About home solar batteries

A home solar battery system is a mini power station that produces and stores solar energy to provide power to your home.

How they work

Solar panels installed on your roof generate energy from sunlight, store this in the battery system and make the power available to your home, even when the sun isn't shining.





- **1 Solar panels:** Convert sunlight into direct current (DC) electricity which charges the battery.
- 2 Inverter(s): Manage the flow of electricity, converting the electricity generated from the solar panels into alternating current (AC), the type of electricity that powers your home.
- **3 Battery:** Stores excess solar electricity to power your home when the sun is not shining.

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Switchboard and meter: The

switchboard receives and distributes electricity to your home. Your smart meter measures flows of electricity to and from the local network (grid).

- 5 Local network (grid): Provides electricity when your battery is not in use or empty, and your panels are not producing electricity. Your excess solar electricity can also be fed back to the grid.
- 6 Household appliances: Many appliances can be scheduled to run when you have excess solar power, helping to reduce the energy used from the grid.

Benefits

Cut your energy bills Save money on your electricity bills by charging your battery from your excess solar.



Become more self-sufficient

The ability to store energy allows you to be less dependent on the grid for additional power.



Access clean, renewable energy By generating your own solar energy, you are using clean, renewable energy.



Use more of the energy you generate

Solar batteries enable you to store, control and maximise your ability to use the electricity you generate.



Provide power during an outage

Some batteries can provide backup during a power outage.



Support the local grid

Support your local grid and earn extra money by selling power back to the grid when it needs it most.

Things to consider



Not always the right fit: Understanding how and when your household uses electricity can help you decide whether you would benefit from a home solar battery.

Upfront cost: There can be a large upfront cost and sometimes a battery may not pay itself back before the warranty runs out.

Smart meter: You might need a new smart meter for your solar battery system that can measure imports and exports to and from the grid. You will need to check with your retailer about costs.

System maintenance: Your home solar battery system may need occasional checks and upkeep, plus the possibility of replacing some system components over the life of the system.

Electricity retailer charges: Your energy retailer will still charge a connection fee, as well as fees for the electricity used from the grid.

Can be complex: Buying and installing a solar battery is more complex than buying solar alone. It is always best to consult an expert.

Options available: You should explore other energy efficiency options and solar by itself before installing a solar battery system, as they may offer better value for money.



For more information, download the NSW Home Solar Battery Guide: <u>energysaver.nsw.gov.au/solar-battery-systems</u>

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