

United States Wind Energy Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The US wind energy market is expected to register a CAGR of approximately 5.87% during the forecast period, 2022-2027. The COVID-19 pandemic had no negative impact on the market, as the year witnessed a growth of around 14 GW in 2020. The market had just a slight disturbance in Q1 and Q2 of 2020. Major factors attributing to the growth include the favorable government policies, the increasing investment in wind power projects, and the reduced cost of wind energy, which led to increased adoption of wind energy, thereby positively contributing to the demand for wind energy. Moreover, as countries are becoming increasingly concerned about climate change and the role of renewable energy in curtailing it, wind power is expected to increase its share in the US market. The increasing adoption of alternate energy sources, such as gas-based power and solar power, is expected to hinder the market growth in the region.

Key Highlights

The onshore segment is expected to be the largest market during the forecast period in the United States, owing to increased onshore wind capacity additions, supported by reducing the cost of electricity generation from onshore wind projects.

The technological advancements in efficiency and decrease in the production cost of offshore wind turbines are expected to create ample opportunity for the market players in the United States. Several projects, such as the 84-turbine and 800-megawatt Vineyard Wind project, which is the first large utility-scale offshore wind project scheduled for development, are expected to present an opportunity for major companies in the region.

In 2020, the United States had the highest installed capacity in the region. It is expected to be the largest market during the forecast period, bolstered by constant growth in offshore wind power projects.

US Wind Energy Market Trends

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Onshore Segment to Dominate the Market

Onshore wind energy power generation technology has evolved over the last five years. It plays a significant role in the United States power generation sector and is expected to provide 31.4% of US energy by 2050.

In 2020, the United States had a wind energy installed capacity of around 117.74 gigawatts (GW). Wind provides more than 10% of electricity in 16 states and over 30% in Iowa, Kansas, Oklahoma, South Dakota, and North Dakota.

In 2020, the US electricity consumption reached 3.8 trillion kWh, with 20% generated by renewables and 8.4% coming from wind power. The country recorded onshore wind deployment of almost 17 GW, nearly twice as much as installed in 2019.

By the end of 2020, there were 180 onshore wind installations in the pipeline, which are expected to be commissioned by 2025.

This, in turn, culminates that the country will witness rapid onshore wind installations in the near future.

In September 2021, Vestas Wind Systems AS announced orders to deliver turbines for 290 MW of wind projects in the United States. Part of this project is supplying 16 units of the V162-6.2 MW turbines in a 6.0 MW operating mode and one V150-6.0 MW machine in a 5.6 MW operating mode for the Deerfield 2 wind farm in Michigan.

Moreover, in November 2020, the New York Siting Board gave Invenergy LLC the green light to proceed with its 340-MW Alle-Catt onshore wind farm project that will spread in three counties of the state. The project has an investment cost of USD 454 million and is expected to supply enough electricity to cover the consumption of 134,000 New York homes per year.

Therefore, onshore wind energy is expected to grow fastest in the coming years, with additional investments in the segment.

Increasing Number of Projects to Drive the Market

Due to the high population and increasing electricity demand day-to-day, the country is promoting the growth of wind energy to meet power needs. Many multinational corporations, and local firms, are investing in the growing sector with the help of the government of federal provinces in the United States.

In 2020, the United States had 29 MW of offshore wind energy installed capacity, and the offshore wind energy installations in the country have been stagnant for a few years. However, the country is aiming to increase its capacity in the upcoming years.

As a part of this, in November 2021, Orsted and Eversource selected Siemens Energy to Supply Transmission System for a 924-Megawatt Offshore Wind Farm. The plant is located more than 30 miles east of Montauk Point and will generate clean energy to power nearly 600,000 New York homes, and it is expected to be operational in 2025.

Moreover, in October 2021, GE Renewable Energy announced it had received an order from Vineyard Wind, a joint venture between Avangrid Renewables and Copenhagen Infrastructure Partners, to supply Haliade-X turbines for Vineyard Wind 1, the first utility-scale offshore wind installation in the United States. The project will be installed 15 miles off the coast of Martha's Vineyard in Massachusetts and will feature 62 units of the Haliade-X 13 MW turbine.

As a result, the favorable government policies fostering a large number of upcoming wind power projects, along with various operational wind turbine projects, are expected to increase the wind power market in the region.

US Wind Energy Market Competitor Analysis

The US wind energy market is moderately fragmented. Some of the key players include Acciona Energia SA, Orsted AS, Duke Energy Corporation, General Electric Company, and Siemens Gamesa Renewable Energy.

Additional Benefits:

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The market estimate (ME) sheet in Excel format
3 months of analyst support

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