



# PANGU OS User Manual

## WHES-PANGU EMS V1.4.4

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Jiangsu Weiheng Intelligent Technology Co., Ltd

## Introduction

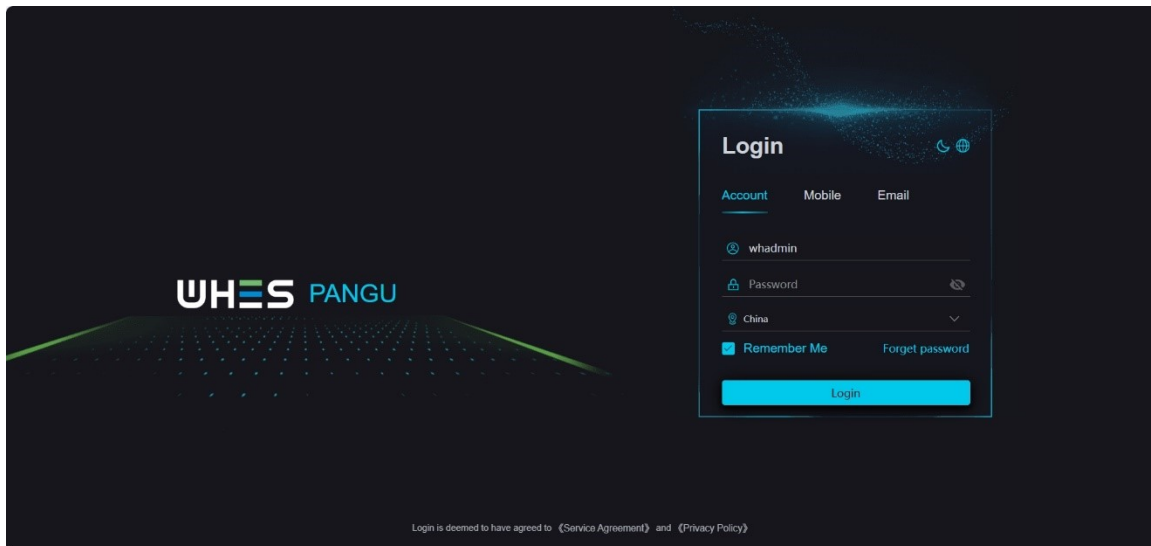
This document is the operating instructions of the PANGU OS, a product of Jiangsu Weiheng Intelligent Technology Co., Ltd. This document explains in detail the functions and the correct operation of the system, as well as how to use the energy storage energy management system correctly and effectively.

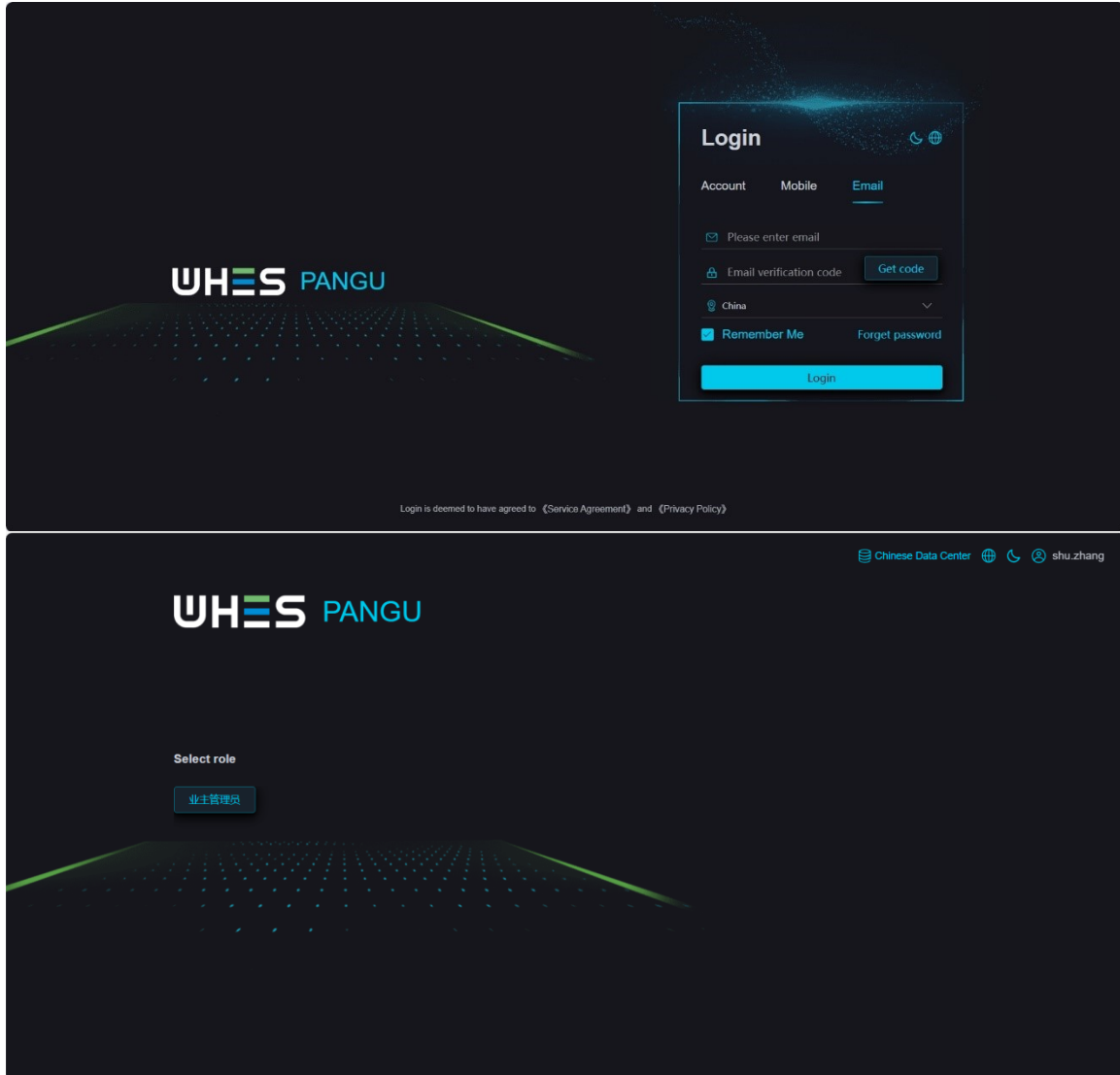
## Main Functionality

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### *Login System*

Feature Screen:





## Functions

Requirements:

1. Already have an account and password.
2. The PANGU energy management system is working properly and the network between the device and the server is working properly.

Procedures:

1. Access to the PANGU Energy Management System login page.
2. Enter your user account and password and click on "Login", you can select "Remember" if needed.
3. After binding the email, you can log in using the email and verification code

4. After successfully logging in, you will enter the role selection page.  
Click on your user role to access the main page.

### *Logout System*

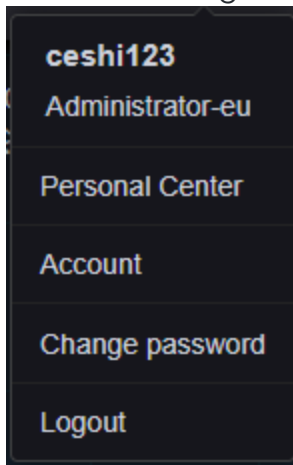
#### **Functions:**

#### Requirements:

1. Logged into The PANGU Energy Management System.

#### Procedures:

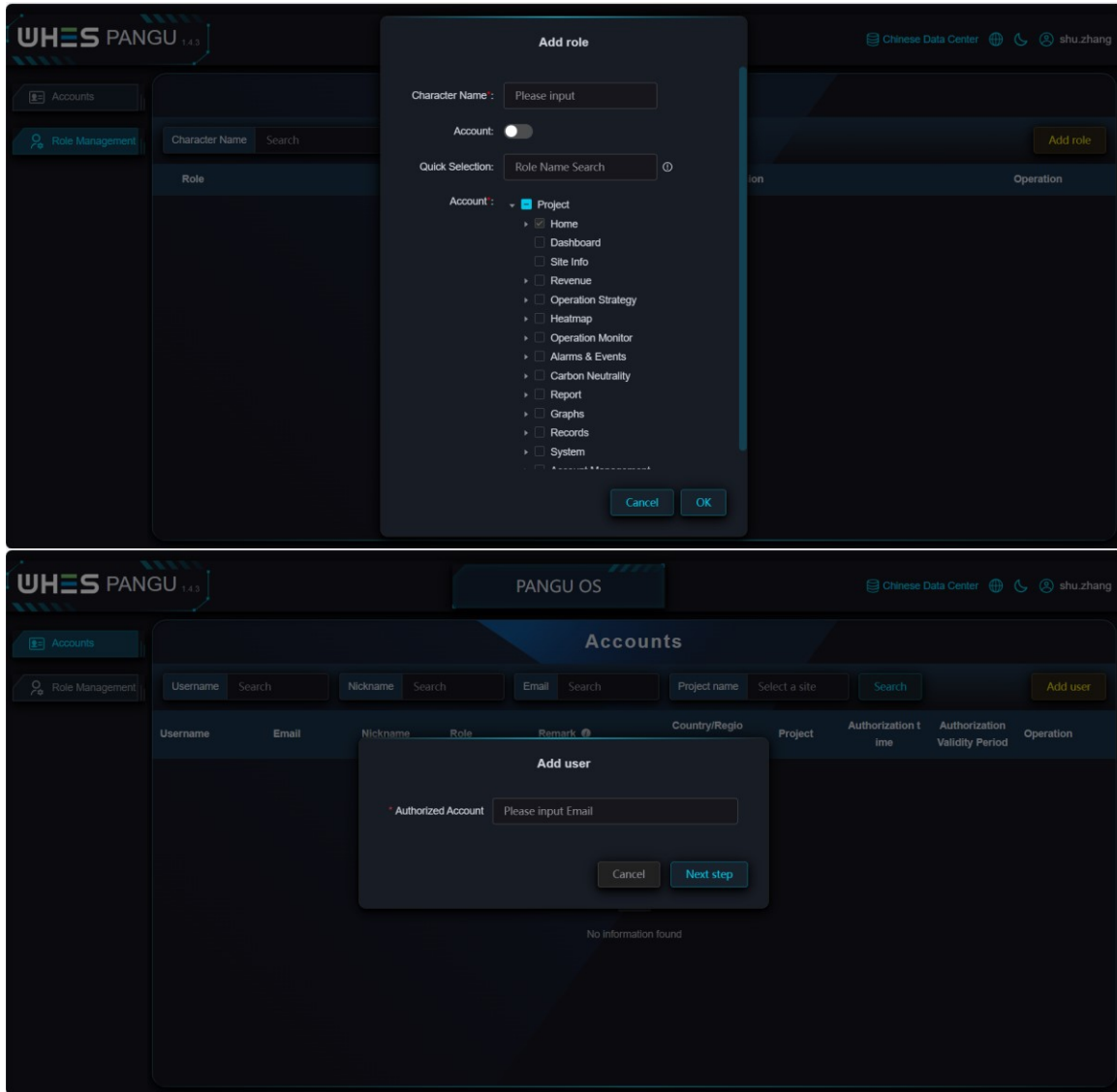
1. Hover over your account icon in the top right corner of the system to see the logout button.

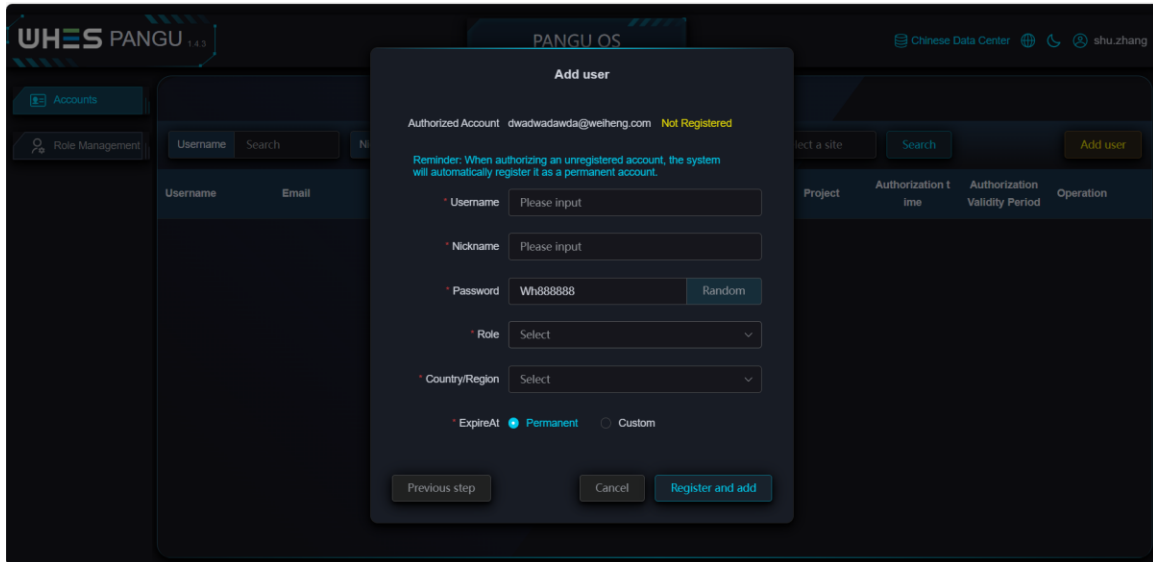


2. Click on "Log out" and click on the "Log out" button in the pop-up window again to log out of the PANGU Energy Management System.

# Account

## Feature Screen:



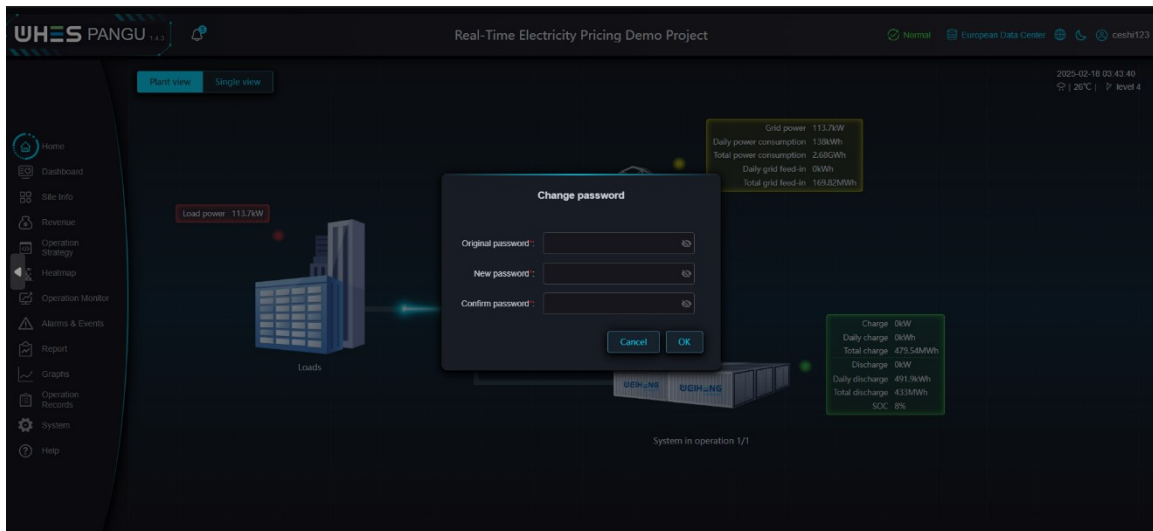


### Functions:

1. First, enter the "Role Management" page, select the permissions, and add a subordinate user role.
2. Then, proceed to the "Account Management" page, enter the email address, add a user. Upon successful registration and addition, the user's email will receive a message containing the initial password, which the user can subsequently change.

### Change Password

### Feature Screen:



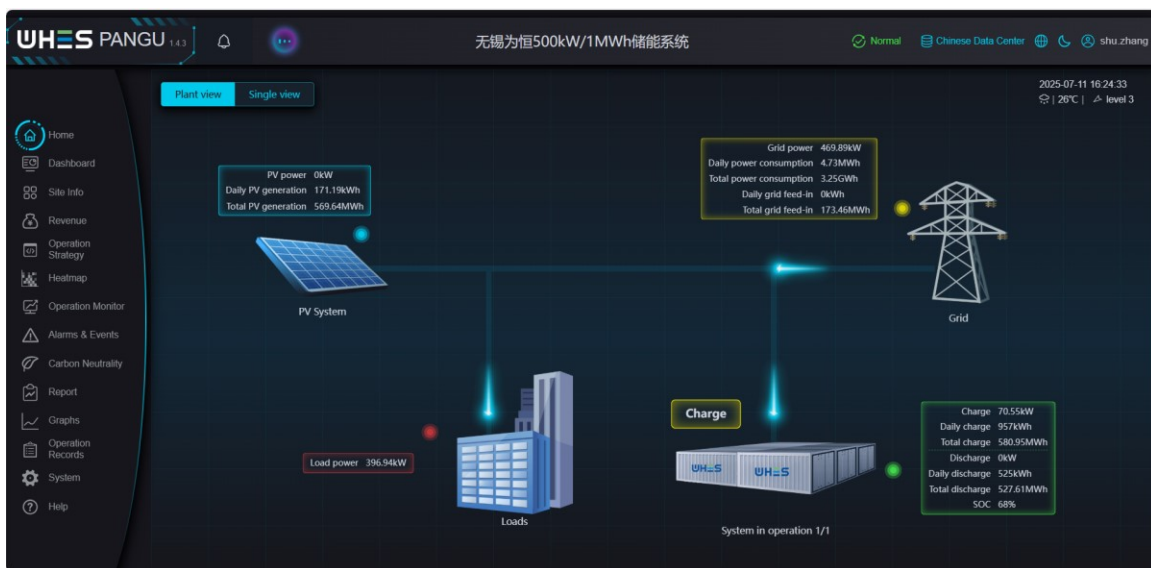
### Functions:

1. Login system and hover over your account icon in the top right corner of the system and click on "Change password".
2. Enter the right original password.
3. Enter the new password and confirm.

Home

Feature screen:

Plant view



Functions:

1. This page shows the energy flow trends in the power station and the real-time operational state of the PV system, the load, the energy storage system and the grid.
2. The plant view shows the energy flow trend of the energy storage system and the real-time operating status and data of the system.
3. Single view mode shows energy flow trends and real-time operational status and data of the individual energy storage units.
4. Energy storage system operating state.
  - Charging: Indicates that the energy storage system is being charged.
  - Discharging: Indicates that the energy storage system is being discharged.
  - Offline: Indicates that the energy storage system is offline.

Standby: Indicates that the equipment is operating normally, no fault, no charging and discharging is taking place.

Stop: Indicates that the equipment has stopped operating.

- System operation state and data is refreshed every 5 seconds.

Single view:

Feature screen:



Functions:


If there are multiple sets of ESS, all ESS run states and data are displayed on the standalone mode page.

## Dashboard

### Feature Screen:



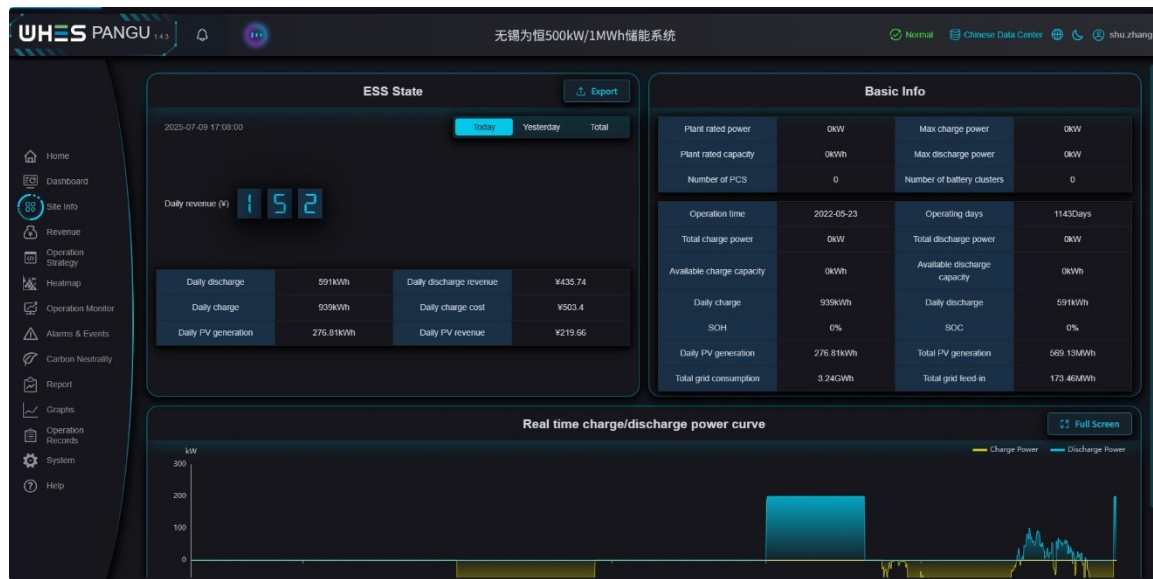
### Functions:

1. The page shows power station configuration, container inspection, control strategy, power curve, PCS operation monitoring, energy storage thermal map, safe operation days, revenue, electricity consumption, 3D real-time energy flow, date, weather, and so on
2. Click on the top right corner  or click on the top title

 to exit the project screen

## Site Info

### Feature Screen:



### Functions:

1. The page shows the operation status of the ESS and the basic information of the station, including the operating revenue, the power and energy of each energy source, and the real-time total charge and discharge power curve.
2. Basic conditions include: plant rated power, rated capacity, maximum chargeable power, battery clusters, number of PCS, battery health SOH, remaining battery capacity SOC, total grid power consumption, etc.
3. Energy storage station operation state including: charging and discharging capacity and revenue of energy storage system, demand power reduction and demand control revenue, PV generation energy and revenue.
4. Excel export function for energy storage station operation data.
5. Real-time charge and discharge power curves support full screen display, support middle mouse button scrolling to zoom the horizontal coordinate time span, support charging power/discharging power curve partial display or all display.

# Revenue

## System Revenue





## Functions

1. This page includes: total revenue of the energy storage system, charge and discharge revenue, demand control revenue and PV generation revenue and export button.
2. Firstly, as electricity prices and periods vary from time to time, to ensure the accuracy of the revenue data, please click on the 'Power tariff configuration' button and configure the exact tariff and period according to your local conditions before viewing the data.
3. Click on the Demand Control Revenue module, the lower part of the module will show reduced demand power and demand control revenue.
4. Click on the PV generation revenue module, the following shows the amount of carbon emission reduction, Self use quantity, Self use revenue, Feed grid quantity, Feed grid revenue.

# ESS Revenue



## Functions:

This page shows the cost of charging, the benefit of discharging, and the percentage of charging/discharging for each time period for valley, flat, peak and peak, as well as a histogram of the benefit of charging/discharging for each time period for valley, flat, peak, top and total.

# Tariff configuration and Electricity price template

UHS PANGU 1.4.3 无锡为恒500kW/1MWh储能系统(测试60) whadmin

### Tariff configuration

Save

<b>Sharp Tariff</b> Buy: 1.3784 Sell: 1.3784	Sharp 1 Start: 14:00:00	Sharp 1 End: 15:00:00	<b>Peak Tariff</b> Buy: 1.1487 Sell: 1.1487	Peak 1 Start: 06:00:00	Peak 1 End: 11:00:00
	Sharp 2 Start: 19:30:00	Sharp 2 End: 21:30:00		Peak 2 Start: 18:00:00	Peak 2 End: 19:30:00
<b>Shoulder Tariff</b> Buy: 0.668 Sell: 0.668	Shoulder 1 Start: 11:00:00	Shoulder 1 End: 14:00:00	<b>Off-peak Tariff</b> Buy: 0.2796 Sell: 0.2796	Off-peak 1 Start: 00:00:00	Off-peak 1 End: 08:00:00
	Shoulder 2 Start: 15:00:00	Shoulder 2 End: 18:00:00			
	Shoulder 3 Start: 22:00:00	Shoulder 3 End: 00:00:00			

<b>Demand tariff</b> Demand tariff: 2		<b>PV generation</b>	
On-grid PV tariff	0.391	Self-use tariff	1
Benchmark tariff (including demutualization subsidy)	0.391	Subsidized tariff	0

Start time: 2022-05-24 End time: 2024-03-10 [Tariff configuration](#)

Start time: 2024-03-11 End time: 2024-04-30 [Tariff configuration](#)

Start time: 2024-05-01 End time: 2024-07-10 [Tariff configuration](#)

Start time: 2024-07-11 End time: To present [Tariff configuration](#)

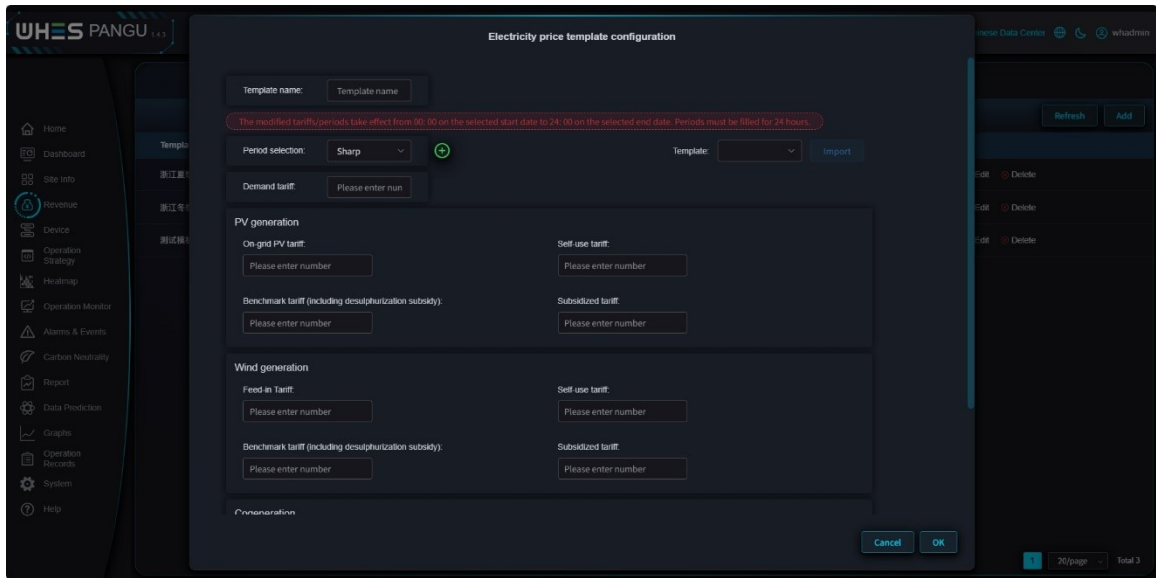
UHS PANGU 1.4.3 无锡为恒500kW/1MWh储能系统(测试60) whadmin

### Electricity price template

Refresh Add

Template name	Add by	Add time	Operation
浙江夏季	whadmin	2024-05-08 09:13:25	<a href="#">Details</a> <a href="#">Edit</a> <a href="#">Delete</a>
浙江冬季	whadmin	2024-05-08 19:34:53	<a href="#">Details</a> <a href="#">Edit</a> <a href="#">Delete</a>
测试模板3	whadmin	2024-05-09 14:16:42	<a href="#">Details</a> <a href="#">Edit</a> <a href="#">Delete</a>

1/20 page Total 3

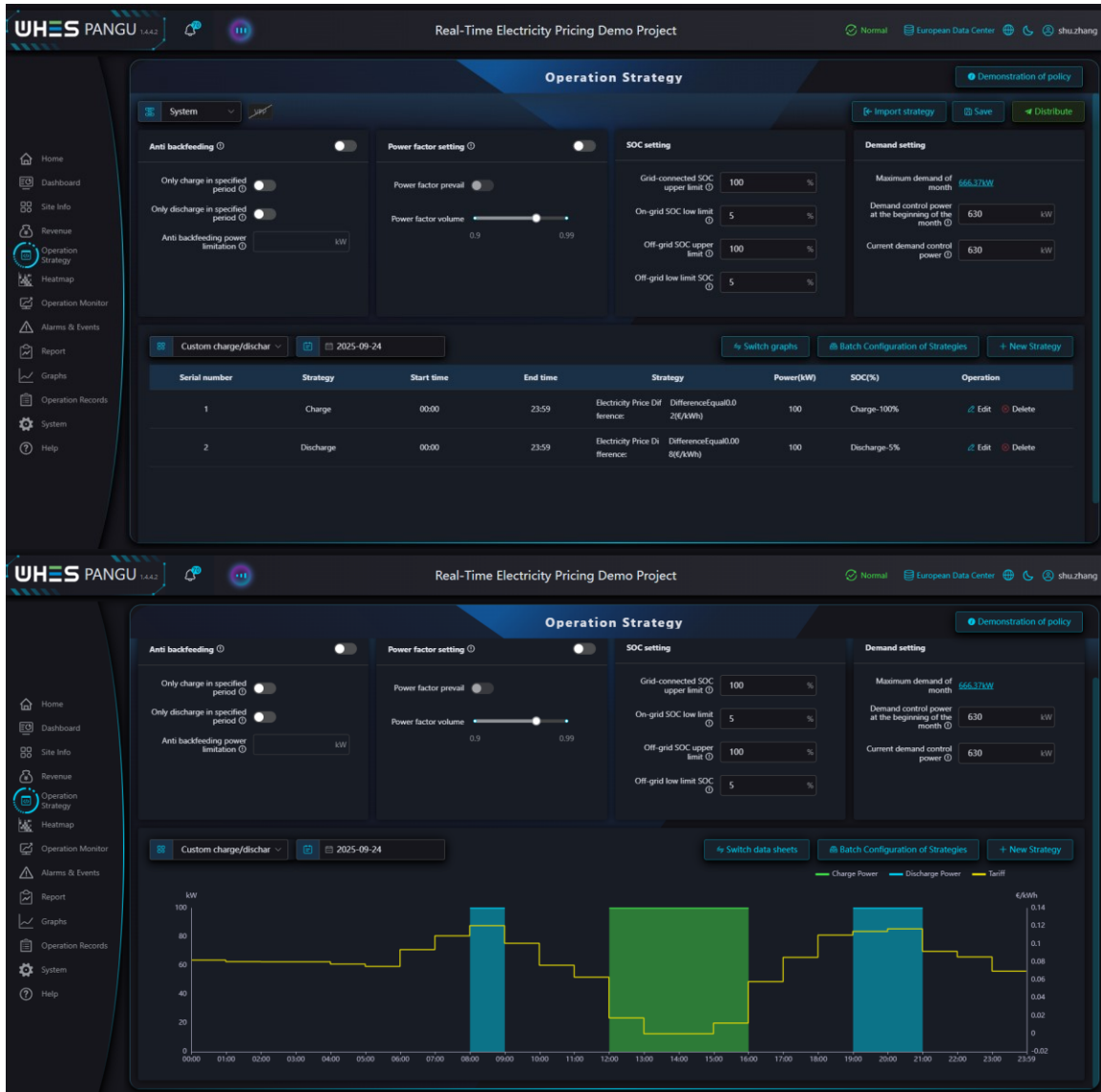


## Functions:

1. The first tariff period by default is from the first activation of the system to the present, if there is a tariff change in the meantime, you can click on "+" to add tariff period, click "-" delete tariff period. The tariff does not need to be updated in real time, as long as the date of change is correct, the corresponding revenue data will be automatically adjusted after the tariff period is updated at a later date.
2. Tariff configuration steps
  - a) Click on Tariff/Session Configuration
  - b) Select the start and end dates
  - c) Configure peak, peak, valley and flat tariff periods and tariffs for different time periods, enter the tariff and select the time period (the time period is 24 hours, starting at 0:00 and ending at 0:00, no overlap of time)
  - d) Click on Confirm, the pop-up window will close and click on Save to complete the tariff period configuration.
3. Click on 'Electricity price template' and click 'Add' to add electricity price templates.

# Operation Strategy

## Feature screen:



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### Operation Strategy

Anti backfeeding  Power factor setting  SOC setting  Demand setting  Demonstration of policy

Only charge in specified period  Only discharge in specified period  Anti backfeeding power limitation

Power factor prevail  Grid-connected SOC power limit

Maximum demand of month  Demand control power at the beginning of the month  Current demand control power

Strategy: **Charge** Discharge Self Consumption

Start time  Start  End End time  End

選擇用於策略  選擇

EMS Power(W)  SOC(%)

Custom charge/discharge 2025-09-24

Switch data sheets Batch Configuration of Strategies New Strategy

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### Batch Configuration of Strategies [System]

Strategy config  Monthly  Daily

Jan. 策略模板	Feb. 策略模板	Mar. 策略模板	Apr. 策略模板	May. 策略模板	Jun. 策略模板
Jul. 策略模板	Aug. 策略模板	Sep. 策略模板	Oct. 策略模板	Nov. 策略模板	Dec. 策略模板

Strategy template preview

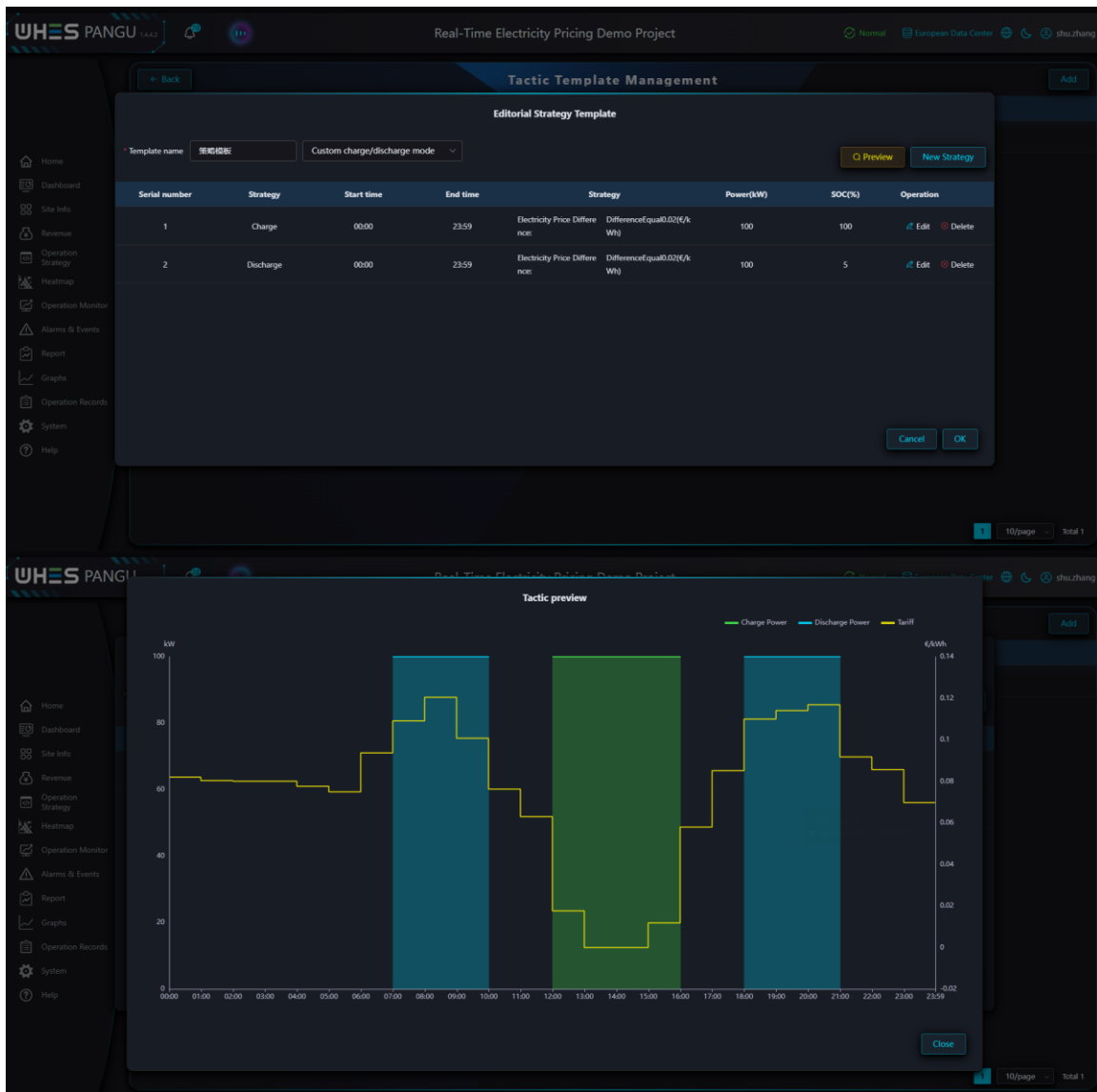
Serial number	Strategy	Start time	End time	Strategy	Power	SOC
1	Charge	00:00	23:59	Electricity Price Difference: DifferenceEqual0.02(€/kWh)	100	100
2	Discharge	00:00	23:59	Electricity Price Difference: DifferenceEqual0.02(€/kWh)	100	5

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### Tactic Template Management

Name of the Strategy Template	Add by	Add time	Operation
策略模板	whadmin	2025-07-22	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>

10/page Total 1



## Functions:

1. Configure system group strategy: System grouping strategy are control strategies for the entire power plant, including: anti-backfeeding, declared demand power, demand control power, min discharge SOC, only charge in set time, only discharge in set time, power factor setting, power factor prevail, charging and discharging strategies, etc.
2. The strategies include: anti-reverse flow, demand control, capacity control, power factor locking, and timed charging and discharging.
3. Click on "Batch Configuration of Strategies" to set up strategies in batches. You can create and manage strategy templates and support the annual distribution of strategies..

- 4. Support batch import of system/non-system strategies.

### Heatmap

#### Charge Power:



#### Functions:

This page shows the charge power heat map for the last 7 days, 30 days and 1 year for all devices. When viewing the heat map for the last 1 year, you can check it by week or by a specific date.

#### Discharge Power:



## Functions:

This page shows the discharge power heat map for the last 7 days, 30 days and 1 year for all devices. When viewing the heat map for the last 1 year, you can check it by week or by a specific date.

## Charge/Discharge Power:



## Functions:

This page shows the charge and discharge power heat map for the last 7 days, 30 days and 1 year for all devices. When viewing the heat map for the last 1 year, you can check it by week or by a specific date.

## Load Power:



## Functions:

This page shows the load power heat map for the last 7 days, 30 days

and 1 year for all devices. When viewing the heat map for the last 1 year, you can check it by week or by a specific date.

### PV Generation:



### Functions:

This page shows the PV power heat map for the last 7 days, 30 days and 1 year for all devices. When viewing the heat map for the last 1 year, you can check it by week or by a specific date.

### Thermal Field:



### Functions:

1. Visualisation of the temperature data of all the battery cells in the energy storage system in the form of a temperature field.

- Support for querying the battery cells temperature data at a specific moment in time.

### Voltage Field:



### Functions:

- Visualisation of the voltage data of all the cells in the energy storage system in the form of a voltage field.
- Support for querying the voltage data of the cells at a specific moment in time.

### Operation monitor

### PCS Monitor





## Functions:

1. Monitor PCS all operating state.
2. Real-time monitoring of DC current, DC voltage and three-phase voltage data.
3. Real-time monitoring of active and reactive power curves.
4. Display PCS operating data and analog data, including design capacity, design maximum and minimum voltage, frequency, power factor, active power and reactive power, etc.

# BMS Monitor

1.4.3

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## BMS Monitoring

### Level 3 BMS control

SOC

51%

SOH

95%

### Operational state

Battery Discharge State

Charge Circuit Switch

Discharge Circuit Switch

Discharging Prohibited Flag

Charging Prohibited Flag

Charging Intensified Flag

Initialization Completed

Fan Anomaly Alarm

Battery Sleep State

View more >

### Operating data

BMS units	1	Charge available	312kWh
BMS model	PYLON Bat.	Present voltage	703.2V
Battery Stack Software Version		Present current	286.5A
Set storage capacity	613kWh	Ambient temp	34.5°C
Set max voltage	788.4V	Max cell voltage	3.26V
Set min voltage	561.6V	Min cell voltage	3.25V
Set max discharge current	360A	Max cell voltage SN	1116
Set max charge current	360A	Min cell voltage SN	3023
Number of battery clusters	6	Max cell temp	31°C
Battery packs per cluster	18	Min cell temp	25°C
Cells per pack	12	Max cell temp SN	5122
Temp sensors	12	Min cell temp SN	1022
SOC	51	Avg cell voltage	3.26V
SOH	95	Avg cell temperature	27.6°C
Discharge available	324kWh	BMS state	Normal

1.4.3

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## BMS Monitoring

### Battery Cluster Software Version

State	Normal	Normal	Normal	Normal	Normal	Normal
SOC	50%	52%	50%	51%	52%	51%
SOH	95%	95%	95%	95%	95%	95%
Discharge available	52kWh	53kWh	52kWh	52kWh	54kWh	57kWh
Charge available	52kWh	49kWh	52kWh	50kWh	50kWh	50kWh
Present voltage	703.1V	703.1V	703.1V	703V	703.3V	703.2V
Present current	47.7A	46.7A	47.5A	45.3A	49.8A	48.7A
Ambient temp	35°C	34°C	34°C	34°C	35°C	35°C
Max cell voltage	3.26V	3.26V	3.26V	3.26V	3.26V	3.26V
Min cell voltage	3.25V	3.25V	3.25V	3.25V	3.25V	3.25V
Max cell voltage SN	112	51	28	0	75	88
Min cell voltage SN	11	9	23	23	23	59
Max cell temp	29°C	26°C	29°C	26°C	31°C	31°C

Battery cluster#1

50%

Battery cluster#2

52%

Battery cluster#3

50%

Battery cluster#4

51%

Battery cluster#5

52%

Battery cluster#6

51%

1.4.3

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## BMS state overview

### Battery Discharge State

Battery Charge State

Fan Switch

High Module Voltage Alarm

Low Charging Temperature Alarm

Short-circuit Protection

High Cell Voltage Protection

Battery Damage Fault

### Charge Circuit Switch

Battery Hold State

Current Limiting Module Switch

Low Module Voltage Alarm

High Total Voltage Alarm

Overcurrent Discharging Protection

Low Cell Voltage Protection

Relay Fault

### Discharge Circuit Switch

Temperature Alarm

Heating Membrane Switch

High Module Temperature Alarm

Low Total Voltage Alarm

Overcurrent Charging Protection

Emergency Stop Fault

Input Reverse Connection Fault

### Discharging Prohibited Flag

Current Alarm

Buzzer Switch

High Main Control Temperature Alarm

High Cell Voltage Alarm

Insulation Fault

Input Overvoltage Fault

### Charging Prohibited Flag

Voltage Alarm

Pre-charge Circuit Switch

Overcurrent Discharging Alarm

Low Cell Voltage Alarm

Safety Function Abnormality

Internal Communication Fault

### Charging Intensified Flag

Temperature Protection

Insulation Resistance Fault (Level 2)

Overcurrent Charging Alarm

Secondary Cell Undervoltage Protection

High Charging Temperature Protection

Temperature Sensor Fault

### Initialization Completed

Voltage Protection

Insulation Resistance Fault

High Discharging Temperature Alarm

High Module Voltage Protection

Low Charging Temperature Protection

Voltage Sensor Fault

Fan Anomaly Alarm

Charging Balanced Flag

Low Discharging Temperature Alarm

Low Module Voltage Protection

High Discharging Temperature Alarm

Internal Busbar Fault

System Fault

Terminal Temperature Abnormality Alarm

High Charging Temperature Alarm

High Module Temperature Protection

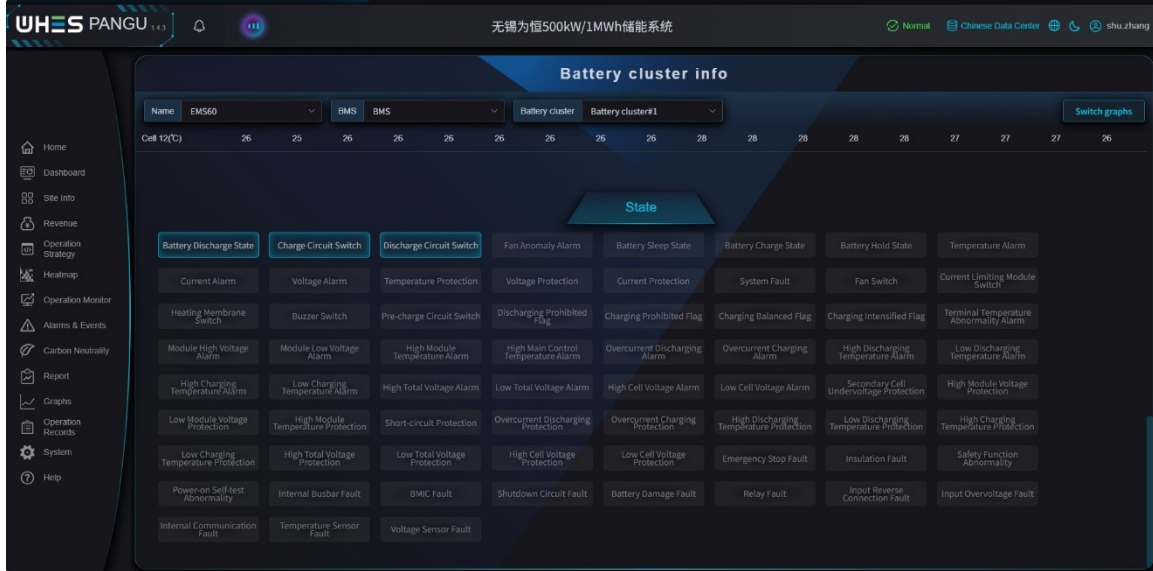
High Total Voltage Protection

Low Total Voltage Protection

BMIC Fault

Shutdown Circuit Fault





### Functions:

1. Monitor the voltage and temperature data for all individual cells in a battery cluster (click on the drop box button to switch between battery clusters or BMUs).
2. The display of cell voltage and temperature data can be switched between graphs and data tables.
3. Monitor the operating states of all battery clusters.

## Cooling & Fire control monitoring

The interface displays real-time monitoring data for two systems: an air conditioner and a fire control system.

**Top Screenshot: Air conditioner #1**

- Run data:**

Model	Temperature(°C)	Humidity(%)
Envicool MC125	24	61.9
- Operational state:**

Compressor In Operation	Ex-cabinet Fan In Operation	In-cabinet Fan In Operation	System in operation	Startup Command	Water Pump In Operation
Electrical Heating In Operation	System Standby	Electrical Heating Fault	System Fault	Water Pump Fault	Compressor Fault
Ex-cabinet Fan Fault	In-cabinet Fan Fault	Evaporator Freezing Alarm	Ambient Temperature Sensor Fault	Condenser Temperature Sensor Fault	Evaporator Temperature Sensor Fault
AC Power-failure Alarm	AC Undervoltage Alarm	AC Overvoltage Alarm	DC Undervoltage Alarm	DC Overvoltage Alarm	Low Temperature Alarm
High System Pressure Alarm	Cabinet Return Air Temperature Probe Fault	Compressor Fault Alarm	External Fan Fault Alarm	Internal Fan Fault Alarm	High Temperature Alarm
Critical Alarm Status	Frequent High Pressure Alarm				

**Bottom Screenshot: Fire control #1**

- Model:** QKP01
- Operational state:**

Main Power Status	Pressure Switch Status	Solenoid Valve Status	Auto/Manual Switch	Delay State	Standby Power Status
Spray Starting Status	Gas Spraying Status	Delay State	Manual Status	Auto Status	Startup
Action	Fault	Fire Alarm			

### Functions:

1. Real-time monitoring of air conditioning temperature, humidity and all operational state.
2. Real-time monitoring of all operating state of the fire protection system.

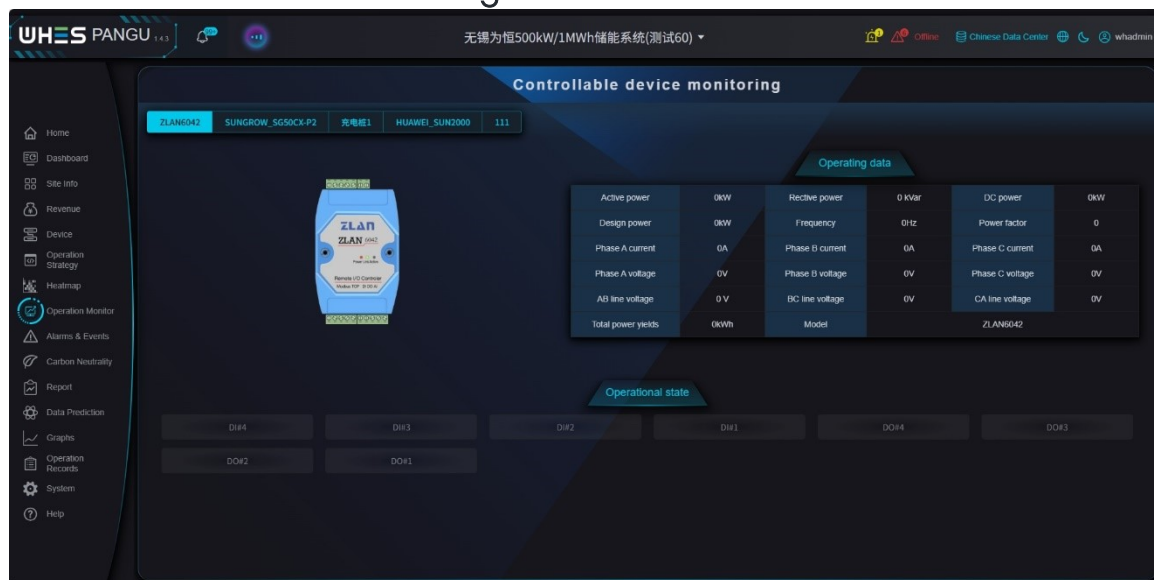
## Operation monitoring of measurement



### Functions:

It supports to monitor and control the high-voltage side meter monitoring data, low-voltage side meter monitoring data and transformer temperature data of the electric meter.

## Controllable device monitoring



It supports to monitor the name, operating data and operating status of controllable devices.

## Meter monitoring

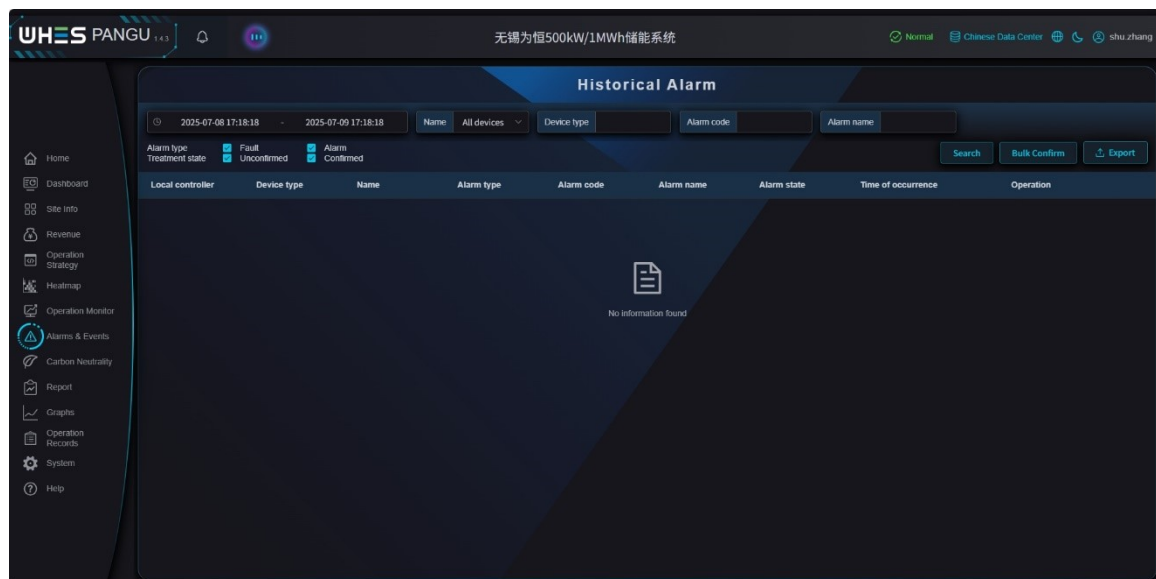


### Functions:

It supports to monitor real-time operational data and status of all electricity meters

## Alarms & Events

### Historical Alarm



### Functions:

1. Search: Support search historical alarm information by time period, device name, alarm name, alarm code and device type.

2. Alarm type/treatment state: Support filtering alarm information by checking "alarm type, alarm processing state".
3. Bulk confirm: Check multiple alarms and click bulk confirm to confirm the selected alarms at the same time.
4. Export: Export alarm information to Excel.

## Historical Event

The screenshot displays the 'Historical Event' page in the UHES PANGU system. The interface includes a sidebar with navigation options like Home, Dashboard, Site Info, Revenue, Operation Strategy, Heatmap, Operation Monitor, Alarms & Events (selected), Carbon Neutrality, Report, Graphs, Operation Records, System, and Help. The main content area shows a table of historical events with the following columns: Local controller, Device type, Name, Type, Code, Event name, Alarm state, and Time of occurrence. The table contains 15 rows of data, including events for BMS (PYLON Bat) and EMS (EMS Kernel) with various states like 'Restored', 'occure', and 'In Progress'. An 'Export' button is visible in the top right corner of the table area.

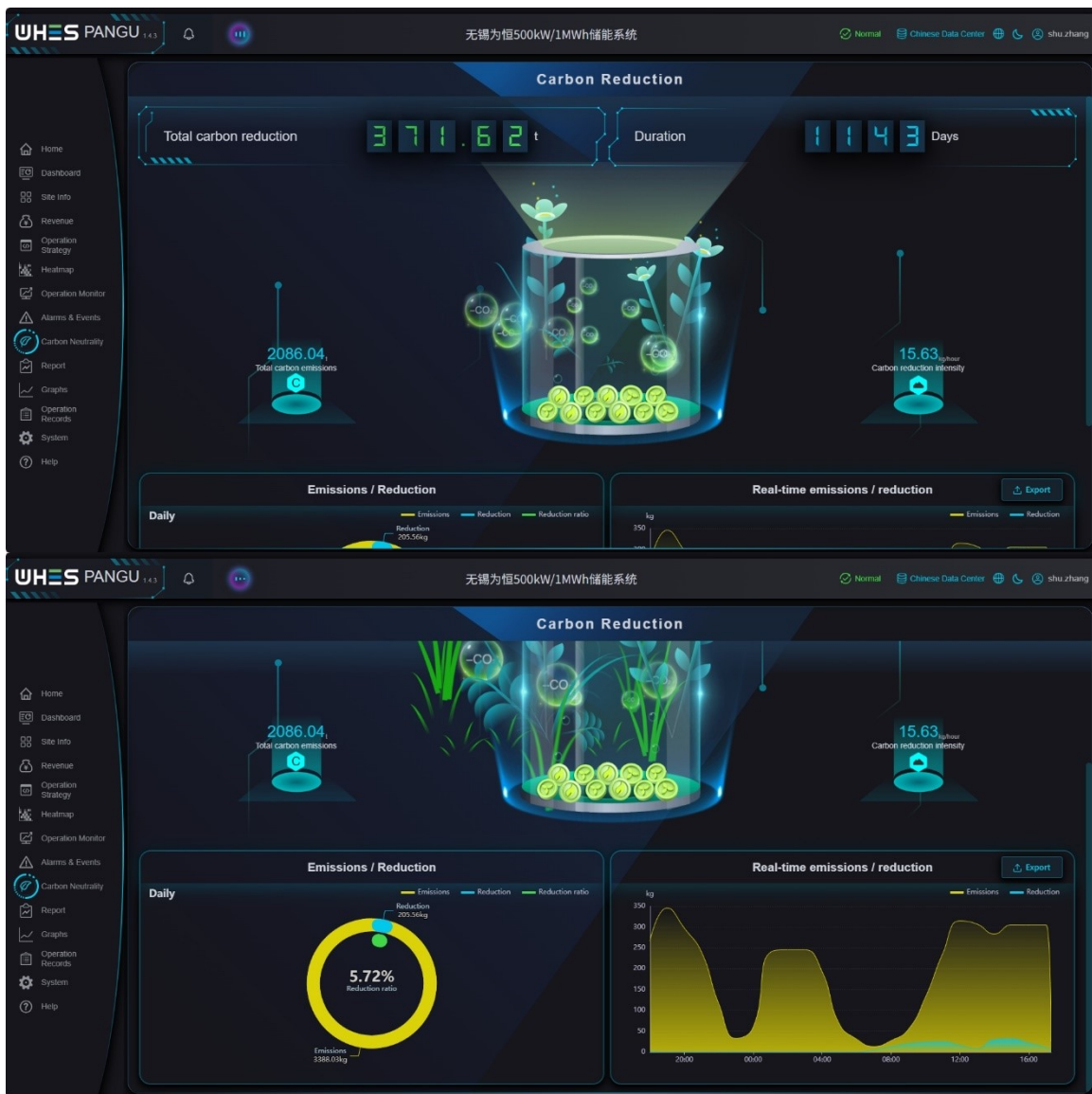
Local controller	Device type	Name	Type	Code	Event name	Alarm state	Time of occurrence
BMS	PYLON Bat	EMS60	Events	1_State_10	Battery Hold State	Restored	2025-07-09 17:00:45.858
BMS	PYLON Bat	EMS60	Events	1_State_12	Battery Discharge State	occure	2025-07-09 17:00:45.858
BMS	PYLON Bat	EMS60	Events	1_State_10	Battery Hold State	occure	2025-07-09 17:00:29.843
BMS	PYLON Bat	EMS60	Events	1_State_11	Battery Charge State	Restored	2025-07-09 17:00:29.843
EMS	EMS Kernel	EMS60	Events	65535_State_2	System Charging In Progress	Restored	2025-07-09 17:00:04.822
EMS	EMS Kernel	EMS60	Events	65535_State_3	System Discharging In Progress	occure	2025-07-09 17:00:04.822
EMS	EMS Kernel	EMS60	Events	65535_State_2	System Charging In Progress	occure	2025-07-09 16:21:51.755
EMS	EMS Kernel	EMS60	Events	65535_State_3	System Discharging In Progress	Restored	2025-07-09 16:21:51.755
EMS	EMS Kernel	EMS60	Events	65535_State_2	System Charging In Progress	Restored	2025-07-09 16:21:47.754
EMS	EMS Kernel	EMS60	Events	65535_State_3	System Discharging In Progress	occure	2025-07-09 16:21:47.754
FMS	FMS Kernel	FMS60	Events	65535_State_2	System Charging In Progress	occure	2025-07-09 16:21:11.696

## Functions:

1. Search: Support search historical events by time period, device name and event type.
2. Export: Click the Export button to export the event information to Excel.

# Carbon Neutrality

## Carbon Reduction



### Functions:

1. This module contains carbon neutral related indicators for the power plant, including carbon emissions, emission reductions, duration days, carbon reduction intensity, carbon reduction ratio and comparison of real-time carbon emissions and emission reductions.
2. Carbon emissions/ reduction donut chart: contains the carbon emissions, carbon emission reductions and the percentage of emission reductions for the day.

- Real-time emissions/ reduction line graph: compares a real-time comparison of today's carbon emissions and reductions.

## Carbon Footprint



### Functions:

The module mainly contains the monthly and annual carbon footprint, which can accurately review the carbon emission and reduction of each day.

## Report

### Daily Report



#### Functions:

1. Search: Search the daily total PV power generation, total power from grid, total grid feed-in, total power consumption, total battery charge, total battery discharge, total alarms, total faults. And PV power generation, power from the grid, grid feed-in, power consumption, battery charge and battery discharge of each hour of the day.
2. Export: Export data to Excel.

### Monthly Report



#### Functions:

1. Search: Search the monthly total PV power generation, total power from grid, total grid feed-in, total power consumption, total battery

charge, total battery discharge, total alarms, total faults. And PV power generation, power from the grid, grid feed-in, power consumption, battery charge and battery discharge of each day.

2. Export: Export data to Excel.

## Annual Report



## Functions:

1. Search: Search the annual total PV power generation, total power from grid, total grid feed-in, total power consumption, total battery charge, total battery discharge, total alarms, total faults. And PV power generation, power from the grid, grid feed-in, power consumption, battery charge and battery discharge of each month.
2. Export: Export data to Excel.

# Daily/Monthly/Annual meter report

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### Daily Meter Report

2025-07-09 | Search | Export

Time	PV meter		Gate meter	
	Power output	Power input	Power input	Power output
00:00-00:59	0kWh	0kWh	0kWh	377.75kWh
01:00-01:59	0kWh	0kWh	0kWh	381kWh
02:00-02:59	0kWh	0kWh	0kWh	381kWh
03:00-03:59	0kWh	0kWh	0kWh	297.25kWh
04:00-04:59	0kWh	0kWh	0kWh	101.75kWh
05:00-05:59	0kWh	0kWh	0kWh	48.25kWh
06:00-06:59	7.94kWh	0kWh	0kWh	20.70kWh
07:00-07:59	20.88kWh	0kWh	0kWh	45kWh
08:00-08:59	12.81kWh	0kWh	0kWh	84.25kWh
09:00-09:59	17.58kWh	0kWh	0kWh	205.75kWh
10:00-10:59	28.75kWh	0kWh	0kWh	369kWh
11:00-11:59	28.88kWh	0kWh	0kWh	485.75kWh
12:00-12:59	11.12kWh	0kWh	0kWh	400.25kWh

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### Monthly Meter Report

2025-07 | Search | Export

Time	PV meter		Gate meter	
	Power input	Power output	Power input	Power output
07-01	0kWh	364.81kWh	0kWh	806.4kWh
07-02	0kWh	339.19kWh	0kWh	8511kWh
07-03	0kWh	382.44kWh	0kWh	857.4kWh
07-04	0kWh	360kWh	0kWh	7590.25kWh
07-05	0kWh	396.75kWh	0kWh	4830kWh
07-06	0kWh	348.81kWh	0kWh	2549kWh
07-07	0kWh	270.38kWh	0kWh	662.7kWh
07-08	0kWh	217.63kWh	0kWh	7535.25kWh

Time	PV meter		Gate meter		Diesel generator meter		Wind turbine meter		Gas generator meter		Cogeneration meter		Universal meter		收益
	PV电表		并网电表99		柴油电表		风电电表1		燃气电表		余热电表		测控电表		
	Power input	Power output	Power input	Power output	Power input	Power output	Power input	Power output	Power input	Power output	Power input	Power output	Power input	Power output	
2025-01	0kWh	4.73MWh	708kWh	96.23MWh	0kWh	0kWh	0kWh	4.73MWh	0kWh	0kWh	0kWh	0kWh	0kWh	0kWh	0
2025-02	0kWh	535.06MWh	498kWh	102.67MWh	0kWh	0kWh	0kWh	1.59GWh	0kWh	0kWh	0kWh	0kWh	0kWh	0kWh	0
2025-03	0kWh	5.48MWh	942kWh	92.72MWh	0kWh	0kWh	0kWh	5.44MWh	0kWh	0kWh	0kWh	0kWh	0kWh	0kWh	0
2025-04	0kWh	9.39MWh	978kWh	107.08MWh	0kWh	0kWh	0kWh	9.39MWh	0kWh	0kWh	0kWh	0kWh	0kWh	0kWh	0
2025-05	0kWh	9.68MWh	1.53MWh	95.37MWh	0kWh	1.68MWh	0kWh	9.68MWh	0kWh	1.68MWh	0kWh	1.68MWh	0kWh	0kWh	0
2025-06	0kWh	5.58MWh	173.62MWh	3.31GWh	0kWh	5.26MWh	0kWh	5.26MWh	0kWh	5.57MWh	0kWh	5.27MWh	0kWh	0kWh	867.23kWh
2025-07	0kWh	2.68MWh	3kWh	54.41MWh	0kWh	2.68MWh	0kWh	2.68MWh	0kWh	2.68MWh	0kWh	2.68MWh	0kWh	0kWh	491.29kWh

## Functions:

1. Query: Query the PV meter discharge and the grid point meter power intake and feed-in at each time period of the day according to the selected date.
2. Query: Query the PV meter discharge and grid point meter power intake and feed-in for each day of the month according to the selected date.
3. Query: Query the PV meter discharge and grid point meter power intake and feed-in for each month of the year based on the selected date.
4. Export: Export the query data to Excel.

## Monthly Meter Reading Report



### Functions:

1. Query: Query the meter's in/out power readings at 0:00 every day and the in/out power of the day according to the selected month.
2. Export: Export the query data to Excel.

## Annual Meter Reading Report



### Functions:

1. Query: Query the meter's in/out power readings at 0:00 on the 1st of each month and the monthly in/out power according to the selected year.
2. Export: Export the query data to Excel.

## Graphs

### Demand Power



### Functions:

1. The page contains: actual demand power, original demand power, control demand power, charge and discharge power, as well as the distribution of peak and valley levels at each time period.
2. Search: Support searching demand power curve by time period.
3. Export: Export demand power data to Excel.

## Max Demand



### Functions:

1. The page contains the maximum demand for the last 12 months for the corresponding group.
2. Search: Support searching the maximum demand by time period.
3. Export: Export the maximum demand data to Excel.

## On-grid power curve



### Functions:

1. The interface includes: EMS active power, EMS reactive power, Target for grid connection point control, real power, original power, load active power, SOC.

2. Query: Support query of grid connection point power curve by time period.
3. Export: Export grid connection point power data to Excel.

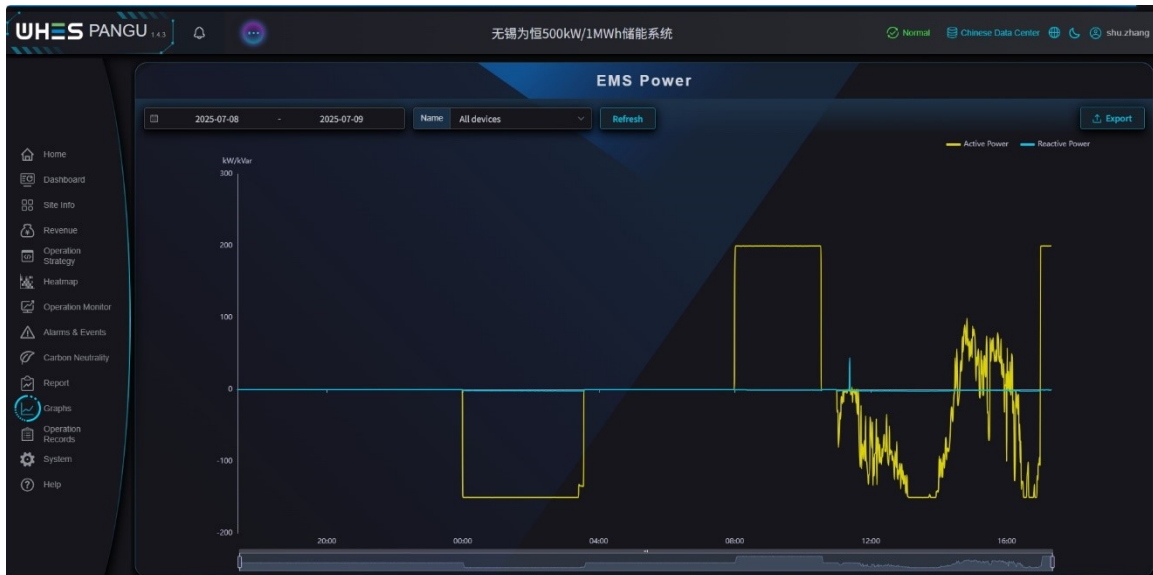
### Charge/Discharge Power



### Functions:

1. This page contains charging and discharging power curve.
2. Search: Support to search the charging and discharging power curve by time period.
3. Export: Export charging and discharging power data to Excel.

### EMS Power



### Functions:

1. This page contains EMS active/reactive power curve.
2. Search: Support to search the power curve by time period.
3. Export: Export EMS power data to Excel.

## Load Power



### Functions:

1. This page contains load power curve.
2. Search: Support to search the load power curve by time period.
3. Export: Export load power data to Excel.

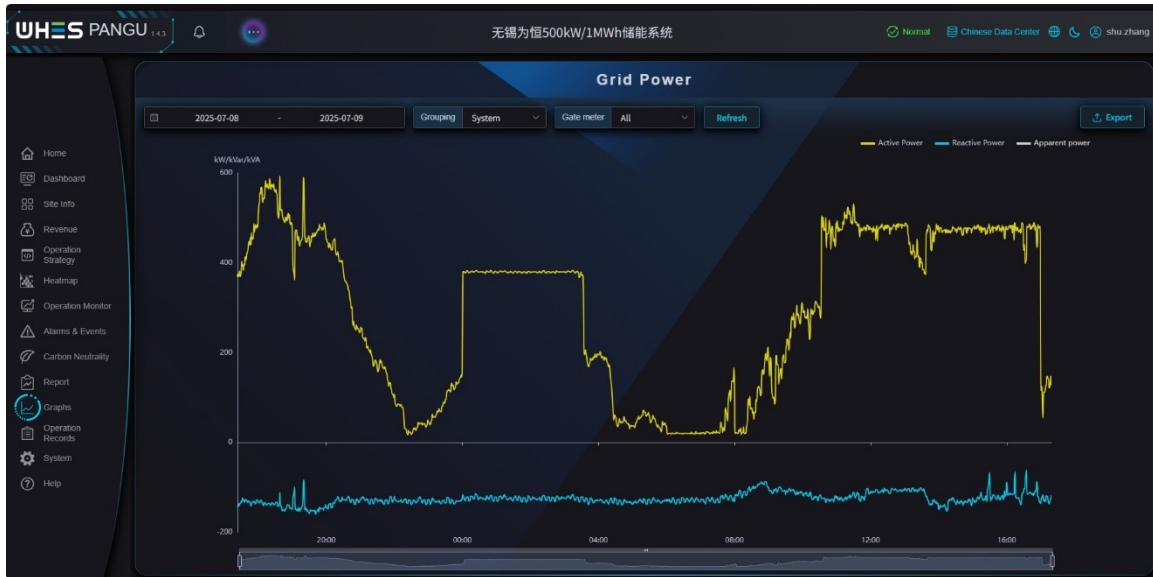
## PV Power



## Functions:

1. This page contains PV power curve.
2. Search: Support to search the PV power curve by time period.
3. Export: Export PV power data to Excel.

## Grid Power



## Functions:

1. This page contains grid power curve.
2. Search: Support to search the grid power curve by time period.
3. Export: Export grid power data to Excel.

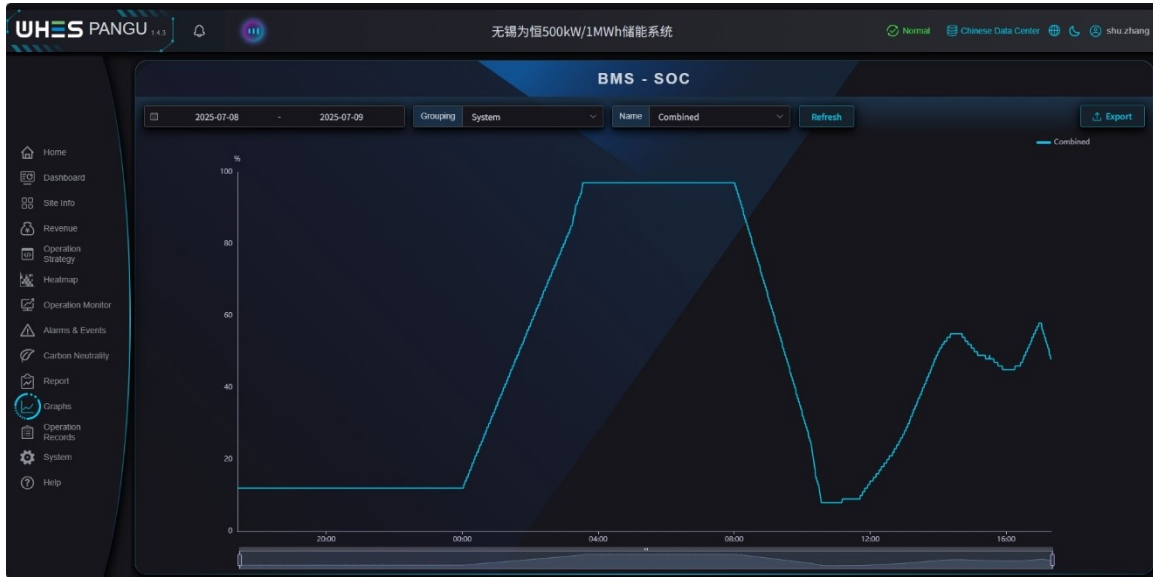
## Grid Power Factor



## Functions:

1. This page contains grid power factor curve.
2. Search: Support to search the grid power factor curve by time period.
3. Export: Export grid power factor data to Excel.

## BMS-SOC



## Functions:

1. This page contains BMS-SOC curve.
2. Search: Support to search the BMS-SOC curve by time period.
3. Export: Export BMS-SOC data to Excel.

## BMS-Voltage



## Functions:

1. This page contains bms voltage power curve.
2. Search: Support to search the power curve by time period.
3. Export: Export bms voltage data to Excel.

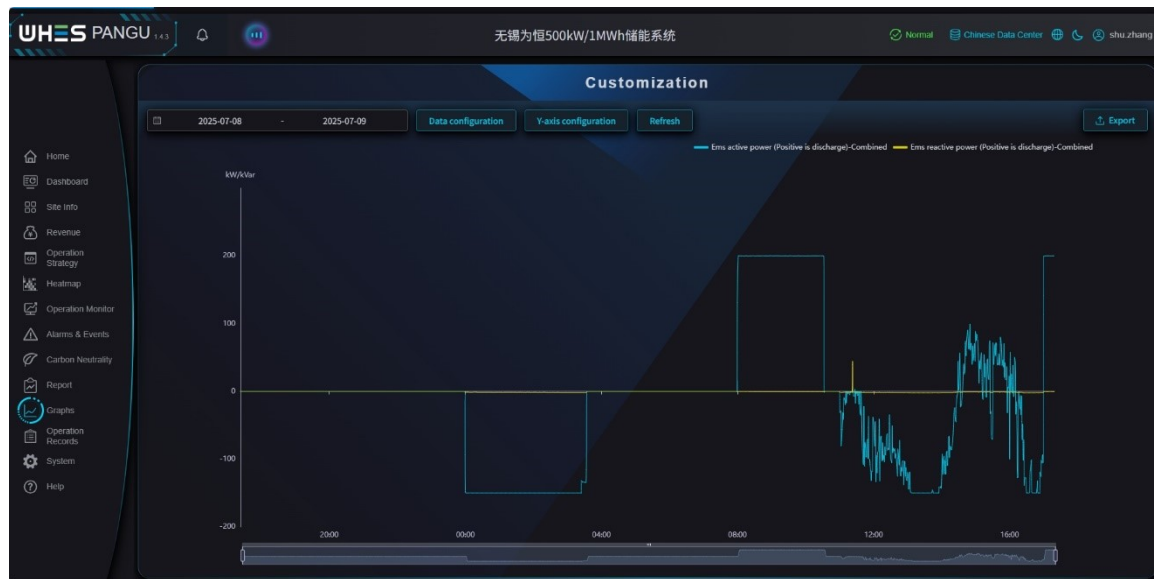
## Cell Voltage & Temperature



## Functions:

1. This page contains cell voltage & temperature curve.
2. Search: Support to search the cell voltage & temperature curve by time period.
3. Export: Export cell voltage & temperature data to Excel.

## Customization

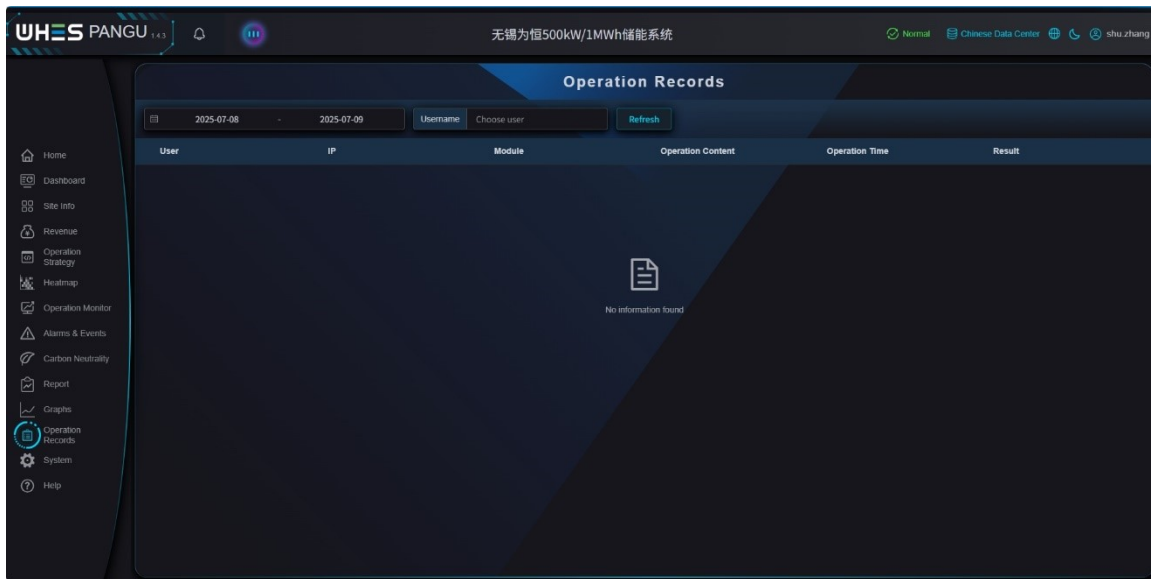


### Functions:

1. This page shows the active power and reactive power curves by default.
2. It supports customizing the displayed curves. Click on "Data Configuration" to select the curves you want to display together.
3. It supports setting the unit and maximum value of the vertical axis. Click on "Y-axis Configuration".

## Operation Records

### Feature Screen:



### Functions:

1. Support querying the operation records of the user themselves and the sub-accounts they have created.
2. The content of the operation record page includes: username, IP address, module, operation details, operation time, and operation result. It supports querying by time period and username.

## System

### System operation control

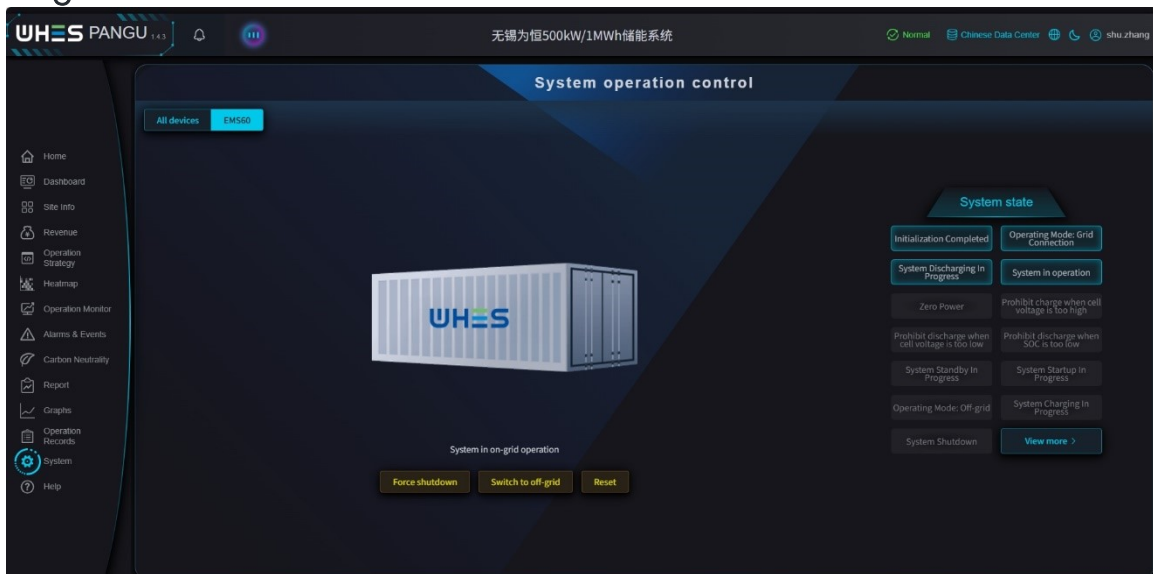
#### All devices



#### Functions:

1. Used to batch start all devices and also able to switch to off-grid mode.
2. If you are about to maintain the field devices, you can turn on the function of field maintenance, and the system status will be switched to system maintenance after turning on the function. After finishing the maintenance, you can click to turn off the maintenance.

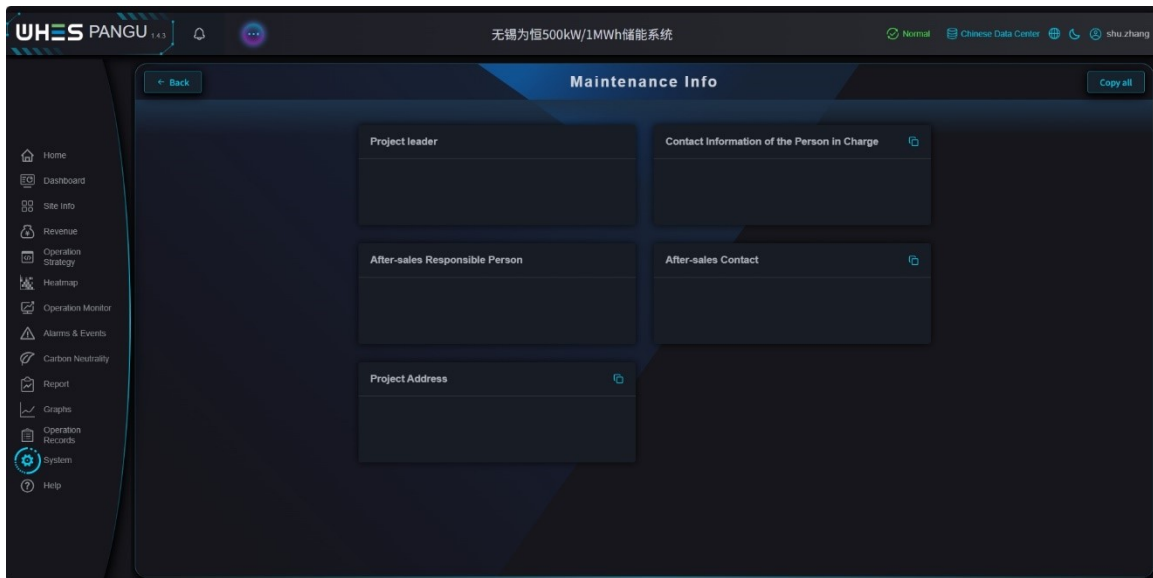
#### Single device



## Functions:

1. Used to force the start-up of specified equipment.
2. Used to forcibly shut down a specified device.
3. Used to view system operating status.
4. Used to reset device.

## Maintenance Info



## Functions:

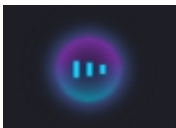
Ability to view information on project leader, leader' s contact information, after-sales leader, after-sales contact information, and project address, and can copy it.

# PANGU AI



## Functions:

1. Hover and click the button in the upper left corner to enter PANGU AI.



2. You can ask about income, battery information, warning information, etc. PANGU AI will analyze and answer.
3. You can click the "Deep Thinking" button to turn on the deep thinking mode.

## *Help*

### **Functions:**

1. Contains the PANGU OS User Manual, where you can view an introduction to the various features of PANGU.
2. Contains the Service Agreement and Privacy Policy, which you need to read and agree to before you can use PANGU, and which can be accessed at any time in the Help section.

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