

Analyzing the Global Market for Wind Turbine Towers

https://marketpublishers.com/r/A5A45D6FCACEN.html Date: October 2015 Pages: 195 Price: US\$ 1,250.00 (Single User License) ID: A5A45D6FCACEN

Abstracts

The wind tower is a vital component of any wind turbine system.

Technological advancement has resulted in an acceleration in the achievable capacity of a single wind turbine. This could cause a decline in the number of towers installed in the coming years until 2020, despite an expected increase in annual capacity installed throughout this period.

Naturally, the growth of the wind tower market is directly proportionate to the growth of the wind energy industry, which is heavily impacted by favorable government policies, rising demand for power and uncertain supply and prices of energy from conventional sources.

China, the United States, India, Germany and Canada are major wind energy markets, accounting for around 90% of the global wind power market and the same held true for the global wind tower market in 2014 as well. These countries had the maximum number of wind tower installations in 2014. However, Denmark and the Netherlands also proved to be major global wind tower manufacturing powerhouses, manufacturing towers on a significant scale, mostly for export to the US and European markets.

A considerable percentage of Asian tower manufacturers ship their wind towers to North American and European countries, as the production cost is low in Asian countries and they are able to offer towers at competitive prices to these markets.

From 2014 to 2020, the addition of wind energy capacity is expected to increase. Yet again, the number of towers installed annually during this period will increase only slightly, due to the annual growth of average turbine capacity.

Some of the leading manufacturers of wind towers include China Ming Yang Wind



Power Group Ltd, Enercon, Gamesa, GE, Senvion, Sinovel Wind Group amongst others.

Aruvian Research analyzes the global market for wind turbine towers in its research report Analyzing the Global Market for Wind Turbine Towers. Divided into five sections, the report first analyzes the global wind power industry through an analysis of wind power technology, how wind turbines work, power generation from wind, cost of a wind turbine and other factors. The report also analyzes the global wind energy industry through a market profile, market statistics, market analysis by region, wind power in the European Union and the global offshore wind market.

Section 2 of the report Analyzing the Global Market for Wind Turbine Towers looks at wind turbines through components, global installations of wind turbines, market size, cost of turbines and other factors.

Section 3 analyzes the market for wind turbine towers. The section begins with an introduction to wind towers looking at the types of wind turbine towers there are, considerations for choosing wind towers, turbine heights, site considerations and other factors.

The market for wind turbine towers is analyzed through an industry overview, industry size and cost of wind turbine towers. Industry data is analyzed from 2006 to 2020. The report also analyzes industry trends and competition in the industry.

Following on from the analysis of the competitive landscape of the industry, we analyze the major manufacturers of wind towers such as the China Ming Yang Wind Power Group, Enercon, Vestas, Gamesa, GE, Senvion, Siemens and others. Each of the major players are analyzed through a corporate profile, an analysis of the major business segments, a financial analysis and a SWOT analysis.

Analyzing the Global Market for Wind Turbine Towers is a comprehensive analysis of not only the market for wind towers but also the global wind power industry.



Contents

EXECUTIVE SUMMARY

SECTION 1: GLOBAL WIND POWER INDUSTRY

A. INTRODUCTION TO WIND POWER

- A.1 How do Wind Turbines Work?
- A.2 Wind Power Technology
- A.3 Power Generation from Wind

B. WIND POWER TECHNOLOGY

- **B.1** Introduction
- B.2 Types of Turbines
- **B.3 Airborne Wind Turbine**
- B.4 Wind Turbine's Power Output
- B.5 Cost of a Wind Turbine
- B.6 Turbine Size
- **B.7 Efficiency Factors**
- B.8 Offshore Wind Turbines
- B.9 Lifetime of a Turbine
- B.10 Globalization Impacting the Wind Turbine Market

C. ANALYZING THE GLOBAL WIND ENERGY INDUSTRY

- C.1 Market Profile
- C.2 Market Statistics
- C.3 Market Analysis by Region
 - C.3.1 Africa & the Middle East
 - C.3.2 Asia
 - C.3.3 Europe
 - C.3.4 North America
 - C.3.5 South & Latin America
 - C.3.6 Pacific Region
- C.4 Wind Power in the European Union (EU)
 - C.4.1 Overview
 - C.4.2 Offshore Wind Market



- C.4.3 Market Trends C.4.4 Regulatory Framework C.5 Global Offshore Wind Market C.5.1 Overview
 - C.5.2 Asia
 - C.5.3 Europe
 - C.5.4 United States

SECTION 2: GLOBAL WIND TURBINE INDUSTRY

A. INTRODUCTION TO WIND TURBINES

- A.1 Components of Wind Turbines
- A.2 Global Installations of Wind Turbines
- A.3 Market Size
- A.4 Cost of Turbines
- A.5 Average Turbine Size
- A.6 Market Share

SECTION 3: ANALYZING THE GLOBAL MARKET FOR WIND TURBINE TOWERS

A. INTRODUCTION

- A.1 Overview of Wind Turbine Towers
- A.2 Turbine Height
- A.3 Types of Wind Turbine Towers
- A.4 Considerations for Choosing Wind Towers
 - A.4.1 Cost Considerations
 - A.4.2 Aerodynamic Considerations
 - A.4.3 Engineering Considerations
 - A.4.4 Structural Dynamic Considerations
 - A.4.5 Tower Height Considerations
 - A.4.6 Site Considerations

B. MARKET FOR WIND TURBINE TOWERS

- **B.1 Industry Overview**
- **B.2 Industry Size**
- B.3 Cost of Wind Turbine Towers



C. INDUSTRY TRENDS

D. COMPETITION IN THE INDUSTRY

SECTION 4: ANALYSIS OF MAJOR MANUFACTURERS OF WIND TURBINE TOWERS

A. CHINA MING YANG WIND POWER GROUP LTD

A.1 Corporate ProfileA.2 Business Segment AnalysisA.3 Financial AnalysisA.4 SWOT Analysis

B. ENERCON

- B.1 Corporate Profile
- **B.2 Business Segment Analysis**
- **B.3 Financial Analysis**
- **B.4 SWOT Analysis**

C. GAMESA CORPORACION TECNOLOGICA SA

- C.1 Corporate Profile
- C.2 Business Segment Analysis
- C.3 Financial Analysis
- C.4 SWOT Analysis

D. GENERAL ELECTRIC COMPANY

- D.1 Corporate Profile
- D.2 Business Segment Analysis
- D.3 Financial Analysis
- D.4 SWOT Analysis

E. SENVION SE

E.1 Corporate Profile

Analyzing the Global Market for Wind Turbine Towers



- E.2 Business Segment Analysis
- E.3 Financial Analysis
- E.4 SWOT Analysis

F. SIEMENS AG

- F.1 Corporate Profile
- F.2 Business Segment Analysis
- F.3 Financial Analysis
- F.4 SWOT Analysis

G. SINOVEL WIND GROUP COMPANY LIMITED

- G.1 Corporate Profile
- G.2 Business Segment Analysis
- G.3 Financial Analysis
- G.4 SWOT Analysis

H. SUZLON ENERGY LIMITED

H.1 Corporate ProfileH.2 Business Segment AnalysisH.3 Financial AnalysisH.4 SWOT Analysis

I. VESTAS WIND SYSTEMS A/S

- I.1 Corporate Profile
- I.2 Business Segment Analysis
- I.3 Financial Analysis
- I.4 SWOT Analysis

J. ENVISION ENERGY

K. GUODIAN UNITED POWER TECHNOLOGY CO., LTD.

L. XINJIANG GOLDWIND

SECTION 5: CONCLUSION



A. APPENDIX

B. GLOSSARY OF TERMS



List Of Figures

LIST OF FIGURES

Figure 1: Power Curve for Wind Turbine Figure 2: Energy Produced at Various Wind Speeds at Typical Wind Farm Site Figure 3: Energy Produced at Various Wind Speeds at Typical Site Figure 4: Capacity Factor in % of Rated Power Figure 5: Aerodynamics of Wind Power Figure 6: Components in a Simplified Wind Turbine Figure 7: Airborne Wind Generator Figure 8: Main Components of a Wind Turbine and their Share of the Overall Turbine Cost for a 5 MW Wind Turbine Figure 9: Turbine Diameter Growth with Time Figure 10: Growth in Size of Commercial Wind Turbine Designs Figure 11: Development of the Average Wind Turbine Size Sold in Different Countries (in KW) Figure 12: Increase in Turbine Prices from 2012 to 2014 Figure 13: Top 10 Cumulative Capacity as of Dec 2014 Figure 14: Top 10 New Installed Capacity Jan-Dec 2014 Figure 15: Global Annual Installed Wind Capacity 1997-2014 Figure 16: Global Cumulative Installed Wind Capacity 1997-2014 Figure 17: Annual Installed Capacity by Region 2006-2014 Figure 18: Share of New Wind Power Installations in the EU (in MW), 2014 Figure 19: Total Installed Capacity in the European Union (in MW), 2001-2014 Figure 20: Electricity Generating Installations in the EU (in GW), 2000-2014 Figure 21: Annual Offshore Wind Capacity Installations in Europe in 2014 (in MW) Figure 22: Share of Wind Turbine Manufacturers' at end of 2014 (in MW) Figure 23: Components of a Wind Turbine Figure 24: Global Annual Wind Power Installations (in GW), 2006-2015 Figure 25: Global Turbine Market Size (in USD Billion) & Average Turbine Cost (in USD per kW), 2006-2015 Figure 26: Average Capacity of a Wind Turbine, Offshore and Onshore Turbines (in MW), 2006-2020 Figure 27: Major Players in the Global Turbine Industry & their Market Share (%), 2014 Figure 28: Yearly Variation of Market Shares of Major Wine Turbine Suppliers (%), 2007-2014 Figure 29: Guyed Wind Tower Figure 30: Guyed Tilt-Up Wind Tower



- Figure 31: Freestanding Lattice Wind Tower
- Figure 32: Freestanding Tubular Wind Tower
- Figure 33: Floating Wind Tower
- Figure 34: Size of the Wind Tower Market (in USD Billion), 2006-2020
- Figure 35: Cost of the Wind Turbine Towers (in USD per kW), 2006-2020

Figure 36: Revenues & Profitability of Suzlon Energy Limited (in USD Million), 2010-2014

- Figure 37: General Layout for a Wind Turbine System
- Figure 38: An Offshore Wind Farm
- Figure 39: Overall Wind Farm Costs
- Figure 40: Total Renewables Cost Envelope vs. Coal, Gas & Nuclear Cost
- Figure 41: Combustion Emissions from Electricity Generation 2005-2050
- Figure 42: Low Emission Generation Requirements



List Of Tables

LIST OF TABLES

Table 1: Four Optional Installation Systems for Offshore Wind Power

Table 2: Global Installed Wind Power Capacity (MW) by Regions, 2013-2014

Table 3: Upcoming Offshore Wind Power Projects in Japan

Table 4: Wind Farms and Turbines Connected to the Grid at end of 2014 in Europe

Table 5: Global Annual Wind Power Installations (in GW), 2006-2015

Table 6: Global Turbine Market Size (in USD Billion) & Average Turbine Cost (in USD per kW), 2006-2015

Table 7: Average Capacity of a Wind Turbine, Offshore and Onshore Turbines (in MW), 2006-2020

Table 8: Yearly Variation of Market Shares of Major Wine Turbine Suppliers (%), 2007-2014

Table 9: Size of the Wind Tower Market (in USD Billion), 2006-2020

Table 10: Cost of the Wind Turbine Towers (in USD per kW), 2006-2020

Table 11: Leading Manufacturers of Wind Turbine Towers

Table 12: Leading Manufacturers of Wind Turbine Towers by Geographic Location

Table 13: Major Turbines Developed by Enercon

Table 14: Key Financials of Suzlon Energy Limited (in USD Million), 2010-2014



I would like to order

Product name: Analyzing the Global Market for Wind Turbine Towers

Product link: https://marketpublishers.com/r/A5A45D6FCACEN.html

Price: US\$ 1,250.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/A5A45D6FCACEN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970