

Renewable Energy: Technologies and Global Markets

Market Research Report | 2025-04-17 | 204 pages | BCC Research

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Report description:

Description

Report Scope

This report analyzes the global renewable energy technologies market and its market dynamics. The market size has been provided in value (\$ millions) and volume (gigawatts). It includes a discussion of the technological, competitive and economic trends affecting the market. This report covers the major renewable energy sources as primary fuels: hydroelectric, wind, solar, geothermal, ocean energy and bioenergy.

The report briefly covers renewable energy technologies and their sub-segments. The global market has been analyzed in terms of technology, application and region. The regional market has been further segmented based on technology and renewable energy installed capacity in 19 countries spanning five regions. It concludes with detailed profiles of 15 vendors operating in the global renewable energy technologies market. This report deals only with power generation through renewable resources and thus does not focus on other applications of renewable resources. It does, however, provide essential data on applications, such as heating and lighting.

Report Includes

- 93 data tables and 64 additional tables
- An analysis of the current and future global market for renewable energy (or green energy) technologies and coverage of the major sources of renewable energy as primary fuels
- Estimates of the market size and growth forecasts for the global market in value and volumetric terms, and a corresponding market share analysis by energy type, technology, application and region
- Facts and figures pertaining to the market dynamics, technological advances, regulations and standards, innovations, prospects, and the impact of macroeconomic factors
- Insights derived from the Porter's Five Forces model, as well as global value/supply chain and PESTLE analyses
- Assessment of the impact of rising global demand for energy, climate change and the availability of new materials for the generation of renewable energy

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- Patent analysis, emerging technologies/trends and new developments in the power generation industry
- Analysis of the industry structure, including companies' market shares and global rankings, strategic alliances, M&A activity and a venture funding outlook
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, and the ESG scores and practices of leading companies
- Company profiles of major players within the industry, including Drax Group plc., GE Vernova, Jinko Solar, LONGi, and Siemens Gamesa Renewable Energy

Executive Summary

Summary:

The global market for renewable energy is estimated to increase from \$1.3 trillion in 2024 to reach \$2.0 trillion by 2029, at a compound annual growth rate (CAGR) of 8.7% from 2024 through 2029.

Renewable energy sources (e.g., solar, wind, hydropower, geothermal, ocean energy, biofuels) are crucial for energy transition. This is mainly attributed to the ecological damage caused by electricity generation from conventional energy sources, such as coal and other fossil fuels. Renewable energy sources have had a decade of extreme growth. In 2023, more than 30% of the total energy supply came from renewable energy sources, including modern bioenergy (International Renewable Energy Agency, 2024). In recent years, a global focus on sustainability has witnessed a significant increase in government and regulatory support for renewable energy generation, encouraging both energy producers and consumers to embrace renewable energy sources despite higher initial investments. This approach signals a continuous exit from traditional energy sources and signifies a commitment to a more sustainable and environmentally responsible future. The pillar of renewable energy hydropower will continue to grow during the forecast period. Ocean power, however, is not on track and requires a significant focus on commercialization and technology developments.

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CALPINE CORP.
CHINA THREE GORGES CORP.
DRAX GROUP PLC
GE VERNOVA
JINKO SOLAR
LONGI
MITSUBISHI HEAVY INDUSTRIES LTD.
OCEAN POWER TECHNOLOGIES INC.
POET LLC.
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