

# **OPERATION MANUAL**

# **Smart Energy**

Describe the operation of quick learning for end user

2025-02-20

Versions1.0.0

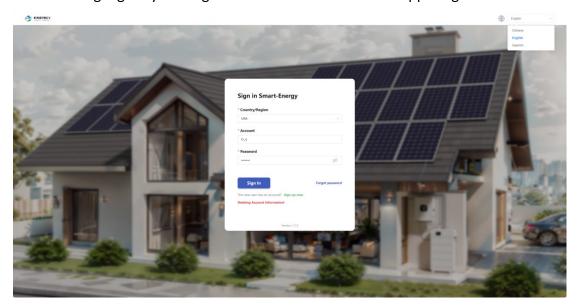
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# 1. Language

Smart-Energy currently supports Chinese, English and Spanish. You can switch between languages by clicking the Earth icon located in the upper right corner.



# 2. Sign In

To log in, follow these steps:

- 1. Select Country/Region: Choose the country or region where you are located.
- 2. Enter Email and Password: Input your email address and password.
- 3. Sign In: Click Sign In to access your account.

If you do not have an account yet, please register first.

If you've forgotten your password, reset it to regain access to your account.

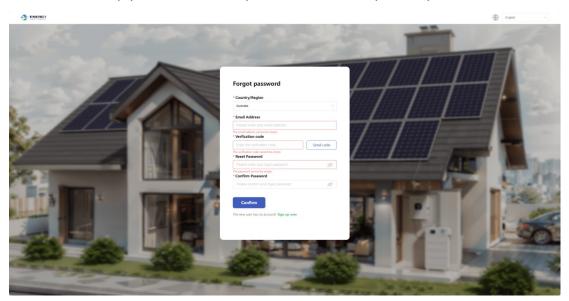


# 3. Forgot password

To reset password, follow these steps:

- 1. Select Country or Region: Choose the same country or region you selected when registering your account.
- 2. Enter Account Information: Input the account details you registered with.
- 3. Send Verification Code: Click Send Code to receive a verification code via your registered email.
- 4. Enter Verification Code: Input the code you received in the designated field.
- 5. Confirm: Click the Confirm button to complete the password reset process.

Note: Please keep your account and password secure to protect your information.

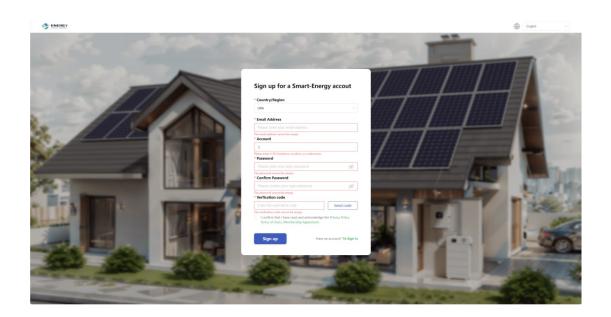


# 4. Register

### **Registration Instructions**

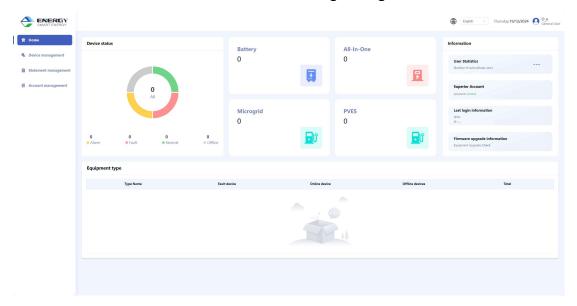
- 1. Select your country or region.
- 2. Enter your email address and create an account name (3-20 characters, numbers, or underscores allowed).
- 3. Set a password and re-enter it in the "Confirm Password" field.
- 4. After completing the above steps, click "Send Code." A verification code will be sent to your email.
- 5. Enter the code, check the terms box, and click "Sign Up" to complete the registration.

**Note:** Please read the terms carefully to protect your privacy and rights.



# 5. General User

Unbound user is defined as General User after registering.



# 6. Binding

You cannot browse the production information before you binding the superior account. So if you want to know about it, please binding the superior account first.

## 6.1. Binding Guid

#### Steps:

- 1. Navigate to the Basic Information page.
- 2. In the My Superior field, enter the email address of your superior.
- 3. Click the Bind Superior button, and the system will automatically bind your account as a subordinate to the entered email account.

#### **Hierarchy Determination Rules:**

• The system will automatically determine your account level based on the superior account you bind to.

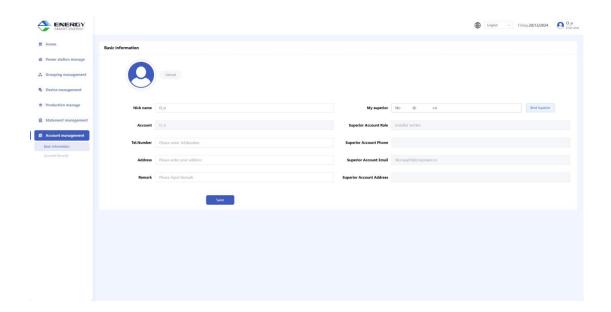
For example: If the superior account you bind to is an Agent, your account will be automatically assigned as a Distributor.

**Account Hierarchy**: (from highest to lowest):

Agent → Distributor → Installation Company → Installer → End User

#### Notes:

- Ensure the entered superior email address is accurate.
- After binding, your account permissions and functions will be adjusted automatically based on your level.



#### 7. Home

The home page display Power station status, Device status, Energy storage analysis, Power station topology, Overview of power station, Total discharge and charge energy of end user.

#### 7.1. Home

#### 7.1.1. Power station status

- Running Days: Total number of days the system has been in operation.
- Daily Energy Generated: Energy produced by the system on a daily basis.
- Monthly Energy Generated: Total energy generated over the course of a month.
- Annual Energy Generated: Total energy generated over the entire year.
- **Total Power Generation**: Cumulative energy output since the system's installation.

#### 7.1.2. Device status

The pie chart summarizes the device statuses (Alarm, Fault, Normal, Offline) by displaying both the number and percentage for each category

#### 7.1.3. Energy storage analysis

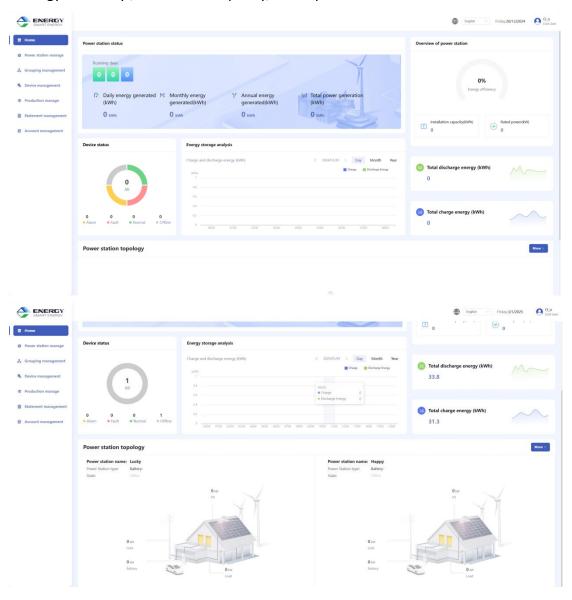
The energy storage analysis section displays a curve chart showing the relationship between time and charge/discharge energy. You can view data by year, month, or day, with the option to switch the time unit by clicking the upper right corner. The chart's time scale can be adjusted to the minimum unit by zoom in and out

#### 7.1.4. Power station topology

This section is empty before creating a power station and binding devices. Once a power station is created and devices are bound, the topology will be displayed here. Click "More" in the upper right corner to navigate to the Power Station List.

# 7.1.5. Overview of power station

Energy efficiency, Installation capacity, Rated power.



# 8. Power station manage

## 8.1. Power Station List

# 8.1.1. Create / Search a power station

#### **Create a New Power Station**

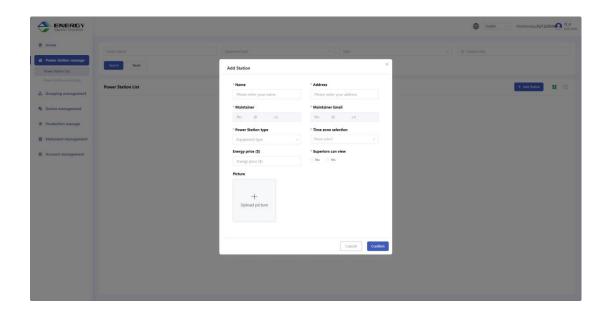
If the new account has not created a power station, click "Add Station" in the upper right corner. The following information is required:

- Name
- Address
- Power Station Type
- Time Zone
- Superiors Can View (optional)

Additionally, you can enter:

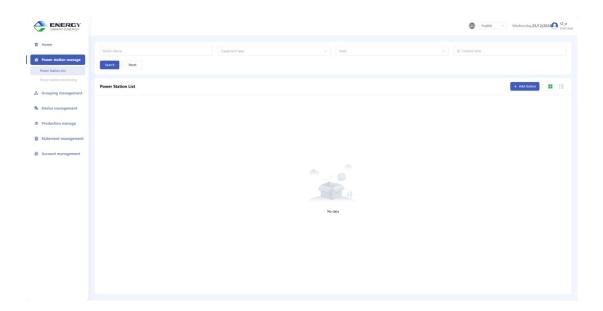
- Energy Price
- Picture (optional)
- Maintainer and Maintainer Email (default)

After entering the necessary details, click "Confirm" to create the power station. If you do not wish to create a power station or need to cancel, simply click "Cancel."



#### **Search Power Station**

You can search for a power station by Station Name, Equipment Type, State, and Creation Time using the filters at the top of the page. If you make an incorrect selection or want to refine your search, simply click "Reset" to start over.



# 8.1.2. Switching

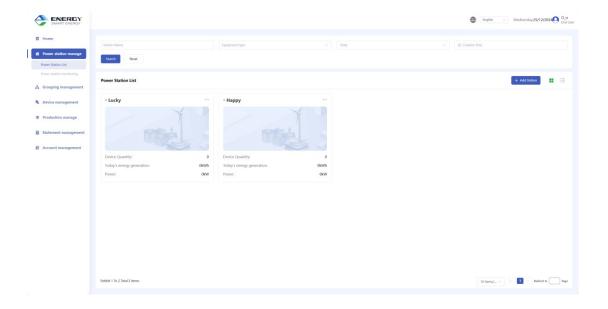
Click the icon in the upper right corner to switch the display mode.

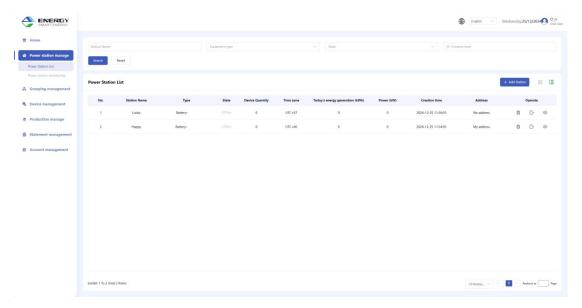
For the independent power station view, the "..." icon on the upper right allows you to:

- Edit
- Transfer
- Delete

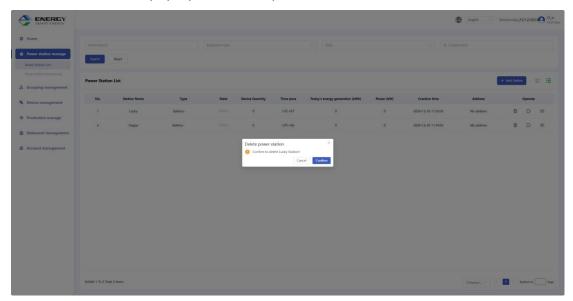
In the detailed power station list view, the options on the right include:

- Delete
- Transfer
- View Details

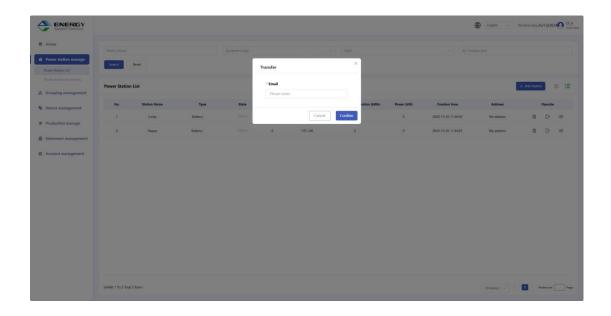




Click Delete icon and pop-up the Delete power station.

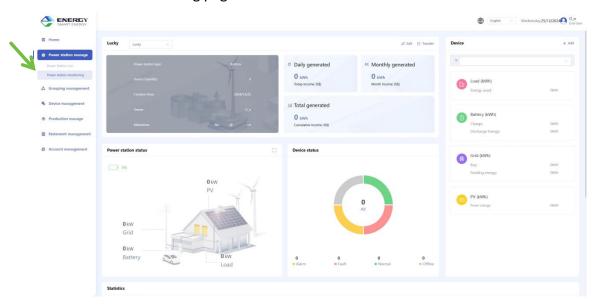


Click Transfer and pop-up Email distribution.



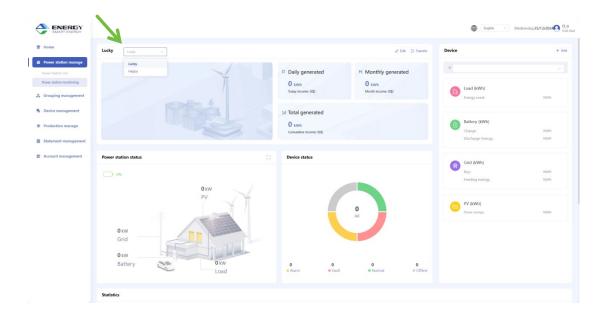
# 8.2. Power station monitoring

Click on the power station display or the "Details" option in the list to navigate to the Power Station Monitoring page.



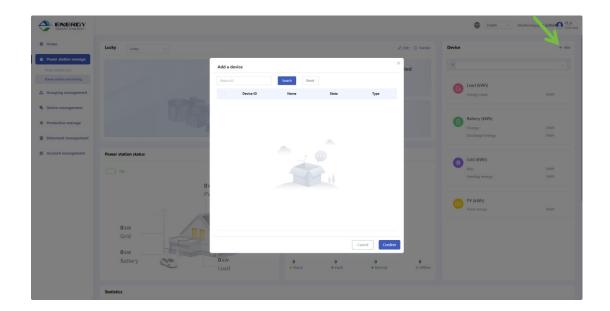
# 8.2.1. Power station switching

Click the upper left corner to switch the power station that already created.



### 8.2.2. Add device

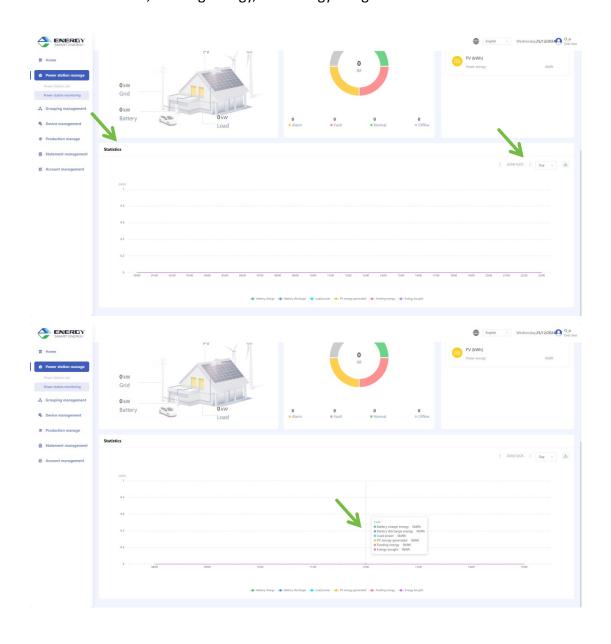
Click the "Add" button in the upper right corner to add a device. You can search by Device ID at the top or browse the list directly. After selecting, click "Confirm" to add the device.



### 8.2.3. Statistics

The chart displays time on the horizontal axis and energy on the vertical axis.

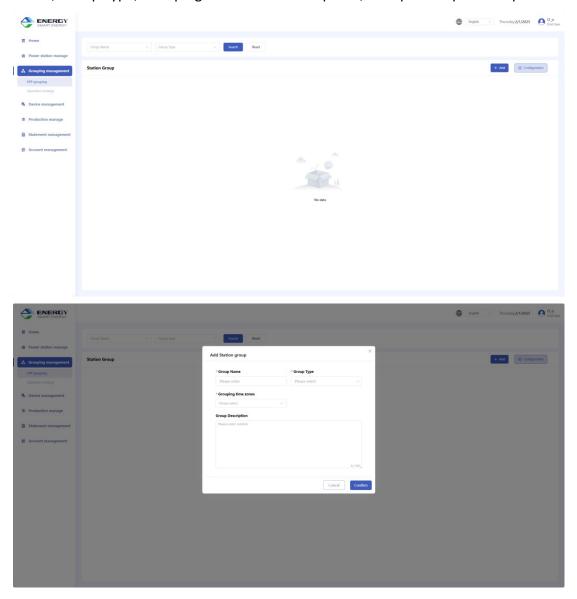
- Click the upper right corner to switch between year, month, day, or the minimum time unit.
- Click the icon in the upper right corner to download the daily analysis data.
- You can zoom in or out to adjust the time interval on the curve chart.
- Hover over any part of the chart to view detailed data for that time period, including Battery Charge, Battery Discharge, Load Power, PV Energy Generated, Feeding Energy, and Energy Bought.



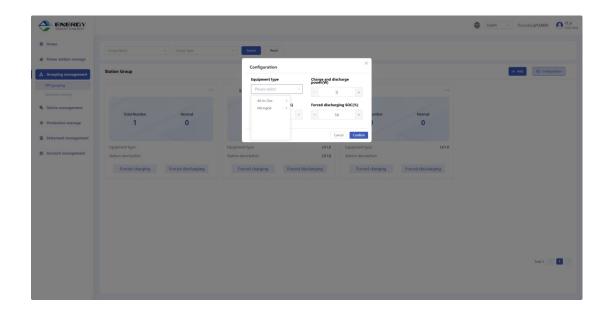
# 9. Grouping management: (reservated function) Not available for now!!!

# 9.1. VPP grouping

You need to click the Add on the upper right corner to create a power station. Group Name, Group Type, Grouping time zones are required, Group Description is optional.

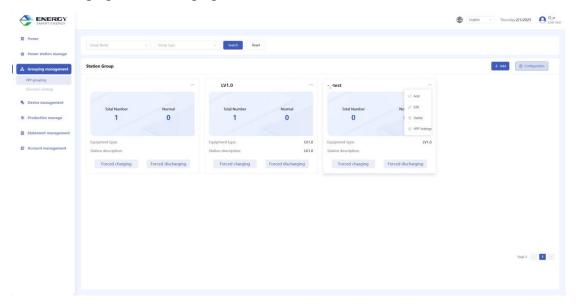


You can click Configuration to configuration after creating a station group.



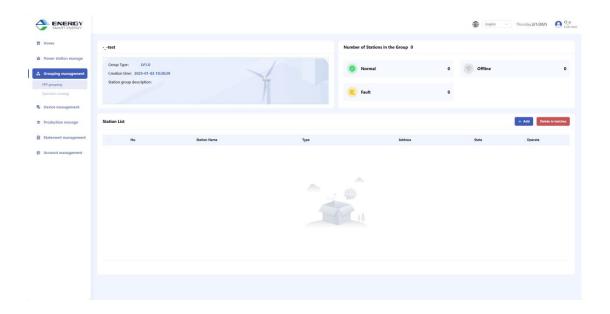
Click the "..." icon on the station group upper right corner, you can Add, Edit, Delete and VPP Setting to station group.

Click Forced charging and Forced discharging under station group, you can quick set forced charging and discharging.



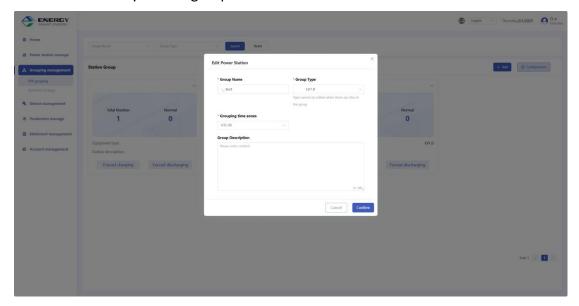
### 9.1.1. Add

Click Add or station group to turn to station group page for detail.

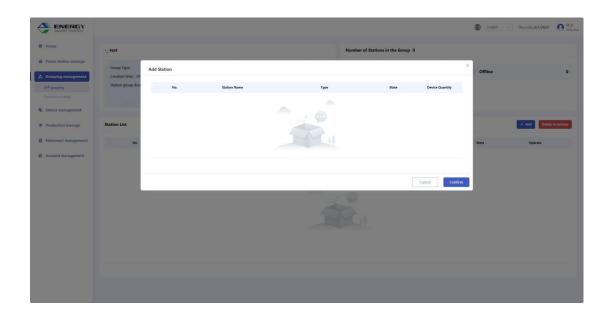


## 9.1.2. Edit

Click Edit to modify station group information.

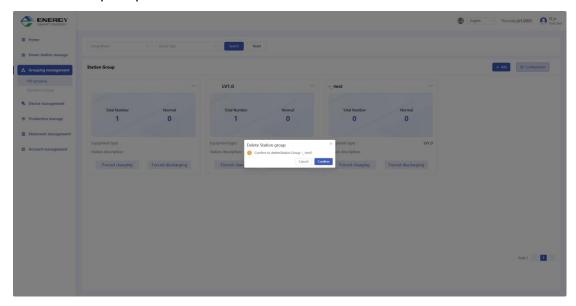


Click Add on Station List upper right corner to add power station that can be distributed into power station list.



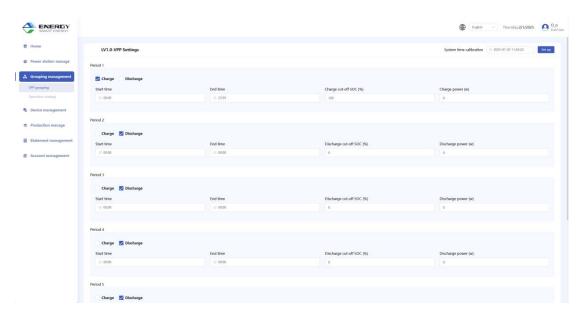
#### 9.1.3. Delete

If station group have any errors, you can click Delete and that will pop-up to confirmation promp.



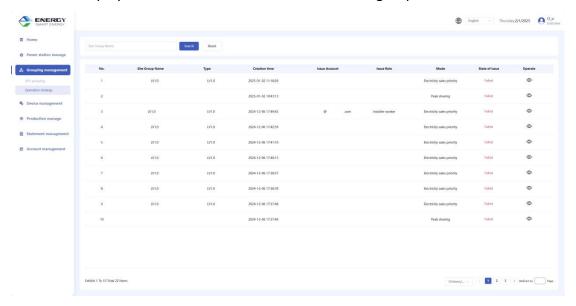
## 9.1.4. VPP Setting

Click VPP Setting to turn to VPP Setting page. You can set time period for all power station devices in the group in this page. Time period including Start time, End time, Charge/Discharge cut-off SOC, Charge/Discharge power, Charge and Discharge.



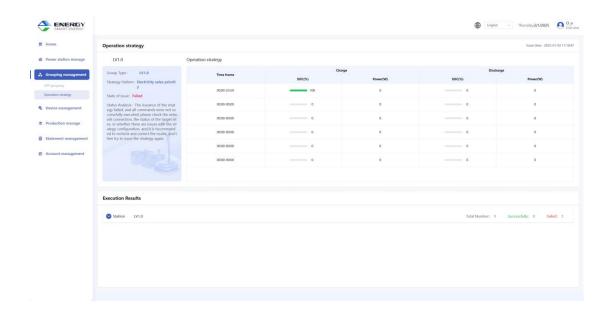
# 9.2. Operation strategy

There will display Mode and State of issue for all station group.



Click any Operate behind State of issue to turn to Operation strategy detail page.

There will display Group type, Strategy pattern, State of issue, Status Analysis and each time period SOC and power of charge and discharge. Thus, you can preliminary debug by this page.



# 10. Device management

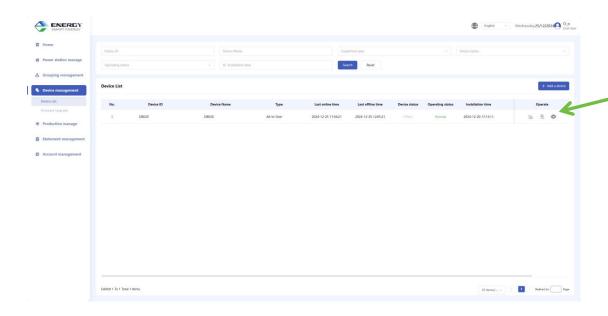
### 10.1. Device List

This page displays all devices and their information in a list format under this account.

You can search for devices using the filters at the top, including Device ID, Device Name, Equipment Type, Device Status, Operating Status, and Installation Time.

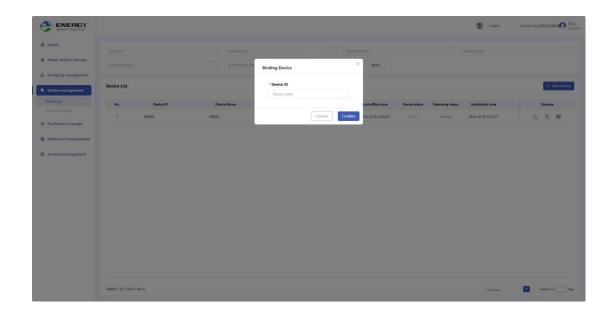
Under the "Operate" column, you'll find the following icons:

- Chart
- Parameter Settings
- Details



## 10.1.1. Binding Device

Clicking 'Add a device' will open a prompt to bind the device. Enter the Device ID and click "Confirm" to complete the binding process

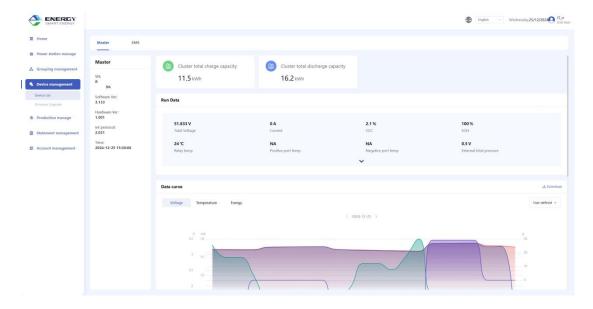


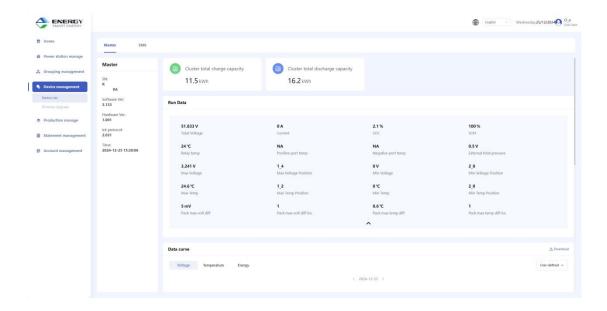
### 10.1.2. Chart

Click 'Chart' to navigate to this page.

This page displays detailed data of the Master.

The 'Run Data' section contains detailed information; clicking the drop down icon will reveal all the data.





#### 10.1.2.1. Data curve

The data curve includes Voltage, Temperature, and Energy.

Time is displayed on the horizontal axis, with Voltage and Current on the vertical axis.

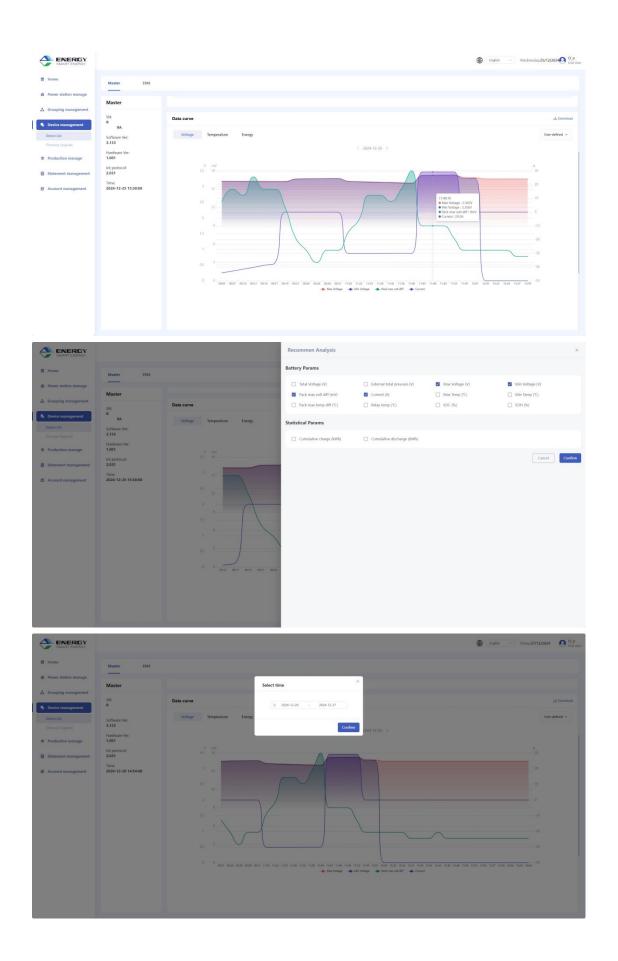
Tapping on the curve chart will show the current time and corresponding data. You can zoom in or out on the time interval, and the curve chart will update accordingly.

The curve and detailed data are derived from Max Voltage, Min Voltage, Pack Max Voltage Difference, and Current. The corresponding name and color are marked at the bottom of the curve chart.

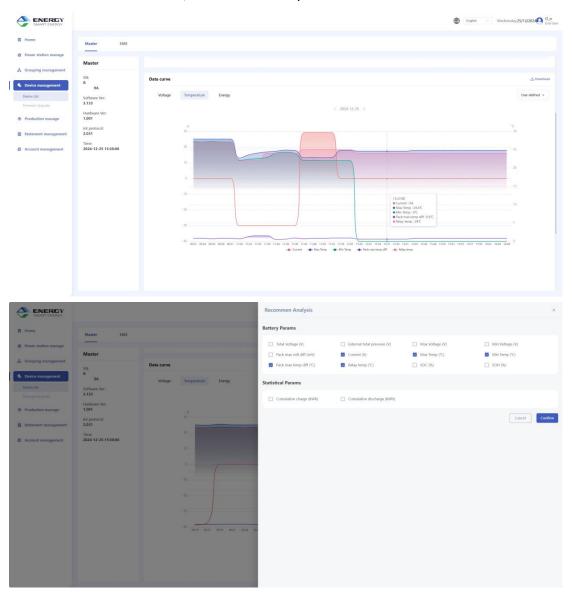
Click 'User-defined' to display the Battery Parameter in the upper right corner.

At the top of the page, you can switch the date.

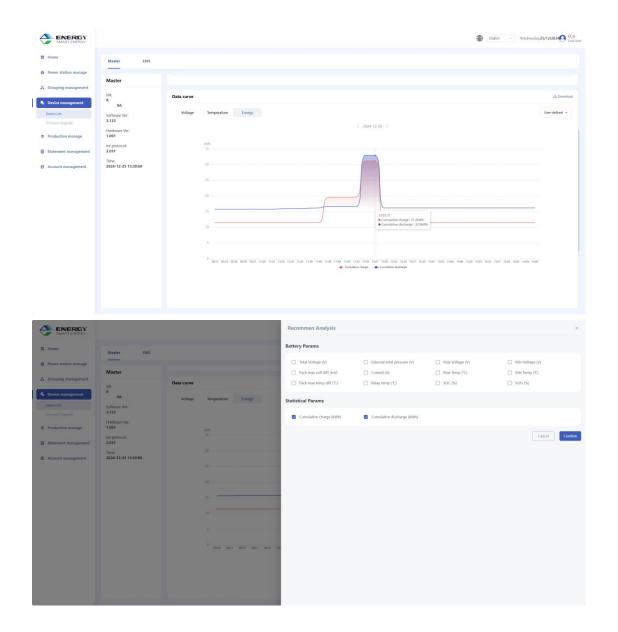
Clicking 'Download' in the upper right corner allows you to download the data, with the option to select different time periods.



Time on the horizontal axis, current and temperature on the vertical axis.

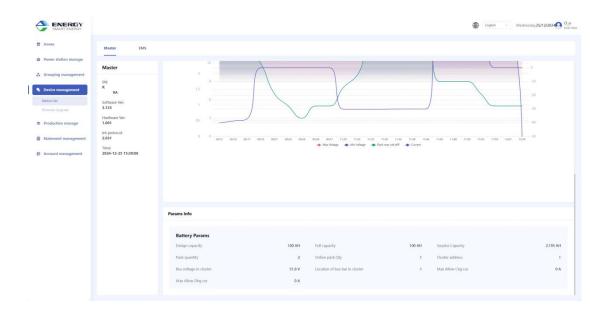


Time on the horizontal axis, energy on the vertical axis.



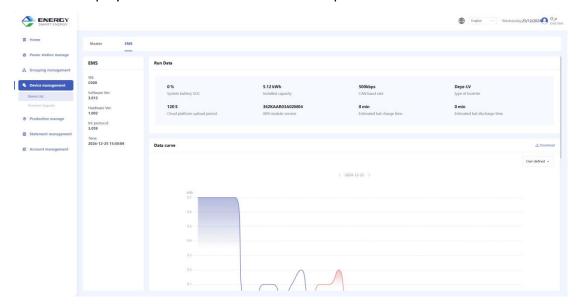
## 10.1.3. Params Info

Battery Params display the detail data of battery at the bottom.



#### 10.1.4. EMS

Run Data display the detail data for EMS at the top.



#### 10.1.4.1. Data curve

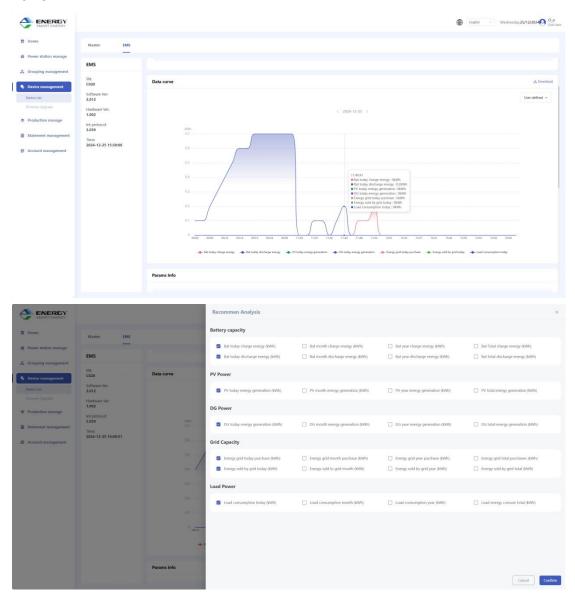
Time is displayed on the horizontal axis, and Energy on the vertical axis.

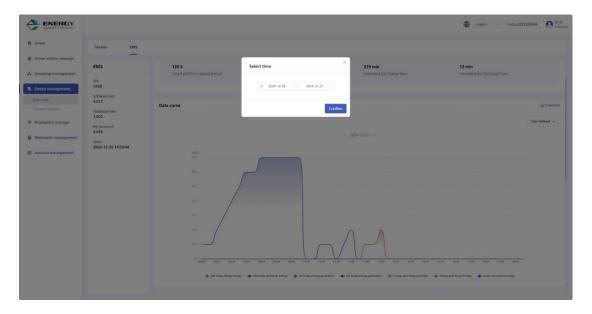
The curve chart allows you to zoom in or out on the time interval, enabling you to check any selected time period and its corresponding data.

Clicking 'Download' in the upper right corner allows you to download the data for the selected time period.

Clicking the time at the top allows you to switch between previous and subsequent dates.

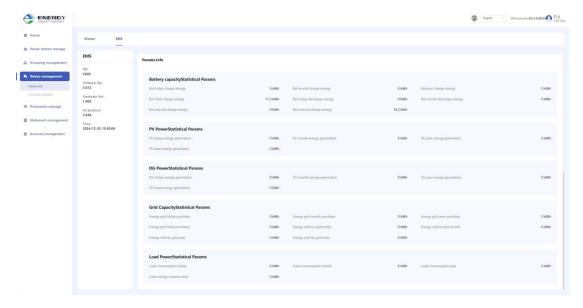
Clicking 'User-defined' enables you to select curve parameters in the upper right corner, including Battery Capacity, PV Power, DG Power, Grid Capacity, and Load Power.





# 10.1.4.2. Params Info

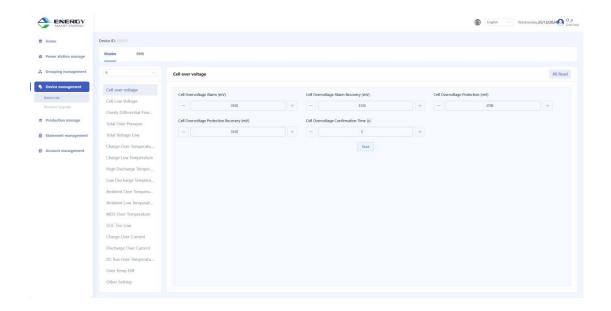
This page display detail parameter information.



# 10.1.5. Parameter settings

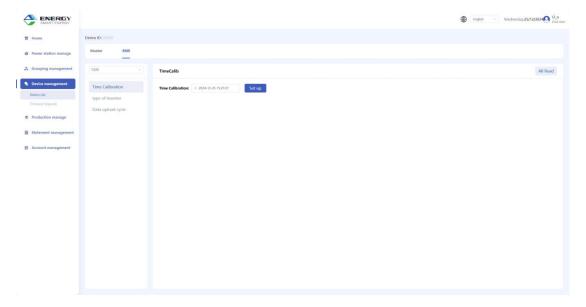
# 10.1.5.1. Master

The page can set the kind of parameter of Master.



## 10.1.5.2. EMS

This page can set the Time Calibration, type of Inverter, Data upload cycle of EMS.



#### 10.1.6. Details

This page displays the device data for the current day.

At the top, the total data for Load, PV, Battery, and Grid are shown.

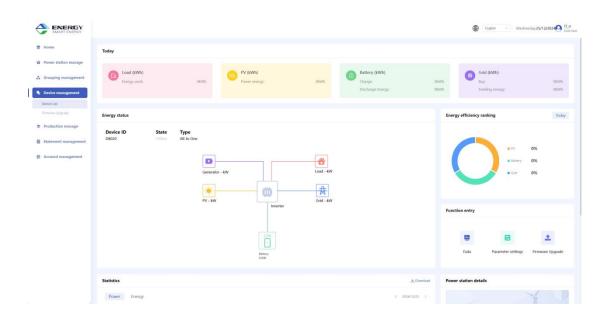
The Energy Status section displays the energy flow direction through a dynamic graph in the center.

The Energy Efficiency Ranking shows the energy ratio using an annual chart and

#### percentage.

The Function Entry section includes Data, Parameter Settings, and Firmware Upgrade.

Click the corresponding icon to navigate to the relevant page.



Statistics include the Power and Energy curve charts. Click the corresponding label to view them.

#### Power:

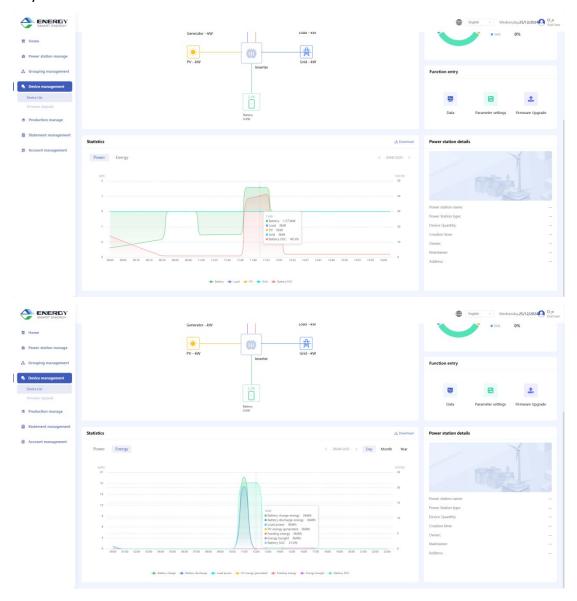
The curve chart consists of Time, SOC, and Energy. The chart parameters include Battery, Load, Grid, PV, and Battery SOC. The curve chart can be zoomed in or out on the time interval, and as the time interval changes, the height of the curve, SOC, and energy will also adjust. Detailed time and parameters are displayed simultaneously. Click 'Download' to export the curve chart data in Excel format. The upper corner allows you to switch the date.

#### Energy:

The curve chart consists of Time, SOC, and Energy. Unlike Power, it is made up of Battery Charge/Discharge, Load Power, PV Energy Generated, Feeding Energy, and

Battery SOC. The curve chart can be zoomed in or out on the time interval, adjusting the width without changing the height. Detailed time and parameters will be displayed simultaneously.

Click 'Download' to export the curve chart data in Excel format. The upper corner allows you to switch the minimum unit time by selecting Year, Month, or Day.

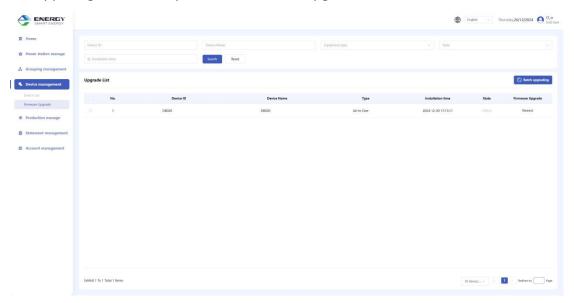


# 10.2. Firmware Upgrade

You can search for devices by Device ID, Device Name, Equipment Type, State, and Installation Time. Click 'Reset' to re-enter the search criteria.

The Upgrade List displays all bound devices. If a device is up to date, it will show as

'Newest.' If an upgrade is needed, select the device(s) and click 'Batch Upgrading' in the upper right corner to perform a one-click upgrade.



# 11. Production manage

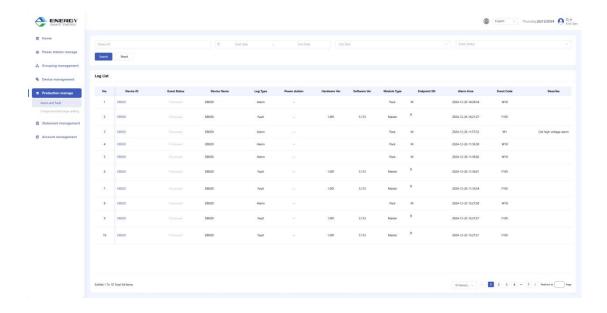
## 11.1. Alarm and Fault

This page displays the failure reasons for all devices.

You can search for devices and failures by Device ID, Start Date to End Date, Log Type, and Event Status at the top. Click 'Reset' to reset the search parameters.

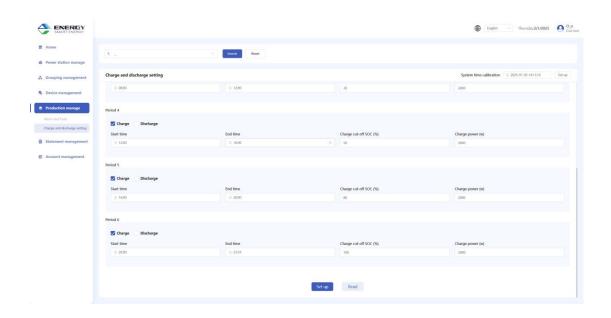
**Log Type**: Alarm, Fault, and Protect.

Event Status: Normal, Unconfirmed, Processing.



# 11.2. Charge and discharge settings

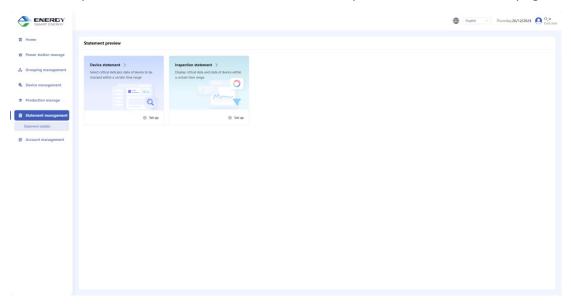
You can set the same Charge and Discharge, Start time, End time, Charge/Discharge cut-off SOC, Charge/Discharge power as the VPP Setting on this page.



## 12. Statement management

#### 12.1. Statement statistic

Statement preview contain Device statement and Inspection statement in the page.



#### 12.1.1. Device statement

This page records the device state at fixed time intervals.

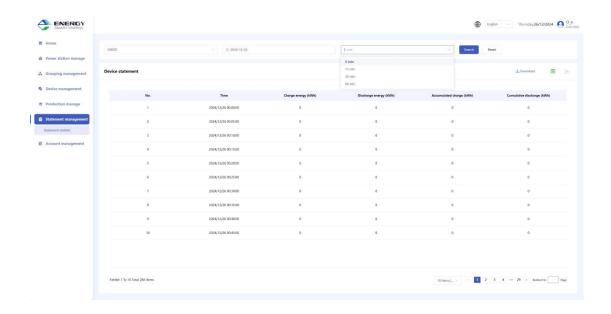
On the left, select the bound device.

In the middle, choose the time to check.

On the right, select the fixed time interval from the top search bar.

Click 'Search' for a one-click search, or click 'Reset' to clear the selected parameters.

Click 'Download' to export the device data for the current date in Excel format.



Click the icon in the upper corner to switch between the list and histogram display formats.

Click the progress bar to switch between different time periods, and the histogram will display the corresponding time and detailed parameters



# 12.1.2. Inspection statement

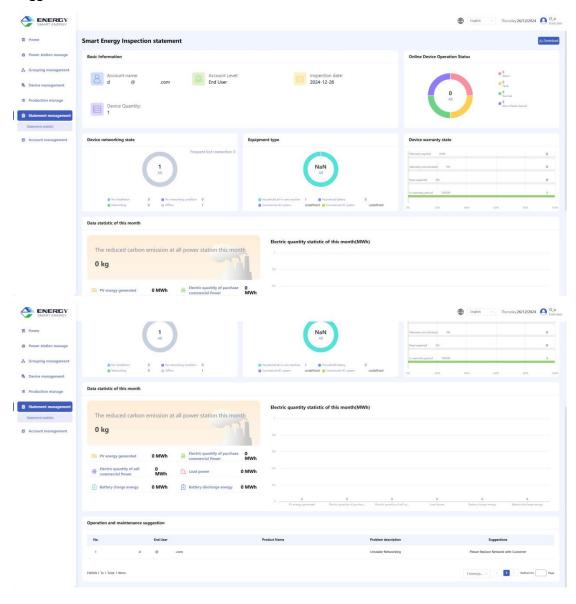
Click 'Inspection Statement' to navigate to the Smart Energy Inspection Statement page.

This page displays the following information:

- Basic Information
- Device Networking State
- Equipment Type
- Online Device Operation Status
- Device Warranty Status
- Data Statistics for the Current Month
- Operation and Maintenance Suggestions

The pie chart shows the corresponding ratio and quantity.

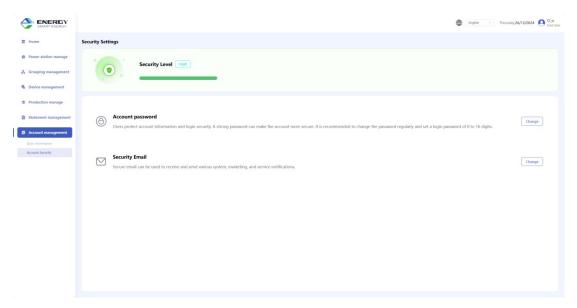
Click 'Download' in the upper right corner to export the Operation and Maintenance Suggestions in Excel format.



## 13. Account management

# 13.1. Account Security

This page display the account security, including Account password and Security Email.



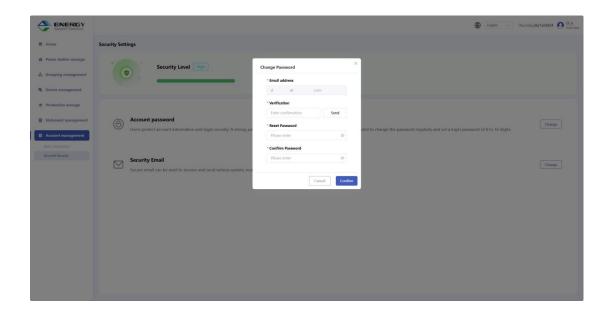
## 13.1.1. Account password

Click 'Change Account Password' to modify your password and navigate to the Change Password page.

The email address used for registration is the default and cannot be changed.

Click 'Send' to receive an email with a verification code.

Enter the verification code, then set your new password in the 'Reset Password' and 'Confirm Password' fields. Finally, click 'Confirm' to reset your password.



## 13.1.2. Security Email

Click 'Change Security Email' to reset your email and navigate to the Change Email page.

First, enter the original password for your account in the 'Password' field. Then, input the new email address in the 'Email Address' field.

Next, click 'Send' to receive a verification code via email. Enter the verification code in the provided field, and finally, click 'Confirm' to reset your email.

