

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.4151
ANSWERED ON 30.03.2026

DATA CENTRES POWER AND WATER INFRASTRUCTURE CRISIS

4151 SMT. PRIYANKA CHATURVEDI:

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

- (a) whether India's data centre boom will consume massive power - AI training, cryptocurrency mining, cloud computing - straining already deficient grid;
- (b) power consumption projections for data centres by 2030, percentage of national electricity generation required and adequacy of supply;
- (c) whether water consumption for data centre cooling is quantified, particularly in water-stressed regions hosting major facilities;
- (d) measures for ensuring data centres use renewable energy, not coal-powered grids and adopt water-efficient cooling technologies;
- (e) whether environmental impact assessments are mandatory before data centre approvals; and
- (f) timeline establishing green data centre standards with enforceable sustainability requirements?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (f): 1. There is adequate availability of power in the country. Present installed generation capacity of the country is 524 GW (as on February, 2026). Government of India has addressed the critical issue of power deficiency by adding 299.87 GW of generation capacity since April, 2014 transforming the country from power deficit to power sufficient.

Data Centre Industry in India is growing steadily. The total data centre capacity in the country has increased from about 375 MW in 2020 to around 1,500 MW by 2025 and it is projected to reach 13.56 GW by 2031-32. The government is cognisant of the infrastructure needs of the data centre ecosystem, including electricity and water.

2. The expected electricity demand from the growth of AI and other large-scale data centres is factored into the planning process. Transmission system has been planned for integration of over 500 GW RE capacity by the year 2030. The transmission schemes associated with RE generation projects are being taken up for implementation in a phased manner commensurate with the RE Capacity addition.

3. Green Energy Corridor (GEC) scheme is being implemented by the Ministry of New and Renewable Energy (MNRE) for 44 GW Intra State Transmission System (InSTS) in 10 States. The InSTS for evacuation of 24 GW RE under Green Energy Corridor Phase-I (GEC-I) is commissioned.
4. Further, The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country. These include, inter-alia, the following:
 - 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. Ministry of New & Renewable Energy (MNRE) has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW per annum by ‘Renewable Energy Implementing Agencies’ (REIAs) from FY 2023-24 to FY 2027-28.
 - i. Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
 - ii. Laying of new transmission lines and creating new sub-station capacity has been supported under the Green Energy Corridor Scheme for evacuation of renewable power
 - iii. To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2032.
 - iv. 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
 - v. 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
 - vi. 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).

- vii. 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.
 - viii. “Strategy for Establishments of Offshore Wind Energy Projects” has been issued.
 - ix. 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.
- 5.** Further, the data centre requirement including electricity, water and other infrastructure, are considered as part of broader planning and consultation with relevant stakeholders.

The water requirement of data centres depends on the type of cooling technologies deployed. To minimise water usage, the industry is adopting advanced cooling technologies such as direct-to-chip liquid cooling, adiabatic cooling and immersion cooling. Industry is also deploying high density racks to efficiently support high-performance computing & AI workloads for further reduction of power and water consumption.

Regulation and control of groundwater extraction, including for industrial purposes, is governed by the guidelines issued by the Ministry of Jal Shakti vide notification S.O. 3289(E) dated 24.09.2020 and amendment notification dated 29.03.2023.
