

National Survey Report of PV Power Applications in Australia 2024

2024 澳大利亚光伏国家市场报告

This report provides a comprehensive overview of the Australian PV market, which recorded strong growth in 2024 and achieved a cumulative installed capacity of 40.4 GW by the end of the year.

本报告全面概述澳大利亚光伏市场发展状况：2024 年该国光伏产业实现强劲增长，截至年底累计装机容量达 40.4GW。

Australia's PV market continued to expand in 2024, with both rooftop and utility-scale segments contributing to steady growth throughout the year.

澳大利亚光伏市场在 2024 年持续扩张，户用光伏与集中式光伏领域全年均贡献稳定增量。Rooftop PV remains a defining characteristic of Australia's energy landscape, with household solar adoption among the highest in the world. System sizes continue to grow, reflecting changing consumer behaviour, evolving market conditions and the increasing role of distributed generation in the electricity system.

户用屋顶光伏仍是澳大利亚能源格局的显著特征，家庭太阳能普及率位居全球前列。系统容量持续增长，反映出消费者行为模式转变、市场条件演进以及分布式发电在电力系统中日益重要的地位。

The contribution of solar power to Australia's overall electricity supply continues to rise, supported by favourable solar resources and sustained investment. On a per-capita basis, Australia remains one of the most active PV markets globally, with strong adoption across both distributed and utility-scale segments.

得益于优越的日照资源和持续投资支持，太阳能发电对澳大利亚总体电力供应的贡献度持续提升。以人均水平衡量，澳大利亚始终位列全球最活跃光伏市场之一，分布式与集中式光伏领域均呈现高度普及态势。

Key Findings from the Report

核心数据摘要：

▪ Australia reached record annual installations of 5.3 GW in 2024, surpassing the previous peak recorded in 2018–2019.

2024 年年度新增装机量达 5.3GW，突破 2018-2019 年历史峰值

- The country now has 40 GW of total installed PV capacity, including 26.1 GW of distributed systems and 13.4 GW of centralised installations.

全国光伏总装机容量达 40GW，其中分布式系统 26.1GW，集中式电站 13.4GW

- More than 4 million PV systems are installed nationwide—an exceptional figure for a country with a population of just 25.7 million.

全国安装超 400 万套光伏系统——对于仅 2570 万人口的国家堪称卓越

- Rooftop PV is widespread, with 44% of free-standing homes equipped with solar systems and several local areas exceeding 60% penetration.

屋顶光伏普及广泛，44%的独立住宅安装太阳能系统，部分地区渗透率超 60%

- Residential system sizes continue to grow, with the average installation now reaching 10 kW.

户用光伏系统容量持续增长，目前平均安装规模已达 10kW