QuiPower Web App
User Manual

Take charge

⚠ **NOTE!**

Original QuiPower Web App User Manual. Revised: 2024-01-10

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1.   About the QuiPower Web App

Welcome to the user manual for the QuiPower web app. This guide aims to provide a detailed understanding of the web app's capabilities for controlling and managing the QuiPower storage system. Utilizing this potent tool enables the monitoring of energy usage, the tracking of solar panel production, the regulation of connected car chargers, and the customization of energy-saving modes. Our web app optimizes energy consumption and offers advanced features to adapt to market prices, sell stored energy, and control external units such as SG-Ready devices.
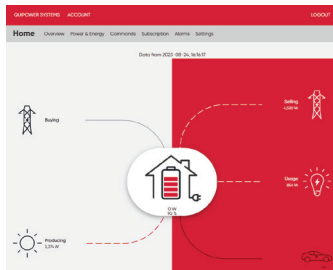

1.1.   Overview of Features

1. **Energy Usage and Solar Production Overview**: The QuiPower web app provides an overview of individual energy consumption patterns, facilitating informed decisions regarding usage. Furthermore, it enables easy monitoring of energy production from solar panels.

2. **Car Charger Control:** Manage connected car chargers effortlessly through the web app. A few taps allow for the control and scheduling of charging sessions, enhancing convenience and optimizing energy use.

3. **Saving Modes and Energy Allocation:** Tailor energy-saving modes to align with specific preferences and objectives. The web app offers a selection of different strategies to adapt the system behavior for maximum energy savings. It provides the flexibility to reduce costs, decrease grid reliance, or increase self-consumption, catering to various priorities and needs.

4. **Market-Driven Energy Management:** As an added option, the QuiPower web app can interact with energy market prices to further optimize individual energy usage. By connecting to the electricity market, users can access day-ahead pricing for electricity, thus facilitating the adjustment of energy consumption based on market fluctuations. This feature reduces energy use and cost by leveraging favorable pricing periods.
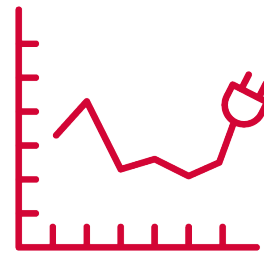
5. **Stored Energy Sale and External Unit Control:** The QuiPower web app introduces additional options to enhance energy management capabilities. It facilitates the sale of stored energy, providing a way to monetize excess power generated by the system. Additionally, the web app takes charge of external units, including SG-Ready devices, offering seamless integration and expanded functionality within the energy ecosystem.

The QuiPower web app empowers users to take control of their energy storage system, optimizing energy usage, reducing costs, and promoting sustainability. With its comprehensive set of features, including energy usage and solar production monitoring, car charger control, saving modes, market-driven energy management, stored energy sale, and external unit control, this app provides a solution for efficient energy management. We hope this user manual serves as a valuable resource, guiding all users through the web app's functionalities and assisting in harnessing the full potential of the energy storage system.
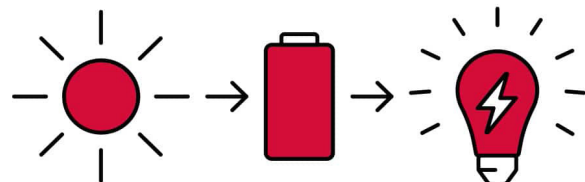
2.   Accessing QuiPower Web App

QuiPower offers a variety of options for accessing its features, guaranteeing a seamless and convenient energy management experience for all users. Whether a user prefers using a mobile device or a web browser on a computer or laptop, QuiPower accommodates all preferences.

Access the **QuiPower web app** through any web browser on a mobile device, computer, or laptop by following these steps:

1. Launch a preferred web browser on the device.
2. In the address bar, type the QuiPower web app URL, https://portal.enequi.com.
3. Press Enter or Go to navigate to the QuiPower web app.
4. Once on the website, enter username and password, and click on to "LOGIN" button to access the web app.

Please note that accessing the QuiPower web app requires a QuiPower account. For those without an account, it is possible to create one within the mobile or web app during the registration process.

3.   Registering a QuiPower Account

Create an account to access the features of the QuiPower web app. The registration process is quick and straightforward, facilitating an efficient start in managing energy usage. Follow the steps below to register and create a QuiPower account:

1.   Launch the QuiPower app on a smartphone or open a web browser on any device and go to the QuiPower portal by entering the URL: https://portal.enequi.com.

2.   On the QuiPower LOGIN page, locate and tap the "Register" button.

3.   Please provide the following information:

  –   **Email:** Specify an email address for communication and account verification purposes.

  –   **Name:** Enter the user's first name.

  –   **Last name:** Enter the user's last name.

  –   **Password:** Create a secure password for the QuiPower account. Make sure to choose a combination of uppercase and lowercase letters, numbers, a special letter, and a minimum of eight characters to enhance the security of the account.

4.   Click on the QuiPower user terms and privacy policy links. Read these documents carefully to understand the terms of service and the data handling policy. Consent to the terms by marking the corresponding approval box.

5.   Finally, click or tap the "REGISTER" button to complete the registration process.

After successful registration, access to the QuiPower account becomes available. Remember to keep the account credentials secure and confidential.

3.1.   Email Verification

Email verification is a necessary step for validating the QuiPower account.
To verify the email address follow the steps below:

1.   Check the email account inbox for a message titled "Verify your email address" from Enequi support. Please note that the email may take a few moments to arrive. Also, remember to check the spam folder if it ended up there.

2.   Upon opening the email, find the "Verify your email address" link. Activate the email verification process by clicking the provided link. This action confirms the email address's association with the QuiPower account.

4.   QuiPower Mobile App

The QuiPower mobile app is still undergoing a forthcoming series of changes and updates. Enequis' goal is continuous app enhancement to facilitate the optimal user experience.

The mobile app integrates seamlessly with our latest energy control device, the QuiPower Node. This integration will unlock additional functionalities and enhance energy management capabilities.

We appreciate all our users' patience as we work towards enhancing the QuiPower mobile application to provide efficient energy management.
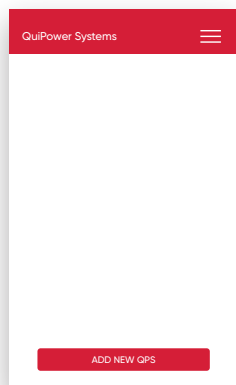
The QuiPower app has two main sections: **Devices** and **Energy**. The Devices section, represented by the bulb icon, controls the QuiPower Nodes. The Energy section, represented by the flash icon, manages the QuiPower storage.

Select one of the icons at the bottom of the app interface to access either of these sections.

Download and install the QuiPower mobile app on a mobile device by following these simple steps:

For iOS Devices:

1. Launch the App Store on any iOS device.
2. Search for "QuiPower" using the search bar.
3. Locate the QuiPower app in the search results.
4. Tap the "Get" or "Download" button next to the app.
5. Allow time for the app to be downloaded and installed onto the device.
6. Following installation, locate the QuiPower app on the home screen.

For Android Devices:

1. Launch the Google Play Store on any Android device.
2. Search for "QuiPower" using the search bar.
3. Locate the QuiPower app in the search results.
4. Tap the "Install" option to download and install the app.
5. Wait while the app finalizes the installation process.
6. After installation, find the QuiPower app in the app drawer or on the home screen.

5.   Main Page

The main page of the QuiPower web app serves as the central hub for accessing various sections and functionalities.
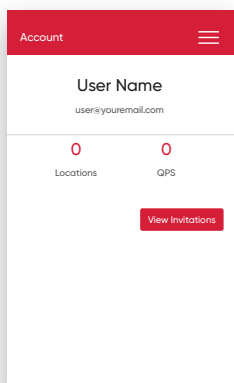
5.1.   QuiPower Systems

The Systems section displays an overview of all the added QuiPower systems, facilitating the seamless management of multiple systems.

QuiPower Systems	☰
ADD NEW QPS	
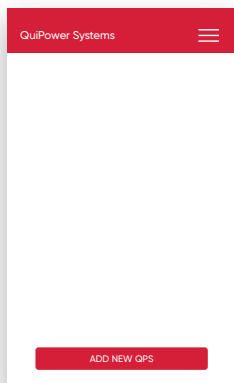
5.2.   Account

The Account section grants access to and facilitates the review of personal information linked to a QuiPower account. In this section, details such as name and email address are visible, helping to ensure the account information remains up to date.

Account	☰
User Name	
user@youremail.com	
0	0
Locations	QPS
	View Invitations

5.2.1.   View Invitations

Moreover, the Account section harbors a feature for receiving and addressing invitations from other QuiPower system owners, promoting collaborative efforts and the exchange of energy data.

Invitations	☰
Invitations	
No Invitations found	
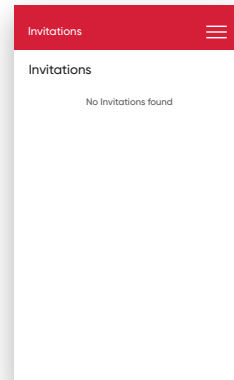
5.3.   Logout

To ensure the security of the QuiPower account, a Logout button is available on the main page. This functionality aids in securing account logout, safeguarding data, and preserving privacy when the portal is not in active use.

Logout
Are you sure you want to logout?
CANCEL   LOGOUT
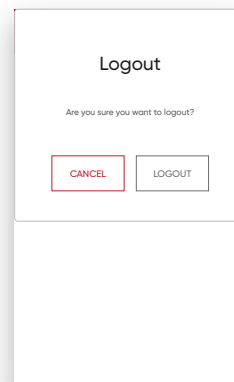
5.4. Adding a New System

To add a new QuiPower system to an account, follow these step-by-step instructions:

1. On the QuiPower System page, tap the **"Add New QPS"** button.

2. Provide the following additional information for the new system:

   – **Serial Number:** Locate the serial number on the equipment label or within the QuiPower interface.

a) Equipment Label:
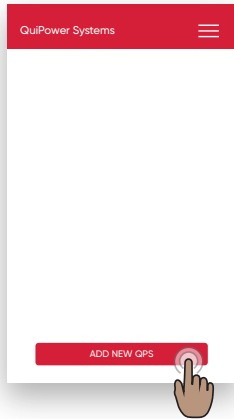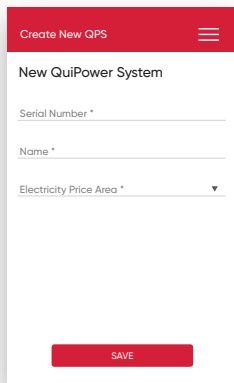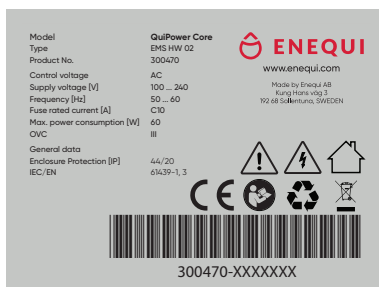Find the unique serial number below the barcode on the equipment label (e.g., 300470-XXXXXXX).

b) QuiPower Interface:
For those unfamiliar with connecting and using the QuiPower Interface, please refer to the QuiPower Interface manual.

Navigate to the "Alarm" screen in QuiPower and select the alarm icon. Enter the serial number displayed at the bottom accurately.

⚠️ **NOTE!**
Please make sure to enter the serial number accurately, including both capital and lowercase letters.
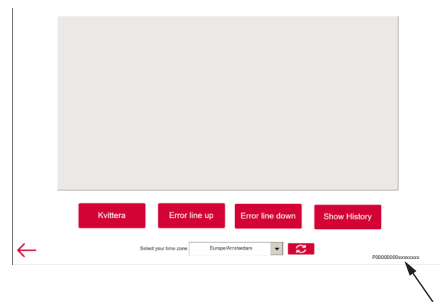
   – **Name:** Give the system a name, such as "Basement Home".

   – **Electricity Price Area:** Select the relevant geographical electricity pricing area for installing the QuiPower system. Currently, the selection is limited to electricity price areas in Sweden.

3. Tap the "Save" button to store the provided information and to register the new system in the account.
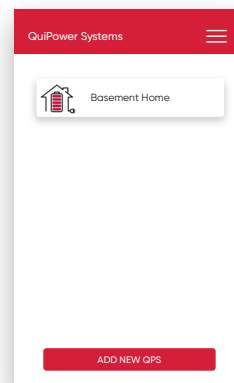
Please note that the steps provided may vary slightly depending on the specific version of the QuiPower app. However, the general process of adding a new system remains consistent.

6. QuiPower Navigation Bar

The QuiPower app features a comprehensive navigation structure.

From the main page, locate and select "QuiPower Systems.". This section facilitates the selection of the specific system one desires to access.
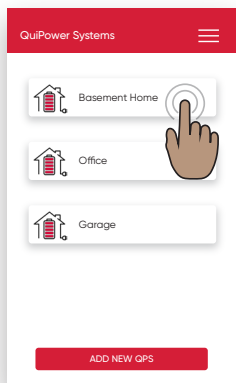
The sections of the navigation bar are as follows:

- Overview
- Power & Energy
- Commands
- Subscriptions
- Alarms
- Settings

Future chapters of this manual will cover detailed descriptions of the Commands section.

Navigating through the bar is straightforward.
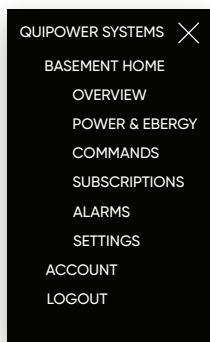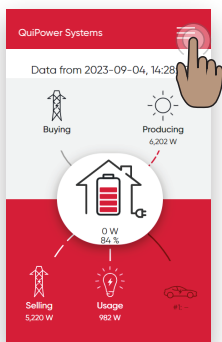
6.1. Overview
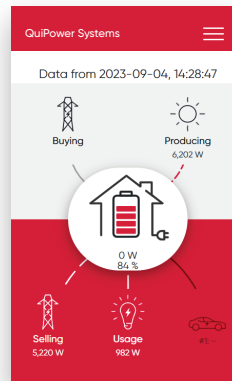
The "Overview" section provides real-time insights into the following data:

Buying
Power drawn from the grid in Watts.

Producing
Power generated by the solar panels in Watts.

Energy Storage SoC
State of Charge, SoC, in percentage, charge or discharge energy in watts.

Selling
Power sold back to the grid in Watts.

Usage
Power consumed in Watts.

Car
Power consumption for Car 1 & Car 2 in Watts.

The dynamic lines in the graphical representation depict the flow of power.

6.2.   Power & Energy
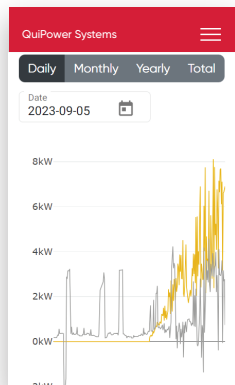
The "Power & Energy" section offers a visualization of aggregated data extracted from the "Overview" section. The data is divided and can be analyzed in different periods: daily, weekly, monthly, and total sum.

Multiple graphs are available, each capable of standalone viewing or simultaneous display. It is possible to select specific charts from the list on the right-hand side.
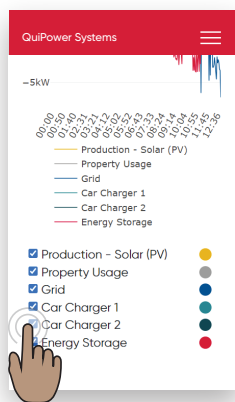
Furthermore, hovering over specific points on a graph will reveal exact values in the chosen time frame.
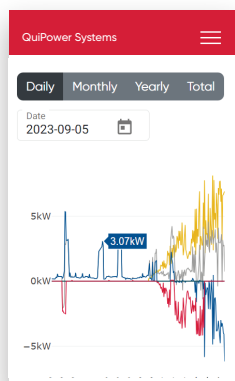
6.3.   Subscriptions
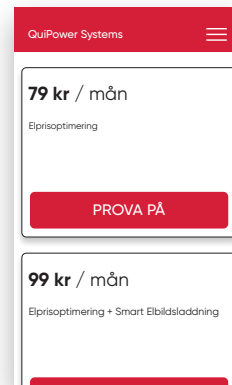
QuiPower system offers an additional service called Day-Ahead price optimization, which optimizes electricity consumption based on current and next-day prices. The system is connected to NordPool's day-ahead prices, which helps to predict future costs by combining weather forecasts and real-time energy use data. This approach uses self-produced and stored electricity and lower-priced grid purchases to maximize savings.

For more information, please visit www.enequi.com.

6.4. Alarms

This section shows a detailed log list of all system alarms.

1. Select the desired period of the alarm history.
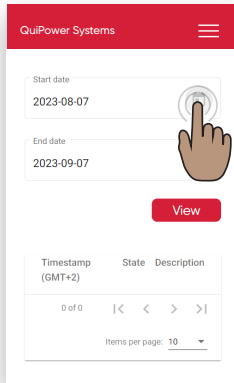
2. Click "view."
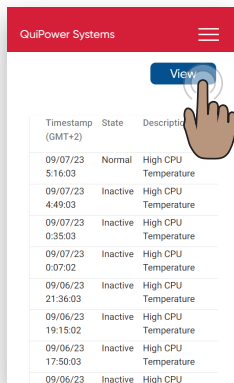
3. The list provides timestamped records, status updates, and descriptions for each alarm.

The system automatically dispatches alarm notifications to the designated email address. While most fault codes are autonomously resolved by the system, in the event of a persistent fault code, we recommend contacting Enequi Support for additional assistance.

6.5. Settings

This section includes information about the system details, commissioning settings, and managing invitations to other users.

System Information
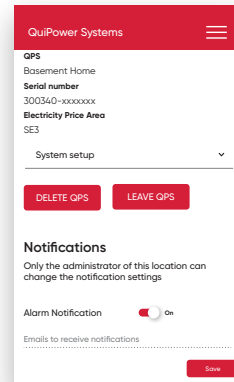
This portion holds crucial data regarding the system, such as its designation, serial number, and the designated electricity price region.

System Setup
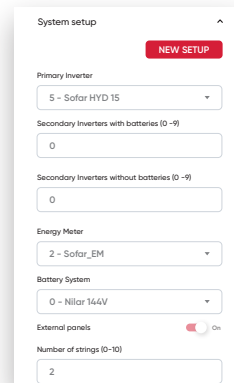
Allows to review the system's configuration and to initiate a new setup procedure by activating the commissioning process. Detailed step-by-step instructions for this process are available later in this manual.

Leave QPS

This function facilitates the detachment of the chosen system from one's QuiPower account, subsequently revoking access to the QuiPower Storage systems' settings and historical data. After transferring the admin rights to another user, an admin can leave a QuiPower system.
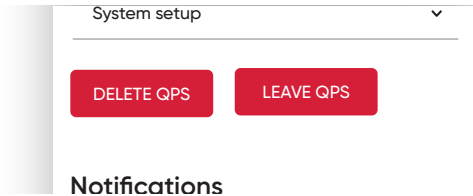
Delete QPS

This action erases the chosen system from the QuiPower database, consequently disconnecting the system from the user's account. Only an admin possesses the right to delete a QuiPower System. Restoring the system through the app necessitates a fresh registration via QuiPower Systems/add new.

Notifications
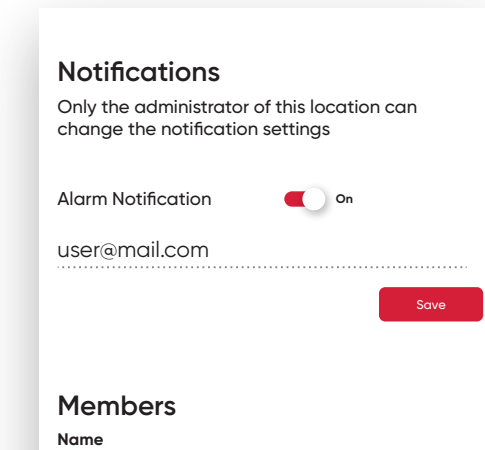
When Notifications is activated, the system will send alarm notifications to the designated address.

Add a registered QuiPower account email address to receive all notifications.

Please note that only administrators can add or modify email addresses for receiving notifications emails.

1. Click on the input box and enter the desired email address.
2. Click SAVE.

Members
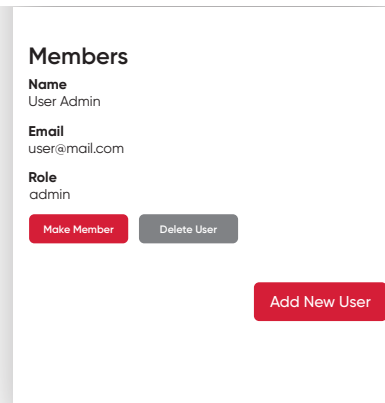
This section facilitates the extension of invitations to additional users, entrusting them with access to the system and enabling role management capabilities.

1. Tap on "Add New User."
2. Enter the user's email address.
3. Choose their role, either "Admin" or "Member."
4. Confirm by tapping "Invite."
5. Upon receiving the invitation, the user can access it under "**Account**/**View**." If the invited user doesn't already have a QuiPower account, they must register a new QuiPower account to proceed.

7.   Commands

This section contains a categorization of essential functions that are necessary for efficient management of the QuiPower Storage System. The functions are grouped into categories to make them easily accessible and facilitate management processes.
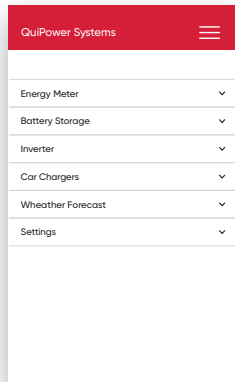
Please be aware that certain functions may be hidden or unavailable depending on the system configuration.

Input Box

Use an input box to define or adjust the value of a setting. To set a value:

1. Select the designated input box.
2. Enter the desired value.
3. Confirm the entry by tapping "SET" to save the changes.

Please refer to the individual setting descriptions for information on acceptable values.

Toggle Button
This feature provides a straightforward mechanism for activating or deactivating distinct functionalities. Engage a function by shifting the switch to the "On" state. Move it to the "Off" stance to turn off a function.

 Enable/Available/Allowed

 Disable/Unavailable/Prohibited

7.1.   Energy meter
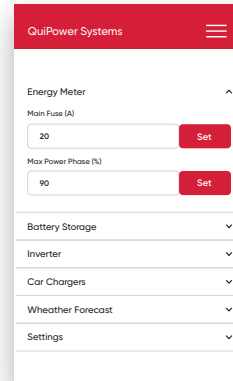
Main Fuse
Value for installed main fuse.

Main Power/Phase
Percentage of main fuse usage. Use to protect the main fuse from overheating and to balance car charging function to other loads.

Default and recommended setting is 90%.

7.2.   Battery Storage
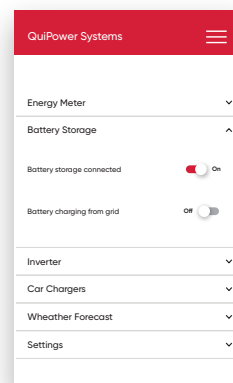
Battery Storage Connected
⚠ **NOTE!**
- This setting must be enabled to use ***Energy saving mode/Power Peak Priority*** or ***Settings/ Balancing with Day-ahead price optimization.***

Connect or disconnect the battery storage by activating or deactivating the contactors.

 Enable

 Disable

Battery Charging from Grid

Allows battery storage to charge from the electricity grid.

🔴 **On** Enable

Off ⚪ Disable

7.3.   Inverter
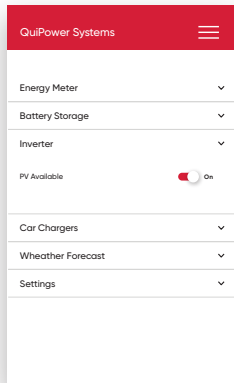
PV Available

Make this function:

🔴 **On** Available

    a) When solar panels are connected directly to QuiPower inverter.

    b) When external panels are connected to the QuiPower system.

    c) To enable the function of ***Car charging from own production*** to be available.

Off ⚪ Unavailable

    When the QuiPower inverter only needs to operate as a battery inverter.

7.4.   Car Chargers
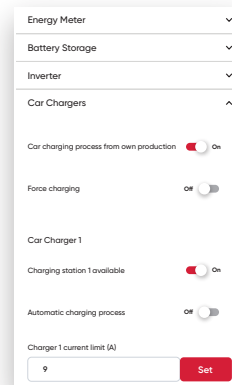
Car Charging Process from Own Production

The system only initiates the vehicle charging when the solar panels generate excess energy. If there is no over production, the car will not commence charging.

🔴 **On** Allowed

Off ⚪ Prohibited

Force Charging

🔴 **On** Enable

    When enabled, the system allows to initiate the charging process manually, bypassing all energy-saving settings. The system utilizes all accessible energy sources to facilitate charging.

Off ⚪ Disable

    The system returns to following energy saving modes and other settings.

Charging Station Available

🔴 **On** Charging unit available

Off ⚪ Charging unit unavailable
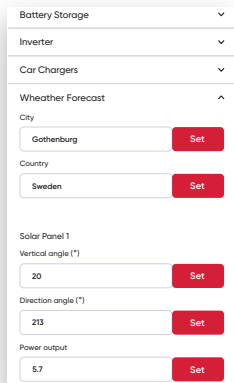
Automatic Charging Process

This feature grants the system full autonomy in deciding car charging initiation and termination times.

Charger Current Limit (A)

Value to limit car charging current.

7.5.   Weather forecast

City

Municipality where the QuiPower system is installed.

Country

National area where the QuiPower system is installed.

Solar Panel

Vertical Angle [°]

Vertical angle between solar panel and horizontal plane.

Direction Angle [°]

Cardinal direction of solar panels.

Power Output [kWp]

Rated power output of the solar panels.

7.6. Settings
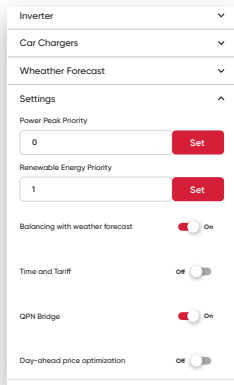
Energy Saving Mode

⚠ **NOTE!**
- Check the electricity company's invoice for the subscribed tariff type.

Variable peak pricing	All year around Every day of the week	All year around Only Monday to Friday	None	November to March
	Priority	Priority	Priority	Priority
Power Peak	1	1	0	2
Renewable Enegy	0	2	1	1

Power Peak Priority
This function is relevant for those charged under their electricity company's "Variable Peak Pricing" tariff.

– Priority 1 should be set for a year-round "variable peak pricing" tariff.
– Priority 2 should be set if "variable peak pricing" is in effect only from November to March.

⚠ **NOTE!**
- Activating the "Time and Tariff" function and setting the tariff hours via the interface is necessary.
- This feature requires enabling the *Battery Storage/Battery storage connected* function.

Renewable Energy Priority
This function applies to situations without variable peak pricing charges from the electrical company.

– Set priority 1 when there's none "variable peak pricing" tariff.
– Set priority 2 when the "Variable peak pricing" tariff applies only from Monday to Friday.

Balancing with Weather Forecast
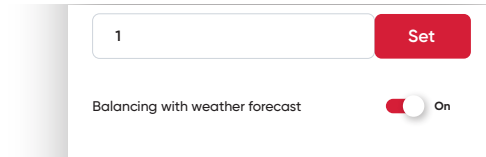
The weather forecast service is always active in the background and is part of various calculations and algorithms.

Time and Tariff
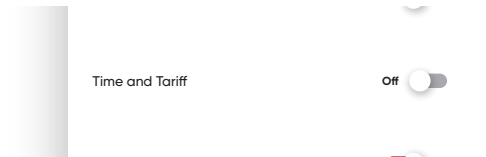
⚠ **NOTE!**
- Configure the *Time and Tariff* settings through the QuiPower interface.

Activate the *Time and Tariff* function to consider the time settings in the system calculations.

QuiPower Node Bridge
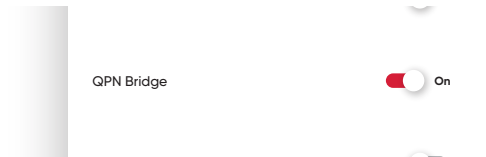
The QuiPower Node (QPN) Bridge is an accessory that enables communication between the QuiPower System and QuiPower Nodes via Bluetooth.

When QPN Bridge is activated, the system will control the Nodes based on the Mix price list or the time slots set by the Time and Tariff feature.

QuiPower mobile app handles the Nodes provisioning, configuration, and specific function assignment. Nodes set to the "Day-ahead price" scenario will turn on when the price ranges fall below the daily average price multiplied by the maximum designated comfort factor for car chargers and SG-control. In all other intervals, the Nodes will receive an off signal.

⚠ **NOTE!**
- In case of communication failure with the QPN Bridge. turn the function off and on to re-establish communication.

7.6.1. Day-ahead Price Optimization
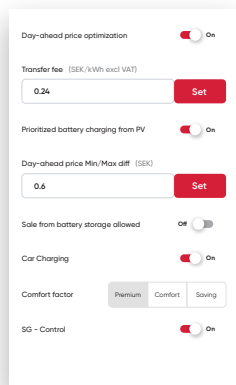
⚠ **NOTE!**
• This feature requires enabling the **Battery Storage/ Battery storage connected** function.

Day-ahead price optimization is a subscription service that facilitates control over energy storage charging and discharging, vehicle charging, and heating system management through integrated relay systems.

When activated, this service performs calculations to dictate the intervals for the controls mentioned above based on Day-ahead prices and the consumption data from the previous week. This data is fetched daily from the Enequi Cloud at 16:00.

Price Lists
Every day, two price lists are generated based on the Day-ahead prices sourced from Nordpool:

- **Only Import**: This list considers *imported electricity* from non-stationary consumers, such as car chargers.
- **Mix**: This one considers *imported* and *exported electricity* for stationary consumers, like energy storage and heating systems, based on the anticipated production at various intervals.

Electricity Cost Calculation
The cost for both *imported* and *exported electricity* follows the below structure:

- **Imported electricity**: (Day-ahead price + variable transfer fee + energy tax) x VAT
- **Exported electricity**: (Day-ahead price + contribution + net benefit)

Charge and Discharge Guidelines:
Charging: Permitted only during price ranges falling below the daily average price multiplied by the maximum designated *comfort factor* for car chargers and SG-control.

Discharging: Allowed exclusively during price ranges exceeding the daily average price multiplied by the utmost designated *comfort factor* for car chargers and SG control.

Comfort Factor
Comfort factors play a role in directing the car charger and SG control. The minimum chosen factor limits battery upkeep, including cell balancing and boosting to spare SoC.

The factors are as follows:

- Premium: 1.08
- Comfort: 1
- Save: 0.92

Operational Decisions
The system favors the lowest hourly prices from the *Only Import* list when deciding when to charge the energy storage battery.

Should the **Balancing with weather forecast** feature be engaged, the system will opt for the **Mix price list**.

The choice of intervals is influenced by the lowest price in conjunction with the energy availability during that hour, measured against the main fuse size. Furthermore, the battery specifications, including its type, size, and preset charging current limitation, determine the number of intervals.

Transfer Fee [SEK kWh excl. VAT]

Transfer fee (SEK/kWh excl VAT)

0.24   Set

The Transfer Fee is an important factor in calculating the cost of *imported electricity*. It is a fee charged by the grid owner and can be found in the electricity bill in SEK, excluding VAT. The amount of this fee varies among different network owners.

Prioritized Battery Charging from PV

Prioritized battery charging from PV   On

The "Prioritized Battery Charging from PV" feature optimizes energy usage and pricing through power balancing. This feature also applies to businesses that don't benefit from grant portions but use this function to sell self-produced energy or, when believed, the most economical option.

On Enabled

When enable, the system only charges the energy storage during periods anticipating production export, disregarding the price range. It restricts battery charging to excess production in expected production export hours. Should the projected export energy fall short, charging sources from the grid are at the lowest price range.

Off Disabled

When disable, the system resorts to the most economical price range to charge energy storage, leveraging self-production and grid supply. It maintains battery charging from surplus production in expected production export durations.

Day-ahead Price Min/Max diff [SEK]

Day-ahead price Min/Max diff (SEK)

0.6   Set

The peak and minimum price variance must meet or exceed the designated value for the battery to respond to the Day-ahead price. With a lowered price difference, standard operation is engaged for Renewable energy, meaning the battery charges using solar energy and discharges to accommodate nighttime consumption.

Sale from Battery Storage Allowed

Sale from battery storage allowed   Off

On Allowed

The system selects intervals with the highest hourly prices for discharge, and the discharge is carried out with the calculated discharge power. Any excess power that is not required for personal consumption is exported to the grid.

Off Prohibited

The system selects intervals with the highest hourly rates for discharge, but discharge only begins when there is a need for consumption. The amount of discharge is determined by personal consumption.

Car Charging
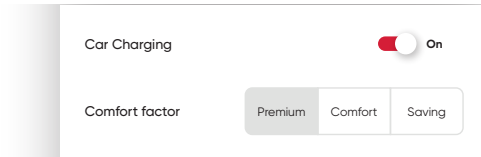
Upon Car Charging activation, the charger receives a start signal if the current hourly price exceeds the *factor product* value.

To obtain the value of the *factor product*, multiply the average daily price by the *comfort factor*.

- With "*Car Charging Process from Own Production*" turned on, both the local car charger (LAN) and the external charging box (relay contact) will follow the *Mix* price list.

- Conversely, when the "*Car Charging Process from Own Production*" is off, the local charger and the external charger will follow the *Only Import* price list.

- However, when self-production occurs while the "*Car Charging Process from Own Production*" remains off. In that case, the local charger will follow the *Mix* price list.

Comfort Factor

The *comfort factor* controls the initiation and termination of car charging processes. The system interfaces with car chargers locally through LAN connections and manages the operation of external charging boxes through external start/stop inputs.

SG Ready Control
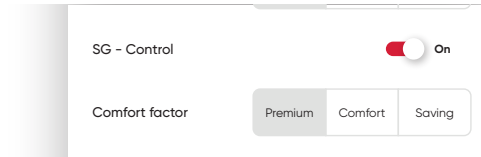
When SG control is active, the system sends a start signal to the heating system if the price for the current hour falls below the *factor product* value.

To obtain the value of the *factor product*, multiply the average daily price by the *comfort factor*.

- When "Balance with Weather Forecast" is deactivated, the heating system will follow the *Only Import* price list.
- Conversely, activating "Balance with Weather Forecast" allows the heating system to follow the *Mix* price list.

Comfort Factor

The *comfort factor* controls the heating system's production of additional hot water. The system manages the heating through its SG-ready inputs or the night-lowering function.

Heat Pump Lowest Power [W]
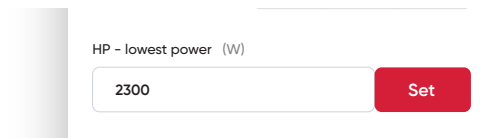
This setting facilitates the effective management of the heat pump in power peak or solar overproduction, utilizing relay contacts. It requires configuration according to the minimum compressor electrical output of the heat pump.

Heat Pump Power Peak Impact [%]
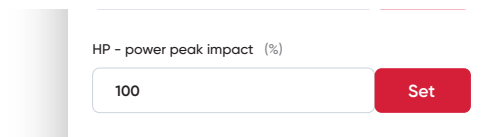
This parameter adeptly engages the control of the heat pump during peak power events through relay contacts. It defines how much the HP's lowest power influences the calculation, determining the frequency of heat pump activations and deactivations. Increasing the percentage value reduces the number of starts and stops experienced by the heat pump.

8. System Setup

The **System Setup** chapter provides users with detailed information about the configuration of the QuiPower system. This section comprehensively covers the system's settings, including the inverter type, battery specifications, energy meter, and other hardware configurations. Moreover, the chapter explains the commissioning procedure for initiating a new setup. The subsequent sections in this chapter contain step-by-step instructions for this crucial process.

8.1. Accessing System Setup
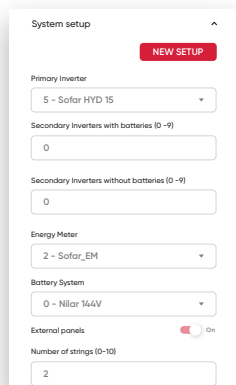
To access System Setup, navigate to Settings and click the arrow next to System Setup to display the system configuration. Click the arrow again to collapse the menu.

8.2. New Setup

To initiate a commissioning procedure, follow these steps:

1. Press "New Setup."

2. The button on the QuiPower System will start flashing.
3. Confirm the new commissioning by pressing the flashing button.
4. All system setup options will be accessible for 10 minutes.
5. Choose the new system configuration.
6. To save and apply the new configuration, click on the save button.

8.3. Configuration

Primary Inverter

⚠️ **NOTE!**
- For systems with multiple Sofar inverters, determine which inverter is the primary and has batteries connected to the BAT1 input. The primary inverter should have communication address 11 designated for interaction with Core.

Choose the primary inverter type.

Secondary Inverters with Batteries

⚠️ **NOTE!**
- This setting is **only** available if the **primary Inverter** is a **Sofar Solar** model.
- It is required to communicate with a QuiPower Core using the RS485 connection.
- All **Secondary Inverters with Batteries** should match size, battery type, and capacity.
- Differences in the number of solar panels among these inverters are permitted.
- The communication address begins at 12 and increases sequentially.
- Hybrid inverters not connected to batteries are categorized as string inverters and added under **Secondary Inverters without Batteries**.
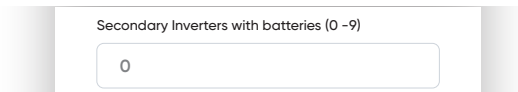
Specify the number of hybrid inverters connected to the system. The range of inverters allowed is from 1 to 9.

Secondary Inverters without Batteries
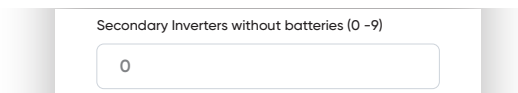
⚠️ **NOTE!**
- This setting is **only** available if the **primary Inverter** is a **Sofar Solar** model.
- It is required to communicate with a QuiPower Core using the RS485 connection.
- Hybrid inverters not connected to batteries are categorized as string inverters.
- The sizes of the string inverters can vary.
- The communication address begins at 12 or continues from where **Secondary Inverters with Batteries** ended and increases sequentially.

Specify a quantity between 1 and 9 for the number of string inverters to connect to the system.

Below are some examples of different setups and settings:

EXAMPLE 1
The system configuration includes one HYD 15 inverter with solar panels and a battery and one HYD 20 inverter with only solar panels.

– Primary Inverter – type HYD 15
Communication address 11
– Secondary Inverters *without* Batteries – 1
HYD 20, communication address 12

EXAMPLE 2
This system configuration includes two HYD 15 inverters with solar panels, and each HYD has a 20kWh battery.

– Primary Inverter – type HYD 15
Communication address 11
– Secondary Inverters *with* Batteries – 1
HYD 15, communication address 12

EXAMPLE 3
This system configuration involves two HYD 15 inverters with solar panels, each equipped with a 20kWh battery. Additionally, there is a HYD 20 inverter with only solar panels, one 15kW string inverter, and one 30kW string inverter.

– Primary Inverter – type HYD 15 Communication address 11
– Secondary Inverters *with* Batteries – 1
HYD 15, communication address 12
– Secondary Inverters *without* Batteries – 3
HYD 20, communication address 13
String 15kW, communication address 14
String 30kW, communication address 15

Energy Meter

> Energy Meter
>
> 2 – Sofar_EM ▾

⚠ **NOTE!**
- *Available **only** when the primary Inverter is of the **GMDE** type.*

- An incorrect selection of the energy meter disrupts communication.

Select a suitable energy meter type.

Battery System

> Battery System
>
> 0 – Nilar 144V ▾

Choose the battery system type connected to the primary Inverter from the list provided.

– To determine the correct system type, refer to the battery system nameplate.
– Select Nilar 144V when connecting a cabinet from Nilar or Enequi to the primary Inverter.

External Panels

> External panels ⬤ On
>
> Number of strings (0-10)

Activate this option if external solar panels are part of the system.

Number of Strings

Number of strings (0–10)

2

⚠️ **NOTE!**

- This option is available **only** for **Nilar** brand battery systems.

- Every shelf within a cabinet represents a string.

- When connecting two Enequi cabinets to the primary Inverter, add the total number of strings between the two cabinets.

Choose the number of the connected battery strings.

Number of BMS

Number of BMS (0 – 2)

1

⚠️ **NOTE!**

- For **Sofar** brand battery systems **only**.

- Each BCU (*Battery Control Unit*) or BDU (*Battery Distribution Unit*) corresponds to a single BMS.

Choose the number of BMS (*Battery Management System*) units connected to the primary Inverter from the drop down.

Number of Batterypacks/BMS

Number of batterypacks/BMS (0 – 10)

5

⚠️ **CAUTION!**

- For **Sofar** brand battery systems **only**.

- The number of battery packs under each BMS must always be identical.

Select the number of battery packs connected to the first BMS.

Number of Car Chargers

Number if Car Chargers (0 – 2)

1

Input the number of car chargers connected via the LAN network.

Car Charger

Car Charger list 1

0 - EV-CC-AC1-M3-CBC-RCM-ETH ▾

Car Charger lsit 2

2 - Eldon One Smart (combo) ▾

Choose the car charger type based on its connection to the QuiPower system through LAN or relay outputs.

⚠️ **NOTE!**

- For all Compleo charging boxes that have Wallbe-type charging control, choose Compleo. When commissioning this type of car charger, it is important to always contact the Enequi help desk for assistance.

- The Eldon Homerun ETH is an older version of Eldon's charging box. It is necessary to contact the Enequi help desk when commissioning this charger.

- The Eldon One Smart features a charging station with a Type 2 socket or fixed cable. When commissioning this charger, follow the instructions provided by ELDON. The link to these instructions is available below.

- The Eldon Duo Smart is a charging station with two Type 2 sockets. Refer to the instructions provided by ELDON for setting up this charger. The link to these instructions is available below.

Manuals and Documents

Revised: 2024-01-10

Main Fuse

Main Fuse (16 – 1600) (A)

20
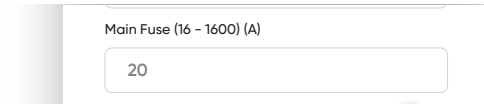
Set the value for the installed main fuse. The system consistently uses this value as a limit for all functions.

Off Grid

20

Off-grid   ⬤ On

Relay output 1

⚠ **NOTE!**

- This function **requires** a **QPO (QuiPower Off-Grid) central** connection to the primary Inverter and a secondary connection from the QPO to the QuiPower system via the LAN network.

- A connected QPO (QuiPower Off-Grid) central to the primary Inverter is needed, and a second connection from the QPO to the QuiPower system via the LAN network is required.
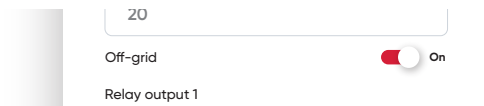
- It is critical to follow the instructions and electrical drawings to ensure proper connection of QPO

To enable the Off-grid feature, activate the function.

8.3.1. Relay Output

Relay output 1

0 – None

Relay output 2

0 – None

⚠ **CAUTION!**

- Relay functions aren't "Fail safe." Avoid using them with equipment sensitive to malfunctions that could result
  in damages like frost, overheating, leaks, or dry running. In such instances, always use external protective devices to minimize risks.

Pick the desired functionality for each relay output 1 and 2.

SG Ready

SG Ready, introduced in 2012 by the German heat pump association BWP, Bundesverband Wärmepumpe, with 17 manufacturers, certifies that certain heat pumps and related technologies can adapt to specific external control signals. The label facilitates heat pump control based on price signals and grid status, enhancing grid support, reducing carbon footprints, and ensuring cost-effective operation.

	Blocked operation Mode 1	Normal operation Mode 2	Encouraged operation Mode 3	Ordered operation Mode 4
SG Ready	Activated	Deactivated	Activated	Activated
SG-Ready A *Relay Output 1*	Closed (1)	Open (0)	Open (0)	Closed (1)
SG-Ready B *Relay Output 2*	Open (0)	Open (0)	Closed (1)	Closed (1)
Off-grid	⬤ On			

All QuiPower systems are "SG Ready" compatible, allowing indoor and hot water temperature regulation via heating system control. For this feature to work correctly, it is required to use both relay outputs.

Blocked operation (1:0) - Mode 1

⚠ **NOTE!**

- This function requires the **System Setup/Off-grid** feature to be enabled.

In OFF-GRID mode, the system restricts the heat pump's compressor and additional heat.

Normal operation (0:0) - Mode 2

This mode does not impact the system.

Low price mode (0:1) - Mode 3

The system focuses on cost savings and can, e.g., take advantage of a low tariff from the electricity supplier, low Day-ahead price, and surplus capacity from an owned power source.

Overcapacity mode (1:1)- Mode 4

The system can operate at total capacity when certain conditions are met, such as enabling SAVING comfort, low electricity tariffs, low Day-ahead price, and surplus capacity from an owned power source.

Temperature Setpoint 2

This feature enables control for older heat pumps lacking SG-ready capabilities or other heating systems with setback control based on price signals and grid status, enabling cost-efficient operation. This feature uses inverted signals, which differs from the heating systems' manuals.

Start External CC

This feature enables control of external charging boxes based on price signals and grid status. It provides a strategic cost control method, allowing a QuiPower system to manage charging periods in response to Day-ahead prices or power peaks by activating or deactivating a charging box.

- – Relay Output 1: Charging Box 1
- – Relay Output 2: Charging Box 2

⚠ **NOTE!**

- This feature requires at least one charging box connected through one Relay output.

- A total of two charging boxes can operate at the same time, when a car charger is connected through LAN, only Relay Output 2 remains available for a charging box.

- Connecting two car chargers through LAN disables the charging box relays.

- Car chargers with LAN connections are always prioritized.

Please follow the **guidance** below for connecting the **Relay output** in the following settings:

- – For an **inverted signal**, use **relay outputs 11-12**.
- – For an **non inverted signal**, use **relay outputs 11-14.**

On-grid

The relay is activated when the QuiPower system is in On-grid mode.

Off-grid

The relay is triggered when the QuiPower system is operating in Off-grid mode.

OnGrid On-delay 30s

When transitioning the QuiPower system to On-grid mode, there is a 30-second delay before the relay is activated.

OnGrid On-delay 60s

Upon transitioning the QuiPower system to On-grid mode, there is a 60-second delay before the relay is activated.

OffGrid On-delay 30s

After transitioning to Off-grid mode, there is a 30-second delay before the relay activates.

OffGrid On-delay 60s

When the QuiPower system switches to Off-grid mode, there is a 60-second delay before the relay activates.

9. Exclusion of Liability

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- Flooding, lightning, over voltage, storm, fire (forces of nature).

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