

Renewable Energy: Technologies and Global Markets

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Abstracts

Report Scope:

This report covers the major sources of renewable energy as primary fuels: hydroelectric, wind, solar, geothermal, oceanic sources (wave, tidal and thermal), and bioenergy. This study is helpful for both renewable technology and material suppliers and power generation companies that produce power through renewable resources. It will be beneficial for companies making decisions such as estimating the market demand for technologies and materials, making expansion and upgrade plans for existing facilities, deciding on investments in renewable energy sectors, etc.

This report deals intensively with power generation through renewable resources and therefore does not focus on other applications of renewable resources. However, it provides essential data on applications such as heating and lighting.

The scope of this report is intentionally broad. We cover the major sources of renewable energy as primary fuels—hydroelectric, wind, solar, geothermal, oceanic sources (wave, tidal and thermal), bioenergy, and focus on liquid biofuels for transportation. There is no shortage in the marketplace of reports on each source. However, what the existing marketplace lacks and what this report intends to provide is a global perspective that places each source in a relevant context for decision-makers in both the public and private sectors.

In particular, this report includes -

An overview of the global market for renewable energy and technologies.

Analyses of global market trends, with data from 2019 to 2021 and projections through 2027.



Coverage of the major renewable energy sources as primary fuels, including hydroelectric, wind, solar, geothermal, oceanic (wave, tidal and thermal) and bioenergy.

Examination of the impact on the renewable energy market brought about by surging global demand for energy, the impact of climate change on alternative fuels, improvements in technology and the availability of new materials.

Comprehensive profiles of major players in the various renewable energy fields and technology patents.

Report Includes:

150 data tables and 74 additional tables

An up-to-date review and analysis of the global markets for renewable energy (or green energy) technologies

Analyses of the global market trends, with data from 2021, estimates for 2022 and projections of compound annual growth rates (CAGRs) through 2027

Evaluation and forecast the global renewable energy market size both in value and volumetric terms, and corresponding market share analysis by type of energy, technology, application and region

Discussion of the major sources of renewable energy as primary fuels, including hydroelectric, wind, solar, liquid biofuels for transportation, geothermal and oceanic sources (wave, tidal and thermal)

Highlights of market potential for renewable energy technologies, opportunities and gaps estimating current and future demand, and COVID-19 implications on the progress of this market

Assessment of the impact on the renewable energy technologies market brought about by the surging global demand for energy, the impact of climate change on alternative fuels, improvements in technology and the availability of new materials



Emphasis on the factors influencing the demand for renewable energy, economics and cost implications for solar PV installation, and government regulations for energy policy and taxation

Review of the patents granted for innovations in renewable energy technology and assessment of new developments within the industry

Insight into the competitive landscape for key market participants in the renewable energy industry

Descriptive company profiles of the leading global players, including ABB Ltd., Fuji Electric Co. Ltd., Hitachi Ltd., Mitsubishi Heavy Industries Ltd. and Toshiba Corp.



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Bioenergy Program Intergovernmental Panel on Climate Change **European Commission European Energy Commission** U.S. State, Local and Foreign Government Agencies U.S. DOE Energy Efficiency and Renewable Energy **Geothermal Power** Solar Power Hydropower Vehicles Federal Energy Management Program Weatherization Intergovernmental Program U.S. Environmental Protection Agency **EPA Energy EPA Energy Star Regional Government Initiatives** Local Government Initiatives

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CENTRAIS ELETRICAS BRASILEIRAS S.A. (ELETROBRAS) CHINA HUADIAN CHINA YANGTZE POWER CO. LTD. DUKE ENERGY CORP. GEORGIA POWER CO. HYDRO GREEN ENERGY HYDRO-QUEBEC **ONTARIO POWER GENERATION** RUSHYDRO SHAOYANG HENGYUAN ZIJIANG HYDROELECTRIC EQUIPMENT CO. LTD. STAT KRAFT AS **VOITH AG** Wind Energy **ENERCON GMBH** NORDEX SE (XINJIANG) GOLDWIND SCIENCE AND TECHNOLOGY Liquid Biofuels for Transportation AMYRIS BIOTECHNOLOGIES INC. ARCHERS DANIELS MIDLAND **BIOJET CORP. BLUEFIRE RENEWABLES** COSAN GREEN PLAINS RENEWABLE ENERGY INC. GREENSHIFT CORP. **GUSHAN ENVIRONMENTAL ENERGY** POET LLC **RENTECH INC.** SAPPHIRE ENERGY INC. SOLAZYME INC. SUSTAINABLE OILS SYNATA BIO (COSKATA) THORNEY TECHNOLOGIES LTD. VALERO ENERGY CORP. Geothermal Energy ALTAROCK ENERGY INC. CALPINE CORP. CHEVRON CORP. COMISION FEDERAL DE ELECTRICIDAD ENEL S.P.A.



ENERGY DEVELOPMENT CORP. MERCURY NZ LTD. (MIGHTY RIVER POWER) ORMAT TECHNOLOGIES INC. REYKJAVIK ENERGY (ORKUVEITA REYKJAV?KUR) **Ocean Power** ANDRITZ HYDRO HAMMERFES AQUAMARINE POWER **AW-ENERGY** AWS OCEAN ENERGY LTD. **BIOPOWER SYSTEMS PTY LTD.** CARNEGIE WAVE ENERGY OCEAN POWER TECHNOLOGIES PELAMIS WAVE POWER **RENEWABLE ENERGY HOLDINGS** SEABASED AB SIMEC ATLANTIS ENERGY (MARINE CURRENT TURBINES) SYNCWAVE ENERGY INC. WAVE STAR ENERGY

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