+357 96 030922
info@marketpublishers.com

Utility-Scale Solar PV Market Forecasts to 2034 – Global Analysis By Installation Type (Ground-Mounted Fixed Tilt, Ground-Mounted Tracking Systems and Floating Solar PV), Capacity Range, Ownership & Operation, Technology, Application and By Geography

https://marketpublishers.com/r/UCF5FD2EEBC0EN.html
Date: June 2026
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: UCF5FD2EEBC0EN

Abstracts

According to Stratistics MRC, the Global Utility-Scale Solar PV Market is accounted for $106.8 billion in 2026 and is expected to reach $242.6 billion by 2034 growing at a CAGR of 10.8% during the forecast period. Utility scale solar photovoltaic systems are large power generation facilities designed to supply electricity directly to the grid instead of individual users. These projects cover extensive land areas and deploy thousands of interconnected panels with inverters and substations. They deliver cost advantages through scale, lowering electricity prices while advancing clean energy objectives. Governments and utilities develop these plants to address growing energy needs sustainably. Improvements in tracking technology, storage coupling, and panel performance boost efficiency and dependability. Utility scale PV remains vital for global renewable expansion and climate action worldwide, supporting grid resilience and long term energy security ambitions.

According to the International Energy Agency (IEA, Renewables 2025 Progress Tracker), Global renewable electricity reached 32% of total generation in 2024 and is forecast to rise to 43–45% by 2030.

Market Dynamics:

Driver:

+357 96 030922
info@marketpublishers.com

Rising demand for clean energy

The increasing need for environmentally friendly energy solutions is accelerating the utility-scale solar PV market. Concerns about climate change and pollution are encouraging a transition toward renewable energy sources. Governments, businesses, and individuals are focusing on reducing carbon footprints through cleaner power generation. Large-scale solar installations offer an efficient and scalable method to meet these sustainability demands. Strategic energy transition plans and environmental commitments further support solar adoption. With rising global electricity consumption, the demand for clean energy continues to grow, strengthening the role of utility-scale photovoltaic systems in achieving a sustainable future.

Restraint:

High initial capital investment

Significant upfront investment acts as a key barrier to the growth of the utility-scale solar PV market. Large projects demand considerable capital for land, infrastructure, solar modules, and grid integration. While maintenance expenses are minimal, the initial costs can discourage investors, particularly in emerging economies. Financing such projects can be complicated due to extended return periods and strict lending conditions. Economic factors like interest rate volatility and exchange rate fluctuations add to financial risks. These constraints may delay project execution and reduce investor participation, ultimately limiting the pace of utility-scale solar development globally.

Opportunity:

Technological advancements in solar efficiency

Progress in solar technology efficiency is creating new opportunities for the utility-scale solar PV market. Innovations like dual-sided panels, improved inverters, and tracking mechanisms boost power generation capacity. More efficient modules enable higher energy output without requiring additional land, enhancing overall project value. Ongoing research is improving system durability and reducing costs. These developments lower the overall cost of electricity production and increase competitiveness against traditional energy sources. As advanced technologies are widely implemented, large-scale solar installations become more productive and

+357 96 030922
info@marketpublishers.com

appealing to stakeholders across the energy sector.

Threat:

Competition from alternative renewable sources

The presence of competing renewable energy technologies poses a challenge to the utility-scale solar PV market. Energy sources like wind, hydroelectric power, and green hydrogen are attracting increasing investments. In certain areas, these alternatives provide more stable output or cost benefits compared to solar energy. Energy planners often diversify their portfolios, which may reduce solar's dominance. Continuous innovation in other renewable technologies strengthens their competitiveness. As a result, the growth potential of utility-scale solar projects may be constrained, particularly in regions where alternative energy sources are more favorable.

Covid-19 Impact:

The COVID-19 outbreak influenced the utility-scale solar PV market in both negative and positive ways, causing early disruptions in supply chains, workforce availability, and project execution. Restrictions and lockdowns slowed production, logistics, and construction, resulting in delayed project completion. Financial uncertainty and lower electricity demand also impacted investment decisions. Despite these challenges, the sector proved adaptable as renewable energy became part of economic recovery strategies. The pandemic emphasized the need for sustainable power solutions, encouraging stronger clean energy commitments. As conditions improved, investments rebounded, and innovation increased, driving the ongoing expansion of utility-scale solar photovoltaic systems worldwide.

The ground-mounted fixed tilt segment is expected to be the largest during the forecast period

The ground-mounted fixed tilt segment is expected to account for the largest market share during the forecast period because of their straightforward design, dependability, and affordability. By positioning panels at a constant angle, these systems avoid moving parts, reducing maintenance needs and operational risks. Their relatively low setup and running costs make them suitable for extensive solar projects, particularly in areas with steady solar exposure. The simplicity of these systems enables quicker planning and deployment. They also provide consistent energy output over time. Owing to these benefits, fixed tilt solutions continue to be widely adopted in large-scale solar power

+357 96 030922
info@marketpublishers.com

developments globally.

The thin-film PV segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the thin-film PV segment is predicted to witness the highest growth rate because of its adaptable design, lighter weight, and increasing efficiency levels. It delivers better performance in challenging conditions like low sunlight and high temperatures, making it versatile across regions. Reduced material requirements and the possibility of lower production costs are attracting more developers. Continuous innovations are improving its lifespan and energy output. These systems support unique applications, including installation on varied surfaces. With rising demand for flexible and economical solar options, thin-film PV is rapidly expanding in large-scale projects.

Region with largest share:

During the forecast period, the Asia-Pacific region is expected to hold the largest market share, driven by increasing industrial growth, rising electricity needs, and supportive renewable energy initiatives. Governments are actively promoting large-scale solar installations to decrease reliance on conventional energy sources and tackle environmental challenges. Factors such as strong policy frameworks, high solar potential, and land availability encourage adoption. Key nations are boosting capacity through auctions and infrastructure investments. Additionally, the concentration of major solar equipment producers enhances regional development. Together, these elements establish Asia-Pacific as the leading region in the expansion of utility-scale solar photovoltaic systems worldwide.

Region with highest CAGR:

Over the forecast period, the Rest of the World (RoW) region is anticipated to exhibit the highest CAGR, driven by strong solar potential and rising renewable energy investments. Countries are shifting toward diversified energy sources to lessen dependence on fossil fuels and enhance energy stability. Expanding electricity needs and economic development are encouraging large solar project deployments. Supportive regulations, global collaborations, and decreasing technology costs are boosting market growth. The presence of extensive open land further supports expansion. Together, these elements make the Middle East and Africa the most rapidly developing region in this market.

+357 96 030922
info@marketpublishers.com

Key players in the market

Some of the key players in Utility-Scale Solar PV Market include TotalEnergies, Adani Green Energy, Brookfield Renewable Partners, Enel Green Power, Lightsource bp, AES Renewables, EDF Renewables, Invenergy, Iberdrola, ib vogt, First Solar, Canadian Solar, Azure Power, Baywa, Neoen, Enerparc, X-Elio and Scatec.

Key Developments:

In April 2026, TotalEnergies and Masdar have signed a binding agreement to establish a $2.2 billion joint venture aimed at expanding renewable energy capacity in nine countries across Asia. The joint venture will have a portfolio capacity of 3 GW of operational assets and 6 GW of assets in advanced development, which are expected to be operational by the end of the decade.

In April 2026, Adani Green Energy announced that its wholly-owned subsidiary AGEL UAE has executed a Joint Venture Agreement with Minerva Holding RSC Ltd for renewable energy development in India. The partnership involves EPointZero Holding, the energy arm of UAE's largest listed company IHC Group with over US$ 230 billion market cap, with AGEL UAE taking up to 20% stake and Minerva appointing up to 4 directors to the joint venture board.

In September 2025, Iberdrola and Selex Gruppo Commerciale have signed a renewable energy purchase agreement – known as a PPA (Power Purchase Agreement) – for a total of 1,250 GWh. The agreement, signed with the distribution leader SELEX, will provide photovoltaic energy for a volume of 125 GWh per year and a capacity of 77 MW.

Installation Types Covered:

Ground-Mounted Fixed Tilt

Ground-Mounted Tracking Systems

Floating Solar PV

Capacity Ranges Covered:

+357 96 030922
info@marketpublishers.com

10-50 MW

50-250 MW

Above 250 MW

Ownership & Operations Covered:

Utility-Owned Projects

Independent Power Producers (IPPs)

Public-Private Partnerships

Technologies Covered:

Crystalline Silicon PV

Thin-Film PV

Concentrated PV

Applications Covered:

Grid-Connected Utility Supply

Hybrid Renewable Projects

Regions Covered:

North America

United States

Canada

+357 96 030922
info@marketpublishers.com

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

+357 96 030922
info@marketpublishers.com

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

+357 96 030922
info@marketpublishers.com

- Africa
  - South Africa
  - Egypt
  - Morocco
  - Rest of Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

+357 96 030922
info@marketpublishers.com

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

13.18 Scatec

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

(2023-2034) ($MN)
Table 20 Global Utility Scale Solar PV Market Outlook, By Hybrid Renewable Projects (2023-2034) ($MN)
Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Utility-Scale Solar PV Market Forecasts to 2034 – Global Analysis By Installation Type (Ground-Mounted Fixed Tilt, Ground-Mounted Tracking Systems and Floating Solar PV), Capacity Range, Ownership & Operation, Technology, Application and By Geography

Product link: https://marketpublishers.com/r/UCF5FD2EEBC0EN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/UCF5FD2EEBC0EN.html