

China Clean Energy Industry Report, 2009-2010



Clean energy refers to the energy that doesn't discharge pollutants, mainly including nuclear energy, hydropower, wind power, solar power, bio-energy (biogas), and tidal energy. At present, China's energy consumption structure is still dominated by thermal power, and the structure won't change in the near future. But in the long run, clean energy will account for an increasingly larger proportion in electricity generating capacity. The figure below shows that the proportion of nuclear power, hydropower and other power sources increased from 19.7% in 2007 to 23.0% in March 2010, up 3.3 percentage points. As China launches more preferential policies for nuclear power, wind power and solar energy industry, the proportion of clean energy power generation will increase substantially.





Source: China Electricity Council

In 2010, hydropower and nuclear power are major contributors to China's clean energy power generation, while wind power and solar energy account for a smaller proportion. Promoted by the gradual integration of wind power into the electric power grid as well as the preferential policies for solar energy industry, the installed capacity and power generation capacity of China's wind power and solar energy industry will be further enhanced.

Nuclear energy: in 2009, there were 11 nuclear power generating units operated in China, 10 nuclear power projects and 28 generating units were approved, of which 20 units or 21.92 GW are under construction now. According to China's nuclear power projects under construction and planned to be built, it's expected that China Will add the installed nuclear power capacity of about 30 GW by 2015 and own total installed nuclear power capacity of about 30 GW by 2015 and own total installed nuclear power capacity of about 87.93 GW by 2020.

Wind energy: in 2009, China added 10,129 wind power generating sets, with capacity of 13803.2MW, up 124% yron-yr; 21,544 wind power generating sets in total, with capacity of 25805.3MW, up 114% yr-on-yr. In 2009, China's wind power equipment industry had built up a production system for key parts such as blade, gearbox, generator and pylon, which had progressively eased the tension between the supply and demand of such key parts as blade, generator, gearbox and wheel hub, but still failed to bridge the supply-demand gap for bearing and control system.

Solar energy: in 2009, China add installed photovoltaic solar energy capacity was 140MW, accounting for about 2% of global installed capacity. Promoted by the Solar Roofs program and the Golden Sun program, China's solar energy installation market will grow substantially in 2010. It's expected that China's solar energy market will add installed capacity of 450MW in 2010, which will further change the status quo of insufficient domestic demand.



Table of Contents

- Part I Clean Energy
- 1. Global Clean Energy Development
- 1.1 Overview
- 1.2 Solar Energy
- 1.3 Wind Power
- 1.4 Nuclear Power
- 1.5 Development Trends
- 2. China Clean Energy Development Environment
- 2.1 Electric Power Industry
- 2.1.1 Overview
- 2.1.2 Impact of Macro-economy on Electric Power Industry
- 2.2 Clean Energy Policies
- 3. Overall Operation of China Clean Energy Power Generation

- 3.1 Energy Consumption Structure
- 3.2 Operation of Electric Power Industry
- 3.2.1 Industry Chain
- 3.2.2 Development Cycle
- 3.2.3 Electricity Pricing
- 3.2.4 Electricity Demand Trends in 2010
- 3.3 Clean Energy Power Generation
- 3.3.1 Installed Capacity
- 3.3.2 Power Generation Capacity
- 3.3.3 Power Consumption Capacity
- 3.3.4 Cost of Power Generation from Different Energy Sources
- Part II Solar Energy
- 4. Global Solar Energy Development
- 4.1 Current Status and Outlook
- 4.2 Development Trends
- 4.3 Development in Major Countries

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- 4.3.1 USA
- 4.3.2 Japan
- 4.3.3 Germany
- 4.3.4 France
- 4.3.5 Spain
- 4.3.6 Italy
- 5. Solar Energy Development in China
- 5.1 Current Status and Outlook
- 5.1.1 Development of PV Solar Energy
- 5.1.2 Cost of Solar Power Generation
- 5.1.3 Preferential Policies for Solar Energy
- 5.1.4 Solar Energy Development Plan of China
- 5.2 Key Enterprises
- 5.2.1 First Solar
- 5.2.2 Q-Cells
- 5.2.3 Sanyo
- 5.2.4 Kyocera
- 5.2.5 Sharp
- 5.2.6 Mitsubishi Electric
- 5.2.7 JA Solar

- 5.2.8 Yingli Solar
- 5.2.9 Suntech Power
- Part III Wind Power
- 6. Global Wind Energy Development
- 6.1 Status Quo
- 6.2 Development in Major Countries
- 6.2.1 USA
- 6.2.2 Germany
- 6.2.3 Spain
- 6.2.4 Denmark
- 7. Wind Power Development in China
- 7.1 Status Quo
- 7.1.1 Installed Capacity
- 7.1.2 Wind Power Installation by Region
- 7.1.3 Offshore Wind Power Development
- 7.1.4 Integration of Wind Power into Electric Power Grid
- 7.2 Wind Farms



- 7.2.1 Planning
- 7.2.2 Earlier Stage of Operation
- 7.2.3 Later Stage of Operation
- 7.2.4 Profitability
- 7.3 Wind Power Policies
- 7.3.1 Policies
- 7.3.2 Wind Power Concession Bidding System
- 7.3.3 Access Standards of Wind Power Equipment Manufacturing
- 7.3.4 Pricing Policy
- 7.4 Regional Wind Power Development
- 7.4.1 Heilongjiang
- 7.4.2 Jilin
- 7.4.3 Liaoning
- 7.4.4 Inner Mongolia
- 7.4.5 Ningxia
- 7.4.6 Gansu
- 7.4.7 Xinjiang
- 7.4.8 Shandong
- 7.4.9 Hebei
- 7.5 Key Enterprises

- 7.5.1 China Guodian Corporation
- 7.5.2 China Huaneng Group
- 7.5.3 China Datang Corporation
- 7.5.4 China Huadian Corporation
- 7.5.5 Beijing Energy Investment Holding Company
 Limited
- 7.5.6 China Power Investment Corporation
- 7.5.7 China Guangdong Nuclear Power Group
- 7.5.8 Ningxia Electric Power Group Company
 Limited
- 7.5.9 Shandong Luneng Development Group
 Company Limited
- 8. Wind Power Equipment Development in China
- 8.1 Overview of China Wind Power Equipment
 Industry
- 8.1.1 Status Quo
- 8.1.2 Wind Power Installation Market Pattern
- 8.1.3 Main Types of Wind Turbine
- 8.1.4 Mainstream Wind Turbines in China
- 8.1.5 Wind Turbine Development Trends



- 8.2 Regional Wind Power Equipment Markets
- 8.2.1 Liaoning
- 8.2.2 Tianjin
- 8.2.3 Xinjiang
- 8.2.4 Hebei
- 8.2.5 Hunan
- 8.2.6 Jiangsu
- 8.3 Major Wind Turbine Companies
- 8.3.1 GE Wind Energy
- 8.3.2 Vestas
- 8.3.3 Gamesa
- 8.3.4 Goldwind Science & Technology
- 8.3.5 Dongfang Electric
- 8.3.6 Sinovel
- 9. China Wind Power Equipment Parts Industry
- 9.1 Overall Development
- 9.1.1 Main Parts of Wind Turbine
- 9.1.2 Development Trends of Wind Turbine Parts
- 9.2 Variable-frequency Drive (VFD)
- 9.2.1 Market
- 9.2.2 Demand
- 9.2.3 Key Manufacturers
- 9.3 Blade

- 9.3.1 Market
- 9.3.2 Development Trends
- 9.3.3 Key Manufacturers
- 9.4 Generator
- 9.4.1 Market
- 9.4.2 Key Manufacturers
- 9.5 Gearbox
- 9.5.1 Market
- 9.5.2 Key Manufacturers
- 9.6 Bearing
- 9.6.1 Market
- 9.6.2 Key Manufacturers
- Part IV Hydropower
- 10. China Hydropower Industry
- 10.1 Development
- 10.1.1 Overall Development
- 10.1.2 Regional Development
- 10.2 Profitability
- 10.3 Policies
- 10.4 Development Trends
- 10.5 Key Enterprises

- 10.5.1 China Yangtze Power Company Limited
- 10.5.2 Guangxi Guiguan Electric Power Company
 Limited
- 10.5.3 Yunnan Wenshan Electric Power Company
 Limited
- Part V Nuclear Power
- 11. Global Nuclear Power Development
- 11.1 Status Quo
- 11.2 Major Nuclear Power Countries
- 11.2.1 USA
- 11.2.<u>2 Canada</u>
- 11.2.3 Russia
- 11.2.4 Japan
- 11.2.5 South Korea
- 11.2.6 India
- 11.2.7 Germany
- 11.2.8 France
- 11.2.9 UK
- 11.2.10 Finland
- 12. Nuclear Power Development in China
- 12.1 Nuclear Power Plant Construction

- 12.1.1 Existing Nuclear Power Units
- 12.1.2 Nuclear Power Units under Construction or Already Planned
- 12.1.3 Planned Nuclear Power Units
- 12.2 Nuclear Power Equipment Development
- 12.2.1 Constitution of Nuclear Power Equipment
- 12.2.2 Domestic Production of Nuclear Power Equipment
- 12.2.3 Suppliers of Nuclear Power Equipment
- 12.3 Nuclear Power Operation
- 12.3.1 Quantity of Nuclear Power Units
- 12.3.2 Installed Capacity
- 12.3.3 Power Generation
- 12.3.4 Profitability
- 12.3.5 Operation Events
- 12.3.6 Policies
- 12.4 Key Enterprises
- 12.4.1 Key Enterprises of Nuclear Island and Conventional Island
- 12.4.2 Key Enterprises of Auxiliary Nuclear Power System Equipment



Selected Charts

- Global Clean Energy Market Scale, 2007-2019E
- Global PV Installation Market Capacity by Region, 2000-2009
- Global Distribution of New Installed Solar Energy Capacity by Region, 2009
- Employment in Global Wind Power Industry, 2005-2012
- Major Countries and Developers of Third-Generation Nuclear Power Plants
- China's Electricity Consumption in the Industrialization Process
- Quarterly Electricity Consumption Growth in the Industrial Sector, 2009
- GDP Growth and Electricity Consumption Growth in the Industrial Sector
- China's Energy Consumption and Growth, 2000-2008
- China's Energy Consumption Structure, 2000-2008
- Power Industry Chain
- Core Links of the Power Industry
- Development Cycle of the Power Industry
- China's Electricity Demand by Region, 2010
- Total Installed Capacity of China's Power Plants, 2003-2010
- Installed Capacity of China's Power Industry by Sub-sector, March 2010
- Power Generation Capacity of China, 2006-2010
- Power Generation Capacity of China's Power Industry by Sub-sector, 2006-2010
- Electricity Consumption, 2007-2010
- Electricity Consumption by Industry in China, 2006-2010
- YoY Growth in Monthly Electricity Consumption by Region
- Comparison of Main Indicators of Power Generation Energy Sources in China, 2009





- Global New Installed Solar Energy Capacity, 2007-2014
- Classification of Solar Cells
- Global Ranking of Solar Energy Companies, 2009
- Crystalline Silicon Solar Cell Industry Chain and Representative Enterprises
- Structure of CdTe Cell
- Structure of -Si Cell
- Global a-Si Cell Manufacturers
- CIGS Thin Film Battery Manufacturers in China
- Comparison of Energy Conversion Efficiency
- Cost Structure of Polysilicon
- New Installed Solar Energy Capacity in USA, 2007-2014
- Development of Key PV Incentive Policies in USA
- Development of Key PV Incentive Policies in Japan
- New Installed Solar Energy Capacity in Japan, 2007-2014E
- New Installed Solar Energy Capacity in Germany, 2007-2014E
- Development of PV Incentive Policies in Germany
- New Installed Solar Energy Capacity in France, 2007-2014E
- New Installed Solar Energy Capacity in Spain, 2007-2014E
- New Installed Solar Energy Capacity in Italy, 2007-2014E
- New Installed PV Solar Energy Capacity in China, 2007-2014E
- Solar Energy Power Generation Projects in China, 2009
- Solar Roofs Program in Some Chinese Cities
- Cost Structure of Solar Energy Installation
- Solar Energy Subsidy Programs in China
- Revenue of First Solar, 2008-2010
- Sales of Q-Cells, 2008-2009

- Sales of Q-Cells by Division, 2008-2009
- Financial Situation of Sanyo, 2005-2009
- Revenue of Kyocera, 2009-2010
- Revenue of Kyocera by Region, 2009-2010
- Revenue of Kyocera by Division, 2010-2011E
- Production Increasing Plan of Kyocera, 2009-2012
- Revenue of Sharp, FY2005-FY2009
- Solar Cell Production Capacity of Mitsubishi Electric, 2003-2011
- Revenue of Mitsubishi Electric by Division, FY2009-FY2010
- Revenue and Profit of JA Solar, 2006-2009
- Revenue and Profit of Yingli Solar, 2005-2009
- Operating Revenue and Profit of Suntech Power, 2005-2009
- Global Total Installed Wind Power Capacity, 1996-2009
- Global New Installed Wind Power Capacity, 1996-2009
- Global Top 10 Installed Wind Power Capacity, 2009
- Global Top 10 New Installed Wind Power Capacity, 2009
- Total Installed Wind Power Capacity in USA, 2000-2009
- Total Installed Wind Power Capacity in Germany, 2000-2009
- Total Installed Wind Power Capacity in Spain, 2000-2009
- Total Installed Wind Power Capacity in Denmark, 2000-2009
- Completion of Renewable Energy Power Generation Objectives in Denmark
- 10-million-kilowatt Base Planning in China, 2009
- Total Installed Wind Power Capacity of China, 2006-2009
- New Averaged Installed Power of China, 2005-2009
- Proportions of Installed Wind Power Units in China, 2009





- High-power Turbine R & D of Wind Power Companies, 2009
- Wind Power Unit Export of China, 2009
- Provinces with Total Installed Capacity over 1000MW, 2009
- Distribution of Installed Capacity by Province, 2009
- Offshore Wind Farm Planning by Region
- Offshore Wind Power by Province
- Price of Electricity from Wind Power by Province
- Four Categories of Electricity Price Stipulated in the Circular
- Equivalent Full Load Hours of Typical Wind Farm, 2008
- Power Grid Planning for Outbound Power Transmission by Region
- Wind Power-related AC UHV Line Construction Plan
- Wind Power-related DC UHV Construction Plan
- Cost Structure of China's Onshore Wind Power Generation in Earlier Stage
- Cost Structure of China's Offshore Wind Power Generation in Earlier Stage
- Operating Cost Structure of China's Onshore Wind Power Generation
- Operating Cost Structure of China's Offshore Wind Power Generation
- Preferential Policies for Wind Power Industry in Recent Years
- Seven Rounds of Wind Power Concession Bidding in China
- Total Installed Wind Power Capacity of Heilongjiang, 2006-2009
- Total Installed Wind Power Capacity of Jilin, 2006-2009
- Total Installed Wind Power Capacity of Liaoning, 2006-2009
- Total Installed Wind Power Capacity of Inner Mongolia, 2006-2009
- Total Installed Wind Power Capacity of Ningxia, 2006-2009
- Total Installed Wind Power Capacity of Gansu, 2006-2009

- Total Installed Wind Power Capacity of Xinjiang, 2006-2009
- Total Installed Wind Power Capacity of Shandong, 2006-2009
- Total Installed Wind Power Capacity of Hebei, 2006-2009
- Wind Power Investment of China Huaneng Group
- Wind Power Investment of China Huadian Corporation
- Wind Power Investment of Beijing Energy Investment Energy Company
- Wind Power Investment of China Power Investment Corporation
- Market Shares of Domestic (Joint Venture) and Foreign Enterprises by New Installed Wind Power Capacity, 2006-2009
- Comparison of the Output of Top 20 Equipment Manufacturers by New Installed Wind Power Capacity, 2009
- Ranking of Domestic Enterprises by Installed Capacity, H1 2009
- Ranking of Foreign Enterprises by Installed Capacity, H1 2009
- Wind Turbine Types and Applications in China
- Internal Structure of Doubly-fed Power Generating Set
- Internal Structure of Permanent Magnet Direct Drive Wind Power Generating Set
- Internal Structure of Hybrid (semi-direct drive) Power Generating Set
- Wind Turbine Price Trends, 2008-2010
- Offshore Wind Power Generating Set R & D of Domestic Enterprises
- Operating Revenue of Vestas, 2005-2009
- Operating Revenue of Vestas by Region
- Wind Turbine Delivery of Vestas, 2008-2009
- Main Business Revenue and Operating Profit Proportion of Goldwind Science & Technology by Division, 2009



- Domestic Onshore Wind Turbine Sales of Goldwind Science & Technology, 2009-2011
- 750kv Power Grid Construction Plan of Xinjiang
- Structure of Orders in Hand of Dongfang Electric, 2009
- Wind Power Generating Set Output of Dongfang Electric, 2007-2009
- New Installed Wind Power Capacity of Dongfang Turbine, 2006-2009
- New Installed Wind Power Capacity of Sinovel, 2006-2009
- Basic Structure of Wind Turbine
- Wind Power Parts Manufacturers in China
- Equipment Manufacturers Penetrating into the Industry Chain
- Production Capacity and Plan of Wind Power VFD Manufacturers in China
- Wind Power Convertor Demand in China, 2006-2010
- Operation of ABB, 2008-2009
- ABB Sales in China, 2008-2009
- Distribution of Main Models of Newly Installed Machines in China, 2006-2009
- 1.5 MW Wind Turbine Blade Demand in China, 2006-2010
- Production Capacity and Plan of Wind Power Gear Manufacturers in China
- Production Capacity Plan of Bearing Manufacturers
- Classification of Hydropower
- Results of National Water Resources Review, 2003
- Installed Hydropower Capacity of China, 2006-2009
- Hydropower Development in Major Regions of China
- Average Use Hours of Hydropower in China, 2006-2010
- Installed Hydropower Capacity of Yunnan, 2008-2009



- Hydropower Generation Capacity of Yunnan, 2002-2008
- Installed Hydropower Capacity of Sichuan, 2007-2010
- Hydropower Generation Capacity of Sichuan, 2002-2008
- Hydropower Profit Model
- Investment and Cost of Main Hydropower Stations
- Electricity Price Adjustment of Some Hydropower Stations
- Policies Promoting the Development of Hydropower Industry
- Development Plan for the Largest 13 Hydropower Bases in China
- Revenue and Profit of China Yangtze Power, 2005-2010
- Main Power Production Targets of China Yangtze Power, 2007-2009
- Electricity Output of Three Gorges Hydropower Plant and Gezhouba Hydropower Plant of China Yangtze Power, 2003-2010
- Operating Revenue and Profit of Guangxi Guiguan Electric Power, 2005-2010
- Revenue of Guangxi Guiguan Electric Power by Region, 2009
- Installed Power Capacity under Construction of Guangxi Guiguan Electric Power, May 2010
- Revenue and Profit of Yunnan Wenshan Electric Power, 2005-2010
- Electricity Sales Structure of Yunnan Wenshan Electric Power, 2008-2009
- Electricity Purchase Structure of Yunnan Wenshan Electric Power, 2008-2009
- Number of Nuclear Reactors of Major Countries, April 2010
- Installed Nuclear Reactor Capacity of Major Countries, April 2010
- SWOT Analysis of Nuclear Power Development in USA
- Uranium Output, 2003-2009
- Major Commercial Nuclear Power Plants in Russia
- Major Commercial Nuclear Power Plants in Japan



- Major Commercial Nuclear Power Plants in South Korea
- Major Commercial Nuclear Power Plants in India
- Major Commercial Nuclear Power Plants in Germany
- Major Commercial Nuclear Power Plants in France
- Major Commercial Nuclear Power Plants in UK
- Nuclear Power Plants under Planning in UK
- Major Nuclear Power Plants Operated in Finland
- Nuclear Power Units Operated in China, April 2010
- Nuclear Power Units under Construction in China, April 2010
- Nuclear Power Units under Planning in China, April 2010
- Working Principle of Pressurized-water Reactor (PWR) Nuclear Power Plant
- Domestic Production of Key Equipment of Ling'ao Phase II
- Subcontract of Key Equipment of Hongheyan Project
- Domestic Production Subject and Rate of Key Equipment of AP1000
- Market Share of Nuclear Power Equipment
- Comparison of Nuclear Island Equipment Suppliers
- Number of Nuclear Power Units in China, 2002-2009
- Trend of Installed Nuclear Power Capacity in China, 2005-2009
- Trend of Nuclear Power Generating Capacity in China, 2005-2009
- Cost of Nuclear Power
- Comparison of Nuclear Power Electricity Price and Local Benchmark Coal-fired Electricity Price in China, March 2010
- Unit Investment of Domestic Nuclear Power Plants
- Evolvement of Nuclear Power Planning and Technology Policy



- Policies Supporting the Development of Nuclear Power in China
- Main Business Revenue of Suzhou Hailu Heavy Industry, 2004-2009
- Proportion of Nuclear Power Equipment Business of Suzhou Hailu Heavy Industry, 2009
- Nuclear Power Equipment Production Capacity of Dongfang Electric
- Proportion of Dongfang Electric in the Projects of Different Nuclear Power Operators
- Forecast of the Progress of Nuclear Power Projects Won by Dongfang Electric
- Main Business Revenue of Shanghai Electric, 2004-2009
- List of Main Nuclear Power Conventional Island Equipment Products of Shanghai Electric
- Proportion of Shanghai Electric in the Projects of Different Operators
- Main Business Revenue of Harbin Power Equipment Company, 2004-2009
- List of Main Nuclear Power Equipment Products of Harbin Power Equipment Company
- Main Business Revenue of Nanfeng Ventilator, 2006-2009
- Proportion of Nuclear Power Equipment Business of Nanfeng Ventilator, 2009
- Demand for Nuclear Power HVAC of Nanfeng Ventilator in the Next Three Years
- Main Business Revenue of CNNC SUFA Technology Industry Company, 2005-2009
- Nuclear Power HVAC Equipment Orders of CNNC SUFA Technology Industry Company, 2008-2010
- Main Business Revenue of Xiangtan Electric Manufacturing Corporation, 2005-2009



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