

# Japan's high cost of solar power generation

What percentage of Japan's Energy is solar?

In 2022, solar energy accounted for 5.39% of Japan's total energy mix and 9.91% of its electricity generation. In both cases, solar power in Japan holds the largest share of all renewable sources. This is a drastic contrast to even a decade ago when solar energy contributed less than 1% of the country's energy.

How much does solar power cost in Japan?

It is found that Japan has sufficient solar PV, wind, and pumped hydro potential to support 100% renewable electricity and even 100% renewable energy. Importantly, a wide range of scenarios yield costs in the range US\$86-110/MWh which are competitive with current spot prices.

Why is solar power growing in Japan?

The steady growth of solar power in Japan is attributed to several factors, including the country's focus on energy security, economic efficiency and environmental sustainability. Post-Fukushima, there was a national reevaluation of energy sources.

How much solar energy does Japan need in 2022?

This is a drastic contrast to even a decade ago when solar energy contributed less than 1% of the country's energy. In total, solar energy in Japan grew from 11.05 TWh in 2010 to over 260 TWh in 2022. However, even with this shift, the country must dramatically increase its solar energy infrastructure to meet its 2030 and 2050 targets.

Is solar energy the future of Japan's Energy Strategy?

Solar energy in Japan is emerging as a cornerstone of Japan's strategy to meet its ambitious long-term sustainability goals. The Sixth Strategic Energy Plan aims for carbon neutrality by 2050 with an interim goal of 36-38% of energy from renewables by 2030.

How has Japan benefited from a new solar energy facility?

The Japanese government has introduced several specialised programs to facilitate this growth. One of the key existing programs is the feed-in tariff, which guarantees the purchase of electricity from a new solar energy facility at a set price for a number of years.

This report is the follow-up to the report published in 2019, "Solar Power Generation Costs in Japan: Current Status and Future Outlook" (the "2019 report"), and it analyzes the most recent trends in solar PV costs in Japan.

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In Japan, the target for the PV power supply to meet domestic needs is expected to be 10% of the total power generation by 2050. As their solar power generation is increasing, ...

However, since the Great East Japan Earthquake in 2011, thermal power generation has increased with dependency on fossil fuels in FY2019 being 84.8%. ... Another factor that influences electric power rates is ...

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