HANCHU ESS Battery Storage System - **User Guide**

Setting Up Force Discharging to the Grid – Web-Portal

This guide provides step-by-step instructions for configuring force discharging to the grid on your Hanchu ESS inverter system.

Version 1.0

Infinity Innovations | HANCHU ESS

Table of Contents

1. Introduction

This guide will walk you through the process of setting up force discharging to the grid on your Hanchu ESS portal. By configuring discharging during expensive tariff periods, you can maximise your earnings and protect your batteries.. The process involves accessing the portal, navigating to your inverter settings, and configuring your preferred discharging times.

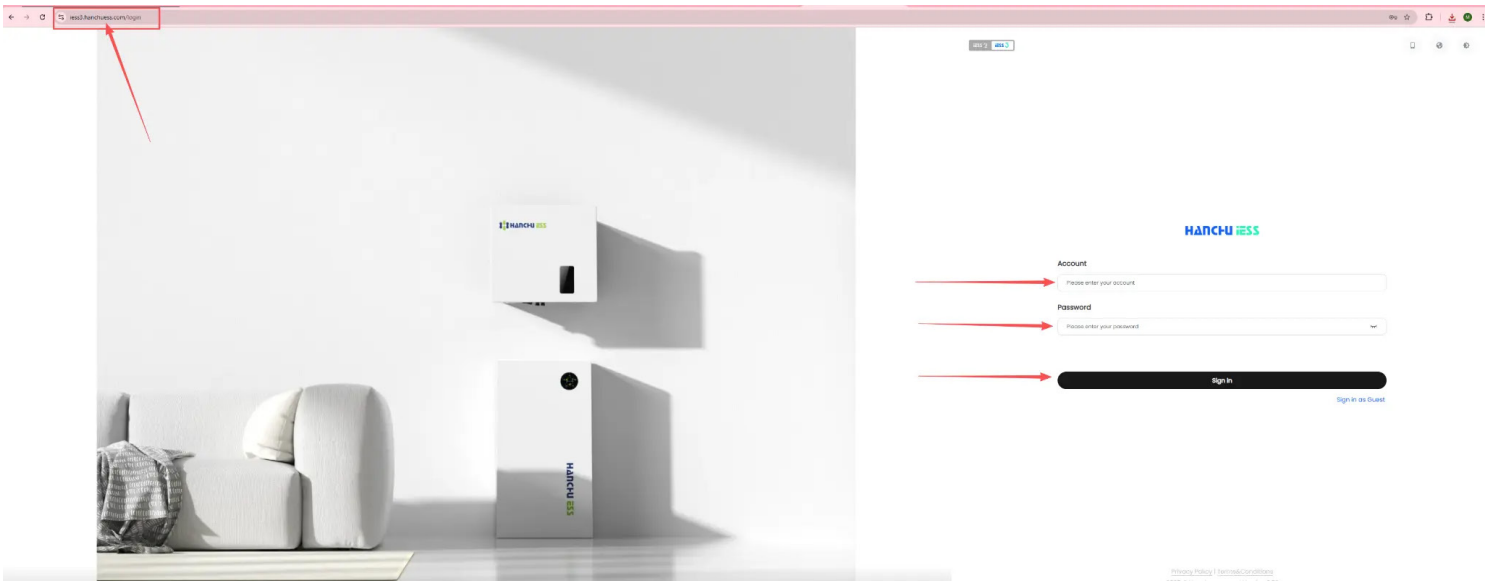
2. Step-by-Step Setup Instructions

2.1 Step 1: Log In to the Hanchu ESS Portal

1. Open your web browser and navigate to: https://iess3.hanchuess.com/login
2. Enter your username and password.
3. Click the Login button.
4. You will be taken to the Home page showing your system overview.

Hanchu ESS Portal Login Page:

Enter your account credentials and click Sign In to access the portal.



2. Step-by-Step Setup Instructions

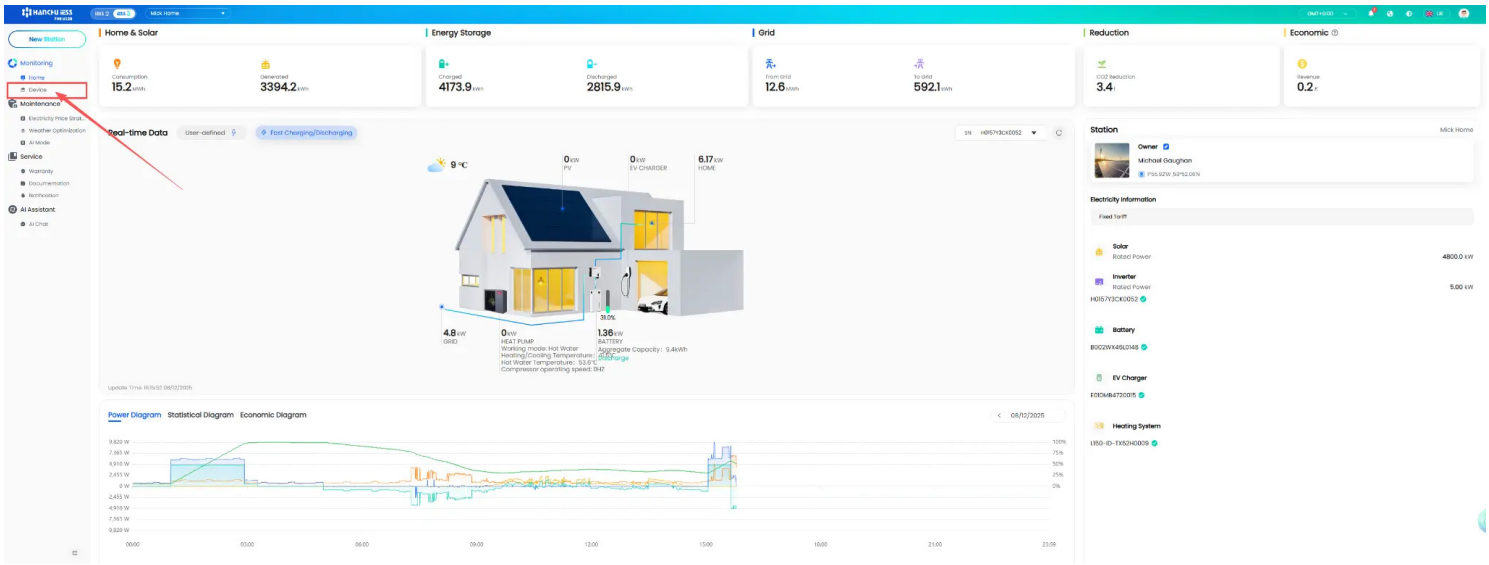
2.2 Step 2: Navigate to Devices

1. On the left-hand sidebar menu, click “Device”.
2. You will see a list of your system components:

- Inverter (top device) - Controls the energy flow
- Battery - Stores your energy
- EV Charger (if applicable) - Charges your electric vehicle
- Heating System (if applicable) - Controls your heat pump

Devices List Page:

The Devices page shows all connected equipment in your system with their current status and real-time energy flow.



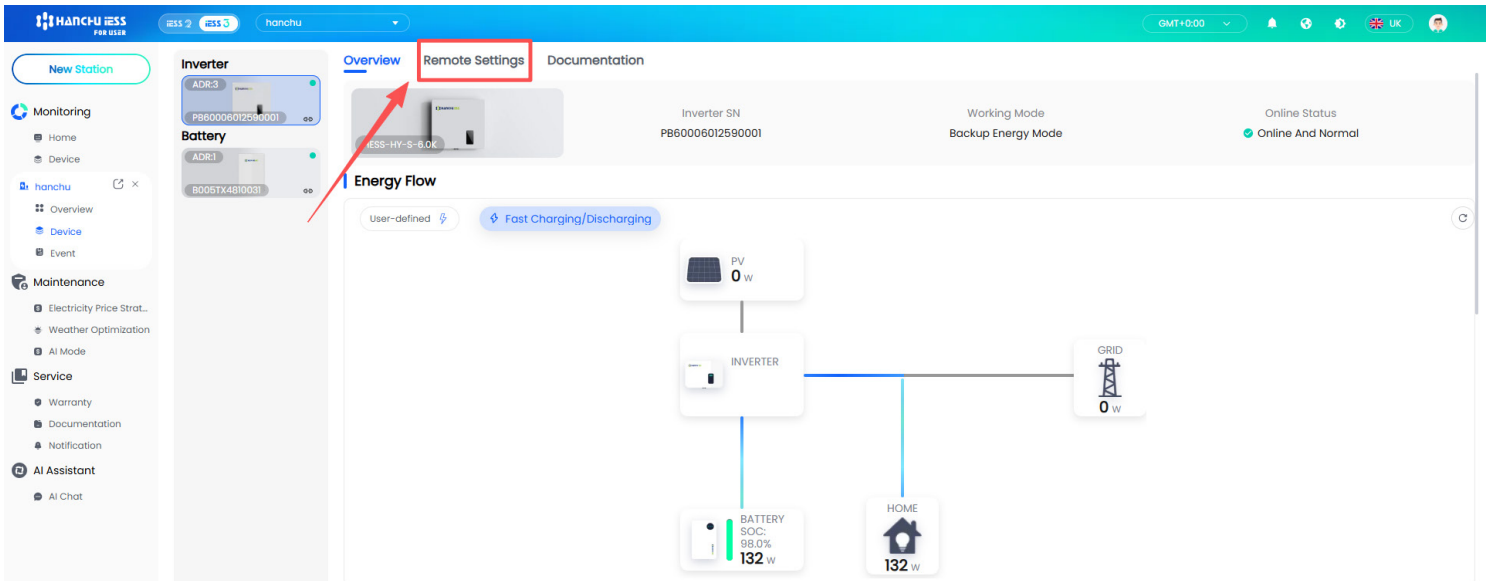
2. Step-by-Step Setup Instructions

2.3 Step 3: Access Remote Settings

1. Click on the Inverter image (the top device in the list).
2. At the top of the page, you will see several tabs.
3. Click on the “Remote Settings” tab.
4. The page will display various configuration options.

Remote Settings Tab:

The Remote Settings page contains all the configuration options for your inverter, including Energy Setup, Electricity Price Strategy, and Weather Optimization.



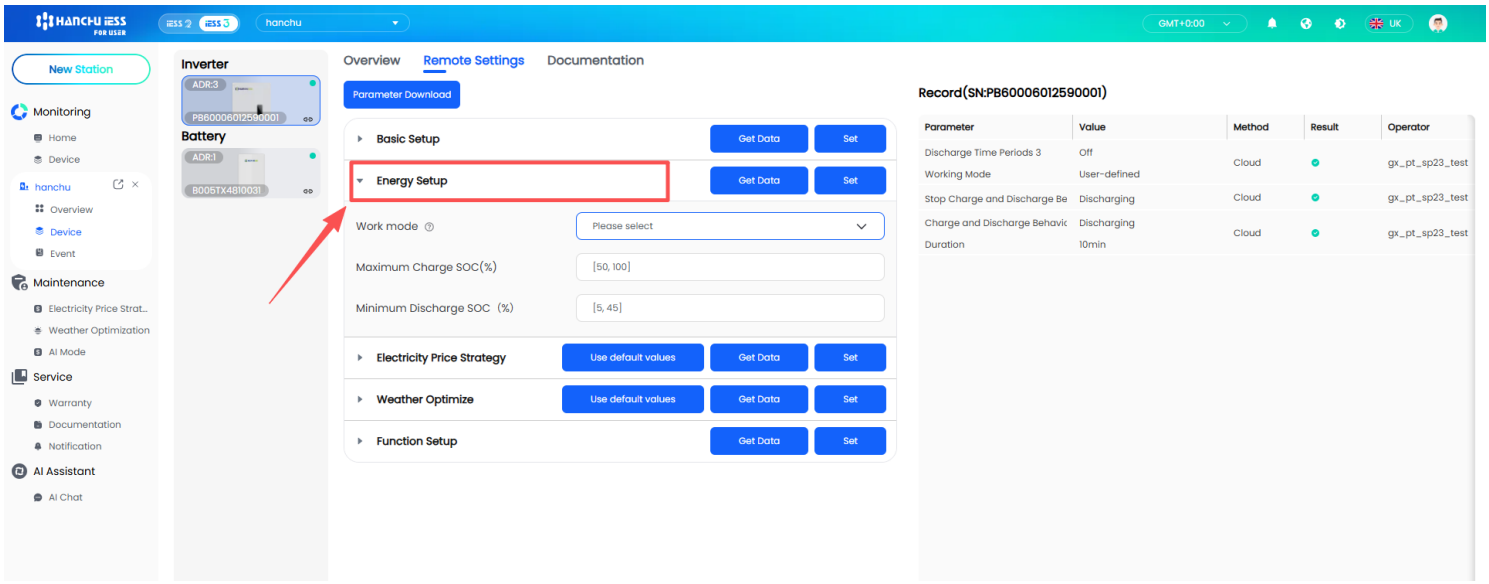
2. Step-by-Step Setup Instructions

2.4 Step 4: Access Energy Setup

1. Scroll down to find the “Energy Setup” section.
2. Click the “Get Data” button to retrieve your current settings from the inverter.
3. Wait for the system to load your current configuration.
4. 4. You will now see the Energy Setup form with various fields.

Energy Setup Section:

The Energy Setup section displays your current charging and discharging configuration. Click “Get Data” to retrieve your current settings from the inverter.



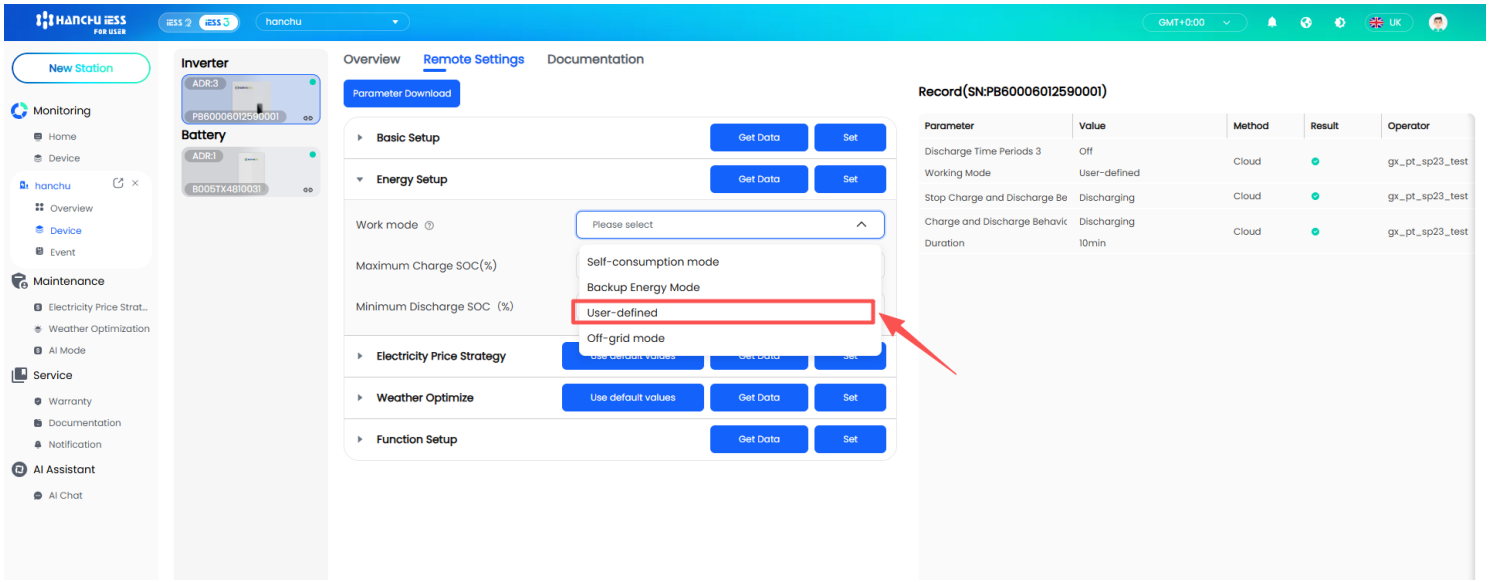
2. Step-by-Step Setup Instructions

2.5 Step 5: Configure Work Mode

1. Look for the “Work mode” field in the Energy Setup section.
2. Ensure it is set to “User-defined”.
3. This mode allows you to create custom charging and discharging schedules based on your tariff times.

Work Mode Setting:

“User-defined” mode gives you complete control over when your battery charges and discharges, allowing you to align it with your electricity tariff.



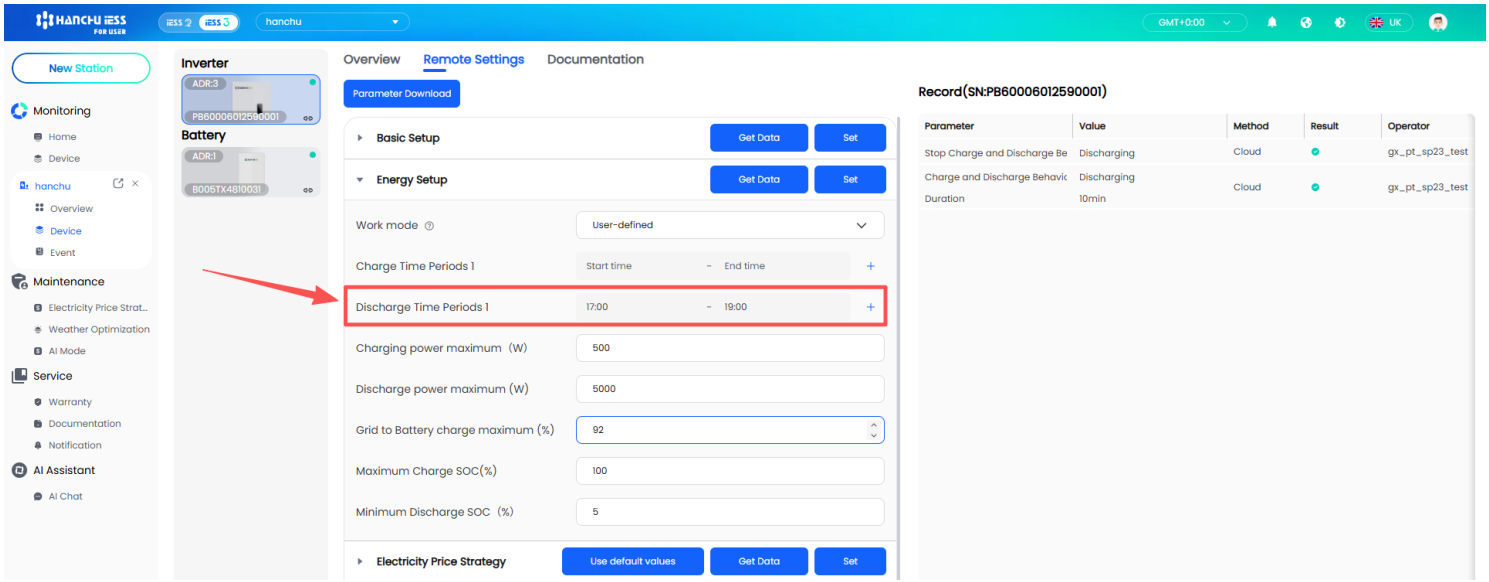
2. Step-by-Step Setup Instructions

2.6 Step 6: Set Your Discharge Time Period

1. Locate the “Discharge Time Periods 1” section.
2. You will see two time fields: Start time and End time.
3. Click on the Start time field and enter the time when your expensive tariff begins (e.g., 05:00 for PM).
4. Click on the End time field and enter the time when your expensive tariff ends (e.g., 07:00 for PM).
5. If you have multiple discharge periods, then simply press the + icon to access more time slots.

Set Discharge Time Period:

Enter your desired start and end times for discharging. In this example, the battery is set to discharge from 17:00 to 19:00.



Example: Setting Times for Expensive Tariffs

If your electricity provider offers expensive rates from 5:00 PM to 7:00 PM, you would set:

Field	Value
Start time	17:00
End time	19:00

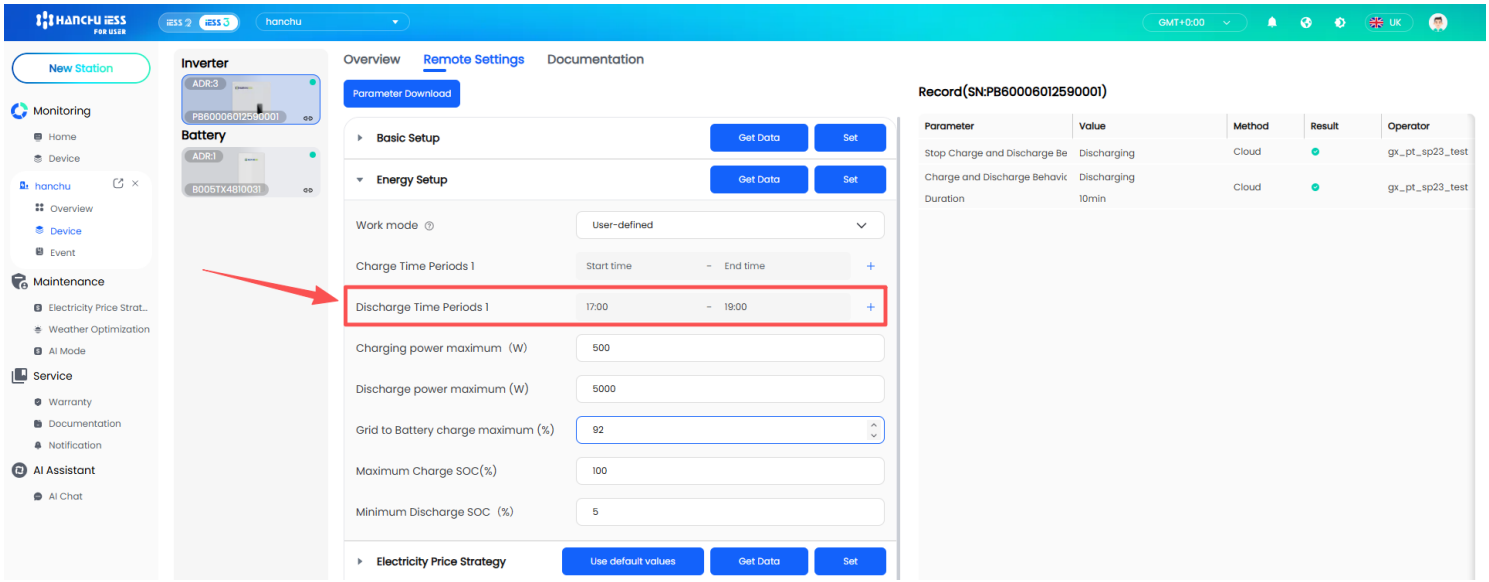
2. Step-by-Step Setup Instructions

2.6 Step 6: Set Your Discharge Time Period

1. Locate the “Discharge Time Periods 1” section.
2. You will see two time fields: Start time and End time.
3. Click on the Start time field and enter the time when your expensive tariff begins (e.g., 05:00 for PM).
4. Click on the End time field and enter the time when your expensive tariff ends (e.g., 07:00 for PM).
5. If you have multiple discharge periods, then simply press the + icon to access more time slots.

Set Discharge Time Period:

Enter your desired start and end times for discharging. In this example, the battery is set to discharge from 17:00 to 19:00.



Example: Setting Times for Expensive Tariffs

If your electricity provider offers expensive rates from 5:00 PM to 7:00 PM, you would set:

Field	Value
Start time	17:00
End time	19:00

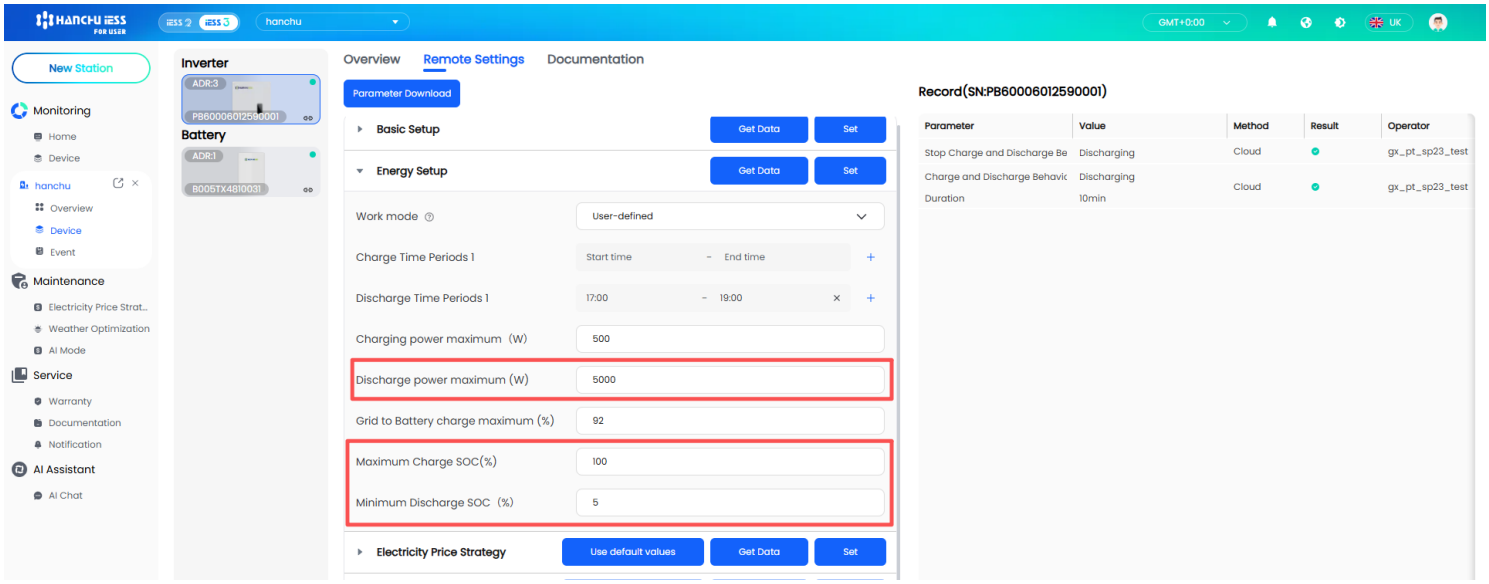
2. Step-by-Step Setup Instructions

2.7 Step 7: Review Other Settings (Optional)

The following settings are typically pre-configured but you can adjust them if needed:

Other Settings Review:

Review the discharging power maximum, maximum charge SOC, and minimum discharge SOC settings. Adjust if needed for your specific requirements.



Setting	Description
Charging power maximum (W)	The maximum power at which your battery will charge (default: 5000W)
Maximum Charge SOC (%)	The maximum state of charge your battery will reach (default: 100%)
Minimum Discharge SOC (%)	The minimum state of discharge before your battery stops discharging (default: 5%)

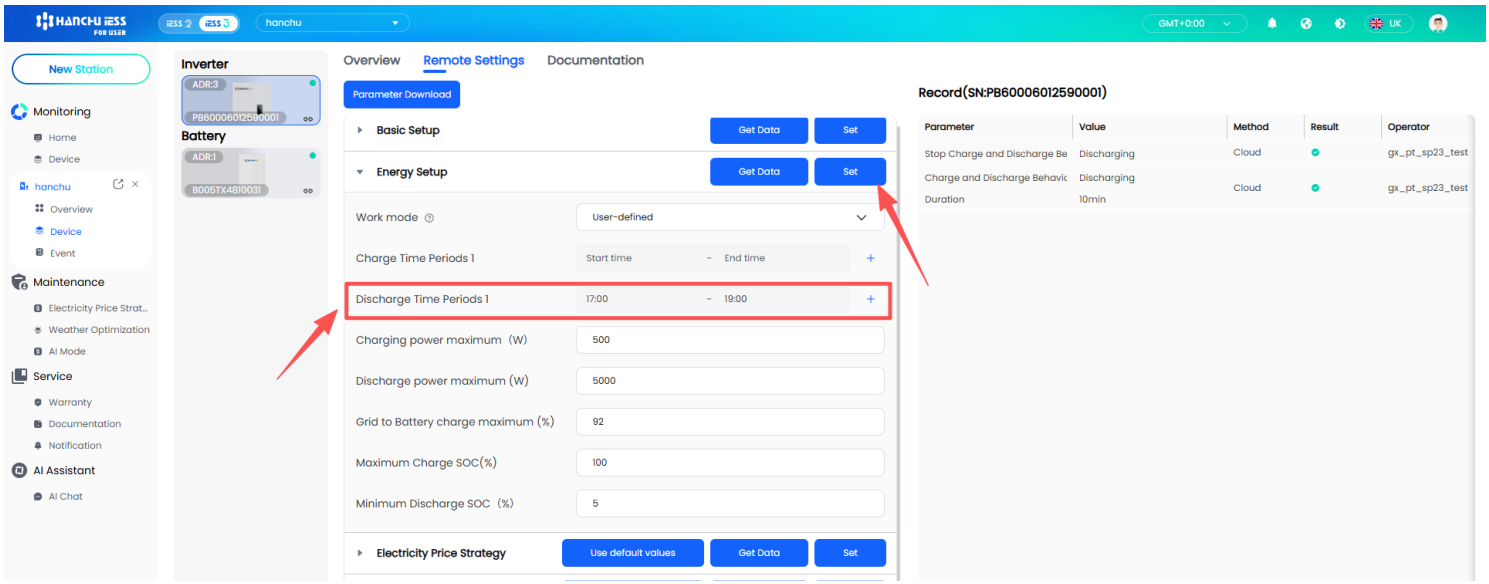
2. Step-by-Step Setup Instructions

2.8 Step 8: Apply Your Settings

1. Once you have entered your desired discharge times, click the "Set" button.
2. The system will process your configuration.
3. You should see a "Success!" message confirming that your settings have been applied.
4. Your battery will now automatically discharge to the grid during your specified expensive tariff period.

Apply Your Settings:

Click the "Set" button to save your discharging configuration. The system will confirm with a success message.



3. Understanding Your Settings

What Happens After Setup

Once you have configured your discharging times, your Hanchu battery system will automatically discharge to the grid during the specified periods. The system communicates with your inverter via the cloud, ensuring your settings are always up to date. You can monitor the discharging process in real-time on the home page of the portal.

Monitoring Your Discharging

Visit the Home page regularly to monitor your battery charging and discharging. The real-time data shows you how much energy is being stored, used, and exported. This helps you understand your energy usage patterns and optimize your settings further.

4. Tips for Maximum Savings

To get the most out of your Hanchu battery system, consider the following tips:

- Align your discharging times with your electricity provider's the most expensive tariff periods.
- Check your tariff schedule regularly, as rates may change seasonally.
- Use the "Minimum Discharge SOC" setting to prevent over discharging.
- Monitor your energy consumption patterns to identify further tariff earning opportunities.
- Consider setting up multiple discharging periods if your tariff has different expensive rates throughout the day.
- Make sure your batteries have enough capacity to store energy when it's cheap so that you can earn a reasonable tariff when it's expensive.

5. Troubleshooting

Settings Not Saving

If your settings do not save after clicking “Set”, check the following: (1) Ensure your internet connection is stable, (2) Verify that your inverter is online, (3) Try clicking “Get Data” again before applying your settings.

Discharging Not Starting at Scheduled Time

If your battery does not start discharging at the scheduled time, verify that: (1) The work mode is set to “User-defined”, (2) The start and end times are correctly entered, (3) Your battery is not fully discharged (check the SOC percentage).

Portal Not Accessible

If you cannot access the Hanchu ESS portal, ensure that: (1) Your internet connection is working, (2) You are using the correct login credentials, (3) Your browser is up to date and JavaScript is enabled.

Need Further Help?

If you encounter any issues not covered in this guide, please contact Hanchu support or your system installer. They can provide additional assistance and ensure your system is operating optimally.