

# National Offshore Wind Energy Policy

## National Offshore Wind Energy Policy, 2015

### Background

Worldwide, wind energy is widely acknowledged as an efficient and cost-effective source of renewable energy. While India has achieved significant success in the onshore wind power development with about 24 GW of wind energy capacity already installed and generating power, the offshore wind energy technology is yet to be deployed on scale.

With the notification of this policy, the government hopes to incentivise the development of offshore wind energy and make it on par with the conventional energy sources.

Read more about [wind energy in India](#) in the link.

### How does Offshore Wind Energy Work?

Offshore wind energy is obtained by harnessing the power of the wind at sea, where the wind reaches a higher speed and is more constant because there are no barriers.

- It is a clean and renewable energy source that takes advantage of the force of the wind generated on the high seas.
- In order to extract this energy, mega-structures are installed that are seated on the seabed and equipped with the latest technology.
- Current technology allows offshore wind farms to be located in shallow waters (up to a depth of 60m).

### Advantages of offshore wind energy

1. Clean and renewable energy source (non-polluting and unlimited).
2. The wind blows more at sea than it does on dry land and can produce up to twice the power obtained from onshore facilities.
3. The offshore wind energy plants also are less noisy and have a lower visual impact in comparison to their onshore counterparts.
4. It is easier to transport the turbine components needed to install a wind farm offshore which is why wind turbines with unit power of over 10 – 15 MW are feasible in an offshore setting, while on land, the maximum unit power is around 5 MW.

The leading countries globally in the development of offshore wind energy are the United Kingdom, Denmark and Germany with Belgium, China, the Netherlands and Sweden following.

### National Offshore Wind Energy Policy Objectives

The stated objectives of the National Offshore Wind Energy Policy are:

- Exploring and promoting the deployment of offshore wind farms in India's Exclusive Economic Zone.
- Encouraging investment in energy infrastructure.
- Promoting spatial planning and management of maritime renewable energy resources in India's EEZ through suitable incentives.
- Attaining energy security.
- Reducing carbon emissions.
- Boosting the indigenisation of offshore wind energy technologies.
- Creating skilled manpower and employment in the offshore wind energy sector.
- Enabling the development of Project EPC and Operation & Maintenance with regard to the offshore wind industry.
- Developing coastal infrastructure and supply chain to support heavy construction & fabrication work and the operation & maintenance activities.

## Offshore Wind Energy in India Development

The nodal ministry for the development of offshore wind energy in India is the Ministry of New and Renewable Energy. The Ministry will monitor the overall development of offshore wind energy in India, coordinate with other departments/ministries as well as international agencies for the same, and also coordinate the tariff setting and regulations.

GOI has permitted Foreign Direct Investment (FDI) up to 100 percent under the automatic route for renewable energy projects, including offshore wind energy projects.

**The nodal agency for offshore wind energy development is the National Institute of Wind Energy (NIWE).**

The NIWE is an organisation under the Ministry of New and Renewable Energy that will carry out the following activities for the development of offshore wind energy in India.

1. Call for proposals for developing offshore wind power projects in the specified blocks under International Competitive Bidding (ICB).
2. Contracting with project developers for developing offshore wind power projects within India's Exclusive Economic Zones (EEZs).
3. Collect lease from the project developers/owners according to the specified guidelines.
4. Conduct and coordinate resource assessment and surveys in the EEZ of the country.
5. Demarcation of offshore wind energy blocks.
6. Complying with the guidelines of the Defence Ministry.
7. Facilitation to project developers in getting clearances from concerned Ministries/Departments.
8. Organize and monitor technical activities of the ongoing projects.
9. Supporting original research for technology development.
10. Technical & financial evaluation and inspection of development.
11. Creation and maintenance of offshore wind energy database and archive system.
12. Upgrade information database in the assessed regions.
13. Capacity building in the offshore wind energy sector.

The Policy lays down the guidelines for setting up offshore wind farms within territorial waters which extend up to 12 nautical miles from the coastal baselines of India.

Preliminary potential assessments along the western coastline of India have been encouraging and estimates suggest that offshore wind farms of capacity 1 GW along the coastline of Tamil Nadu and Gujarat are feasible.

