World Turbines

Industry Study with Forecasts for 2016 & 2021

Study #3009 | March 2013 | $6100 | 437 pages
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World Turbines will continue to be the fastest growing turbine product type through 2016, but a much higher base of existing capacity will limit the growth rate to a more moderate level.

**World demand to rise 6.4% annually through 2016**

The world market for turbines and related products is forecast to rise 6.4 percent annually to nearly $162 billion in 2016. This will represent a deceleration from the pace of the 2006-2011 period, primarily caused by a slowdown in sales of wind turbines. The global wind turbine market expanded sevenfold between 2001 and 2011 to become the single largest turbine product segment, overtaking turbine engines. Wind turbines will continue to be the fastest growing turbine product type through 2016, but a much higher base of existing capacity will limit the growth rate.

Demand for gas combustion turbines is expected to accelerate to a 7.3 percent annual growth rate through 2016. The market for gas turbines will benefit from a transition from coal to natural gas for electric power generation. In North America, the development of shale resources in the US has led to significantly lower gas prices in recent years, allowing gas-fired and combined-cycle plants to take on an expanded role in power generation. The continued transition away from coal will lead to increased investment in natural gas plants, spurring demand for gas turbines.

**Demand growth in China to outpace US market**

Between 2006 and 2011, the turbine market in China posted a 27 percent annual growth rate, by far the fastest in the world. The largest of these gains occurred in the wind turbine market, which saw demand multiply by a factor of nearly 15. China has become the largest market for wind turbines in the world, accounting for 43 percent of existing global capacity in megawatt (MW) terms at year-end 2011. Through 2016, the fastest growth in turbine demand will occur in Australia, which is investing heavily in wind power in order to reduce its dependence on carbon. Strong increases in turbine sales are also expected throughout the rest of the Asia/Pacific region.

The US, which is the second largest national market for turbine products behind China, will grow at an average pace through 2016, aided by an expanding market for gas turbines in power generation applications, continued healthy gains in demand for wind turbines, and an acceleration in new aircraft production. Mexico, fueled by increasing development of wind power, will be the second fastest growing market for turbine products worldwide. Western Europe will remain the slowest growing regional market, largely due to the maturity of its wind energy sector. However, the region still holds significant potential for offshore wind power, and gains in wind turbine demand will accelerate relative to the 2006-2011 pace.
Asia/Pacific

Japan: Outlook & Suppliers

The market for turbines and related products in Japan is projected to increase 6.1 percent annually to $5.9 billion in 2016, a significant acceleration from the pace of the 2006-2011 period. Gains will be headed by the power generation segment, as Japan’s electricity generation infrastructure will see major modifications in the wake of the 2011 disaster. Steam turbine demand will be hurt by the country’s transition away from nuclear power. However, unlike in many regions, Japan holds good prospects for coal-fired plants, and investment in improved efficiency and environmental impact of coal plants will lead to an overall increase in steam turbine demand through 2016.

Demand for gas turbines will continue to see strong growth, rising 7.7 percent per year through 2016. The share of gas in Japan’s electricity generation mix rose substantially in 2011 and is expected to grow going forward. Sales of gas turbines will benefit from the phase out of nuclear power.

The Japanese government has been actively promoting alternative energy sources such as wind power in order to adhere to Kyoto Protocol requirements and to reduce energy imports. In July 2012, a new feed-in tariff for wind came into effect, providing the highest rates supporting wind of any country in the world. Preventing even faster increases will be difficulties with grid access and the lack of suitable wind locations near the bulk of Japanese electricity demand. Japan’s wind resources are greatest in the north and south of the country, while electricity demand is concentrated in the center. The harshness of Japanese weather is expected to have a mixed impact on wind turbine demand. A number of lightning strikes and high winds caused by typhoons have damaged existing wind turbines, providing opportunities for replacement products. However, these events have also restricted installations in some areas and caused regulatory officials to re-examine turbine guidelines.

Table VI-9

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Chart VIII-3

World Turbine-Based Aircraft Engine Market Share by Company ($36.9 billion, 2011)

Sample Chart
COMPANY PROFILES

Sinovel Wind Group Company Limited
Culture Building
59 Zhongguancun Street
Haidian District, Beijing  100872
China
86-10-6251-5566
http://www.sinovel.com

Revenues:  $1.6 billion (2011)
Employment:  2,870 (2011)

Key Products: large scale wind turbines

Sinovel Wind is involved in the design, development, and production of large scale wind turbines for the renewable energy market. The Company completed an initial public offering in January 2011.

The Company is active in the world turbine industry via the manufacture of large scale wind turbines with output capacities of 1.5, 3.0, 5.0, and 6.0 megawatts (MW). These turbines are designed to adapt to various wind resources and environmental conditions, and are suitable for onshore, offshore, and intertidal applications. Additional features of Sinovel Wind’s wind turbines include variable speed control properties, pitch regulated systems, and double fed inductive generators. In 2011, the wind turbine output capacity installed by the Company totaled 2,945 megawatts (MW). Furthermore, as of December 2011, Sinovel Wind had a total installed output capacity of 12,989 MW.

In China, Sinovel Wind’s operations include facilities in Dalian, Liaoning; Yancheng, Jiangsu; Jiuquan, Gansu; and Baotou, Inner Mongolia that are involved in research, development, manufacturing, and other activities. In July 2012, the Company announced plans to

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World Electric Transmission & Distribution Equipment

Global demand for electric transmission and distribution (T&D) equipment will rise 6.7 percent annually to $177 billion in 2017. The Asia/Pacific region, led by China, will continue to post the fastest gains. In North America and Western Europe, advances will be driven by the increasing proliferation of renewable energy projects. This study analyzes the $127 billion world electric T&D equipment industry, with forecasts for 2017 and 2022 by market, product, world region and for 20 countries. The study also evaluates company market share and profiles industry players. #3071 ............... September 2013 ................. $5900

Batteries in China

Demand for batteries in China is forecast to increase 13.0 percent annually to 259 billion yuan in 2016. Secondary batteries will outpace primary types, led by the fast-growing rechargeable lithium batteries segment. The primary battery market will remain dominant, supported by the supplantation of zinc-carbon/chloride batteries by alkaline types. This study analyzes the 141 billion yuan battery industry in China, with forecasts for 2016 and 2021 by type and market. The study also evaluates company market share and profiles industry participants. #3030 ............... June 2013 ................. $5300

Electric Motors

US demand for electric motors will increase at an accelerated rate of 4.6 percent annually through 2017 to $14.4 billion. AC motors will remain the largest segment while hermetic motors will grow the fastest. The heating and cooling equipment market will provide the best growth opportunities. Integral horsepower motors will outpace fractional horsepower types. This study analyzes the $1.5 billion US electric motors industry, with forecasts for 2017 and 2022 by type and market. The study also evaluates company market share and profiles industry players. #3007 ............... March 2013 ................. $4900

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- Automotive & Transportation Equipment
- Household Goods
- Energy/Power Equipment

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