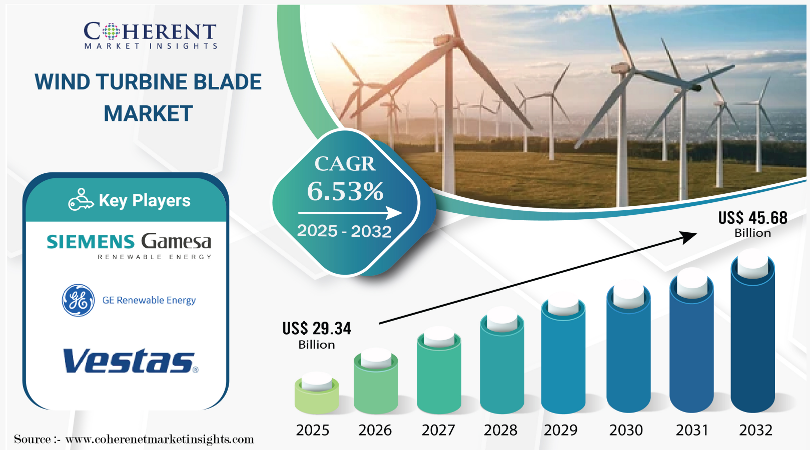
Wind Turbine Blade Market Size to Surpass USD 45.68 Billion by 2032; Rising at 6.5% CAGR - Coherent Market Insights

Wind turbine blade market is estimated at USD 29.34 Bn in 2025 and expected reach USD 45.68 Bn by 2032, exhibiting CAGR of 6.53% from 2025 to 2032.



Wind Turbine Blade Market Size

BURLINGAME, CA, UNITED STATES, November 14, 2025 / EINPresswire.com/ -- The Wind Turbine Blade Market is estimated to be valued at USD 29.34 Bn in 2025 and is expected to reach USD 45.68 Bn by 2032, exhibiting a compound annual growth rate (CAGR) of 6.53% from 2025 to 2032. Market trends show a clear move toward lightweight, high-strength materials like carbon fiber and hybrid composites to boost blade durability and efficiency. At the same time, advances in design and manufacturing — such as automation and digitalization — are raising performance and cutting costs.

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Global Wind Turbine Blade Market Key Takeaways

According to Coherent Market Insights, the global wind turbine blade market size is expected to grow at a CAGR of 6.5% during the forecast period, reaching USD 29.34 Bn by 2032, up from USD 29.34 Bn in 2025.

Fiberglass remains the preferred material for making wind turbine blades, with the target segment expected to account for a 44.5% market share in 2025.

By blade length, up to 50 meter segment is slated to account for 31.8% of the global wind turbine blade market share in 2025.

Based on capacity, up to 10 MW segment is projected to dominate the industry, capturing a market share of 52.8% in 2025.

Asia Pacific, with an estimated share of 55.6% in 2025, is expected to retain its market dominance during the forecast period.

Rapid Transition Towards Renewable Energy Spurring Market Growth

Coherent Market Insights' latest wind turbine blade market analysis highlights major factors fueling the industry's growth. Increasing adoption of renewable energy sources across nations like the United States and China is one such prominent growth driver.

There is a significant increase in wind energy installations as nations push to expand their renewable energy generation to reduce carbon emissions, as well as meet rising electricity demand. This is expected to drive demand for wind turbine blades during the forecast period.

According to the International Energy Agency (IEA), global renewable energy capacity is projected to nearly triple by 2030, with solar and wind accounting for majority of additions. This trend is likely to further boost growth of the wind turbine blade market.

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High Costs and Alternative Technologies Limiting Market Growth

The global wind turbine blade market outlook appears promising. However, high manufacturing costs and increasing adoption of alternative renewable energy technologies might limit market growth to some extent during the forecast period.

Wind turbine blades, made from advanced composite materials like fiberglass, carbon fiber, and epoxy resins, are quite expensive. These high costs make it difficult for smaller manufacturers to enter the market and limit large-scale expansion.

In addition, regions with limited wind resources prefer solar and hydropower. Photovoltaic systems are gaining traction due to declining costs. Thus, rising adoption of these alternative renewable energy technologies could reduce overall wind turbine blade market demand during the forthcoming period.

Supportive Government Policies and Incentives Creating Growth Opportunities

Increasing government policies and incentives to promote adoption of renewable energy sources are expected to create lucrative growth opportunities for wind turbine blade manufacturers. Governments across the world are implementing new policies, subsidies, tax credits, and grants to encourage wind power generation and installation. These initiatives are expected to boost wind turbine blade demand during the forthcoming period.

Emerging Wind Turbine Blade Market Trends

Expansion of offshore wind infrastructure is expected to boost sales of wind turbine blades in the coming years. Offshore wind, especially in Europe, China, and the U.S., is growing quickly. Offshore turbines require longer, more advanced blades, increasing demand for high-performance blade production.

Growing global initiatives for clean energy transition and decarbonization are significantly driving the wind turbine blade market growth. Governments and industries worldwide are reducing reliance on fossil fuels as well as expanding renewable energy capacity. This directly boosts demand for new and advanced wind turbine blades.

Technological advancements in wind turbine blades are expected to support market expansion. Modern blades are becoming lighter and more efficient due to the use of advanced materials such as carbon- and glass-fiber hybrids. These innovations are expected to improve overall efficiency and make wind power more competitive, thereby driving demand for wind turbine blades.

Industry players are focusing on developing smart wind turbine blades with enhanced monitoring and performance features. Introduction of these advanced wind turbine blades, featuring smart sensors, actuators, and IoT, is expected to boost market growth during the forecast period.

Competitor Insights

Key companies in the wind turbine blade market report include:

GE Renewable Energy
Siemens Gamesa Renewable Energy
Vestas Wind Systems A/S
MHI Vestas Offshore Wind
Nordex SE
Suzlon Energy Limited
Enercon GmbH
Acciona Energy
Goldwind Science & Technology Co., Ltd.
Senvion S.A.
Dongfang Electric Corporation
Harbin Electric Corporation
Sinovel Wind Group Co., Ltd.

TPI Composites, Inc.
LM Wind Power (GE Renewable Energy)
Key Developments

In February 2025, Senvion India joined forces with Voodin Blade Technology to develop and manufacture high-performance wooden blades for Senvion's 4.2 MW wind turbine platform.

In December 2024, UKA, a wind and solar park developer, ordered 80 Delta4000 series turbines from Nordex for a total of 540 MW. Nordex will also take care of all the turbines for 20 years after the wind farms start operating in 2026.

In January 2024, SANY RE launched the SY1310A blade, measuring 131 metres, making it the world's longest onshore wind turbine blade. The blade is designed for use in the company's 15 MW onshore wind turbine.

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Which are the key dominating players in the market?

What are the key business strategies chosen by the leading player to sustain in the Global Digital Trust Market?

What are the primary reasons behind the faster market growth rate?

Which are the dominating growth factors likely to propel the regional development of the Digital Trust industry?

What is the expected growth rate of the Global Digital Trust Market during the forecast period?

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Alice Mutum is a seasoned senior content editor at Coherent Market Insights, leveraging extensive expertise gained from her previous role as a content writer. With seven years in content development, Alice masterfully employs SEO best practices and cutting-edge digital marketing strategies to craft high-ranking, impactful content. As an editor, she meticulously ensures flawless grammar and punctuation, precise data accuracy, and perfect alignment with audience needs in every research report. Alice's dedication to excellence and her strategic approach to content make her an invaluable asset in the world of market insights.

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