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King Abdullah Petroleum Studies and Research Center

Data Insight

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Trends in Global Solar PV Installation in 2020

- Dozens of governments worldwide have supported, and still support, renewable energy technology deployment, including solar photovoltaics (PV). This has been driven by their ambitions to be energy independent, meet carbon emissions reduction targets, and contribute to their domestic economies through industry creation.

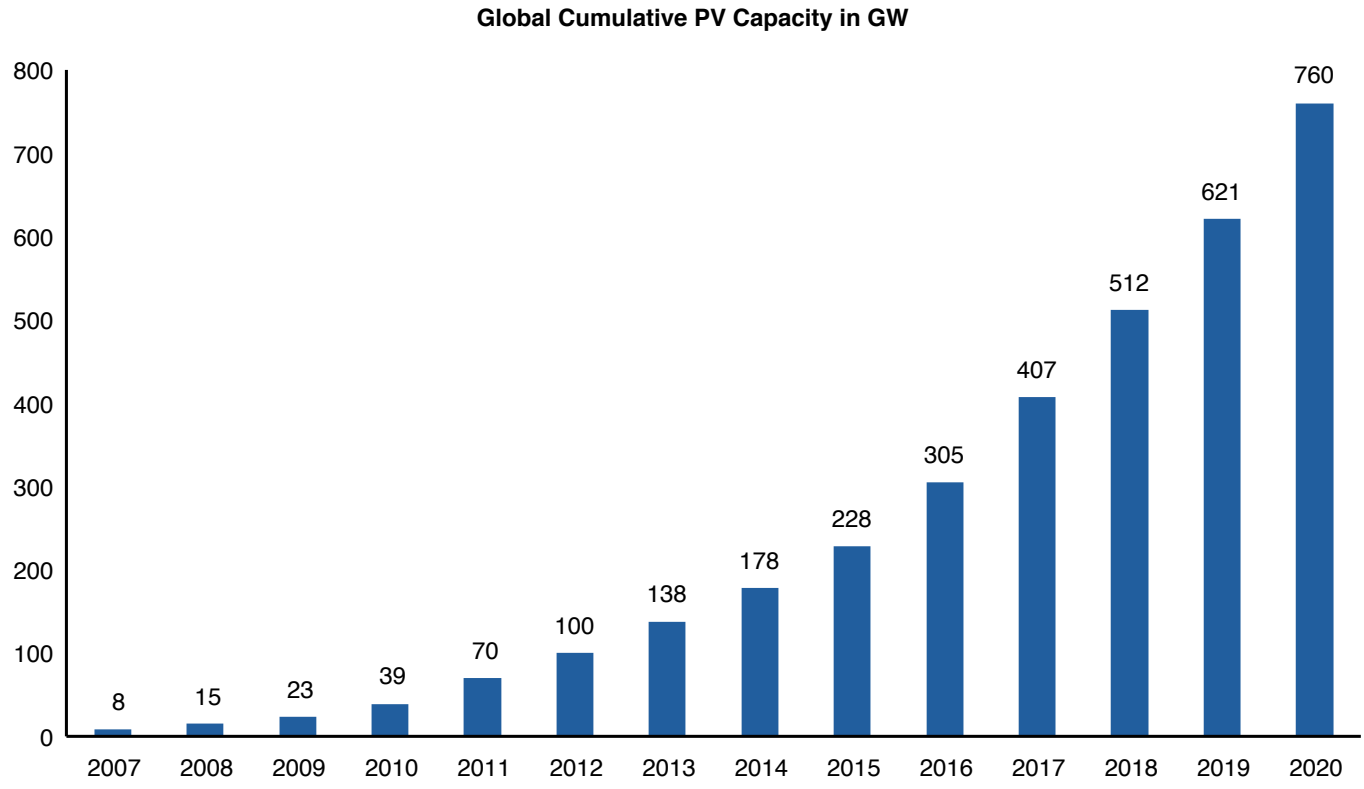
- In 2020, global PV capacity increased by approximately 140 gigawatts (GW), bringing the total global PV installation capacity to around 760 GW.

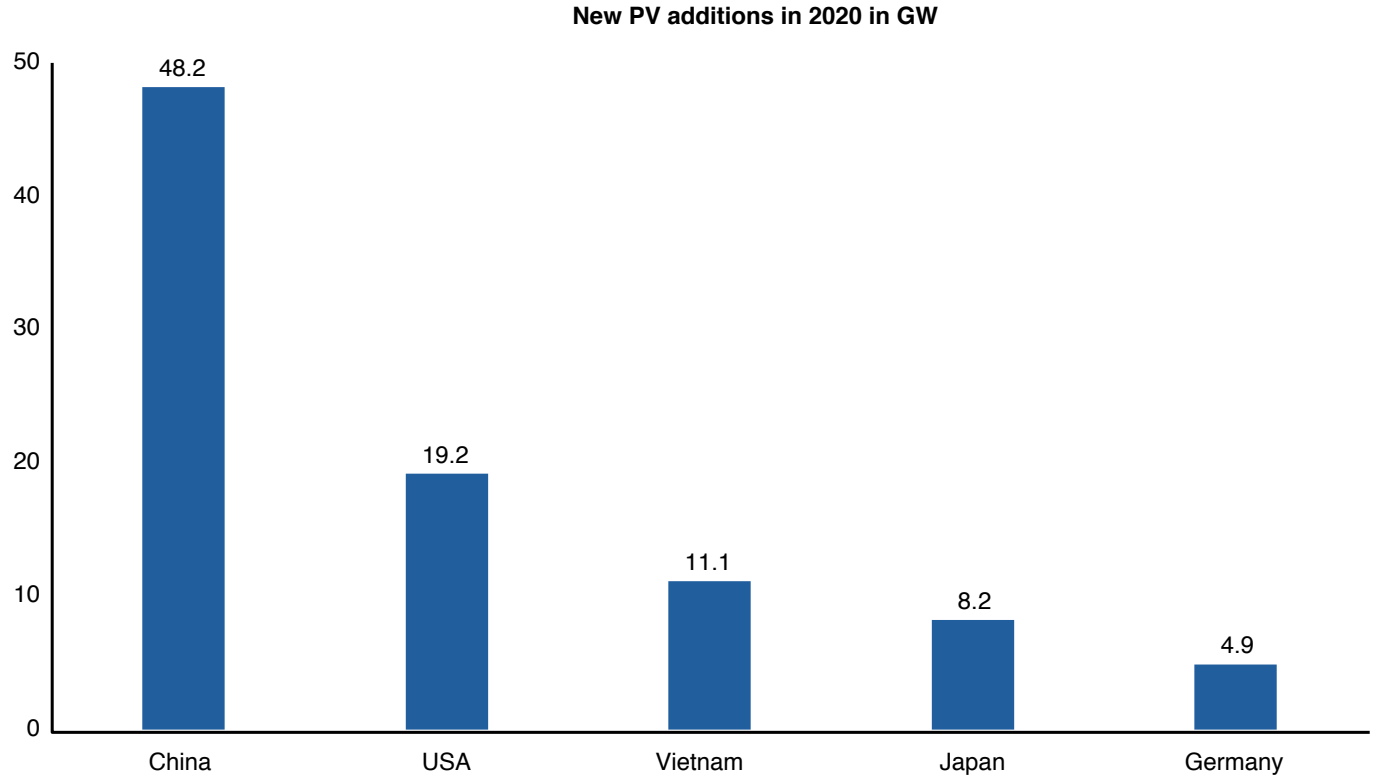
- Every year from 2007 up to and including 2020 was a record year for new PV installations. The record for installations set by the PV industry in 2020 was of special significance given the outbreak of COVID-19 in early 2020, and all its consequent interruptions that still persist.

- More than a third of the newly added capacity in 2020 was installed in China (48 GW). On average, China added some 4 GW per month, or 133 megawatts (MW) per day. The United States (U.S.) came in second place with around 19 GW of PV additions. Compared with 2019, India lost its third-place position to Vietnam in 2020 and was not among the top five global installers. For 2019 PV trends, please click here.

- The prices of solar modules rose by about 18% in 2020. This contrasts with the significant 90% module price fall over the past decade. Currently, module prices are at 0.25 dollars per watt ($/W), with some variation depending on the module type and quality. The rise in module prices in 2020 was mainly driven by the quadrupling of the cost of polysilicon, the raw material used for module manufacturing. Polysilicon prices rose from 6 dollars per kilogram ($/kg) to around 26 $/kg. According to analysts, the increase in polysilicon costs is expected to slow the uptake of solar projects in the near term, especially in the U.S. and India.

- Saudi Arabia has announced several new PV projects in various locations. Currently, there are around 5 GW of solar PV projects under construction or in the bidding/closing phase in the Kingdom. Among these projects is the Sudair plant, which, at a capacity of 1.5 GW, will be among the largest PV plants globally.





Sources:
Bloomberg New Energy Finance.
Renewables 2021 Global Status Report: REN21.

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