

NEVER HAD SOLAR ENERGY BEFORE? LET US SIMPLIFY THE PROCESS FOR YOU!

What makes up a residential solar system?

1. Solar panels
2. Mounting gear
3. Inverter *(must be Hybrid for battery compatibility)*
4. Battery storage

What size solar panel system do I need?

- 1 to 2 People (Small Household): 5kW - 6kW system.
- 2 to 3 People (Medium Household): 6kW - 9kW system.
- 4 to 5 People or Heavy Users: 9kW - 15kW system.
- 6 + People or Largest Users: 15kW + system.

What size inverter do I need?

- 5kW to 6kW of panels = 2 - 5kW inverter
- 6kW to 9kW of panels = 5 - 10kW inverter
- 9kW to 15kW of panels = 10 - 15kW inverter
- 15kW + of panels = 15kW+ inverter

How much battery storage do I need to cover the evening consumption?

To determine the appropriate battery storage capacity for your requirements, monitor your evening electricity consumption using the property's meter. Record the meter reading at sunset and compare it with the reading at sunrise to calculate your overnight power usage.

- 5kW to 10kW of consumption = 10 - 15kW of battery storage
- 10kW to 20kW of consumption = 15 - 25kW of battery storage
- 20kW to 30kW of consumption = 25 - 35kW of battery storage
- 30kW + = 35kW - 40kW of battery storage

What are the current rebates:

Federal Rebates - The main federal incentive is the Cheaper Home Batteries Program, which offers a discount of around 30% on eligible small-scale battery systems starting July 1, 2025. This is achieved through the Small-scale Renewable Energy Scheme (SRES) by providing Smallscale Technology Certificates (STCs). This program is available to eligible households and small businesses for batteries with 5 - 100kWh usable capacity, connected to new or existing solar PV systems.

WA State Rebate - WA Residential Battery Scheme which provides a rebate of up to \$1,300 for Synergy customers or \$3,800 for Horizon Power customers, plus an optional interest-free loan up to \$10,000 for eligible households with income under \$210k. Mandatory VPP Participation for the WA State Rebate requires the battery to be connected to an approved VPP. Participation in a VPP allows your stored energy to be coordinated to support the grid during peak demand times, for which you can receive financial credits.

Where are the batteries usually installed?

Garages or utility rooms are the most common placement, as they provide shelter from weather extremes while remaining accessible for maintenance. Batteries perform optimally within moderate temperature ranges (typically 15-25°C), and these spaces naturally offer this protection.

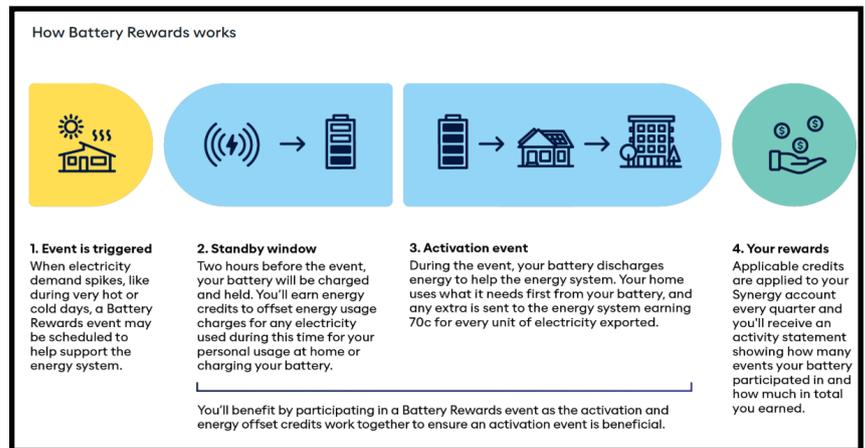
External wall-mounted locations are used when indoor space is limited, though batteries require weatherproof enclosures and adequate ventilation in these installations. Some systems are specifically designed for outdoor use with appropriate IP ratings. The installation location is chosen based on several factors: proximity to the solar inverter and electrical switchboard to minimize cable runs and voltage drop, adequate ventilation to dissipate heat generated during charging and discharging cycles, accessibility for maintenance and monitoring, and compliance with electrical codes and manufacturer specifications. The goal is to balance safety, system efficiency, and longevity of the battery components while ensuring the installation meets all regulatory requirements.

The model of equipment needed for the installation is determined by the phase supply to the property, make sure to check if you have single or 3 phase power!



How it works when you join the VPP:

Under Battery Rewards, Synergy would manage your battery for a two year term, with up to 30 activation events per year during peak demand periods when the energy system needs to draw on household energy assets, such as the hottest or coldest days of the year.



Your stored energy is valuable to the energy system, so during a Battery Rewards activation event, you could earn 70 cents for every unit** of electricity exported to the energy system. To make sure you're never worse off from sharing your stored battery power, you'll also receive energy offset credits* to cover energy costs during the activation standby window.

Is there additional charges or optional extras I can include?

Backup Circuits / Blackout Circuits

Backup circuits in a solar residential installations are designated electrical circuits that remain powered during a grid outage when you have a battery storage system. This allows you to utilise critical loads like lights, powerpoints and 1 other circuit to be powered by your panels during the day and your battery storage in the evening, in the event of a grid outage. High draw appliances are not suitable for these circuits including air-conditioning units, dryers, electric heaters etc.

EV Prewire

This is electrical work done to prepare your home for a future electric vehicle charger installation, even if you don't have an EV yet. This includes running heavy gauge electrical wiring from your main panel to your garage or parking area, installing a dedicated circuit breaker (typically 40-60 amps and adding a junction box or outlet at the charging location).

EV Installation

An EV charger installation service involves having our licensed electrician install a Level 2 charging station at your home, which charges your electric vehicle much faster than a standard wall outlet. Once installed, a Level 2 charger can fully charge most EVs in 4-8 hours, making overnight charging convenient and eliminating the need for frequent trips to public charging stations.

Switchboard Upgrade

During the quoting process you will be asked to supply a photo of your switchboard, prior to confirming costings we always like to ensure all costs have been considered so there are no surprises. Most modern switchboards have 18-24 poles total. You'll likely need an upgrade to a 36-pole or larger switchboard if you plan to add solar, battery, EV charging, and maintain adequate safety margins. In Western Australia, a switchboard needs to be upgraded for solar and battery compliance if it doesn't meet the following requirements:

RCD (Safety Switch) Protection

- Must have at least **two RCDs** protecting all power point and lighting circuits.
- Required for properties being sold or rented.
- Older homes may only have one RCD or none at all.

Circuit Breaker Main Switch

- Western Power requires all main switches to be updated to **circuit-breaker main switches**.
- Old-fashioned rewirable fuses must be replaced with modern circuit breakers.

Physical Condition Issues

- **Asbestos-backed switchboards** (common in homes built before 1990) require complete replacement
- Damaged, corroded, or outdated switchboards that don't comply with current Electricity Regulations 1991

Capacity and Space

- Insufficient space for solar inverter connections, isolator switches, and additional circuit breakers
 - ⇒ New solar and battery installation: 12 - 20 poles.
 - ⇒ Replacement solar with new battery: 8 - 16 poles.
 - ⇒ Battery addition to existing solar: 2 - 4 poles.