

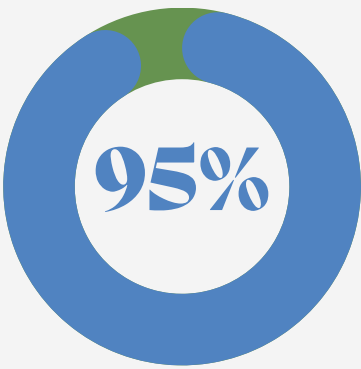
FAST FACTS

Solar Technology

A comparison of various solar technologies and insights into newer technologies

PV VS CSP

95% of global solar installations use Photovoltaics (PV) opposed to Concentrating solar power (CSP)¹.



CSP's edge in storage

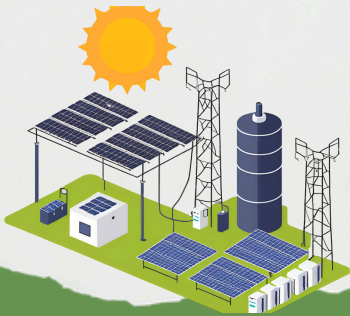
CSP stores energy cheaply with thermal storage but is costlier to build than PV².

MOLTEN SALT STORAGE

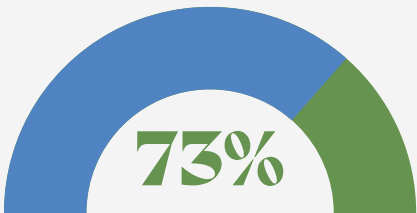
can only be used in CSP and is **33x** cheaper than lithium-ion batteries for large-scale energy storage³.

Hybrid CSP + PV Plants

A study has shown the potential to harness the best of both solar types by combining cost-effective PV with CSP's cheaper thermal storage to supply 24/7 power⁴.

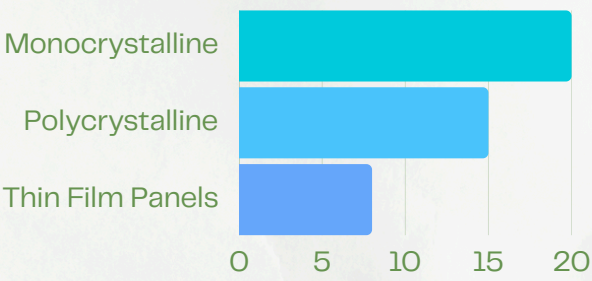


PEROVSKITE CELLS IN PV



Cost-effective and higher efficiency potential than silicon, perovskite cells are projected to dominate the future market. Their market share will grow by 73% each year⁵.

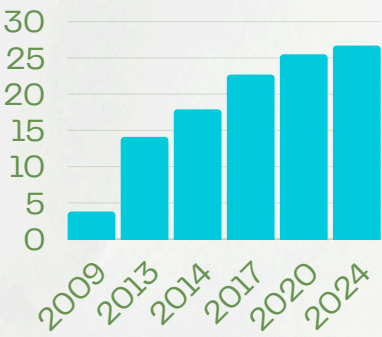
PV Panel Efficiency



Price and Longevity⁶

1. Monocrystalline Panels: , lasts 25–40 years, and most expensive.
2. Polycrystalline Panels: lasts 25–35 years, and moderately priced.
3. Thin-Film Panels: lasts 10–20 years, and cheapest option.

Perovskite Efficiency Trend⁷⁸



Development Progress

Perovskite Cells are the most rapidly developing cells. But despite their potential, perovskite cells are yet to be used widely because of limited long term stability and quick degradation, an issue being thoroughly researched⁹.

References

- 1 (Victoria et al, 2021)
- 2 (Miron et al, 2023)
- 3 (Battisti, 2022)
- 4 (Giaconia and Grena, 2021)

- 5 (Grand View Research, 2023)
- 6 (Solar Prices, n.d.)
- 7 (NREL, 2024)
- 8 (Supplies 2015)
- 9 (Stewart 2023)