ElektroBank 14 User Guide

Document Number: 1000516

AMENDMENT RECORD		
Issue Number	Date	Description
1.0	4th Dec 2020	First Release

Associated / Referenced Documents		
Issued By	Document no.	Document title
Empower	1000349	ElektroBank 14 Installer Manual
Empower	1000495	Application Note Understanding Battery Backup and Sizing

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1 Table of Contents

2 Applicability of this User Guide

This user guide is for the ElektroBank 14 and its associated web-based Empower Battery app.

3 Notice and Warnings

⚠️ **Notice**	**This user guide is meant to inform end-users on how to access the Empower Battery app and carry out basic troubleshooting tasks.**

⚠️ **Danger**	**Only Empower certified installers should physically interact with the product, including opening the door. Serious injury or death can occur without proper training.**

4 Installation & Commissioning process

Identifying a suitable location for any battery systems not always straightforward as there are many Australian safety requirements. Guidance is given in the ElektroBank 14 Installer Manual (1000349) to choose a shaded area with adequate spacing around it to meet Australian standards requirements.

After selecting a suitable location for the ElektroBank 14, your installer will carry out the physical installation, which includes mounting it on the wall, routing electrical cables to the unit, connecting solar and updating the wiring in the switchboard.

Next the installer will configure the unit through the Installation Wizard user-interface (which is only available to certified installers).

4.1 Network Settings

To connect the ElektroBank 14 to the internet, the installer will need to have a direct Ethernet connection to your router or the home's Wi-Fi name and password.

4.2 Owner Registration

During configuration the installer will be required to enter an email address and phone number for the owner, which will enable you to register as an owner and access details of the battery through the Empower Battery app.

4.3 Training

Before leaving site the installer should ensure you have registered and will train you on how to use the app. Further guidance is available in section 8 of this document.

4.4 Calibration

After the installer has completed commissioning, the ElektroBank 14 will enter a calibration mode in which it charges the battery to 100% over 1-2 days. Once the

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calibration is completed, the ElektroBank 14 will automatically go into normal operation, which is to 'minimise self-consumption'. Configuration of the control mode is explained in section 8.

5 Turning off the ElektroBank 14

The ElektroBank 14 cannot be fully turned off without opening the enclosure door. Thus only certified Empower installers can perform this action.

6 Care & Maintenance

6.1 User Maintenance

1. **The user is not allowed to remove any covers on the ElektroBank 14, only a trained professional is permitted to do this.**
2. The ElektroBank 14 does not require scheduled maintenance and only requires an external debris and salt clean, recommended every 6 months by the user.
3. Check for signs of ingress by insects, animals, plants or water/dust. Check for any signs of corrosion. Call your service technician if you see any signs.
4. Then, with a damp cloth or soft brush, clean the whole product. Make sure all debris is cleared.

7 Troubleshooting

Only trained installers can physically access the product. However there are some steps an owner can take to troubleshoot, which are explained in Table 1.

7.1 LED Codes

The Empower logo on the front of the device is backlit by an LED that changes colours based on the status of the system.

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Colour	Pattern	Meaning	Action
Empower yellow	Solid	Normal operation	No action require. Normal operation
Green	Pulsing	Backup mode active	If unintentional, then check grid circuit breakers are all turned on.
Red	Solid	Fault	Check your Empower Battery app for details of the fault. Have this information ready to share prior to contacting your installer.
Pink-Purple	Pulsing	No active internet connection	Check your modem and router are functioning correctly.
Green	Solid	Fallback to built-in 4G internet backup	If your Wi-Fi password has changed, then you will need to contact Empower to update the network settings of the ElektroBank 14. Please have the new Wi-Fi details available prior to contacting Empower.
White	Solid	Pre-booting	Call installer
White	Pulsing	OS is booting	Call installer
Blue	Solid	System Apps not started	Call installer
Blue	Pulsing	Upgrade in progress	Wait until finished and don't turn power off!

Table 1: Meanings of LED colours and troubleshooting actions

7.2 Technical Support

The company that installed or sold you the ElektroBank 14 should be contacted first to troubleshoot your system, as they will have the most information about your unique site and therefore can provide tailored advice.

If, after speaking to and troubleshooting with your installer or vendor, the problem cannot be resolved, Empower may be able to assist. Please contact Empower at (0)2 8745 8835 and have the following information available:

- Your name and contact details
- Serial number of the product (e.g. EBXXXXXXXXXX)
- Company that installed the product.
- Company that sold the product (if different than the installer)
- Whether backup is installed
- Whether additional solar has been installed via a separate inverter system

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8 Empower Battery App Guide

8.1 Registering as an ElektroBank 14 owner

When the installer has completed the installation process and is carrying out the commissioning process (e.g. configuring the ElektroBank 14 via the Installation Wizard), they will be prompted to add the owner's email address. You will receive an invitation from Empower at the email address you provided to the installer, which will take you through the steps for registering an account.

> ⚠️ **Notice** | **The installer cannot complete commissioning of the system until the owner has registered an account.**
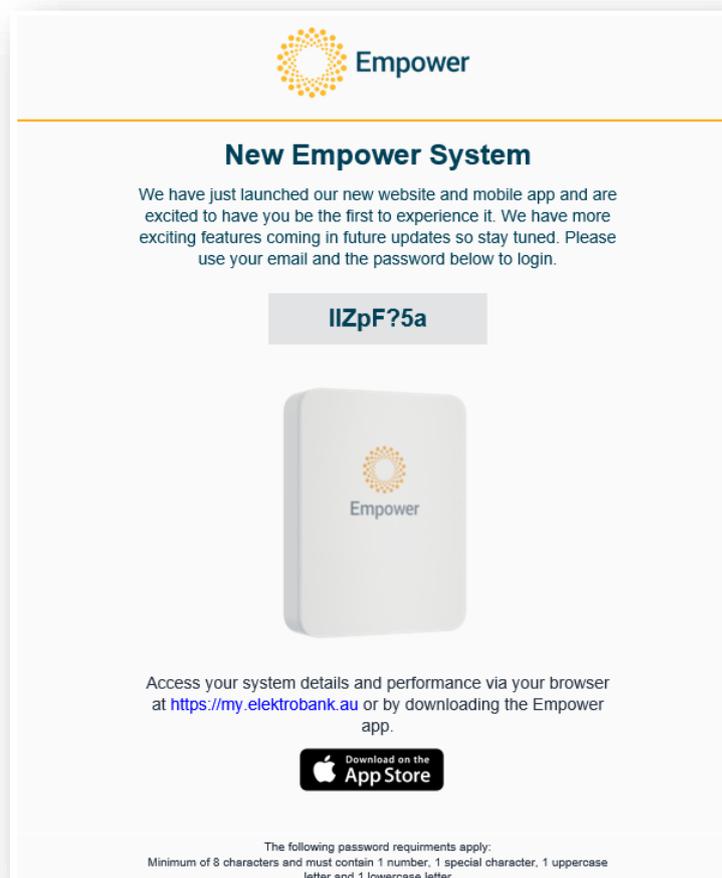
Figure 1: Registration email fromm noreply@elektrobank.com.au

8.1.1 Downloading and installing the app

The Empower Empower Battery app can be accessesd from most browsers and is available for both iOS and Android platforms. Links to download the app are available in the registration email you received.

> ⚠️ **Notice** **Empower recommends using the iOS or Android app for the best user experience.**

Google Android	GET IT ON Google Play	https://play.google.com/store/apps/details?id=au.com.elektrobank.ownerapp.dev.twa
Apple iOS	Download on the App Store	https://apps.apple.com/au/app/empower-battery/id6443908134
Chrome, Firefox, Edge or Safari		https://my.elektrobank.au

8.1.2 Logging in for the first time

Use the temporary password received in the registration email (Figure 1) to login for the first time.
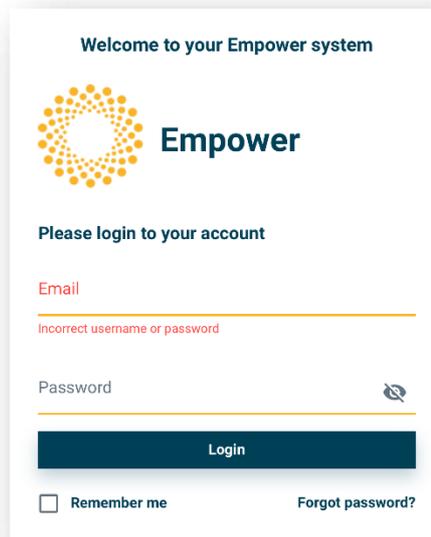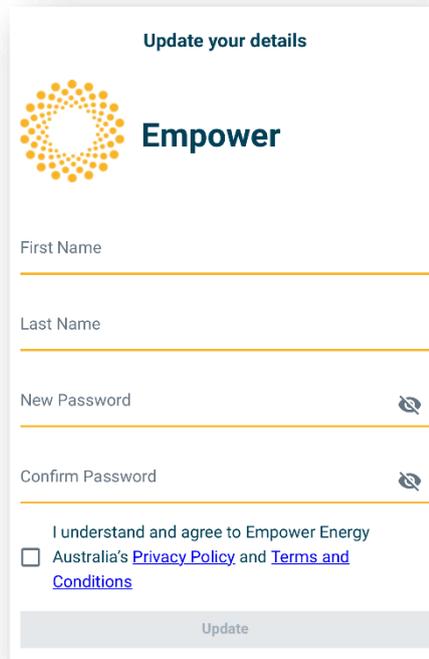

Figure 2: Empower Battery app login screen

8.1.3 Setting your new password

You will be prompted to set a new password. The new password must be minimum of 8 characters and must contain 1 number, 1 special character, 1 uppercase letter and 1 lowercase letter.

Figure 3: Enter phone number and new password

You must agree to Empower's Privacy Policy and Terms and Conditions to use the app.

After submitting your details, you will then be taken to the Empower Battery app homescreen.

8.2 Homescreen

The homescreen shows the power flows of your ElektroBank 14 system. If you have additional PV that is connected to your home from a different inverter, then that power will only be shown if the installer configured the system properly and used an additional meter to monitor the other inverter.
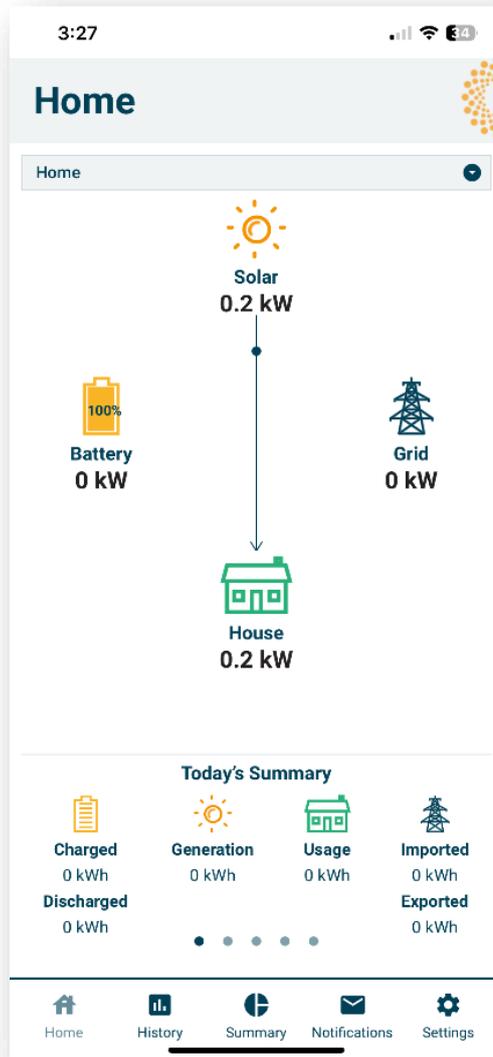
Figure 4: Empower Battery app homescreen

⚠️ Notice	**If you are viewing your homescreen immediately after installation, then the battery will be charging in calibration mode.**

⚠️ Notice	**In some states the installer is required to shut off the battery system before leaving site so that an inspector can return to site and turn it back on. If this is the case the ElektroBank 14 will be off so there will be no power flows or any other data.**

8.2.1 Navigation Bar

Figure 5: Navigation bar

8.2.2 Powerflow

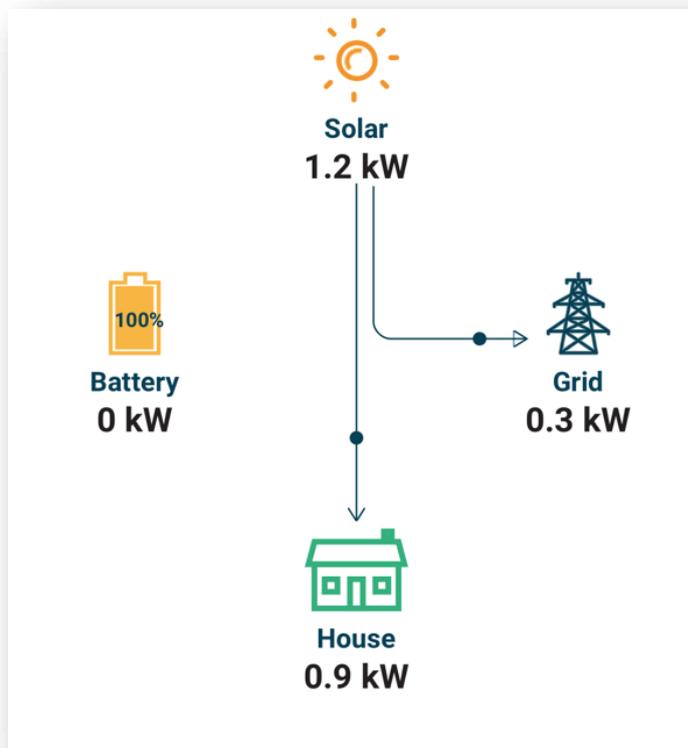The arrows indicate the flow of the energy to and from the different devices.

Figure 6: Powerflow

8.2.3 Today's Summary

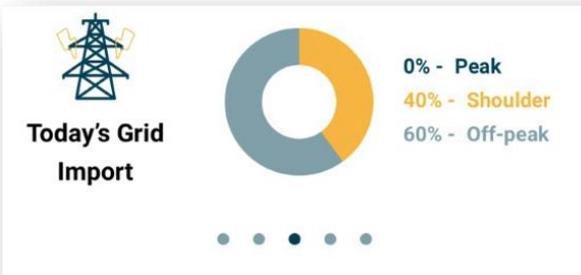The day's summary is available in the carousel at the bottom of the screen.

Today's Summary

Charged	Generation	Usage	Imported
7.5 kWh	33.2 kWh	8.6 kWh	0.0 kWh
Discharged			**Exported**
3.8 kWh			20.9 kWh

Total Savings

9 kWh
of grid imports avoided

0 kWh
of peak savings

Today's Grid Import

0% - Peak
40% - Shoulder
60% - Off-peak

Today's Self Consumption
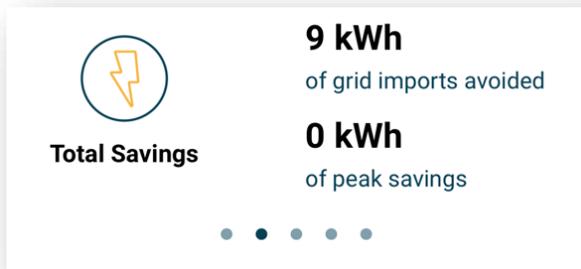
0%
44%
56%

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Figure 7: Daily summary tiles

8.3 History

The history screen provides a time-series chart of the different components of your electric system: Solar, Grid, Battery or House.

8.3.1 Day and Week

For the the day and the week views, you can see the power (W) at a specific time. The bottom chart shows the state of charge of the battery. State of charge is a measure of how full the battery is as a percent. The individual components of your electric system can be toggled on/off to show or hide them in the chart.
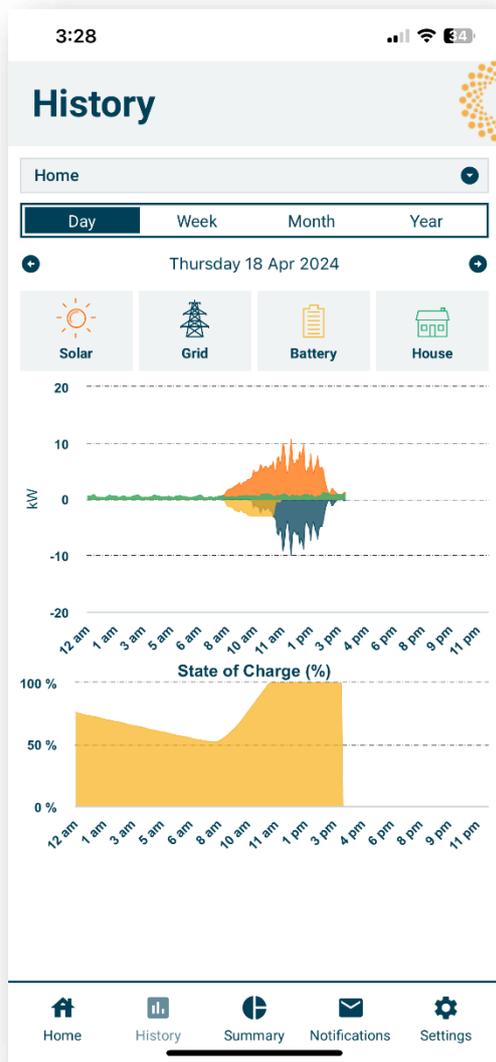
Figure 8: Solar , Grid, Battery, and House for 18 Apr 2024

Figure 9: Solar, Grid, Battery, and House for week of 15 Apr 2024 – 21 Apr 2024

8.3.2 Month and Year

For the month and year views, you can view the energy (kWh) per day, or per month, respectively. The bottom chart shows the battery utilsation. Battery utilisation is a measure of how much energy has flowed through the battery for that day or month period. 100% indicates once a day cycling. Higher than 100% indicates utilising more than 14 kWh per day on average. Less than 100% indicates cycling less than once day. Only a single electric component can be shown at a time, unlike the power charts for day and week.
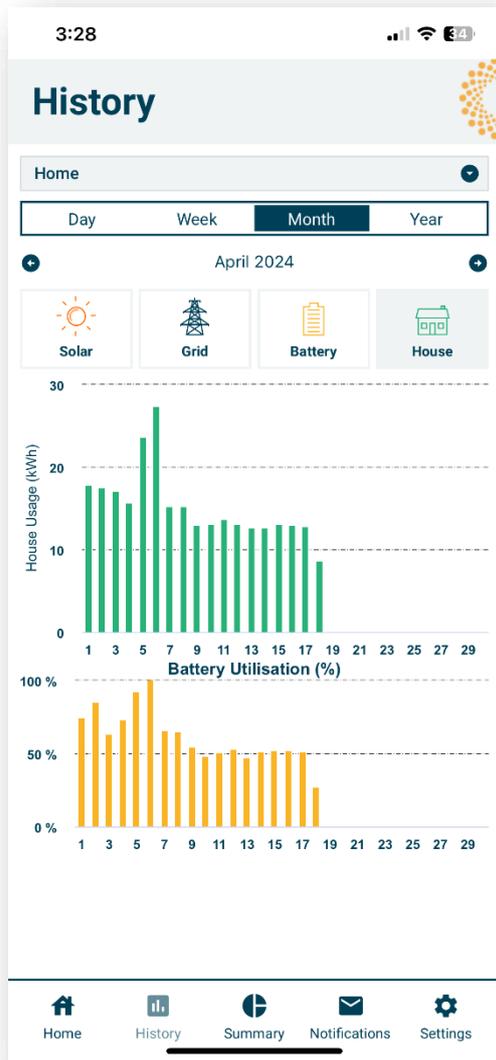
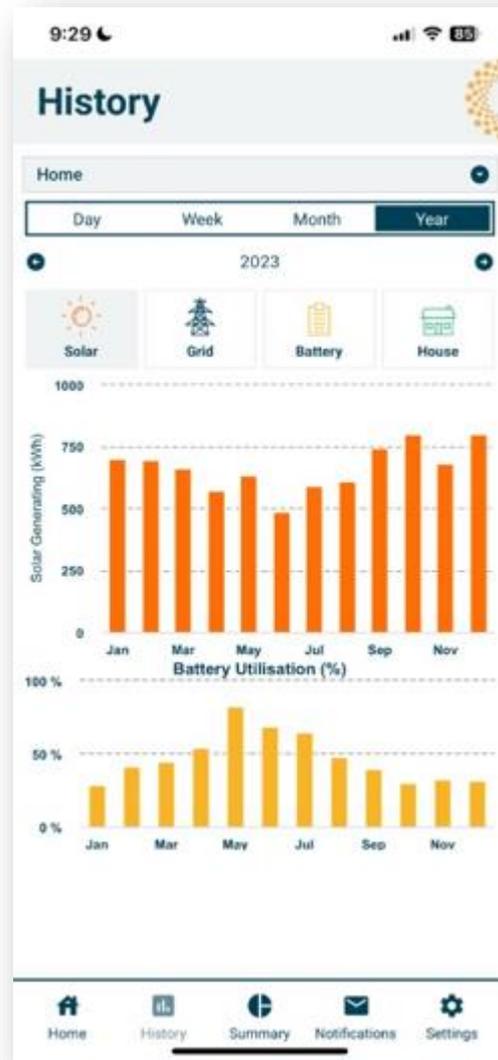**Figure 10: House energy per day for month of April 2024.**

Figure 11: Solar Energy per month for 2023

8.4 Summary screen

The summary screen provides summaries of the ElektroBank 14 over day, week, month and year periods.
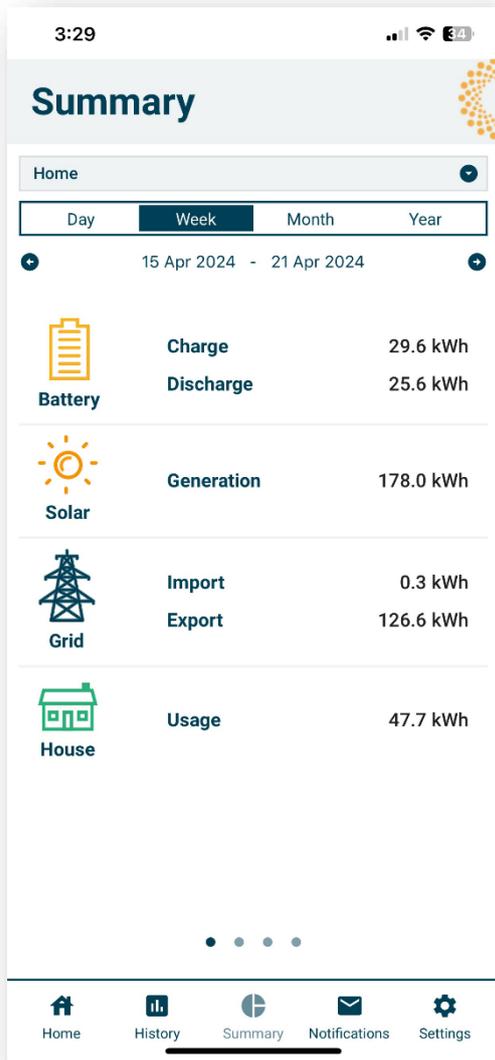
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Figure 12: Summary of energy (kWh) of the week from 15 Apr 2024 – 21 Apr 2024

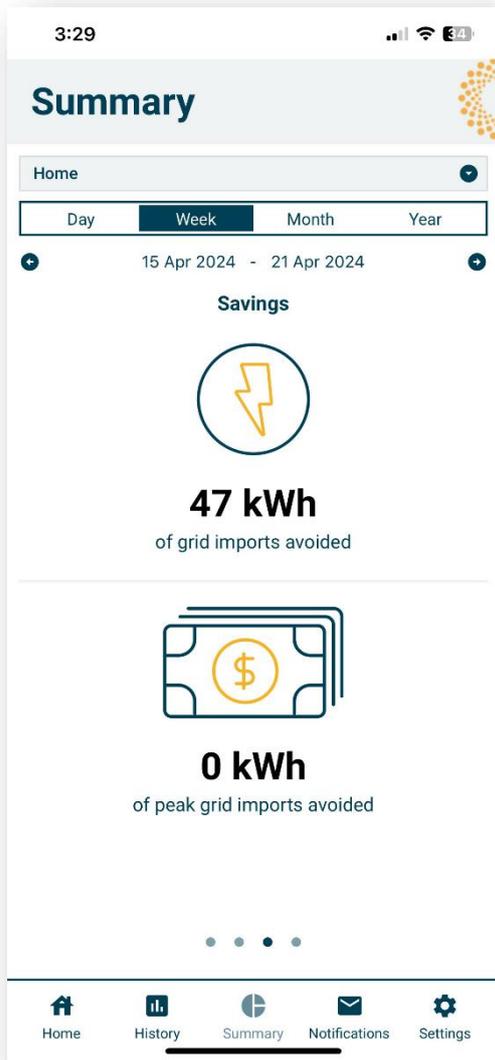**Figure 13: Self Consumption and Grid Import for week of 15 Apr 2024 – 21 Apr 2024**

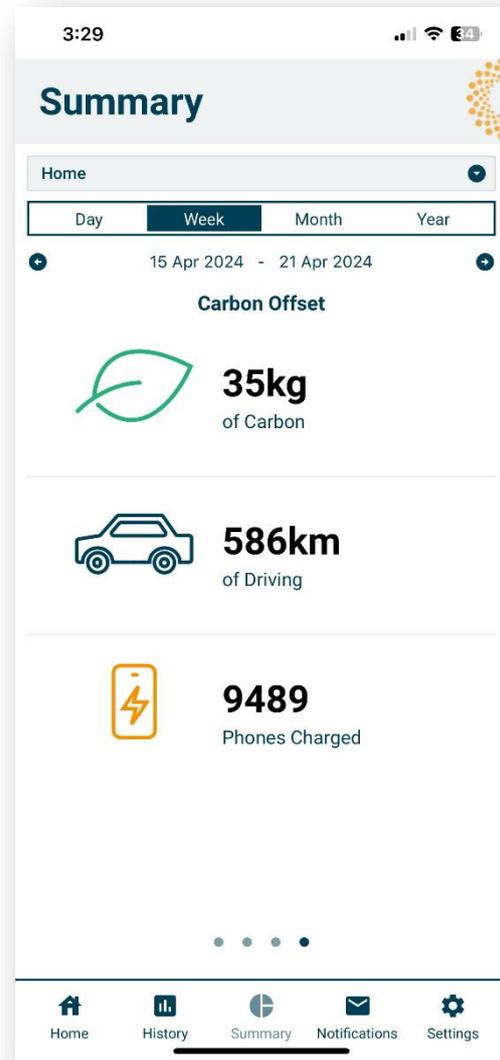**Figure 14: Grid importas avoided and peak time grid imports avoided for week of 15 Apr 2024 – 21 Apr 2024**

Figure 15: Carbon offset for week of 15 Apr 2024 – 21 Apr 2024.

8.5 Notifications

The notifications screen will collect important messages about your ElektroBank 14. Check here if first if you are having any issues.
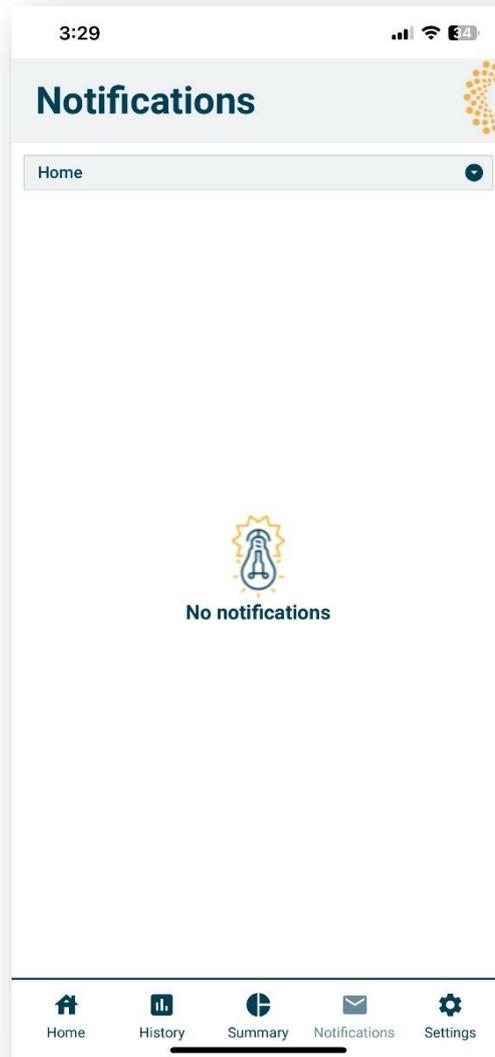
Figure 16: Notification screen showing No notifications
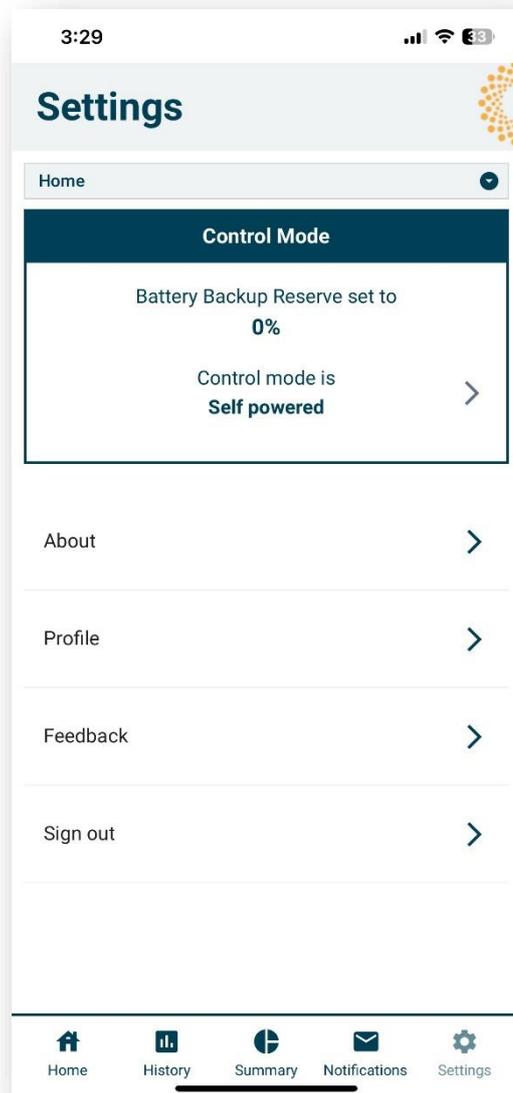
8.6 Settings

Figure 17: Settings screen

The settings screen has the following menu selections:

8.6.1 Control Mode
In this tile the battery backup reserve and control mode can be viewed. To change the battery backup reserve or control mode, touch the tile.
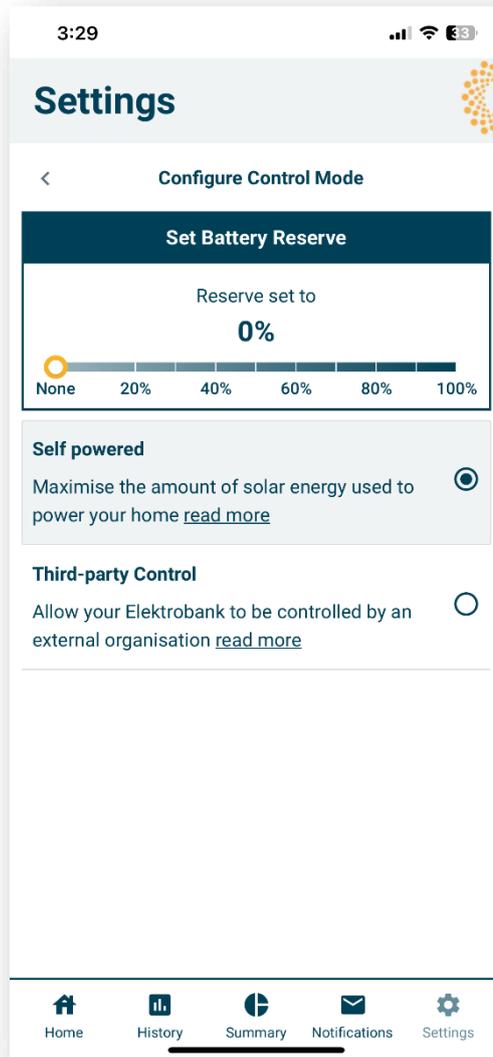
Figure 18: Configure Control Mode allows you to set battery reserve and choose the control mode

8.6.1.1 *Self powered*

This mode is the default mode and will attempt to minimise grid imports. The 'read more' link has further information.

8.6.1.2 *Battery reserve*

The default battery reserve is None and means the battery will provide the best economic return but may be empty if required for a backup event.

For best financial performance we strongly recommend the Battery reserve is set to 'None'.

- Choosing a Battery Reserve of **100%** means the ElektroBank 14 unit will maintain the battery at full capacity for grid backup events (e.g. when the grid is not available) but won't discharge to offset the house load while the grid is connected. Obviously this is not recommended!

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- Choosing a Battery reserve of **None** means the entire capacity of the battery will be available for discharge during daily operation, however if a grid backup event occurs, there is the possibility that the battery has been fully discharged, so cannot provide backup if the house load is greater than the solar generation.

8.6.1.3 *Third-party control*

If a separate agreement has been made with aa third party, you can delegate control of your ElektroBank 14 in this screen.

8.6.2 About

Shows information about the app

8.6.3 Profile

Shows details about the owner

8.6.4 Feedback

Prompts your email client to send an email to feedback@empowerenergy.com.au

8.6.5 Sign out

Signs the user out of the app

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