

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
STARRED QUESTION NO. 51
ANSWERED ON 07.02.2023

OFFSHORE WIND ENERGY CAPACITY IN INDIA

*51. SHRI S NIRANJAN REDDY

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether it is a fact that Gujarat and Tamil Nadu have been identified as States for setting up offshore wind energy in the country;
- (b) if so, the details of progress made in this regard and how much money has been spent till date; and
- (c) whether any study has been conducted along the coast of Andhra Pradesh to determine the feasibility and potential along the State's coast in view of the fact that offshore wind potential of the coast of Gujarat and Tamil Nadu is estimated to be around 70GW and if so, the details thereof?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a)to(c) A statement is laid on the Table of the House.

STATEMENT

Statement referred to in reply to parts (a) to (c) of Rajya Sabha Starred Question No. 51 to be answered on 07.02.2023 regarding Offshore Wind Energy Capacity in India.

(a) & (b) Based on the preliminary studies carried out by the National Institute of Wind Energy (NIWE) in collaboration with various multilateral agencies, Government have identified eight zones each off the coast of Gujarat and Tamil Nadu as potential offshore wind energy zones. Based on meso scale mapping, it is estimated that, approximately 36 Giga Watt (GW) offshore wind power potential exists off the coast of Gujarat and 31 GW offshore wind power potential exists off the coast of Tamil Nadu.

The National Institute of Wind Energy (NIWE), Chennai had commissioned a LiDAR (Light Detection and Ranging) equipment in November, 2017 for measurement of wind resource off the coast of Gujarat. A report based on two years of collected data from the LiDAR has been published. Offshore wind energy site of an area of about 365 Sq. km required for a 1 GW capacity project has been demarcated around the LiDAR location. Required Geophysical study, Geotechnical study at 5 bore hole locations and Rapid Environment Impact Assessment study have been conducted for the propose of the 1 GW project. Geotechnical study at three bore hole locations and Rapid EIA study for installation and commissioning of a LiDAR off Tamil Nadu coast has been carried out. NIWE has incurred a total expenditure of Rs. 31.8 Cr towards carrying out the above offshore wind related activities.

MNRE issued a 'Strategy Paper for Offshore Wind Development' indicating the various business models and sites proposed to be allocated to developers under these models. For sea bed leasing of initial 04 GW offshore wind capacity sites off Tamil Nadu coast, the draft tender document along with contractual agreements have been circulated for stakeholder comments.

Central Transmission Utility (CTU) has completed the planning for initial 10 GW offshore transmission capacity (05 GW each off Gujarat and Tamil Nadu coast). Govt. of Gujarat and Govt. of Tamil Nadu have agreed to purchase the power at Rs. 4.0 per unit from initial offshore wind projects off their respective coasts.

(c) As per meso scale data, the annual average wind speed along the coast of Andhra Pradesh is in the range of 6.5 to 7 m/s which is currently considered to be low and moderate for commercial offshore wind installations. However, no detailed study has been conducted to determine the feasibility and offshore wind potential along the coast of Andhra Pradesh.