GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
**RAJYA SABHA**
**UNSTARRED QUESTION NO. 299**
ANSWERED ON 02.12.2025

**PROGRESS MADE IN POWER GENERATION FROM NON-FOSSIL FUEL SOURCES**

299. SMT. DARSHANA SINGH

Will the Minister of New and Renewable Energy be pleased to state:

(a) the current percentage of non-fossil fuel sources (such as solar, wind, hydro, nuclear, and bio-energy) in the total installed electricity capacity of the country;

(b) the details of targets set and action plan formulated for increasing electricity generation from non-fossil fuel sources by the year 2030;

(c) the details of progress made so far in the State of Uttar Pradesh; and

(d) whether Government proposes to launch any new schemes to further promote the use of renewable energy in rural and industrial areas?

**ANSWER**
**THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER (SHRI SHRIPAD YESSO NAIK)**

(a) & (b) In line with Hon'ble Prime Minister's announcement at COP26, Ministry of New and Renewable Energy is working towards achieving 500 GW of installed electricity capacity from non-fossil fuel sources by 2030. India has already achieved the milestone of 50 per cent of the country's cumulative electricity installed capacity from non-fossil fuel sources during June, 2025 i.e. more than five years ahead of the 2030 commitment.

As on 31.10.2025, a total of 259.42 GW non-fossil fuel based electricity capacity has been installed in the country. This includes 129.92 GW Solar Power, 53.60 GW Wind Power, 11.61 GW Bio-Power, 55.51 GW Hydro Power and 8.78 GW Nuclear Power capacity. This is equivalent to 51.37% of total installed electricity capacity in the country (505.02 GW) as on 31.10.2025.

The Government has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country to realize the commitment of 500 GW non-fossil energy capacity by 2030 as given at **Annexure-I**.

(c) In the state of Uttar Pradesh, as on 31.10.2025, a cumulative non-fossil fuel based electricity capacity of 7,100.63 MW has been installed which includes 3,798.04 MW Solar Power, 501.60 MW Large Hydro, 50.60 MW Small Hydro Power, 2,310.39 MW Bio-Power and 440.00 MW Nuclear Power.

(d) Government is already implementing various schemes to promote adoption of renewable energy in the country. A list of major ongoing schemes being implemented by the Ministry is given at **Annexure-II**.

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**Annexure-I**

**Annexure-I referred to in reply of part (a) & (b) of the Rajya Sabha Unstarred Question No. 299 to be answered on 02.12.2025**

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

- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable Renewable Energy (FDRE) projects have been issued.
- 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.
- Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
- 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, New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA), National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects have been launched.
- Scheme for setting up of Solar Parks and Ultra Mega Solar Power projects is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.
- Inter State Transmission System (ISTS) charges were waived for inter-state sale of solar and wind power for projects commissioned by 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- 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.
- Quality Control Orders for Solar Photovoltaic products (i.e., Solar PV Modules, Solar PV Inverters & Storage Battery) and Solar Water Heating systems notified.
- Issued National Framework for promoting & developing Energy Storage Systems.
- Issued Guidelines for Resource Adequacy Planning Framework for India.
- 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.

- 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.
- The Revised Guidelines for installation of prototype wind turbine models issued on 12th June 2025.
- Procedure for inclusion/updating Wind Turbine Model in the Revised List of Models and Manufacturers of Wind Turbines (RLMM) issued on 31st July 2025. The amendment renames RLMM as Approved List of Models and Manufacturers [ALMM (Wind)] and mandates usage of listed components such as Blade, Tower, Generator, Gearbox and Special Bearings (Main, Pitch and Yaw Bearing) along with mandatory relocation of data centres within India and prohibition of real-time data transfer outside India.
- The Standard Operating Procedure (SOP) for ALMM-Wind and ALMM – Wind Turbine Components (ALMM-WTC) issued on 29th October 2025, detailing the end-to-end process for application, verification, factory inspection, component evaluation and model enlistment.
- 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, 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 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.

**Annexure-II**

**Annexure-II referred to in reply of part (d) of the Rajya Sabha Unstarred Question No. 299 to be answered on 02.12.2025**

**Details of the ongoing major Renewable Energy Schemes / Programmes**

1. Scheme for Development of Solar Parks and Ultra-mega Solar Power Projects with a target of setting up 40,000 MW capacity. Under the scheme, the infrastructure such as land, roads, power evacuation system, water facilities are developed with all statutory clearances/approvals. Thus, the scheme helps expeditious development of utility-scale solar projects in the country.
2. PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar for One Crore households by 2026-27.
3. Production Linked Incentive scheme 'National Programme on High Efficiency Solar PV Modules' for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules (Tranche- I & II).
4. PM-KUSUM Scheme for setting up decentralized solar or other renewable energy power plants, installation of stand-alone solar agriculture pumps, and solarization of existing grid-connected agriculture pumps, including feeder-level solarization. The scheme benefits not only farmers but also the States and DISCOMs.
5. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by Government Producers, using domestically manufactured solar PV cells and modules, with Viability Gap Funding (VGF) support, for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).
6. National Green Hydrogen Mission launched with aim to make India a Global Hub for production, utilization and export of Green Hydrogen and its derivatives.
7. Green Energy Corridors (GEC): to create intra-state transmission system for renewable energy projects. Central Financial Assistance (CFA) is provided to set up transmission infrastructure for evacuation of Power from Renewable Energy projects in total ten States (considering both the phases of GEC).
   (i) Intra-State Transmission System Green Energy Corridor Phase-I in eight States
   (ii) Green Energy Corridor Phase-II
      a) Intra-State Transmission System in Seven States
      b) Inter-State Transmission System for 13 GW RE Projects in Ladakh
8. Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects for installation and commissioning of 1 GW of Offshore Wind Energy Projects (500 MW each off the coast of Gujarat

and Tamil Nadu), and also for upgradation of two ports to meet logistics requirements for offshore wind energy projects.

9. Bio-Energy Programme:
    - Waste to Energy Programme : Programme on Energy from Urban, Industrial and Agricultural Wastes/Residues
    - Biomass Programme: Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries.
    - Biogas Programme : for promotion of family type Biogas plants
10. Renewable Energy Research and Technology Development (RE-RTD) Programme.
11. Human Resource Development Scheme with components such as short term trainings & skill development programmes, fellowships, internships, support to lab upgradation for RE and renewable energy chair.
12. New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA) with a provision for providing off-grid Solar Lighting where electricity supply through grid is not techno-economically feasible.