

HOMEOWNER'S GUIDE TO SOLAR & BATTERY STORAGE



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Visit Our Web :
www.volt-age.co.uk

 **VoltAge**
THE WAY TO GO

WHY SOLAR, WHY NOW?

The energy landscape is changing — fast.

Electricity bills are climbing, the national grid is under pressure, and sustainability is no longer optional.

That's why thousands of UK homeowners are switching to solar energy and battery storage — to save money, gain energy independence, and reduce their carbon footprint.

Good news: The sunniest months of the year are here - April until September peak generation.

Now is the best time to take advantage of peak solar generation and future-proof your home.



**A STANDARD DOMESTIC
INSTALL TAKES 1 WEEK
ON AVERAGE**

HOW SOLAR AND BATTERY STORAGE WORKS



Sunlight Hits the Solar Panels - Solar panels, usually installed on your roof, capture energy from the sun using photovoltaic (PV) cells.



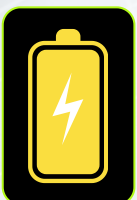
Electricity is Generated - The panels convert sunlight into direct current (DC) electricity.



An Inverter Converts the Power - The DC electricity flows into an inverter, which converts it into alternating current (AC) — the type of electricity your home uses.



Powering Your Home - The converted electricity is used to power your lights, appliances, and other devices — reducing how much you use from the grid.



Storing Extra Energy in a Battery - Any unused electricity charges your home battery, so you can use it later (like in the evening or during a power cut).



Using Stored Energy or Exporting to the Grid - Once your battery is full, any extra energy can be exported back to the grid (and you may get paid for it). When the sun isn't shining, your home draws from the battery first, reducing grid usage.

THE BENEFITS

FIVE BIG BENEFITS OF GOING SOLAR

1

Slash Your Energy Bills - Power your home with free energy from the sun.

2

Store Power for Later - Use solar electricity even when the sun isn't shining.

3

Be Grid-Independent - Reduce reliance on energy companies and rising prices.

4

Increase Home Value - Energy-efficient homes are more attractive to buyers.

5

Go Green - Cut your carbon footprint and support a cleaner future.

**CHECK YOUR
INSTALLER IS MCS
APPROVED**



COSTS & SAVINGS

WHAT DOES IT COST, AND WHAT WILL YOU SAVE?

Typical Costs:

Solar System (4-5kW): £5,000 – £7,000 including mounting, panels, hybrid inverter, roofing work, electrical work, scaffolding

Battery Storage (5–13kWh): £2,000 – £6,000

Typical Annual Savings: £500 – £1,000+ per year (depends on usage, system size & tariffs).

Most systems pay for themselves in 6–9 years and continue generating savings for decades.

It's not just an expense it's a long-term investment in your energy future.



**DOMESTIC SOLAR
AND STORAGE 0%
VAT UNTIL APRIL
2027**

THE INSTALLATION PROCESS

We make going solar easy, local, and stress-free. Here's how it works:

STEP ONE

Free Consultation - We assess your roof, usage, and goals.

STEP TWO

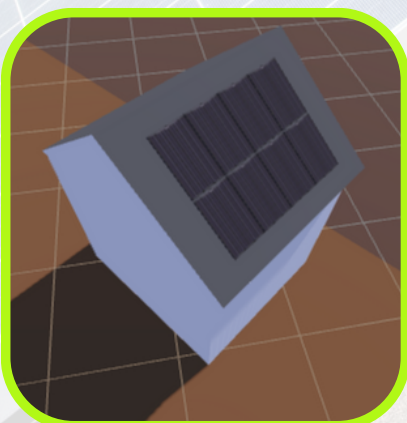
Custom Design - A system tailored for your home and budget.

STEP THREE

Fast Installation - Certified, professional installers — usually within 1–2 days.

STEP FOUR

Aftercare & Monitoring - We're always here to support and monitor your system's performance.



A TYPICAL SOLAR PANEL SYSTEM CAN REDUCE A HOUSEHOLD'S ELECTRICITY BILL BY UP TO 50%

GLOSSARY OF TERMS

AC (Alternating Current) - Electric current that reverses direction periodically, commonly used in household and commercial electricity systems.

Battery Storage - A system that stores excess energy generated by solar panels or other renewable sources for later use, helping to optimise energy consumption, especially when solar power isn't being generated (e.g., at night).

Battery Management System (BMS) - A system that monitors and manages the performance of battery storage, ensuring its safe operation, longevity, and efficiency.

Battery Storage Capacity - The amount of energy a battery can store, usually measured in kilowatt-hours (kWh). The larger the capacity, the more energy can be stored for later use.

DNO (Distribution Network Operator) - A company responsible for the maintenance and operation of the electrical distribution network that delivers power to homes and businesses.

DC (Direct Current) - Electricity that flows in one direction, as produced by solar panels. It's converted to AC for use in the home or business through an inverter.

Hybrid Inverter - A type of inverter used in solar and battery storage systems that can manage both solar panel energy generation and energy storage, as well as control the flow of power between the grid, battery storage, and electrical appliances in the building. It allows for more efficient integration of solar power with energy storage.

Inverter - A device that converts DC electricity (from solar panels or batteries) into AC electricity (used in homes and businesses).

Kilowatt (kW) - A unit of power used to measure electricity demand. One kilowatt equals 1,000 watts. Solar panel and battery system sizes are often rated in kilowatts.

Kilowatt-Hour (kWh) - A unit of energy that represents the amount of electricity used over time. One kilowatt-hour equals using 1,000 watts of electricity for one hour. This is used to measure solar system generation and energy consumption.

GLOSSARY OF TERMS

Photovoltaic (PV) - The technology used in solar panels to convert sunlight directly into electricity. PV panels are made up of many solar cells that capture sunlight and generate electricity.

Power Optimiser - A device used alongside solar panels to optimise the performance of each panel individually. This improves efficiency by reducing losses due to shading, dirt, or panel mismatch.

Smart Export Guarantee (SEG) - A UK government scheme that pays homeowners and businesses for the excess electricity they generate through solar panels and export back to the national grid.

Solar Array - A group of solar panels connected together to capture and convert sunlight into electricity. The array size is often determined by the energy needs of the home or business.

Solar Battery - A battery storage system used to store energy generated by solar panels, making it available for use at night or during periods of low solar generation.

Solar Inverter - A type of inverter specifically designed to convert the DC electricity produced by solar panels into AC electricity that can be used in homes and businesses.

Solar Payback Period - The length of time it takes for the savings generated from a solar system to equal the initial investment. Typically ranges from 5-10 years, depending on system size, location, and energy savings.

String Inverter - A type of inverter that connects multiple solar panels together in series, converting the combined DC output into AC electricity. This is commonly used in residential solar systems.

Voltage - The electrical force that drives the flow of electricity in a circuit, typically measured in volts (V). Solar and battery systems require voltage regulation to function properly.

WHY CHOOSE VOLT-AGE?

We're your local solar specialists,
not a national sales team.

We proudly serve the Midlands with
Solar, Battery Storage and EV
Charge point installations.

Why go local?

- ✓ Local team, fast service
- ✓ Transparent, no-pressure advice
- ✓ 5-star support before and after install
- ✓ Same contact throughout the process
- ✓ MCS accredited installer
- ✓ Workmanship Insurance on all installations



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