GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.3077
ANSWERED ON 18.12.2025

INSTALLED POWER CAPACITY

3077. SHRI RAO RAJENDRA SINGH:
SHRI DILESHWAR KAMAIT:
SHRI BABU SINGH KUSHWAHA:
DR. SANJAY JAISWAL:
SHRI CHANDRA PRAKASH JOSHI:

Will the Minister of POWER be pleased to state:

(a) the composition of the present installed power capacity in the country including the share of renewable and non-fossil energy sources;

(b) the factors that have contributed to achieve installed power capacity exceeding 500 GW along with the impact thereof on the goals under COP-26, Panchamrit Goals and India's commitments under the long-term energy transition roadmap;

(c) the steps being taken to diversify India's energy portfolio through clean and safe sources such as nuclear energy; and

(d) the manner in which the expansion and addition of nuclear energy is likely to strengthen long-term energy security of the country and contribute to achieve the Net-Zero 2070 target?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : As on 31.10.2025, the country's total installed generation capacity has reached 5,05,023 MW, comprising of 2,45,600 MW of fossil-fuel sources and 2,59,423 MW of non-fossil fuel sources (including 2,50,643 MW from renewable energy sources). The details of country's current composition of installed generation capacity, indicating the share of renewable and non-fossil fuel sources are given at Annexure.

(b) : 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:

- **(i) 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.**
- **(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) Ministry of New & Renewable Energy (MNRE) has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW/annum by Renewable Energy Implementing Agencies (REIAs) from FY 2023-24 to FY 2027-28.

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

(v) 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

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

(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 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.

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

(xi) To achieve the objective of increased domestic production of Solar PV Modules, the Govt. of India is implementing the Production Linked Incentive (PLI) scheme for High Efficiency Solar PV Modules.

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. This significant milestone underscores the country's steadfast commitment to climate action and sustainable development.

The impact of this achievement on India's long term energy transition roadmap is crucial towards the goal of combating climate change, keeping in view energy security, affordability and accessibility as critical inalienable priorities to ensure growth and development alongside Energy transition of the economy towards net-zero by 2070.

(c) & (d) : The major steps taken by India to diversify its Energy Portfolio through clean and safe sources are detailed below:

1. Nuclear power has huge potential to ensure long term energy security and is vital for India's clean energy transition towards Net Zero by 2070. It is a clean and environment friendly source of base load power. The lifecycle emissions of nuclear power are comparable to those of renewables like hydro and wind. The Government of India has set an ambitious target of 100 GW nuclear power capacity by 2047. Following steps have been taken to diversify India's energy portfolio through Nuclear Energy:

i. **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.**

ii. **Sustainable Harnessing and Advancement of Nuclear energy for Transforming India (SHANTI) Bill, 2025 has been introduced in Parliament to pave a way to harness the full potential of India's nuclear energy based on indigenous resources to the maximum extent through active involvement of both the public and private sectors.**

iii. **Bharat Small Reactors (BSRs) of 220 MW capacity based on India's proven Pressurized Heavy Water Reactor (PHWR) technology are being upgraded for deployment in industrial hubs to support decarbonisation. BARC is also developing Small Modular Reactors for repurposing retiring coal stations and for remote-area applications.**

iv. **India's fuel security is being enhanced through new uranium discoveries, including a significant discovery that would extend the life of the Jaduguda mine by over 50 years. Progress in the closed fuel cycle, such as milestones achieved in the Prototype Fast Breeder Reactor, will further support sustainable fuel supply.**

v. **To accelerate capacity addition, NPCIL and NTPC have formed the joint venture ASHVINI for developing nuclear power plants within the existing legal framework.**

2. Government of India, in September 2023, approved a Viability Gap Funding (VGF) scheme for development of Battery Energy Storage Systems (BESS). BESS capacity of 13.22 GWh is under implementation with a budgetary allocation of Rs. 3,760 Cr. under this scheme. Considering the increasing demand of BESS, Ministry of Power, in June 2025, has approved another VGF scheme for development of 30 GWh BESS capacity with a financial support of Rs 5,400 Cr from Power System Development Fund (PSDF).

3. Ministry of Power has introduced a policy to promote Pumped Storage Projects (PSPs) to support renewable energy integration and grid stability. At present, 10 Pumped Storage Projects totaling 11,870 MW are under construction in the country.

4. Strategy for Establishments of Offshore Wind Energy Projects has been issued. Viability gap funding will be provided for harnessing offshore wind energy potential for initial capacity of one giga-watt.

5. Green Hydrogen Mission would contribute significantly to India's efforts for decarbonization and also create opportunities for employment and economic development. The Mission targets setting up at least 5 MMT per annum of green hydrogen capacity by 2030.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3077 ANSWERED IN THE LOK SABHA ON 18.12.2025

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The details of the country's current composition of installed generation capacity

Installed Generation Capacity of the country as on 31.10.2025			
Category		Installed Capacity (in MW)	% Share in Total
Fossil Fuel	Coal	2,18,258	
	Lignite	6,620	
	Gas	20,132	
	Diesel	589	
	Total Fossil Fuel	2,45,600	48.6
Non-Fossil Fuel	Renewable Energy Sources	2,50,643	49.6
	Hydro (including PSPs)	50,348	
	Wind, Solar & Other RE	2,00,295	
	Wind	53,600	
	Solar	1,29,924	
	BM Power/Cogen.	10,757	
	Waste to Energy	856	
	Small Hydro	5,159	
	Nuclear	8,780	1.74
	Total Non-Fossil Fuel	2,59,423	51.37
	Total Installed Capacity	5,05,023	100.0%

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