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News: Wind power potential

- Recently, the Ministry of New and Renewable Energy unveiled noteworthy insights into India's wind energy potential.
- This revelation sheds light on key states with the highest wind power potential and emphasizes the nation's dedication to sustainable energy practices.
- Additionally, the Ministry outlined innovative strategies aimed at enhancing wind power utilization and ensuring eco-friendly practices in the sector.

Wind Power Potential in India

- India ranks 4th globally after China, the United States and Germany, in terms of installed wind energy capacity, with 42.8 GW (onshore wind) as of April 2023.
- Wind resource assessment by the National Institute of Wind Energy reveals an estimated wind power potential of approximately 695.5 GW at 120 meters and 1,164 GW at 150 meters above ground level across the nation.

Best Performing States

- Wind Power Potential (in GW) at 120 m above Ground Level: Gujarat (142.56), Rajasthan (127.75), Karnataka (124.15), Maharashtra (98.21), and Andhra Pradesh (74.90).
- Wind Power Potential (in GW) at 150 m above Ground Level: Rajasthan (284.25), Gujarat (180.79), Maharashtra (173.86), Karnataka (169.25), and Andhra Pradesh (123.33).

Government Initiatives for Wind Energy Development

Policy for Repowering of the Wind Power Projects, 2016

- This policy incentivizes wind power project repowering by providing an additional interest rate rebate of 0.25% over existing rebates for new wind projects financed by the Indian Renewable Energy Development Agency (IREDA).

Guidelines for Disposal of Fiber Reinforced Plastic (FRP)

- The Central Pollution Control Board (CPCB) issued specific guidelines for the proper disposal of FRP, including Sheet Moulding Compound (SMC), used in wind turbine blades. These guidelines ensure environmentally responsible waste management.

- National Wind-Solar Hybrid Policy,2018
- The main objective is to provide a framework for promotion of large grid connected wind-solar PV hybrid systems for optimal and efficient utilization of wind and solar resources, transmission infrastructure and land.

National Offshore Wind Energy Policy

- Objective is to develop offshore wind energy in the Indian Exclusive Economic Zone (EEZ) along the Indian coastline of 7600 km.