HANCHU ESS Battery Storage System - **User Guide**
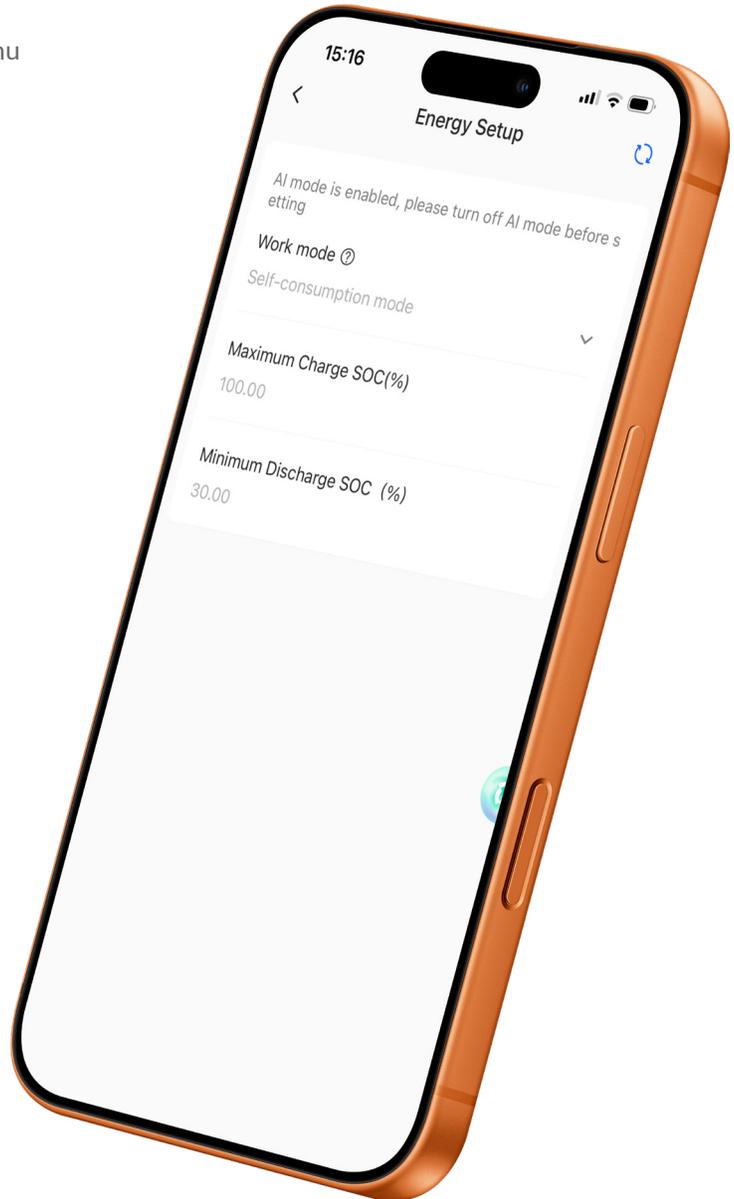
Setting Up AC Charging from the Grid – Mobile App

Infinity Innovations | HANCHU ESS

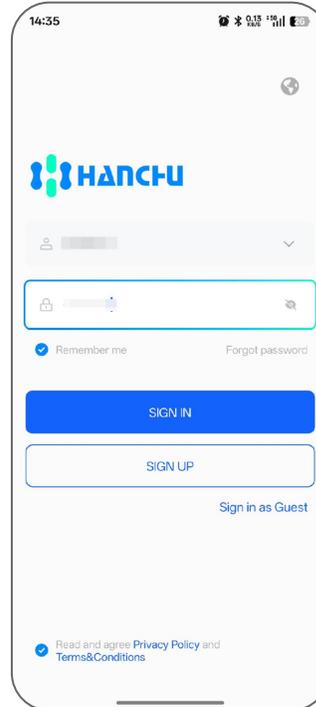# Table of Contents

Infinity Innovations

1. Introduction

This guide provides step-by-step instructions for configuring AC charging from the grid using the Hanchu ESS Mobile App.By configuring your battery to charge during "off-peak" or cheap tariff periods (usually overnight), you can maximize your savings by storing cheap energy to use when electricity prices are high.

2. Step-by-Step Setup Instructions

2.1 Step - 1: Log In to the App

1. Open the Hanchu ESS App on your smartphone.
2. Enter your username and password.
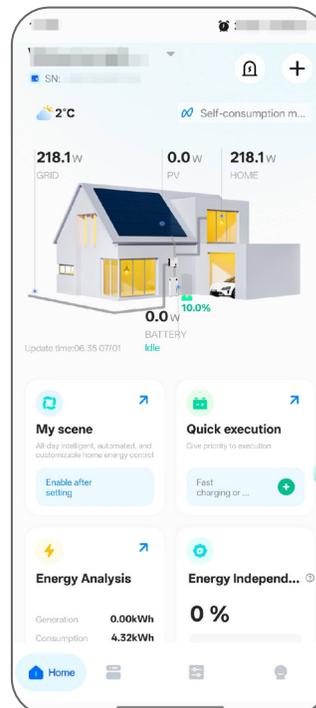3. Tap the SIGN IN button.

**Hanchu ESS
Mobile App Login Page:**

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

2.2 Step - 2: Navigate to Device Settings

1. Once logged in, you will see the Home dashboard.
2. Tap the Device tab located at the bottom of the screen.

Devices List Page:

In the device list, tap on your Inverter (usually indicated by the serial number starting with 'H' and the Inverter icon).

2. Step-by-Step Setup Instructions

2.3 Step - 3: Access Remote Control

1. You are now on the Inverter Details page.
2. Locate the blue button at the bottom of the screen labeled Remote control and tap it.
3. This will open the configuration menu.

Remote Settings Tab:

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

2.4 Step - 4: Configure Work Mode

To set specific charging times, you must first change the inverter's working mode.

1. In the Remote control menu, tap Energy Setup..
2. Tap on Work mode (currently it may say "Self-consumption mode").
3. A pop-up menu will appear. Select User-defined.
4. Tap Confirm to apply this change.

   Note: "User-defined" mode is required to enable custom time-based charging.

Work Mode Setup Section:

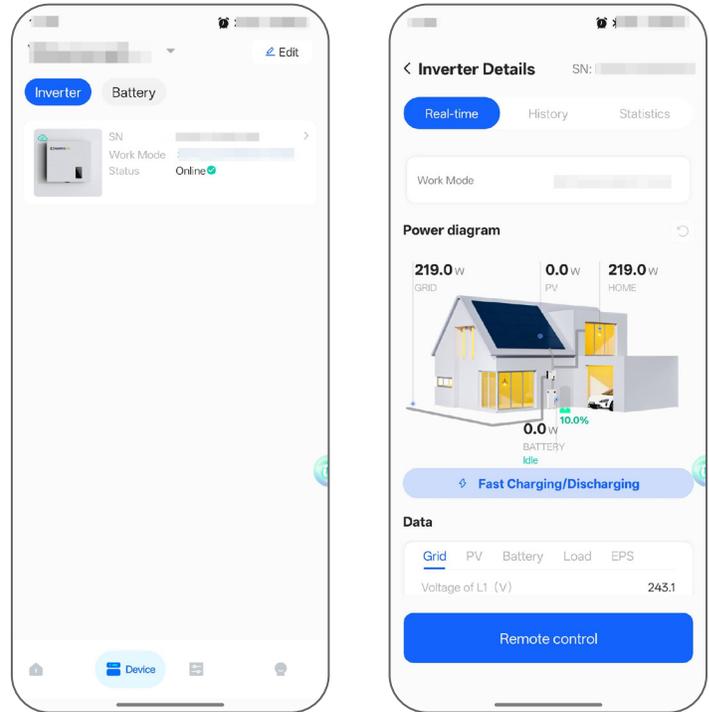"User-defined" mode is required to enable custom time-based charging.

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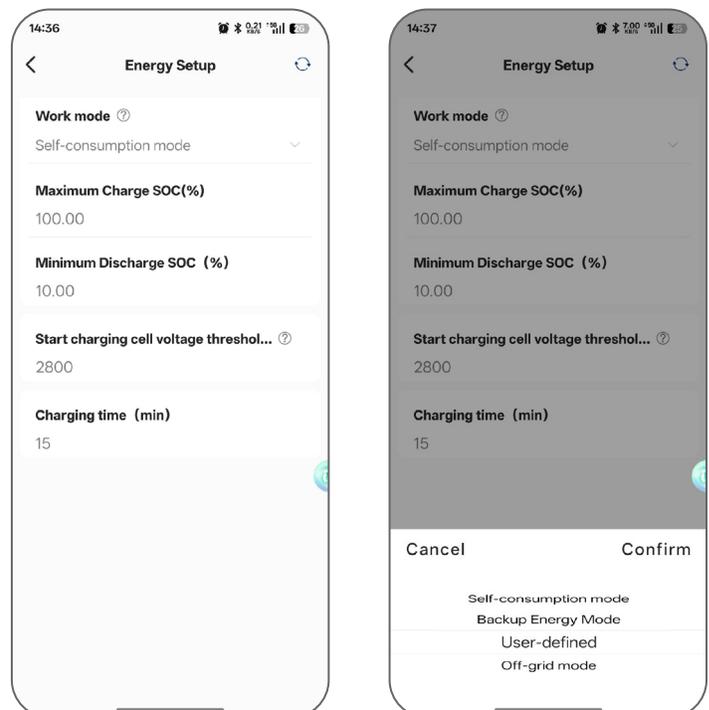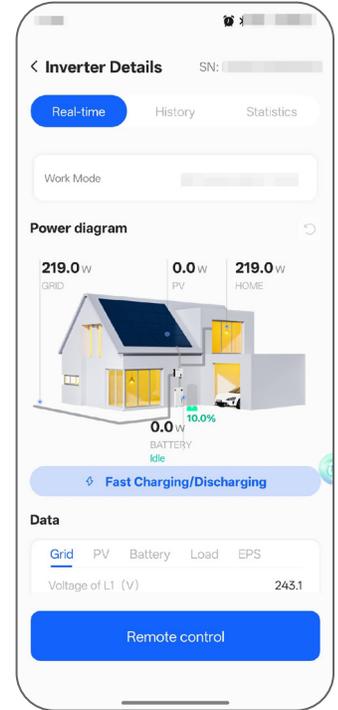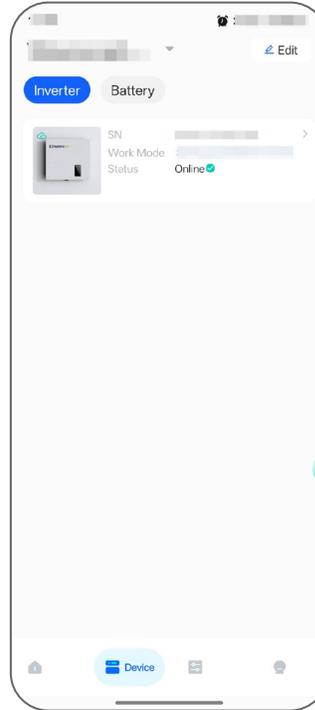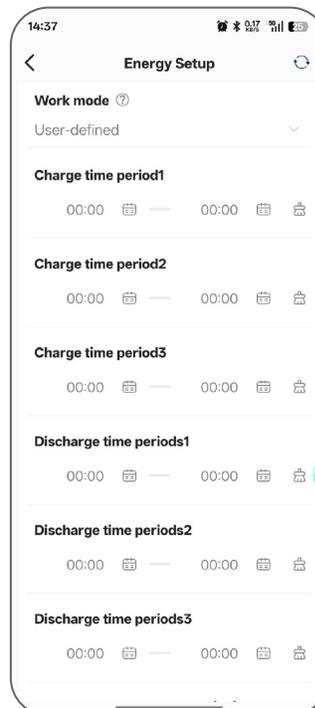
2.5 Step 5: Set Your Charge Time Period

Now that User-defined mode is active, you can set the specific times for the battery to charge from the grid.

1. In the Energy Setup menu, look for Charge time period1..
2. Tap the time fields to set your Start Time and End Time.

   Example: If your cheap tariff is from 00:30 to 04:30, set the left box to 00:30 and the right box to 04:30.
3. Ensure the "Enable" switch (or checkbox) for that period is turned on if applicable.

   Important Note: You only need to configure the Charge time. You do not need to set the Discharge time (leave it as 00:00 - 00:00); the system will automatically discharge to supply your home loads during any period outside of the set charging time.

Energy Setting:Example: Setting Times for Cheap Overnight Tariffs

If your electricity provider offers cheap rates from midnight to 4:30 AM, you would set:

Field	Value
Start time	00:01
End time	04:30

2. Step-by-Step Setup Instructions

2.6 Step 6: Review Parameters

Before finishing, ensure your battery parameters are set to allow a full charge. Scroll down on the Energy Setup page to check:

Review the charging 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 charge before your battery stops discharging (default: 5%)

Once all settings are correct, look for the **Save** or **Confirm** button (usually at the top right or bottom of the screen) to send these settings to the inverter.

3. Understanding Your Settings

What Happens After Setup

Your system will now automatically draw power from the grid during the times you set in "Charge time period1". During this time, the battery will charge up to 100%.

Monitoring Your Charging

You can verify it is working by checking the Home tab on the app during your scheduled charge time. You should see power flowing from the Grid to the Battery.

Weekly Force Charge Recommendation

If you are primarily charging your battery from solar power and only occasionally from the grid, it is recommended that you enable a forced charge once per week. This ensures that your battery is fully charged and properly calibrated, which maintains the accuracy of the battery management system and extends the longevity of your battery. A forced charge can be set up in the Energy Setup section by adding an additional charging period that ensures a full charge cycle.

4. Tips for Maximum Savings

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

- Align your charging times with your electricity provider's cheapest tariff periods.
- Check your tariff schedule regularly, as rates may change seasonally.
- Use the "Maximum Charge SOC" setting to prevent overcharging during low-demand periods.
- Monitor your energy consumption patterns to identify opportunities for further savings.
- Consider setting up multiple charging periods if your tariff has different cheap rates throughout the day.
- Ensure your battery has sufficient capacity to store energy during cheap periods for use during expensive periods.
- Enable weekly forced charges if relying primarily on solar power to maintain battery calibration and extend battery life.

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.

Charging Not Starting at Scheduled Time

If your battery does not start charging 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 already fully charged (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.