METAESS MONITORING PLATFORM INTRODUCTION

V1.0
Date: 2025.8.22

New Updates on this version

- Device replacement function---P63
- Breakpoint resume function---P64
- SOC reset function---P65
- MPPT Shadow scan function--P66-67
- Dismiss some faults displayed on the account---P68-69
- Device log function optimization---P70-71
- Power plant following function---P72
- Optimize the organization’s alarm-pushing rules---P73-74
- Inverter sub-status function for fault analysis---P75
- Part offline status for the complex plant---P76
- RCR+14a function---P77-79
- Custom Switches’ Definition and Explanation---P80

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3 MetaEss App

4 New Functions Update

01

Monitoring Introduction

Monitoring Solutions

MetaEss

MetaEss is a monitoring platform for end-users and distributors to monitor and manage their devices and plants. It features rich functions such as 24-hour load monitoring and devices and plants management, remote configuration and upgrading, organization management, alarms information, etc.

https://portal.meta-ess.com/login

MetaEss has a portable version, allowing people to install it on their phones for monitoring and management of their devices and plants anytime, anywhere.

METAESS

Monitoring Platform Features

24 Hours
Load monitoring

Preset
Work Mode

Data Report
Plant & Device

WiFi
Configuration

Remote
Upgrade

CT & Meter
Detection

Parameter
Report
Check & Export

Alarm
Management
Reminder and solution

Vivid Energy Flow

Organization
Management

Parameter
Configuration

Feedback Function

Internal Account
& Scope Limit

Authority of Different Accounts

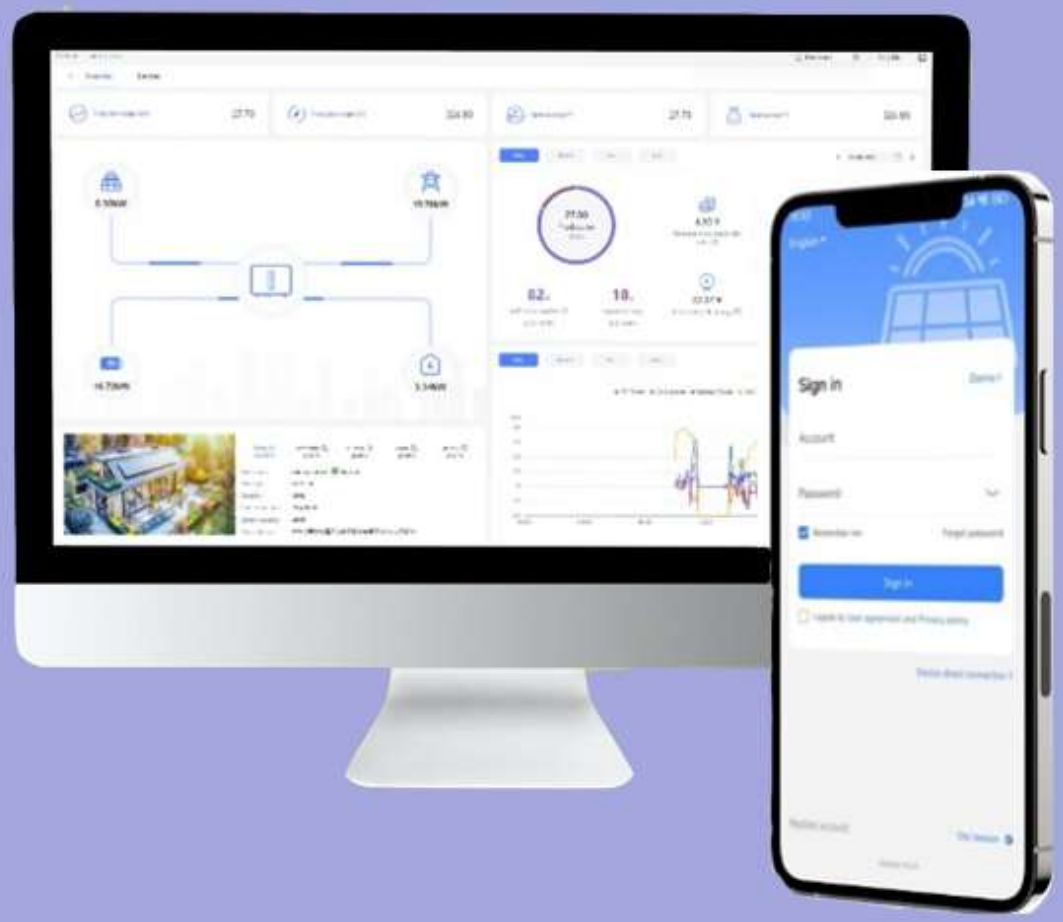
Function	Definition	Owner	Distributor				Demo
			Organization	Administrator	O&M	Visitor	
Plants							
	An overview display of production, revenue, plant status, plant list and searching	●	●	●	●	●	●
	Manage all plants under this account, including add plant, delete plant and edit information of plant.	●	●	●	×	○	○
	Device management of each plant under this account	●	●	●	●	○	○
Devices							
Devices List	Devices list and searching	●	●	●	●	●	●
	Manage all devices under this account, including add devices , delete devices and edit information of devices.	●	●	●	●	○	○
	Parameter settings and download	●	●	●	●	○	×
	Device log	×	●	●	●	●	×
	Export professional parameters and create template for viewing	×	●	●	●	○	○
Firmware Upgrade	Upgrade history list and searching	×	●	●	●	●	●
	Device latest firmware upgrade	×	●	●	●	×	×

Function	Definition	Owner	Distributor				Demo
			Organization	Administrator	O&M	Visitor	
Alarm							
	Alarm list, searching, details and suggestion vie	●	●	●	●	●	●
Report							
Plant report	View and download the monthly/annual/total/customized report	●	●	●	●	○	○
Export records	View export records of professional parameters and download	×	●	●	●	×	○
Manage							
Organization Manage	Organization information view	×	●	●	●	●	●
	Create and edit subordinate account and internal account	×	●	●	×	×	×
Owner Manage	View and manage owner under this account, including modify the email address and reset password	×	●	●	×	×	×
News center	New messages for alarms, systems, and services	●	●	●	●	●	●
Account							
Account settings	Personal information setting	●	●	●	●	●	×
General settings	Language, country, time and revenue settings	●	●	●	●	●	○
Feedback	Feedback any questions and suggestions about Solinteg	●	●	●	●	●	×

●: With ○: Part only, can not edit or save settings ×: Without

02

MetaEss Website



MetaEss Platform

Sign-in Page

- Choose the language
- Create an “Owner Account”

Plant Page

- Create a new plant
- View Plant’s Real-time Generation & Consumption
- Add devices to plant
- View Device Data & Export a Data Report

Device Page

- Configure the device
- View the device log
- Remote upgrade firmware

Alarm Page

- View the detailed information on alarms

Report Page

- Export a plant data report

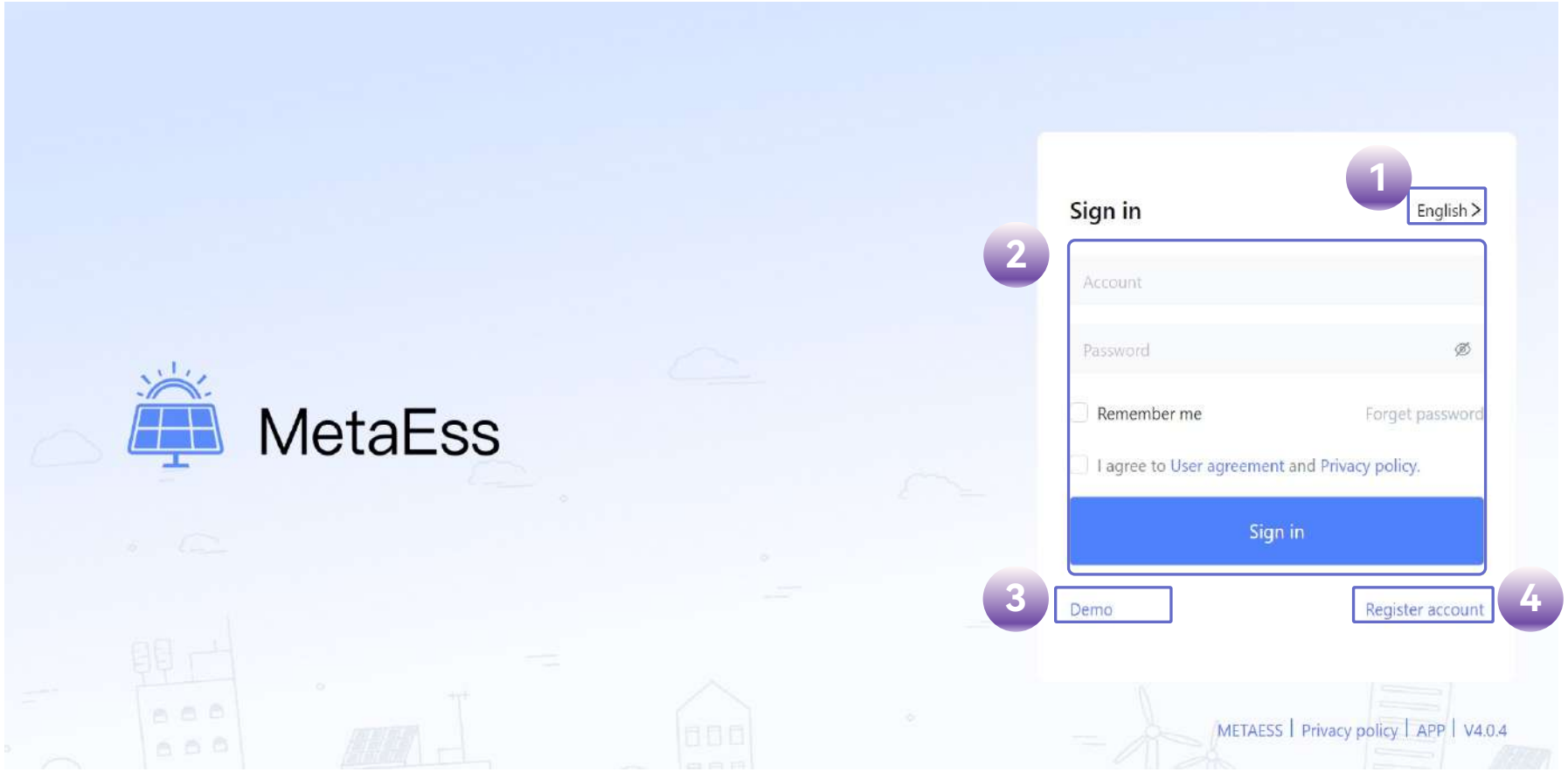
Manage Page

- Create a subordinate organization account
- Create an internal account & limit the scope of jurisdiction
- Set the push method of alarms

- Feedback Function

MetaEss Website Main Pages

Main Page - Sign-in Page



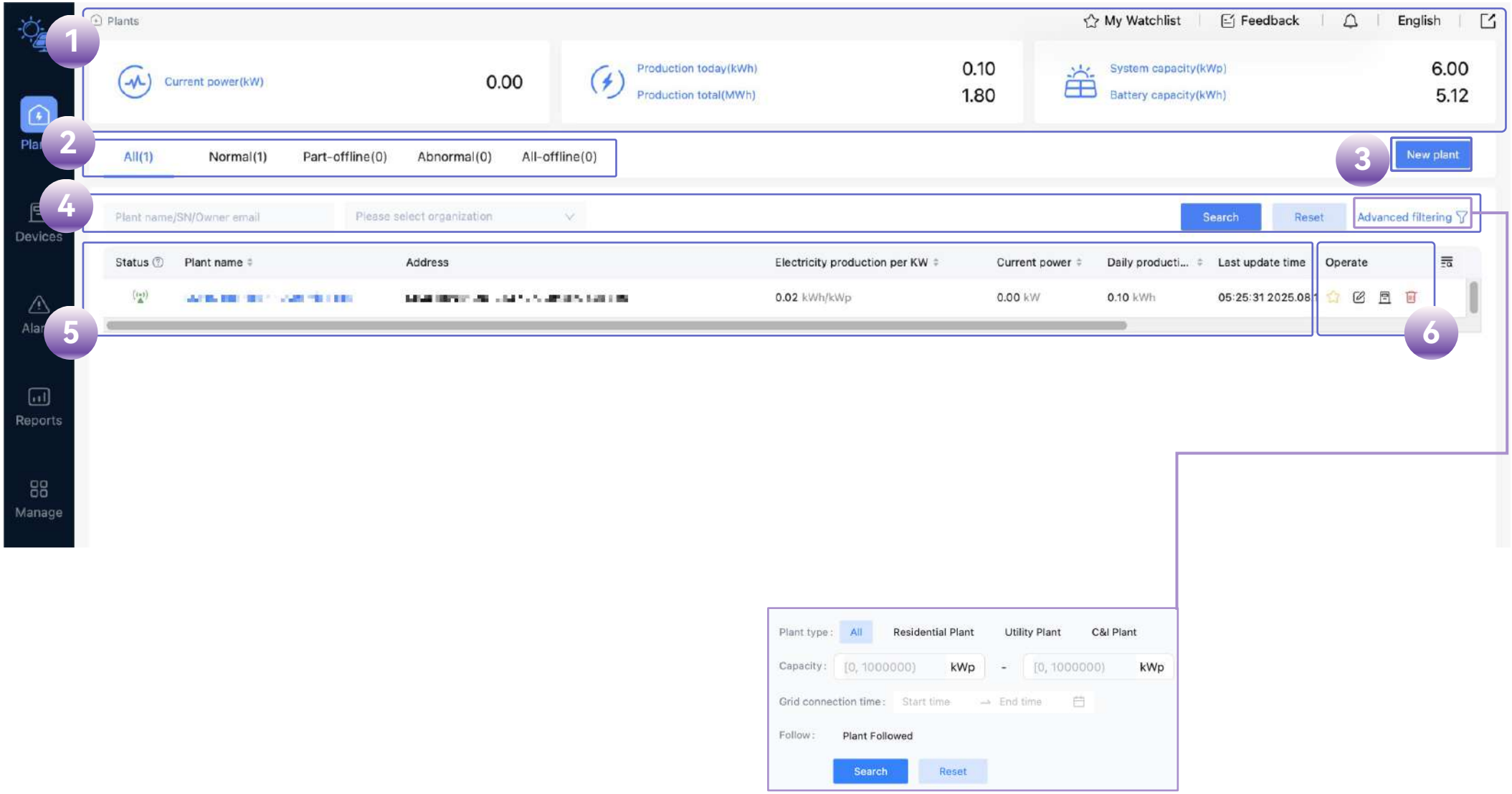
① Select the language of the monitoring platform. MetaEss offers eleven languages choice: English, Español, Polski, Português, 中文简体, Deutsch, Italiano, Čeština, Magyar, Svenska, Français

② Make sure I agree to User agreement and Privacy policy check box is selected, sign in by account and password.

③ MetaEss provides a demo account. Users can directly access the platform and experience its basic functions through the demo account.

④ Owner users can through the sign-in page to create the owner account.

Main Page – Plant Page



① Power plant system performance by different counting periods.

② Quickly distinguish between power plants that are normal operating, abnormal, and offline.

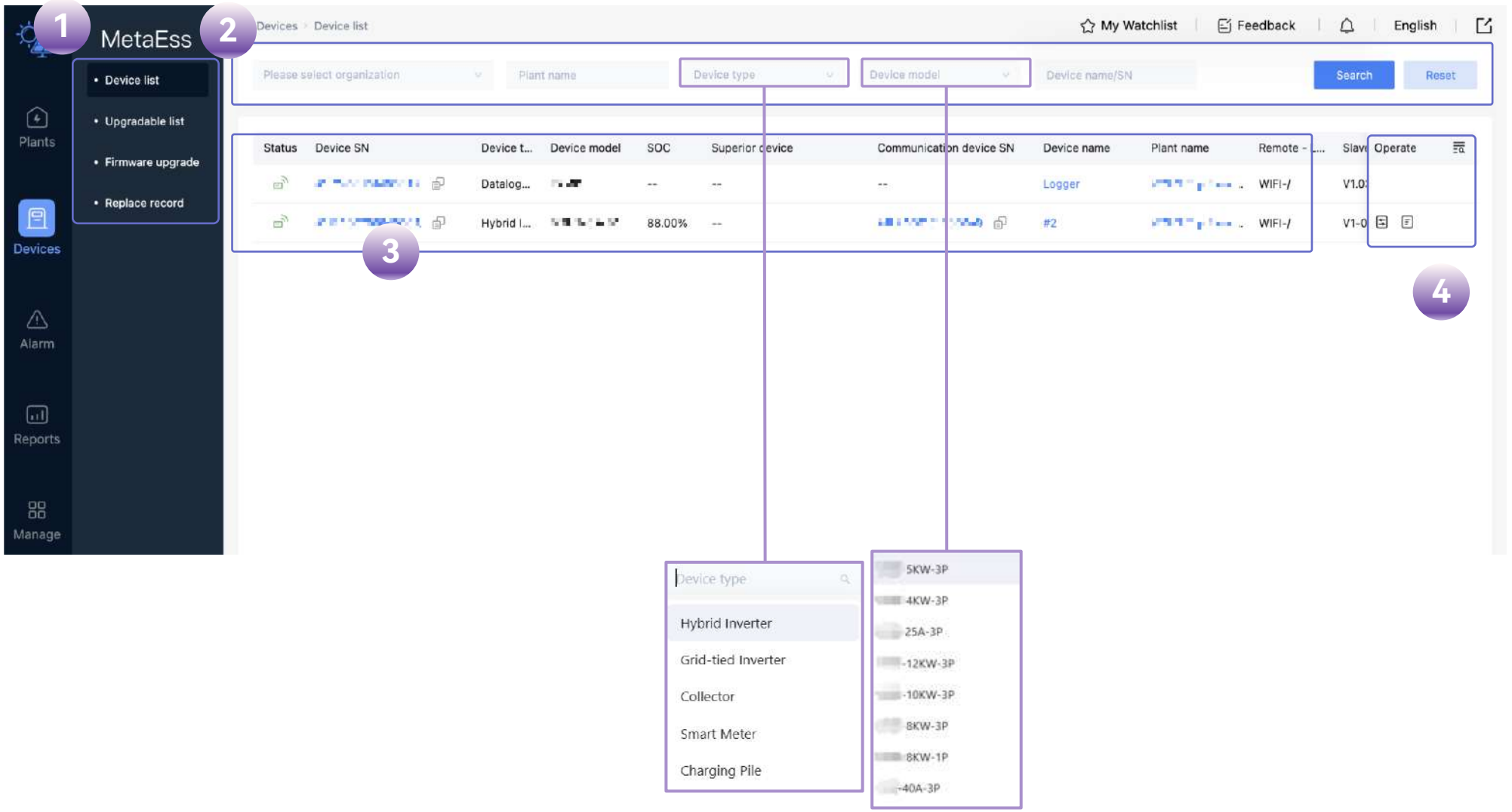
③ Through this button can create a new plant.

④ Search for power plants through plant name, owner email, or SN, and advanced filtering options such as plant type, capacity, and grid connection time.

⑤ Detail information about the plant.

⑥ The operations that can be performed on a power plant, from left to right, are as follows: Follow, to add this plant to “My Watchlist”; Modify, to modify the plant information; Devices, to redirect to the devices page; Delete, to remove the power plant.

Main Page – Devices Page (Device list)



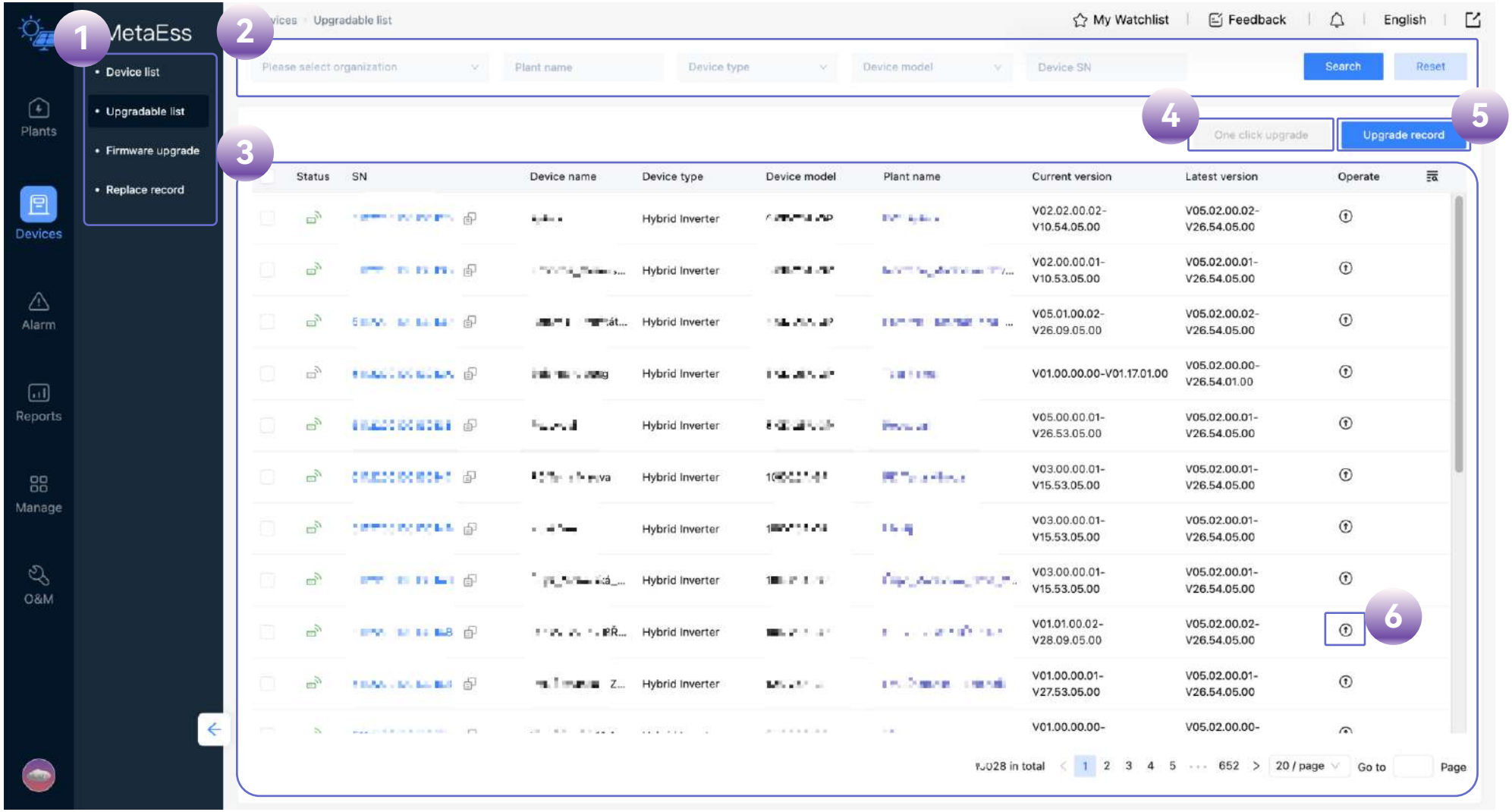
① The Device Page has four sub-interfaces: "Device List", "Upgradable list", "Firmware Upgrade", and "Replace record". The current page is "Device List".

② Conduct searches by using various criteria such as the plant name, the type of device, and the model of the device.

③ Devices list and detailed information.

④ Operations of device – configure and device log.

Main Page – Devices Page (Upgradable list)



① The Device Page has four sub-interfaces: "Device List", "Upgradable list", "Firmware Upgrade", and "Replace record". The current page is "Upgradable list".

② Conduct searches by using various criteria such as the plant name, the type of device, the model of the device, and the device SN.

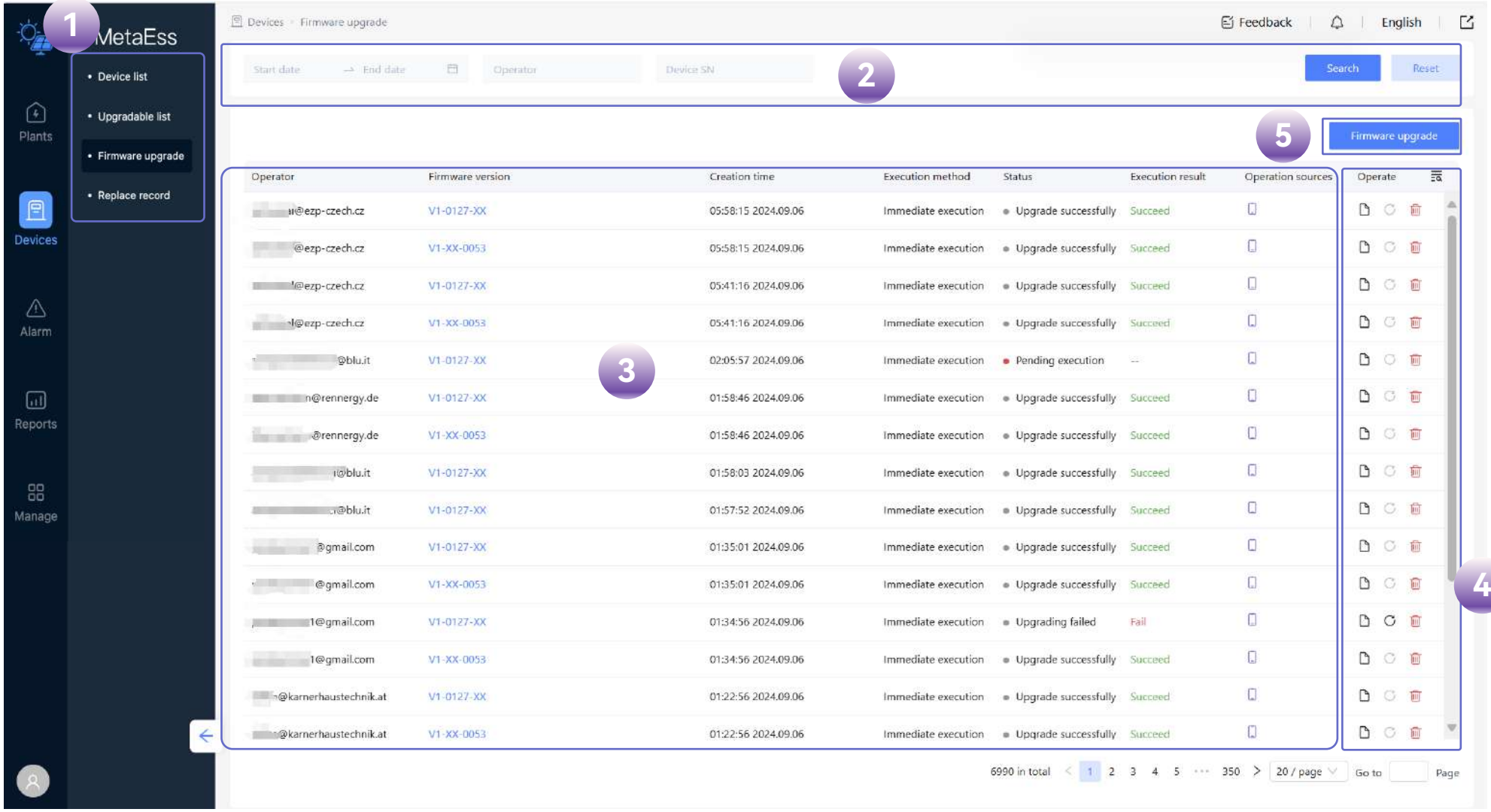
③ Upgradable devices list and detailed information.

④ If multiple devices need to be upgraded at the same time, select them using the checkboxes in front of each device, then click One click upgrade.

⑤ Click Upgrade record to view the upgrade history.

⑥ Click the arrow button under the Operate column to upgrade devices one by one.

Main Page – Devices Page (Firmware Upgrade)



① The Device Page has four sub-interfaces: "Device List", "Upgradable list", "Firmware Upgrade", and "Replace record". The current page is "Firmware upgrade".

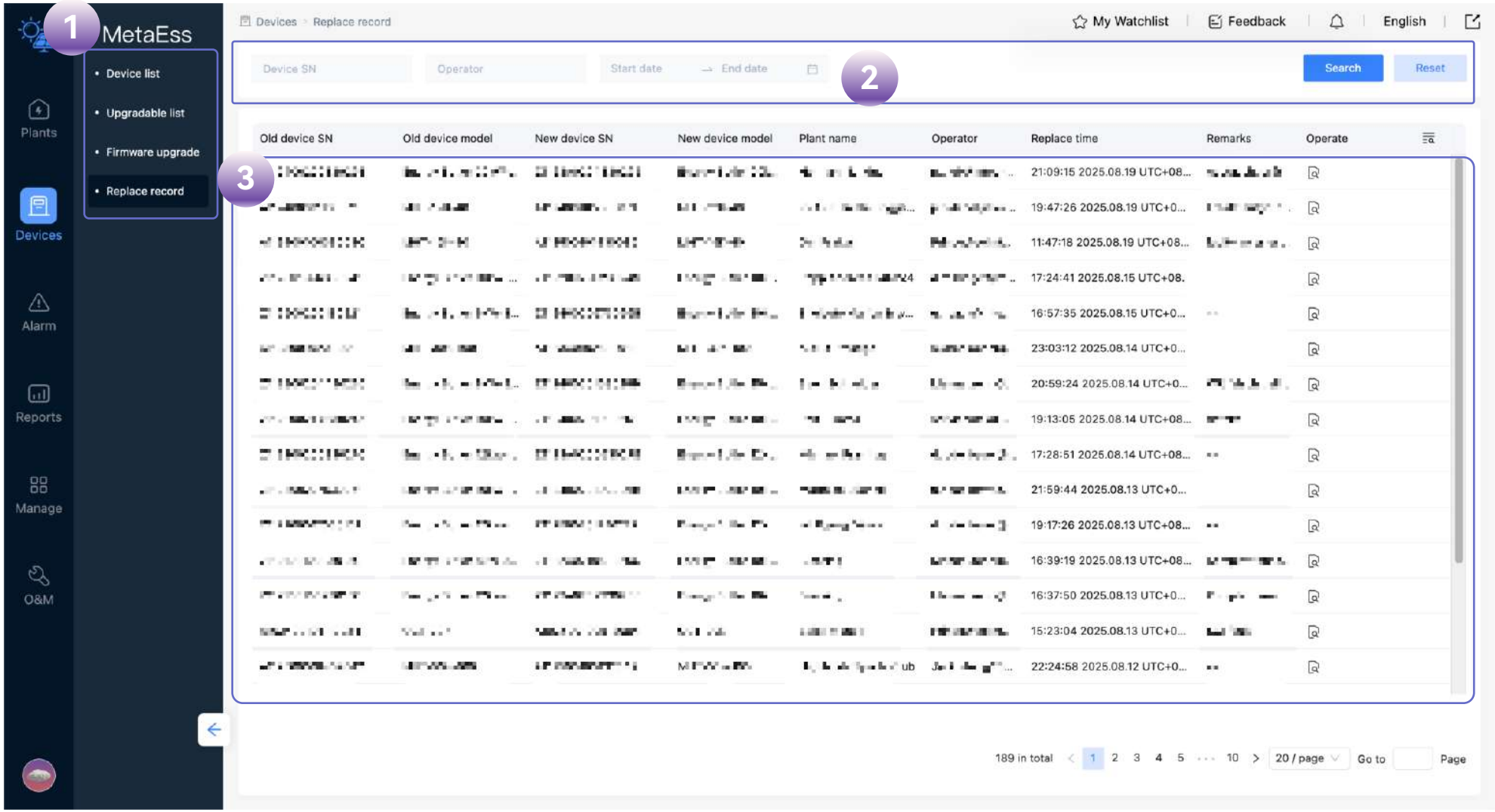
② Search for historical upgrades through start&end time, operator or device SN code.

③ Detail information on historical upgrades or scheduled upgrades.

④ Operations for upgrades. From left to right, detail information, refresh and delete.

⑤ Through this button to arrange firmware upgrades. More details please refer to page 41.

Main Page – Devices Page (Replace Record)

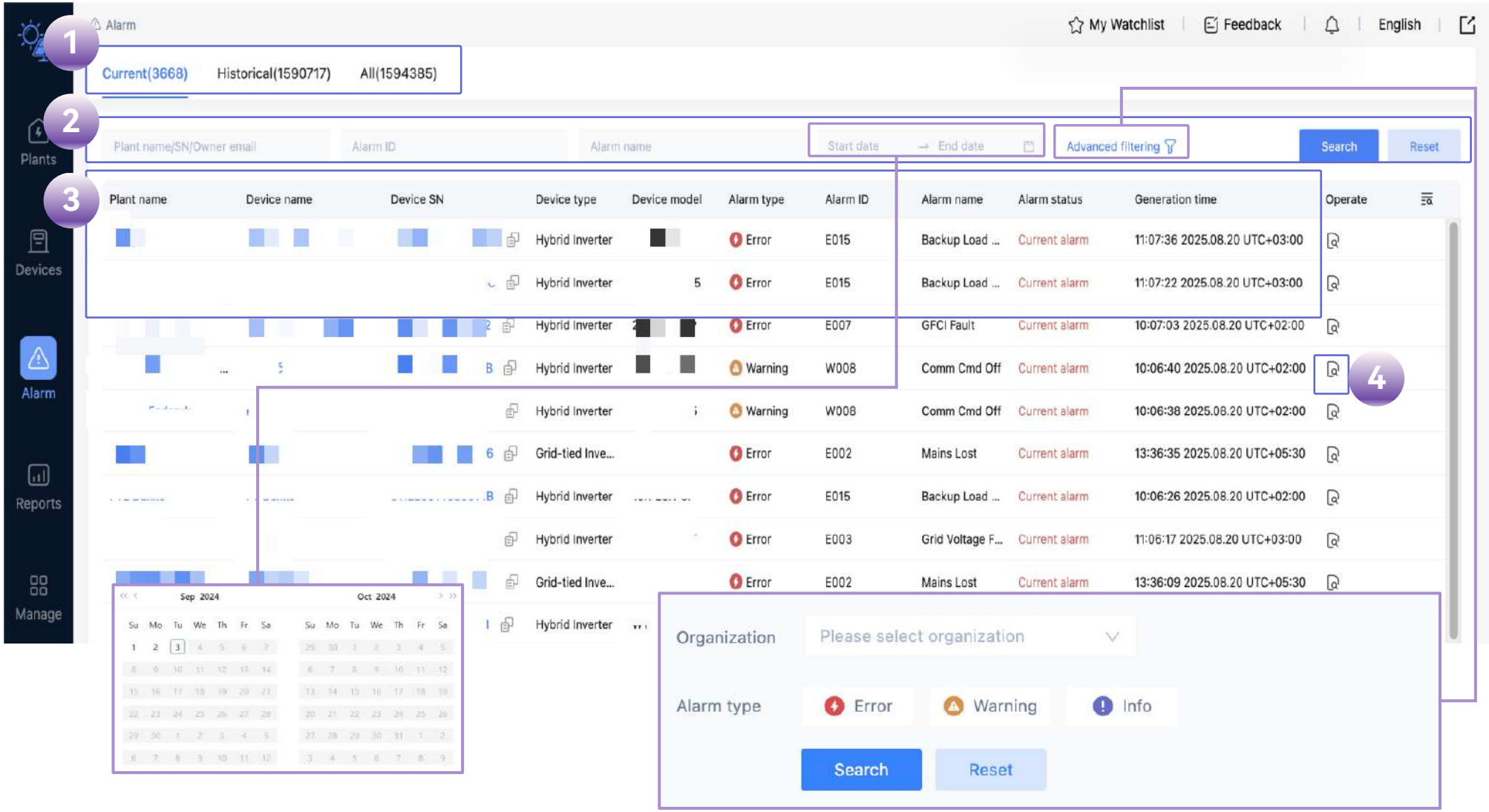


① The Device Page has four sub-interfaces: "Device List", "Upgradable list", "Firmware Upgrade", and "Replace Record". The current page is "Replace Record".

② Search for historical replace records through start&end time, operator or device SN code.

③ Detail information on historical device replace.

Main Page - Alarm Page



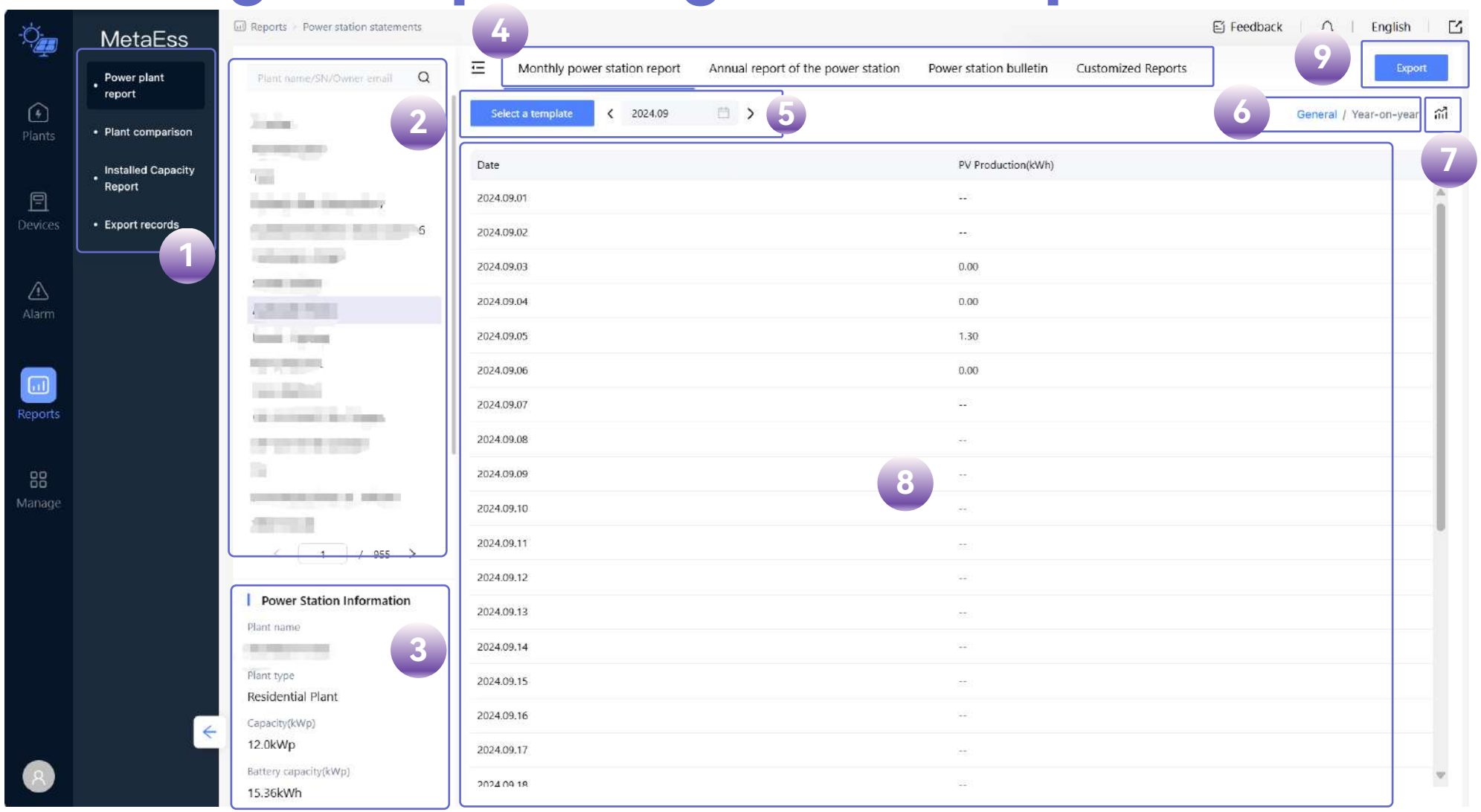
① View current, historical, as well as all alarm messages.

② Search for alarm through plant name, time, alarm name, and it also supports searching for alarm through more detailed advanced filtering.

③ Detail information of alarms.

④ Through this button can view more detailed information of the alarm, including possible causes and repair suggestions.

Main Page - Report Page(Plant Report)



① The Report Page has four sub-interfaces: "Power plant report", "Plant comparison", "Installed Capacity Report", and"Export records". The current page is "Power plant report".

② Search for and view subordinate power plants.

③ Display the detailed information of the selected plant.

④ Click here can select the time dimension for statistics - monthly/annual/custom and power station bulletin.

⑤ Click here can choose the items to report through a template and select the time period for the statistics.

⑥ Can choose “General” or “Year-on-year” statistical method.

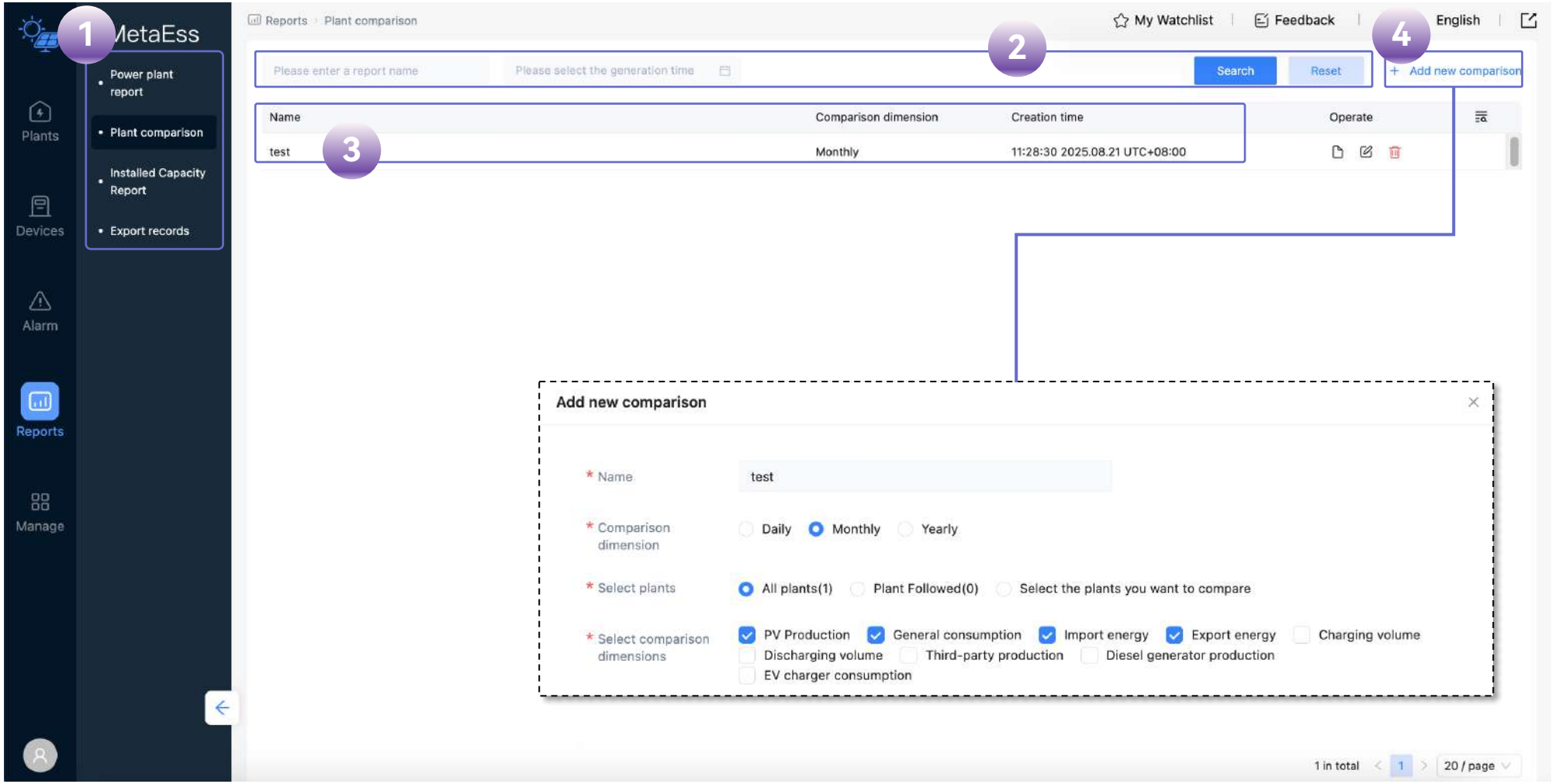
⑦ Can switch between the table and bar chart display methods.

⑧ Detail information of the report.

⑨ Export the report.

*The page may change with updates, please refer to the actual website for the latest version.

Main Page – Report Page(Plant Comparison)



① The Report Page has four sub-interfaces: "Power plant report", "Plant comparison", "Installed Capacity Report", and"Export records". The current page is "Plant comparison".

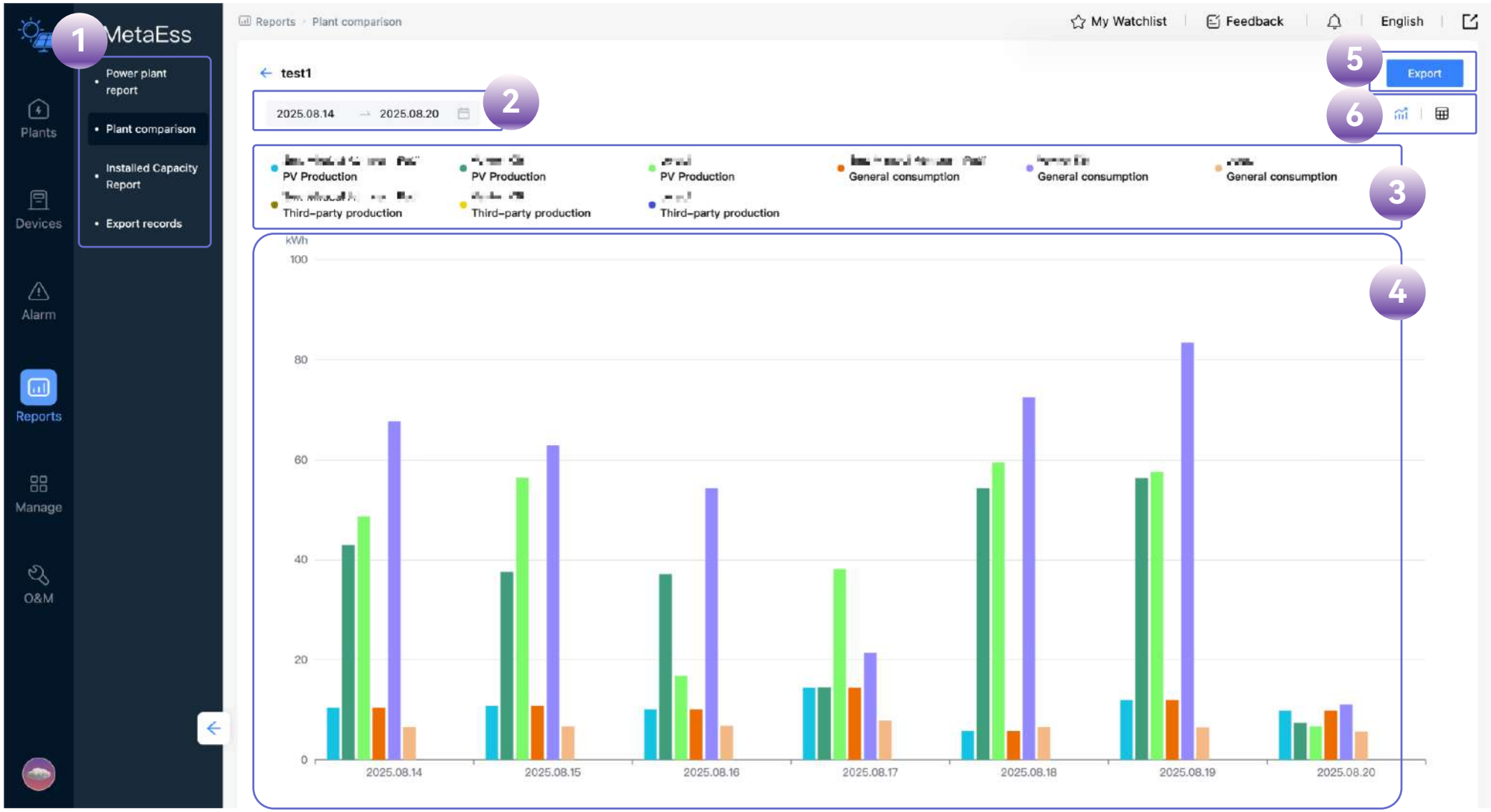
② Search for different plant comparison through report name or generation time.

③ Display the basic information of different plant comparisons.

④ Click there to add a new comparison report, as shown in the belowed picture, the report can be designed by different time periods, different plants and different comparison dimensions.

*The page may change with updates, please refer to the actual website for the latest version.

Main Page – Report Page(Plant Comparison)



① The Report Page has four sub-interfaces: "Power plant report", "Plant comparison", "Installed Capacity Report", and"Export records". The current page is "Plant comparison".

② Select the time period for the report data.

③ Different comparison dimensions of different plants are displayed in different colors.

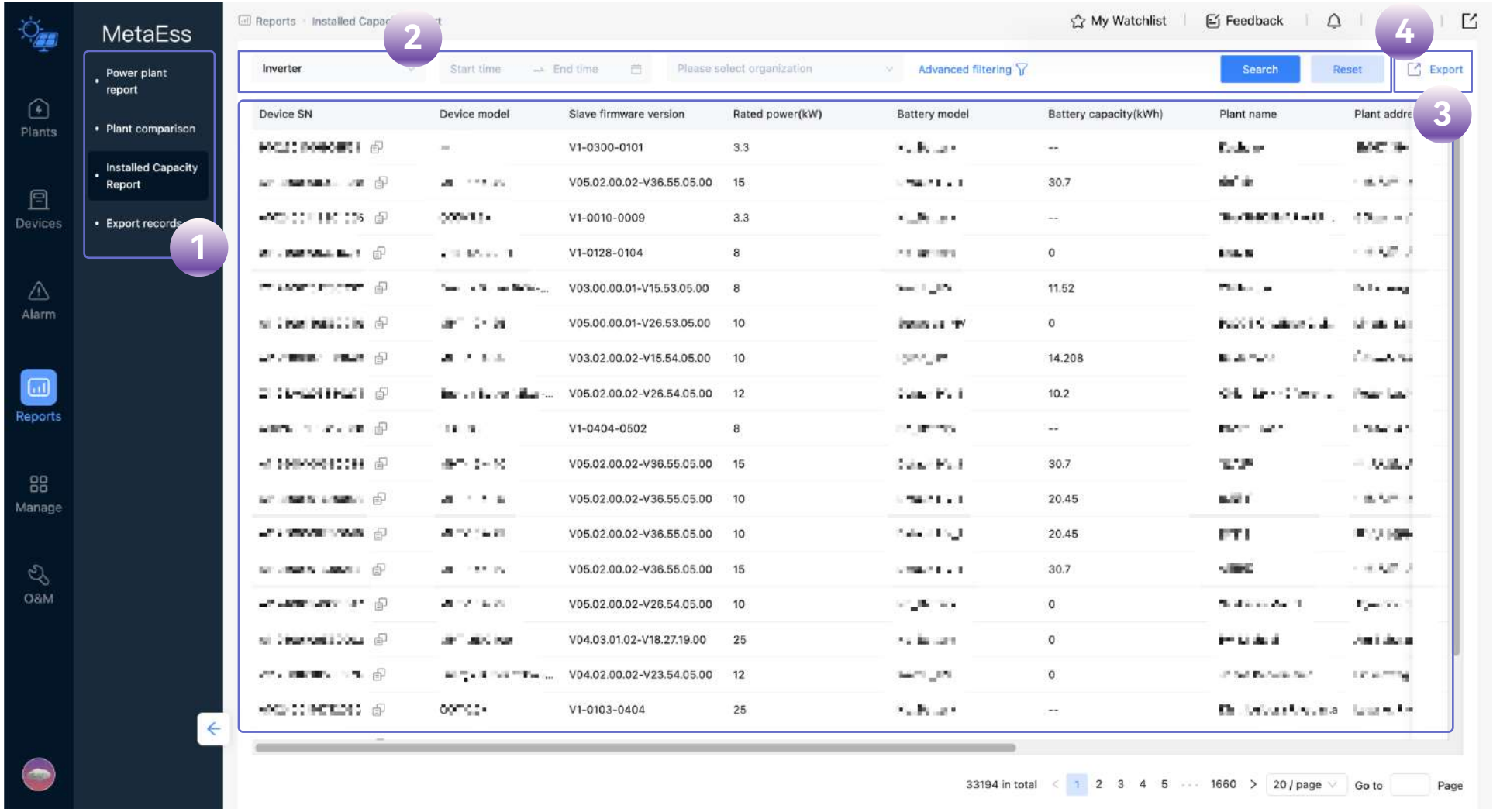
④ Data comparison area.

⑤ Click to export the data report.

⑥ Switch between different data display formats.

*The page may change with updates, please refer to the actual website for the latest version.

Main Page – Report Page(Installed Capacity Report)



① The Report Page has four sub-interfaces: "Power plant report", "Plant comparison", "Installed Capacity Report", and"Export records". The current page is "Installed Capacity Report".

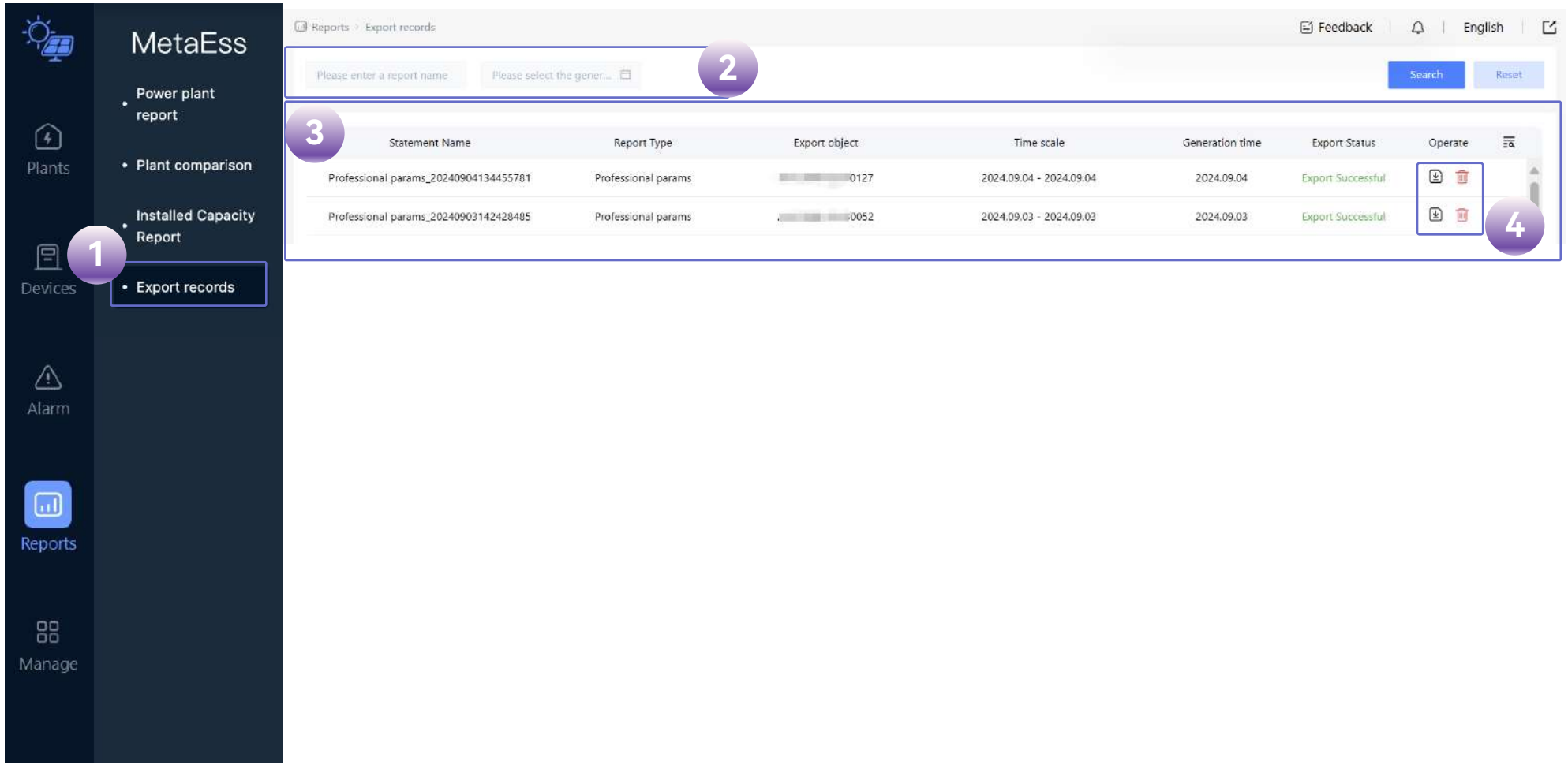
② Search the installed capacity report by device type, time period, organization or country.

③ Display the detailed information of the installed capacity report.

④ Export the report.

*The page may change with updates, please refer to the actual website for the latest version.

Main Page - Report Page(Export Records)



① The current page is "Export records".

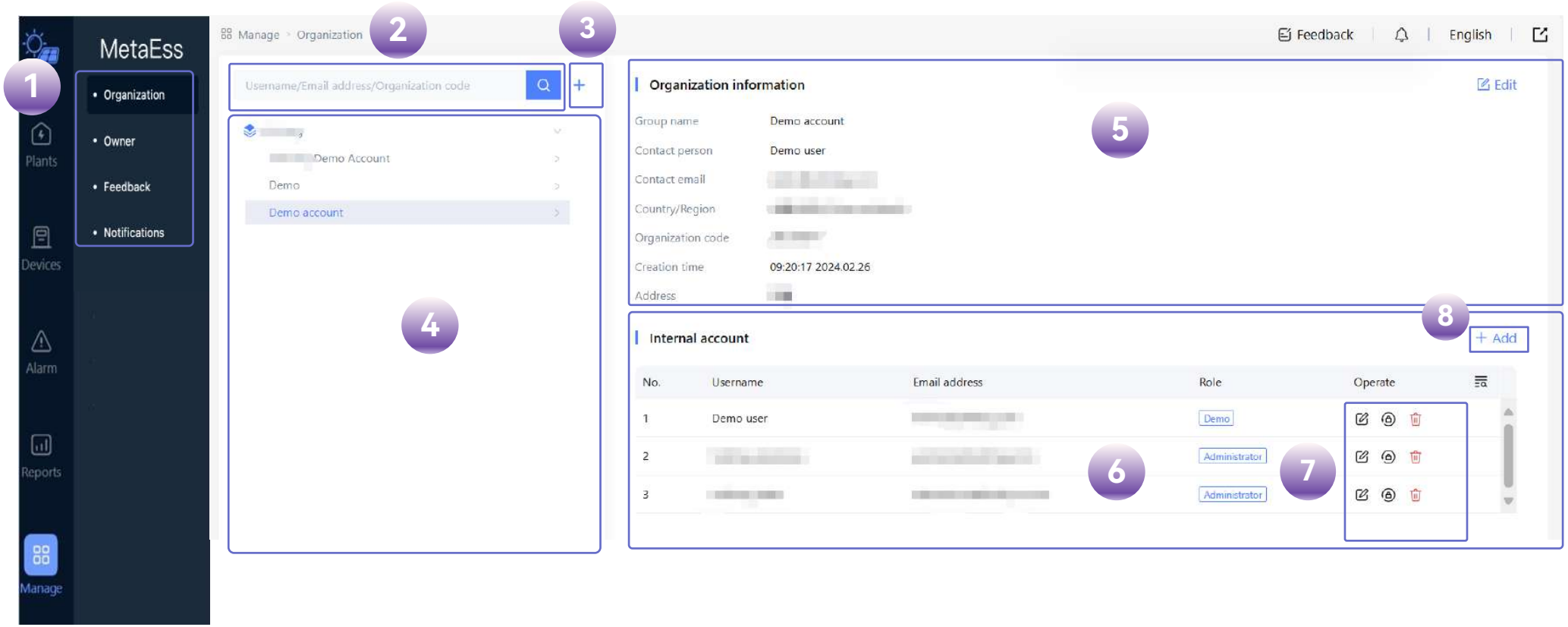
② Search for reports through report name and generation time.

③ Detail information of reports.

④ The operation for reports, including download, and delete.

*The page may change with updates, please refer to the actual website for the latest version.

Main Page - Manage Page(Organization)



① The Manage Page has four sub-interfaces: "Organization", "Owner", "Feedback" and "Notifications". The current page is "Organization".

② Search for an organization by username, email address or organization code.

③ Through this button can create a sub-account.

④ Display various organizations and their affiliations.

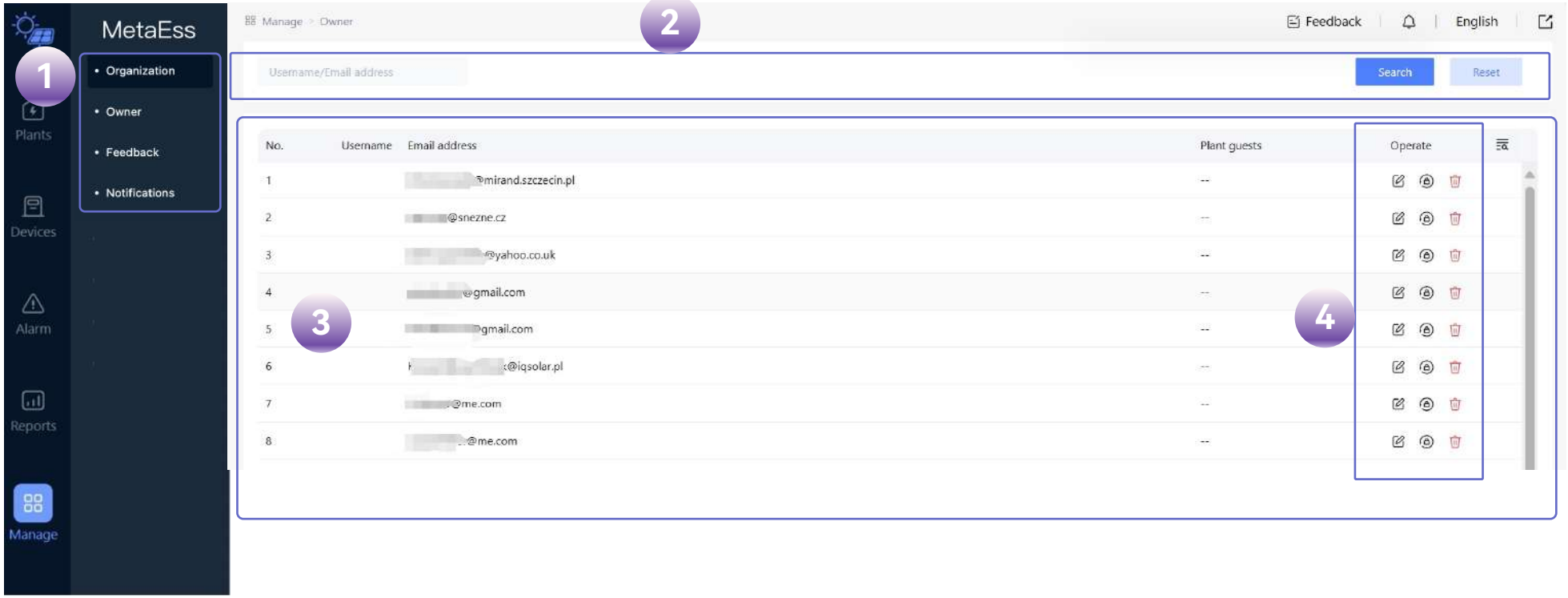
⑤ Display the information of the organization.

⑥ Display the internal accounts under this account.

⑦ Modify/Reset password/Delete.

⑧ Through this button add a new internal account.

Main Page - Manage Page(Owner)



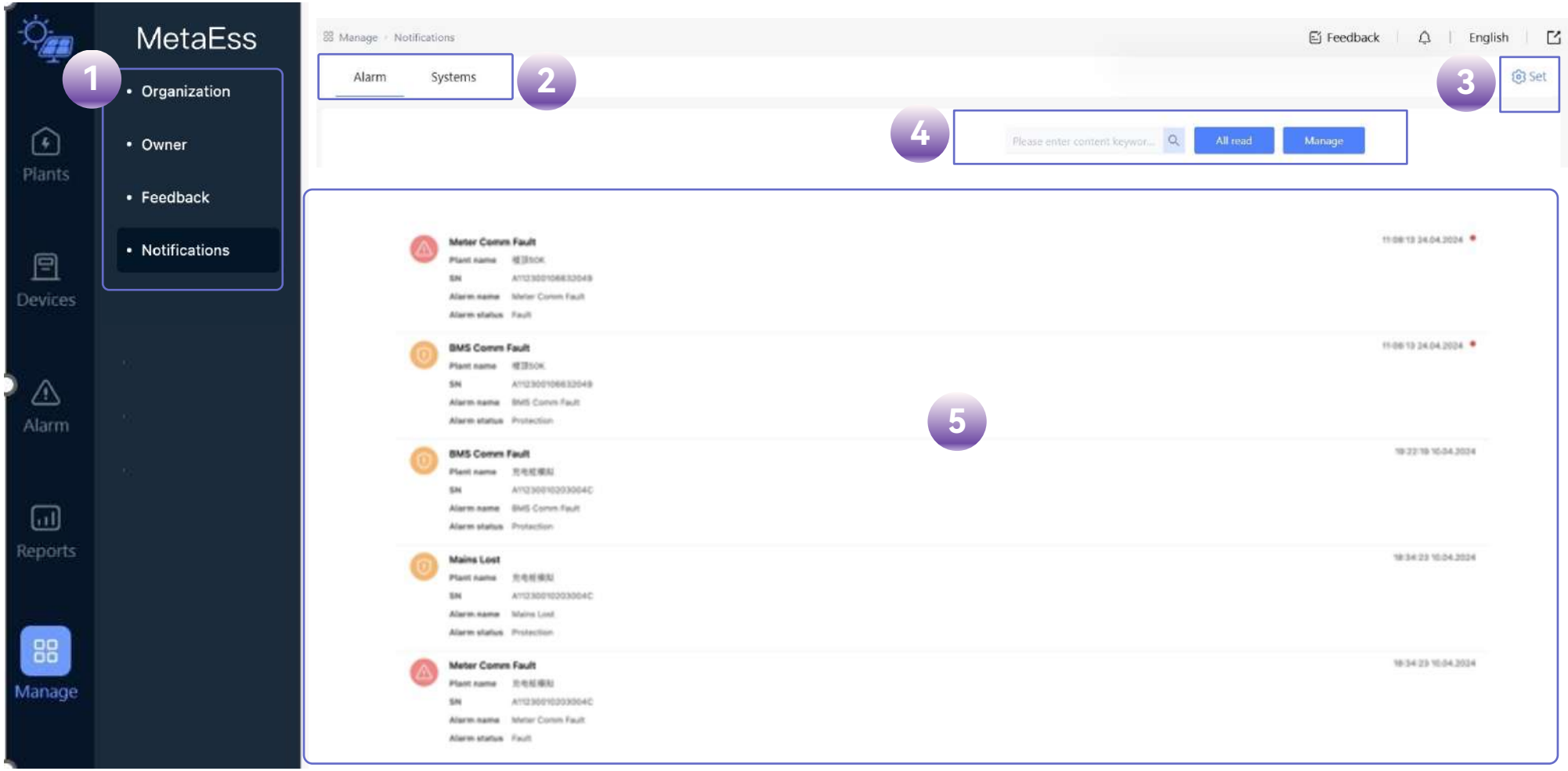
① The current sub-page is "Owner".

② Search for owner users by username and email address.

③ Display the information of owner users.

④ Operations to the owner account, from left to right, are: modify - change the email address, reset the password, and delete the owner user.

Main Page - Manage Page(Notifications)



① The current sub-page is “Notifications".

② Notifications are divided into alarms and system messages.

③ Through this button set the push method of alarms.

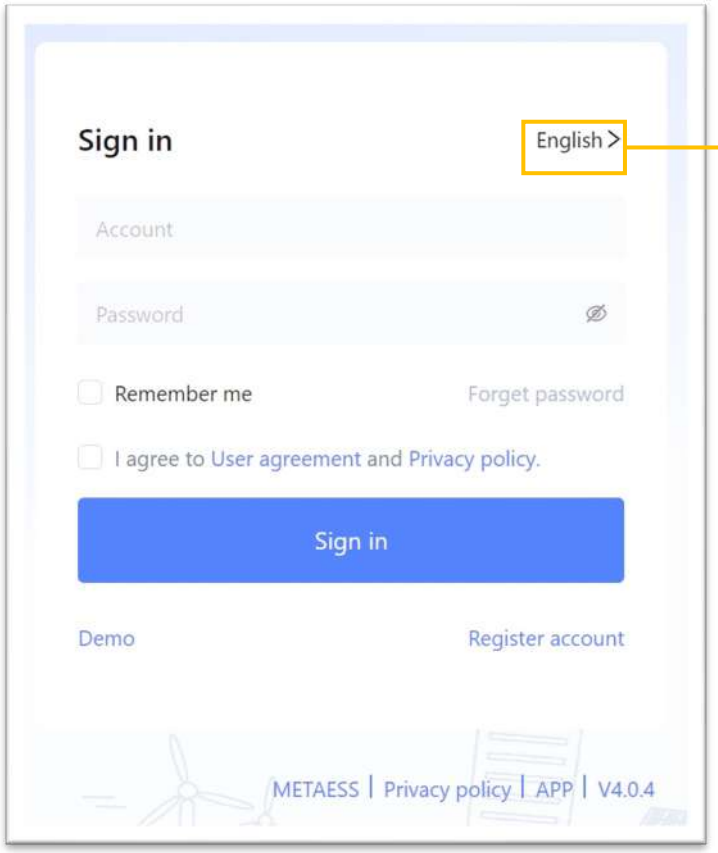
④ Search for notifications, as well as batch mark them as "All read" or batch delete notifications.

⑤ Notification list.

MetaEss Website Main Functions

Choose Language

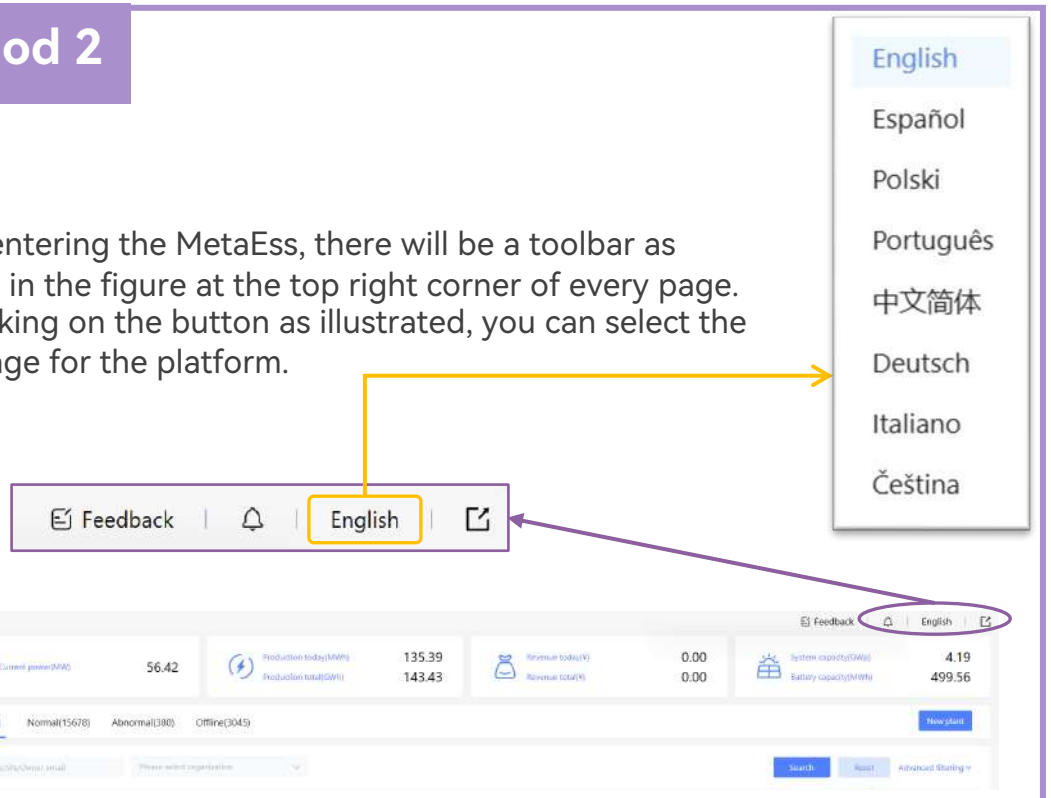
Method 1



On the Sign-in Page, click here to choose the language.

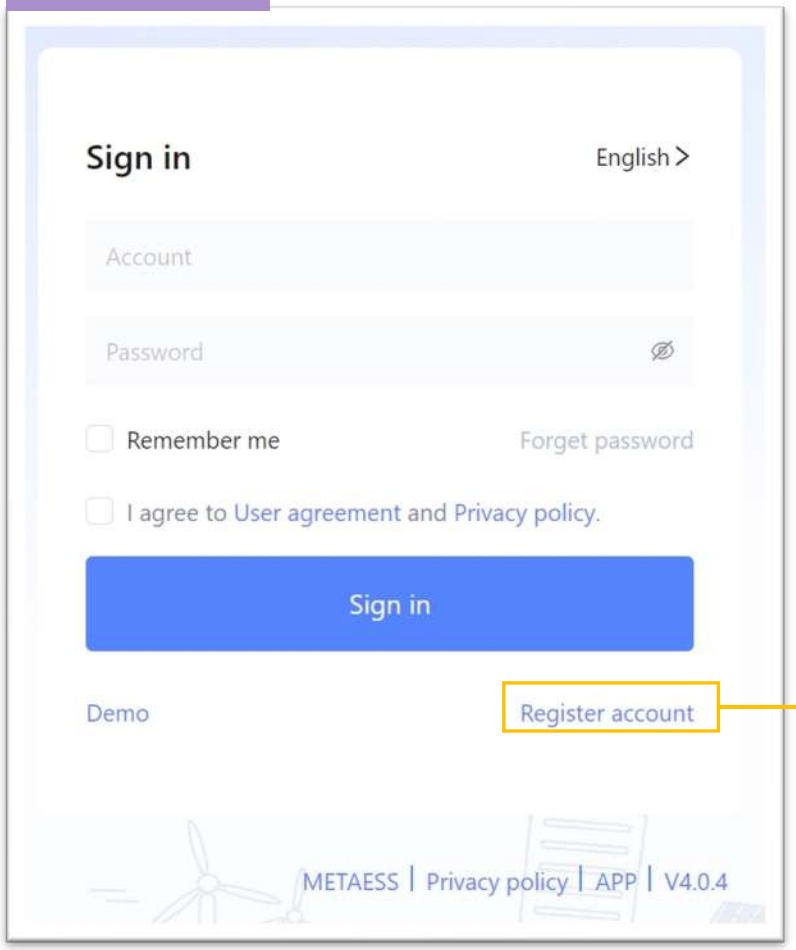
Method 2

After entering the MetaEss, there will be a toolbar as shown in the figure at the top right corner of every page. By clicking on the button as illustrated, you can select the language for the platform.

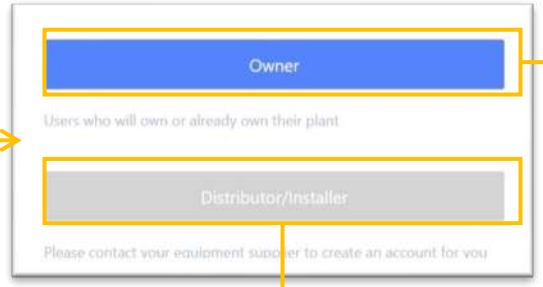


Create an Owner Account

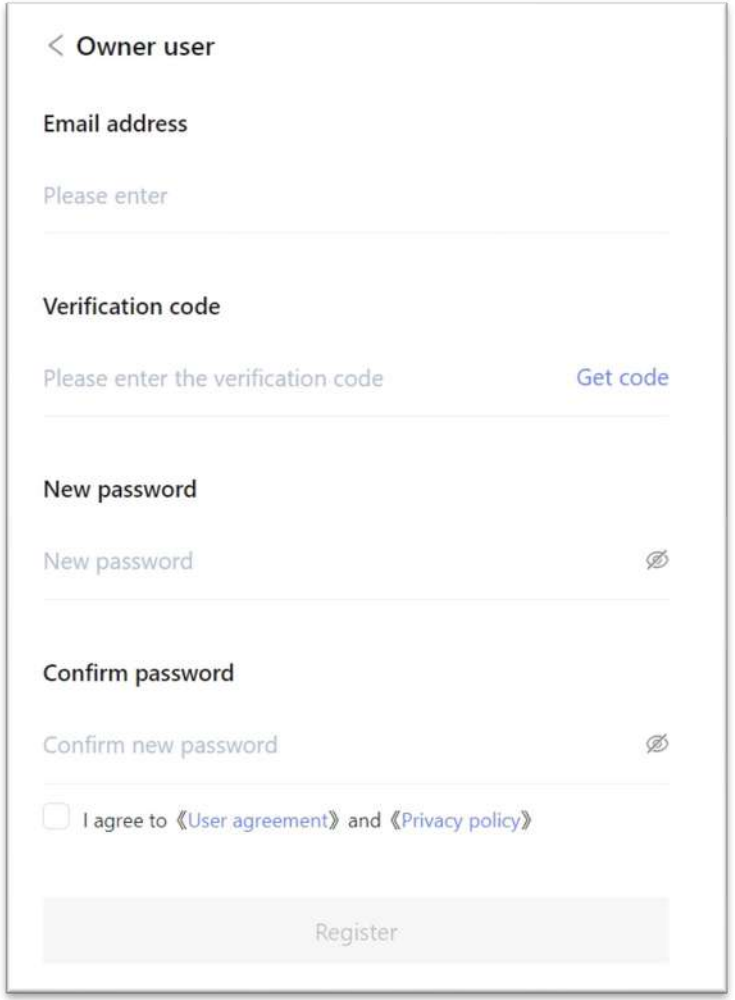
Method 1



Owner users can register for an owner account on the sign-in page using their email address.



Distributors and installers need to use organizational accounts, which cannot be created here.

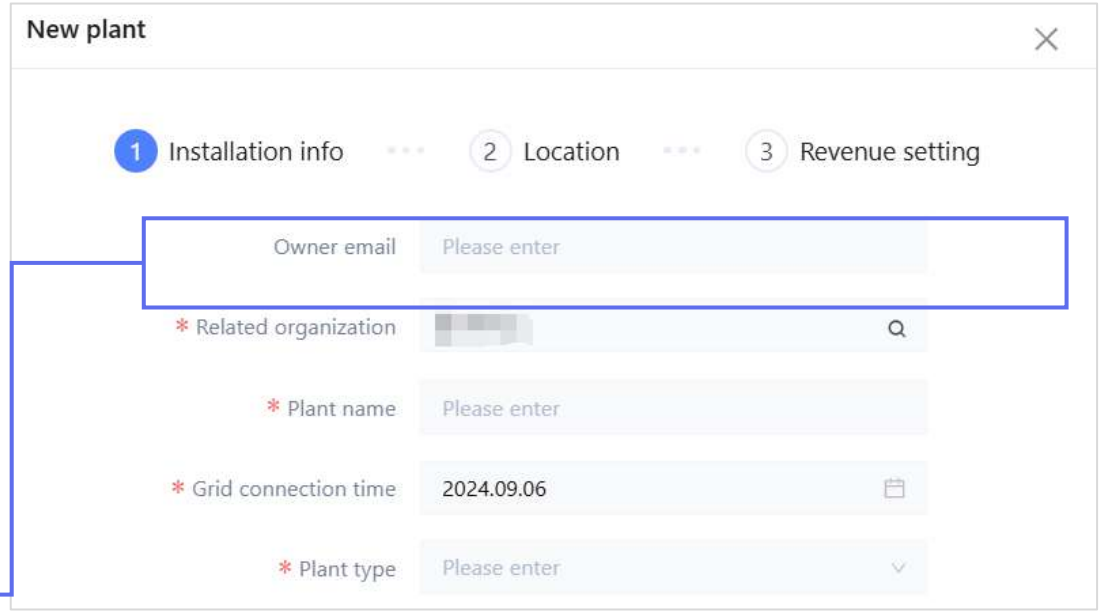


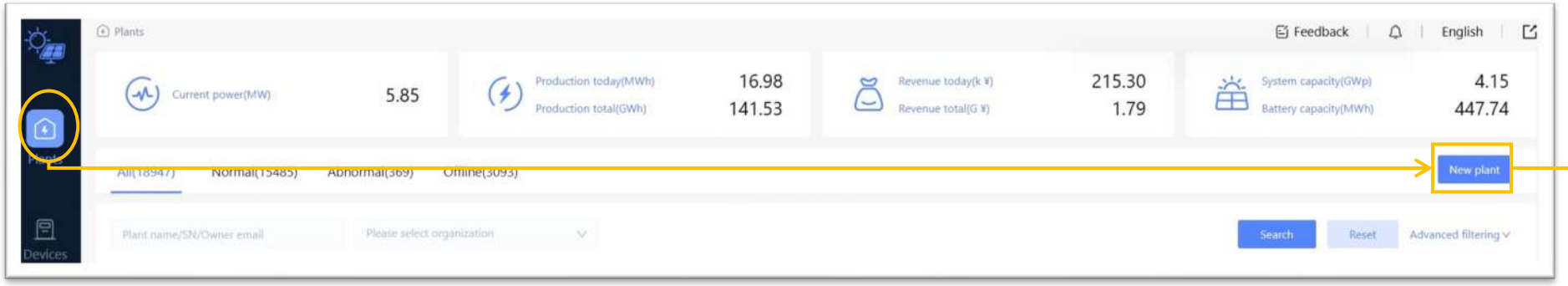
Create an Owner Account

Method 2

Distributors or installers can create owner accounts for end users.

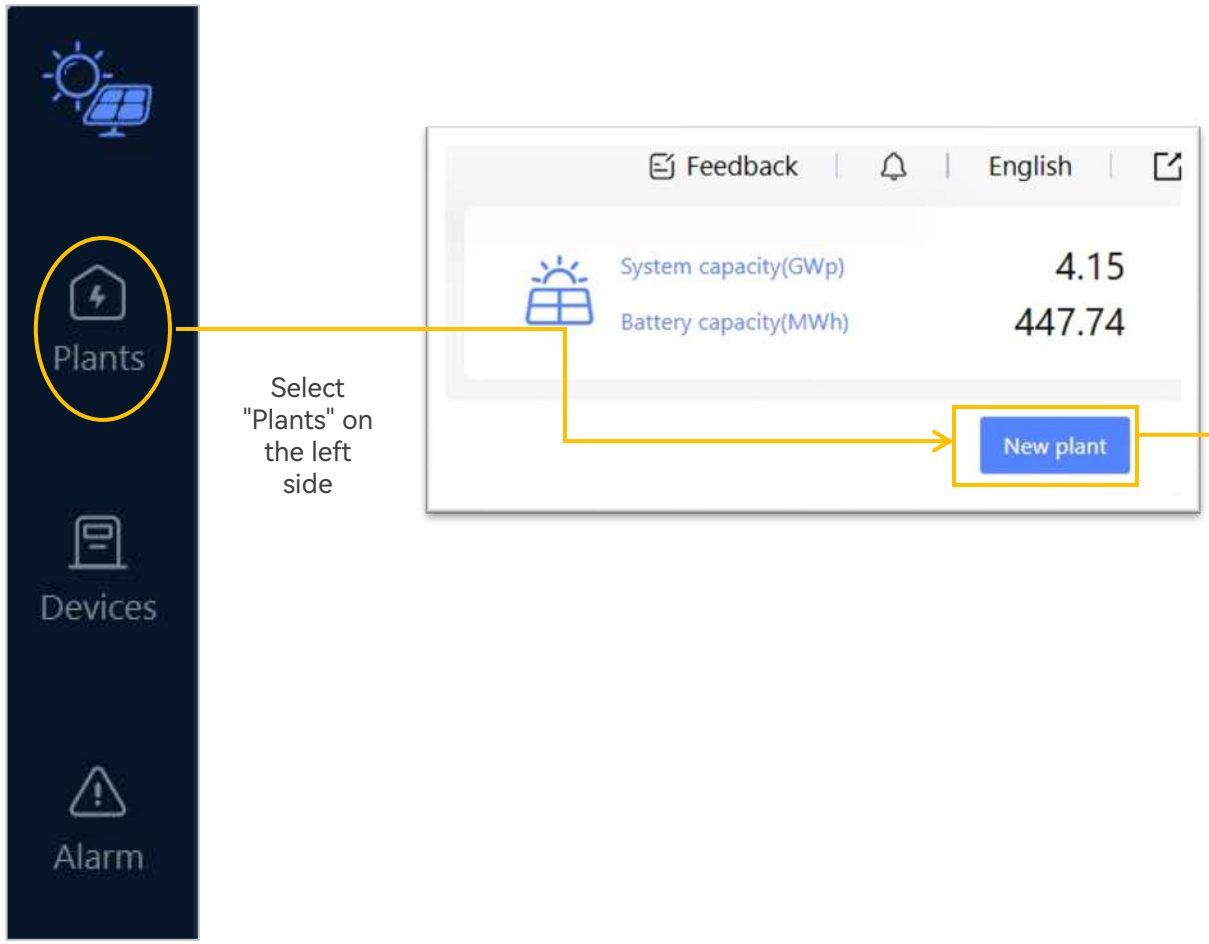
When a distributor or installer creates a power plant for an end user, they can directly enter the end user's email address. Once the power station is created, the initial password will be sent to the end user's email. The end user can sign into the MetaEss by the email address and initial password, without registering.





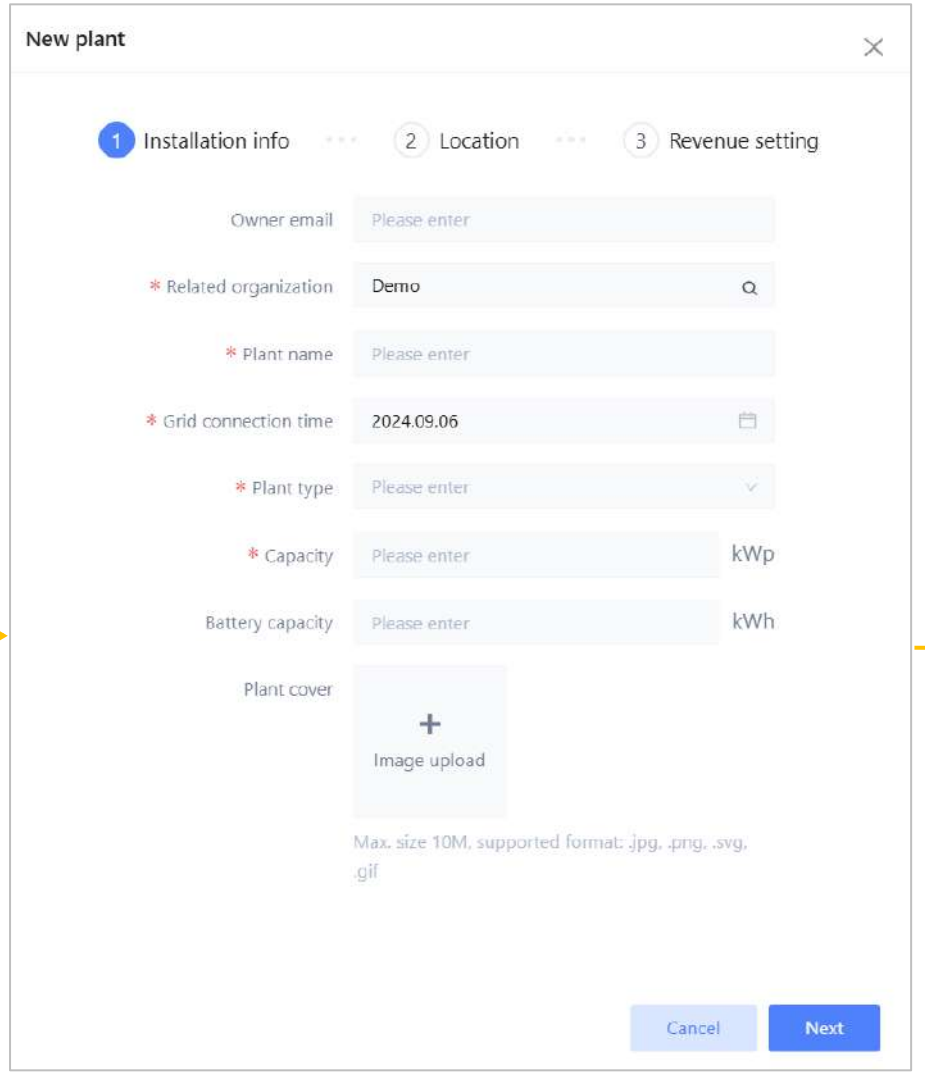
On the Plant Page, click “New plant” to create a new plant.

Create a New Plant



Select "Plants" on the left side

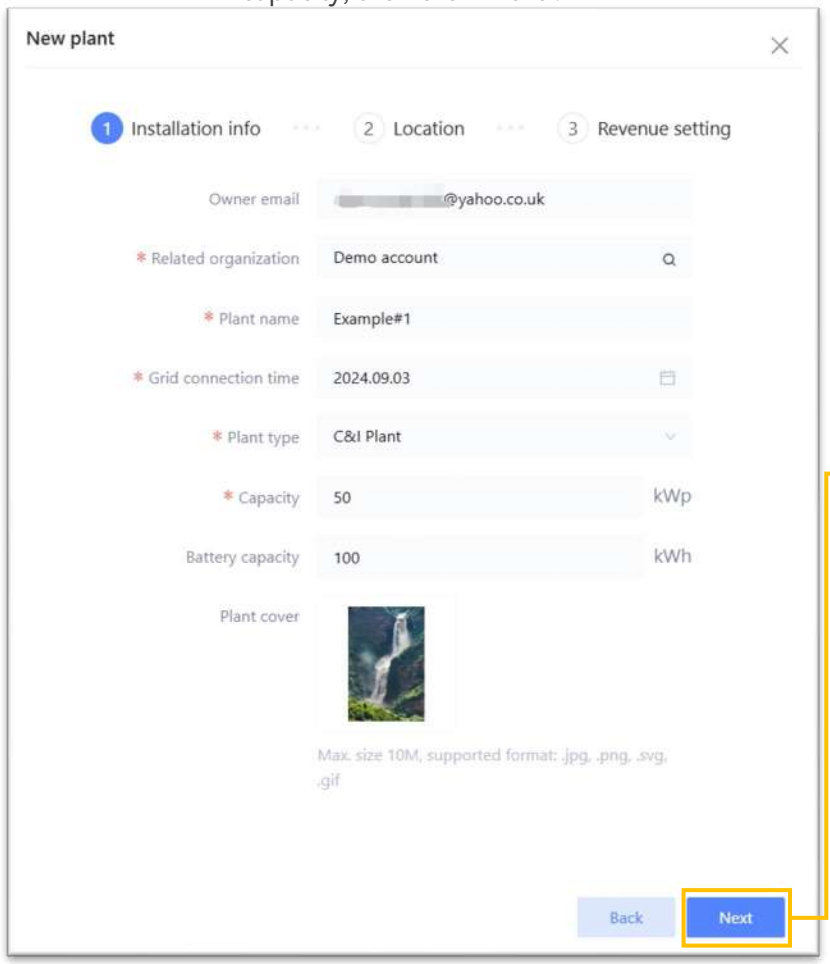
Click “New plant” and then appear a new page



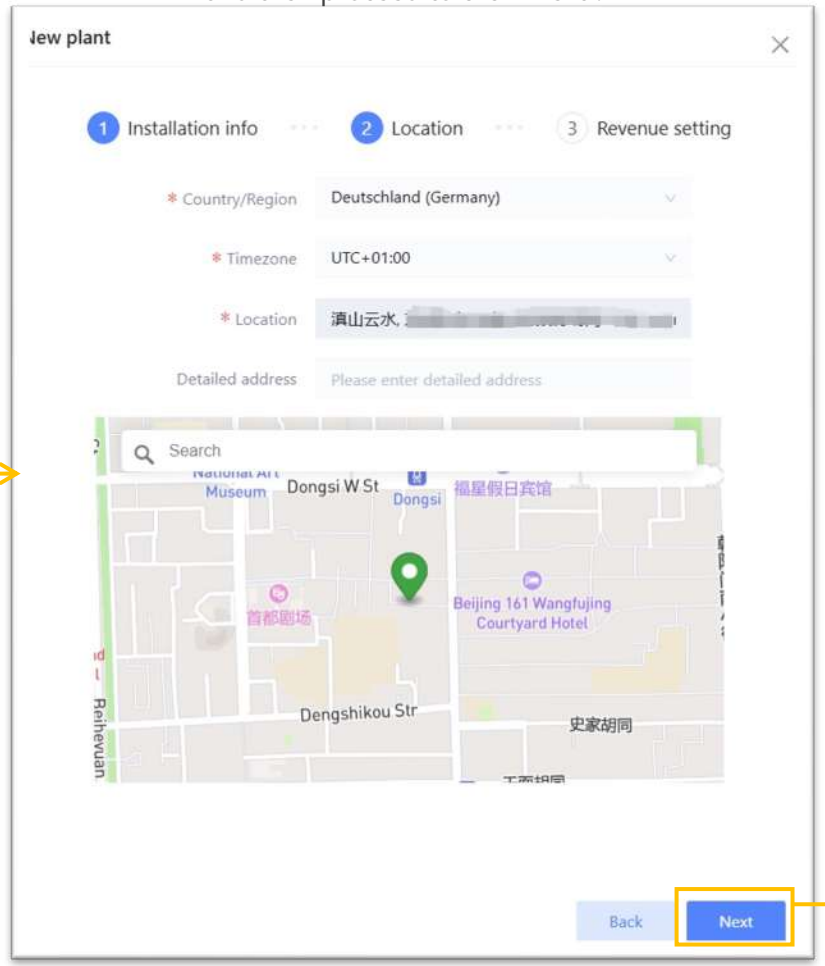
Next slide

Create a New Plant

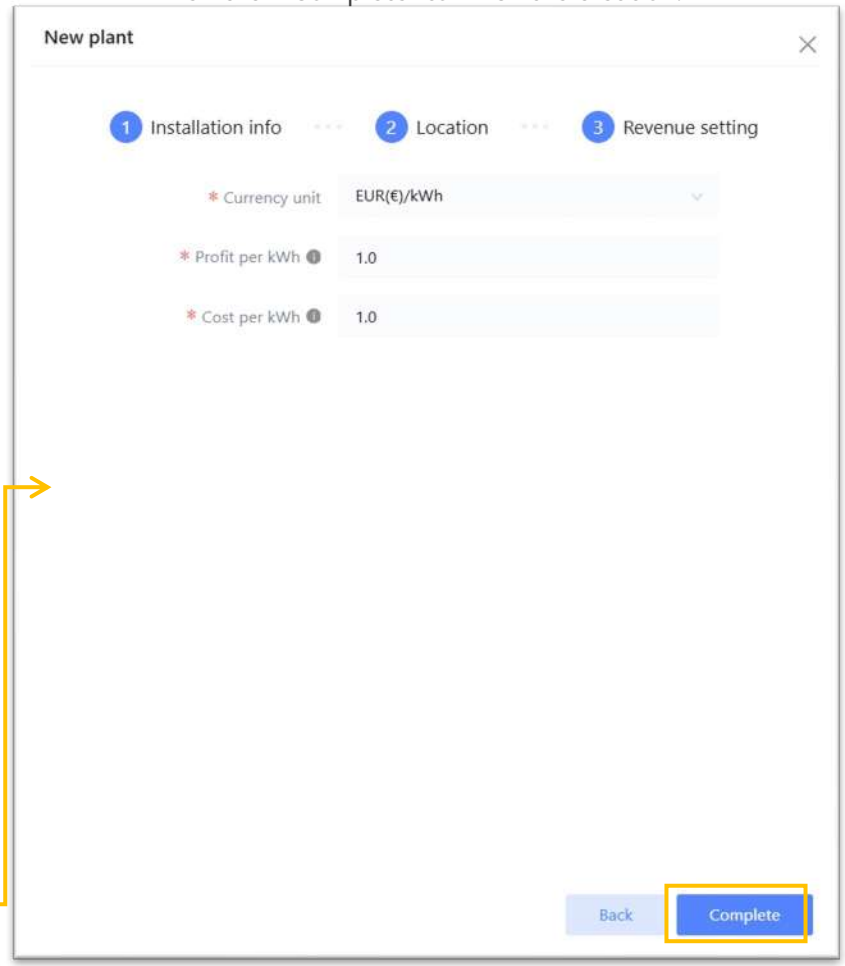
Fill in the required information such as the affiliated organization, grid connection time, plant type, and plant capacity, then click "Next".



Manually enter the address or authorize the platform to automatically retrieve it, then fill in the region and time zone, and then proceed to click "Next".



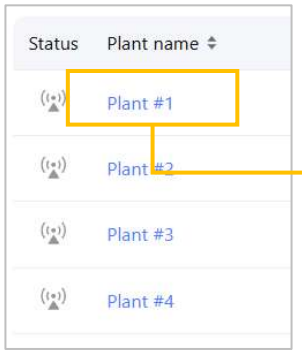
Set the currency unit, selling price for electricity, and buying price for electricity to facilitate the calculation of revenue. Then click "Complete" to finish the creation.



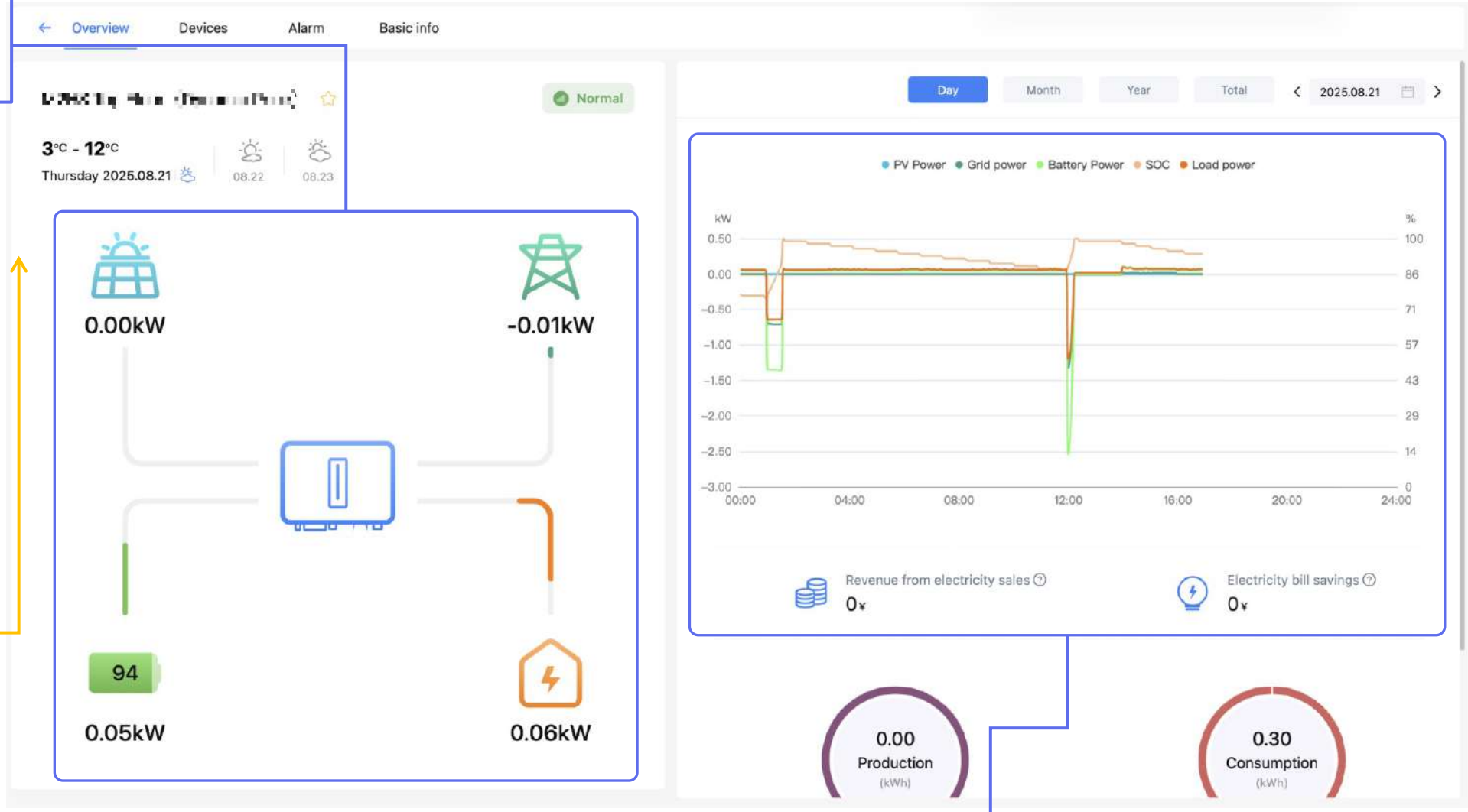
View Plant's Real-time Generation & Consumption

The flowchart will display real-time electricity generation and consumption.

Select "Plants" on the left side



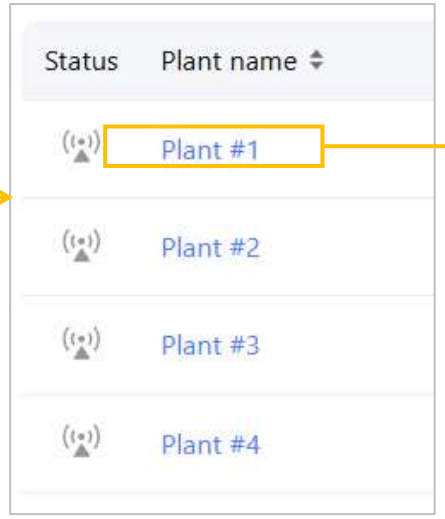
Select the plant you want to view and click on the plant name.



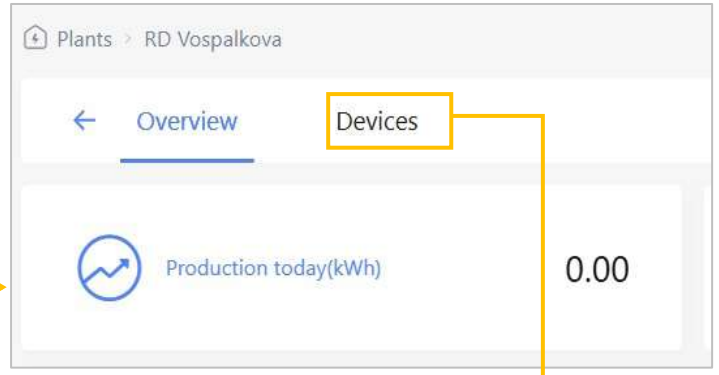
The curve chart will display the variations in PV power, grid power, battery power, SOC value, and load consumption.

Add Devices to Plant

Select "Plants" on the left side



Select the plant you want to add devices to and click on the plant name.



Click “Devices” at the top of page.

Next slide

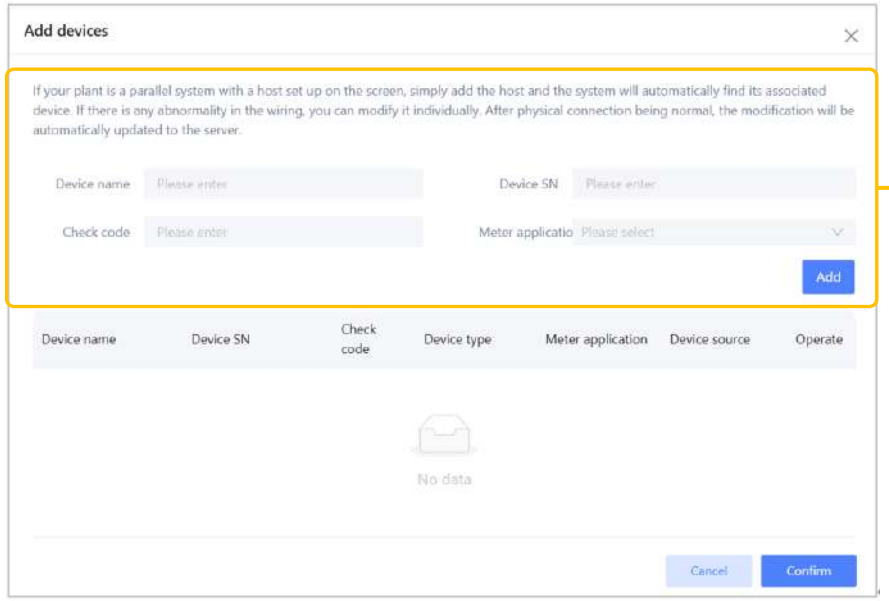
"Scan devices" can automatically add devices that have a physical communication connection with already added devices, such as datalogger, charging piles, and slave inverters after master-slave parallel connection. When you add new devices to an existing system, you can use "Scan devices" to quickly add them.

"Add devices" is often used for the first-time addition of devices or for adding individual devices that do not have a physical communication connection with each other. For master-slave parallel systems, it supports the function of automatically adding slave devices when adding the master device.

Add Devices to Plant – “Add devices” Button

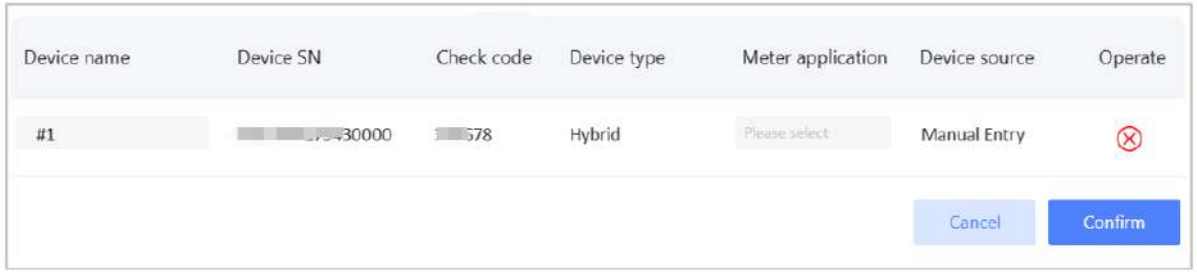
Add devices

Click "Add devices" will bring up the window shown in the figure on the right.



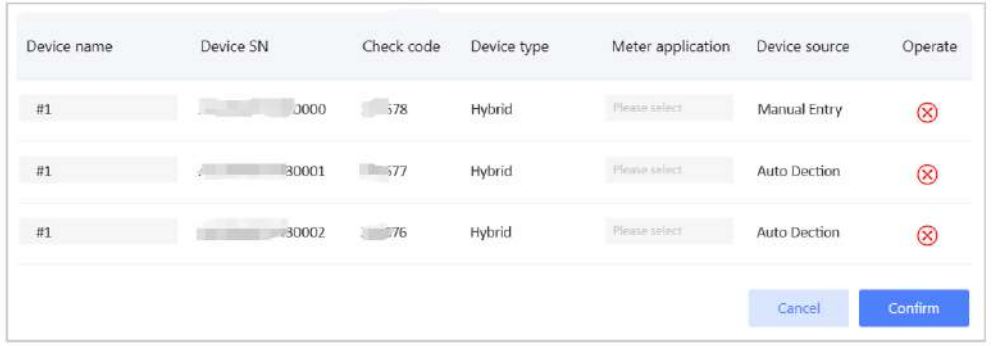
Name the device, and fill in the “SN code” and “Check code” from the nameplate. After completing this, click on "Add".

If the device is an individual application, then only one device will be added.



Individual Application

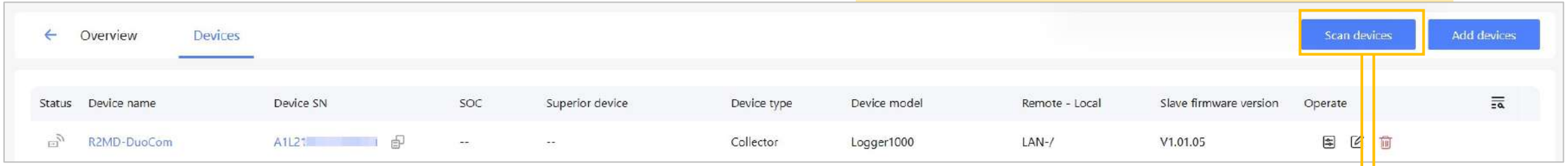
If the device is used as a master in a master-slave parallel system, then the slave devices will be automatically detected and added at the same time.



Parallel Connection Application

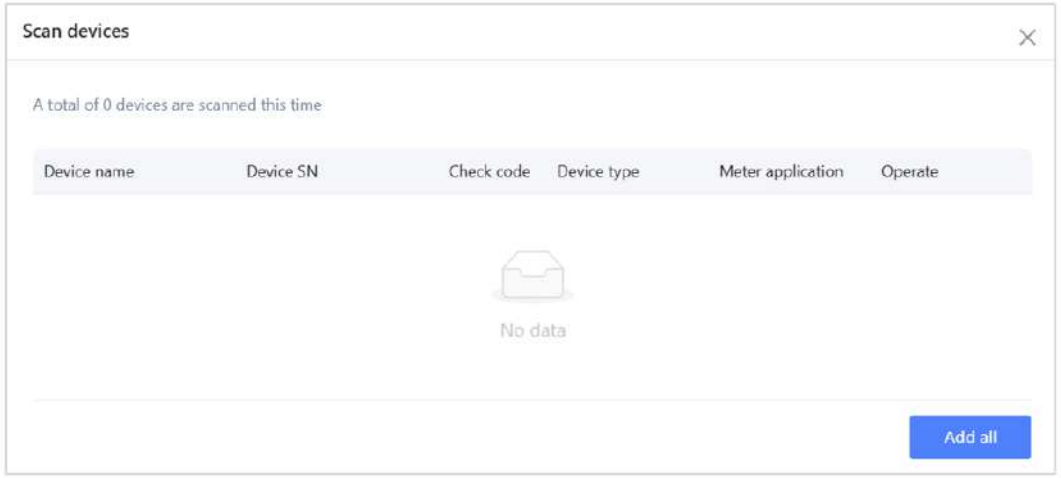
Add Devices to Plant – “Scan devices” Button

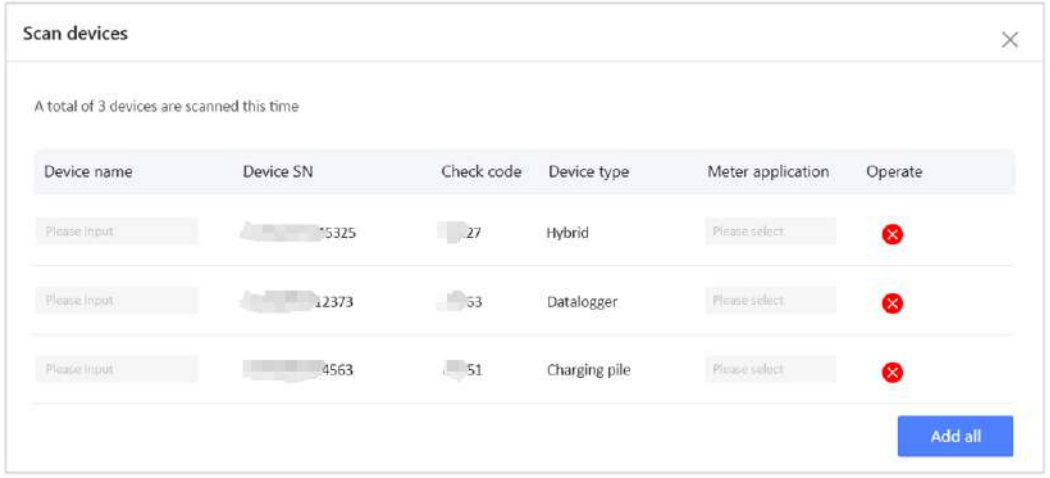
When there are already devices added to the plant and there are new devices physically connected to them, you can use "Scan devices" to quickly add them.



If new devices cannot be scanned, please check whether the physical communication connection is normal.

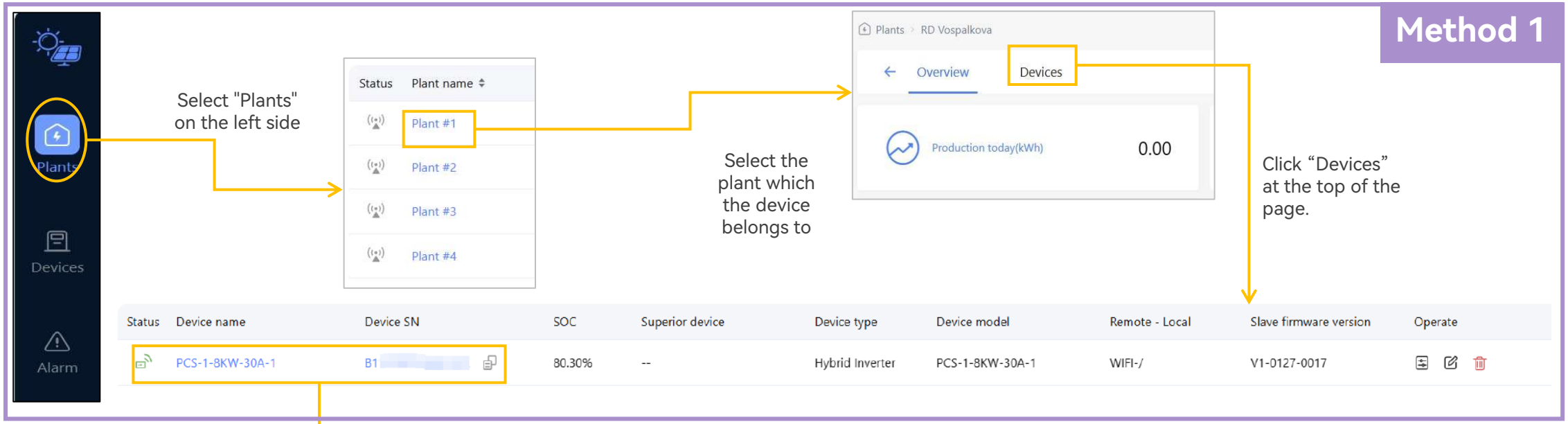
Devices that have a physical communication connection with existing devices, such as datalogger, charging pile, or slave device in a master-slave parallel system, can all be scanned and quickly added to the plant.



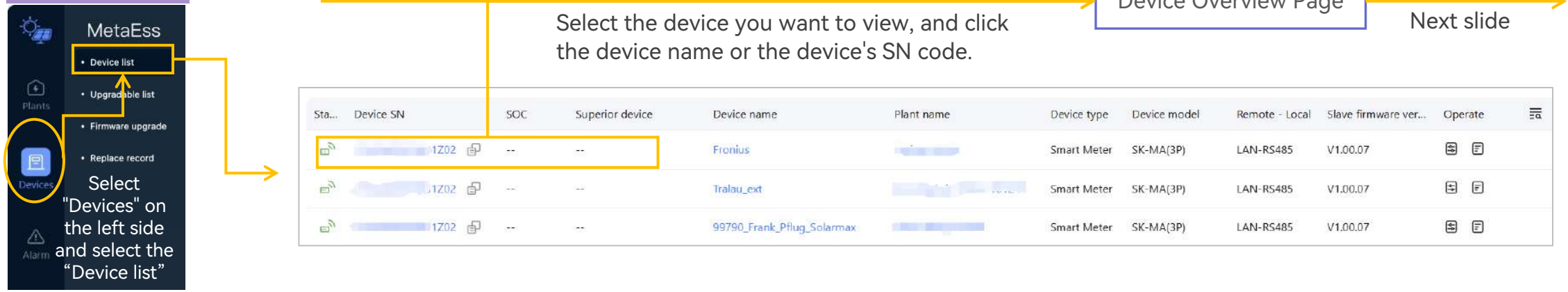


View Device Data & Export a Data Report

Method 1

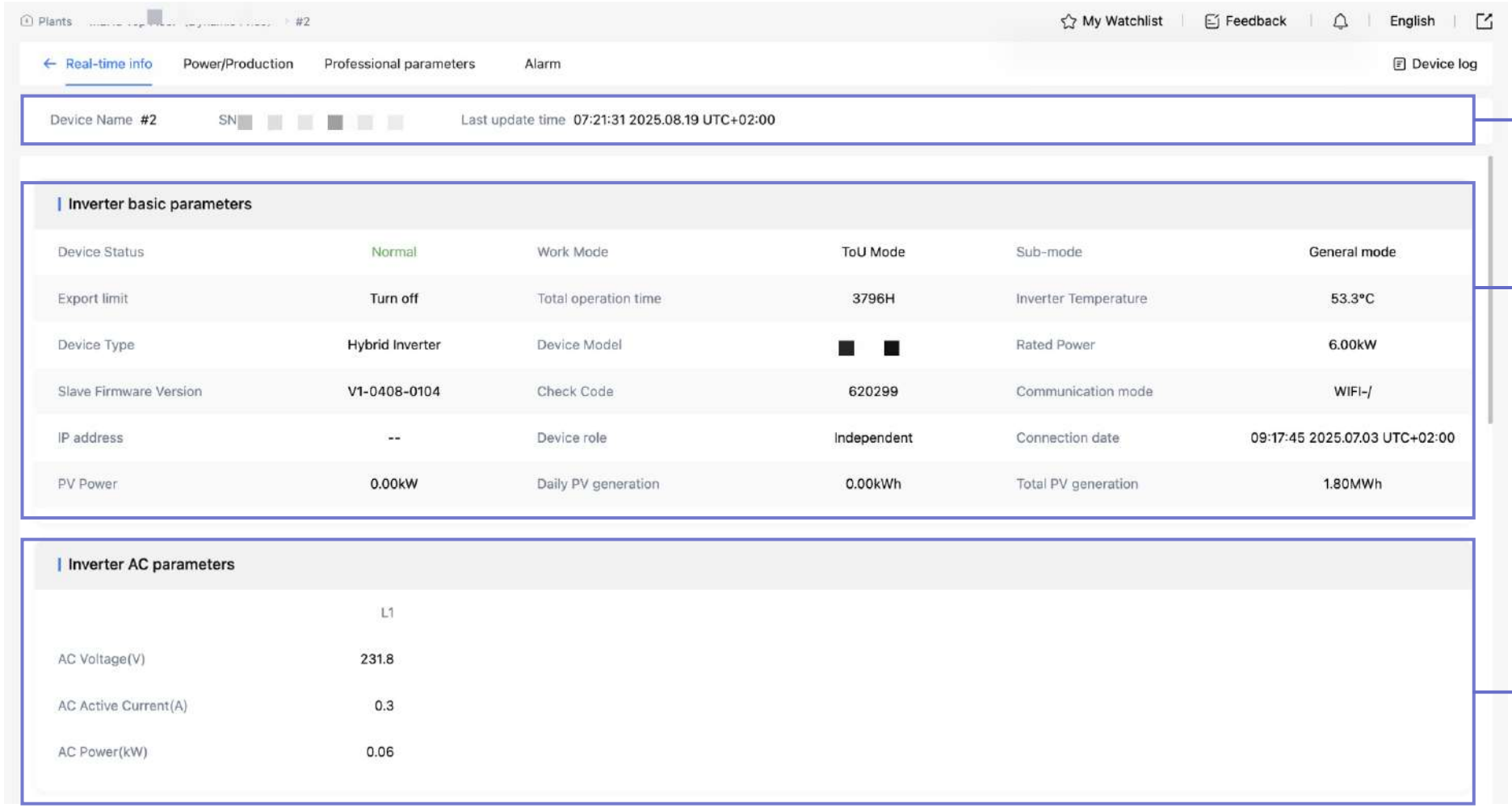


Method 2



View Device Data & Export a Data Report

Real-time info Page



Basic information about the device, including device type, power, firmware version, etc.

Real-time basic of this inverter.

Real-time information about the parameters of PV side, inverter, meter, battery and load.

View Device Data & Export a Data Report

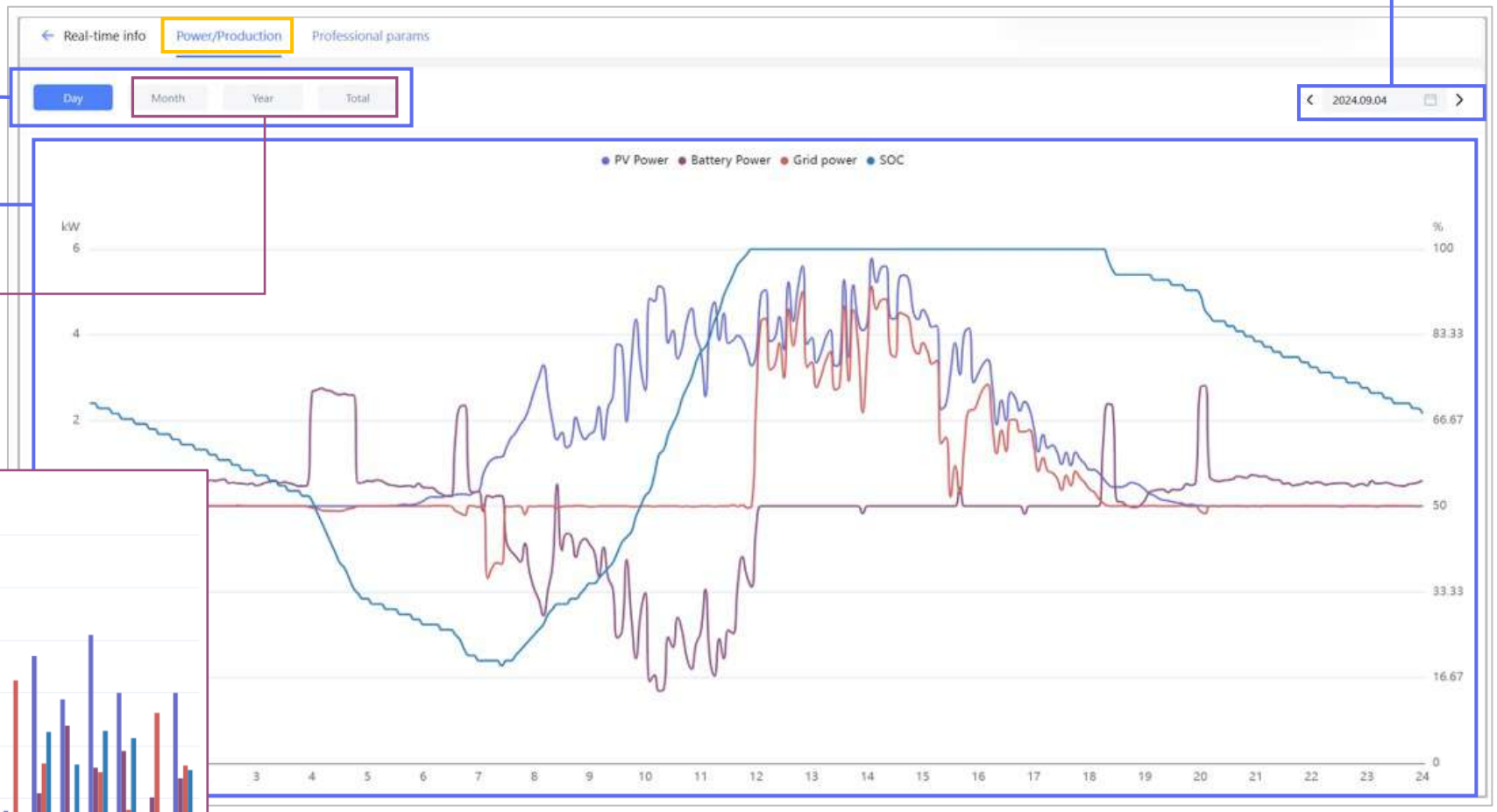
Power/Production Page

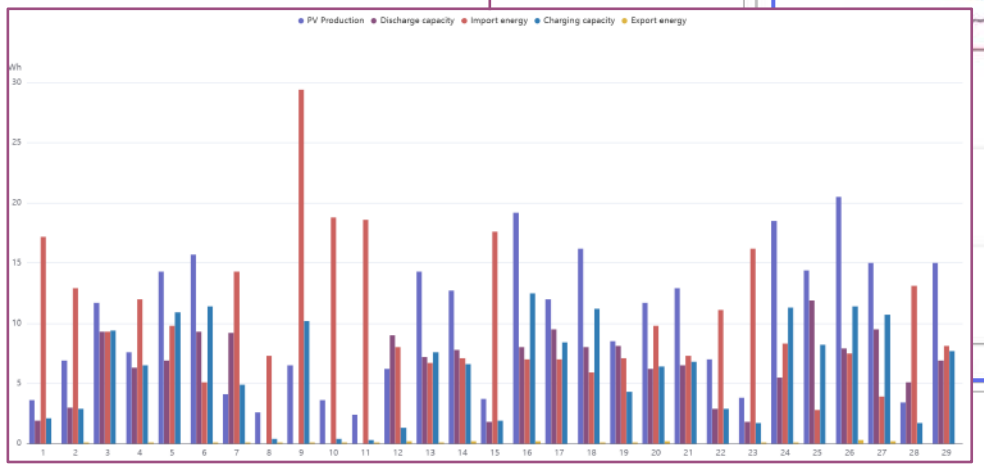
Freely select the desired time to view

Switch to day/month/year/total statistics chart

The day statistics chart uses a line graph to display the changes in PV power, battery power, grid power, and SOC every five minutes.

The month/year/total charts use a bar graph to compare the PV production, battery charge/discharge capacity, and export energy to the grid.





View Device Data & Export a Data Report

Professional params Page

Select the date you want to check.

Save the selected parameter combination as a template for later direct use.

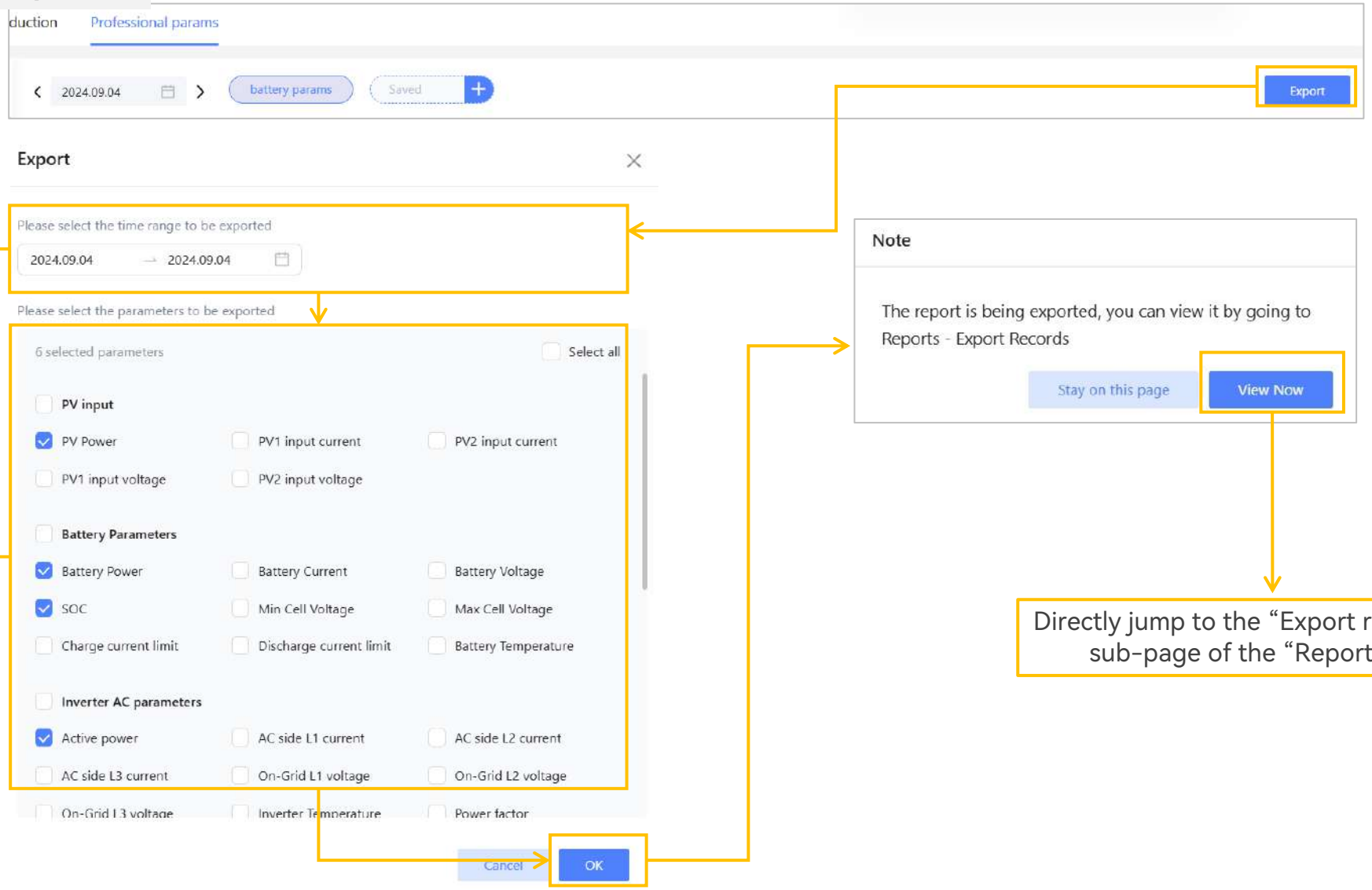
Export a data report

Select the parameters you want to view, multiple selections are allowed, but the units of the selected parameters must not exceed two. After clicking “confirm”, a data line chart will be generated.

Line Chart

View Device Data & Export a Data Report

Export a Data Report



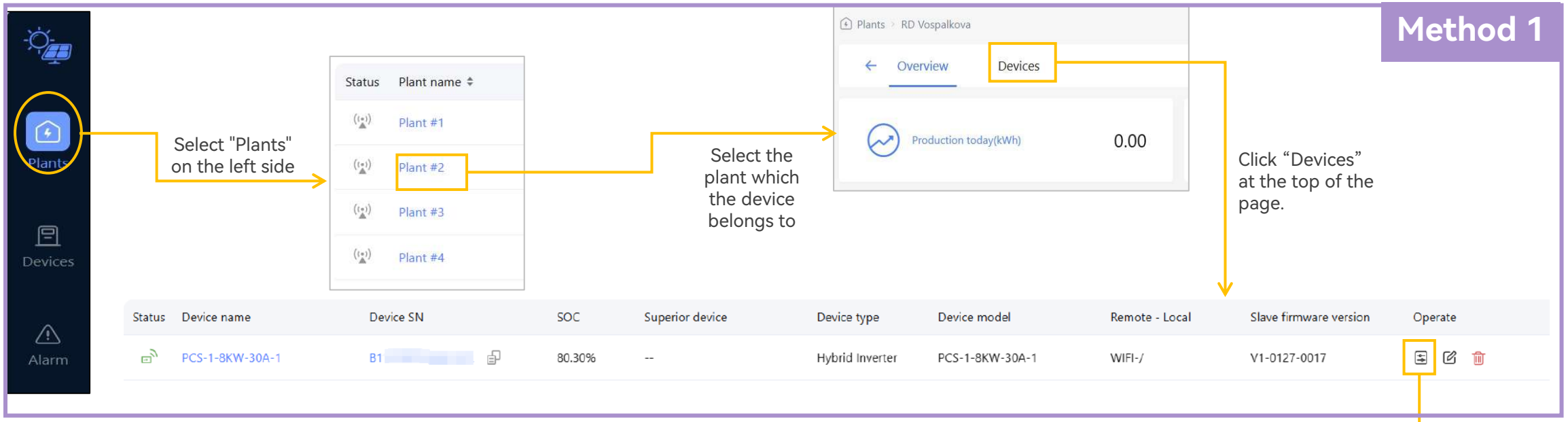
Select the start and end times for the report you want to export(within 7 days)

Select the parameters for the report you want to export

Directly jump to the “Export records”, the sub-page of the “Report” Page.

Configure the Device

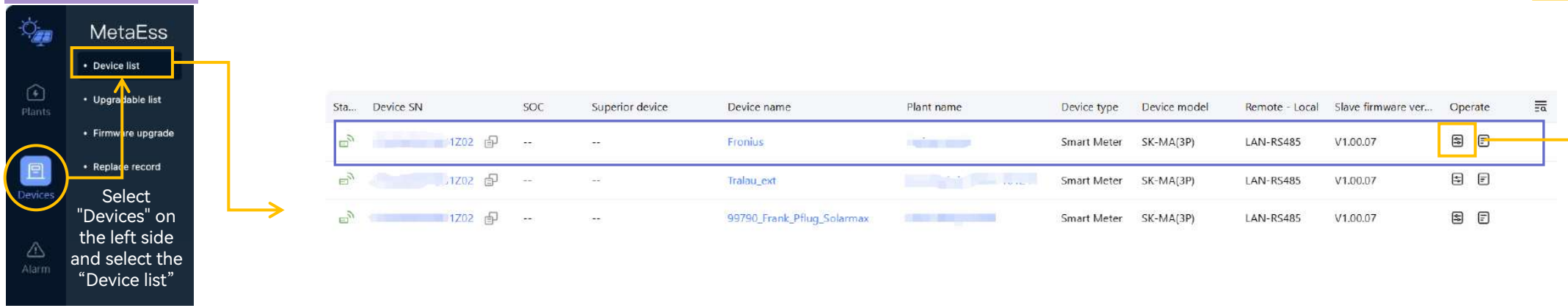
Method 1



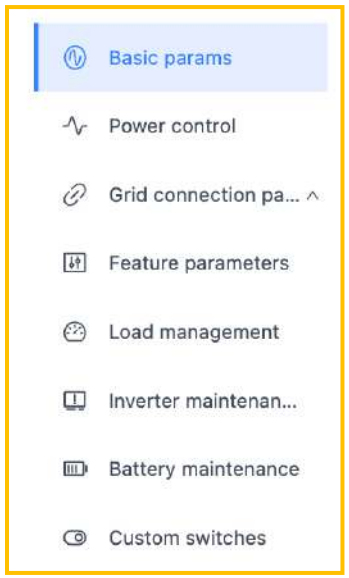
In the row of the device you want to configure, find the “Operate” column, and click the button shown to enter “Parameter settings”page.

Next slide

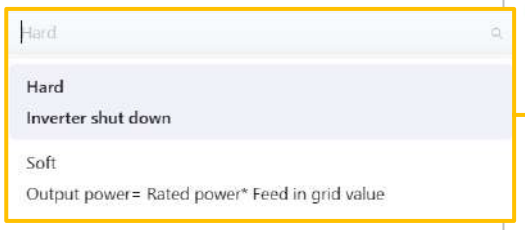
Method 2



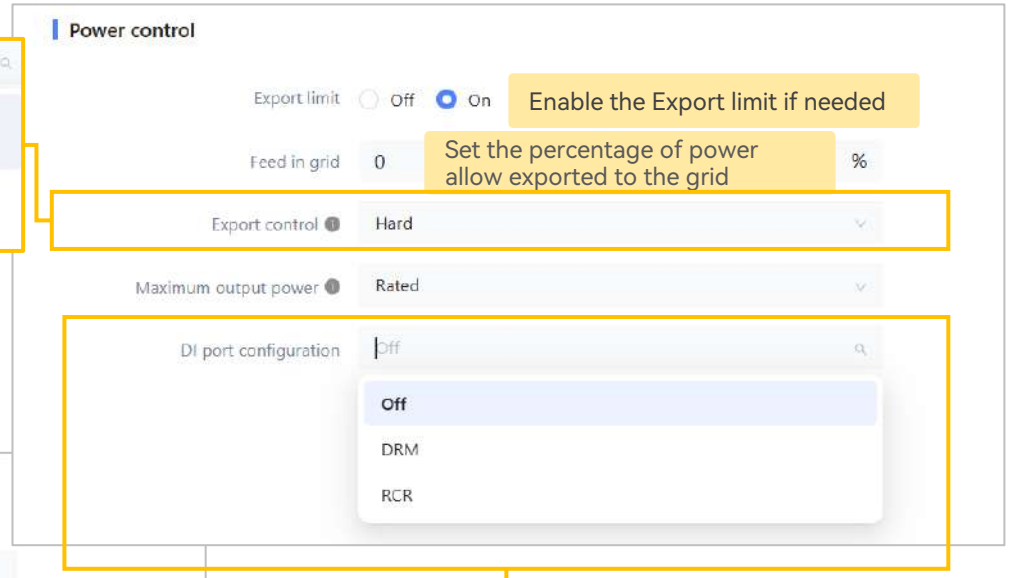
Configure the Device



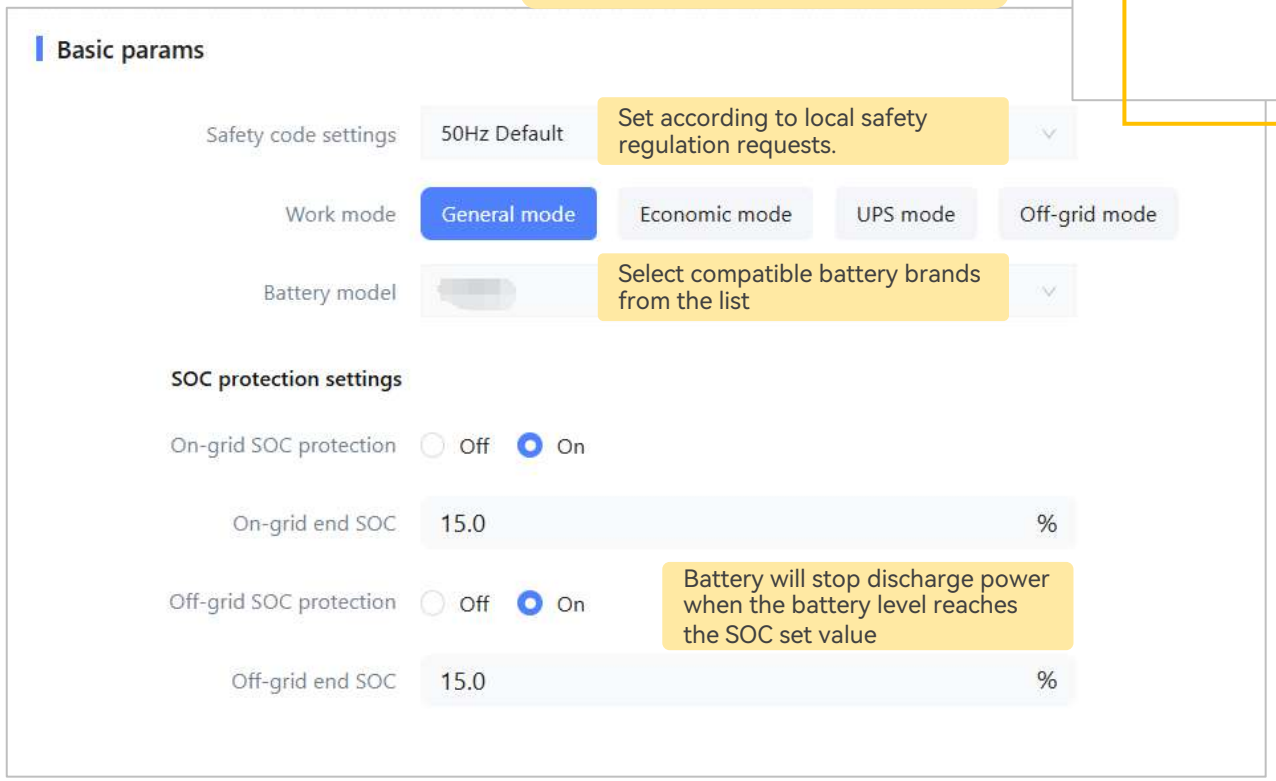
Modifiable items



When the inverter loses communication with the meter, the Hard mode will directly stop the inverter output, while the Soft mode will limit the output to the percentage of feed-in-grid you set.



Adapted to power dispatching devices RCR and DRM.



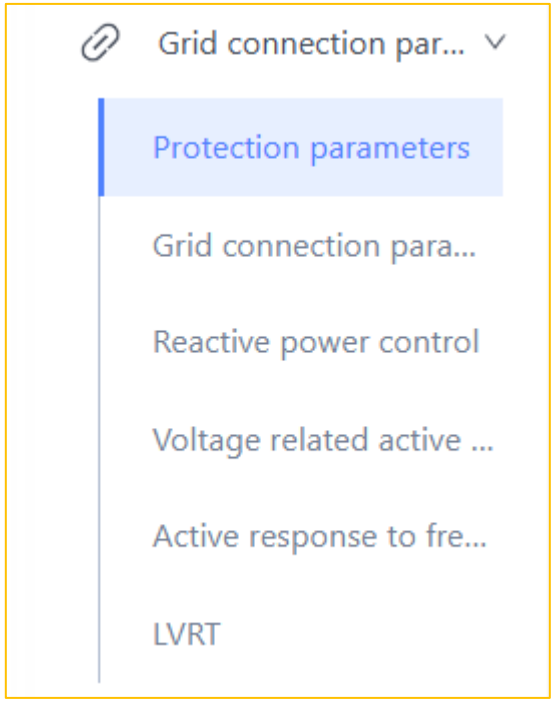
Download the parameter report

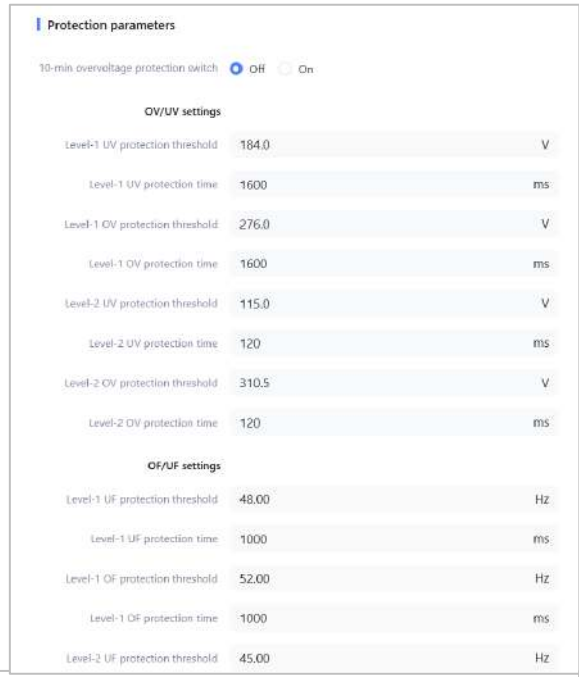
Configure the Device

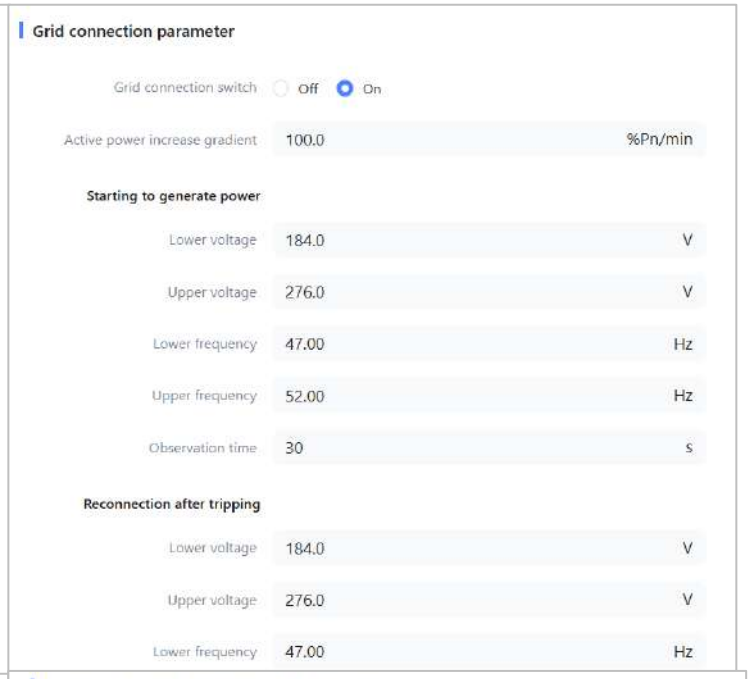
Grid connection parameter

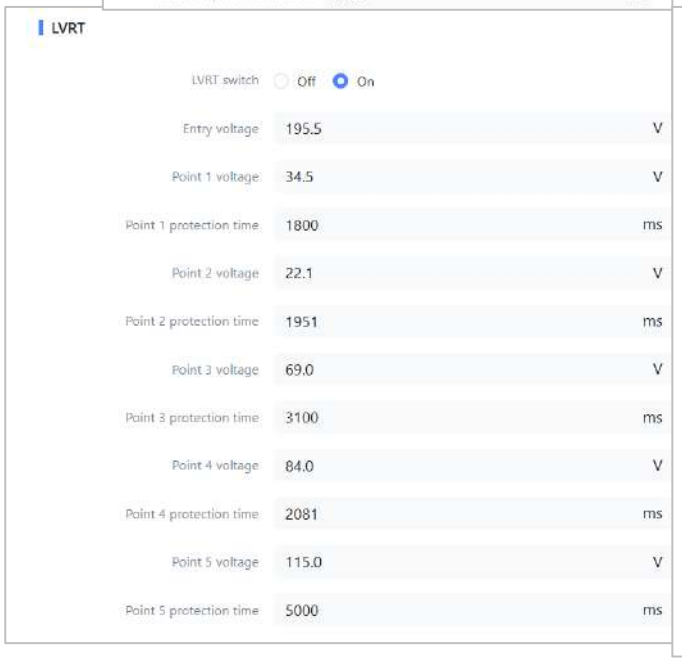
Grid connection parameter is a configuration channel open to highly specialized distributors or installers, which includes professional configurations such as over-voltage and under-voltage settings, over-frequency and under-frequency settings, active and reactive power output control, various protection parameters, and low-voltage ride-through settings.

For more information, please get in touch with the after-sales technical team

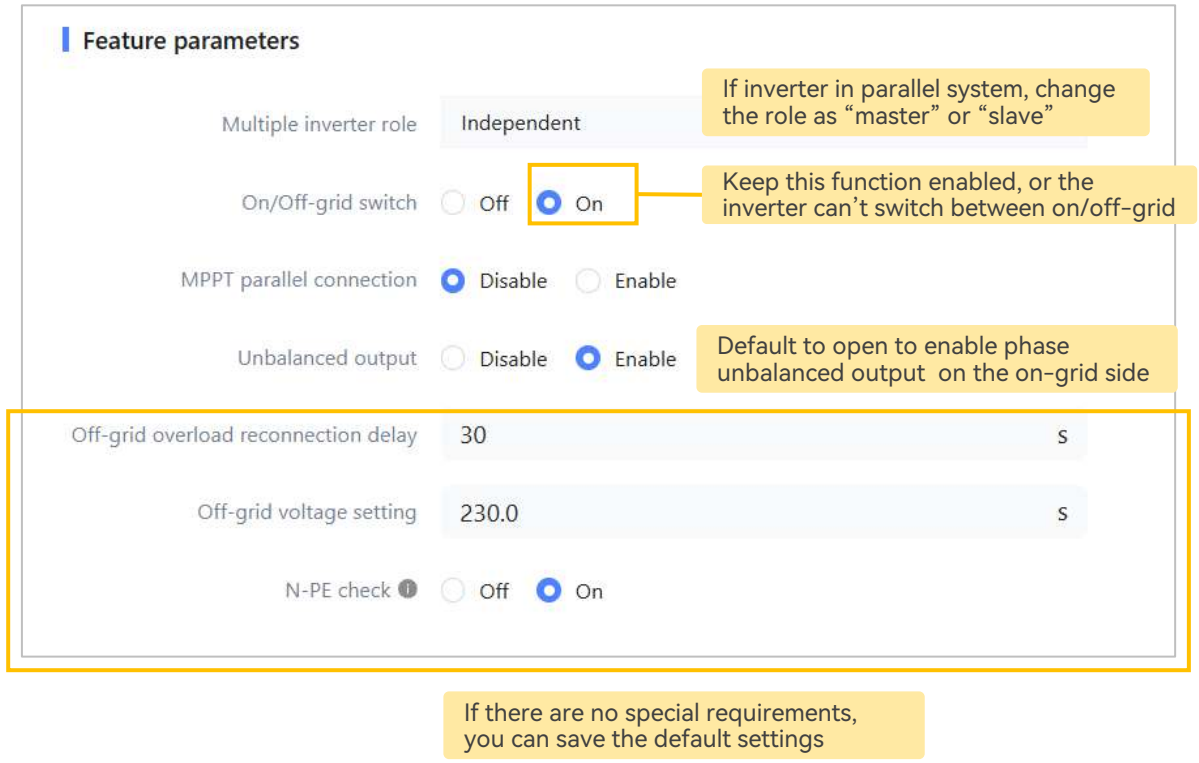


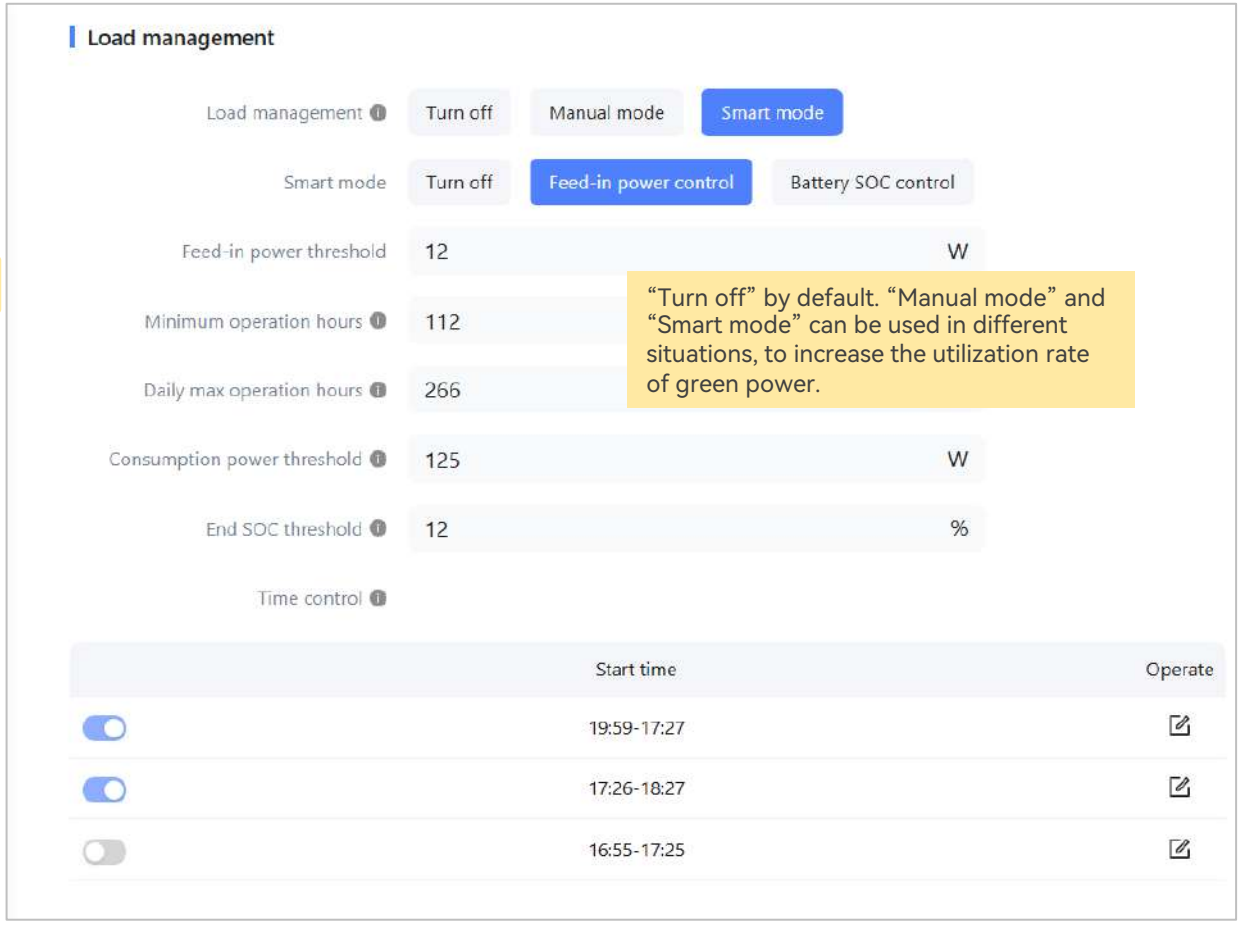




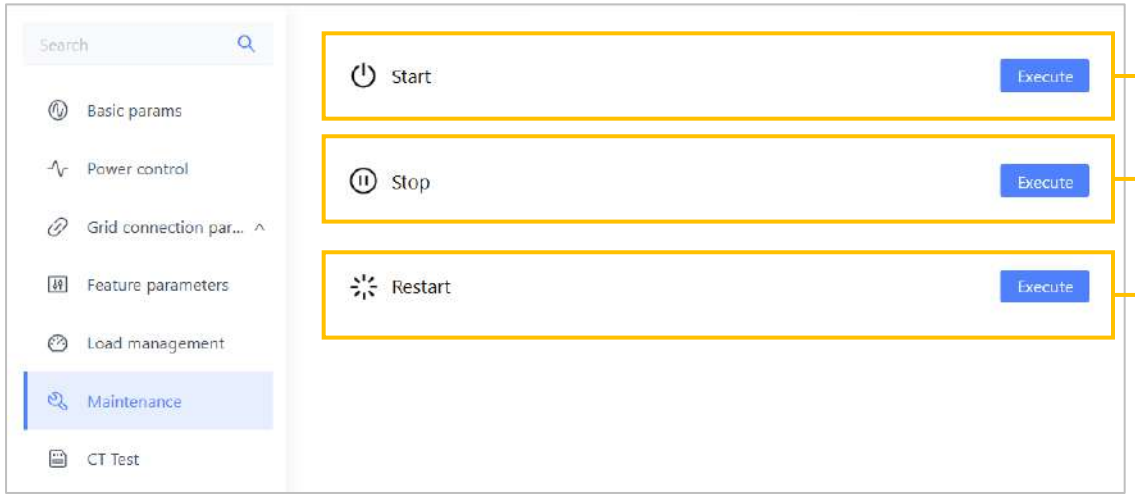


Configure the Device





Configure the Device

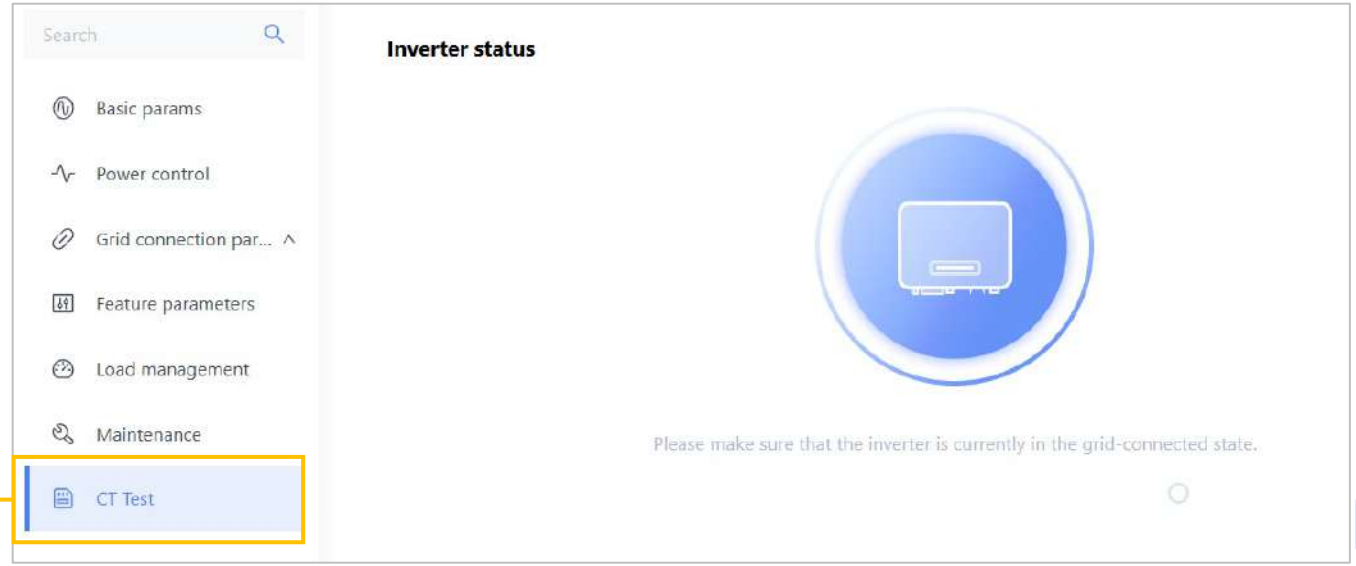


The normal working inverter won't react to this operation, and the waiting mode inverter will enter the working status after clicking this button.

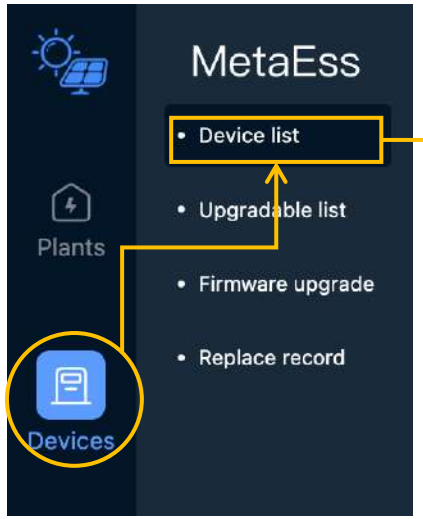
The normal working inverter will enter waiting mode when clicking this button.
You can maintain the battery or PV after powering off the inverter.

When the inverter works abnormally, clicking this button to restart the inverter sometimes can solve the problem.

This function will check the phase sequence of smart meter and the direction of CT. Make sure the Inverter, battery and smart meter normal before start this test.

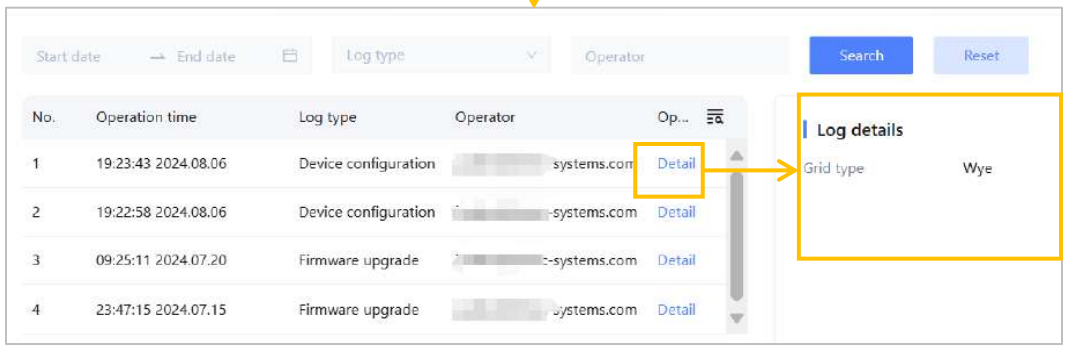


View the Device Log



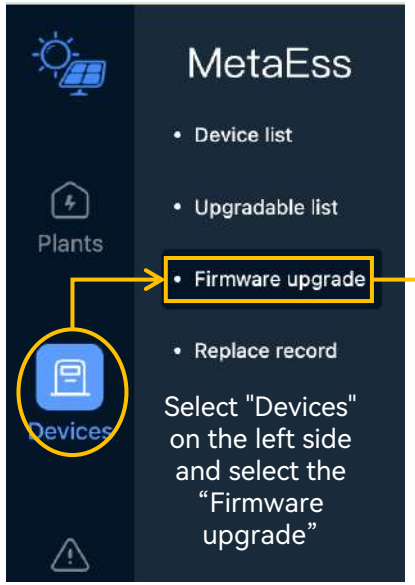
Select "Devices" on the left side and select the “Device list”

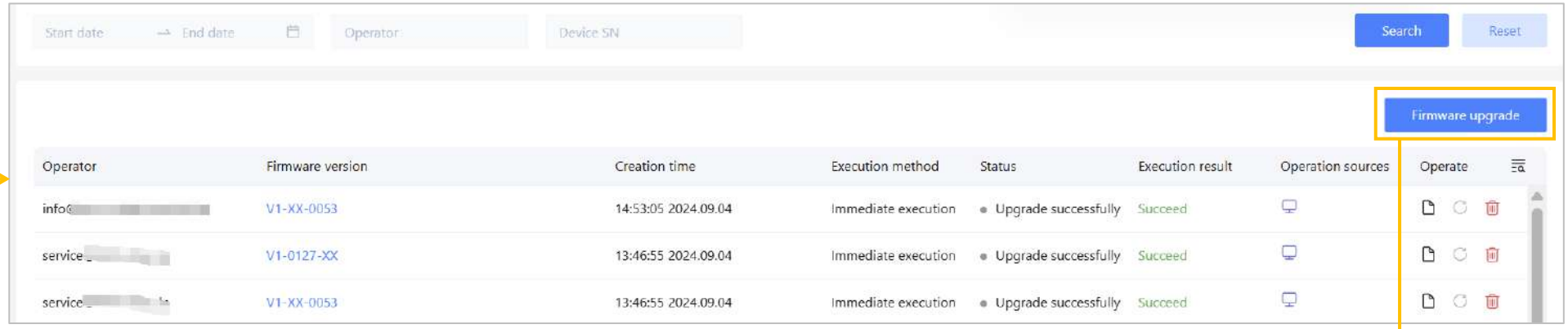
In the row of the device you want to check the log, find the “Operate” column, and click the button shown to enter the “Device log” page.



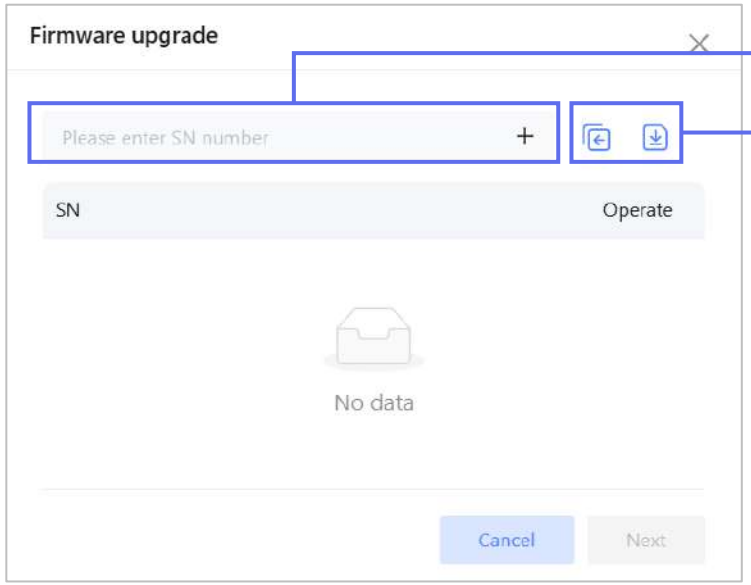
The operation time, type and operator can be viewed, and by clicking 'Detail', the specific actions will be shown.

Remote Upgrade Firmware





Click "Firmware upgrade" and then pop up a new window.



Two Methods to Import SN Code

Method 1: Support manual entry of the SN code. After entering, click the "+" to add.

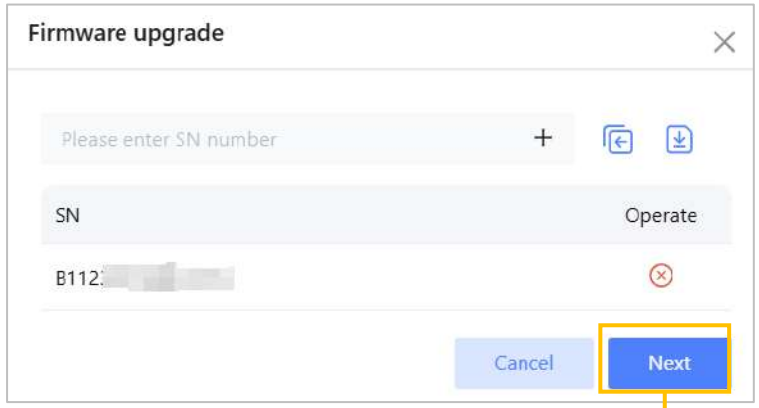
Method 2: Support batch addition of SN codes by importing an Excel file. The left side is the import button, and the right side is the template for the Excel file.

Next slide

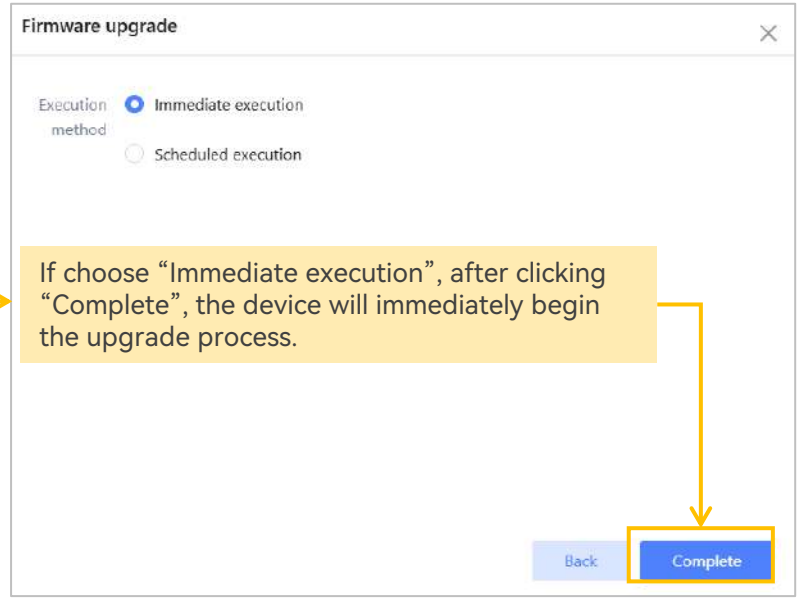
Complete the addition of the SN codes for the devices that need to be upgraded through these two methods.

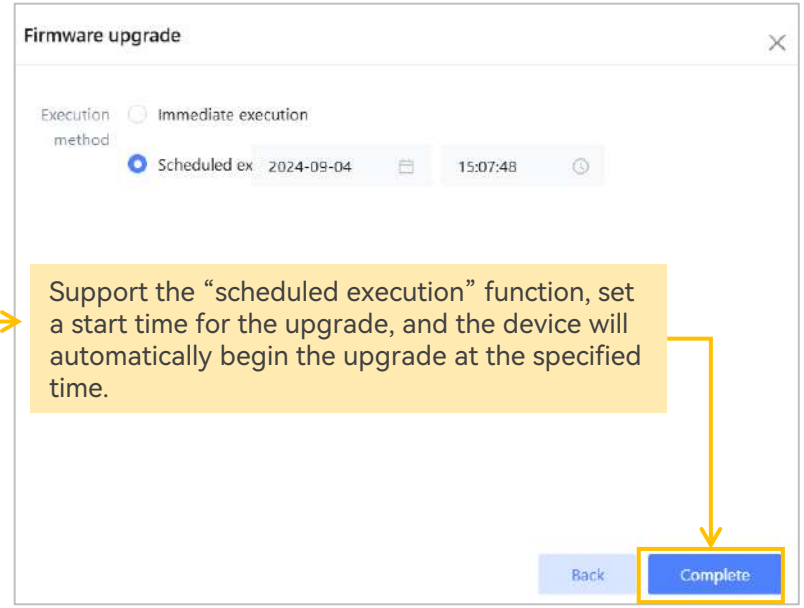
Remote Upgrade Firmware

Complete the addition of the SN codes for the devices that need to be upgraded.

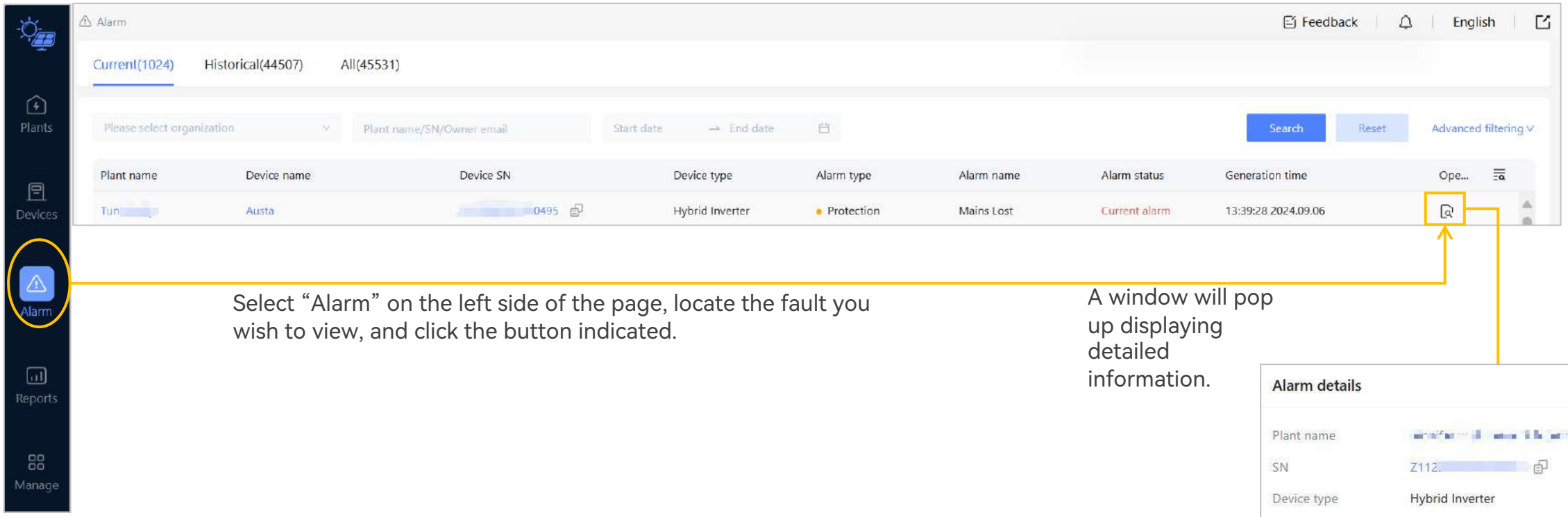


After selecting the firmware version to upgrade to, click “Next”.



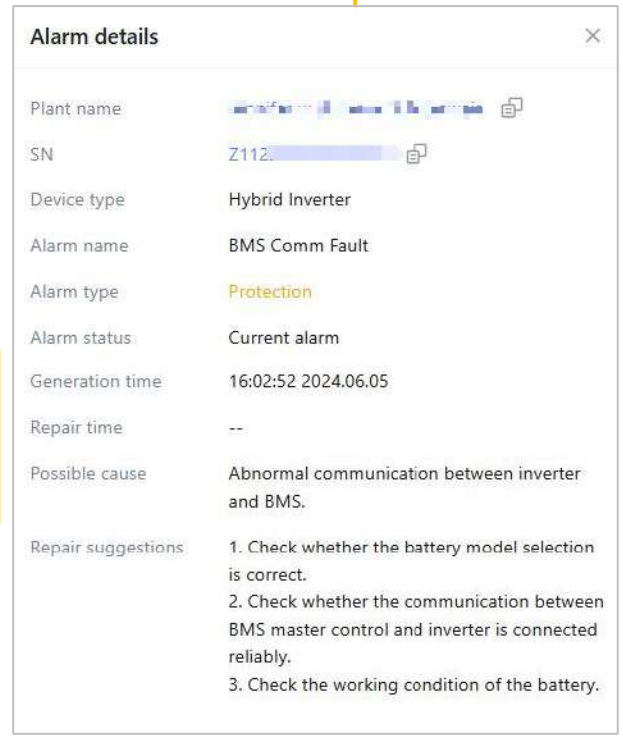


View the Detail Information of Alarm



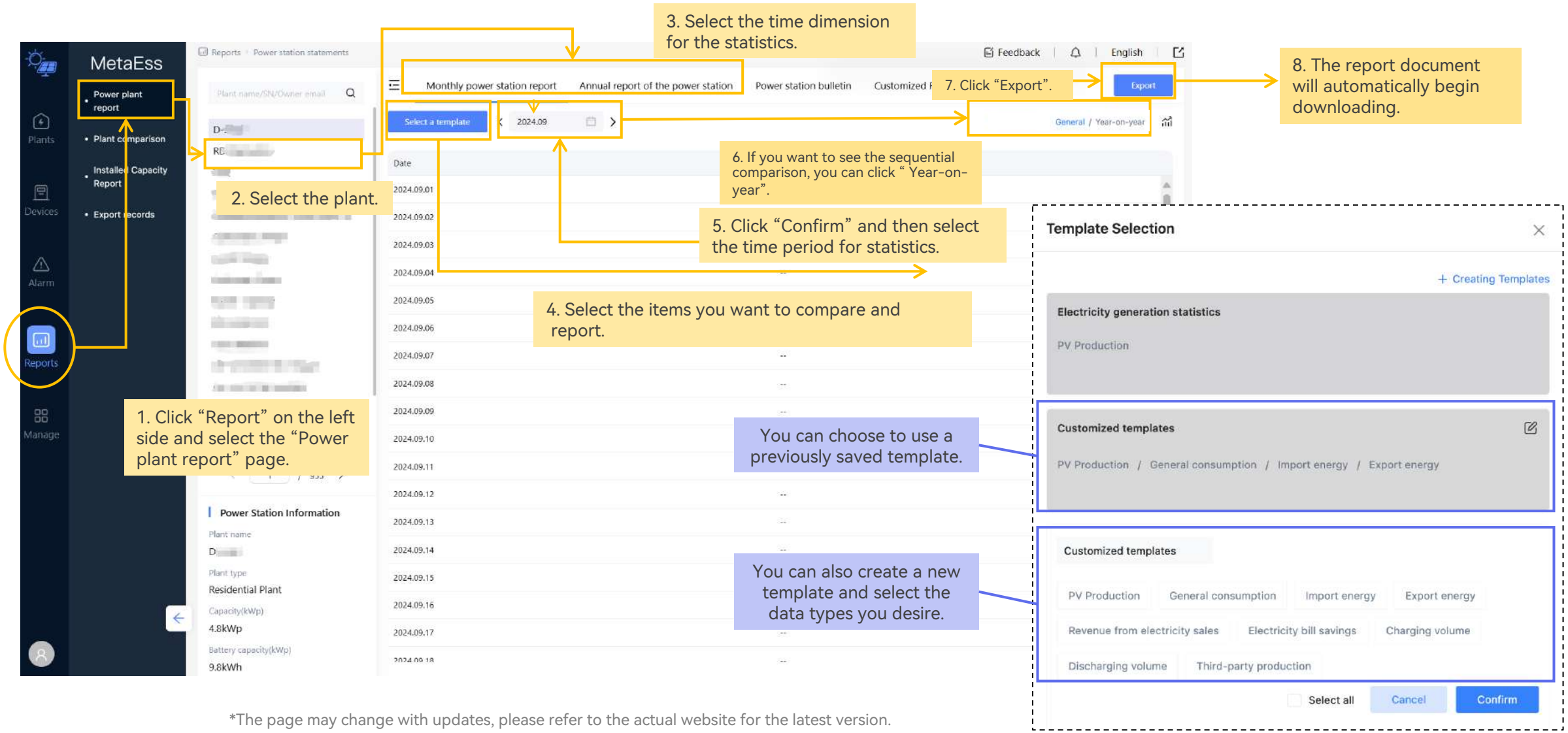
Select “Alarm” on the left side of the page, locate the fault you wish to view, and click the button indicated.

A window will pop up displaying detailed information.



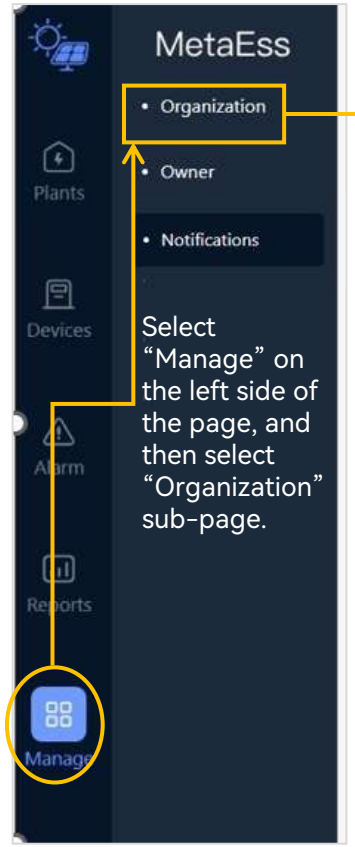
“Alarm details” will also provide an analysis of the cause of the fault as well as recommended methods for resolution.

Export a Plant Data Report



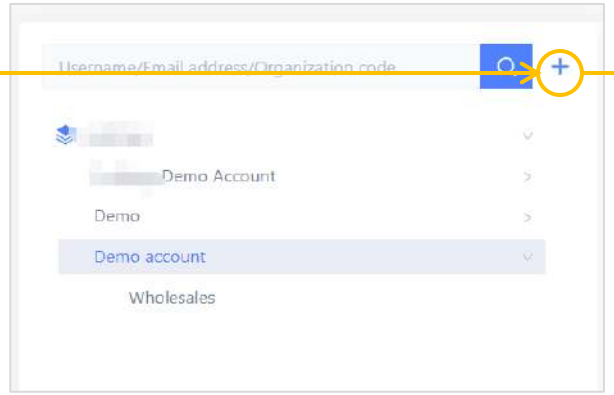
*The page may change with updates, please refer to the actual website for the latest version.

Create Subordinate Organzation Account

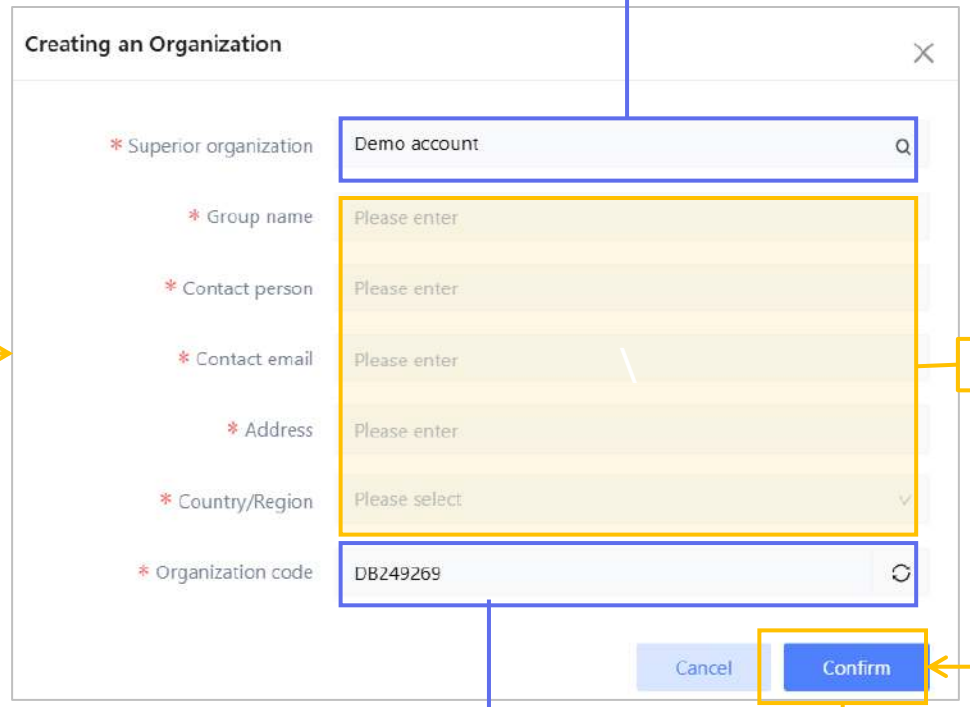


Select “Manage” on the left side of the page, and then select “Organization” sub-page.

Click the “+” sign to create a new organization account.



Support to create a new organizational account for this organization or any sub-organization.



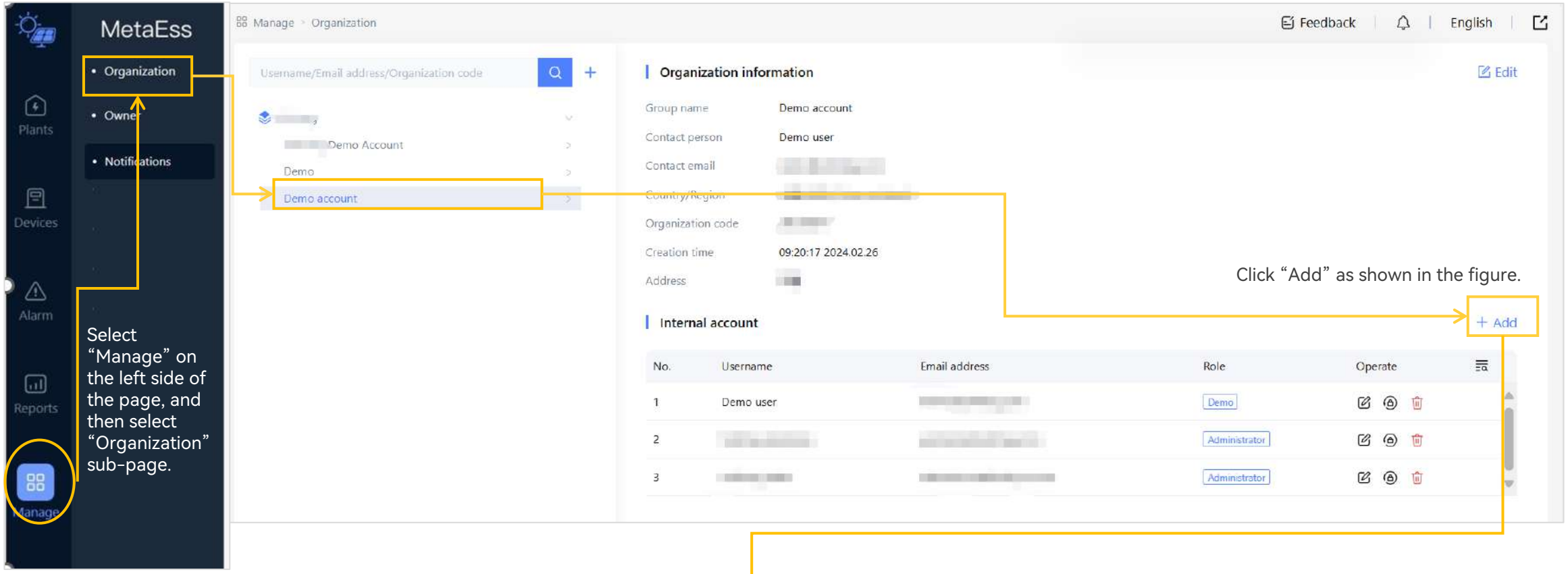
Fill in as required.

The organization code is randomly generated and does not need to be filled in.

After clicking “Confirm”, the initial password will be sent along with the confirmation email to the email address provided.

Create Internal Account & Limit the Scope of Jurisdiction

Select the organization to which you want to add the internal account.



Select “Manage” on the left side of the page, and then select “Organization” sub-page.

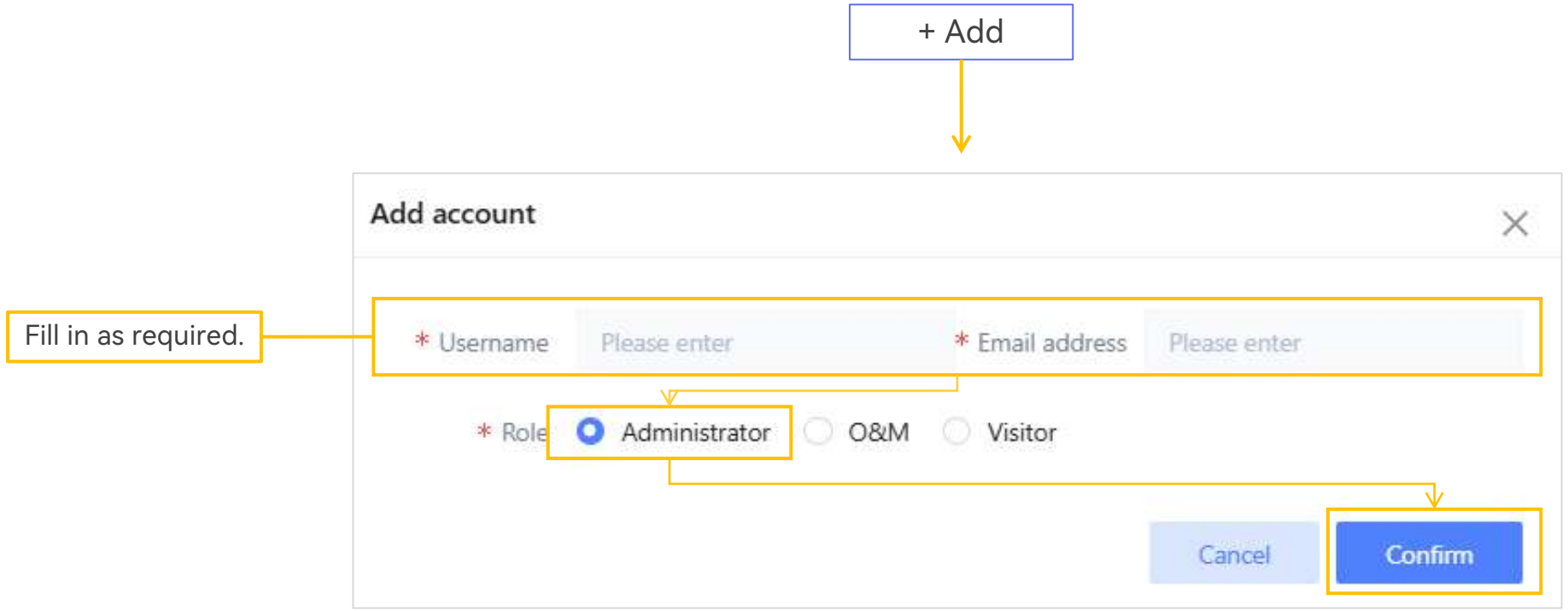
Click “Add” as shown in the figure.

Next slide

Create Internal Account & Limit the Scope of Jurisdiction

Administrator Role

The administrator role account has the authority to create and manage all internal accounts, access and modify all power plants and devices.



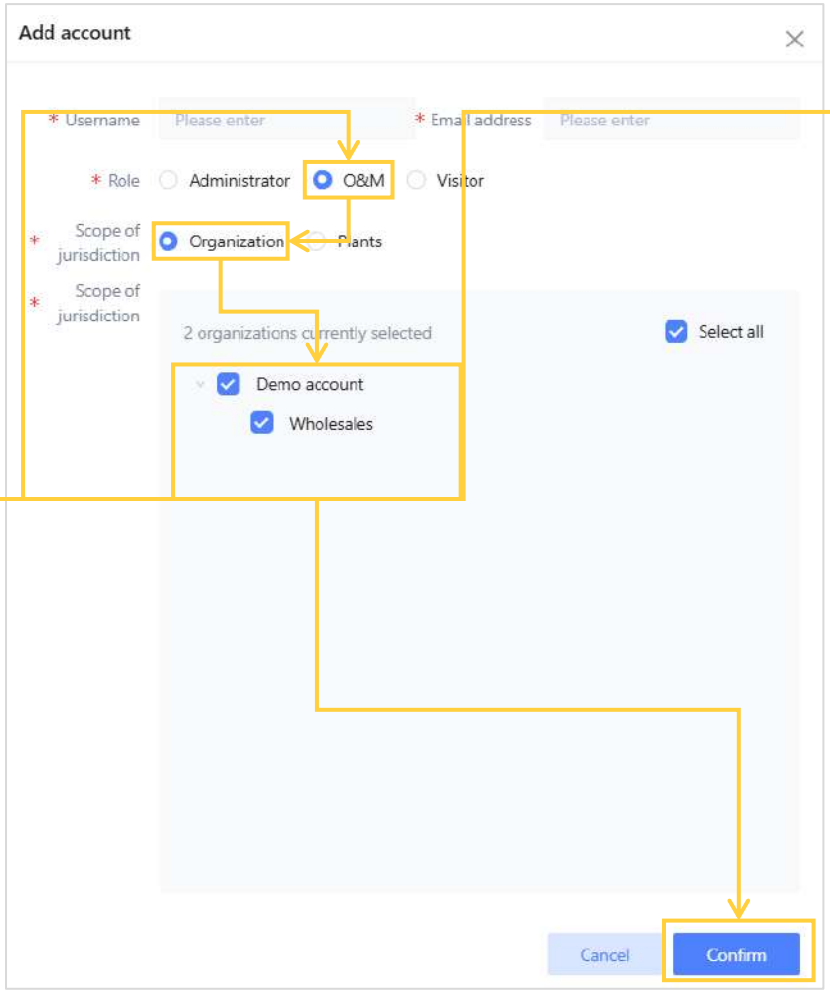
Create Internal Account & Limit the Scope of Jurisdiction

O&M Role

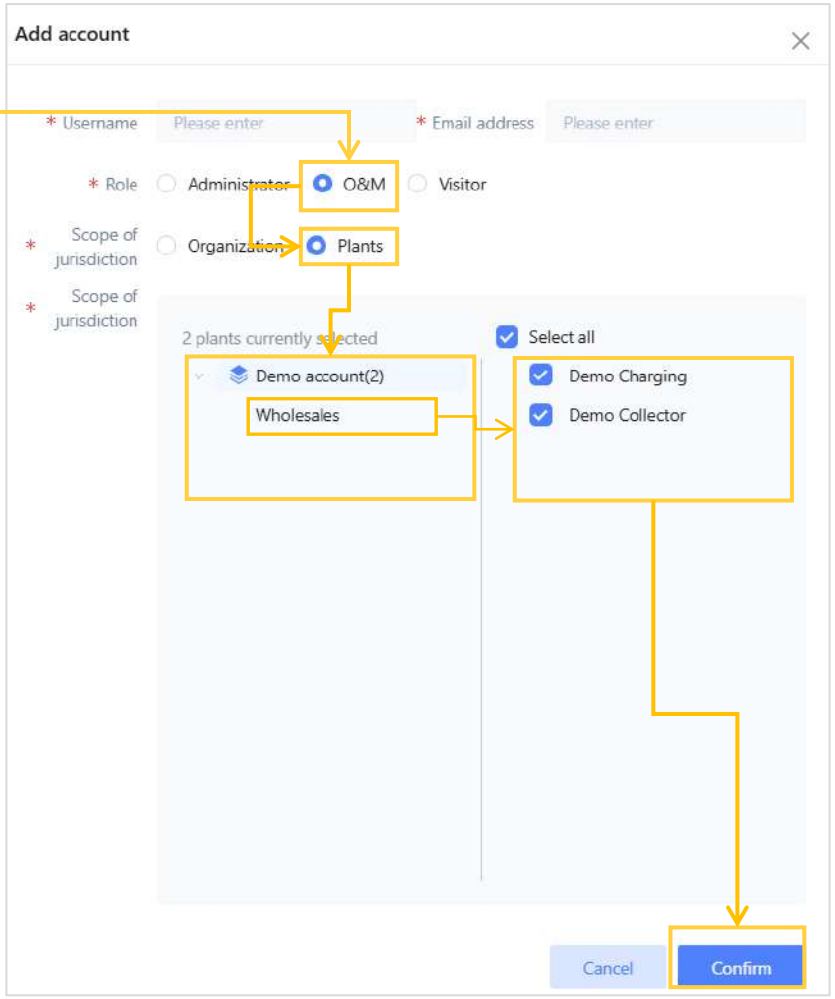
When creating an O&M role account, you can assign a management scope to it based on the organization or plants, allowing the O&M account to view and manage plants and devices within its management scope.

+ Add

Method 1: Divide internal account permissions based on organization unit.



Method 2: Divide internal account permissions based on plant unit.



*The page may change with updates, please refer to the actual website for the latest version.

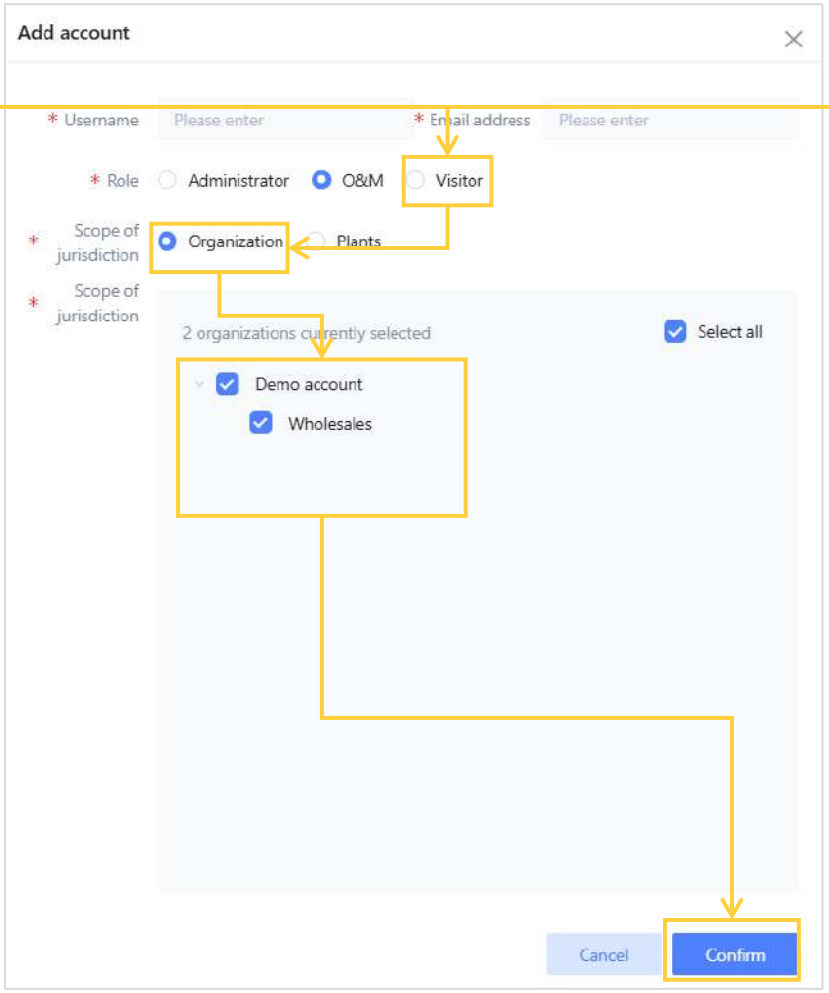
Create Internal Account & Limit the Scope of Jurisdiction

Visitor Role

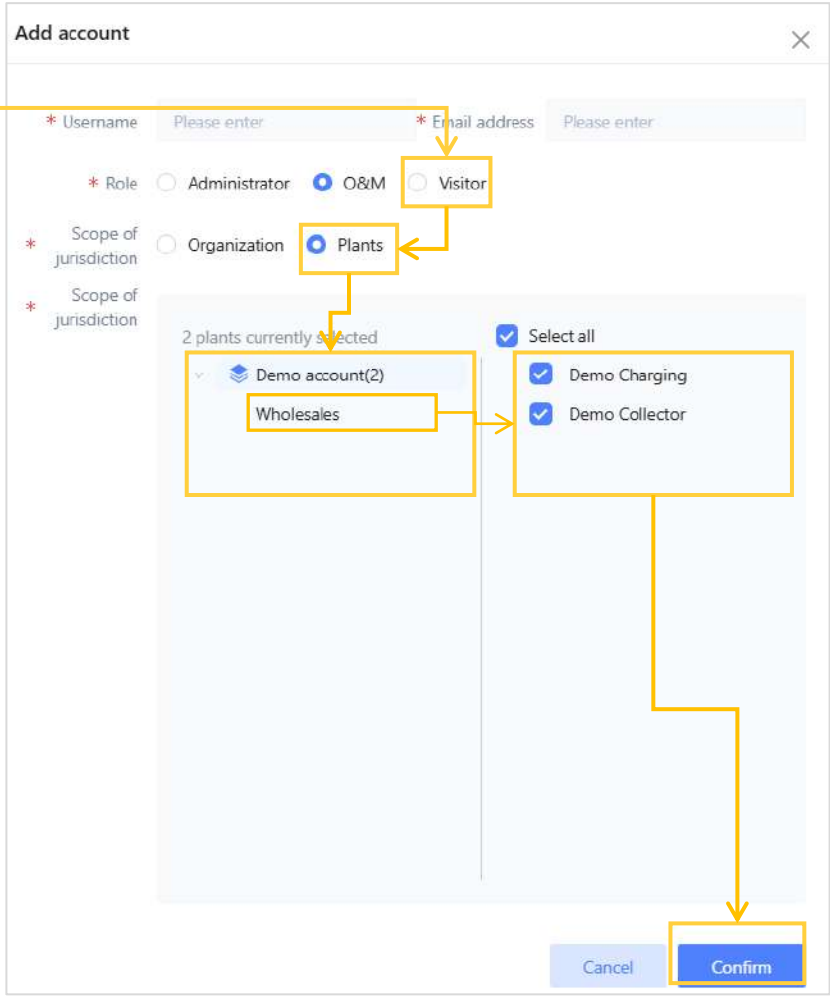
Visitor role account can also have their access scope set when they are created, but visitor account only has view permission.

+ Add

Method 1: Divide internal account permissions based on organization unit.

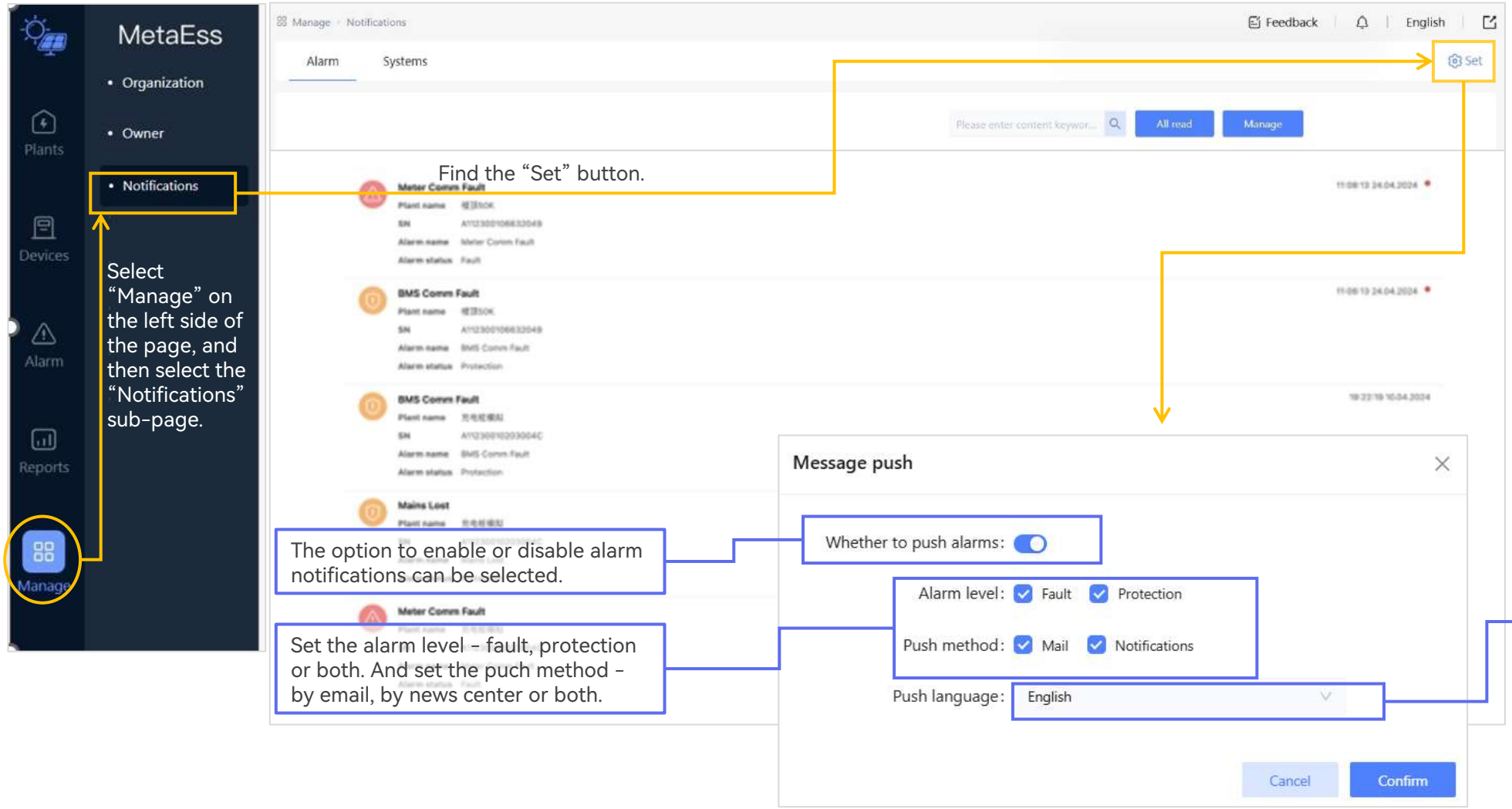


Method 2: Divide internal account permissions based on plant unit.



*The page may change with updates, please refer to the actual website for the latest version.

Set the Push Method of Alarms



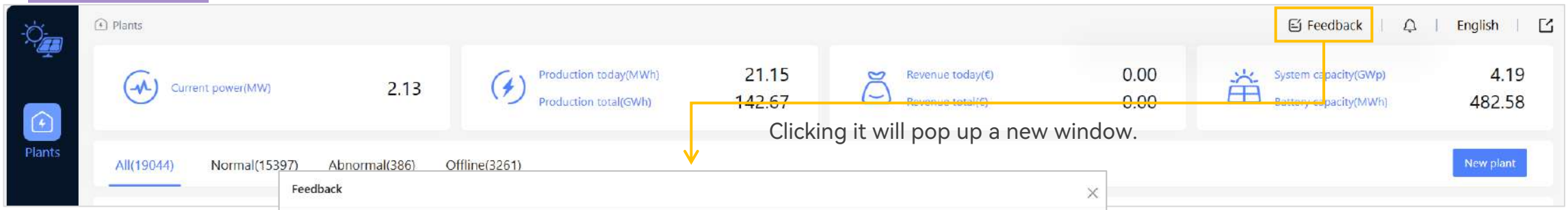
Click "Set", then a new window will pop up.

Support 11 language for message.

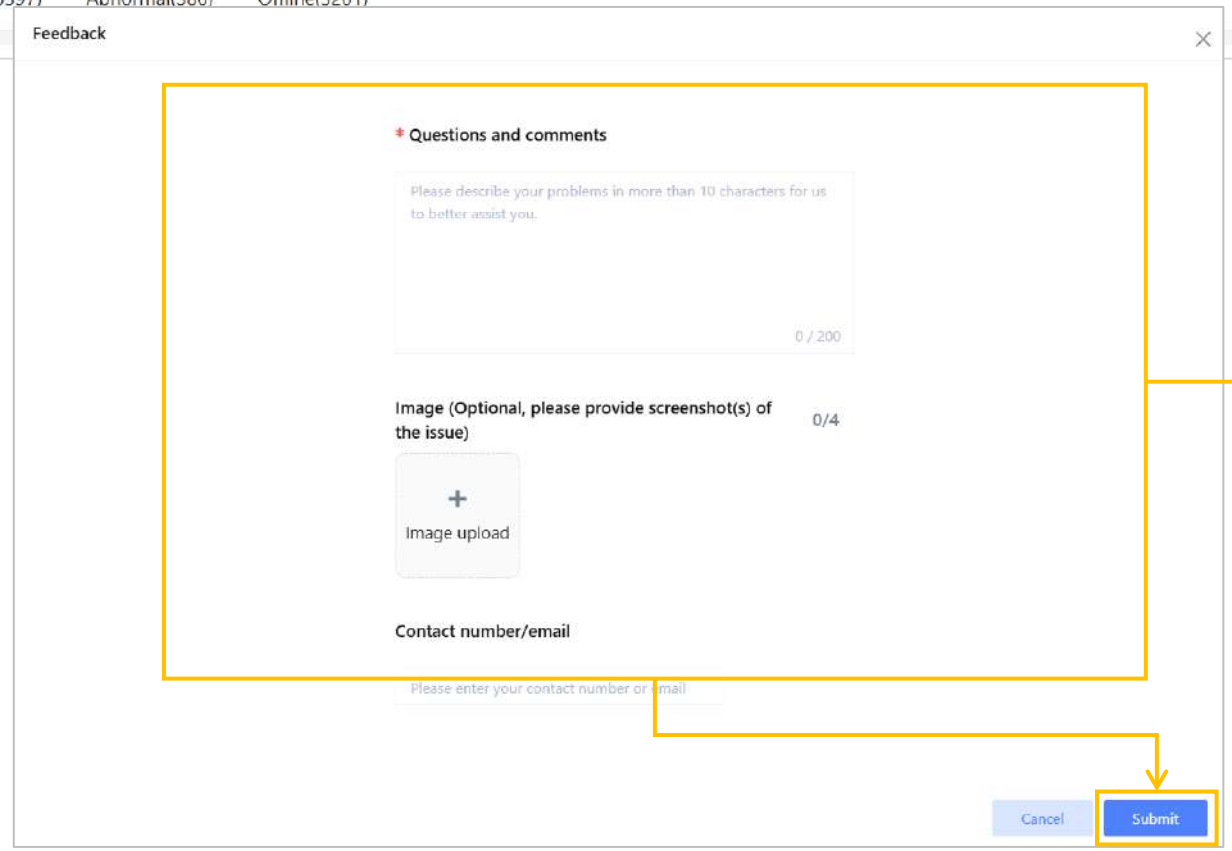
Feedback Function

Method 1

You can find the “Feedback” button at the top right corner of any page



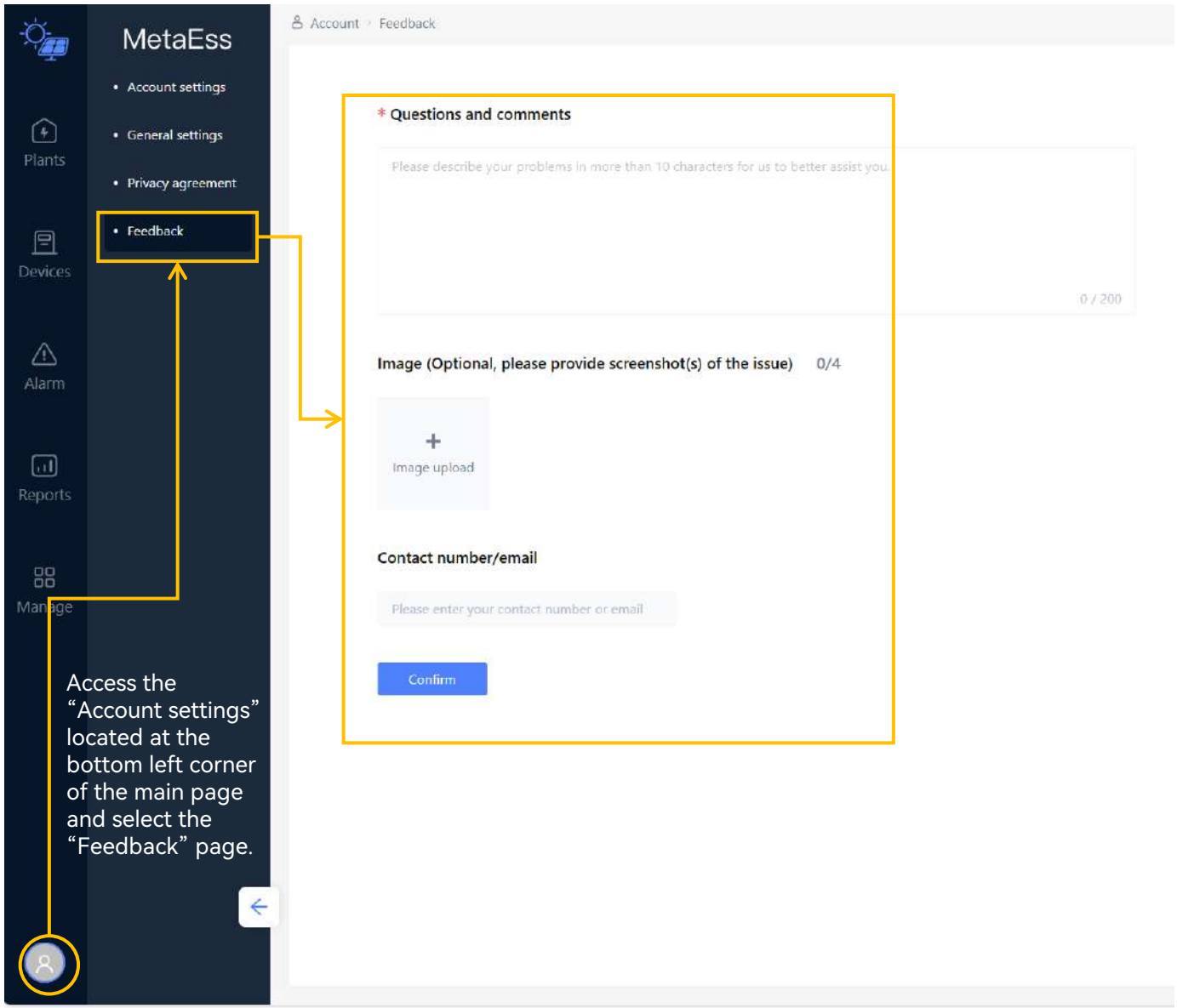
Clicking it will pop up a new window.



Feedback can be provided through text and images regarding usage bugs, product requirements, development suggestions, and more.

Feedback Function

Method 2



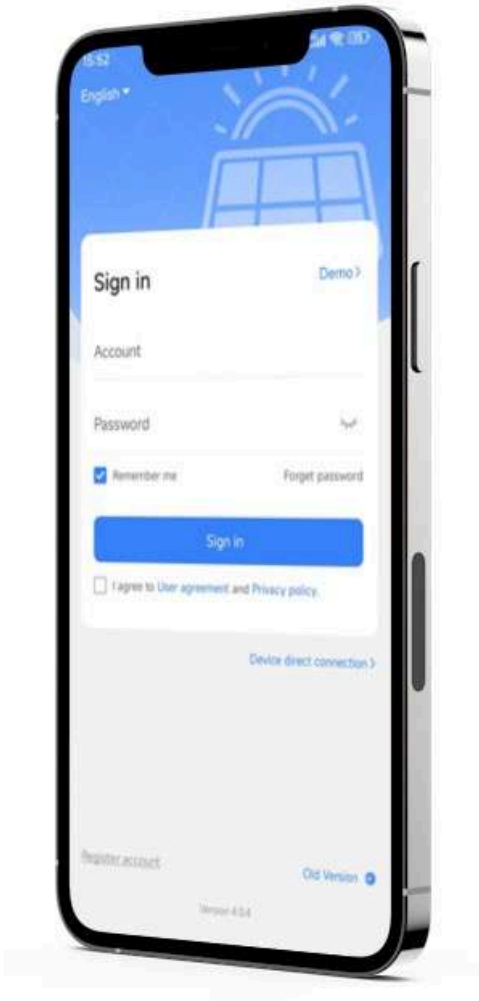
03 MetaEss App

MetaEss App

Introduction

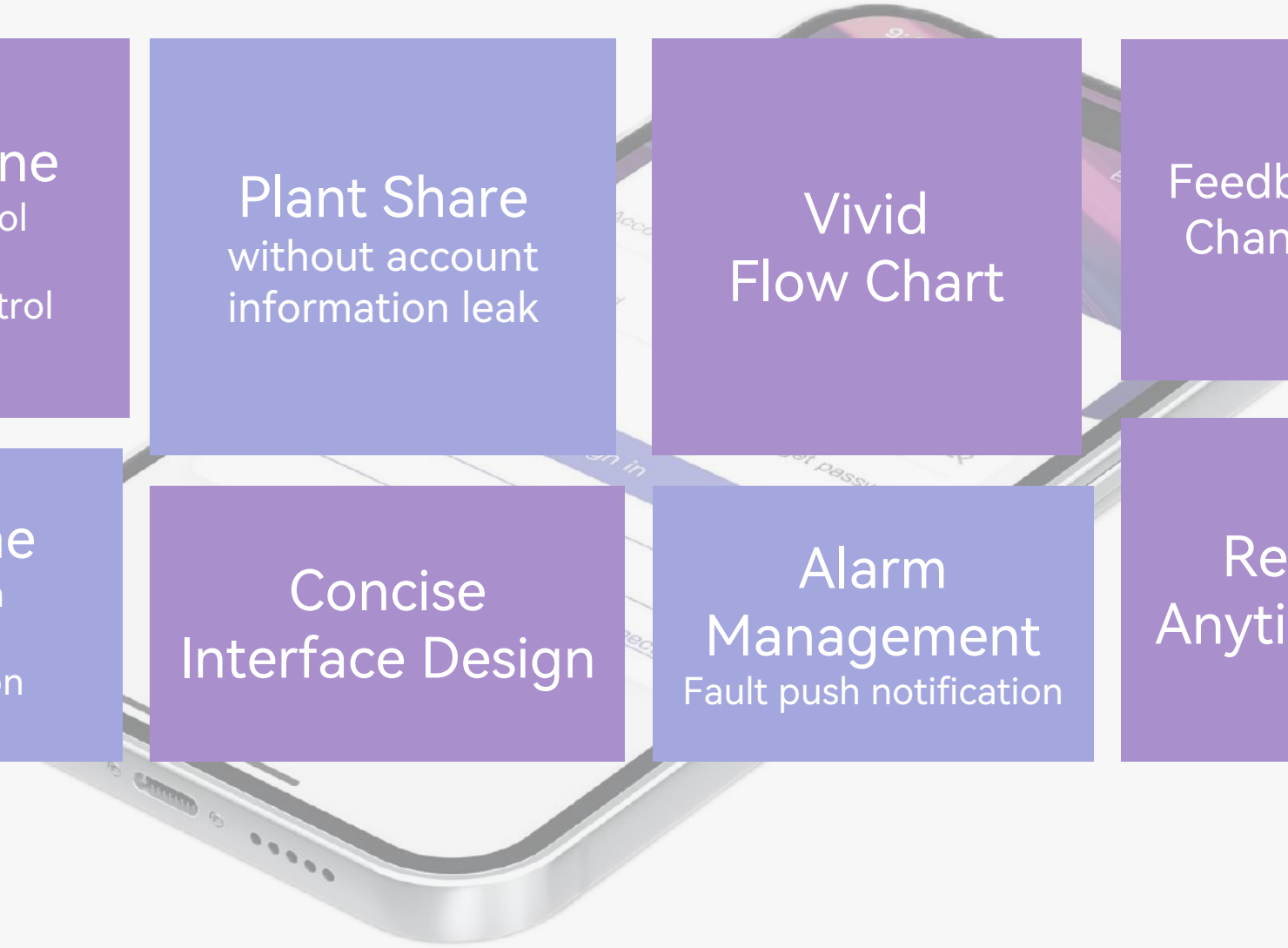
MetaEss App is the portable version of MetaEss monitoring allowing both organization users and owners to monitor and manage their plants and devices at any time anywhere.

MetaEss App’s operation steps are similar to the MetaEss website, that will be no need for users to relearn how to use it, which greatly reduces the cost of learning and using.



METAESS

Highlights



Two in One
Local Control
&
Remote Control

Plant Share
without account
information leak

Vivid
Flow Chart

Feedback
Channel

Professional
Statistics

Real-time
Production
&
Consumption

Concise
Interface Design

Alarm
Management
Fault push notification

Remote Control
Anytime & Anywhere

04 New Functions Update

Device Replacement

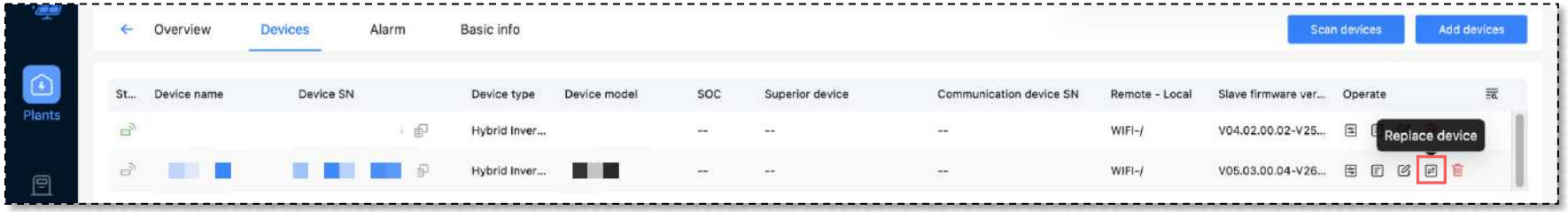
Applicable conditions:

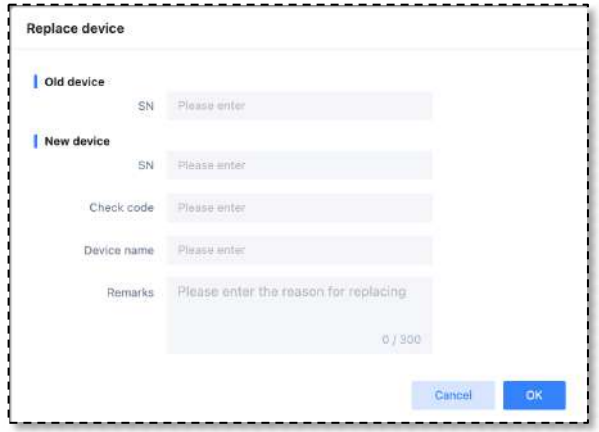
- Organization account.
- The old device is offline on the portal.

Operation paths:

- Input the serial number of the inverter that you are going to replace in the search box after logging in. Click the “Search”.
- Click the “Devices” icon, which is highlighted with a red rectangle box.

- Click the “Replace” button.





- Input the relevant information of the old and new devices accordingly.
- The replacement record can be found by clicking “Devices” on the left menu bar, and clicking “Replace record.”
- If the deleted inverter needs to be used again in the portal, please click “Clear data” on the “O&M” menu(24Hours after deletion).

Breakpoint Resume Function

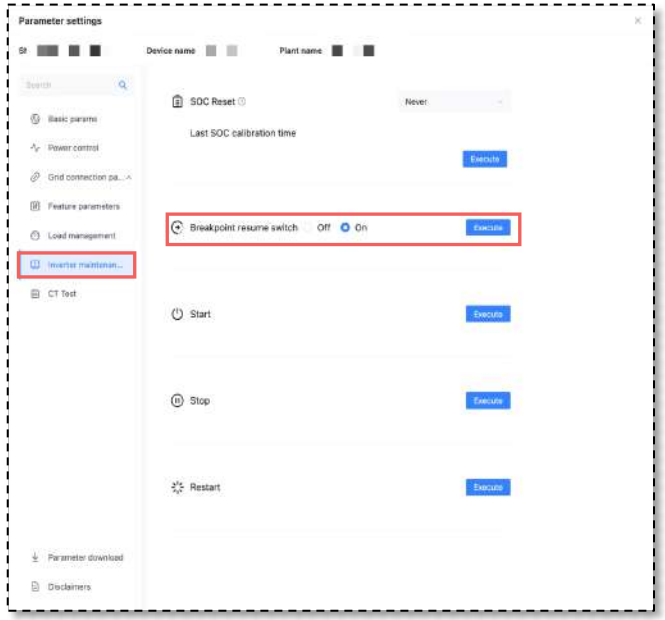
Applicable conditions:

- Organization account.
- Currently, only Gen1 inverters with permitted firmware ARM ≥V01(24) support this function and Gen2 will be available in September.

Operation paths:

- Input the serial number of the inverter in the search box. Click the “Search”.
- Click the “Devices” icon, which is highlighted with a red rectangle box below.

- Click the “Configuration” button, which is boxed in red below.



- Click the “Inverter Maintenance” button.
- Enable the “Breakpoint resume” function.
- Click the “Execute” button.

*Please check with the service team for the proper version requirement for different series inverters.

SOC Reset Function

Applicable conditions:

- Organization account.
- Currently, all the Gen2 inverters support this function, and Gen1 inverters with permitted firmware ARM ≥V01(23) support this function.

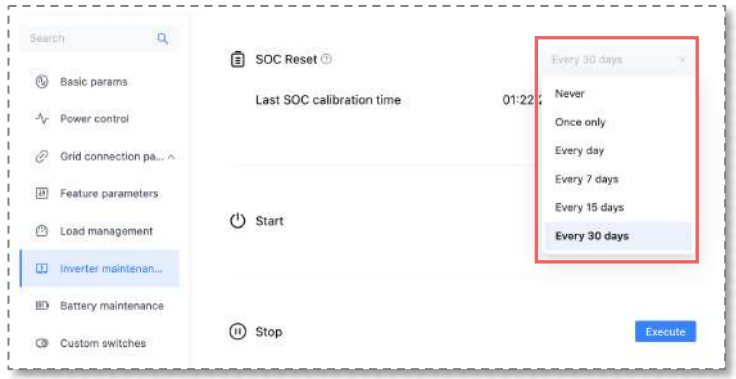
Operation paths:

- Input the serial number of the inverter in the search box. Click the“Search”.
- Click the “Devices” icon, which is highlighted with a red rectangle box below.

- Click the “Configuration” button, which is boxed in red below.

- Click the “Inverter maintenance” button.
- Click the drop-down memu shown in the red frame on the right.
- Select the SOC Reset frequency.
- Click the “Execute” button.

Note: The SOC Reset timer will be reloaded when we detect the SOC reaching 100% during normal operation.



MPPT Shadow Scan Function

Applicable conditions:

- Organization account.
- Currently, only MHT4-20K with permitted firmware ARM ≥05(26)， DSP ≥00(53).

Operation paths:

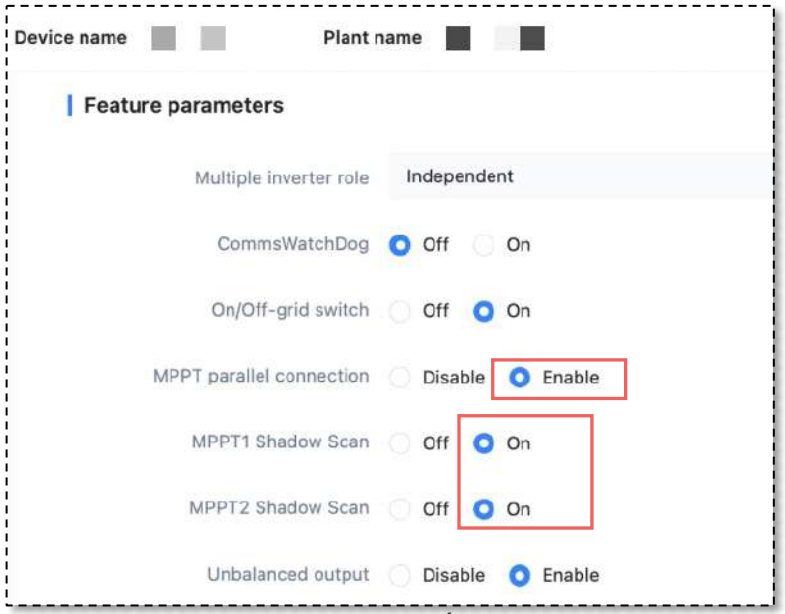
- Click “Devices” on the left navigation bar.
- Input the serial number of the inverter you intend to set.

- Make sure the inverter firmware version meet the demand and click “Configuration” button.

MPPT Shadow Scan Function

- Click “Feature parameters”.
- The independent MPPT shadow scan switch will show up(According to the inverter's actual MPPT numbers).
- Select “On” to switch on the shadow scan function for the MPPT that faces shadow problem(Please note that if a MPPT parallel function is enabled, the paralleled two MPPTs will align with each other on the shadow scan function).

Operation paths:



- After enabling the MPPT parallel, the shadow scan function of MPPT1 & MPPT2 will be same. (Do not turn on MPPT parallel function if you don’t actually use it.)

Dismiss Some Faults Displayed on the Account

Applicable conditions:

- Organization account.
- The system is not connected battery or smart meter for some special applications.

Operation paths:

- Input the serial number of the inverter in the search box. Click the “Search”.
- Click the “Devices” icon, which is highlighted with a red rectangle box below.

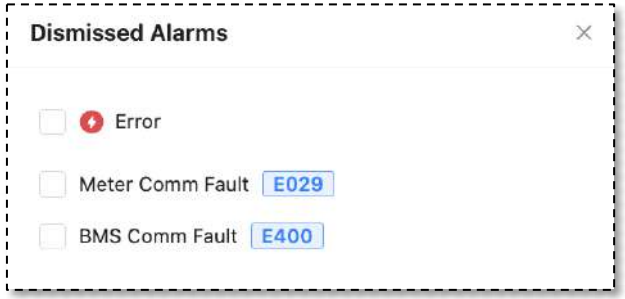
- Click the “Device name” , which is highlighted with a red rectangle box below.

- Click “Alarm”, which is highlighted with a red rectangle box below.

Dismiss Some Faults Displayed on the Account

- Click the “Dismissed Alarms” icon, which is highlighted with a red rectangle box below.

- Put a tick on the box for that one that you want to block according to the real application.



Click “Confirm”.

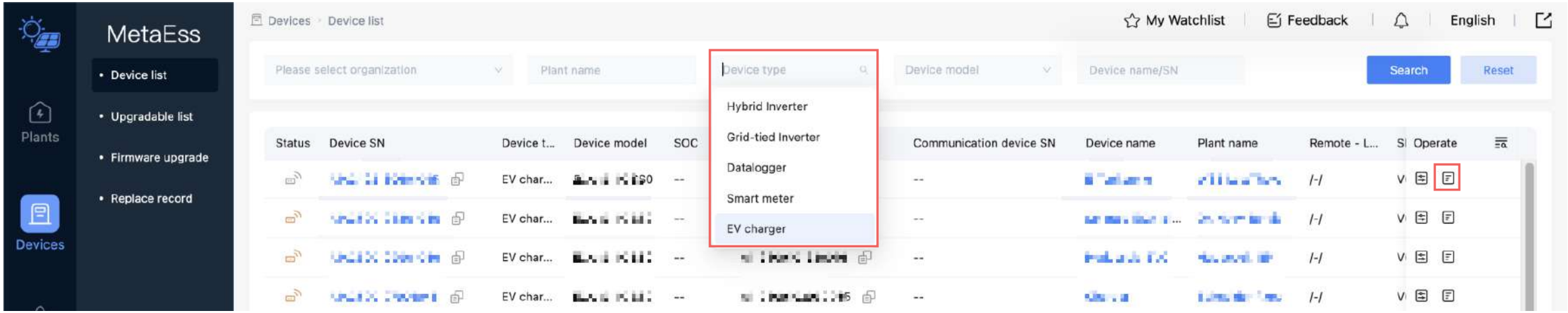
Note:

- We suggest you dismiss the Smart Meter communication fault when the system is used in a purely off-grid system without the Smart Meter connected.
- We suggest you dismiss the BMS communication fault when there’s no battery connected to the system.

Device Log Function Optimization

01 Newly added Smart meter and EV charger's log

- Click "Devices" on the left navigation bar.
- Select device type from the circled list, take EV charger as an example.
- Click the "Log" icon.



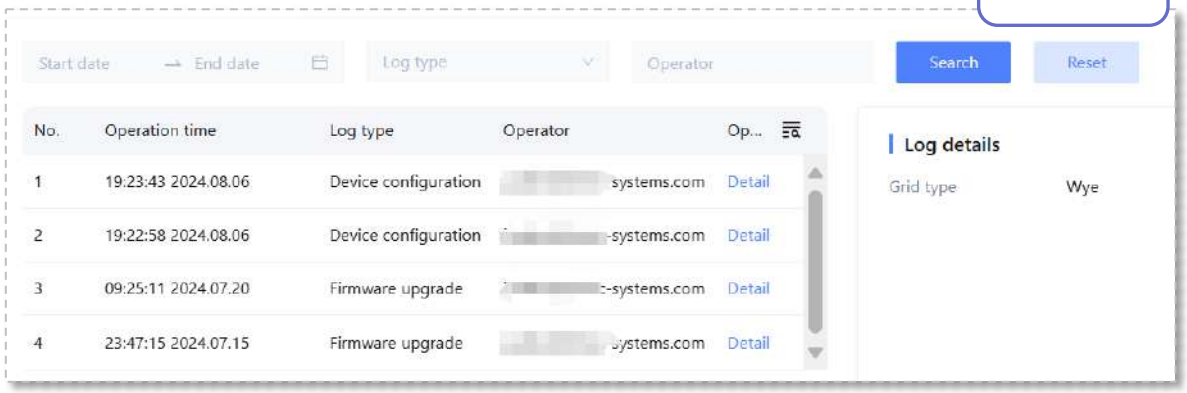
- The log history will be displayed as shown on the right.
- Click"Unfold" to see the details of the log.
- You can filter the log from different dimensions as well.

Device Log Function Optimization

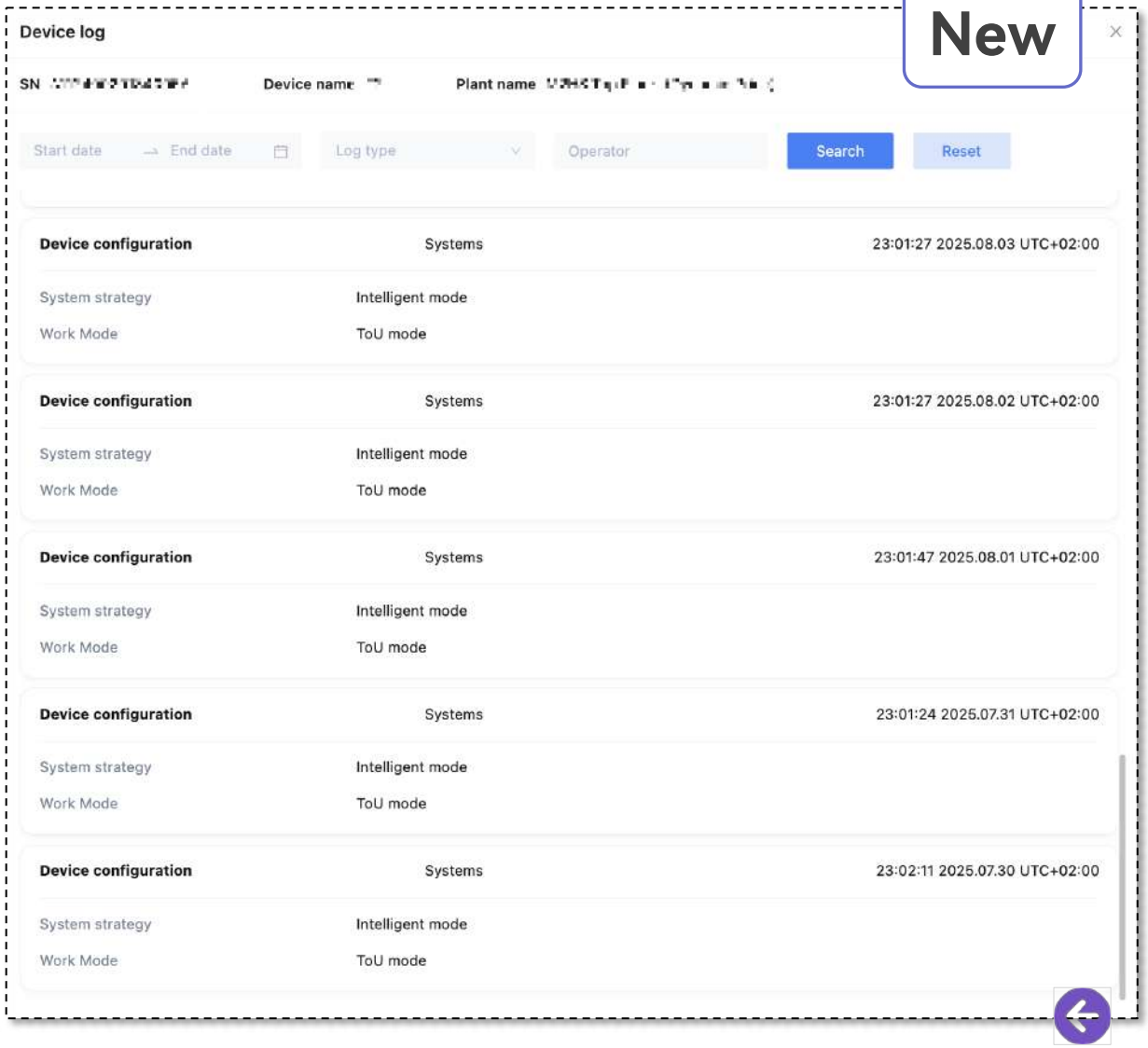
02 Optimize the layout of the device logs for convenient viewing

- Previous log layout was inconvenient to see the details of every log.

Old



New



Power Plant Following Function

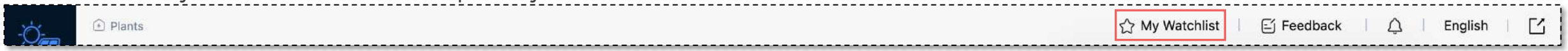
Applicable conditions:

- Organization account.

Operation paths:

- Click the “Star” icon at the right end of the plant list.

- Click ”My watchlist” to see all the plants you have followed.



- Click “Plant name” or the operate button to jump to the homepage of the plant.
- Click the yellow star to unfollow the plant if you want.

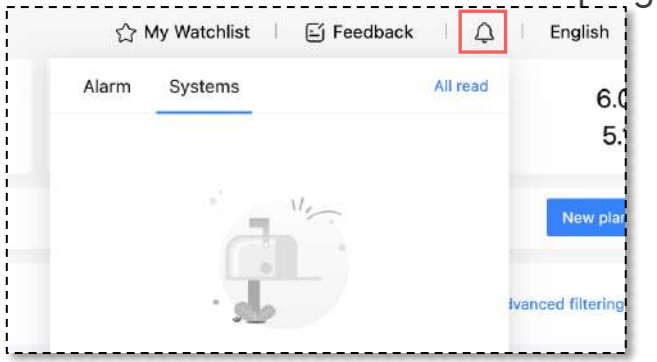
Optimize the Organization's Alarm-pushing Rules

Applicable conditions:

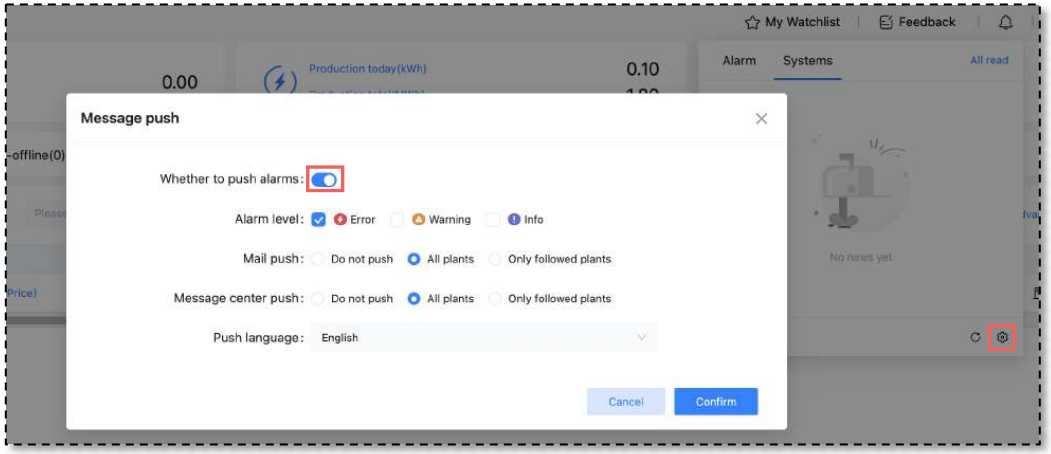
- Organization account.

Operation paths:

- Click the "Bell" icon at the top right corner after logging into the organization account.



- Click the "Settings" button, which is boxed in red, and then enable the alarm button.



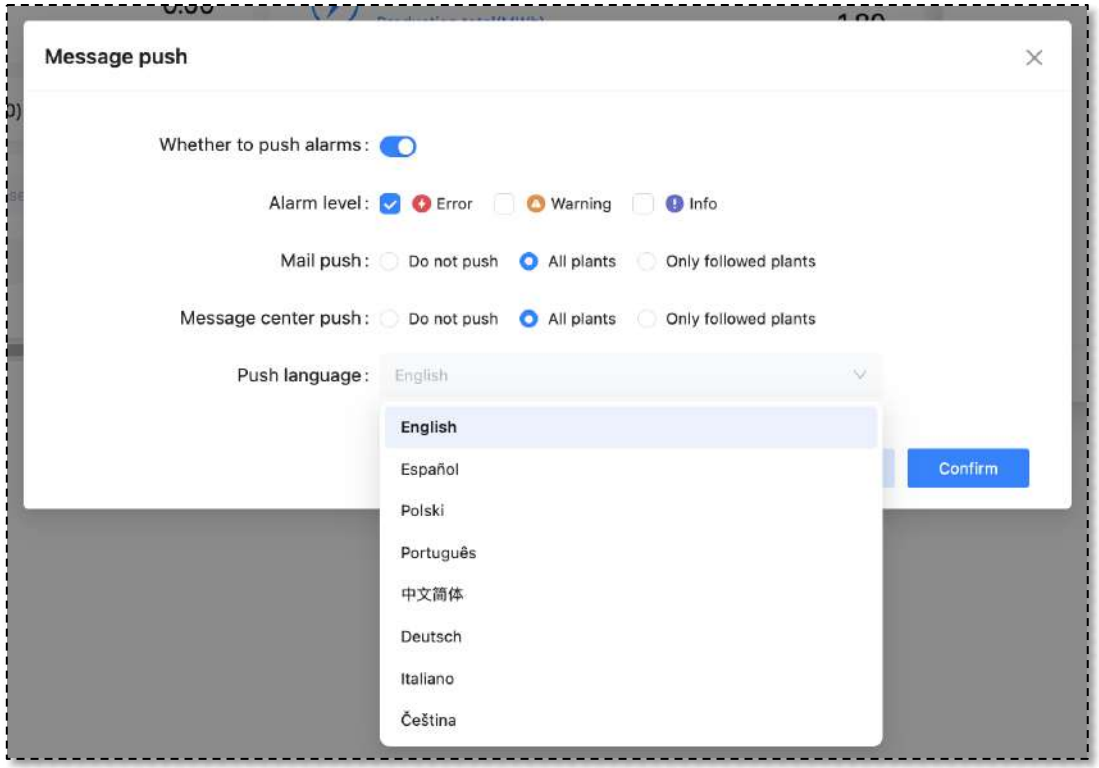
Optimize the Organization’s Alarm-pushing Rules

Operation paths:

- Now you can configure which level of alarms you would like to receive by selecting from the row “Alarm level”.
- Select the scope of alarms received by email and by message center.
- You can choose your preferred language for the alarm.
- Click “Confirm”.

Benefits:

- This can help organizations avoid receiving too many unimportant alarms.



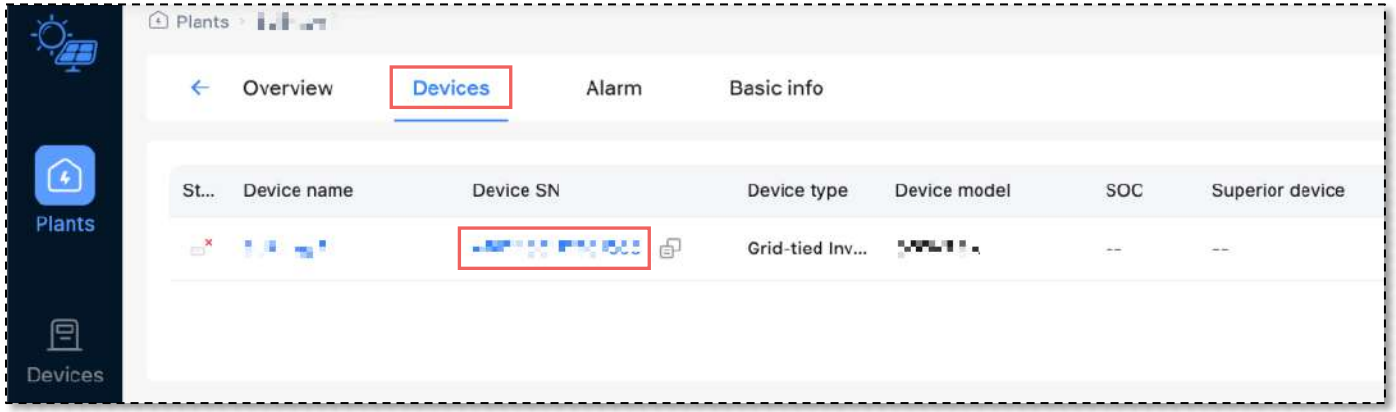
Inverter Sub-status Function for Fault Analysis

Applicable conditions :

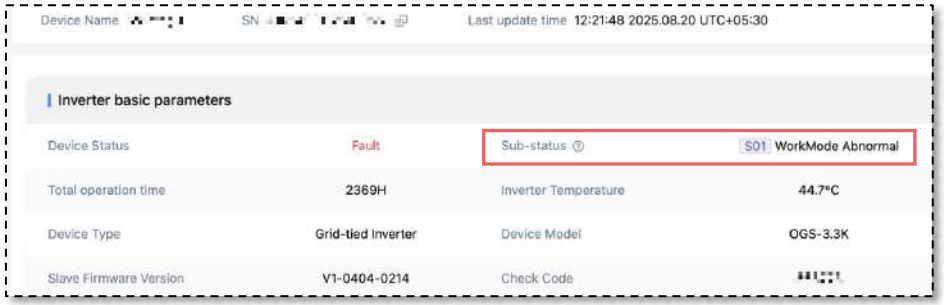
- Organization account.
- Hybrid inverters are available now and will be imported to on-grid inverters in the future.

Operation paths:

- Click the name of the plant that you're going to check.



- Click "Devices", click the SN of the device.
- You will see the sub-status of the inverter and click the question mark to see the causes.



Part Offline Status for the Complex Plant

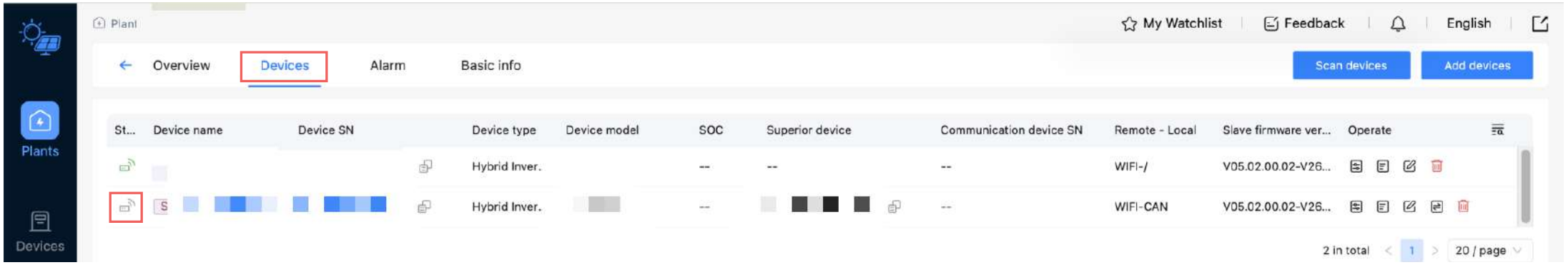
Applicable conditions :

- Part-offline is suitable for power plants with multiple interconnected devices, where some devices may be offline due to normal operation, such as on-grid inverters not working at night. In such cases, the system will show "part offline" instead of indicating an abnormal status.

Operation paths:

- Click the “Part-offline” to see a list of plants with part offline issues.

- Click the name of the power plant, then click ”Devices”, and you will know which inverter is offline.



- If the offline is a normal feature of the device, ignore it.

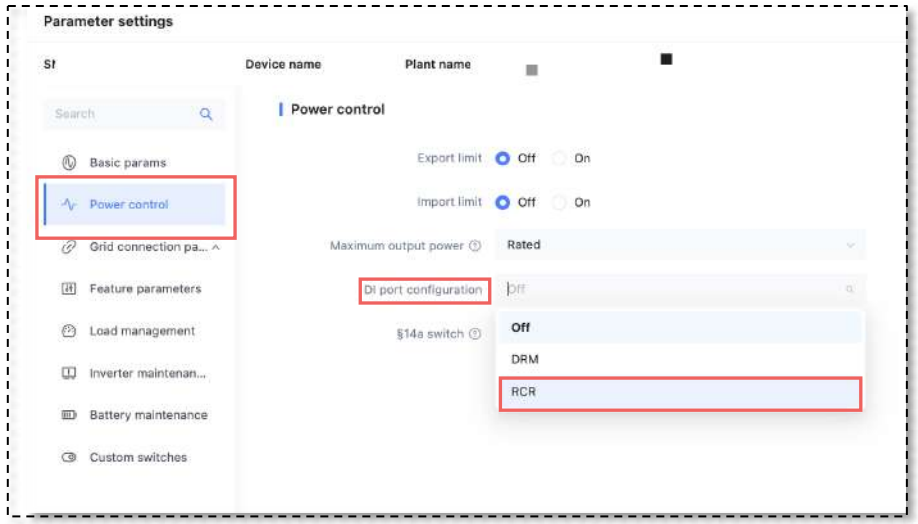
RCR+14a Function

Applicable conditions :

- The RCR function applies to countries that require using the signal from the RCR device to control inverter output power when the grid is overloaded, especially in countries like Germany and Austria.
- 14a is a new requirement from Germany that limits the maximum power drawn from the grid to 4.2kW when the grid is underloaded. The limit device includes batteries, EV chargers, heat pumps, and other heavy loads.

Operation paths:

- This function is under the “Power control” of the device “Parameter settings” page.
- Click “DI port configuration”, select “RCR”.

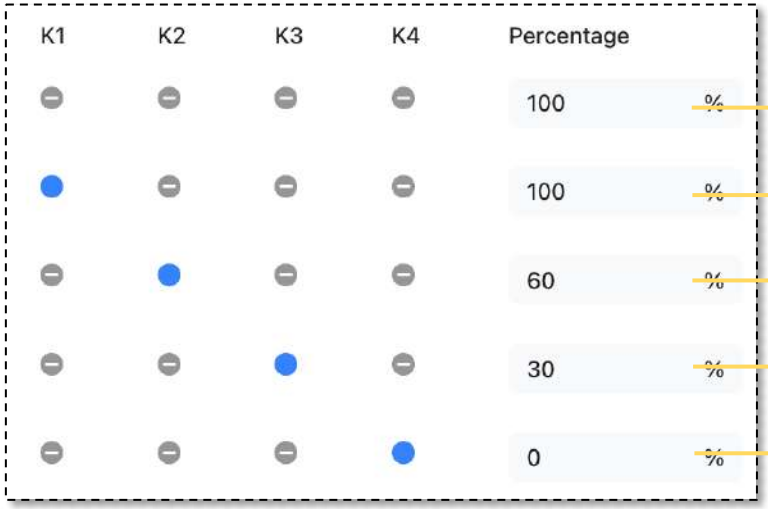


Note: Do not open this NC control without the RCR device connected.

- Select the control mode of the RCR device from NO and NC according to your RCR device control method.

RCR+14a Function

Definitions of RCR switch combinations:



K1	K2	K3	K4	Percentage
⊖	⊖	⊖	⊖	100 %
●	⊖	⊖	⊖	100 %
⊖	●	⊖	⊖	60 %
⊖	⊖	●	⊖	30 %
⊖	⊖	⊖	●	0 %

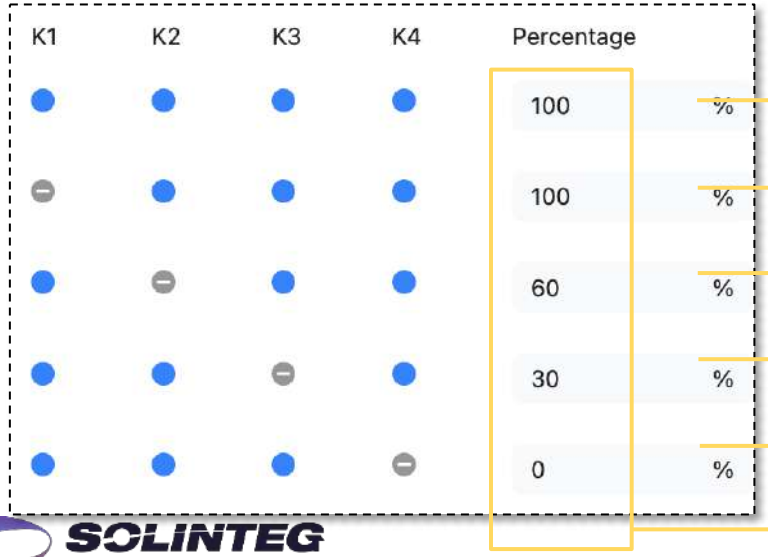
The system will operate according to the value in this row when the RCR device is not connected or it's connected but does not give a signal.

The system will operate according to the value in this row when the K1 of the RCR device is closed under NO control.

The system will operate according to the value in this row when the K2 of the RCR device is closed under NO control.

The system will operate according to the value in this row when the K3 of the RCR device is closed under NO control.

The system will operate according to the value in this row when the K4 of the RCR device is closed under NO control.



K1	K2	K3	K4	Percentage
●	●	●	●	100 %
⊖	●	●	●	100 %
●	⊖	●	●	60 %
●	●	⊖	●	30 %
●	●	●	⊖	0 %

The system will operate according to the value in this row when the RCR device is connected and all closed under NC control.

The system will operate according to the value in this row when the K1 of the RCR device is open under NC control.

The system will operate according to the value in this row when the K2 of the RCR device is open under NC control.

The system will operate according to the value in this row when the K3 of the RCR device is open under NC control.

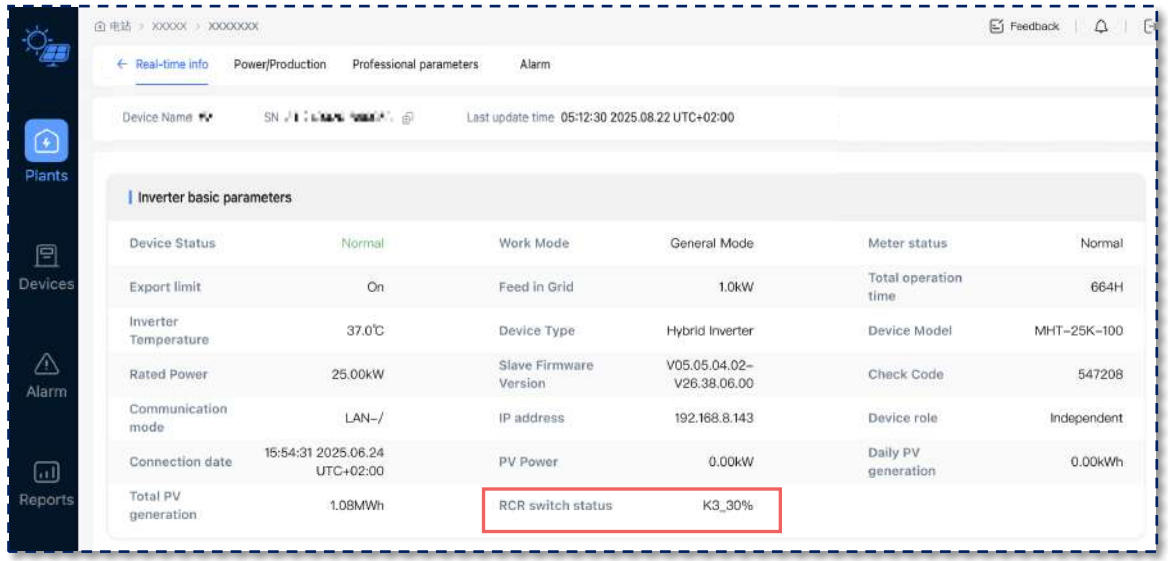
The system will operate according to the value in this row when the K4 of the RCR device is open under NC control.

The system will operate at the minimum value of these 5 rows if the RCR device is not connected or it's connected but does not give a signal.

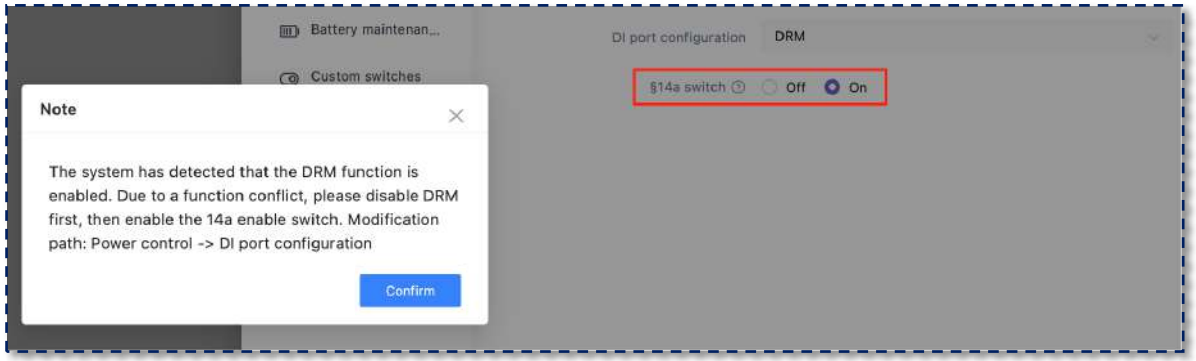
RCR+14a Function

RCR switch activation status check:

- The activated RCR information can be found in the device information page.



- The 14a function needs to be realized with an external control device from the energy supplier, and the device is connected to the inverter COM2 pin 15/16. That means this function will conflict with DG and DRED.



RCR + 14a function requirement:

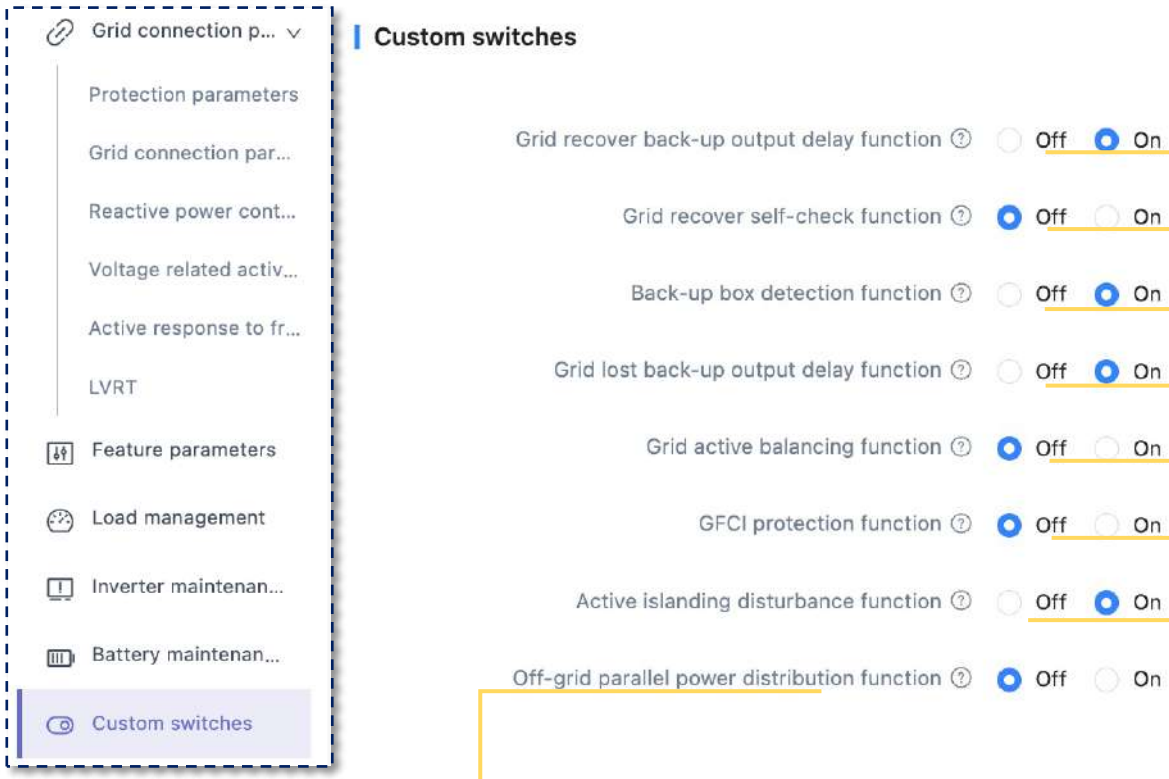
- The new RCR function and 14a will only be available when the firmware of the system meets below requirements:

Function	MHS3-8K		MHT4-20K		MHT25-50K		M2HS3-6K			M2HT25-50K			Parallel System
Item	ARM	DSP	ARM	DSP	ARM	DSP	ARM	DSP	R2MD	ARM	DSP	R2MD	
RCR	06	/	06	/	06	/	04	/	03	04	/	03	Master configurable, slave view only
14a	06	/	06	/	06	/	04	/	03	04	/	03	

Custom Switches' Definition and Explanation

Definition of switches in the "Custom switch"

- Custom switches integrated some important functions that are used in optimizing the inverter's off-grid loading capability. The operation of these switches must be under the guidance of technical support team.



Define switching from off-grid to on-grid with a delay or not.
Applicable to the situation that the customer uses an ATS that cannot auto-reset, the delay function should be selected. The Back-up side will output with a 500ms delay, allowing the ATS to switch from the Back-up side to the Grid side.

Define whether the inverter conducts an auto-test when the grid recovers.
Disabling this function may not comply with the safety regulations. Enabling this function will cause the Back-up output to be interrupted if the power grid fails again during the auto-test.

Detect if the Back-up box is in good condition.
Enabling this function, the inverter will detect if the Back-up box is in good condition. This function is default-enabled in an off-grid parallel system. For a single inverter with a Back-up box installed, please enable this function manually.

Define the inverter Back-up output as a UPS or EPS.
Enabling this function introduces a 2s delay in the Back-up output, providing an EPS-level switchover and enhancing the system's off-grid load capability. Disabling it offers a UPS-level switchover for small loads but may prevent the inverter from switching to Off-grid mode for large loads.

Enable grid balancing even without battery and PV power under the condition that the inverter has been started.
Applicable for users who want to achieve grid balancing when PV is off at night and no battery is connected.

If there's a leakage current problem with the system in the high-humidity weather, disabling this function can prevent the inverter from stopping working. Make sure there's no real leakage problem if you want to disable it.

Enable just to turn off the active islanding disturbance, not including the passive islanding protection.
Applicable to some test situations.

Enable to allow the master inverter to distribute the power of slave inverters in an Off-grid parallel situation.
Disable this function if back-up loads are independently connected with each inverter.

THANK YOU