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World Turbines

Industry Study with Forecasts for **2014 & 2019**

Study #2689 | November 2010 | \$5900 | 432 pages

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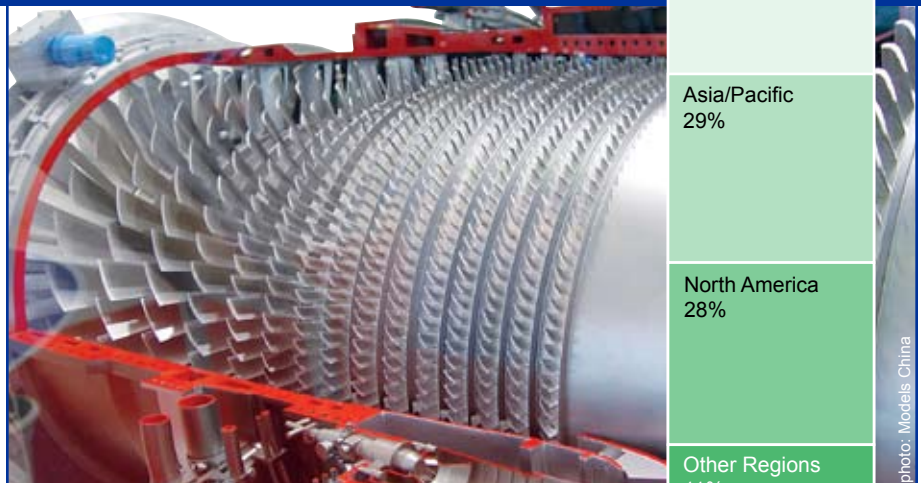
Growth will be driven by the wind turbine sector, which consistently exceeded industry growth estimates over the 2004-2009 period, with 2009 a record year for new wind power generation.

Global demand to increase 6.1% yearly through 2014

The world market for turbines and related products (turbine-based engines, generators and generator sets) is projected to increase 6.1 percent per year through 2014 to \$133 billion. Growth will be driven by the wind turbine sector, which consistently exceeded industry growth estimates over the 2004-2009 period. In fact, 2009 was a record year for new wind power generation, with 44 gigawatts of new capacity added worldwide in spite of a large part of the world economy being in recession. China doubled its installed wind power generation capacity in 2009, with the US also seeing stellar growth in new capacity (although the start of many new wind farm projects in the country was delayed due to financing difficulties associated with the recession).

Through 2014, the large turbine engine segment will also post strong gains, supported by increases in aircraft manufacturing as a result of surging demand from heavily populated developing countries such as China and India in both commercial and military applications. Because Boeing (based in the US) and Airbus (based in France) account for the vast majority of global commercial aircraft manufacturing, their introduction of new aircraft models -- which promise improvements in range and fuel efficiency -- will support demand for turbine engines in the developed regions in which they are headquartered.

World Turbine Product Demand (\$98.7 billion, 2009)



Asia/Pacific region to expand market share

Growth in demand for turbines and related products in China will remain well above the global average through 2014, although it will decelerate considerably from the better than 30 percent yearly gains registered between 2004 and 2009. The Asia/Pacific region will expand its share of world turbine demand from 29 percent in 2009 to 32 percent in 2014. The strongest percentage gains in regional demand will be seen in Central and South America and the Africa/Mideast region, although both regions combined will account for just seven percent of global turbine and related product demand in 2014.

Turbine demand in the US will grow 5.5 percent annually through 2014, with more rapid gains hindered by the fact that 2009 was such a strong year for US wind turbine sales. Demand in Western Europe will grow 4.0 percent per year through 2014. The West European wind energy sector is the most mature in the world and will post relatively modest gains through 2014 in spite of a booming offshore sector and significant onshore wind turbine replacement demand in several countries. Wind power currently supplies electricity demand in Denmark, Spain, Portugal, Ireland and Germany at rates unheard of in North America and other regions of the world.

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Sample Text, Table & Chart

ASIA/PACIFIC

China: Outlook & Suppliers

The market for turbines and related products in China is expected to advance to \$10 billion in 2014, ahead of regional averages. Rapid rates of increase in the country over the last decade are being stimulated by the continuation of the construction of new generation capacity and the expansion of the travel sector.

**SAMPLE
TEXT**

Government plans to build coal-fired power plants and more efficient large electric power generating facilities will also support increases in the power sector. In addition, concerns about global warming will provide opportunities for both cleaner burning gas turbines -- including combined cycle facilities -- and non-polluting and hydroelectric turbines.

Despite strong growth of 7.2 percent annually, the power sector will see below average gains in percentage terms as growth decelerates from the torrid increases of the past decade. Preventing faster increases will be the long life of many turbines and the sheer size of recent capacity additions. For example, in 2009 China more than doubled its installed base of wind power. Growth in wind turbine demand in China through 2014 will therefore be rising from a historically unprecedented base level.

Policies and regulations implemented to prevent the Chinese economy from overheating will also restrain growth in many consuming industries and therefore limit growth in the electric turbine market. In addition, the completion of the Three Gorges, the world's largest hydroelectric power installation, will limit opportunities in the hydraulic turbine segment of the market going forward. In spite of the below average rate of increase expected for the electric generation market, this segment will still account for over 80 percent of the market.

170

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TABLE VI-3

CHINA -- TURBINE PRODUCT SUPPLY & DEMAND (million dollars)

Item	1999	2004	2009	2014	2019
Population (million persons)	1,212	1,329	1,371	1,413	1,455
\$ GDP/capita	800	1,900	2,700	3,500	4,300
Gross Domestic Product (bil 2008\$)	10,000	25,000	40,000	55,000	70,000
% fixed investment	36	36	36	36	36
Gross Fixed Investment (bil 2008\$)	3,600	9,000	14,400	19,800	25,200
\$ turbines/000\$ investment	1	1	1	1	1
Turbine Product Demand by Type					
Turbines:					
Wind	0	0	0	0	0
Gas Combustion	0	0	0	0	0
Steam & Hydraulic	0	0	0	0	0
Turbine Engines	0	0	0	0	0
Turbine Generators & Generator Sets	0	0	0	0	0
net exports	0	0	0	0	0
Turbine Product Shipments	1,000	1,000	1,000	1,000	1,000

**SAMPLE
TABLE**

CHART VIII-2

WORLD ELECTRIC POWER GENERATION TURBINE MARKET SHARE BY COMPANY (\$62.9 billion, 2009)



**SAMPLE
CHART**

Sample Profile, Table & Forecast

TABLE VI-4
CHINA - TURBINE PRODUCT DEMAND BY APPLICATION
 (million dollars)

Item	1999	2004	2009	2014	2019
Electric Power Generation (bil kWh)					80
\$ power generation turbines/000 kW					4.4
Aerospace Equipment Shipments (bil \$)					0.0
\$ aircraft engines/000\$ aero shipmen					0.02
Turbine Product Demand by Application					50
Electric Power Generation					10
Aircraft Engines					40
Marine & Other					0.0

**SAMPLE
TABLE**

COMPANY PROFILES

Finmeccanica SpA

Piazza Monte Grappa, Four
 00195 Rome
 Italy
 39-6-324731
<http://www.finmeccanica.it>

Revenues: \$

Geographic

Kingdom 11

and Other A

Employment

Key Product

plants, turb

**SAMPLE
PROFILE**

22%, the United
 America 24%

rs, turbine power
 turbine engines

Finmeccanica develops, designs and produces aircraft, satellites, missile systems and other high-technology equipment. The Company operates in eight segments: Aeronautics, Space, Helicopters, Defense and Security Electronics, Defense Systems, Transportation, Energy, and Other Activities.

The Company is active in the world turbine market via Ansaldo Energia SpA (Genoa, Italy), a subsidiary that operates as part of the Energy segment. In 2009, the Energy segment generated revenues of \$2.3 billion and employed 3,475. Ansaldo Energia is engaged in the production of such energy generation products as gas and steam turbines, turbine generators, and turbine power plants.

Gas turbines are produced by Ansaldo Energia are available with output capacities from 70 to 290 MW for base- and peak-load power generation, combined-cycle, district heating and industrial cogeneration applications. Specific gas turbines include AE94.2K, AE94.3A, AE94.2

“Shipments of turbine products from Chinese facilities are projected to increase 9.1 percent per year through 2014 to \$26.8 billion, outpacing demand and therefore reducing the country’s sizable trade deficit. Gains will be fueled by robust domestic market conditions, additional investment in Chinese manufacturing operations by multinational producers and further improvements in the average quality of locally-made turbines. Chinese exports of turbine products are expected to ...”
 --Section VI, pg. 171

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OTHER STUDIES

World Batteries

Global battery demand will climb 4.8% annually through 2014. China will remain the world's largest national market by far, while India will register the strongest sales growth. Non-lead-acid secondary battery demand will outpace primary and lead-acid secondary batteries. This study analyzes the \$86.2 billion world battery industry, with forecasts for 2014 and 2019 by chemistry, product, market, world region and for 16 countries. It also evaluates company market share and profiles industry participants.

#2703 November 2010 \$6300

World Bearings

Global bearing demand will increase 8.5% annually through 2014. Unmounted bearings will continue to account for the majority of sales. The Asia/Pacific region will post the strongest gains, led by China. The motor vehicle and machinery markets will remain the largest sources of demand. This study analyzes the \$50.5 billion world bearing industry, with forecasts for 2014 and 2019 by product, market, world region and for 30 countries. It also evaluates company market share and profiles industry participants.

#2649 June 2010 \$6100

Solar Energy Products in China

Solar energy product demand in China will grow 16.6% annually through 2013. Solar thermal collectors will remain the dominant type while photovoltaic modules grow the fastest from a small base. Central-East China will continue as the largest regional market. This study analyzes the 23.4 billion yuan solar energy product industry in China, with forecasts for 2013 and 2018 by type and region. It also evaluates company market share and profiles industry participants.

#2613 April 2010 \$5300

Wind Turbine Systems in China

Wind turbine system demand in China will rise 5.3% yearly through 2013, driven mainly by government policies. Although utility-scale uses will remain dominant, China's distributed wind turbine market is one of the world's largest. Rotor systems and towers will slightly outpace nacelles and other parts. This study analyzes the 48.2 billion yuan wind turbine system industry in China, with forecasts for 2013 and 2018 by type, component, application and region. It also evaluates market share and profiles industry players.

#2576 December 2009 \$5200

World Electric Power Transmission & Distribution Equipment

Global demand for electric power T&D equipment will rise 5.3% per year through 2013. The Asia/Pacific region will grow the fastest. Newer products used with wind and solar energy, and with the oil and gas, mining, and heavy manufacturing industries, will see strong growth. This study analyzes the \$99.5 billion world electric power T&D equipment industry, with forecasts for 2013 and 2018 by market, product, world region and for 20 countries. It also evaluates market share and profiles industry players.

#2529 July 2009 \$5700

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