Augmenting Offshore Wind Power

Why in news?

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Ministry of New and Renewable Energy (MNRE) has recently declared revised targets for offshore wind power capacity addition.

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What is the recent move?

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- The National Off-Shore Wind Policy was notified in 2015.
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- The recently firmed up offshore wind power target is 5 GW by 2022 and 30 GW by 2030.
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- MNRE had earlier invited Expressions of Interest (EoI).
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- This was for the first 1 GW offshore wind power plant off the Gujarat coast.
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- About 35 major players, global as well as local, in the offshore wind energy sector responded.
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- The National Institute of Wind Energy (NIWE) is designated the official agency to develop offshore wind power.
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- **Challenge** - There are difficulties in installing large wind power turbines in open seas.
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- As, offshore wind turbines are of much larger dimensions and capacities than onshore turbines.
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What are the relative advantages?

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- Offshore wind power requires a higher initial cost.
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- However, it has several benefits over its onshore counterpart.
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- Power output from these plants is steady, almost free from interruption.
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- In fact, it tends to increase a bit in the evenings to coincide with peak consumer demand.
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- Per unit power production is relatively high and the maintenance cost is low.
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- India also has a strong wind power equipment manufacturing base, although it needs a revamp.
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- Importantly, offshore windmills do not need land.
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- So, land acquisition, a major challenge for most terrestrial infrastructure projects is ruled out.
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- Offshore wind power is, therefore, ideally suited for a land-short country like India.
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What are the prospects?

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- **Potential** - Preliminary studies have shown good wind potential in both southern tip of the Indian peninsula and the west coast.
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- There is substantial scope off the coasts of Tamil Nadu, Gujarat and Maharashtra.
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- **Global** - Globally, 17-18 GW of offshore wind power has been installed.
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- UK, Germany, Denmark, Netherlands and China are the leading countries.
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- There has also been a fall in offshore wind tariff in the recent years in some of these markets.
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- **Investment** - Government has assured a level-playing field to all investors, domestic and international.
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- There is thus a favourable power tariffs and policy environment for private investment.
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- **Cost** - There is constant inflow of new cost-cutting and output-enhancing technologies.
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- This would improve the sector's competitiveness as against the conventional power sector.
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- This is expected to sustain the economic viability of these ventures.
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What is the way forward?

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- The energy generation potential of India's oceanic winds has largely remained untapped.
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- India, a late starter, needs to move faster to narrow the gap and meet its non-conventional energy goals.
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- Measures are essential to ensure that tariffs do not fall below the remunerative threshold.
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- Otherwise, the investors would lose interest in offshore wind power.
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- Also, more intensive sea wind zones may be discovered in future.
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Source: BusinessLine, Business Standard

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