

## Australian PV Market Trends

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### Abstract

Australia continues to set new records in the installation of rooftop and ground mounted solar. This paper will present the latest market data and analysis, based on reports prepared for the International Energy Agency as part of Australia's participation in photovoltaics.

### Highlights

In 2019, Australia saw renewed growth in the rooftop solar market and strong growth in the utility-scale solar sector.

With the addition of 4.1 GW of new solar on rooftops and ground mount, the total installed capacity at end 2019 reached 16.3 GW.

With 16.3 GW, Australia now leads the world in solar per capita, with 600W/person. Germany is a close second at 580W/person.

Historical trends in total installed capacity are shown in Figure 1, where it can be seen that;

- Australia has seen a greater than ten-fold increase over the total installed capacity of 1.3 GW in 2011.
- Australia's total installed capacity has more than doubled in two years, with 7.1 GW installed at the end of 2017.
- More solar was installed in 2019 than the total historical installed capacity to the end of 2014.

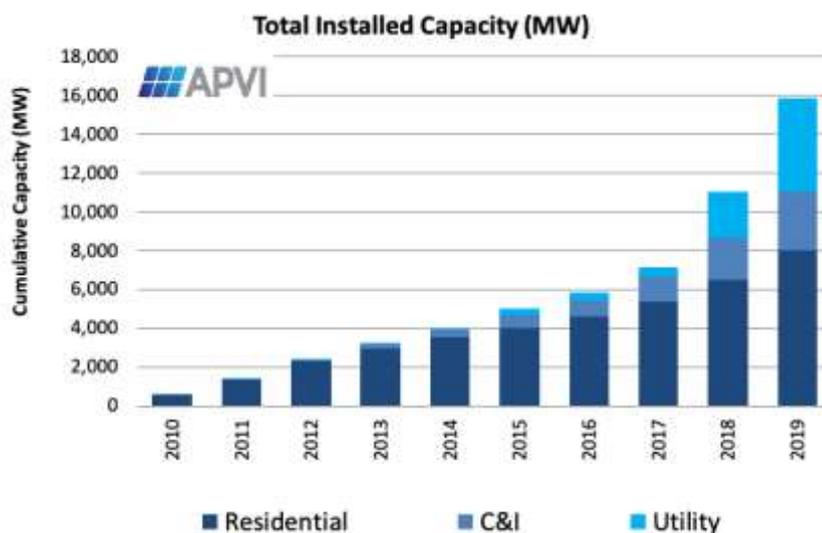
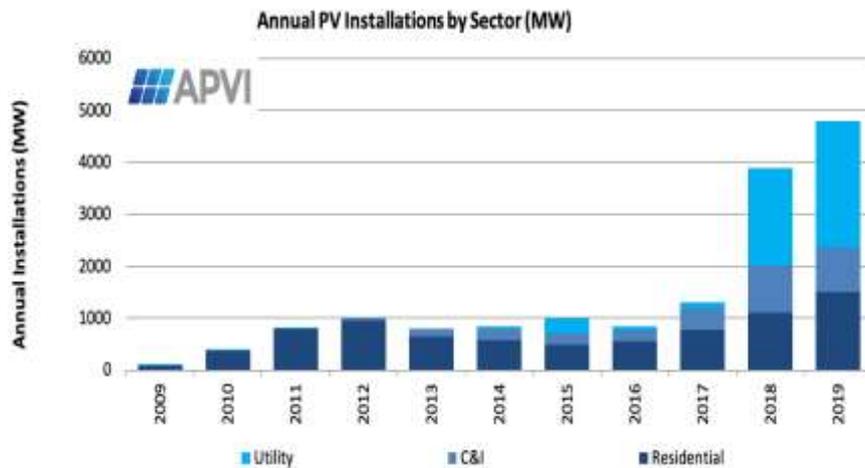


Figure 1. Annual PV installations by sector, where C&I is commercial and industrial.

In annual installs, records were broken in all sectors, shown in Figure 2;

- Residential solar (0-10 kW) grew to over 1.5 GW in new installs
- Commercial solar (10-100 kW) made up a further 680 MW of new rooftop solar.
- Large-scale solar set a significant new benchmark for Australia in 2019, with a total of 2.51 GW solar over 5MW registered as installed and connected.

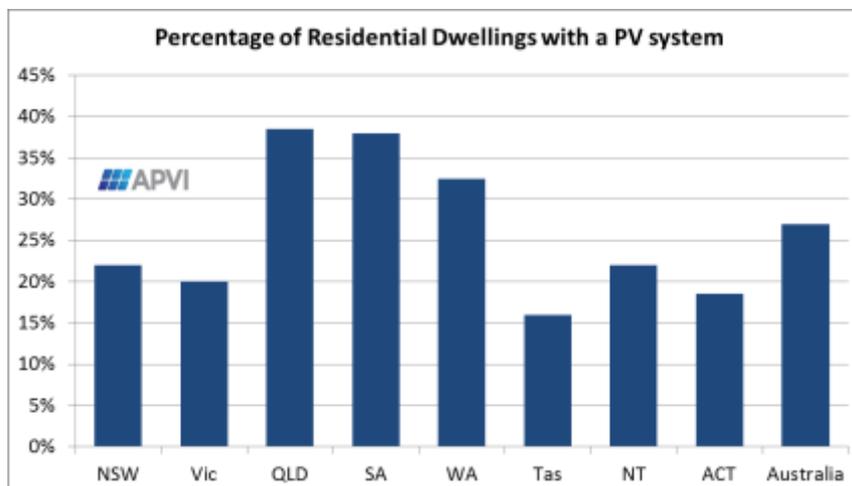


**Figure 2 Annual Installs in Australia by Sector.**

The Australian market is very different to most world markets as it has been dominated by rooftop PV. At end 2019

- Australia had more than 2.3 million rooftop installations
- 2019 saw a record 280 000 new installs and we are on track for another strong year in 2020
- The 5-year rolling average annual install rate is 1.3 GW/year for residential, commercial and industrial rooftops.
- The nation-wide average of free-standing households with a PV system now exceeds 27%.
- The states of Queensland and South Australia, average over 37% and a significant number of localities have densities of rooftop solar over 50%.

The percentage of residential rooftop dwellings is shown by state in **Figure 3.**

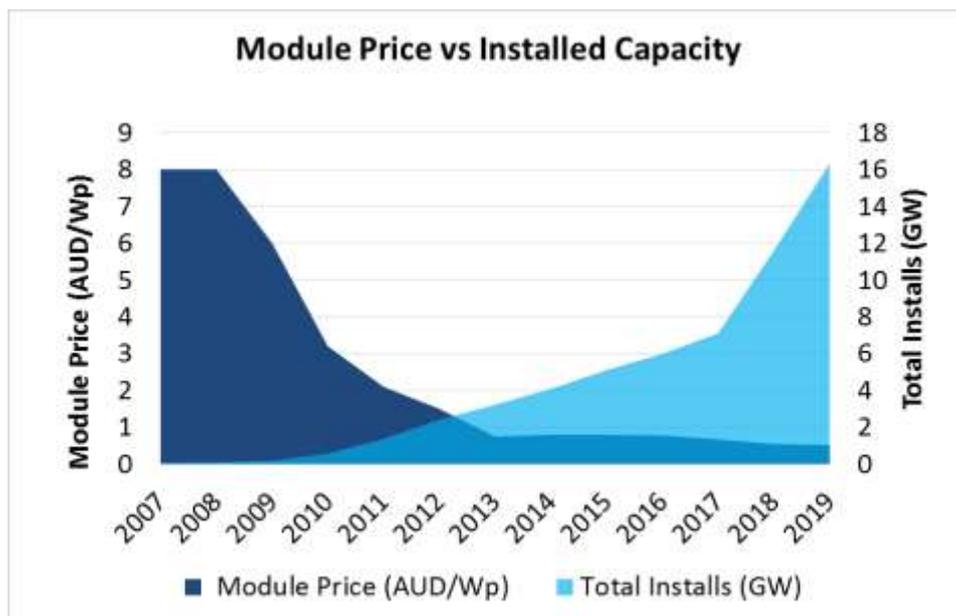


**Figure 3. Percentage of residential dwellings with a PV system by state/territory**

The average PV system size continues to grow steadily as the size of residential systems increases and as a growing number of businesses purchase PV.

In 2019, the average rooftop install (sub 100 kW) was 7.1 kW.

Technology and manufacturing improvements led to a steep drop in prices between 2007 and 2013. Price drops continue, but less dramatically. With price stability and despite declining incentives, the market growth remains strong, with the correlation shown in **Figure 4**.



**Figure 4. Module Price and Total Installed Capacity in the Australian Market**

This presentation will cover the market to end 2020 and updates reflecting progress in the 2020 market.