

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
STARRED QUESTION NO. 193
ANSWERED ON 10.03.2026

DECLINE IN COAL-BASED POWER GENERATION VIS-A-VIS RENEWABLE ENERGY

*193. SHRI NARAIN DASS GUPTA

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

- (a) whether recent analyses indicate that the share of coal-based electricity generation vis-a-vis renewable energy based generation has declined in 2025
- (b) the coal-based and non-fossil fuel based electricity generation in the country over the last three years, year-wise;
- (c) the steps taken to ensure that the transition towards renewable energy does not adversely impact grid stability, energy affordability and employment in coal-dependent regions; and
- (d) how Government proposes to align future budgetary allocations and policy support to sustain renewable energy growth while managing a planned and just transition from coal- based power?

ANSWER

**THE MINISTER OF NEW & RENEWABLE ENERGY AND CONSUMER AFFAIRS, &
FOOD AND PUBLIC DISTRIBUTION**

(SHRI PRALHAD JOSHI)

(a) to (d) A Statement is laid on the Table of the House.

Statement referred to in reply to parts (a) to (d) of Rajya Sabha Starred Question No. 193 (13th Priority) to be answered on 10.03.2026 regarding “Decline in Coal-Based Power Generation vis-a-vis Renewable Energy”

(a): The thermal (including coal) based electricity generation has declined to 1310.9 Billion Units (BU) in calendar year 2025 as compared to electricity generation of 1361.9 BU during 2024. On the other hand, the renewable energy-based electricity generation has increased to 463.1 BU in calendar year 2025 as compared to electricity generation of 393.8 BU during 2024.

(b) The detail of thermal (including coal) based electricity generation and non-fossil fuel based electricity generation in the country over the last three years is as under:

Electricity Generation by Source	FY 2022-23	FY 2023-24	FY 2024-25
Thermal Generation (including Coal) in BUs	1206.2	1326.5	1363.9
Non-Fossil Generation in BUs	418.3	412.5	465.8
Total Generation in BUs	1624.5	1739.0	1829.7

(c) Steps taken by the Government to ensure that the transition towards renewable energy does not adversely impact grid stability, energy affordability and employment are given at Annexure-I.

(d) Government is providing needed policy support and allocating sufficient funds to sustain renewable energy growth in the country. For MNRE, an allocation of Rs 32914.67 has been made for the FY 2026-27 as compared to budgetary allocation of Rs.26,549.38 crore for FY 2025-26. This amounts to an increase of nearly 24% over the FY 2024-25 allocation. Further, Government has taken various policy initiative to sustain growth of renewable energy in the country. A list of major initiatives is placed at Annexure-II.

Annexure-I referred in reply to part (c) of Rajya Sabha Starred Question No. 193 (13th Priority) to be answered on 10.03.2026 regarding “Decline in Coal-Based Power Generation vis-a-vis Renewable Energy”

Following are the major steps taken to ensure the transition towards renewable energy does not adversely impact grid stability, energy affordability and employment:

- i. Inter and intra-State transmission network is being expanded to keep pace with RE capacity addition. Strong inter connection of transmission networks to ensure better reliability in terms of anchoring voltage stability, angular stability, losses reduction etc. is being done.
- ii. Encouraging setting up of RE projects with storage facilities for optimal utilization of transmission facilities.
- iii. Round-the-clock Renewable Energy (RTC-RE) and Firm and Dispatchable Renewable Energy (FDRE) tenders conducted by Renewable Energy Implementation Agencies (REIAs) will provide stable and firm power.
- iv. CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure the safe, secure and reliable operation of the grid. The compliances to the said regulations by RE plants are verified jointly by Central Transmission Utility (CTUIL) and Grid-India/RLDCs before granting connectivity/interconnection to the national grid.
- v. Indian Electricity Grid Code mandates that RE plants participate in the primary and secondary frequency control in case of contingencies. Hybrid RE power plants, Energy Storage Systems such as BESS (Battery Energy Storage System) and PSP (Pump Storage Project) are being promoted for mitigating variability in RE generation and provide adequate frequency support to the grid.
- vi. Government has issued Standard Bidding Guidelines for discovery of tariff for procurement of renewable energy through competitive bidding under Section 63 of Electricity Act 2003. This has helped in bringing down the cost of renewable power.
- vii. Government has launched Skill development programmes such as Suryamitra (Solar PV Technician), Varunmitra (Solar water pumping Technician), Vayumitra (Wind Power Plant Technician) and Jal-urjamitra (Small hydro Power Plant Technician). Due to these programmes, as of December 2024, as per International Renewable Energy Development Agency (IRENA), over 1.28 million jobs have been reportedly created in the renewable energy sector in the country.

Annexure-II referred in reply to part (d) of Rajya Sabha Starred Question No. 193 (13th Priority) to be answered on 10.03.2026 regarding “Decline in Coal-Based Power Generation vis-a-vis Renewable Energy”

List of major initiatives taken by Government to sustain growth of renewable energy in the country.

- 1) 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.
- 2) 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.
- 3) Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
- 4) 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.
- 5) 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.
- 6) Inter State Transmission System (ISTS) charges were waived for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- 7) 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.
- 8) Quality Control Orders for Solar Photovoltaic products (i.e., Solar PV Modules, Solar PV Inverters & Storage Battery) and Solar Water Heating systems notified.
- 9) Issued National Framework for promoting & developing Energy Storage Systems.
- 10) Issued Guidelines for Resource Adequacy Planning Framework for India.
- 11) 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.

- 12) “National Repowering and Life Extension Policy for Wind Power Projects, 2023” has been issued.
- 13) 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.
- 14) The Revised Guidelines for installation of prototype wind turbine models issued on 12th June 2025.
- 15) 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.
- 16) 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.
- 17) Standard & Labelling (S&L) programs for Solar Photovoltaic modules and Grid-connected Solar Inverters have been launched.
- 18) To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2030.
- 19) “The Electricity (Late Payment Surcharge and related matters) Rules (LPS rules) have been notified.
- 20) 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.
- 21) Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Power through exchanges.
- 22) 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.