

North America Distributed Power Generation - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 100 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 North America Distributed Power Generation Market is expected to register a CAGR of greater than 7% during the forecast period.

The market was negatively impacted by COVID-19 in 2020. Presently, the market has reached pre-pandemic levels.

Key Highlights

- Over the long term, rising environmental concerns, increasing government policies for incentives and tax benefits for solar panel installation, and the high cost of grid expansion are expected to significantly drive the market.
- However, a reduced tax credit for solar power generation in the United States from 2022 is expected to slightly hamper the growth of the market during the forecast period.
- Commercial and industrial sectors are showing a growing interest in distributed solar power generation due to various economic benefits. Distributed solar power also acts as a constant source of energy to eliminate downtimes and equipment damage due to voltage fluctuations in conventional power grids. This factor is expected to create a huge opportunity for distributed power generation market in the region.
- The United States is expected to dominate the market over rising environmental concerns and economic benefits of domestic distributed power generation.

North America Distributed Power Generation Market Trends

Solar PV Sector to Witness Significant Growth

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- The solar PV sector is expected to witness significant growth during the forecast period. It is the most popular form of distributed power generation due to its relatively low setup cost, declining prices of solar panel manufacturing, and increasing government subsidies.
- Increasing demand for clean energy is one of the primary drivers for the region's distributed solar power generation market. The small-scale solar capacity installations in the United States increased by 5.4 GW in 2021, up by 23% from the 2020 level (4.4 GW). Most of the small-scale solar capacity added in 2021 was installed on homes. Residential installations totaled more than 3.9 GW in 2021, compared to 2.9 GW in 2020.
- Rooftop solar offers the benefits of modern electricity services to households with no access to electricity, thus reducing electricity costs on islands and in other remote locations that are dependent on oil-fired generation and enabling residents and small businesses to generate their electricity.
- Commercial and industrial systems remain the largest growth segment as they are usually more inexpensive and have a relatively stable load profile during the day, which can enable larger savings on electricity bills, depending on the policy scheme in place.
- According to the survey by the Solar Energy Industries Association (SEIA), conducted in September 2022, the US solar market is expected to nearly triple over the next five years. Recently, the US President Joe Biden also signed the largest climate bill in the country, which may further boost the growth of the country's solar energy market.
- Therefore, such factors are expected to drive the North American distributed power generation market during the forecast period.

United States is Expected to Dominate the Market

- The United States dominated the North American distributed power generation market in 2021. The country is expected to continue its dominance in the coming years as well. The United States holds vast potential for the expansion of distributed energy systems (DES), notably in the form of off-grid and residential solar. Inefficiencies in the power grid infrastructure, power supply shortages, and the scalability of decentralized technology pave the way for the deployment in the country.
- California leads the distributed solar PV sector in the country, with more than 1,000 MW residential solar PV installations in 2021. The state has a total residential installed capacity of over 5,000 MW.
- Different states have set different goals to increase their individual renewable energy targets. For example, Hawaii has set a 100% renewable target by 2045, while Arizona has set a 45% renewable by 2030 and 100% clean energy by 2045. These individual targets are expected to help further boost the country's distributed solar power generation market.
- In 2021, the new solar photovoltaic capacity installations in the United States reached approximately 23.6 gigawatts. Solar had the largest share of new electricity-generating capacity in the country.
- In November 2021, Orsted and Eversource selected Siemens Energy to supply transmission system for a 924-MW Offshore Wind Farm in the United States. The plant is located more than 30 miles east of Montauk Point, New York, and will generate clean energy to power nearly 600,000 homes in New York. It is expected to be operational in 2025.
- In May 2022, Green Lantern Solar developed a 500-kW solar project in Weathersfield, Vermont. The project will supply clean energy to a local retirement community in Vermont. The solar project is estimated to generate approximately USD 150,000 annually in credits divided among the off-takers.
- Hence, due to such developments, the United States is expected to dominate the North American distributed power generation market during the forecast period.

North America Distributed Power Generation Industry Overview

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

North America's distributed power generation market is fragmented. Some of the major companies (in no particular order) include Caterpillar Inc., Total SA, Seimens AG, Schneider Electric SE, and Sunrun Inc.

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 Market Size and Demand Forecast in USD billion, till 2027

4.3 Recent Trends and Developments

4.4 Market Dynamics

4.4.1 Drivers

4.4.2 Restraints

4.5 Supply Chain Analysis

4.6 Porter's Five Forces Analysis

4.6.1 Bargaining Power of Suppliers

4.6.2 Bargaining Power of Consumers

4.6.3 Threat of New Entrants

4.6.4 Threat of Substitutes Products and Services

4.6.5 Intensity of Competitive Rivalry

5 MARKET SEGMENTATION

5.1 Technology

5.1.1 Solar PV

5.1.2 Wind

5.1.3 Combined Heat and Power (CHP)

5.1.4 Other Technologies

5.2 Geography

5.2.1 United States

5.2.2 Canada

5.2.3 Rest of North America

6 COMPETITIVE LANDSCAPE

6.1 Mergers and Acquisitions, Joint Ventures, Collaborations, and Agreements

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

6.2 Strategies Adopted by Leading Players

6.3 Company Profiles

6.3.1 Total SA

6.3.2 Caterpillar Inc.

6.3.3 Ballard Power Systems Inc.

6.3.4 Total SA

6.3.5 Seimens AG

6.3.6 Toshiba Fuel Cell Power Systems Corporation

6.3.7 Sunrun Inc.

6.3.8 Capstone Turbine Corporation

6.3.9 Cummins Inc.

6.3.10 Schneider Electric SE

7 MARKET OPPORTUNITIES AND FUTURE TRENDS

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

North America Distributed Power Generation - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 100 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="2026-02-26"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

