RATING METHOD

How we rate solar panels, inverters, batteries and heat pumps

Independent ratings for Australian homes. No brand can pay for a score.

The EnergyUpgrade Score is a number out of 10 built from manufacturers' own documents, using rules anyone can check. This document explains the method; a separate PDF for each product lists every criterion in full.

Five rules we don't bend

1. Only what's published. Every product score comes from the manufacturer's own datasheet or Australian warranty document, for a product on the Clean Energy Council approved list. No marketing claims, no star ratings.

2. Rules, not opinions. Each criterion turns one published value into a score out of 10 with a rule anyone can read. Nobody types a score in by hand.

3. Missing means missing. If a datasheet doesn't state something, we show 'not stated' and it scores zero. We never fill a gap with a guess or an average.

4. Price stays out. Prices change weekly and depend on your installer, so the score is about the product. Your quotes cover the price.

5. Nobody pays to rank. No manufacturer, distributor or installer can pay for a score, a pick or a position on a list.

From datasheet to score

1. Gate. Every version must be on the current Clean Energy Council approved list, and we must hold its datasheet. Expired or withdrawn products aren't listed.

2. Group. Models are grouped into the series they're sold as, such as Jinko Tiger Neo or Sungrow SH-RS. A series is rated on its best home version; every other version is listed with its own score.

3. Read. We read each value as printed, for example '-0.29 %/°C', then check the number appears in the PDF itself. Where it doesn't, we lower the confidence.

4. Score. Each value maps to 0–10 on a straight line between two published anchors, or through a published table for things like IP ratings.

5. Weight. Criterion scores are combined with the category weights. A value the datasheet doesn't state scores zero, which also stops a thin datasheet out-scoring a complete one.

6. Rank. Home series are ranked when their documents state at least 65% of what we weigh. The rest stay listed, with the reason they aren't ranked.

What we score for each product

Solar panels

Output guaranteed at year 25	25%	Worked out from the datasheet's first-year and annual degradation: 84% scores 0, 92% scores 10.
Product warranty	25%	Years of product warranty: 10 scores 0, 30 scores 10.
Heat performance	20%	Temperature coefficient of Pmax: -0.38%/°C scores 0, -0.24%/°C scores 10.
Efficiency	20%	Highest module efficiency in the range: 20.5% scores 0, 25% scores 10.
Performance warranty length	10%	Years: 25 scores 0, 30 scores 10.

Inverters

Efficiency	30%	Maximum efficiency on the datasheet: 96% scores 0, 99% scores 10.
MPPTs for split roofs	20%	Number of MPPT trackers: 1 scores 0, 2 scores 5, 3 or more scores 10.
Heat tolerance	20%	Highest operating temperature: 45°C scores 0, 60°C scores 10.
Room for more panels	15%	Maximum PV input divided by rated AC output: 1.2x scores 0, 1.5x or more scores 10. Rebate rules allow panels up to 133% of the inverter, so more than 150% adds little.
Weather sealing	15%	IP66 or better scores 10, IP65 9, IP55 4, lower 0.

Home batteries

Warranty that lasts	30%	Years of performance warranty at 300 full cycles a year, from the manufacturer's Australian warranty document: 6 years scores 0, the full 10 years or more scores 10.
Weather sealing	25%	IP66 or better scores 10, IP65 9, IP55 6, IP54 4, lower 0.
Room to grow	25%	Largest approved configuration, usable kWh: 10 scores 0, 40 or more scores 10.
Heat tolerance	20%	Highest operating temperature: 40°C scores 0, 55°C or more scores 10.

Heat pump hot water

Energy savings (official)	30%	STCs for a Zone 3 installation on the Clean Energy Regulator register, best model in the series: 26 scores 0, 34 scores 10.
Warranty	25%	Average of the cylinder and the refrigeration-system parts warranty, in years: 3 scores 0, 10 or more scores 10.
Cold-weather operation	15%	Lowest outdoor temperature the heat pump runs at without the element: 0°C scores 0, -10°C or colder scores 10.
Quietness	15%	Sound pressure at 1 metre: 55 dB(A) scores 0, 37 dB(A) scores 10. Figures quoted at 2 metres have 6 dB added.
Refrigerant	15%	Natural refrigerants R744 (CO2) and R290 score 10; R513a 5; R32 4; R134a 2.

Score bands

Excellent	8.5 and above
Very good	7.5 to 8.4
Good	6.5 to 7.4
Fair	Below 6.5

Data confidence

High
Australian datasheet, verified against the approved list, states at least 85% of what we weigh, and every scored value appears in the PDF.

Medium
A global edition of the datasheet, a small gap in the data, or a value we couldn't find printed in the sheet we hold.

Low
The datasheet doesn't clearly match every model in the series, or leaves out more than a third of what we weigh. Low-confidence series can't be a pick.

How brands are rated

A datasheet shows what a product promises, not how a brand behaves. Brand ratings add independent evidence, with the same rules for every brand.

PART	INVERTERS, BATTERIES	PANELS	HEAT PUMPS	THE RULE
Product scores	45%	30%	40%	Average datasheet score of the brand's two best home series in the category, the ones an installer would actually quote. Older ranges still on the approved list don't drag a brand down.
Owner reviews	15%	15%	20%	What owners say across the brand's products in this category: SolarQuotes owner reviews for panels, inverters and batteries, and ProductReview.com.au plus SolarQuotes for heat pumps. Reviews are averaged by count, and every brand is pulled towards 4.0 stars as if it had 30 more reviews at that level, so a handful of perfect reviews can't beat thousands of good ones. 3.0 stars or lower scores 0, 5.0 scores 10. Listings for a range the brand no longer sells are shown but not counted, and a listing about the company in general counts half.
Track record	15%	20%	15%	Panels: Kiwa PVEL Top Performer status, 2 points for each of the 2024, 2025 and 2026 scorecards plus up to 4 for total editions (10 or more scores 4). Inverters and batteries: up to 7 points for years selling in Australia (8 or more scores 7) and 3 for a stock-exchange listing. Heat pumps, which should last 10 to 15 years: up to 7 points for years trading in Australia (20 or more scores 7) and 3 for a listing. ACCC recalls of that kind of product take points off: 3 for one covering a range we list, 2 for another, doubled when the brand offers no remedy. A brand in liquidation scores 0.
Installer and market standing	15%	25%	15%	Average of two independent results, each using the better of this year's result and last year's (last year's counts 80%). The SolarQuotes Installers' Choice vote: 1st scores 10, 2nd 8, 3rd 7, 4th or 5th 6. SunWiz awards from Clean Energy Regulator installation data: No. 1 for homes scores 10, No. 1 in another segment or 2nd–3rd 8, top 5 or fastest growing 6. For panels, BloombergNEF Tier 1 status scores 6 when there's no SunWiz award. For heat pumps, which have no installation-data award, the second result is popularity from the number of owner reviews: 10 reviews scores 2, 100 scores 5, 1,000 scores 8.

PART	INVERTERS, BATTERIES	PANELS	HEAT PUMPS	THE RULE
Australian support	10%	10%	10%	Published Australian office 4 points, local support phone 3, local service email 2, more than one office 1.

