

Onshore Wind Turbine Blade Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 to 2032

<https://marketpublishers.com/r/O6FCC6C517DDEN.html>

Date: October 2024

Pages: 100

Price: US\$ 4,365.00 (Single User License)

ID: O6FCC6C517DDEN

Abstracts

The Global Onshore Wind Turbine Blade Market, valued at USD 73.2 billion in 2023, is projected to grow at 5.7% CAGR from 2024 to 2032. Wind turbine blades are critical components that convert wind energy into mechanical energy, which is then converted into electricity by the turbine's generator. These blades, typically long and aerodynamic, are designed to maximize the capture of wind energy and optimize the efficiency of the turbine. As the industry focuses on sustainability, there is a growing trend toward developing eco-friendly blade materials and implementing recycling initiatives to address the challenges of blade disposal at the end of their life cycle. Smaller-scale wind projects, such as community and distributed wind systems, are also adopting advanced blade technologies, further driving market demand.

Additionally, emerging markets in Asia, Africa, and South America are seeing a surge in wind energy projects, spurred by rising energy needs and increasing investments in renewable technologies, bolstering the overall industry growth. In terms of blade size, the 31–60-meter onshore wind turbine blade segment is expected to exceed USD 21.5 billion by 2032. Advances in lightweight materials and aerodynamic designs are improving energy generation while reducing costs. The decreasing production and installation costs for turbines with longer blades make them a more attractive option for developers. Government incentives supporting the use of larger turbines are also encouraging the deployment of these blades in new projects, shaping the market growth trajectory.

Based on capacity, the >5 MW onshore wind turbine blade segment is forecasted to register a CAGR of over 4% through 2032, driven by the higher energy yields and cost-efficiency of larger turbines. Continuous improvements in turbine design, materials, and

control systems have made larger turbines more efficient, with innovations such as increased rotor diameters and enhanced aerodynamics allowing for greater energy capture. The falling costs of wind energy, due to economies of scale and advancements in manufacturing processes, are making large turbines an attractive option, boosting their adoption. The Asia Pacific onshore wind turbine blade market is expected to reach USD 95 billion by 2032, spurred by innovations in blade design, materials, and manufacturing processes that make turbines more efficient and cost-effective.

Countries like China, India, and Japan are setting ambitious renewable energy goals, prompting significant investments in wind energy infrastructure. Supportive government policies, including subsidies and tax incentives, further accelerate the growth of wind energy projects in the region.

Contents

Report Content

CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Research design
- 1.2 Base estimates & calculations
- 1.3 Forecast model
- 1.4 Primary research & validation
 - 1.4.1 Primary sources
 - 1.4.2 Data mining sources
- 1.5 Market definitions

CHAPTER 2 INDUSTRY INSIGHTS

- 2.1 Industry ecosystem
- 2.2 Regulatory landscape
- 2.3 Industry impact forces
 - 2.3.1 Growth drivers
 - 2.3.2 Industry pitfalls & challenges
- 2.4 Growth potential analysis
- 2.5 Price trend analysis
- 2.6 Porter's analysis
 - 2.6.1 Bargaining power of suppliers
 - 2.6.2 Bargaining power of buyers
 - 2.6.3 Threat of new entrants
 - 2.6.4 Threat of substitutes
- 2.7 PESTEL analysis

CHAPTER 3 COMPETITIVE LANDSCAPE, 2024

- 3.1 Introduction
- 3.2 Strategic dashboard
- 3.3 Innovation & technology landscape

CHAPTER 4 MARKET SIZE AND FORECAST, BY SIZE, 2021 – 2032 (USD MILLION & MW)

4.1 Key trends

4.2 ? 30 m

4.3 31- 60 m

4.4 61-90 m

CHAPTER 5 MARKET SIZE AND FORECAST, BY CAPACITY, 2021 – 2032 (USD MILLION & MW)

5.1 Key trends

5.2 5 MW

CHAPTER 6 MARKET SIZE AND FORECAST, BY MATERIAL, 2021 – 2032 (USD MILLION & MW)

6.1 Key trends

6.2 Carbon fiber

6.3 Glass fiber

CHAPTER 7 MARKET SIZE AND FORECAST, BY REGION, 2021 – 2032 (USD MILLION & MW)

7.1 Key trends

7.2 North America

7.2.1 U.S.

7.2.2 Canada

7.3 Europe

7.3.1 UK

7.3.2 Ireland

7.3.3 Germany

7.3.4 Denmark

7.3.5 France

7.3.6 Netherlands

7.3.7 Belgium

7.4 Asia Pacific

7.4.1 China

7.4.2 Japan

7.4.3 South Korea

7.4.4 Vietnam

7.4.5 Taiwan

7.5 Middle East & Africa

7.5.1 South Africa

7.5.2 Egypt

7.6 Latin America

7.6.1 Brazil

7.6.2 Chile

7.6.3 Argentina

CHAPTER 8 COMPANY PROFILES

8.1 Acciona

8.2 Aeris Energy

8.3 EnBW

8.4 Enercon

8.5 Gamesa Corporacion Technologica

8.6 Hitachi Power Solutions

8.7 Nordex SE

8.8 Siemens

8.9 Sinoma Wind Power Blade

8.10 Suzlon Energy

8.11 Vestas Wind Systems

I would like to order

Product name: Onshore Wind Turbine Blade Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 to 2032

Product link: <https://marketpublishers.com/r/O6FCC6C517DDEN.html>

Price: US\$ 4,365.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/O6FCC6C517DDEN.html>