

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1427**  
ANSWERED ON 04/12/2024

**ONSHORE WIND ENERGY POTENTIAL**

1427. SHRI G LAKSHMINARAYANA

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

- (a) the details of the estimated potential for onshore wind energy generation, State-wise;
- (b) the total installed capacity of onshore wind energy in the country, State-wise;
- (c) the total installed capacity of wind energy projects in Andhra Pradesh along with the details of existing projects, their location and contribution to the State's renewable energy output;
- (d) whether the Government has assessed the wind energy potential in Anantapur district of Andhra Pradesh;
- (e) if so, the details of the estimated wind energy capacity and the steps taken to harness this potential; and
- (f) the specific measures being implemented to promote onshore wind energy projects in Anantapur including financial or policy incentives for developers?

**ANSWER**

**THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER**

**(SHRI SHRIPAD YESSO NAIK)**

- (a) The wind resource assessment conducted by the National Institute of Wind Energy indicates an estimated wind power potential of about 1164 GW at 150 meter above ground level in the country. The state-wise details are given in **Annexure – I**.
- (b) The total installed capacity of onshore wind energy in the country is about 47.71 GW, as on 31.10.2024. The State-wise details are given in **Annexure – II**.
- (c) The total installed capacity of wind energy projects in Andhra Pradesh is about 4.1 GW located in the districts of Anantapur, Chittoor, Kurnool, Nellore and Kadapa, which contributes around 45.31% in the State's renewable energy capacity.
- (d) to (f) National Institute of wind Energy has conducted wind resource assessment at 32 locations in Anantapur district of Andhra Pradesh and has estimated wind energy potential of about 25.58 GW in the district. The Government of India has taken several steps and initiatives as given in **Annexure – III** to promote and accelerate renewable energy capacity, including wind energy, in the country to realize the commitment of 500 GW non-fossil energy capacity by 2030. Further, Government of Andhra Pradesh has notified the Andhra Pradesh Integrated Clean Energy Policy, 2024 vide G.O.Ms. No.37 dated 30.10.2024 to promote Clean Energy Projects in the state including wind power projects in Anantapur. The policy aims to promote new as well as repowering of existing wind power projects in the state of Andhra Pradesh, including Anantapur District.

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## State-wise estimated potential of Wind Power

Sl. No.	STATES / UTs	Wind Power Potential at 150m above ground level (MW)
1	Andhra Pradesh	123336
2	Arunachal Pradesh	246
3	Assam	459
4	Bihar	4023
5	Chhattisgarh	2749
6	Goa	14
7	Gujarat	180790
8	Haryana	593
9	Himachal Pradesh	239
10	UT of Jammu & Kashmir (including Ladakh)	1 (Ladakh)
11	Jharkhand	16
12	Karnataka	169251
13	Kerala	2621
14	Madhya Pradesh	55423
15	Maharashtra	173868
16	Manipur	0
17	Meghalaya	55
18	Mizoram	0
19	Nagaland	0
20	Orissa	12129
21	Punjab	428
22	Rajasthan	284250
23	Sikkim	0
24	Tamil Nadu	95107
25	Telangana	54717
26	Tripura	0
27	Uttar Pradesh	510
28	Uttarakhand	49
29	West Bengal	1281
30	Andaman & Nicobar	1245
31	Chandigarh	0
32	Dadar & Nagar Haveli & Daman & Diu	17
33	Delhi	0
34	Lakshadweep	31
35	Pondicherry	408
	<b>Total</b>	<b>1163856</b>

Annexure – II

## State-wise wind power installed capacity

STATE	Cumulative wind power capacity as on 31.10.2024 (MW)
Andhra Pradesh	4096.65
Gujarat	12314.48
Karnataka	6724.36
Kerala	63.5
Madhya Pradesh	2844.29
Maharashtra	5216.38
Rajasthan	5195.82
Tamil Nadu	11128.84
Telangana	128.1
Others	4.3
<b>Total</b>	<b>47716.72</b>

**The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity, including wind energy, in the country to realize the commitment of 500 GW non-fossil energy capacity by 2030. These include, inter-alia, the following:**

- Notification of trajectory for RE power bids of 50 GW/annum to be issued by Renewable Energy Implementation Agencies [REIAs: Solar Energy Corporation of India Limited (SECI), NTPC Limited, NHPC Limited, SJVN Limited] from FY 2023-24 to FY 2027-28.
- Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
- Inter State Transmission System (ISTS) charges have been waived for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- To boost RE consumption, Renewable Purchase Obligation (RPO) followed by Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30. The RCO which is applicable to all designated consumers under the Energy Conservation Act 2001 will attract penalties on non-compliance. RCO also includes specified quantum of consumption from Decentralized Renewable Energy sources.
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) Projects have been issued.
- Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), PM Surya Ghar Muft Bijli Yojana, National Programme on High Efficiency Solar PV Modules, National Green Hydrogen Mission, Viability Gap Funding (VGF) scheme for offshore wind energy projects, have been launched.
- Scheme for setting up of Ultra Mega Renewable Energy Parks is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.
- Laying of new transmission lines and creating new sub-station capacity has been funded under the Green Energy Corridor Scheme for evacuation of renewable power.
- Electricity (Rights of Consumers) Rules, 2020 has been issued for net-metering up to five hundred Kilowatt or up to the electrical sanctioned load, whichever is lower.
- “National Repowering and Life Extension Policy for Wind Power Projects, 2023” has been issued.

- “Strategy for Establishments of Offshore Wind Energy Projects” has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.
- The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.
- Uniform Renewable Energy Tariff (URET) has been introduced through which a uniform tariff will be provided to the consumer by averaging tariffs of individual RE projects of similar type awarded via tariff based competitive bidding process. Implementation of URET for “Solar Power Central Pool” and “Solar-Wind Hybrid Central Pool” from 15th February 2024 has been notified.
- Standard & Labelling (S&L) programs for Solar Photovoltaic modules and Grid-connected Solar Inverters have been launched.
- To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2030.
- The Electricity (Late Payment Surcharge and related matters) Rules (LPS rules) have been notified.
- Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022, has been notified on 06th June 2022 with objective of ensuring access to affordable, reliable, and sustainable green energy for all. Green Energy Open Access is allowed to any consumer with contract demand of 100 kW or above through single or multiple single connection aggregating Hundred kW or more located in same electricity division of a distribution licensee.
- Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Energy Power through exchanges.
- Government has issued orders that power shall be dispatched against Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators.

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