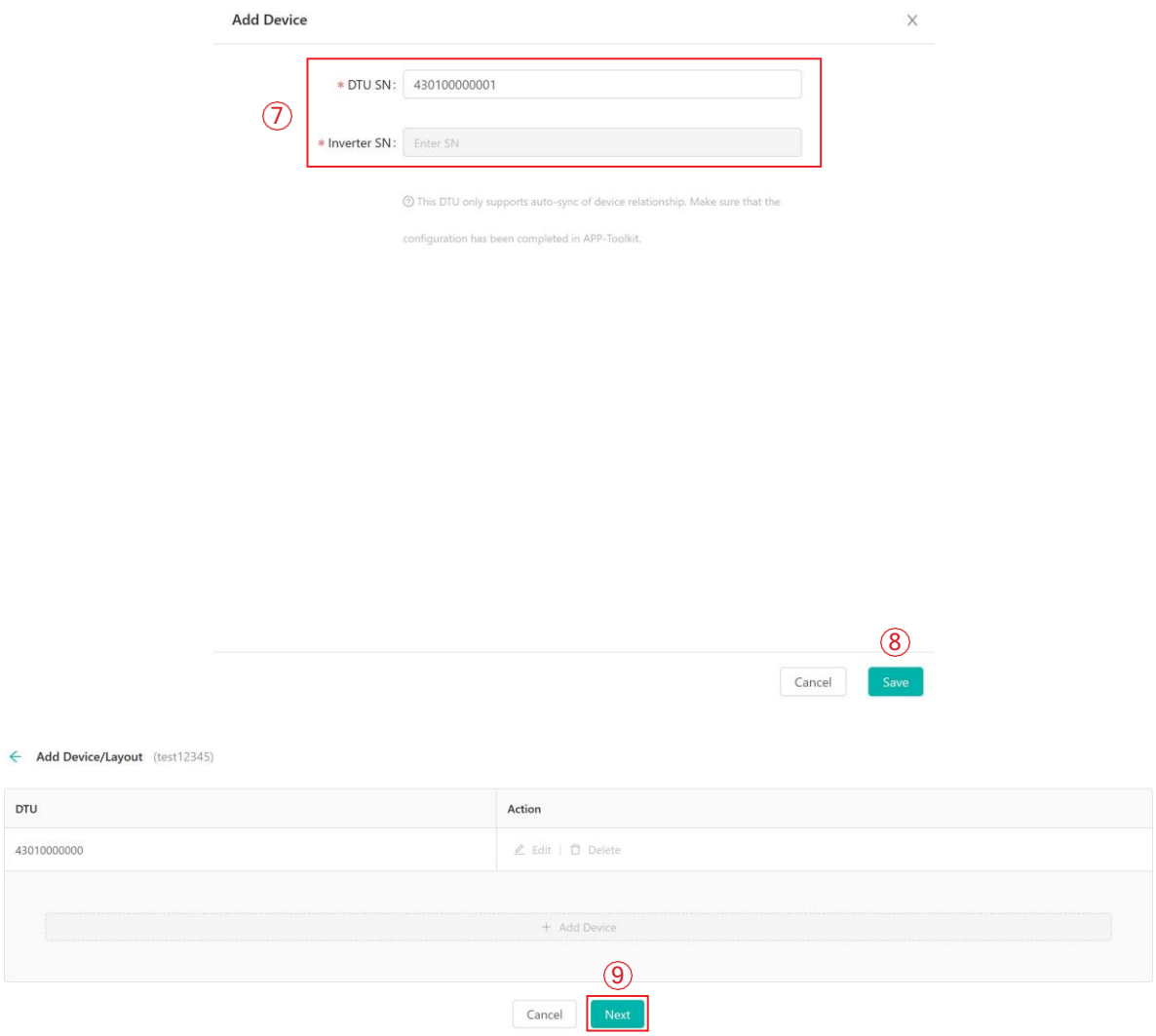
b. Click “Create Owner”, fill in the owner information, and then click “Confirm”.



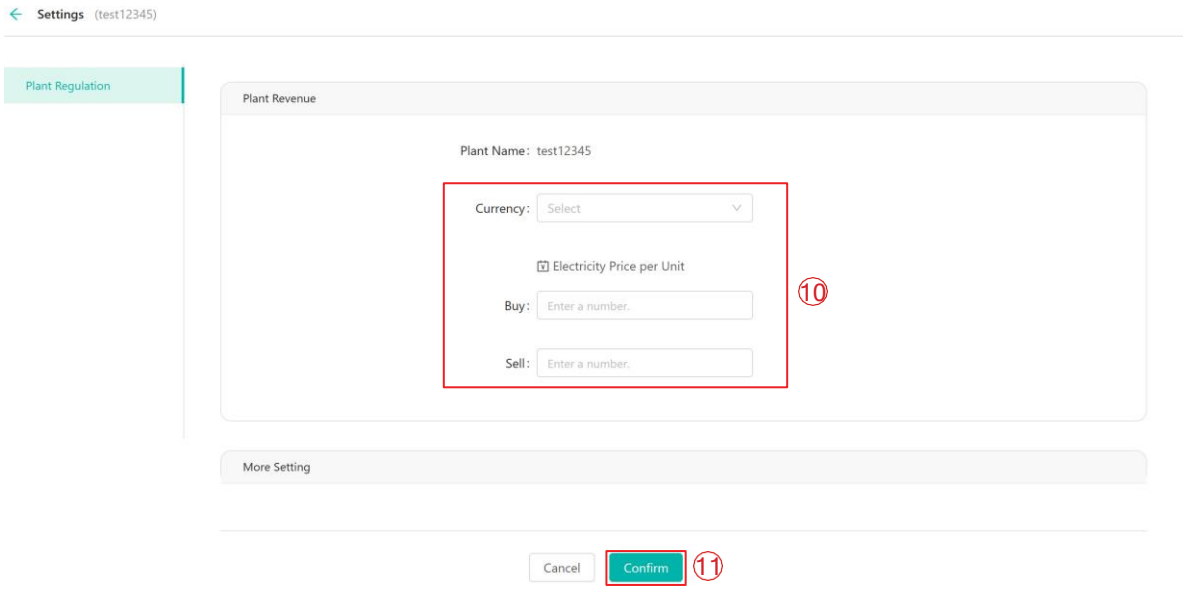


c. Click “Next → Add Device”, fill in the DTU serial number, and then the inverter serial number will be automatically recognized. After that, click “Next” to go to the final step.



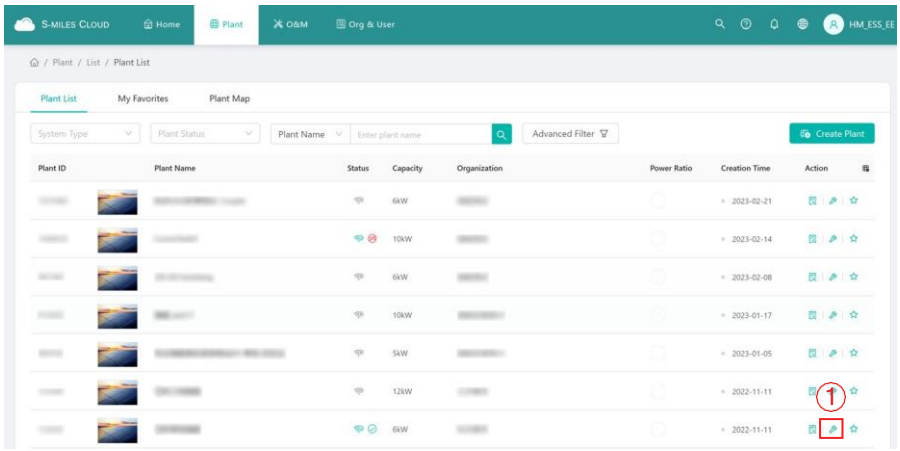


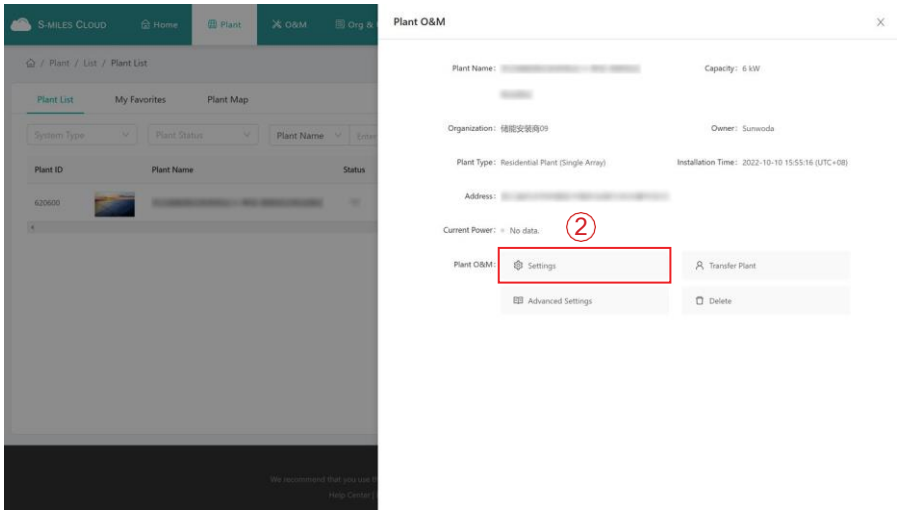
d. Fill in the plant regulation information and click “Confirm“ to finish the plant creation.

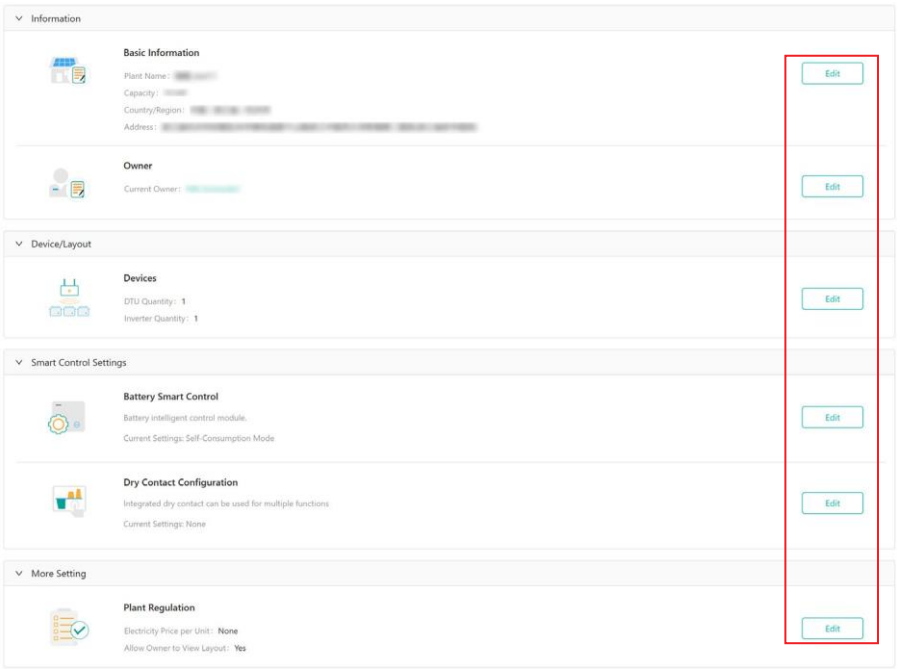


4.2.2 Edit Plant Basic Information

You can directly choose the plant you want to edit, or search it according to device name/ID, click the "Settings" button on the left side of the Plant O&M, and then edit the information you want to change.



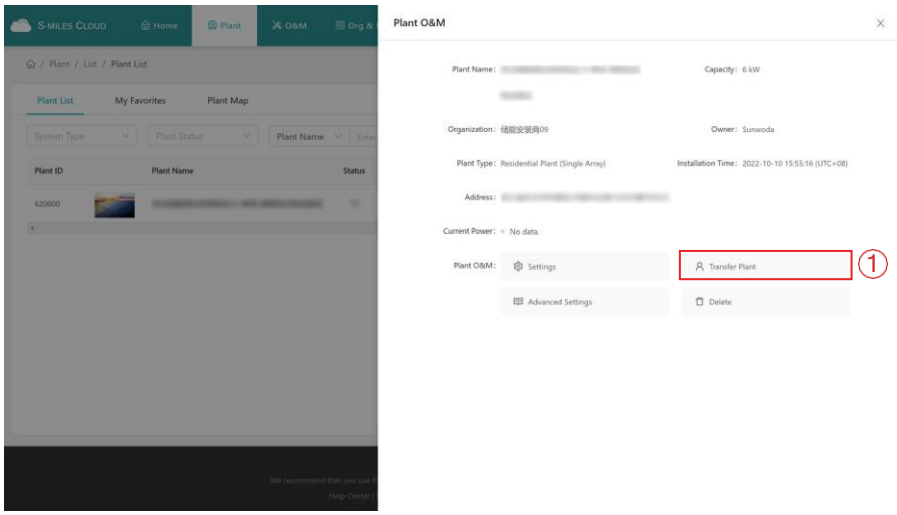




** For details of Smart Control Settings, please refer to Chapter 5.*

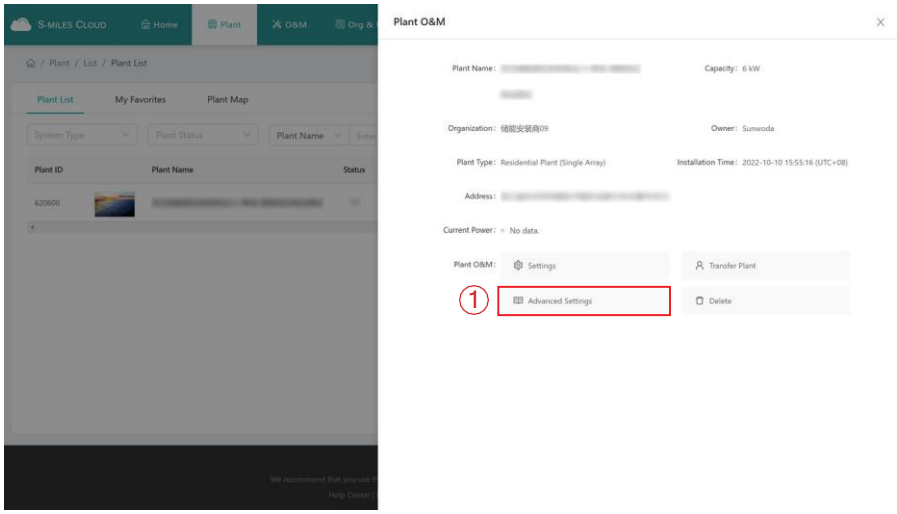
4.2.3 Transfer a PV Plant to Another Organization

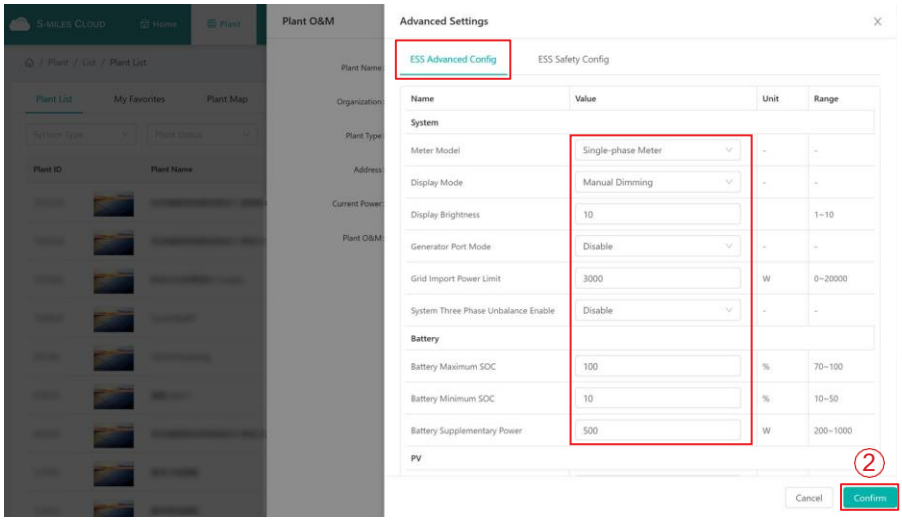
Select “O&M” on the right side of the plant list, click the “Transfer Plant” button, choose the new organization that you want to transfer to, and then click “Confirm”.



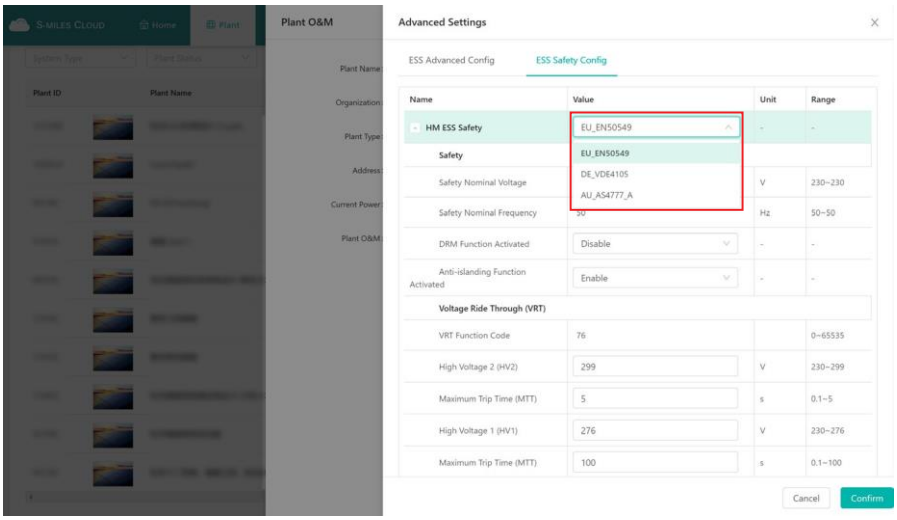
4.2.4 Update the Profile of Inverter

Choose the plant of which you want to update the profile, and then click the “Advanced Settings” button on the left side of the Plant O&M. You can change the parameters within the certain range, and then click “Confirm”.



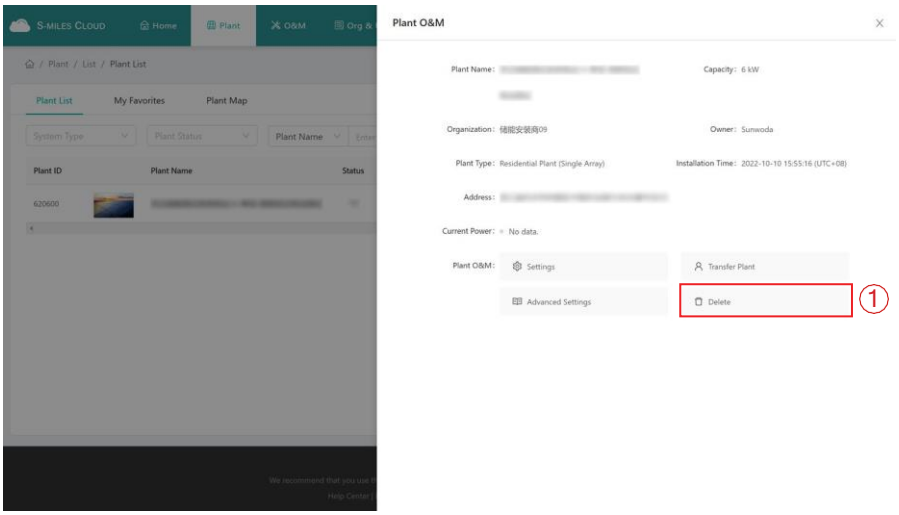


When ESS Safety Config is performed, please firstly choose corresponding grid code in your region, and in other regions, you can adjust parameters in accordance with local grid standard.



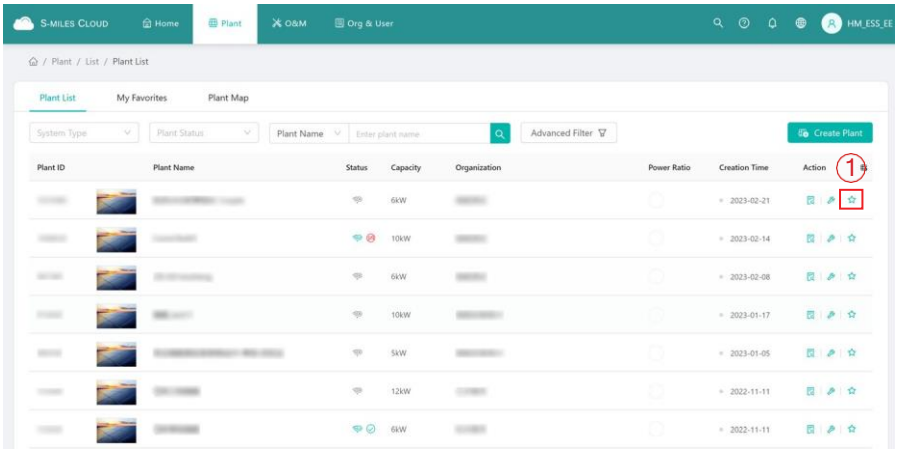
4.2.5 Delete a Plant

Choose the plant you want to delete, and then click the “Delete” button on the left side of the Plant O&M. To delete a plant, you will need to firstly delete all devices under this plant.



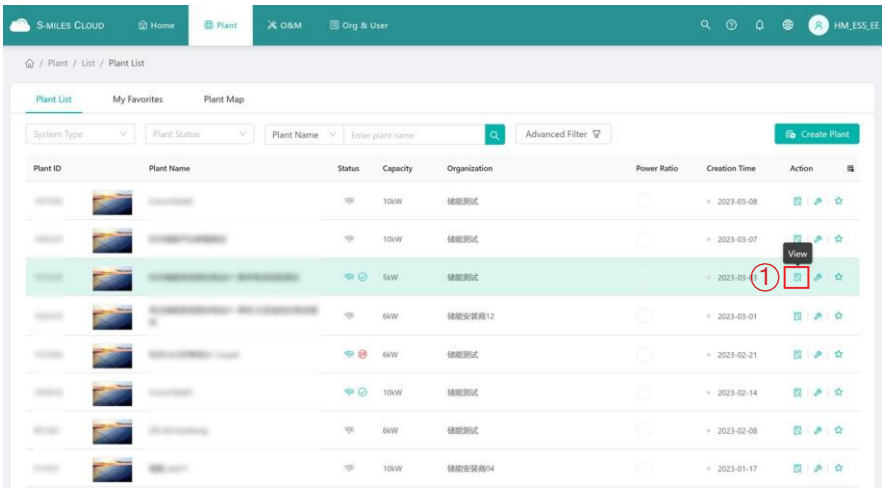
4.2.6 Add a Plant to Favorites

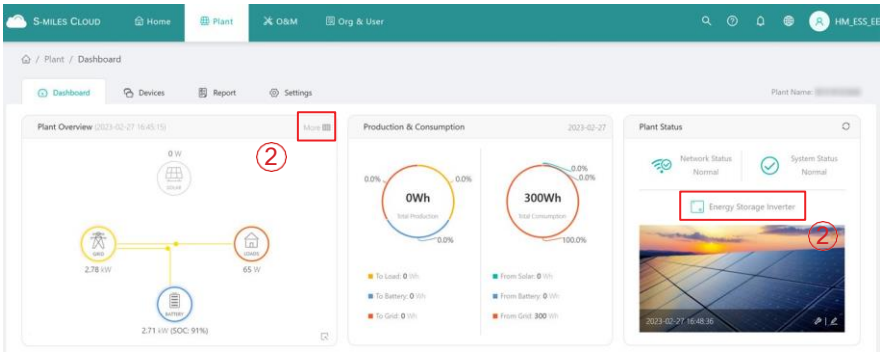
Choose the plant that you want to add to your favorites and click “Favorite”.

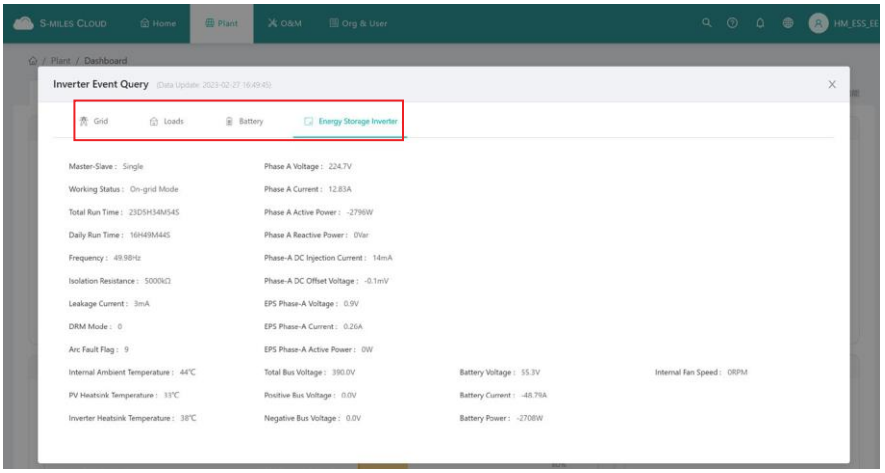


4.2.7 Check the Various Data of Device

Go to the PV plant page, select “View” and click “More” or “Energy Storage Inverter”.

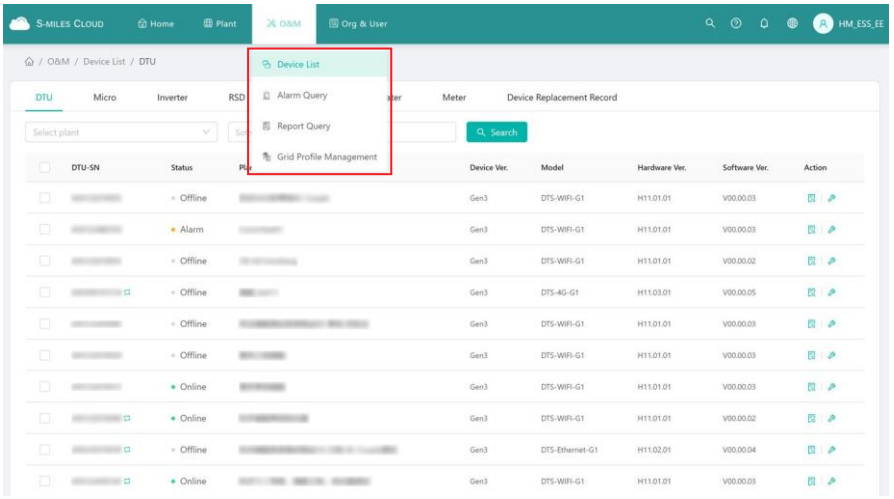






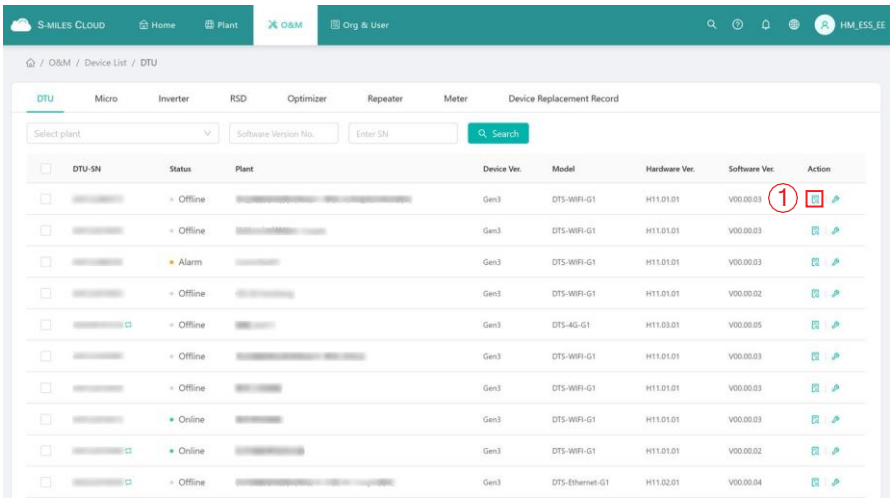
4.3 O&M

The O&M page includes device list, alarm query, report query and grid profile management.



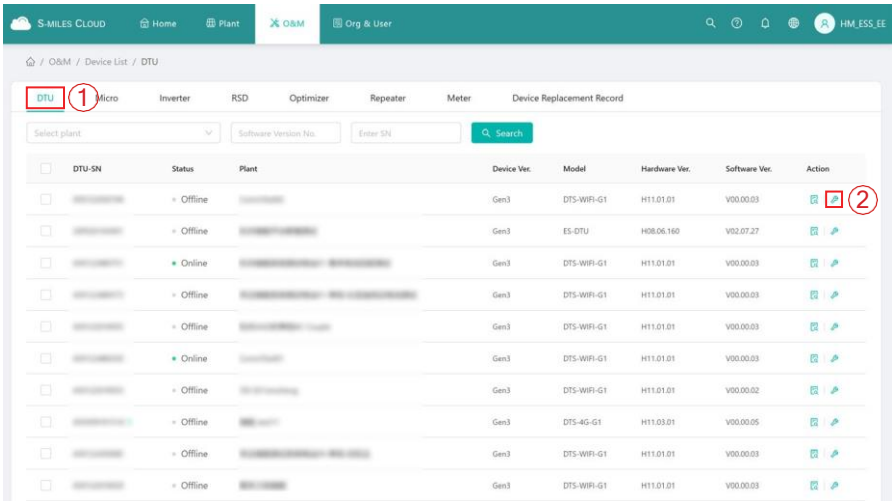
4.3.1 Device Information Query

Click “Device List → DTU”, and then click “View” to view device details.



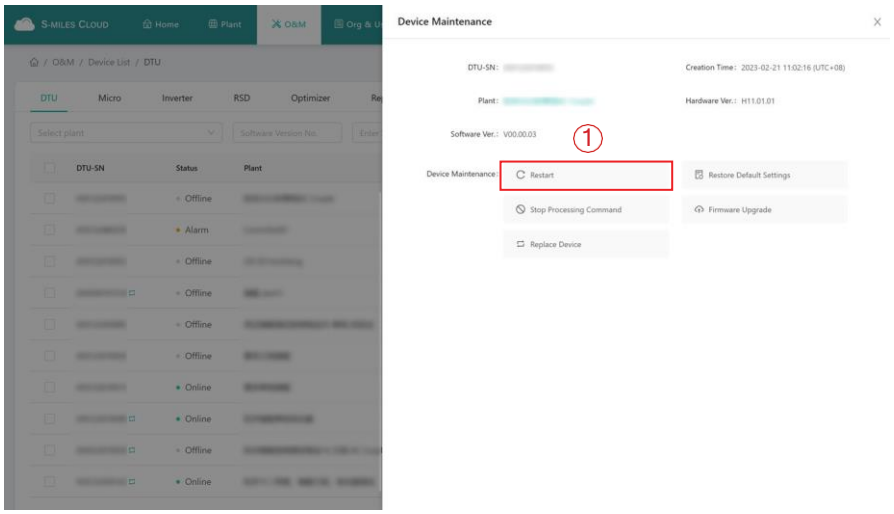
4.3.2 DTU Maintenance

Click “Device List → DTU”, choose the DTU SN and click the “Device Maintenance”.



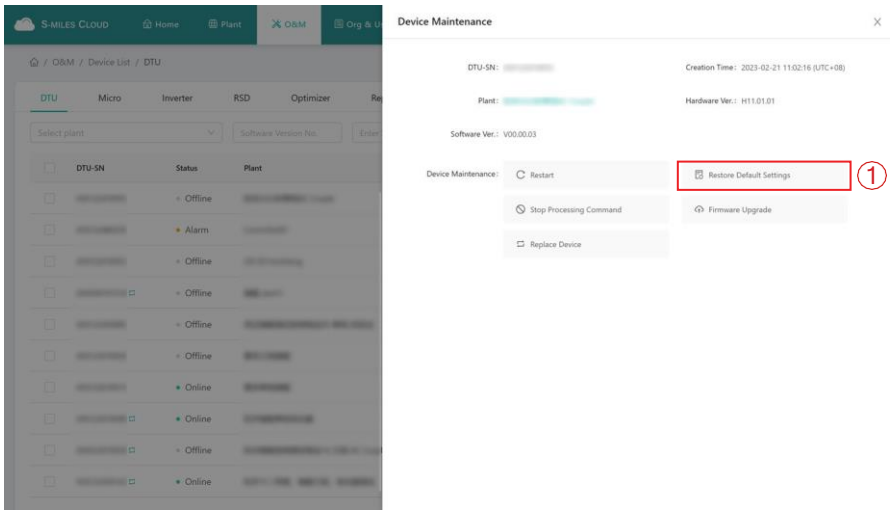
4.3.2.1 Restart the DTU

Click “Device List → DTU”, choose the DTU SN, and then click “Device Maintenance → Restart”.



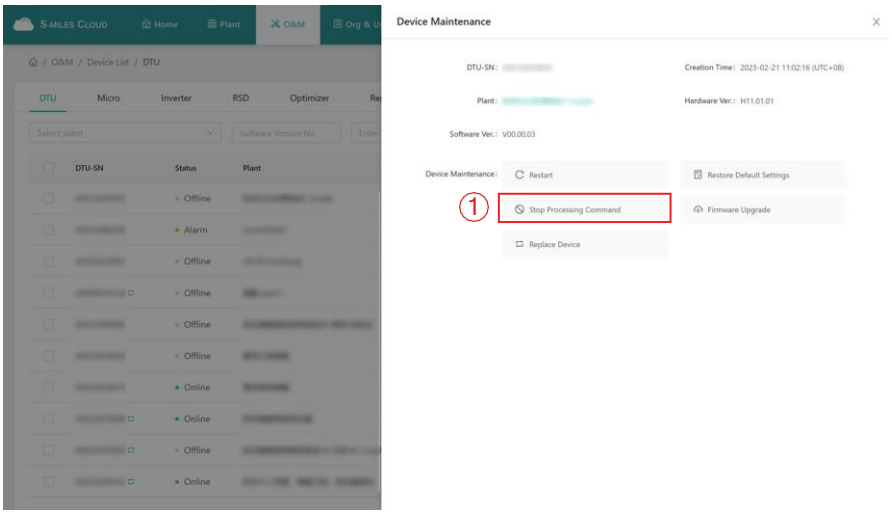
4.3.2.2 Restore the DTU Default Settings

Click “Device List → DTU”, choose the DTU SN, and then click “Device Maintenance → Restore Default Settings”.



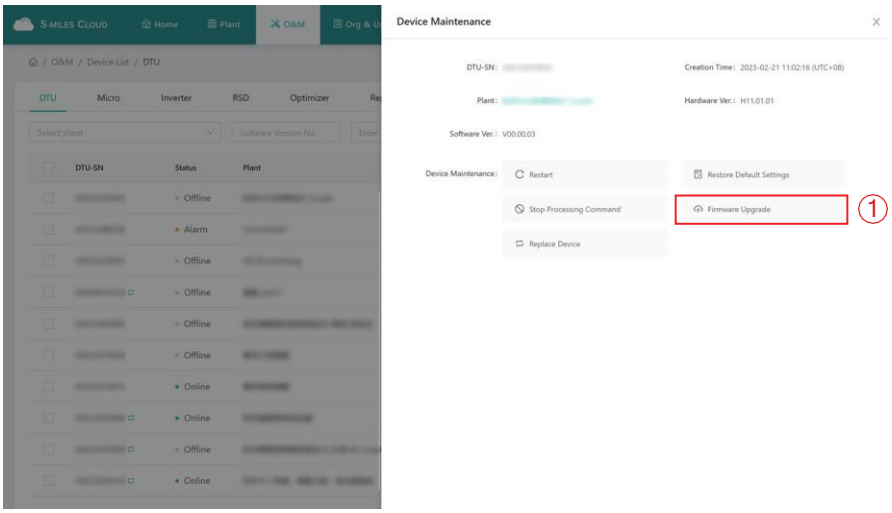
4.3.2.3 Stop the Processing Command of DTU

Click “Device List → DTU”, choose the DTU SN, and then click “Device Maintenance → Stop Processing Command”.



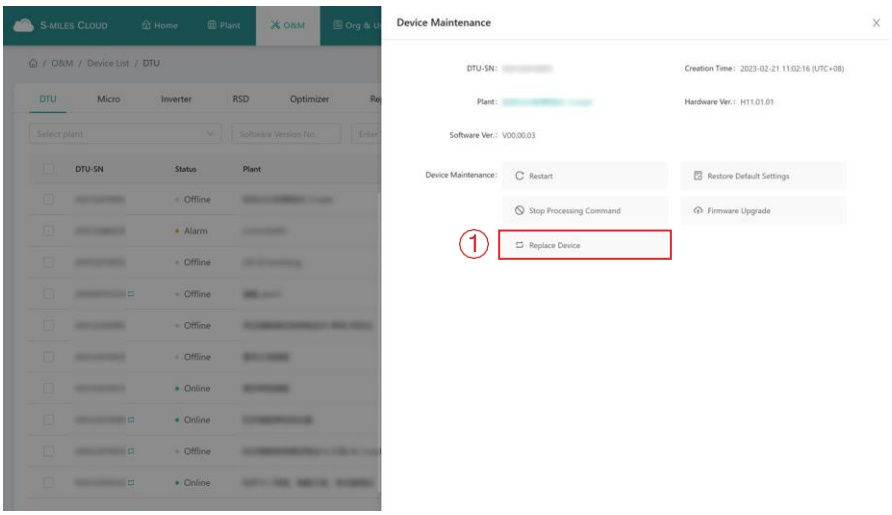
4.3.2.4 Upgrade the DTU Firmware

Click “Device List → DTU”, choose the DTU SN, and then click “Device Maintenance → Firmware Upgrade”.



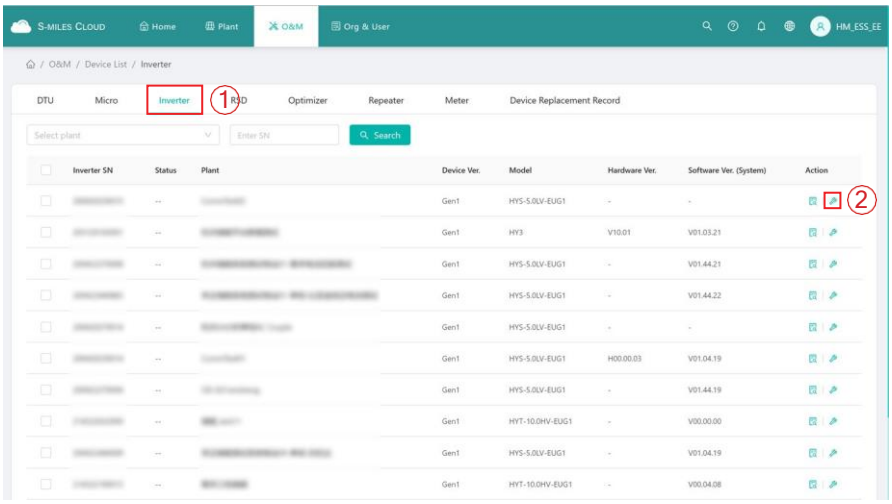
4.3.2.5 Replace the DTU

Click “Device List → DTU”, choose the DTU SN, and then click “Device Maintenance → Replace Device”.



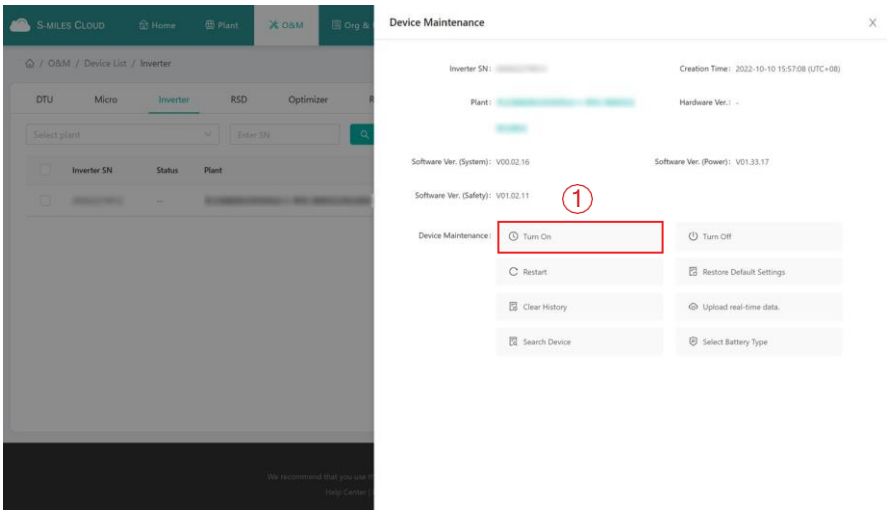
4.3.3 Inverter Maintenance

Click “Device List → Inverter”, choose the Inverter SN and click “Device Maintenance”.



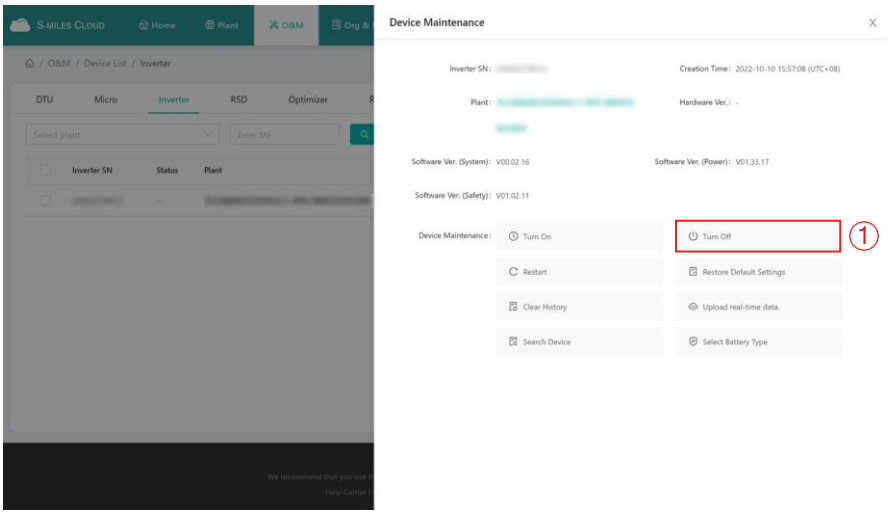
4.3.3.1 Turn on the Inverter

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Turn On”.



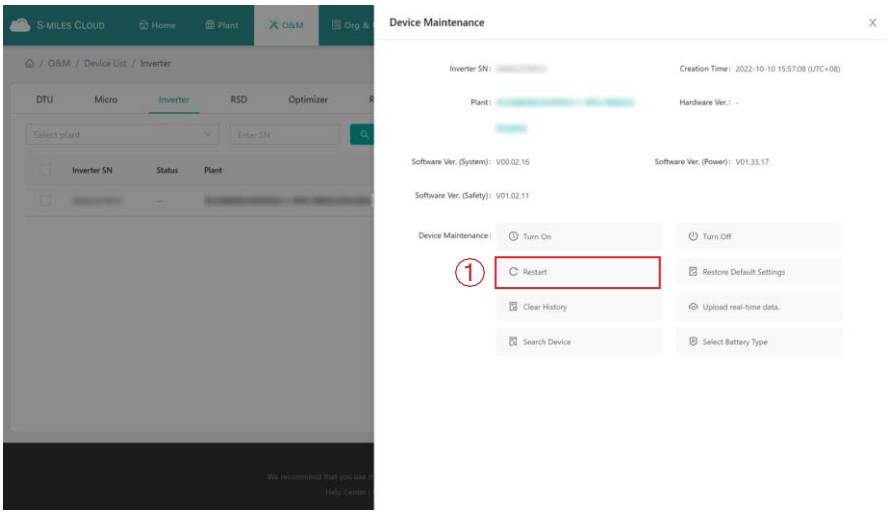
4.3.3.2 Turn off the Inverter

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Turn Off”.



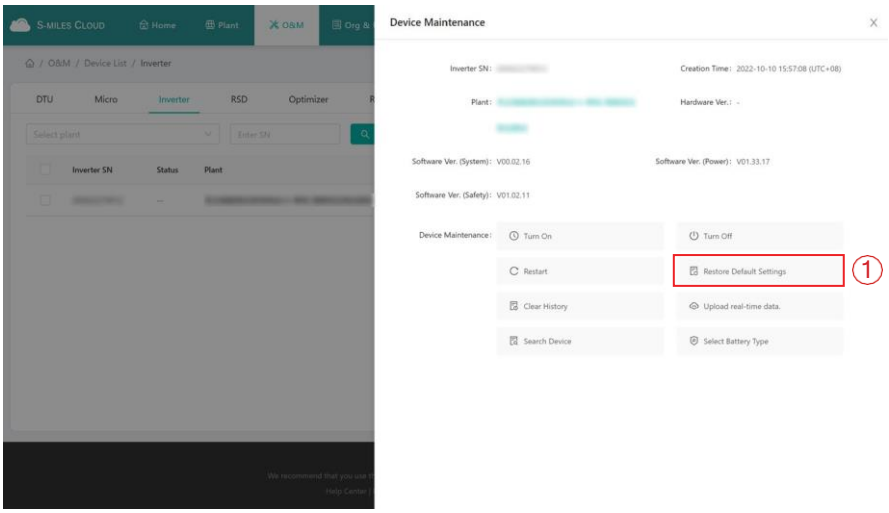
4.3.3.3 Restart the Inverter

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Restart”.



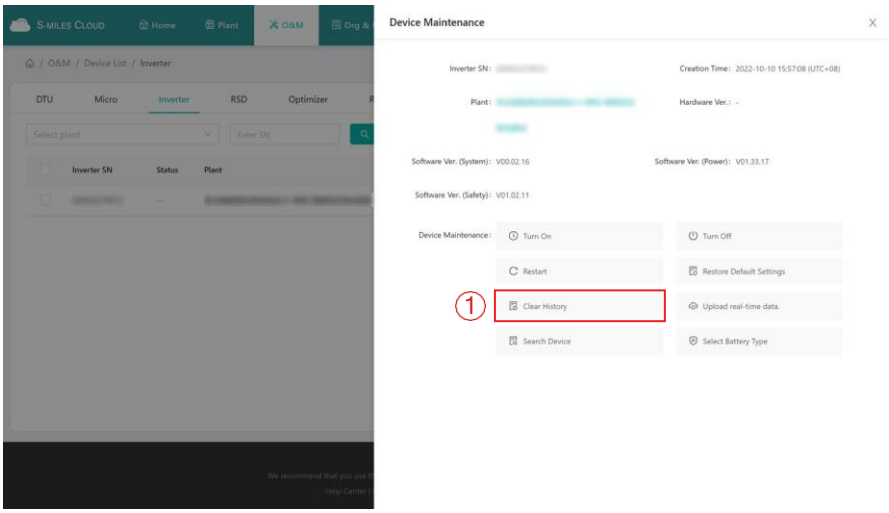
4.3.3.4 Restore the Inverter Default Settings

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Restore Default Settings”.



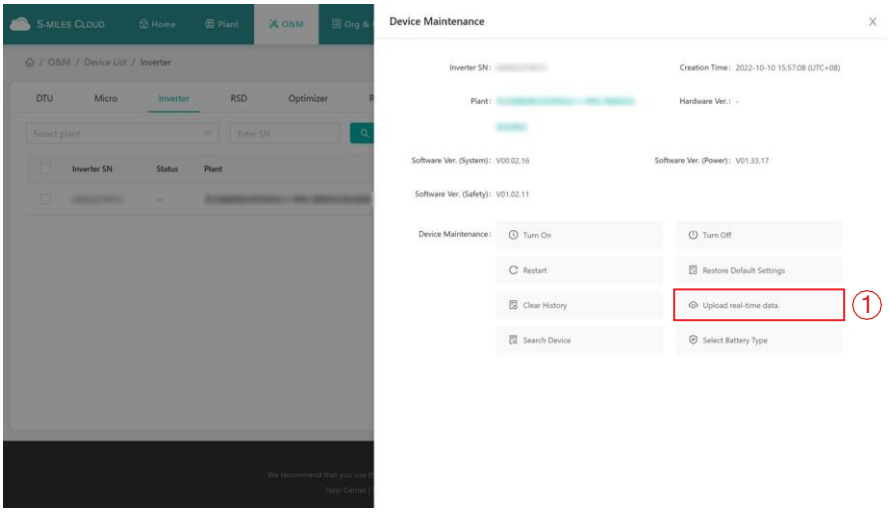
4.3.3.5 Clear the History of Inverter

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Clear History”.



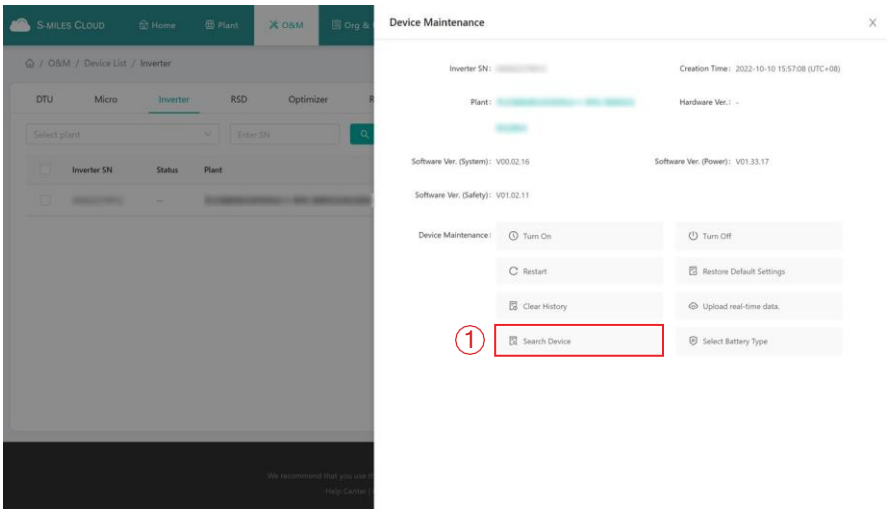
4.3.3.6 Upload the Real-time Data

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Upload real-time data”.



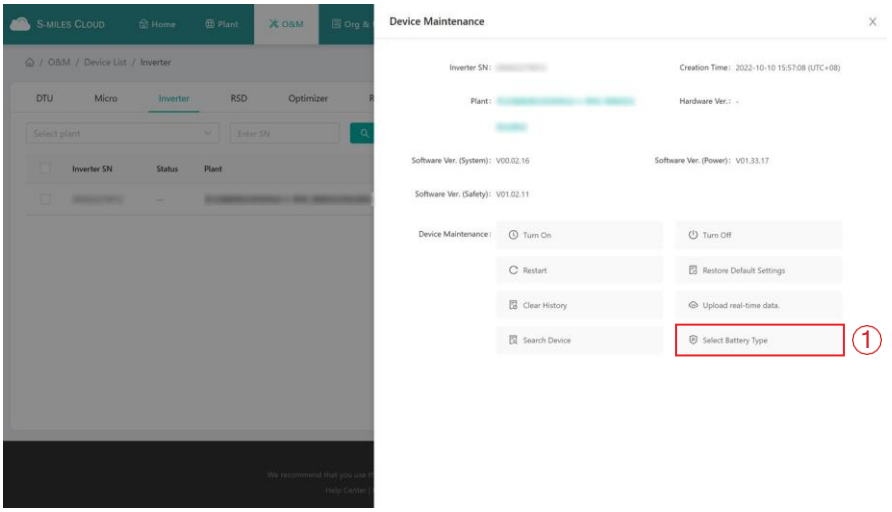
4.3.3.7 Search the Device

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Search Device”.



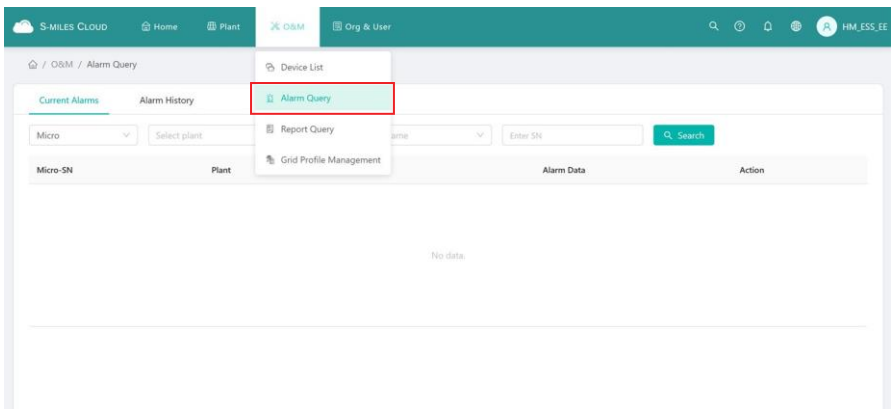
4.3.3.8 Select the Battery Type

Click “Device List → Inverter”, choose the Inverter SN, and then click “Device Maintenance → Select Battery Type”.



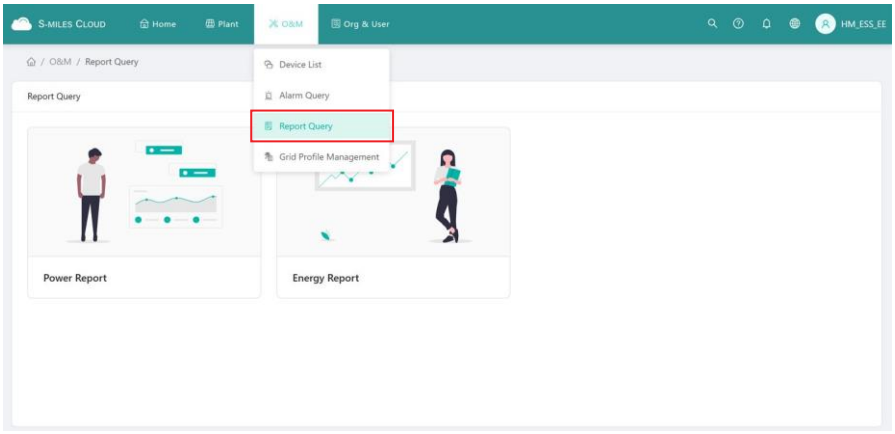
4.3.4 Alarm Query

Click “Alarm Query” to check the current alarms and alarm history.

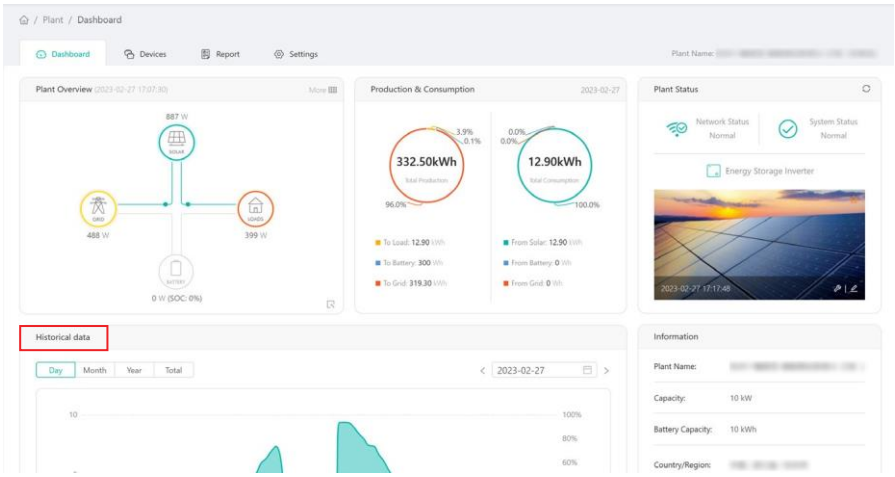


4.3.5 Report Query

Click “Report Query” to check the power report and energy report.

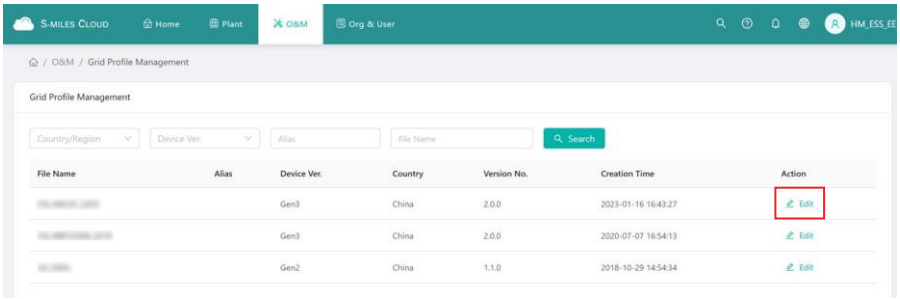


You can download the power report of the last 15 days and the energy report of any time. To download the power report beyond 15 days, please refer to the Plant Dashboard.



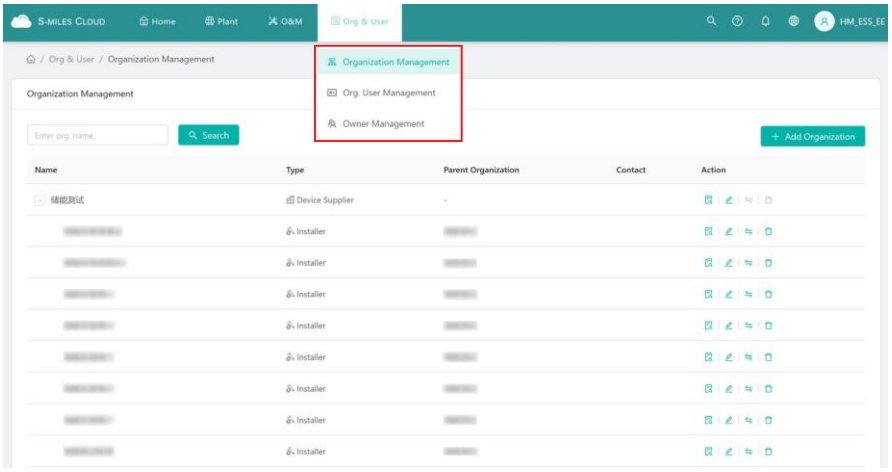
4.3.6 Grid Profile Management

Click “Grid Profile Management” to check the grid profile. And you can click “Edit” to edit the grid profile.



4.4 Org & User

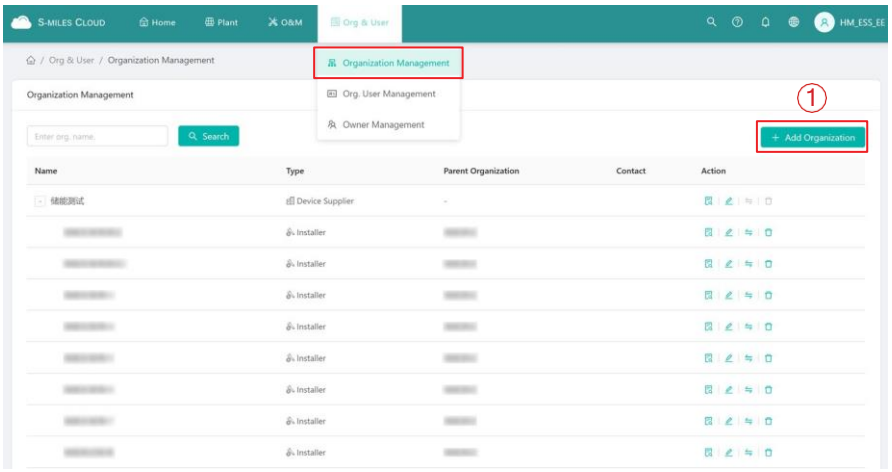
The Org & User page includes organization management, Org. User management and owner management.

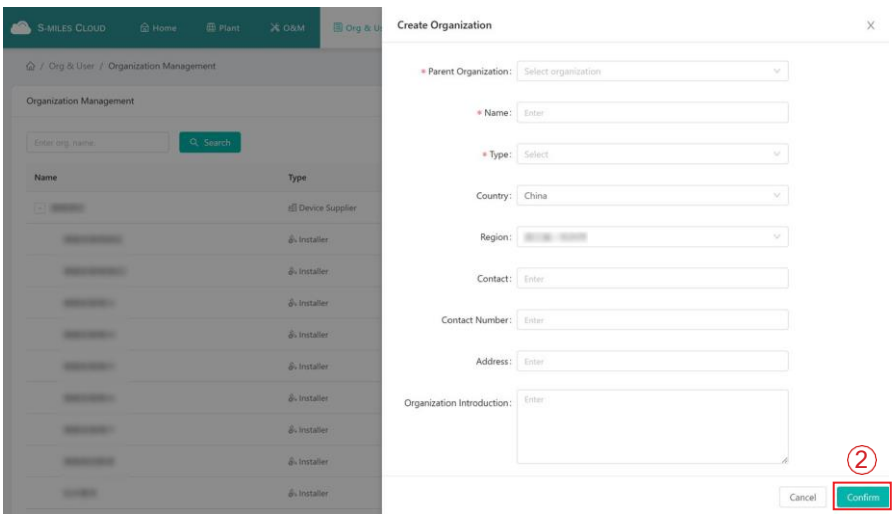


4.4.1 Organization Management

4.4.1.1 Create Organization

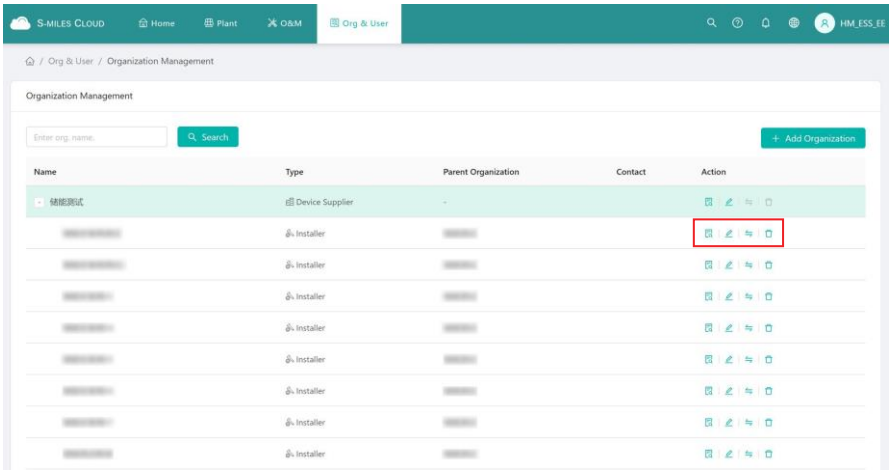
Click “Add Organization”, fill in the details of organization user, and then click “Confirm” to complete account creation.





4.4.1.2 Organization Management

In this page, you can check, edit, transfer and delete the organization.



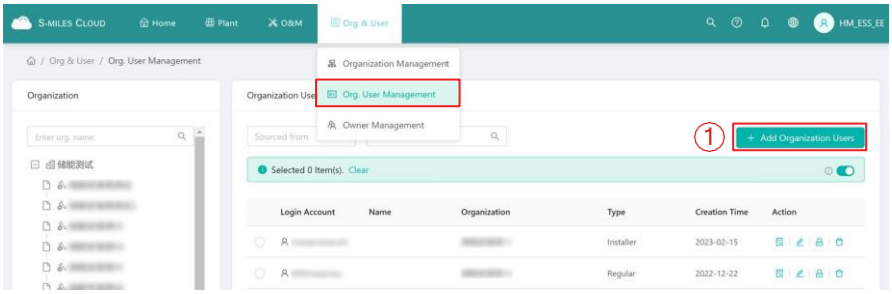
Note:

The PV plant cannot be transferred when one owner account is used by multiple PV plants. If one of the PV plants will be transferred, please firstly remove the owner account from other PV plants.

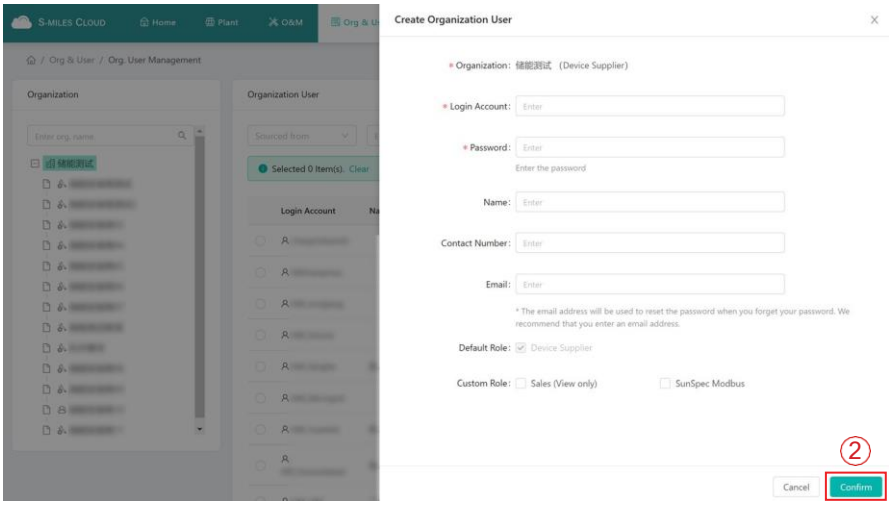
4.4.2 Org. User Management

In this page, you can add organization users:

a. Select “Org. User Management”, select and double click the organization name you just created on the left, and then click “Add Organization Users”.

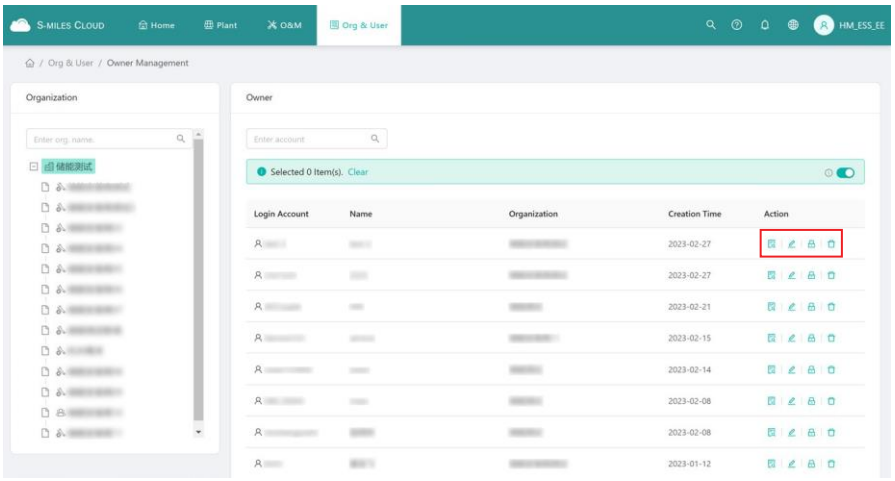


b. Fill in the details of organization user and click “Confirm” to complete account creation.



4.4.3 Owner Management

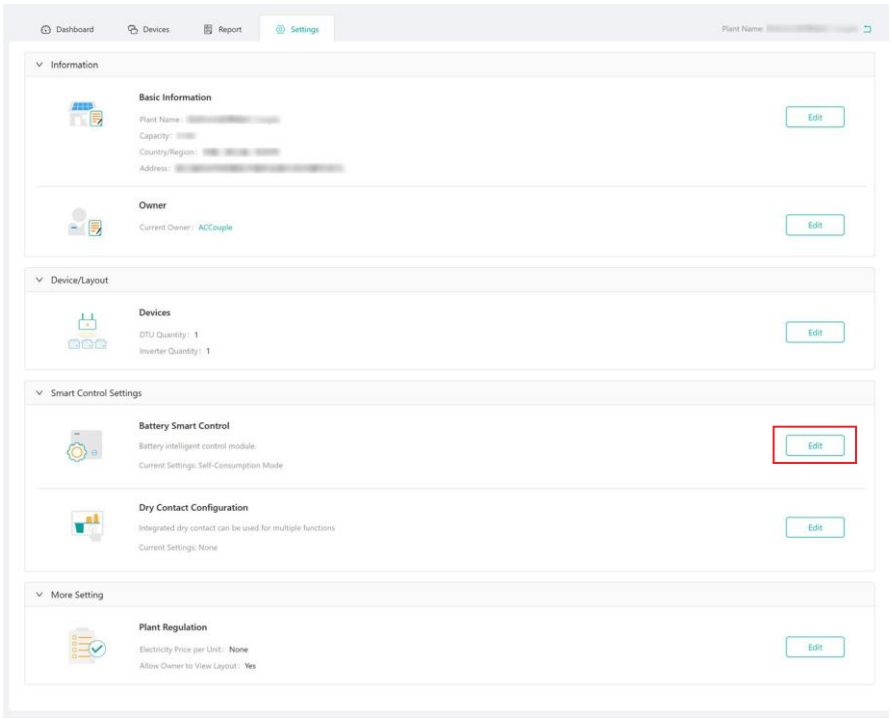
In this page, you can check and edit the account information, reset the account password and delete the account.



5. Smart Control Settings

5.1 Battery Smart Control

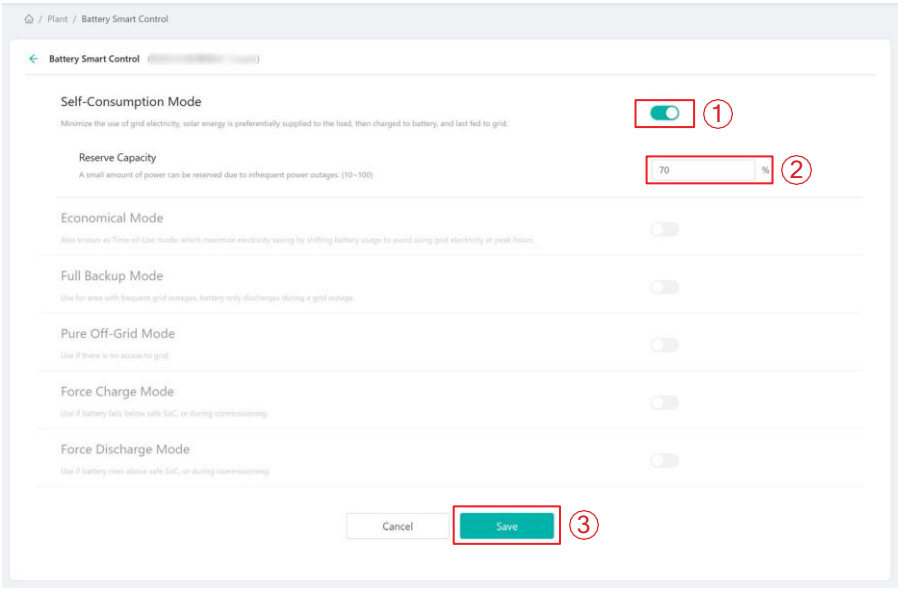
Choose the plant where you want to change the system mode and click “Settings”. Click the “Edit” button of Battery Smart Control under Smart Control Settings. Only one control mode can be selected at a time.



5.1.1 Self-consumption Mode

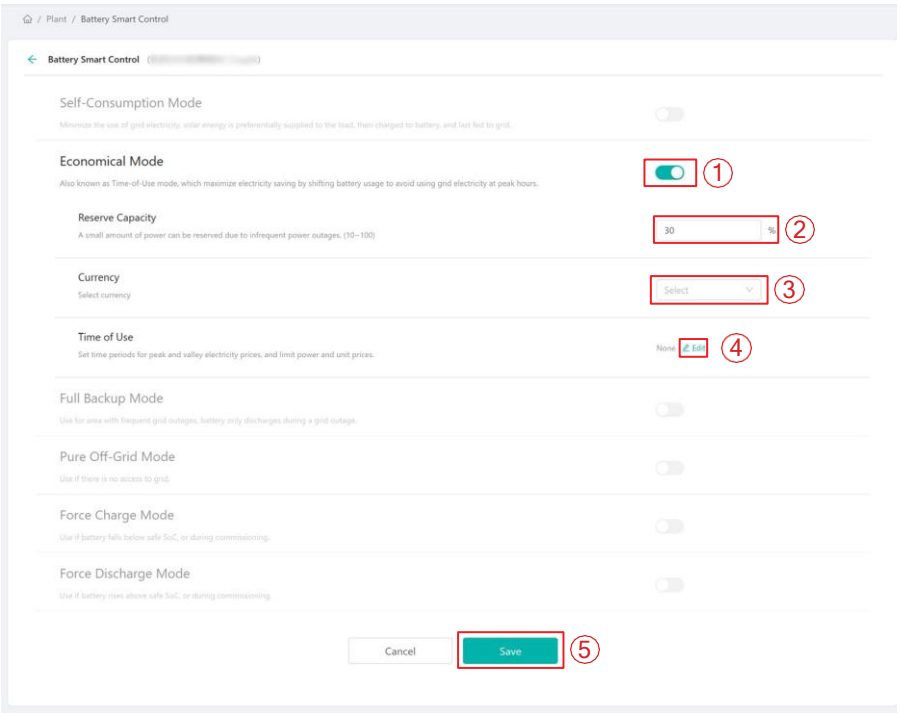
In the daytime, solar energy supports the loads firstly, and surplus energy is stored in the battery. When the battery is fully charged or reaches the maximum charge power, the surplus energy is fed into grid (or limited if required). At night, the battery discharges for the loads firstly, and the grid will supply the loads once the battery power is not enough. In this mode, battery cannot be charged from grid at night.

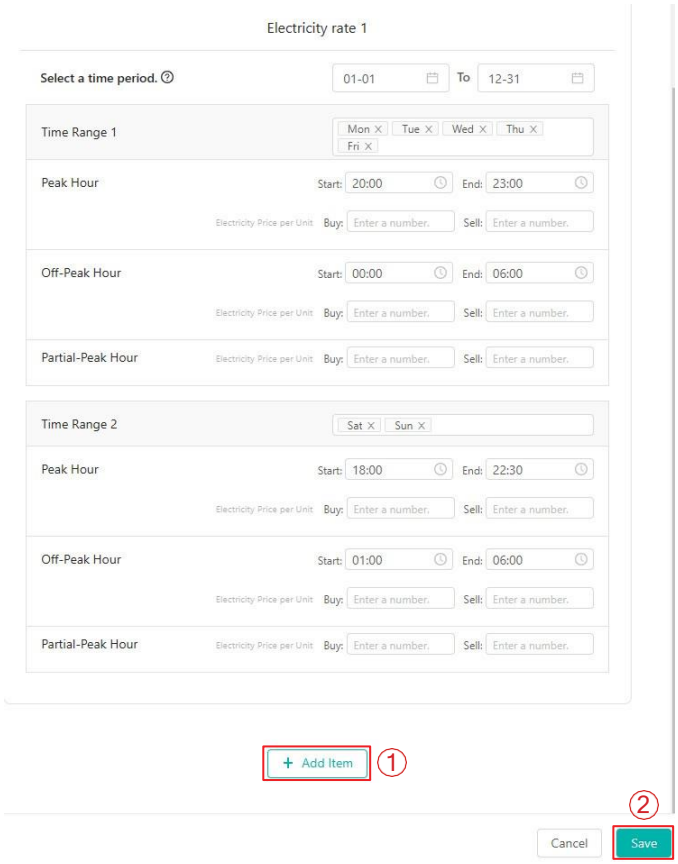
The self-consumption mode can reduce the use of grid power. Solar energy is preferentially supplied to the load, charged to the battery, and fed into the grid last. You can set reserve capacity within the certain range in the case of infrequent power outages, and then click “Save”.



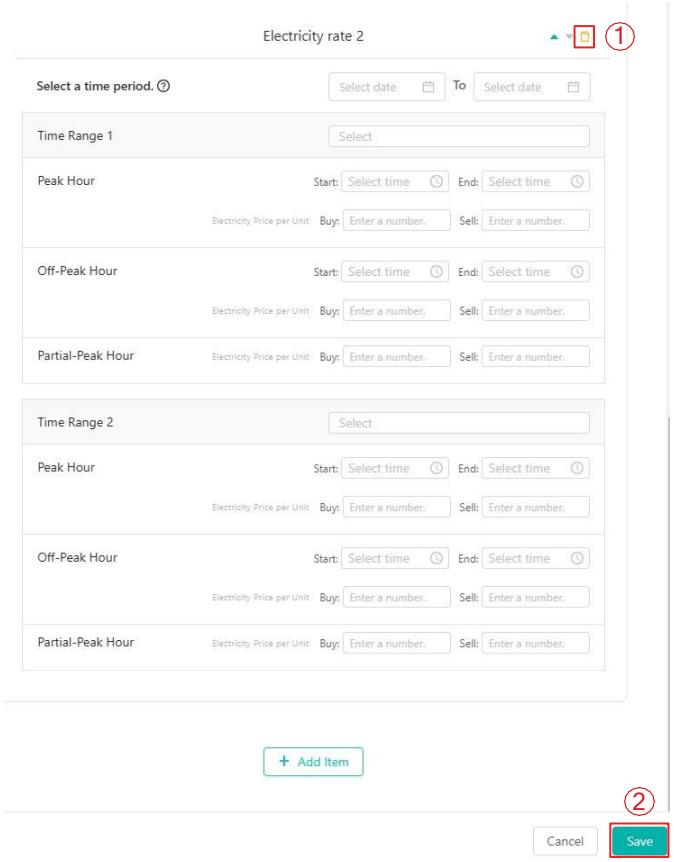
5.1.2 Economical Mode

In this mode, battery charging and discharging periods need to be defined. Meanwhile, the battery can be forced to charge from the grid during the preset charging time. For instance, the battery could be charged or discharged according to valley or peak electricity prices. You can set reserve capacity within the certain range in the case of infrequent power outages, select the type of currency you need, and then click “Save”. You can set different time periods to be more flexible to save costs of electricity. Click “Edit” to set the time period for peak, low and partial peak grid prices in different seasons or dates, but you can just add up to four time periods, and then click “Save”.



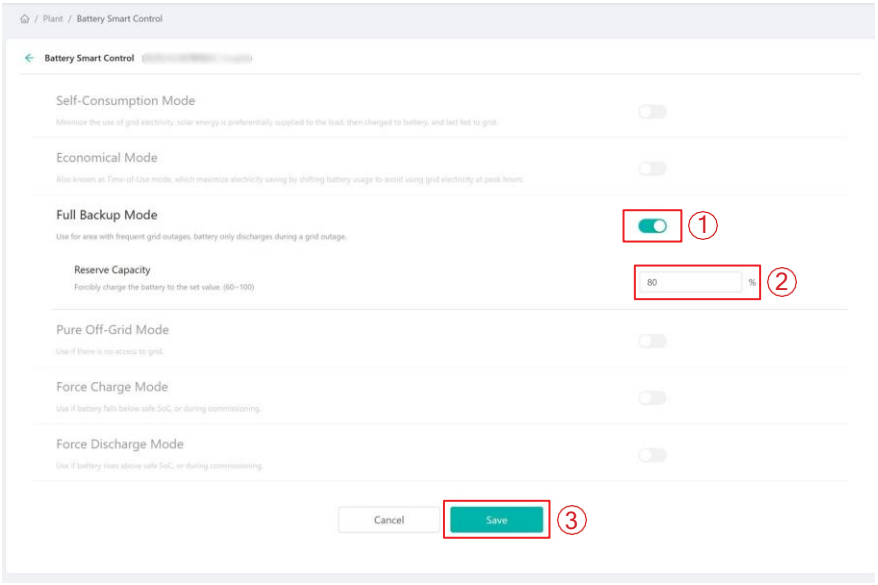


If you want to delete one of the time periods, just click “delete” in the top right corner and click “Save”.



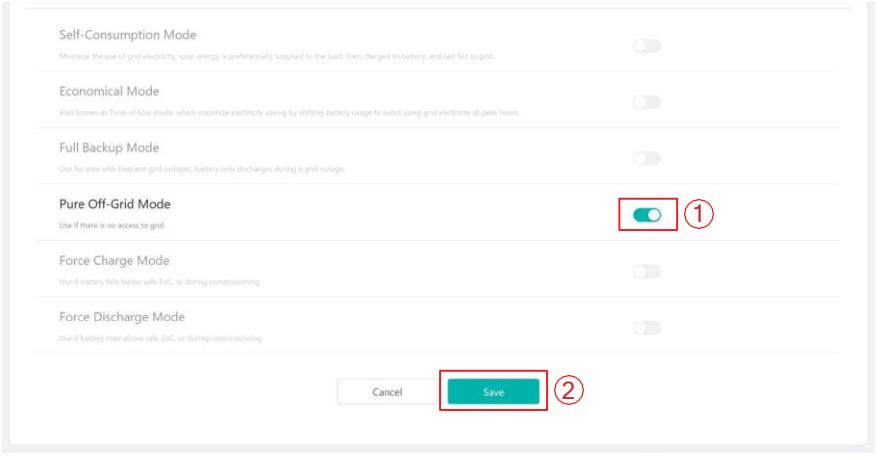
5.1.3 Full Backup Mode

Full backup mode can be selected when the grid frequently breaks down. The battery will be forced to charge to a set capacity so that it has enough power to support the electricity consumption in daily life when the inverter is in off-grid mode. You can also set the reserve capacity within the certain range and click “Save”.



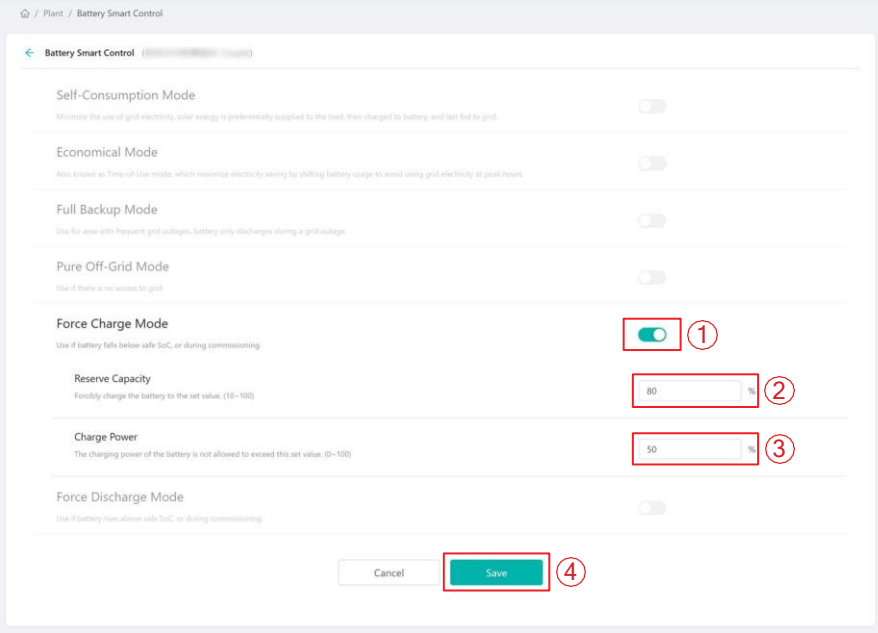
5.1.4 Pure Off-grid Mode

When the system is not connected to the grid, you can choose the pure off-grid mode and click “Save”.



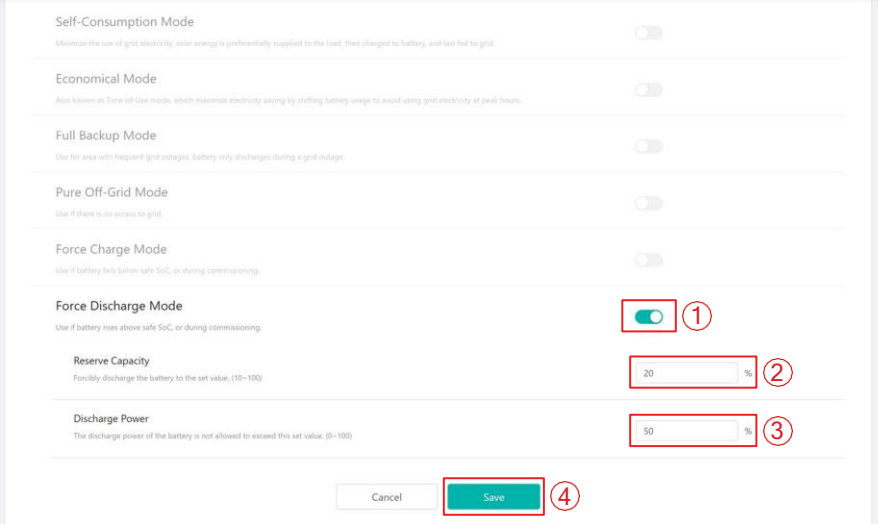
5.1.5 Force Charge Mode

The force charge mode can be used during the commissioning of inverter or when the battery capacity falls below the value of safety SoC. You can set the reserve capacity within the certain range. If the battery capacity is lower than the setting, the battery will be forcibly charged. And you can set the charging power of battery if needed. Finally, save the values you have changed.



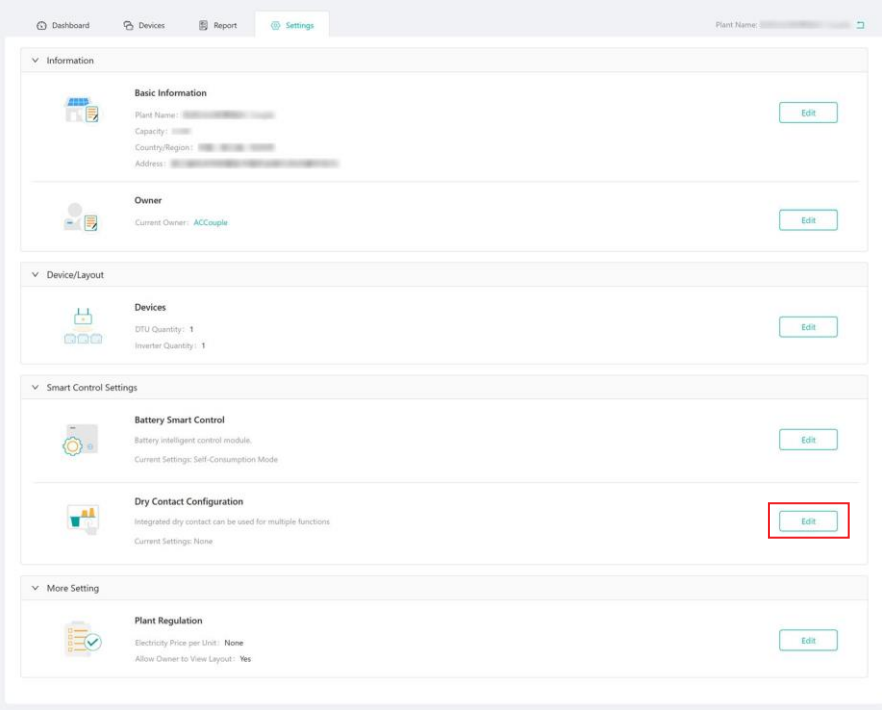
5.1.6 Force Discharge Mode

The force discharge mode can be used during the commissioning of inverter or when the battery capacity rises above the value of safety SoC. You can set the reserve capacity within the certain range. If the battery capacity is higher than the setting, the battery will be forcibly discharged. And you can set the discharge power of battery if needed. Finally, save the values you have changed.



5.2 Dry Contact Configuration

Click the “Edit” button of Dry Contact Configuration under Smart Control Settings. But just one mode can be selected at a time.



Note:

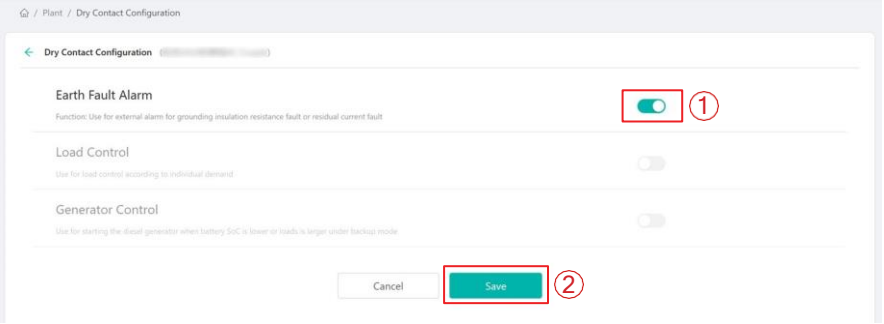
1. The current of the DO dry contact should not be larger than 2 A.

2. An AC contactor must be installed between the inverter and the load.

3. After the inverter is powered off, the AC contactor should be adjusted manually to control the load.

5.2.1 Set Earth Fault Alarm

Disable the external alarm caused by grounding insulation resistance fault or residual current fault when the load is connected.



5.2.2 Set the Working Mode of Load

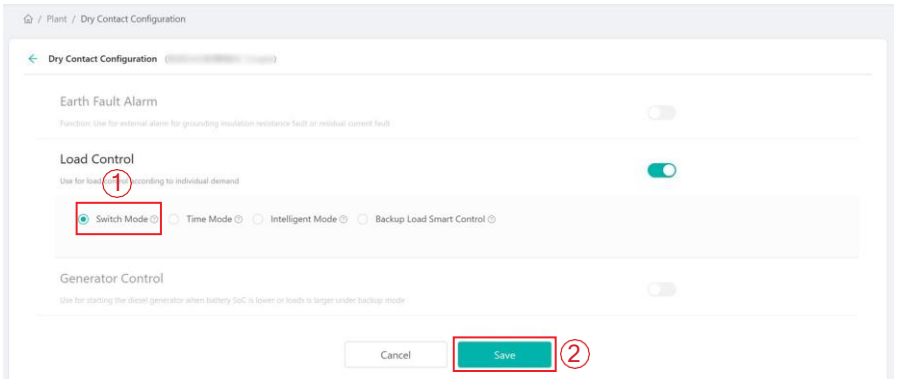
This setting is to control whether the load is working or not. There are four modes available as follows.

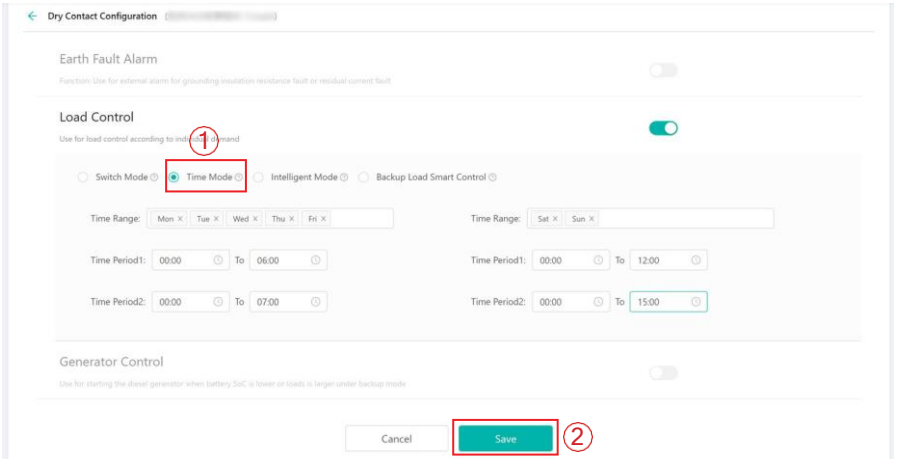
(1) Switch Mode: Manually turn on or turn off the dry contact.

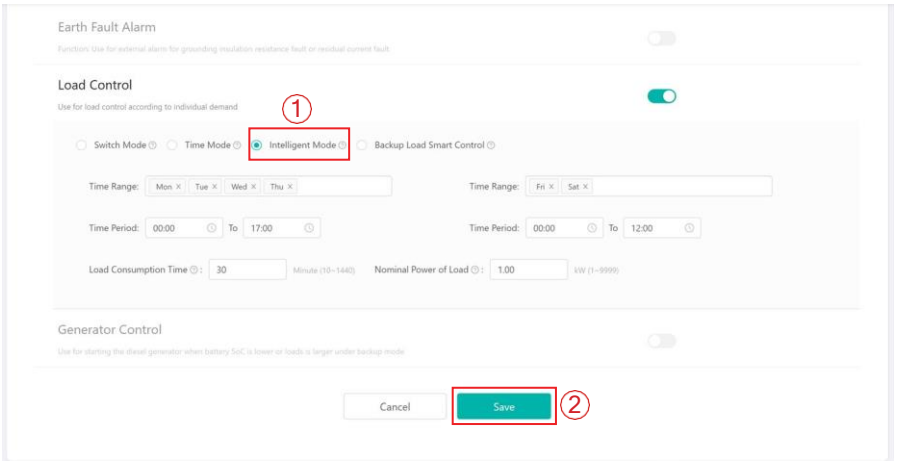
(2) Time Mode: Set the time period for the dry contact to work. The dry contact is closed during this set time and disconnected at other times.

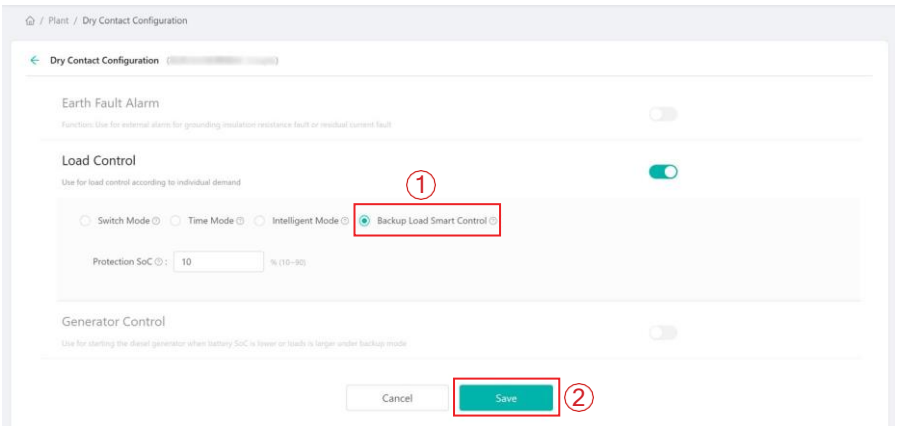
(3) Intelligent Mode: Because the energy generated by PV fluctuates a lot, this mode is to make the dry contact avoid being turned on and off frequently. The dry contact will only be turned on when the residual energy generated by the PV exceeds the power set by the load within the set time period. You can set the minimum run time and the nominal power of the dry contact.

(4) Backup Load Smart Control: The unnecessary dry contact will be turned off in off-grid situation when the battery capacity is lower than the set SoC value. You can set the value of protection SoC if needed.



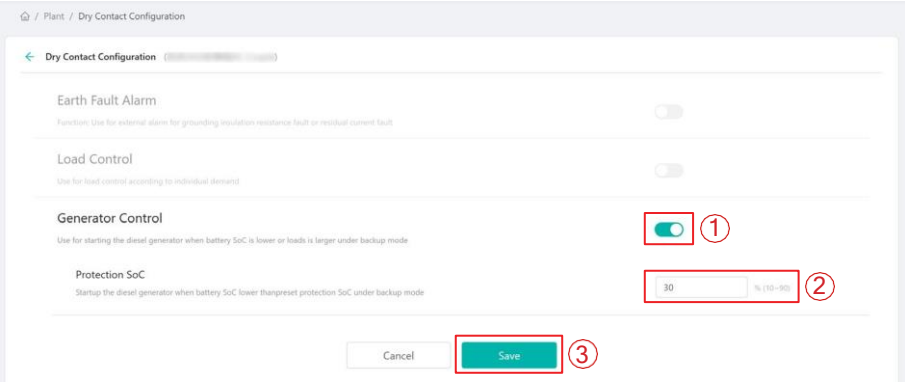






5.2.3 Generator Control

Generator control is used when there is higher power on the load side or lower battery capacity in off-grid mode. You can set the value of protection SoC within the certain range if needed. When the battery capacity is below the set protection SoC, the generator will work.



S-Miles Installer

S-Miles End-user

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+86 571 2805 6101

General inquiry: info@hoymiles.com
Technical support: service@hoymiles.com

Visit https://www.hoymiles.com/ for more informations.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
–Reorient or relocate the receiving antenna.

–Increase the separation between the equipment and receiver.

–Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

–Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.