GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.3512
ANSWERED ON 23.03.2026

COAL BASED POWER GENERATION

3512 SMT. RAJANI ASHOKRAO PATIL:

Will the Minister of **POWER** be pleased to state:

(a) the reasons for continued reliance on coal based power generation;

(b) the details of emissions implications on the environment;

(c) the transition planning towards cleaner sources like hydro, solar and nuclear; and

(d) whether climate commitments are at risk and if so, measures taken to tackle them?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a): Electricity Demand in the country is being met through mix of resources like Coal, Gas, Solar, Hydro, Wind, Nuclear etc. As on 28.02.2026, installed generation capacity in the country is 524 GW, comprising of about 248.5 GW from Thermal (227.8 GW from Coal & Lignite, 20.1 GW from Gas, 0.6 GW from Diesel), 8.8 GW from Nuclear and 266.7 GW from RE sources [comprising of 51.2 GW Large Hydro, 143.6 GW Solar, 55.1 GW Wind and 16.8 GW from other RE (biomass and small hydro)]. Thrust of Government is on capacity addition from non-fossil sources, and it is planned to achieve 500 GW of non-fossil fuel based installed generation capacity by 2030.

Renewable Energy (RE) sources such as solar and wind are inherently intermittent and variable in nature. Such intermittency and variability necessitate the availability of firm and dispatchable generation sources. In this context, coal-based power plants continue to play a critical role in providing base load power and grid stability, thereby ensuring energy security of the country.

(b): Environment Clearance (EC) which is granted by Ministry of Environment, Forest and Climate Change (MoEF&CC), is the foremost requirement for establishment of new as well as expansion of thermal power capacity. All other clearances & permissions are processed only on the basis of grant of Environment Clearance; which is based on an elaborate and rigorous process.

Further, the thermal power plants need to comply with emissions standards laid down by MoEF&CC, and the compliance is monitored by respective State Pollution Control Board (SPCB) and Central Pollution Control Board (CPCB).

(c): The Government of India has taken several steps and initiatives to promote and accelerate non-fossil energy capacity addition including hydro, solar and nuclear.

(i) 12,723.50 MW of Hydro Electric Projects are under construction. Further, 4,274 MW of Hydro Electric Projects are under various stage of planning.

(ii) Presently, 6,600 MW of Nuclear Capacity is under construction and targeted to be completed by 2029-30. 7,000 MW of Nuclear Capacity is under various stages of planning and approval.

(iii) Government of India has set an ambitious target of achieving 100 GW of nuclear power capacity by 2047. A dedicated Nuclear Energy Mission with an allocation of ₹20,000 crore has been launched to develop at least five indigenously designed Small Modular Reactors (SMRs) by 2033 and promote advanced nuclear technologies. Further, Sustainable Harnessing and Advancement of Nuclear energy for Transforming India (SHANTI) Act, 2025 has been enacted to pave a way to harness nuclear energy through active involvement of both the public and private sectors.

(iv) 1,57,800 MW Renewable Capacity including 67,280 MW of Solar, 6,500 MW of Wind and 60,040 MW Hybrid power is under construction while 48,720 MW of Renewable Capacity including 35,440 MW of Solar and 11,480 MW Hybrid Power is at various stages of planning.

(v) In energy storage systems, 11,620 MW/69,720 MWh Pumped Storage Projects (PSPs) are under construction. Further, a total of 6,580 MW/39,480 MWh capacity of Pumped Storage Projects (PSPs) are concurred and yet to be taken up for construction. Currently, 9,653.94 MW/ 26,729.32 MWh Battery Energy Storage System (BESS) capacity are under construction and 19,797.65 MW/ 61,013.40 MWh BESS capacity are under tendering stage.

Further, Government is taking following steps for Promotion of Renewable Generation

(i) 100% 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 (with waiver tapering off 25% annually till June 2028), for co-located BESS projects commissioned by June 2028, for Hydro PSP projects where construction work awarded by June 2028, for Green Hydrogen Projects commissioned till December 2030 and for offshore wind projects commissioned till December 2032.

(ii) 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.

(iii) Renewable Energy Implementing Agencies (REIAs) are regularly inviting bids for procurement of RE power.

(iv) Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.

(v) To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2032.

(vi) Laying of new intrastate transmission lines and creating new sub-station capacity has been supported under the Green Energy Corridor Scheme for evacuation of renewable power.

(vii) 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.

(viii) 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.

(ix) To encourage 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.

(x) "Strategy for Establishment of Offshore Wind Energy Projects" has been issued.

(xi) Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Energy Power through exchanges.

(xii) Production Linked Incentive (PLI) scheme has been launched to achieve the objective of localization of supply chain for solar PV Modules.

(d): India has achieved a landmark in its energy transition journey by reaching 50% of its installed electricity capacity from non-fossil fuel sources in June- 2025, more than five years ahead of the target set under its Nationally Determined Contributions (NDCs) to the Paris Agreement. As on 28.02.2026, the share of non-fossil fuel based installed capacity in the country is 52.57%. This significant milestone underscores the country's steadfast commitment to climate action and sustainable development.

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