

SHORT LIFE OF FLAWED CONVENTIONAL PANELS

Conventional panels have inbuilt flaws that result in underperformance and limited life. The two main causes of flaws are cracking and corrosion (86% of conventional panel failure) - see Graph 1.

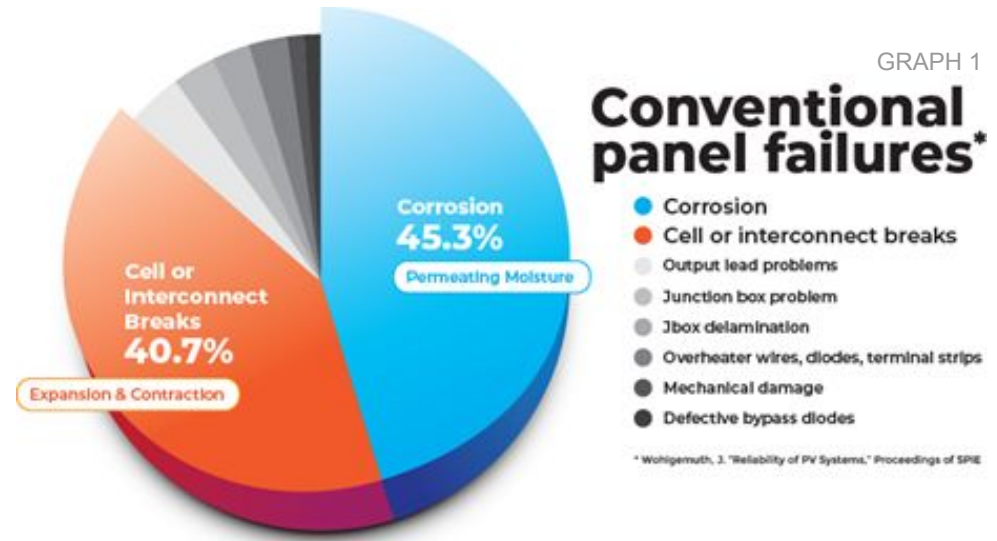
Many industry experts, and specific longevity studies, suggest that the average effective life of a conventional panel is more like 12 years, not 25.¹

How can this occur?

- ✗ Australian homeowners spend an average 9 years in their home before selling, and buying their next home. They typically won't see the 25 years of their panels' product warranty. New homeowners then replace their failed solar system.
- ✗ A number of Conventional Panel brands offer 25-year product warranties to homes but only 15 years' warranty (or even 12) for businesses (for the same panel).²
- ✗ Most conventional brands cover only part of the cost of the panel replacement - providing the replacement panel without covering freight, labour or disposal costs - refer Graph 2.
- ✗ Conventional panels have a range of product warranty loopholes. Escape clauses exist throughout their datasheets, warranty terms and conditions and install manuals. To clearly understand them you have to read all three documents. Saline conditions (i.e. beachside suburbs), flat roofs and partial shade are some of the main escape clause reasons - refer Graph 3 on the next page.²
- ✗ If conventional manufacturers have to pay for product warranties, they gamble on the fact that in 12 years they can make replacement panels a lot cheaper. They know they need to provide the perception of quality via 25-year product warranties, even though their technology won't last anywhere near that long.

For over 10 years, the trick of passing off the warranty as the performance warranty worked. Many solar consumers now know that it's the product warranty that's paramount.

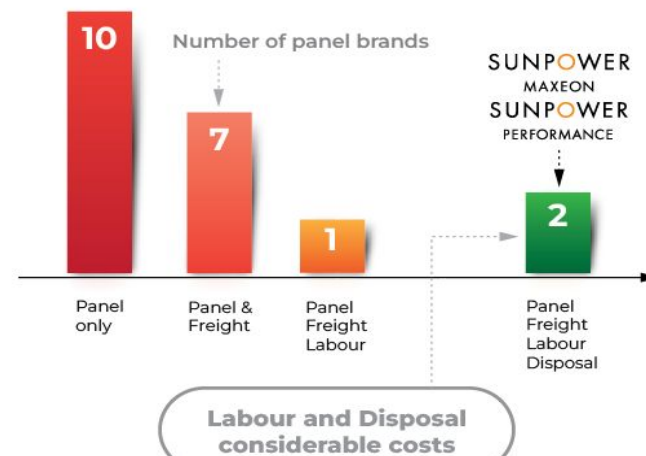
So when choosing a solar panel, remember to check the following in a product warranty - length, coverage, escape clauses (loopholes) and suitability for extreme environments (if relevant).



TOP 20 SOLAR PANELS GRAPH 2

Product Warranty Coverage

Based on brands best selling model*

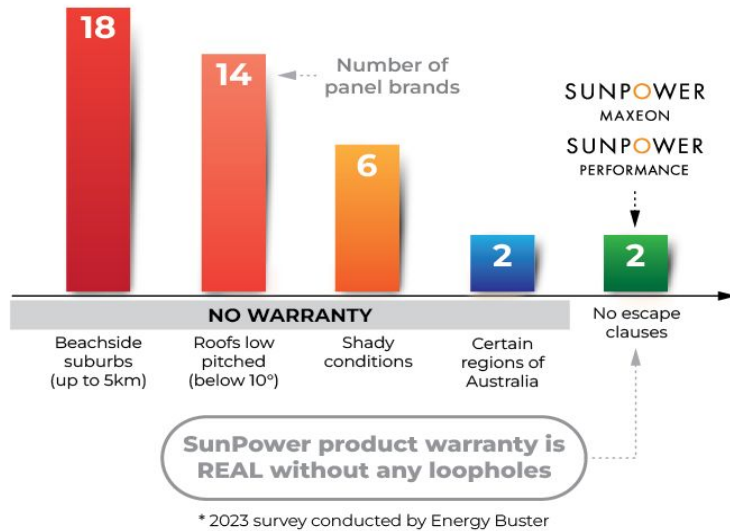


1. Wohlgemuth J. "Reliability of PV systems," proceedings of SPIE 2. Energy Buster 2023 survey

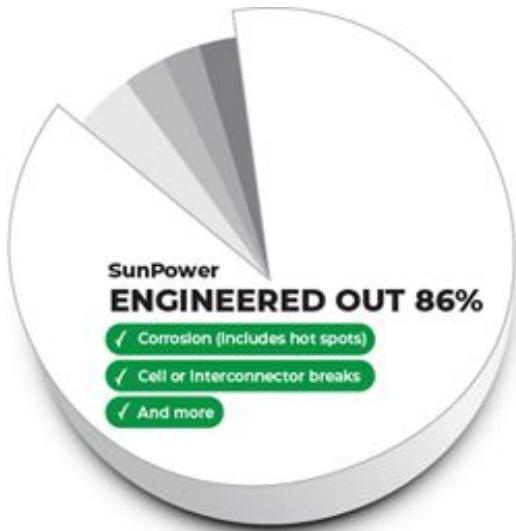
TOP 20 SOLAR PANELS GRAPH 3

Product Warranty Escape Clauses

Based on brands best selling model*



SunPower enhanced panel technology GRAPH 4



- Engineered Out Faults
- Output lead problems
- Overheater wires, diodes, terminal strips
- Mechanical damage
- Defective bypass diodes

QUALITY AND CHEAPNESS: OXYMORONS

As described above, conventional panels give a perception of quality, but compete on price, so that quality and cheapness are oxymorons.

THE SUNPOWER ALTERNATIVE

- ✓ SunPower stand by their market-leading, 40-year product warranty - with the most comprehensive product warranty coverage on the market (covering parts, freight, labour and disposal).
- ✓ SunPower has had, by a long stretch, the lowest number of product warranty claims of the global solar panel market.³

Energy Buster recommends SunPower panels - either their (world's best) Maxeon or their (next best) Performance Series.

- ✓ SunPower panels are not conventional - they're unique patented technology. The cracking and corrosion flaws of conventional panels have been engineered out.
- ✓ A SunPower performance warranty is the same length as the product warranty.
- ✓ SunPower panels have the longest and most comprehensive product warranty.
- ✓ SunPower panels are not built with slave labour. SunPower's independent audits are listed on SEDEX. Do not accept anything but an independent audit - inhouse anti-slavery policies and statements are not credible.
- ✓ A SunPower product warranty has no escape clauses.²

If you're looking for quality and performance, the best solar panel choice is SunPower.



WARRANTY THREATS

DEEPER LOOK

3. Green Convergence AUG 2016 - comparison of all global publicly listed panel manufacturers annual reports