



The Ultimate Solar Battery Guide

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The Ultimate Solar Battery Guide

We'll take you through (almost) everything there is to know about solar batteries from how they work to getting them installed.

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Introduction to solar batteries

In the quest for power bills that don't break the bank and a more sustainable future, Australians are taking charge and choosing to power their homes with solar energy.

Once thought of as an unaffordable addition to a solar energy setup, the significant drop in solar battery prices over the past decade is empowering thousands of homeowners to say goodbye to skyrocketing power bills.

And rightly so! In a recent report, 74 per cent of households polled across Australia said they expect battery storage to be the norm in the next few years. Our population is getting tired of excessive power bills and are clever when it comes to seeking out alternative solutions.

We believe that knowledge is power when it comes to making a big switch though, so in this guide, we'll take you through (almost) everything there is to know about solar batteries. Ready? Let's get started.



How a solar battery works

When there's sunlight, solar panels generate energy but if more energy is produced than is required by your home, the excess electricity escapes into the main electricity grid.

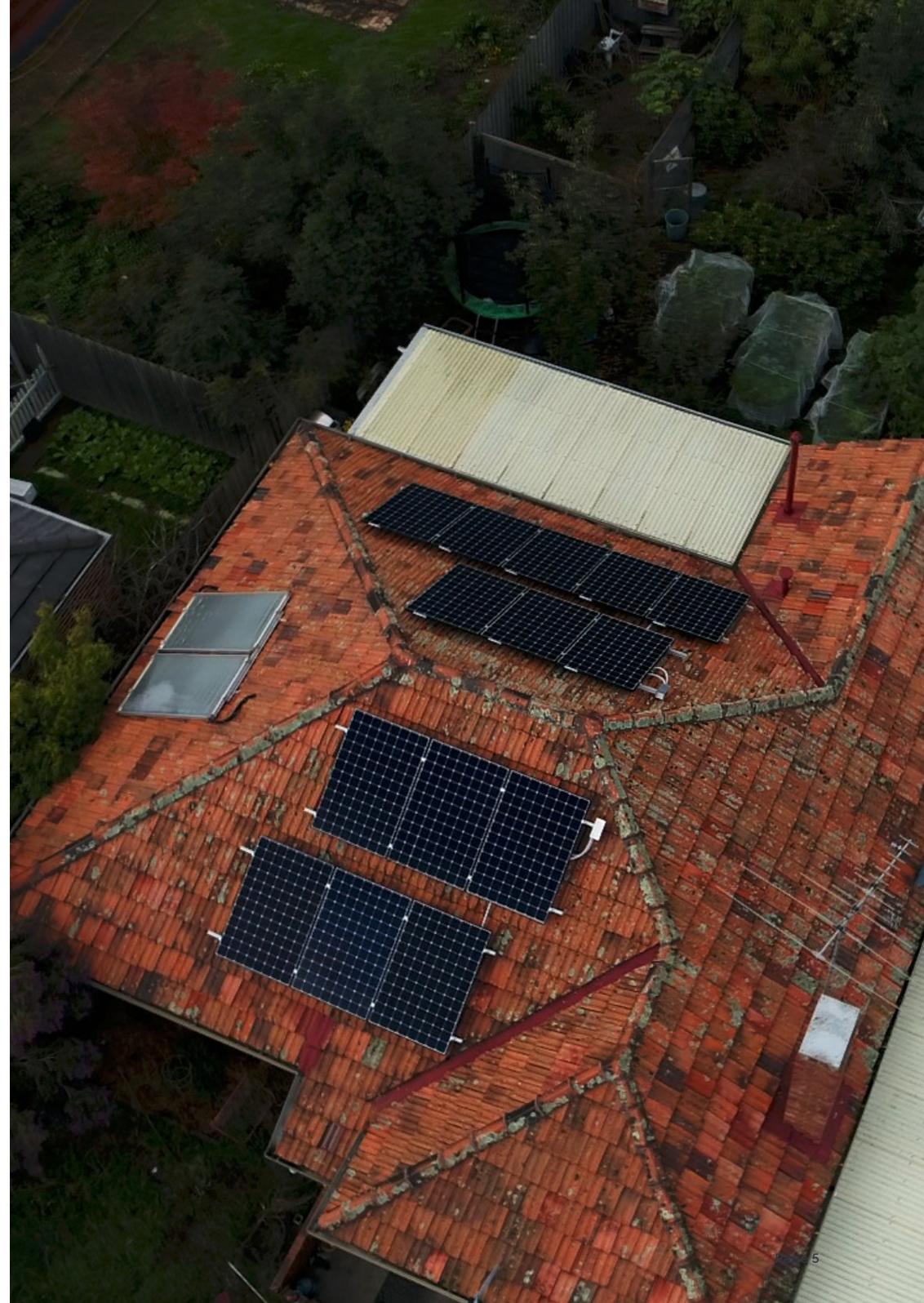
A solar battery is simply a storage device that is charged with energy from solar panels and can be used to store excess energy for later. This is particularly useful at night-time or on overcast days, when your solar panels aren't generating electricity.

One of the most common concerns for those considering a solar battery, is safety. Solar batteries are generally very safe but just like a normal battery you might use around the house, it's important to observe the manual and follow advice from your solar installer.

Solar batteries come in a variety of sizes and different chemical compositions, each with varying pros and cons.

When purchasing a solar battery:

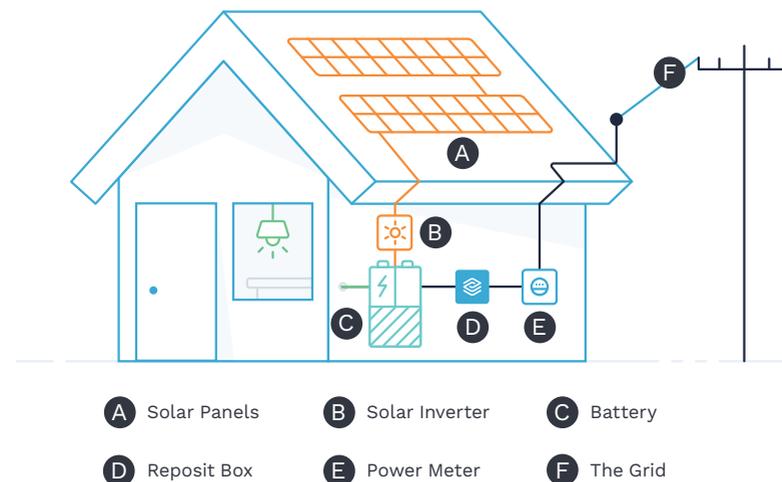
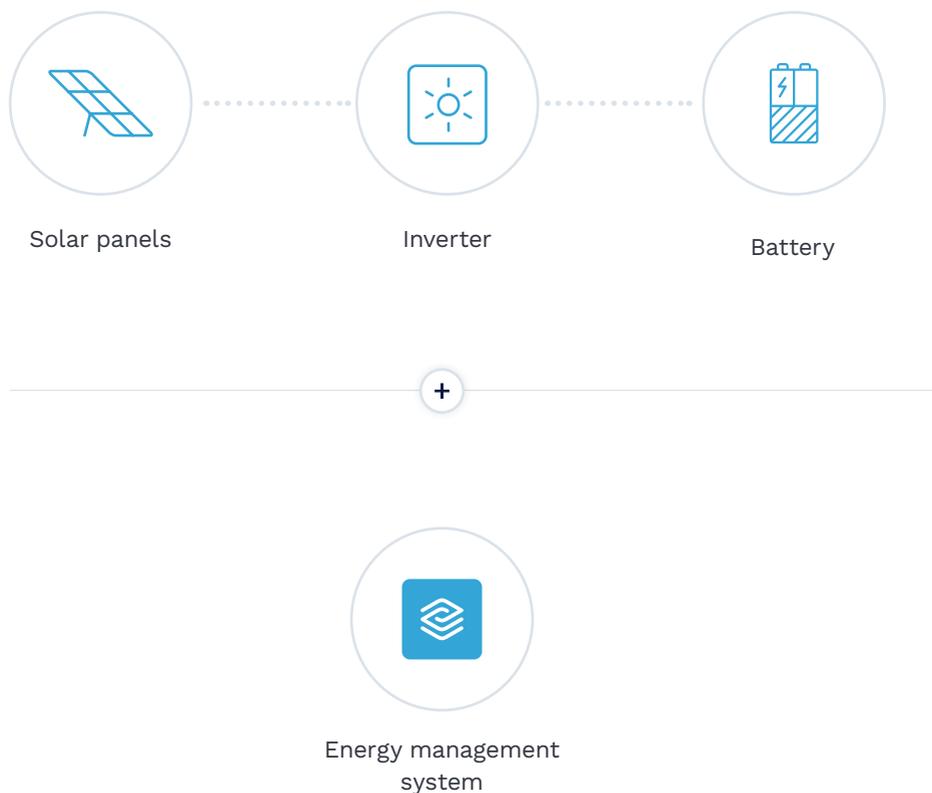
- it's essential to consider your household's needs,
- weigh up the pros and cons of different batteries, and
- always speak to an accredited installer who can offer advice and install your battery correctly.





Home solar battery setups

Basic solar battery storage systems are comprised of solar panels, an inverter, a solar battery and often a smart energy management system.



1. The solar panels convert sunlight into direct current (DC) electricity, which can be stored and used to charge the solar battery.
2. The inverter manages the flow of power from the solar panels to the battery, converting this energy into alternating current (AC), which is the electricity format required for powering your home.
3. A smart energy management system like Reposit is an optional addition to this basic setup. Reposit will step in to act as the brains behind your system, managing and optimising your system's performance and helping to get the lowest power bills.

Already have solar panels?

The good news is, many existing solar setups are compatible with current solar battery technology. Before rushing out to buy one however, you will need to consider a few aspects including your current inverter and solar system size, as not all batteries integrate with every system.

Reposit gives you an advantage, Reposit is smart and can often make all the components in a battery setup talk to each other, saving you the need to invest in new equipment.

Benefits of solar batteries

There are a number of reasons why Australians are turning to solar energy setups, but a leading factor is the ability to gain control over power bills through self-consumption of solar power.



Save for night

With a solar battery installed, excess energy generated throughout the day can be stored and used to power your home at night, when your panels are done for the day. Solar batteries help to maintain comfort levels year-round.



Avoid price spikes

Night-time and early mornings are when electricity prices spike, so reducing your reliance on the grid at these times results in significant savings on your bill. No one enjoys choosing between comfort or a cheaper bill so why not have both?



Reduce your carbon footprint

By now you're probably aware that carbon emissions are rising and if that isn't bad enough, Australia's greenhouse gas emissions are also reaching the highest levels we've seen in years. These stats are the driving force towards more sustainable energy solutions, such as solar power.

Going solar is one of the most effective ways to reduce your household's carbon footprint, and dependence on coal-fuelled, highly pollutant energy resources.

Solar batteries and smart technology

Our homes are filled with energy-draining appliances; air conditioners, fridges, washing machines, dishwashers, televisions and home entertainment systems, to name a few.

An energy management system like Reposit can whip your solar setup into shape, ensuring that you get the most out of these appliances but without the hefty price tag.

Reposit Power learns

With the ability to monitor and manage your household energy usage and costs, predict future energy consumption and solar generation based on real-time weather, Reposit acts as the brain behind your solar battery setup. Once connected, Reposit learns your usage patterns and notifies you when there's excess power to be used or sold, empowering you to make smarter energy decisions without lifting a finger.

Reposit Power manages

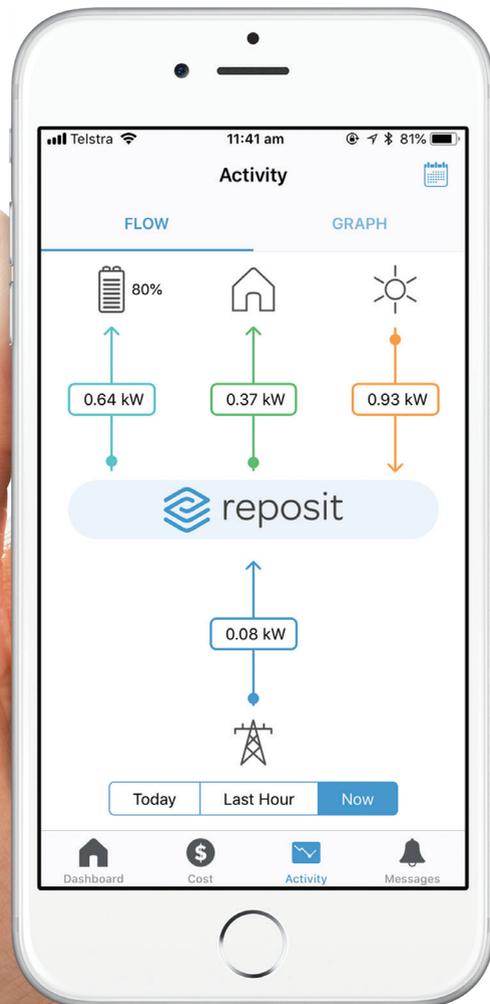
Want to know something awesome? By connecting smart plugs to each of your energy-draining appliances, you can make your system even smarter.

Got a tumble dryer, a pool pump or an electric car? Perfect! When you receive a notification from Reposit about excess energy, you can choose to run these appliances at the tap of a finger and without even needing to be home!

Reposit Power outsmarts the system

At Reposit, we're all about giving homeowners advantages over the big energy companies. GridCredits® are an exclusive battery feed-in-tariff reserved solely for our customers.

With our system connected to your battery, we'll ensure you get the cheapest electricity possible but sell any stored energy back to the grid for the highest possible price. This means lower power bills and that warm and fuzzy feeling knowing you've supported the grid with some cleaner energy AND shared it with your community.



Solar battery savings

Setting up a solar energy system with a battery does involve some initial outlay, however the benefits will quickly be realised once you receive that first bill.

Battery Cost

The cost of a solar battery ultimately comes down to the storage size and quality but will set you back about \$1,000 to \$1,500 per kilowatt hour (kWh) storage capacity.

Payback Period

In the last decade, electricity prices have increased by more than 63 per cent which is naturally putting an enormous financial pressure on the population. While a solar battery setup may take a number of years to pay off (known as the payback period), pairing it with Reposit will ensure your system is providing maximum value by selling excess energy at a premium and only buying energy when its cheap, resulting in a reduced payback period.



Return on Investment

Research from Solar Choice indicates that most solar owners receive 9-16 per cent return-on-investment by adding a solar battery. That's a win in our books!

Are solar batteries worth it?

Tired of rationing out your energy usage and sacrificing your comfort? Eager to reduce your carbon footprint, or perhaps save money on power bills?

If you answered yes to any of these questions, then a solar battery may just be the answer. Like with any big purchase though, it's worthwhile to take some time to ponder a few things first.

Where to Start

Start by considering your household's current energy needs

- do you use a lot of power at night?
- What size is your home, and
- will your energy needs evolve in the future?

While solar batteries can be installed as large units, many homes are opting for smaller modular units due to their adaptability (and affordability), as energy requirements can change and evolve over time.

Once you have a rough idea about the size, this will help you form an estimation of cost and help to determine the length of the payback period.

If you've got past electricity bills, use them to guide your research and compare. In most cases, the savings will become apparent, however, it does come down to individual energy needs!



Solar batteries: choosing the best

Selecting the best setup for your home all comes down to individual energy needs.

Just right...

The ideal battery should be of high quality and provide enough energy storage to power your home throughout the day and night, with a margin of excess to cover your usage when there isn't much sunlight.

An accredited solar installer can talk you through the different battery brands and point you in the right direction for your household.

Keep in mind that if the excess energy isn't required, you can always opt to sell it back to the grid or run your power-hungry appliances.

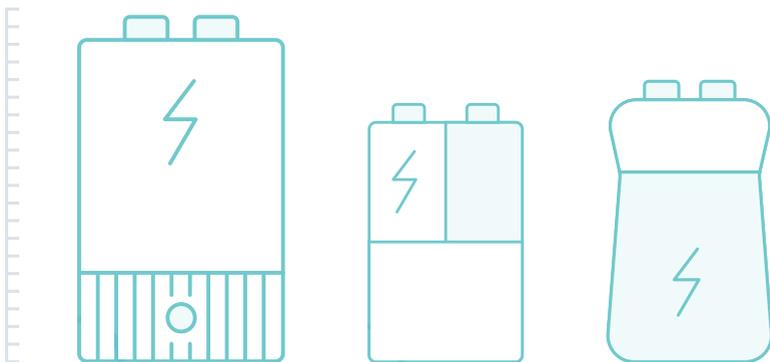
Is bigger better?

Broadly speaking, the power of your battery should also correlate with the power of your solar panels. For example, you need a battery that can supply enough energy to run what you need, and then you need a solar system that can fill the battery most of the time. Very small batteries can seem attractive because they are cheaper, but will it really be the best choice for you?

Connecting setups

As we mentioned earlier in this guide, not all batteries integrate with every solar energy system. If you've already got solar panels installed, you'll need to investigate which battery is compatible with your existing solar setup.

The good news is that adding Reposit makes any solar system compatible with a wide range of popular batteries. Contact one of our awesome consultants to learn more.



Solar battery buying checklist

So, you're getting on board? Awesome! Your hip pocket and the environment will thank you. Depending on where you're at in your solar journey, we've outlined some useful steps for getting setup with a solar battery.

It's worth noting here, if you'd like to optimise your system with Reposit either right away or in the future, just be sure to select Reposit-compatible products to avoid any issues down the track.

Already have solar

✓ Step 1

Research and speak to an expert about your households needs. Want some help? Speak to Reposit

✓ Step 4

Book in your installation date with an accredited installer

✓ Step 2

Speak to an expert accredited solar installer and obtain quotes (Reposit can recommend installers in your area)

✓ Step 5

Research and speak with electricity companies to compare the best plan for your location and setup. (Yep, Reposit can help you here as well)

✓ Step 3

Select your battery setup and pay your deposit

✓ Step 6

Sit back and relax, knowing you made the smart decision for your household



Getting a complete solar and battery setup

✓ Step 1

Research and speak to an expert about your households needs. Want some help? Speak to Reposit

✓ Step 5

Research and speak with electricity companies to compare the best plan for your location and setup. (Yep, Reposit can help you here as well)

✓ Step 2

Speak to an expert accredited solar installer and obtain quotes (Reposit can recommend installers in your area)

✓ Step 6

Book in your installation date with an accredited installer

✓ Step 3

Select your solar setup based on your household's needs and pay your deposit

✓ Step 7

Get your solar power and battery switched on

✓ Step 4

Sit back while your system is manufactured and shipped out

✓ Step 8

Put your feet up, after all that work rest well knowing you made a smart decision for your household.

Electricity plans and solar batteries

Choosing the right electricity plan is arguably just as important as the battery itself.

- Energy can be charged in a variety of different tariff types including:
- single/flat rate,
- block rate,
- off-peak,
- time-of-use (TOU) and
- feed-in-tariff (FIT).

Due to the economic value of a 'flat rate' tariff, this is often the default option when signing up to an electricity plan. However, if you're looking for maximum value as a solar battery owner, opting for a time-of-use plan will ensure you get the most out of your system.

On a TOU plan, Reposit will monitor and optimise your system so it favours using stored energy at peak times but buys electricity only when its cheapest.

When selecting an energy retailer, be sure to choose one that offers a GridCredits® plan. This lets you contribute your stored solar energy to the grid when demand is high, and you earn GridCredits®, credit towards your power bill.





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