

# China Renewable Energy Market

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## Abstracts

China has become the world's largest consumer of energy in the recent years. However, this growing demand for energy has come at a price - rising pollution, growing prices of energy resources, and a rapidly growing economy is weighing in on China.

In this industry scenario, China is pushing forward long-term strategic goals for achievement in the renewable energy industry. Being a net oil importer from 1993, China's dependence on foreign oil has been growing since then. Therefore, China has put in place ambitious goals for deriving a significant percentage of its power from renewable sources.

Taiyou Research presents an analysis of the renewable energy industry in China in its research report China Renewable Energy Market.

Section 1 of the report begins with an analysis of the energy industry in china. This section covers the following:

Energy challenges facing China, growing energy demand in China, market value, market segmentation, energy consumption and production statistics, energy reserves, and import/export statistics.

Key segment analysis includes a strategic and statistical overview of the electricity market, coal industry, oil industry, natural gas market, market for liquefied natural gas, market for liquid petroleum gas, and the nuclear power industry. The impact of the Fukushima nuclear accident in Japan and its effect on the rapidly growing Chinese nuclear power industry is discussed in this section.

Outlook for the Chinese energy industry includes a segment-wise forecast of oil, natural gas, coal, nuclear power, renewable energy, and the role of the government in promoting the role of renewable energy in the coming years.

Section 2 focuses on the renewable energy industry in China. This section provides an overview of the entire renewable energy market.

The section covers the following:

Why China needs renewable energy.

Market profile of the Chinese renewable energy market, market statistics, market segmentation, competition in the industry, China's leadership in the renewable energy market particularly in the sectors of wind, smart meters, smart grid, subways, high speed rail, and municipal wastewater treatment. The section also looks at

China's 12th five-year plan and the development of renewable energy under this plan is discussed in this section.

Factors impacting the renewable energy industry in China such as energy security, issues with water and food supply, investment targets and incentives, etc. are analyzed.

Market drivers such as shortage of liquid fuel, dependency on imports, environmental concerns, importance of GHG emissions, are analyzed.

China's 40-45% carbon intensity reduction target for 2020 is also analyzed along with the evaluation of the option for carbon tax.

Outlook for China's renewable energy industry is also analyzed.

Moving on to section 3 of the report, Taiyou Research analyzes the Chinese wind power

industry in section 3 of this research report.

This section covers the following:

Market profile, wind resources, profitability of the wind power market, supply and demand scenario, market potential, technical developments, installed capacity, the Wind Power Concession Program in China, off-grid wind power generation, and much more statistical and strategic data is included in part 1 of this section.

The market for small wind turbines, issues facing the small wind power market, grid-connected wind power, risks for investors looking to invest in China's wind power market such as tariff risks, risks related to wind resources, equipment risks, and grid connectivity is analyzed. The Maglev windmills in China are also analyzed.

The emergence of offshore wind power in China and issues facing the wind power market is analyzed.

Wind turbine manufacturing market in China is analyzed including market statistics, manufacturing of wind turbines, manufacturing of turbine components and accessories including bearings, blades, electrical controls, gearboxes, generators.

Region-wise analysis of the wind power market includes an analysis of wind power in the following provinces: Guangdong, Hebei, Inner Mongolia, Jiangsu, Jilin, Liaoning, Shandong, Xinjiang Uighur Autonomous Region, and the Dachen Islands. The analysis includes wind resource in the provinces, electricity prices, grid connectivity, and turbine manufacturing industry.

Market outlook for the Chinese wind power market is included.

Major players in China's wind power industry are analyzed such as Acciona SA, Gold Wind Science and Technology Co. Ltd., Longyuan Power, Ningxia Power, Shenhua Group, etc.

Section 4 analyzes the Chinese solar photovoltaics industry. The section covers the

following:

Why China needs solar power?

Market profile of solar photovoltaics in China, market developments, profitability of the solar power sector, solar power installations, dominance of crystalline silicon (c-Si) PV panels, role of the public sector in this industry, and the cost of PV products are analyzed in part 1 of this section.

Demand and supply scenario, pricing of PV systems, China's leadership in the solar energy market, etc. are analyzed.

Solar water heating market in China is analyzed through a market profile, technical analysis of integrated water heaters, flat plate water heater, and evacuated tube water heater. The economics of solar water heating, energy displacement through solar water heating, and the issues facing the industry are looked at.

Major players in the industry such as Ascent Solar, Odersun AG, Nanosolar, JA Solar, Trina Solar, Yingli, and others are analyzed.

Moving on to Section 5, the Biofuels Industry in China is analyzed. This section covers the following:

Analysis of biofuels in China including the development of the industry, Biofuel Diffusion Policy in China, role of biofuels in China's National Energy Policy, and the role of biofuels in China's international trade.

Biodiesel market in China is analyzed including the market profile, economics and competitiveness of biodiesel in China, major players and production and end-use technologies.

Pros and cons of biodiesel in China are looked at including energy benefits, environmental benefits, social and economic benefits, restrictions on raw materials availability, and production potential of biodiesel.

Analysis of the bioethanol market in China includes market profile, economics and competitiveness of bioethanol in China, major players, and the bioethanol demand scenario in 2020 along with the production potential of bioethanol in 2020.

Pros and cons of bioethanol in China is analyzed including process energy benefits, availability of manpower, land, and raw materials, commercialization of bioethanol, etc.

Issues facing the Chinese biofuel industry are analyzed including production capacity issues, technical issues, role of international cooperation, limited trade of biofuels, etc.

Market for cellulose ethanol in China is analyzed including cellulosic resources, cost analysis of cellulose ethanol, and a case study of the cellulose ethanol market in the Henan Province.

Major players such as Biolux, China Biodiesel International, China Sun Biochem, etc., are analyzed in the section.

Section 6 analyzes the market for hydropower in China. The section covers the following:

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Section 7 analyzes the smart grid in China. This section covers the following:

Market profile of the smart grid in China, investment plan for the state grid, challenges facing market entrants, presence of major international players, role of domestic grid companies in promotion and setting up of the smart grid, and

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Profitability of China's smart grid is analyzed.

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Major challenges facing China's smart grid implementation is analyzed including forecasting of intermittent resources, requirement for advanced solutions, renewable energy connection losses, etc.

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Moving on to section 8, we analyze the emergence of 'Green Buildings' in China. This section covers the following:

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Section 9 in the report analyzes clean transportation market in China. The section covers the following:

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Section 10 focuses on the cleaner conventional energy sector and covers the following:

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Market profile, role of clean coal, government support for the sector, and factors impacting the market.

Section 11 deals with the regulatory policies governing China's renewable energy industry and covers the following:

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Challenges facing growth of renewables in China.

Renewable energy policies in other countries.

Analysis of China's Renewable Energy Law amongst others.

In wrapping up this report, we analyze the market entry procedures for US firms in the Chinese renewable energy industry, emergence of eco-cities in China, and the support of the global community in promoting China's renewable energy development.

Taiyou Research's report on China Renewable Energy Market is a comprehensive and strategic analysis of all the sections of the renewable energy industry in China.

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