

## **Solar Photovoltaic (PV) - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-04-28 | 300 pages | Mordor Intelligence

### **AVAILABLE LICENSES:**

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

### **Report description:**

The Solar Photovoltaic Market size is estimated at 2.16 thousand gigawatt in 2025, and is expected to reach 6.06 thousand gigawatt by 2030, at a CAGR of 22.9% during the forecast period (2025-2030).

#### Key Highlights

- Over the medium term, favorable government policies and increasing adoption of solar PV systems, with the declining price of solar panels and installation costs, will likely support the growth of the global solar energy market during the forecast period.
- Conversely, factors like the growth of other renewable technologies, such as wind and bioenergy, are expected to hinder market growth.
- Nevertheless, the efforts by several governments across emerging nations in the regions like Africa and Southeast Asia to provide 100% electricity access in remote areas coupled with off-grid applications and technological advancements in solar PV modules are expected to create ample opportunities in the near future.

#### Solar Photovoltaic Market Trends

##### Ground-mounted Solar PV to Dominate the Market

- In 2022, ground-mounted solar PV accounted for more than 60% of the global solar PV capacity, with countries like China, the United States, Germany, and India leading the market growth.
- The ground-mounted solar PV segment's dominance can be attributed to the factors such as the increasing number of

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

utility-scale projects, solar energy targets, and declining costs of solar PV installations.

- Countries worldwide plan to develop large-scale solar PV projects to reduce their reliance on fossil fuel-based power generation and diversify their energy mix.
- In May 2023, Savannah Energy Niger Solar Ltd., the wholly-owned subsidiary of British independent power company Savannah Energy Plc, signed a memorandum of agreement (MoA) with the Niger government to develop two solar photovoltaic power plants. The power facilities will have a combined installed power capacity of up to 200 MW. The proposed solar plants will be connected to the South-Central section of Niger's electricity grid. The projects will likely receive sanctions next year and achieve operational status over next two to three years.
- Moreover, in the United States, the utility-scale solar PV sector has led the overall solar market regarding installed capacity, accounting for nearly 60% of installed capacity in 2022. There are 467 solar projects slated for the next five years until 2028, with a total value of USD 98 Billion. Also, the regions in the USA spending the most on Ground-mounted solar power projects over the next ten years are Texas (USD 27 billion), New York (USD 7 billion), Indiana (USD 6 billion), California (USD 6 billion), Ohio (USD 6 billion), and Nevada (USD 6 billion).
- Therefore, owing to the above points, the increasing installations of large-scale utility solar PV projects are expected to make ground-mounted solar PV a dominating segment during the forecast period.

### Asia-Pacific to Dominate the Market

- As of 2022, Asia-Pacific was the largest solar PV market globally, accounting for a major share of the global installed solar PV capacity, and it is expected to continue its dominance during the forecast period. China, Japan, and India were the key markets in the region with the largest installed capacities as of 2022.
- The Chinese solar photovoltaic industry has grown faster than any other country in the region over the past few years. As of 2022, China's solar PV installed capacity reached 392.436 GW, representing an increase of 28.08% compared to the previous year's value.
- With the increasing demand for electricity and green energy, in December 2022, the New Delhi Government approved the draft of its ambitious Solar Policy 2022, which revises the installed capacity of 6,000 MW from 2,000 MW in two years; the policy aims to create a unified single-window state portal managed by the Delhi Solar Cell that will provide information on the benefits of solar PV systems.
- Moreover, in March 2022, Alibaba Group's logistics arm Cainiao Network started to use distributed solar power generated by rooftop solar panels installed in its bonded warehouses in China to power its operations. The company had installed the PV power generation systems on 100,000 square meters of warehouse rooftops that can store 7.862 MW of energy, with an annual power output of over 8 million kilowatts per hour, enough to power more than 3,000 homes. The power generated by the solar power system will be sufficient to power Cainiao's warehouse operations, and excess electricity will be diverted to the grid. Further, Cainiao and its partners expect to install rooftop PV generation systems on Cainiao's bonded warehouses spanning a combined 500,000 square meters, this year.
- Factors such as upcoming solar PV projects, supportive government policies, and declining costs of solar PV modules and associated systems are expected to drive the solar PV market in the region during the forecast period.

### Solar Photovoltaic Industry Overview

The solar photovoltaic (PV) market is fragmented. Some of the major players operating in the market (in no particular order) include SunPower Corporation, JinkoSolar Holding Co. Ltd., Canadian Solar Inc., Trina Solar Ltd, and JA Solar Holdings Co. Ltd, among others.

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

## Additional Benefits:

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

## Table of Contents:

### 1 INTRODUCTION

#### 1.1 Scope of the Study

#### 1.2 Market Definition

#### 1.3 Study Assumptions

### 2 EXECUTIVE SUMMARY

### 3 RESEARCH METHODOLOGY

### 4 MARKET OVERVIEW

#### 4.1 Introduction

#### 4.2 Solar Photovoltaic (PV) Installed Capacity and Forecast, till 2030

#### 4.3 Annual Solar PV Shipments in GW, till 2024

#### 4.4 Share of Solar PV Shipments (%), by Technology, 2024

#### 4.5 Average Selling Price of Solar PV Modules in USD/W, till 2024

#### 4.6 Utility-Scale Solar PV Installation Cost in USD/kW, by Major Countries, 2024

#### 4.7 Solar PV Average Electricity Cost, by Major Countries, 2024

#### 4.8 Information on Key Projects

#### 4.9 Recent Trends and Developments

#### 4.10 Government Policies and Regulations

#### 4.11 Market Dynamics

##### 4.11.1 Drivers

##### 4.11.1.1 Favorable Government Policies and Increasing Adoption of Solar PV Systems

##### 4.11.1.2 Soaring Electricity Prices Incentivized Installing Solar PV Systems for Self-Consumption

##### 4.11.2 Restraints

##### 4.11.2.1 The Growth of Other Renewable Technologies Such as Wind and Bioenergy

#### 4.12 Supply Chain Analysis

#### 4.13 Porter's Five Forces Analysis

##### 4.13.1 Bargaining Power of Suppliers

##### 4.13.2 Bargaining Power of Consumers

##### 4.13.3 Threat of New Entrants

##### 4.13.4 Threat of Substitute Products and Services

##### 4.13.5 Intensity of Competitive Rivalry

### 5 MARKET SEGMENTATION

#### 5.1 Type

##### 5.1.1 Thin film

##### 5.1.2 Multi-Si

##### 5.1.3 Mono-Si

#### 5.2 End-User

##### 5.2.1 Residential

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.2.2 Commercial
- 5.2.3 Utility
- 5.3 Deployment
  - 5.3.1 Ground-mounted
  - 5.3.2 Rooftop Solar
- 5.4 Geography
  - 5.4.1 North America
    - 5.4.1.1 United States
    - 5.4.1.2 Canada
    - 5.4.1.3 Rest of North America
  - 5.4.2 Asia-Pacific
    - 5.4.2.1 China
    - 5.4.2.2 India
    - 5.4.2.3 Japan
    - 5.4.2.4 Rest of Asia-Pacific
  - 5.4.3 Europe
    - 5.4.3.1 Germany
    - 5.4.3.2 United Kingdom
    - 5.4.3.3 France
    - 5.4.3.4 Italy
    - 5.4.3.5 Rest of Europe
  - 5.4.4 South America
    - 5.4.4.1 Brazil
    - 5.4.4.2 Argentina
    - 5.4.4.3 Rest of South America
  - 5.4.5 Middle-East and Africa
    - 5.4.5.1 Saudi Arabia
    - 5.4.5.2 United Arab Emirates
    - 5.4.5.3 South Africa
    - 5.4.5.4 Rest of Middle East & Africa

## 6 COMPETITIVE LANDSCAPE

- 6.1 Mergers and Acquisitions, Joint Ventures, Collaborations, and Agreements
- 6.2 Strategies Adopted and SWOT Analysis by Leading Players
- 6.3 Company Profiles
  - 6.3.1 First Solar Inc.
  - 6.3.2 Sharp Corporation
  - 6.3.3 Suntech Power Holding Co. Ltd.
  - 6.3.4 JinkoSolar Holding Co. Ltd.
  - 6.3.5 JA Solar Holdings Co. Ltd.
  - 6.3.6 Trina Solar Ltd.
  - 6.3.7 Hanwha Q Cells Co. Ltd.
  - 6.3.8 Acciona SA
  - 6.3.9 Canadian Solar Inc.
  - 6.3.10 SunPower Corporation
  - 6.3.11 LONGi Green Energy Technology Co. Ltd.
- 6.4 List of Other Prominent Players

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

## 6.5 Market Ranking/Share Analysis

## 7 MARKET OPPORTUNITIES AND FUTURE TRENDS

### 7.1 The Efforts by Several Governments Across the Emerging Nations in the Regions Like Africa and Southeast Asia to Provide 100% Electricity Access

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

**Solar Photovoltaic (PV) - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-04-28 | 300 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

**ORDER FORM:**

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

\*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

\*\* VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-02-27"/>
		Signature	

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

