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&

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## **Offshore wind energy in India: Present status and future focus**

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Over the past few years, India's wind energy sector is rapidly growing to meet the limitless need for energy that is crucial for developing the national economy, infrastructure, and improving citizen living standard. In 2017, the over-all wind power installed capacity in India had reached up to 32.3 GW and is now become the world's fourth-largest onshore wind market in terms of total installed capacity. Today, the onshore wind industry is steadily on the way to achieve the short term national goal of 60GW by 2022 and has the potential to meet nation weather safety and energy security goals. India has a limited number of high on-shore wind zone sites available, which are often embroiled in land-related conflicts. Herein lies the opportunity for offshore wind power, as they can play a major role in the country due to the coastline of over 7,600 km (wind speeds between 6 m/s to 14 m/s within 12 nautical Miles) available near the Indian Exclusive Economic Zone (EEZ) and has been expected a wind potential of 15 GW at 60m depth. To take maximum benefits of this, Indian government started to concentrate on the development of offshore wind farms at high wind power potential sites with proper policy guidelines were made by the Ministry of New and Renewable Energy (MNRE) to encourage offshore wind projects. This paper will cover in detail the present situation, advantages, challenges and future in developing of offshore wind farms in India.