

Photovoltaic Market by Component (Modules, Inverters, BOS), Material (Silicon, Compounds), Installation Type (Ground Mounted, BIPV, Floating PV), Application (Residential, Commercial & Industrial, Utilities), Cell Type and Region - Global Forecast to 2028

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Abstracts

The photovoltaic market is projected to grow from USD 96.5 billion in 2023 and is projected to reach USD 155.5 billion by 2028; it is expected to grow at a CAGR of 10.0 % from 2023 to 2028.

The rising number of solar installations attributed to government-led incentives and schemes, growth in the adoption of PV systems for residential applications, decreasing cost of PV systems and energy storage devices is expected to fuel the growth of the photovoltaic market. However, issues related to land acquisition for deployment of solar projects is a prominent factor limiting the growth of the photovoltaic market.

“Ground-mounted PV systems to hold largest share of photovoltaic market during the forecast period.”

The PV market for ground-mounted systems held the largest market share in 2022 and is expected to retain its dominant position throughout the forecast period. With an increasing number of utility-scale projects worldwide, the ground-mounted PV systems market is expected to witness significant growth during the forecast period. The ground-mounted segment dominates the solar photovoltaic market more than the rooftop segment due to higher capacity installations in the ground-mounted segment worldwide. The higher demand for utility-scale is expected to continue during the forecast period,

with strong demand from China and many emerging markets around the world installing notable amounts that are mostly ground-mounted.

“Market for half-cell PV module segment is expected to witness higher growth during the forecast period”

The half-cell PV module segment is expected to witness significant growth in the photovoltaic market during the forecast period. Half-cut solar cells have a higher power generating capacity than normal solar cells. As a result of the increased power output, the number of solar cells required for installation is reduced, conserving space. For residential, commercial, and industrial locations with limited space, half-cut solar cell technology has proven to be a viable option. The half-cell modules have outstanding durability and long-life performance. Hence, half-cell type panels are more durable and less prone to cracking over long periods. Additionally, the half-cut solar panels have high shade tolerance, unlike the conventional models. These factors are likely to result in higher adoption of half-cell PV modules during the forecast period.

“Market for residential application to hold a significant share during the forecast period ”

Residential application held the second-largest share of the said market in 2022 and is expected to retain its second dominant position throughout the forecast period. This can be attributed to the declining cost of PV systems in the past few years. Similarly, governments across various countries such as India, China, and the US offer incentives and tax rebate to residential users to install PV systems, which is expected to fuel the growth of the market for PV systems in residential applications during the forecast period.

“Europe to hold a significant share of the photovoltaic market during the forecast period”

Europe is expected to hold a significantly large share for photovoltaic market during the forecast period. The countries that constitute a major portion of the photovoltaic market in Europe include the Germany, France, Italy. The countries of the European Union have also started working toward compliance with the Clean Energy Package of the Commission that sets a 32% renewable energy target by 2030. As such, governments of a number of countries in Europe are increasingly making efforts to generate low-cost solar energy to meet their energy targets. This is expected to propel the growth of the PV market in Europe during the forecast period.

The report profiles key players in the photovoltaic market with their respective market ranking analysis. Prominent players profiled in this report are include are JinkoSolar (China), JA Solar (China), Trina Solar (China), LONGi (China), Canadian Solar (Canada), First Solar (US), Hanwha Q CELLS (South Korea), Wuxi Suntech Power (China), Sharp (Japan), Mitsubishi Electric (Japan), Array Technologies (US), Chint Solar (China), GCL System Integration Technology (China), Huawei (China), LG Electronics (South Korea), NEXTracker (US), Risen Energy (China), SMA Solar Technology (Germany), Sungrow Power Supply (China), Tongwei Solar (China), Eaton Corp. (Ireland), ABB (Switzerland), Power Electronics (Spain), Fimer (Italy), AllEarth Renewables (US), Emmvee Photovoltaic Power Private Limited (India), ShunFeng International Clean Energy (China), Waaree Energies Ltd. (India) and Yingli Solar (China).

Research Coverage:

This research report categorizes the photovoltaic market on the basis of component, material, cell type, installation type, application, and region. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the photovoltaic market and forecasts the same till 2028. Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the photovoltaic cosystem.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the photovoltaic market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.
4. The analysis of the top 31 companies, based on the market rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.
5. Patent analysis, trade data, and technological trends that will shape the market in the

coming years has also been covered in this report.

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*Details on Business Overview, Products, Solutions & Services offered, Recent Developments, MnM View might not be captured in case of unlisted companies.

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