

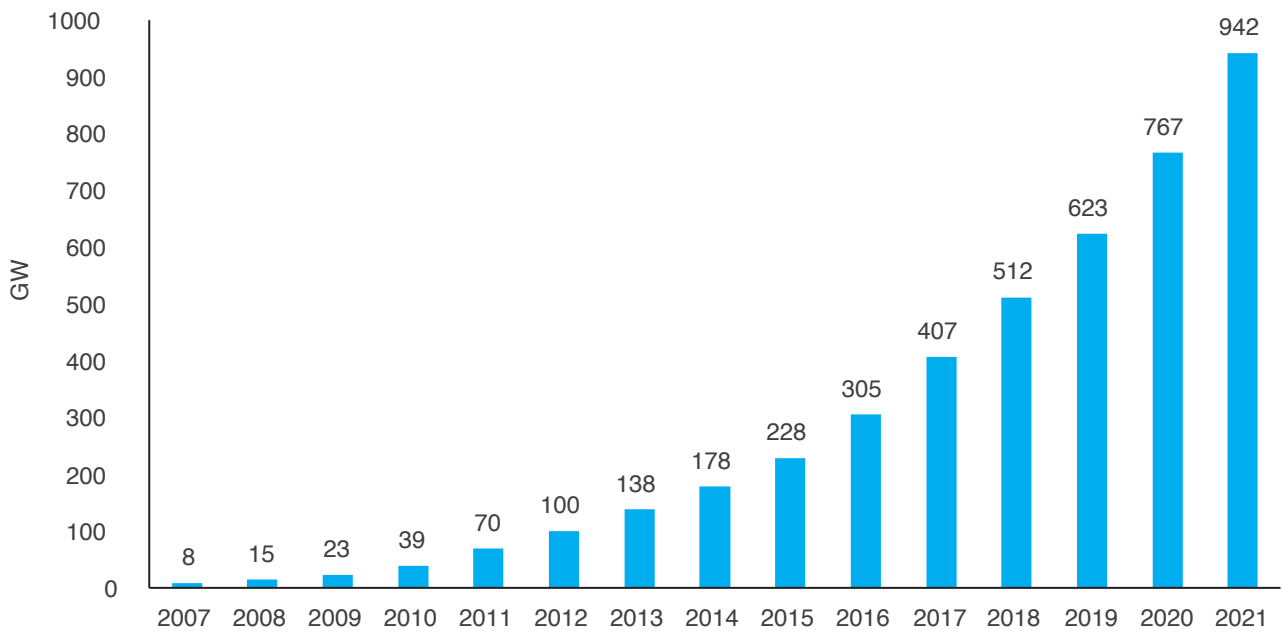
Data Insight

05/09/2022

Trends in Global Solar PV Installation in 2021

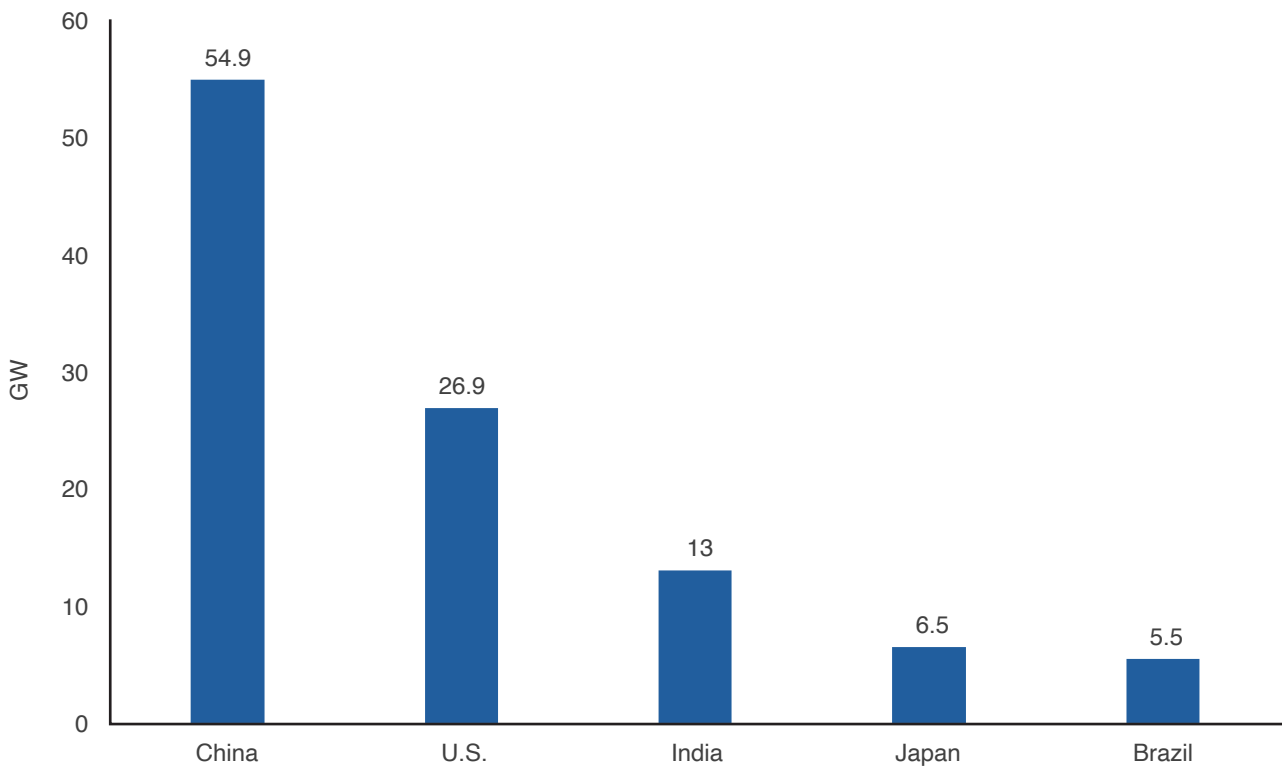
- In 2021, global solar photovoltaic (PV) capacity increased by a record 175 gigawatts (GW). This brought the total global cumulative installed PV capacity to around 942 GW at the end of 2021.
- This continued the trend of solar PV's record setting. Every year from 2007 to 2021 has been a record year for new installations.
- Around 75 GW of all new installations were at the distributed generation scale. This was propelled by increasing electricity prices, which made it financially viable for a considerable share of households and organizations to reduce their reliance on the grid by installing PV generation.
- Nearly one-third of the newly added capacity in 2021 was installed in China (55 GW). On average, China added some 4.5 GW per month, or 150 megawatts (MW) per day. The United States, India, Japan, and Brazil came in second, third, fourth, and fifth, respectively (Figure 2).
- The last two years were tough for PV generation due to its increasing cost, in contrast with the trend of falling costs during the previous decade. The reverse in module prices was mainly driven by a polysilicon shortage (the raw material used for module manufacturing) and a rise in container shipping costs from China. Specifically, solar-grade silicon spot prices in June 2022 were around \$35 per kilogram (kg), compared with \$6.3/kg in June 2020. Solar module spot prices were around \$0.21 per Watt (W) in June 2022, compared with \$0.16/W in June 2020.

Figure 1. Global Cumulative Installed PV Capacity in GW by Year.



Source: REN21.

Figure 2. Top-Five Countries for New PV Additions in 2021 (GW).



Source: REN21.

Reference

Bloomberg New Energy Finance.

REN 21. 2022. "Renewables 2022 Global Status Report."

Author: **Amro Elshurafa**

