GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.4147
ANSWERED ON 30.03.2026

PEAK POWER DEMAND AND SUPPLY ADEQUACY

4147 SHRI G.C. CHANDRASHEKHAR:

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

(a) the peak electricity demand recorded during 2024–25 and the available generation capacity at peak hour;

(b) the number of days on which demand exceeded supply, leading to load-shedding or demand curtailment; and

(c) the corrective measures taken following observations made in reviews or audit regarding capacity adequacy?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : 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 fresh generation capacity since April, 2014 transforming the country from power deficit to power sufficient.

In Financial Year 2024-25, country had successfully met the all-time maximum demand of about 250 GW, the peak demand was around 2,49,856 MW and the peak met was 2,49,854 MW. Further, the total energy requirement for 2024-25 was around 16,93,959 Million Units (MUs) and the energy supplied was around 16,92,369 MUs. The 'Energy Supplied' had been commensurate to the 'Energy Requirement' with only a marginal gap which is generally on account of constraints in the State transmission / distribution network.

(c) : The Government have taken the following steps to ensure uninterrupted power supply to all sectors:

1. Generation and Storage Planning:

i. As per National Electricity Plan (NEP), installed generation capacity in 2031-32 is likely to be 874 GW. With a view to ensure generation capacity remains ahead of projected peak demand, all the States, in consultation with CEA, have prepared their "Resource Adequacy Plans (RAPs)", which are dynamic 10-year rolling plans and includes power generation as well as power procurement planning.

ii. All the States were advised to initiate process for creating/ contracting generation capacities; from all generation sources, as per their Resource Adequacy Plans.

iii. In order to augment the power generation capacity, the Government of India has initiated following capacity addition programme:

(A) The projected thermal (coal and lignite) capacity requirement by the year 2034–35 is estimated at approximately 3,07,000 MW as against the 2,11,855 MW installed capacity as on 31.03.2023. To meet this requirement, Ministry of Power has envisaged to set up an additional minimum 97,000 MW coal and lignite based thermal capacity.

Further, following initiatives have also been undertaken: -

Thermal capacities of around 18,160 MW have been commissioned since April 2023 till 31.01.2026. In addition, 38,745 MW of thermal capacity (including 4,845 MW of stressed thermal power projects) is currently under construction. The contracts of 22,920 MW have been awarded and are due for construction. Also, 24,020 MW of coal and lignite-based candidate capacity has been identified which is at various stages of planning in the country.

(B) 12,723.50 MW of Hydro Electric Projects are under construction till 31.01.2026. Further, 4,274 MW of Hydro Electric Projects are under various stage of planning and targeted to be completed by 2031-32.

(C) 6,600 MW of Nuclear Capacity is under construction till 31.01.2026 and targeted to be completed by 2029-30. 7,000 MW of Nuclear Capacity is under various stages of planning and approval.

(D) 1,54,830 MW Renewable Capacity including 64,670 MW of Solar, 6,490 MW of Wind and 59,990 MW Hybrid power is under construction till 31.01.2026 while 47,920 MW of Renewable Capacity including 35,440 MW of Solar and 10,080 MW Hybrid Power is at various stages of planning and targeted to be completed by 2029-30.

(E) In energy storage systems, as on 31.01.2026, 13,120 MW/78,720 MWh Pumped Storage Projects (PSPs) are under construction. Further, a total of 9,580 MW/57,480 MWh capacity of Pumped Storage Projects (PSPs) are concurred and yet to be taken up for construction. As on 31.01.2026, 10,658.94 MW/ 28739.32 MWh Battery Energy Storage System (BESS) capacity are under construction, and 22,347.15 MW/ 69,836.70 MWh BESS capacity are under tendering stage.

2. Transmission Planning: Inter and Intra-State Transmission System has been planned and implementation of the same is taken up in matching time frame of generation capacity addition. As per the National Electricity Plan, about 1,91,474 ckm of transmission lines and 1,274 GVA of transformation capacity is planned to be added (at 220 kV and above voltage level) during the ten-year period from 2022-23 to 2031-32.

In addition to the above, the Ministry of Power has issued guidelines dated 14.06.2024, 21.03.2025 and 15.12.2025 regarding the payment of compensation for Right of Way (RoW) for transmission lines, wherein the land rate has been linked to the prevailing market rate. These guidelines address the key challenges of RoW arising from landowners demanding higher compensation than the rates determined by the State Government.

3. Promotion of Renewable Energy 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.

i. 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 Day Ahead Market (GDAM) and Green Term Ahead Market (GTAM) have 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

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