Zypho® versus Solar Panels

Solar PV Energy Usage

Solar panels aren't cheap.

The Energy Savings Trust estimates that installation will set you back £7,860 for a three-bed semi-detached house with four occupants, according to figures released in March 2023. But the figures will vary depending on the size of your home and how much energy you want to produce.

The most popular solar panel system size is between 3.6 kWp and 4 kWp, according to a survey of more than 1,000 solar panel owners. This size of system generates around 3,750 kWh of electricity per year on average for owners. For comparison, a home using a 'medium' amount of electricity gets through 2,900 kWh per year on average according to energy regulator Ofgem. A 'high' user takes 4,300 kWh per year.

How much energy will actually be used?

Keep in mind that solar panels generate most of their electricity during the day, so you may not be around to use it (unless you fit a home storage battery too).

In fact, a survey of solar panel owners found that:

- 12% use less than ¼ of their solar output
- 34% use between a ¼ and ½
- 22% use between ½ and ¾
- 13% use more than ¾

So, you will still need to buy electricity from the grid, especially on dark winter evenings.

Solar PV Cost

House Size	Annual Electricity Usage	Number of Solar Panels	Average Cost	Total Annual Savings
1 Bedroom	900 kWh	3	£2,358	£183
2 Bedroom	1,800 kWh	6	£4,716	£365
3 Bedroom	2,900 kWh	10	£7,860	£608

Solar Battery

A solar battery is a device that allows you to store excess electricity—including the energy your solar panels generate— so you can use or sell it later on.

With a solar battery, you will typically use an extra 30% of your solar energy, allowing you to **save £175 more per year** on average and cut your carbon footprint by another 15%—which adds up to an extra tonne of CO_2 per year.

The average cost of a solar battery for a three-bedroom house is £4,500. A smaller house will usually pay around £2,500 to add a solar battery to a solar panel installation, while a larger home will typically spend £5,500.

The larger the battery, the more electricity it can store, and the larger the benefit—but the higher the cost, naturally.

Moreover, the price of adding a solar battery to a solar panel system means the average three-bedroom household will take an extra 12 years to break even on the whole installation.

Solar Battery Cost

House Size	Annual Electricity Usage	Number of Solar Panels	Battery Size	Solar + Storage System Cost
1-2 Bedrooms	1800 kWh	6	4 kWh	£9,716
3 Bedrooms	2900 kWh	10	8 kWh	£16,860
4+ Bedrooms	4300 kWh	14	9.5 kWh	£22,005

Zypho® Savings

A key fact on PV in a Zypho® context is comparing the energy that Zypho® can save (%) with the amount of energy PV panels can generate in the UK (kWh). A 16-panel 4 kW PV system generates around 3,600 kWh/year, about 225 kWh/panel per year. If the typical household uses 2,000 kWh/year for hot water, we can work out the savings:

30%

600 kWh
2.7 PV panels worth

50%

1000 kWh
4.4 PV panels worth

75%

1500 kWh
6.7 PV panels worth