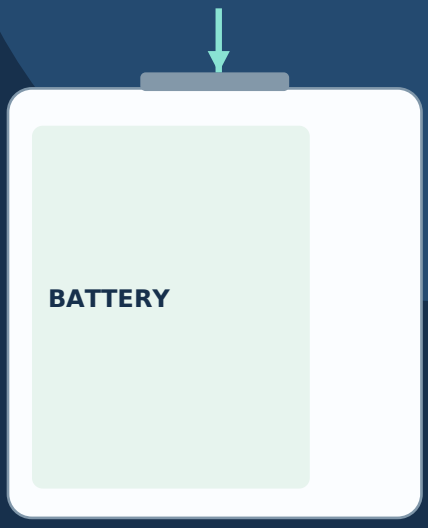
PlaceNest / LEARN

HOME BATTERIES

A practical Australian guide to choosing, using and understanding home battery storage.



A GUIDE FOR EVERY HOUSEHOLD

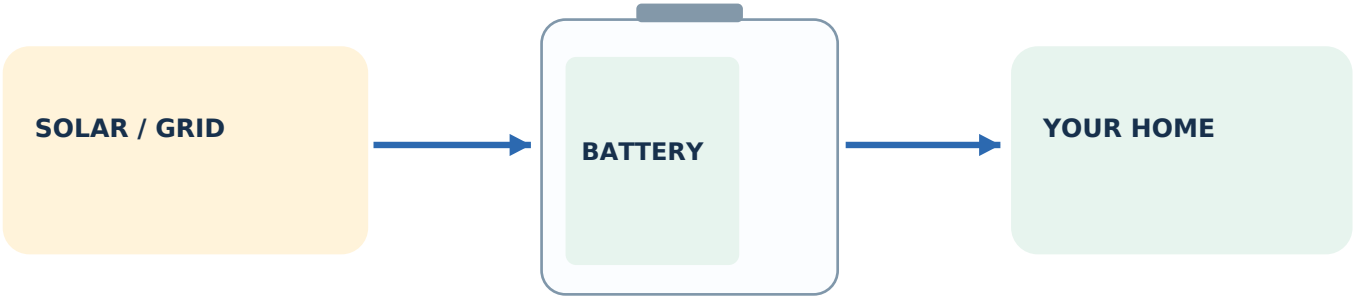
No technical background needed. Clear diagrams, real-world examples, sizing choices, seasonal performance, safety and buying checklists.

AUSTRALIA • OCTOBER 2026

Independent educational information - not a personal quote

What does a home battery do?

It stores electricity for use later. It does not generate electricity itself.



Charge it

A battery can charge from spare rooftop solar. Some systems can also charge from the grid when electricity is cheaper.

Use it later

It may power your home in the evening or during expensive tariff periods, subject to capacity, power and system settings.

What it cannot promise

A battery cannot guarantee a zero electricity bill, unlimited power, year-round full charging, or backup during blackouts. Each of these depends on your equipment and circumstances.

The main question is not "How big a battery can I buy?" It is "How much energy can I regularly store and use at a worthwhile cost?"

Capacity, power and efficiency

Three different measurements describe what a battery can actually do.

Capacity (kWh)

How much energy it can hold. A 10 kWh usable battery might supply a 1 kW load for roughly 10 hours before accounting for other limits.

Power (kW)

How quickly it can deliver energy. A battery rated at 5 kW output cannot necessarily run several high-power appliances together.

Efficiency (%)

Some energy is lost in charging and discharging. If 10 kWh is used to charge a system with 90% round-trip efficiency, about 9 kWh may be delivered later in a simplified example.

Think of a water tank

Capacity (kWh) = tank size.

Power (kW) = how fast the water flows.

Efficiency = how much water is lost between filling and using it.

Also ask for usable capacity, continuous output, peak output, warranty terms and any minimum reserve kept for backup.

Can I add a battery to existing solar?

Often yes, but compatibility and installation costs must be assessed.

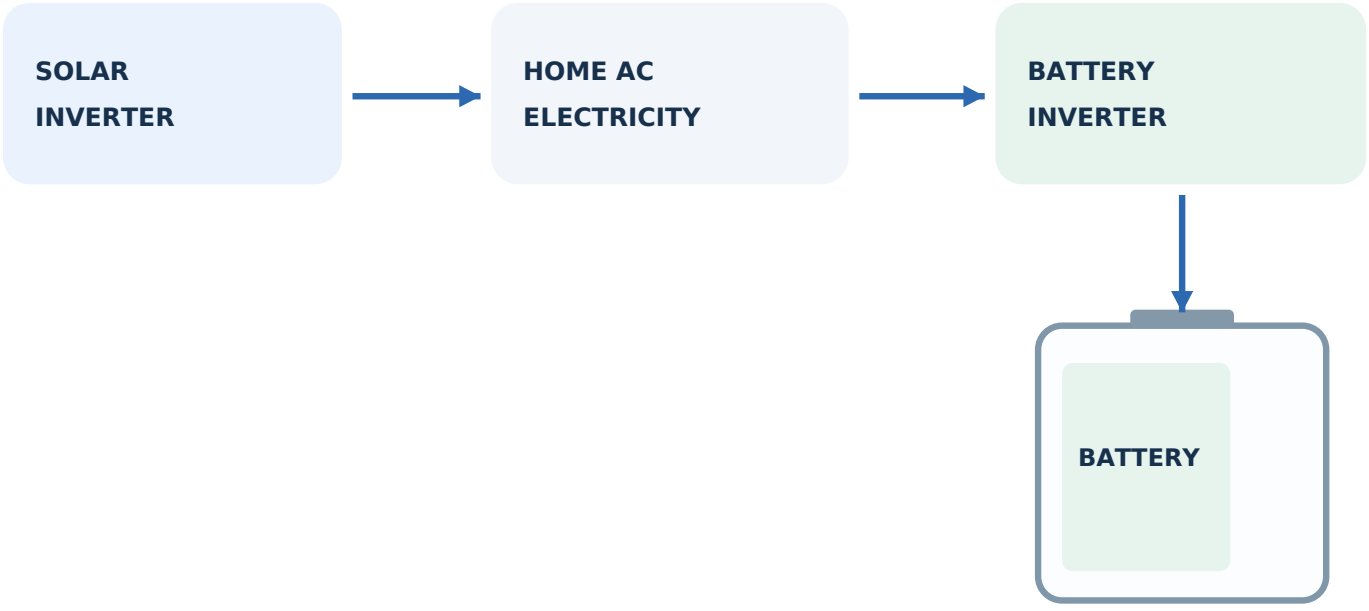
AC-coupled battery

Often suitable for adding storage to an existing solar system. It has its own conversion equipment and can work alongside an existing solar inverter. Extra conversion losses and installation complexity may apply.

DC-coupled / hybrid

Often considered for a new solar-and-battery installation or an inverter replacement. Solar and battery can share compatible hybrid inverter functions. Not every product works with every battery.

SIMPLIFIED AC-COUPLED EXAMPLE



The right choice depends on your existing inverter, wiring, roof solar, backup needs, future upgrades and installer assessment - not on a blanket claim that one coupling method is always better.

When does a battery help most?

Your timing of electricity use matters as much as the total on your bill.

Often more useful

You export substantial solar electricity during the day, then buy significant electricity in the evening or overnight at a higher rate.

May be less useful

You already use most solar directly, have little surplus to charge the battery, face a low import price, or have limited evening demand.

ILLUSTRATIVE DAILY TIMELINE

MORNING	MIDDAY	EVENING	NIGHT
Some grid use	Solar surplus	Battery helps	Battery may empty

Ask for interval meter data (30-minute or hourly) where available. Annual totals alone cannot show how often a battery will actually charge and discharge.

Why seasonal patterns matter

The following are historical electricity-bill examples supplied for PlaceNest modelling - not Australian household averages.

EXAMPLE: MONCRIEFF, ACT - TWO DIFFERENT BILL PERIODS

Jul-Oct 2025 (92 days)

Grid imports 1,805.854 kWh

Solar exports 1,789.328 kWh

Jan-Apr 2026 (90 days)

Grid imports 1,746.806 kWh

Solar exports 861.125 kWh

AVERAGE PER DAY (CALCULATED FROM THE ABOVE)



Jan-Apr export average: 861.125 ÷ 90 = 9.57 kWh/day.

This difference illustrates why one season cannot represent a full year.

Imports and exports do not reveal full household demand, solar generation or battery savings on their own. Detailed interval data is needed before recommending a battery size.

Large systems need careful interpretation

The supplied NeoVolt monitoring example shows why power, storage and energy flows must be separated.

REPORTED MONITORING VALUES

Displayed battery figure	**90.72 kWh**
Inverter rating	**25 kW**
Solar generation	**64.94 kWh/day**
Battery charging	**44.50 kWh/day**
Battery discharging	**49.30 kWh/day**
Grid imports	**42.78 kWh/day**
Household consumption	**115.49 kWh/day**

What this does show

A high-consumption property can still import substantial electricity even with significant solar generation and battery activity.

What it does not prove

These readings alone cannot establish usable capacity, charging source, monitoring boundaries, savings, or efficiency. Charge/discharge totals may reflect different measurement points.

Do not treat 90.72 kWh as verified usable capacity or assume these daily readings represent every day of the year. Reconcile equipment specifications and meter data first.

What happens on cloudy winter days?

A battery can only shift energy that is available to charge it.

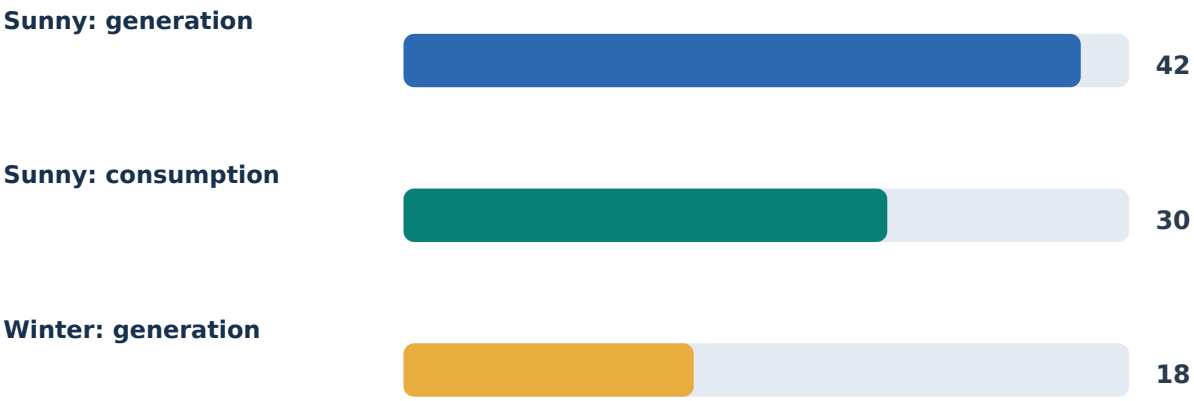
Illustrative sunny day

Solar generation: 42 kWh. Household use: 30 kWh. There may be solar surplus to charge storage, depending on the timing of usage.

Illustrative winter day

Solar generation: 18 kWh. Household use: 34 kWh. There may be little or no surplus for the battery after serving daytime loads.

ENERGY TOTALS (kWh/DAY) - ILLUSTRATIVE



The battery may remain partly empty after several cloudy days. Grid charging may help under some tariffs but adds costs and requires appropriate settings.

Model a full year, not just a clear summer day. Sometimes more rooftop solar or better daytime load management offers greater value than buying a larger battery.

Choose a battery size that fits

These size bands are illustrations, not recommendations or promises of suitability.

5-10 kWh

May suit smaller evening loads or households seeking modest energy shifting.

10-20 kWh

May suit greater evening demand, depending on solar surplus and tariffs.

20-40 kWh

May suit high consumption, larger solar systems or specific backup needs.

Above 40 kWh

Needs especially careful justification, equipment checks and detailed modelling.

Compare usable capacity, maximum output, charge/discharge limits, winter recharge frequency, future EV/heating loads and the cost of battery replacement.

How can a battery save money?

It may replace expensive grid imports with electricity stored earlier.

ILLUSTRATIVE TARIFF ASSUMPTIONS

Import price	**30 cents/kWh**
Export payment	**5 cents/kWh**
Round-trip efficiency	**90%**

Export 10 kWh

Without storage, 10 kWh exported at 5 cents/kWh earns an illustrative 50 cents.

Store 10 kWh

At 90% round-trip efficiency, approximately 9 kWh can later avoid 9 × 30 cents = $2.70 of imports.

EXTRA VALUE OF STORAGE IN THIS EXAMPLE

$2.70 avoided imports - $0.50 forgone exports = $2.20

This is the value of one hypothetical cycle, not a guaranteed daily saving. Time-of-use tariffs, export limits, losses and actual usage change the result.

Payback, lifespan and replacement

Look at the extra cost and extra benefit of adding a battery, not the solar savings you would receive anyway.

HYPOTHETICAL BATTERY ADD-ON

Extra installed cost	**$8,000**
Extra annual savings	**$800**

Simple payback = 10 years

What changes over time?

Electricity prices, export tariffs, battery degradation, finance charges, maintenance and household electricity needs.

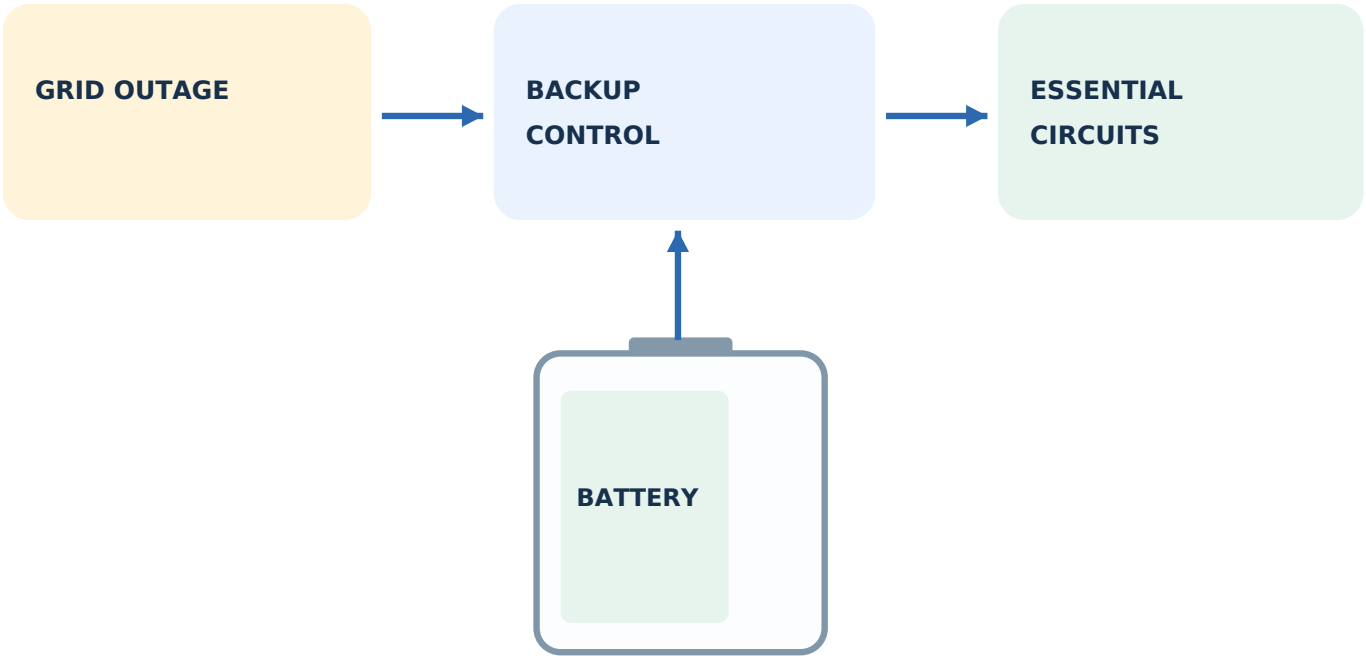
Beyond the warranty

A warranty is not a promise that the battery will stop working at expiry. Model repair, replacement or retirement as scenarios.

A battery may not pay for itself financially. Compare best financial return, best household coverage and future-ready choices as separate objectives.

Will the battery power my house in an outage?

Not automatically. Backup requires compatible hardware, wiring and configuration.



Plan essential loads

Fridge, lighting, internet and selected outlets may be priorities. Their combined power and duration must fit the system.

Do not assume whole-home backup

Large air conditioning, EV charging, electric cooking and pumps can quickly exceed battery output or available energy.

Ask the installer to demonstrate outage operation, explain which circuits work, and confirm whether rooftop solar can recharge the battery during a blackout.

Safe installation and ownership

Home batteries are significant electrical equipment, not do-it-yourself appliances.

01 **Qualified installation**

Use appropriately licensed and accredited professionals and approved equipment.

02 **Suitable location**

Assess heat, water, ventilation, fire clearances, access and manufacturer instructions.

03 **System documentation**

Keep installation certificates, shutdown instructions, warranties and serial numbers.

04 **Monitoring and maintenance**

Understand fault alerts, support arrangements, software updates and inspections.

05 **Emergency readiness**

Know how to isolate equipment safely and follow emergency-services advice.

Never open, move, modify or repair battery equipment yourself. Ask about safe placement and emergency response before signing.

Government incentives and finance

Programs change over time and vary by jurisdiction, system and eligibility.

Commonwealth incentives

Eligible batteries may receive support through the national Cheaper Home Batteries Program, subject to current rules and installation requirements. Eligible rooftop solar may have separate STC treatment.

State and territory assistance

Additional rebates, loans or finance offers may exist. Confirm whether they can be combined, whether installers/products qualify and whether income or property conditions apply.

Compare the true price

Ask for an itemised gross cost, each incentive or certificate discount, final payable amount, loan interest, fees and total repayment. Never assume a quoted discount is guaranteed.

OFFICIAL CHECKS: energy.gov.au | cer.gov.au

Ten questions to ask an installer

Compare written answers from at least two or three qualified suppliers.

- [ ] What is the usable capacity (kWh), not only the advertised capacity?
- [ ] What continuous and peak power (kW) can it deliver?
- [ ] Can it connect to my existing solar inverter? AC or DC coupled?
- [ ] What do my 12-month and interval data show about charging?
- [ ] How often will the battery fill in winter and cloudy periods?
- [ ] Does it provide blackout backup? Which circuits are included?
- [ ] What are the equipment, installation and labour warranties?
- [ ] What do replacement, end-of-life and recycling arrangements look like?
- [ ] Are rebates, STCs, finance charges and export limits itemised?
- [ ] Can I see solar-only, battery-only and solar-plus-battery comparisons?

Request the assumptions and month-by-month forecast in writing. A confident sales promise is not a substitute for a transparent model.

A simple decision flowchart

There is no single best battery size for every home.



Useful terms and reliable sources

Keep this page when comparing quotes and online claims.

Usable capacity	Energy the battery can actually supply under operating limits.
Power rating	Maximum ongoing electrical load supported, measured in kW.
Round-trip efficiency	Percentage of charging energy returned later.
AC / DC coupling	Different ways battery storage connects to solar and home wiring.
Depth of discharge	Portion of stored energy used relative to the available range.
VPP	Virtual power plant: coordinated use of participating batteries.
STC	Small-scale technology certificate under applicable Australian rules.
Feed-in tariff	Retailer credit for eligible electricity exported to the grid.

OFFICIAL REFERENCE STARTING POINTS

Australian Government energy guidance

Clean Energy Regulator

Clean Energy Council consumer resources

Editorial note: October 2026. Historical Moncrieff and NeoVolt figures were supplied as modelling examples; they are not audited or representative national averages. All financial and weather scenarios are illustrative. Verify incentives and equipment details before publication and purchase.