

Guidance for using the EPECentre Home Energy Tool

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Obtaining your half-hourly consumption data

To you use the Home Energy Tool, you need to obtain a full year of half-hourly energy consumption data from your energy provider. The process for obtaining this from your smart meter varies with each energy provider. Please see below guidance for some providers.

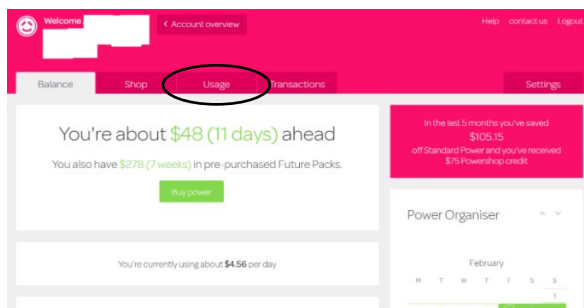
The dataset needs to be in a **csv format** (which can be opened with Microsoft Excel). The dataset includes variables describing the ICP (code for connection point), home power meter descriptions, date, and a series of columns. The values for consumption data are expressed in kWh.

We suggest downloading data for a full year. Please see example data below:

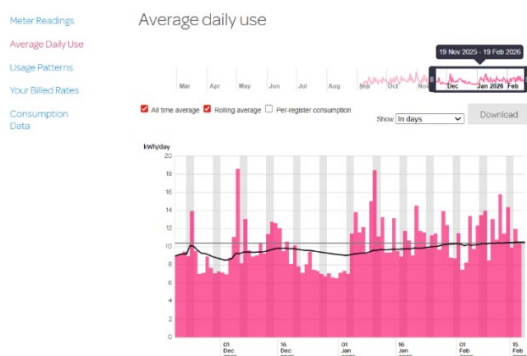
ICP	Component Serial	Registry C	Read Date	Energy_Flc	12:01am-12:31am	11:01am-11:31am	1:31am-2:
		1	31/12/2025	X	0.023	0.038	0.048
		1	30/12/2025	X	0.5	0.058	0.088
		1	29/12/2025	X	0.023	0.278	0.223
		1	28/12/2025	X	0.525	0.027	0.056

Obtaining your data from Powershop:

- Log into your account on a computer (not mobile device).



- Click on the **Usage** tab.
- Then there are two options to click on: 'Average Daily Usage' or 'Consumption Data'.



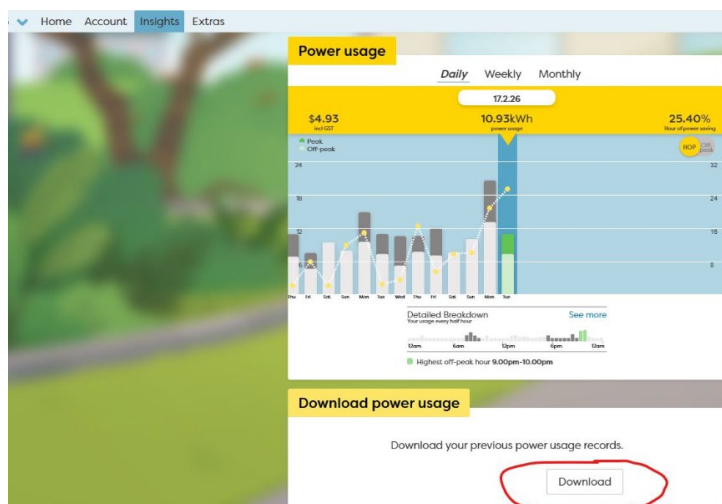
Both pages have a download option. Select 'Consumption Data' for 30-minute data.

Obtaining your data from Electric Kiwi:

Energy use can be tracked through their app, which offers daily insights on power consumption.

To get half-hourly data, log in to your account. Go to the **Insights** tab, where you can see a summarised version of your power use by day.

To get more details, download the data and specify the date range.



Download power usage

Select a date range to request your usage data. The requested data will be provided via email. Note larger date ranges may take 2-3 business days to process.

Start date End date

Previous power usage records

Date	Download
01 Jan 2025 - 31 Dec 2025 Requested 19 Feb 2026 (usage)	

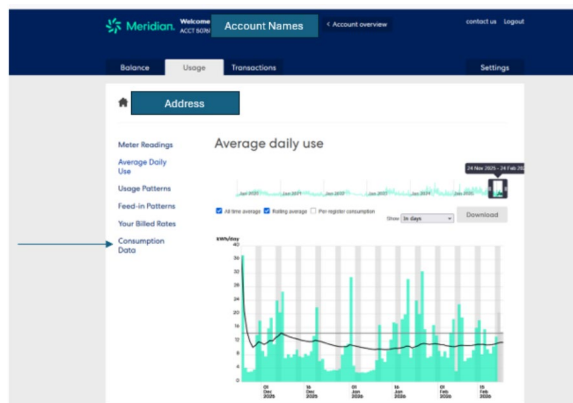
« 1 »

Meridian

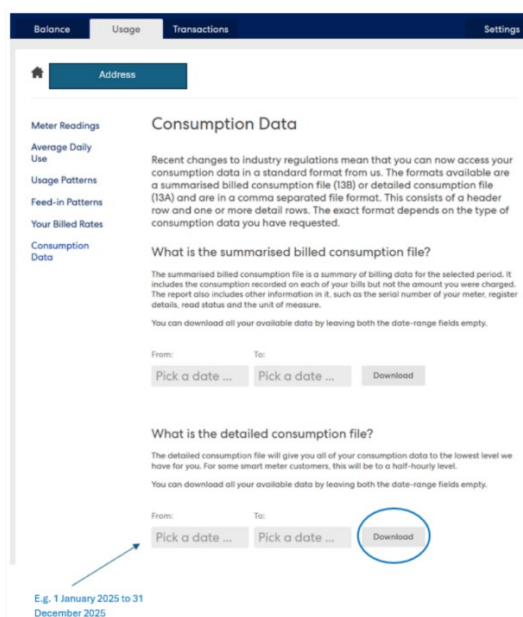
Meridian has recently migrated customers to a new platform, and there may be no detailed consumption data to view or download. In their [new app FAQs](#) they say they are “rolling out features gradually”. A current option is to email them for the data as per instructions on this page: <https://www.meridianenergy.co.nz/help/bills/access-to-your-consumption-data>

If you have not been transferred to the new system, the instructions are:

1. Log in at <https://app.meridianenergy.nz/login>
2. Click on **Usage** tab
3. Click on **Consumption Data** left hand side menu



4. In 'Detailed Consumption Data panel (bottom), fill in the dates of interest eg 1 January 2025 to 31 December 2025.
5. Download data to a CSV file.



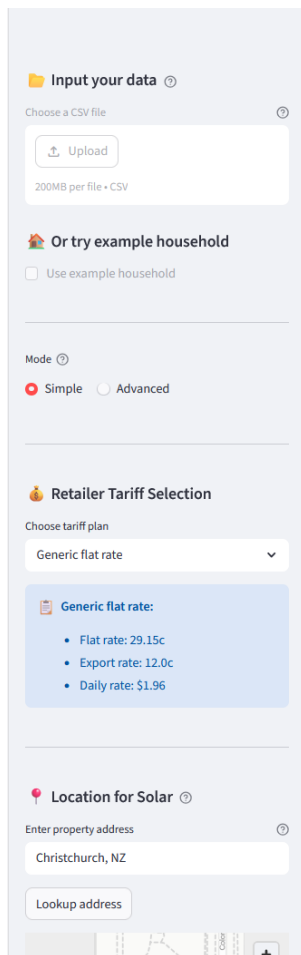
The screenshot shows the 'Consumption Data' panel. It contains two sections: 'What is the summarised billed consumption file?' and 'What is the detailed consumption file?'. Each section has a 'From:' and 'To:' date picker and a 'Download' button. A blue arrow points to the 'From:' date picker in the 'Detailed consumption file' section, with a text box below it stating 'E.g. 1 January 2025 to 31 December 2025'. The 'Download' button in the same section is circled in blue.

The Home Energy Tool

The Home Energy Tool can be found online here: [EPECentre Home Energy Tool | UC](#)

Before use, please read and accept the **Terms of Use**.

1



Input your data

Choose a CSV file

Upload

200MB per file • CSV

Or try example household

☐ Use example household

Mode

☒ Simple ☐ Advanced

Retailer Tariff Selection

Choose tariff plan

Generic flat rate

Generic flat rate:

- Flat rate: 29.15c
- Export rate: 12.0c
- Daily rate: \$1.96

Location for Solar

Enter property address

Christchurch, NZ

Lookup address



Household Energy Tool

Terms of Use & Data Disclaimer

NZ Home Energy Tool - Important Information

The NZ Home Energy Tool is designed to help you explore how different factors, such as behaviour, retail plans, solar generation etc may influence your household electricity costs.

Please note:

- Indicative results only:** The outputs provided by this tool are estimates intended for guidance purposes only. They do not represent exact or guaranteed costs or savings.
- Based on assumptions:** Results depend on user inputs, general assumptions, and modelled scenarios, which may not reflect your specific circumstances or future conditions.
- Actual outcomes may vary:** Your real-world energy use and costs will vary depending on factors such as weather, household behaviour, energy prices, system performance, and changes in tariffs or technology.
- Not financial or investment advice:** This tool should not be used as the sole basis for making financial or investment decisions. We recommend seeking independent advice before making significant energy-related investments.
- Your data remains private:** Any energy data you upload is used only within your session. It is not stored, recorded, or retained by us after your session ends.
- Session state:** If you refresh this screen, or leave it unattended for any length of time, the current data will be lost - please re-upload and start again.

[I Accept the Terms of Use](#)

Data Input

1

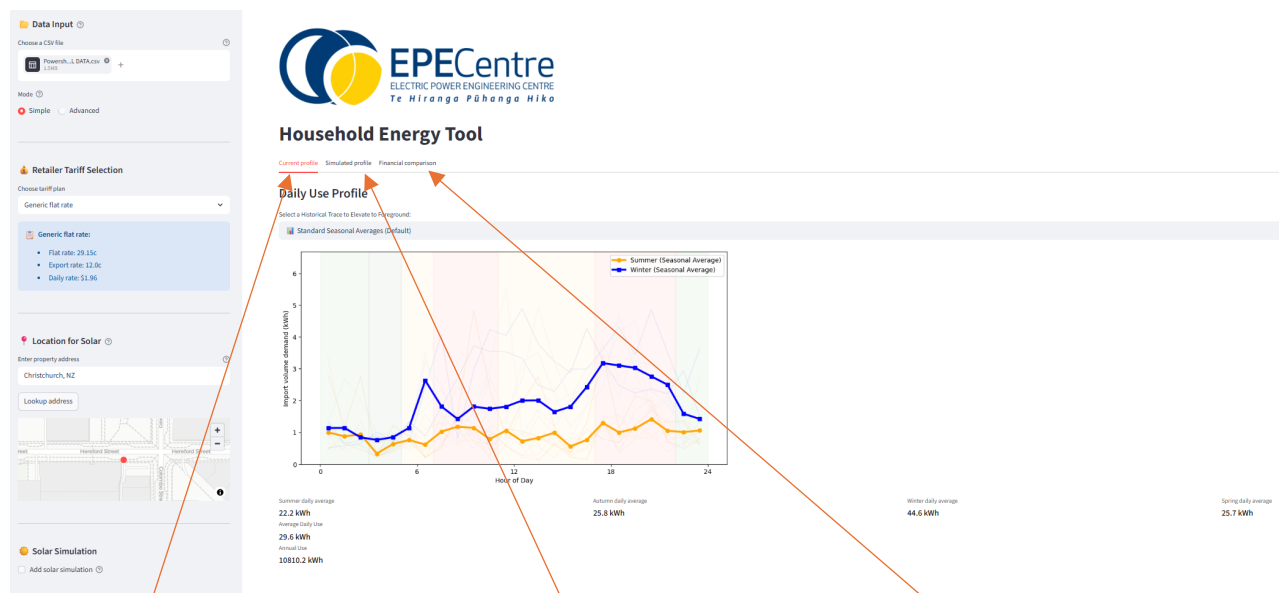
Upload your half-hourly data (csv format) by either drag and drop or click **Upload** to select the file.

You can also select example household with synthetic data to experiment with if you are waiting to get your own data.

Simple mode makes some assumptions to simplify data input; **Advanced** mode allows you to fine tune parameters such as roof pitch and orientation. If this is the first time you have used the tool, we recommend selecting **Simple** mode. Use **Advanced** mode if you are more confident in using the Tool.

Your energy profile is now shown on the page:

2



Current profile tab shows your energy use: winter use is **blue**; summer use is **orange**.

Simulated profile tab will change as you add in solar, battery and EV.

Financial comparison tab will reflect estimated charges according to the selections made on the left-hand panel.

Retailer Tariff Selection

2

Select a tariff plan from the drop-down menu. The financial comparison tab will show your estimated energy costs.

You can select different tariffs to reflect different scenarios e.g. if you add in an EV, you can change to an EV package to see how energy costs might change for you.

Adding Solar

Data Input

Choose a CSV file

PowerH..._1_0474.csv

Mode: Simple Advanced

Retailer Tariff Selection

Cluster tariff type

Generic EV package

Generic EV package:

- Day rate (7am-5pm): \$3.25c
- Half price night (9pm-7am): \$6.62c
- Export rate: \$2.30c
- Daily rate: \$2.33

Location for Solar

Enter property address

83 Clyde Road

Lookup address

Solar Simulation

Add solar simulation

No roof outline found at this location – using default system size

System size (kWp)

Roof Direction (Facing)

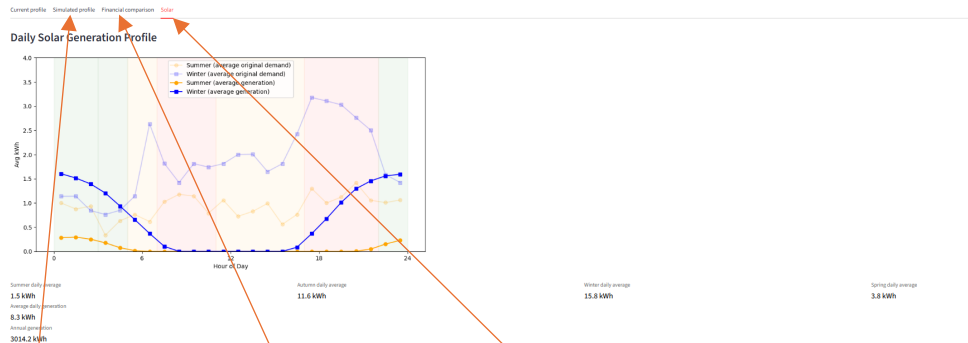
North (ideal)

Roof angle

Standard NZ corrugated pitch (24° – optimal annual yield)



Household Energy Tool



In the **Simulated profile** tab, you can see the expected effect of adding solar to your current energy use profile.

The **Financial comparison** tab shows expected financial effects, along with a Return on Investment estimator. Fine tune this to add in installation costs to view the payback cycle.

The new **Solar** tab shows the expected solar generation profile for your address.

3 Enter your property address and click **Look up address**

Adding your address ensures the comparison reflects the topography of where you live. Check that the map matches your expectation – you may need to add suburb, city, and country if not.

4 Click **Add solar simulation** to see how a solar system would offset your current load.

Select appropriate System size, Roof Direction and Roof angle.

Adding Battery Storage

Data Input

Choose a CSV file

Powersh..._L_DATA.csv

Mode

Simple

Advanced

Retailer Tariff Selection

Choose tariff plan

Generic EV package

Generic EV package:

- Day rate (7am-9pm): 33.25c
- Half-price night (9pm-7am): 16.61c
- Export rate: 12.0c
- Daily rate: \$2.13

Location for Solar

Enter property address

83 Clyde Road

Lookup address

Map

Solar Simulation

Add solar simulation

Battery Storage

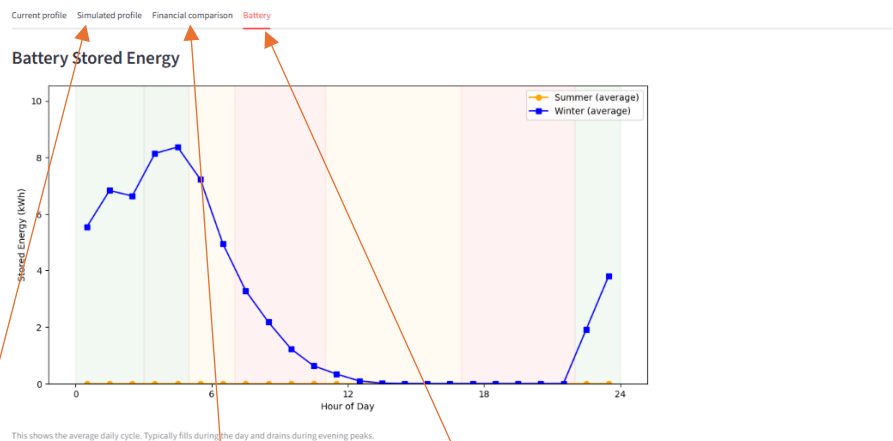
Add battery system

Battery size (kWh)

10



Household Energy Tool



5

In the **Simulated profile** tab, you can see the expected effect of adding a battery to your current energy use (buying/selling) profile.

The **Financial comparison** tab shows expected financial effects, along with a Return on Investment estimator. Fine tune this to add in installation costs to view the payback cycle.

The new **Battery** tab shows the expected Battery Stored Energy profile for your address.

5

Click **Add battery system** box, and select battery size, to see if adding a battery delivers value.

Adding an Electric Vehicle

Location for Solar

Enter property address
83 Clyde Road

Lookup address

Solar Simulation

☐ Add solar simulation

Battery Storage

☐ Add battery system

EV Simulation

☒ Switch to electric vehicle

Annual mileage
☒ Low (8000km) ☐ Average (12000km) ☐ High (16000km)

Existing ICE fuel
☒ Petrol ☐ Diesel

Petrol cost (\$/L)
1.00

Existing ICE size
☒ Small (1.5L 6L/100km) ☐ Medium (2.0L 8.5L/100km) ☐ Large (3.0L 11.5L/100km)

New EV type
☒ Small (22 kWh/100km) ☐ Medium (30 kWh/100km) ☐ Large (Model X 28 kWh/100km)

Home charger size
☒ Plug in (brickle charger) ☐ Fixed installation (7kW)

Charging strategy
☒ Smart charge ☐ Uncontrolled charge



Household Energy Tool

Current profile Simulated profile **Financial comparison**

Financial Impact Breakdown: Generic EV package

Status Quo Annual Bill	New Annual Bill	Net Annual Savings
\$5,182.57	\$4,550.43	\$632.13
Electricity \$3,743	Electricity \$3,743	
Transport \$1,440	Transport \$808	

Individual Value Streams

EV	Solar	Battery
Net Travel Savings \$632.13		
Saved \$1,440.00 in petrol		
Spent \$129.87 on electricity		
Spent \$608.00 on RoCS		

Fine tune

EV Upgrade Cost (\$)

0

No savings to be made

EV not included in analysis (including EV charger)

6

6

Click **Switch to electric vehicle** to see if changing to an EV delivers value.

Tailor the selections to reflect your own situation - mileage, current vehicle fuel type/ cost/ size, new EV type, home charger size and charging strategy (smart charge restricts charging to off-peak, 10pm to 5am; uncontrolled is 6pm to 5am). Fine tune to add in EV upgrade cost.

When an EV is added, the **Status Quo Annual Bill** in the **Financial Comparison** tab shows the cost of both current home energy and vehicle fuel costs.

Have a go at adding solar, battery and EV and see what the effects are on your energy profile and costs.

The figures stated are an estimate, based on multiple assumptions, but the intention is they provide useful guidance when it comes to choosing the right energy technology for you!