





Solar and Battery

How it works

The 12 solar panels (4 each on the South, West and East roof faces) generate electricity from sunlight. The electricity goes through an inverter, which converts it for use powering home appliances and electric heating (if applicable). Any electricity not used goes into the battery storage via the 'Eddi' smart energy diverter.¹

At night, or when the sun isn't shining, appliances can draw electricity from the 5.2 kWh battery. Without a battery, excess energy could go to waste or be sold to the grid via the government's Smart Export Guarantee.

Our experience

We set stored electricity to prioritise water heating before other appliances. This can be altered to suit the occupant's needs.

A survey found the roof needed felt replacement. So, we chose integrated PV (photovoltaic) panels, flush with the roofline, and replaced the tile surrounds with new tiling. We also removed the chimney stack - a further source of heat loss that wasn't required for the house - alongside other roof works.

Shop around to get the best energy tariff for use with solar panels. Costs vary by energy providers, and not all take solar panels into account. The Smart Export Guarantee (SEG) requires energy providers to set an export rate for any electricity you don't use. Check online SEG league tables to find current export prices.

- Style, size and installation of different panel types vary (i.e. 'on roof' versus integrated). Beware of birds wanting to roost under raised 'on roof' panels
- Installers should recommend the best location for panels based on sun position
- If replacing your roof, consider solar panels at the same time to avoid the additional scaffolding cost down the line
- The battery and solar panels should be regularly monitored for performance via the relevant app, and serviced on a regular basis



Installation

Benefits

- Energy resilience increased protection from energy price shocks
- Reduces your home's electricity bills² and carbon footprint³
- Potential to earn money (via the Smart Export Guarantee)
- PV Panels Manufacturer: Viridian Solar, Type: 405W, integrated panels. Inverter Manufacturer: Myenergi 'Eddi', Type: 3.86kW Single Phase inverter, 3-year warranty. Battery: 5kWh battery connected to the PV system, Manufacturer: Myenergi. EV Charger Manufacturer: Myenergi, Type: Zappi, 7 kW power delivery, 3-year warranty.
- ²Annually, by average of £610 with a SEG, or £535 with a SEG and a battery with diverter, based on all-day house occupancy and Manchester weather patterns, according to Energy Saving Trust website as at February 2025.
- ³The International Plant Protection Convention notes the carbon footprint of solar panels is approx. 12 times less than natural gas and 20 times less than coal (CO₂ emissions per kWh of electricity generated), as at February 2025.