

China PV Monitoring Systems - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The China PV Monitoring Systems Market size is estimated at USD 6.42 billion in 2025, and is expected to reach USD 13.31 billion by 2030, at a CAGR of 15.7% during the forecast period (2025-2030).

Key Highlights

- Over the medium term, factors such as favorable government policy and the promotion of solar installations are expected to drive the demand for PV monitoring systems during the forecast period.
- On the other hand, rising emphasis on other alternative clean energy sources is expected to hinder the PV monitoring systems market.
- Nevertheless, technological advancements and upgradation in solar PV systems create ample opportunities for the PV monitoring systems market players.

China PV Monitoring Systems Market Trends

Residential Segment Expected to Witness Significant Growth

- In China, the electricity demand in the residential sector increased annually. According to the Statistical Review of World Energy 2023, the primary energy consumption in China reached 159.39 exajoules. This, in turn, will increase the installation of solar PV systems in the residential sector.
- As of 2022, China was the largest market for solar energy installed capacity, with approximately 29GW. According to the

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International Renewable Energy Agency, the cost of solar PV installation in the residential sector declined from USD 2856/kW in 2012 to USD 640/kW in 2022.

- In March 2022, Cainiao Network installed the PV power generation systems on 100,000 square meters of a warehouse rooftop. These warehouses are located in Hangzhou and Ningbo in eastern China's Zhejiang Province.
- As of October 2022, according to Asia Europe clean energy advisory, China's solar cell and module production capacity will increase from 361 GW in 2021 to 600 GW at the end of 2022.
- Hence, owing to the above points, the residential segment is likely to see significant market growth during the forecast period.

Increasing Emphasis in Solar PV Installations to Drive the Market

- Solar photovoltaic (PV) is estimated to witness significant growth during the forecast period owing to the declining cost of solar modules and the flexibility of these modules for various applications like water heating, electricity generation, and others.
- Moreover, the country is heavily investing in renewable energy to reach the targeted limits of its two carbon goals; to reach peak emissions by 2030 and carbon neutrality by 2060. The country is said to be the biggest investor in renewable energy globally.
- According to International Renewable Energy Agency (IRENA), China has a total installed solar PV capacity of about 392.4 GW in 2022, witnessed an increase of 28.07% compared to last year. The government is significantly pushing to install solar PV installations.
- China's government focuses on increasing access to solar PV generation by encouraging residential and commercial users to install solar PV. By 2023, the government mandated the installation of a rooftop solar PV system in existing residential and commercial buildings.
- In March 2022, solar rooftop PV installation increased from 19.4 GW to 27.3 gigawatts in 2017 and 2021, respectively, due to the incentives and friendly policies introduced by the government to promote the adoption of solar PV, such as feed-in tariffs and declining installation costs of solar PV.
- Hence, owing to the above points, government policy is likely to drive the PV monitoring systems market during the forecast period.

China PV Monitoring Systems Industry Overview

China's PV monitoring systems market is semi fragmented. Some of the key players in this market (in no particular order) include Huayu New Energy Technologies Co. Ltd, AISWEI Technology (Shanghai) Co. Ltd, Afore New Energy, Wuhan AG Power Co. Ltd, and Shenzhen Ates Power Technology Co. Ltd.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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