GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.73
ANSWERED ON 23.07.2026

RISING ELECTRICITY DEMAND

***73. SHRI VE VAITHILINGAM:**
THIRU DR. S JAGATHRATCHAKAN:

Will the Minister of POWER
be pleased to state:

(a) the challenges arising from rising electricity demand during extreme summer conditions, adverse weather events, fuel availability concerns and global energy supply disruptions, particularly with regard to dependence on coal-based power generation, peak load management and ensuring reliable and uninterrupted electricity supply across regions and their impact on the country's energy security and power resilience;

(b) the measures and contingency mechanisms undertaken by the Government for maintaining uninterrupted electricity supply during peak demand conditions, including ensuring adequate coal stocks, strengthening fuel logistics, enhancing generation capacity utilisation, improving transmission and distribution efficiency, preventing energy shortages and strengthening overall grid resilience;

(c) the mechanisms adopted by the Government for addressing short-term energy security concerns while supporting diversification of the country's energy mix, reducing vulnerabilities associated with fuel dependence and balancing energy security requirements with the increasing integration of renewable energy sources into the national power system;

(d) the results achieved through efforts directed towards enhancing generation capacity utilisation, improving transmission and distribution efficiency and strengthening overall grid resilience under stress conditions; and

(e) the long-term strategy proposed by the Government for balancing energy security objectives with the accelerated transition towards renewable energy sources, while maintaining grid stability, reliability of supply and sustainable growth of the power sector?

A N S W E R

THE MINISTER OF POWER

(SHRI MANOHAR LAL)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) IN RESPECT OF LOK SABHA STARRED QUESTION NO. 73 FOR REPLY ON 23.07.2026 REGARDING RISING ELECTRICITY DEMAND ASKED BY SHRI VE VAITHILINGAM AND THIRU DR. S JAGATHRATCHAKAN

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(a) to (e): There is adequate availability of power in the country. Present installed generation capacity of the country is 548.86 GW (as on June, 2026). The country has addressed the critical issue of power deficiency by adding 324.7 GW of generation capacity since April, 2014 transforming the country from power deficit to power sufficient. Further, as on 30.06.2026, addition of 2,18,267 circuit kilometre (ckm) of Transmission lines, 9,47,405 MVA of Transformation capacity and 84,390 MW of Inter-Regional capacity has been done since 2014. Thus, total inter-regional transmission capacity has become 1,20,340 MW, enabling reliable transfer of power across regions.

In view of development of El Nino conditions in the current year, the requirement of electricity has risen significantly. During April to June 2026, overall rise in electricity peak demand was around 12% as compared to corresponding period last year and further, it is expected to remain high. As on date, the all-time high All-India peak demand of 270.8 GW was successfully met in the month of May 2026, and in July, 2026, further, All-India peak demand again exceeded 270 GW twice, which was also met successfully. All-time high Variable Renewable Energy (VRE) generation of 103.7 GW (i.e. Solar-75 GW and Wind-28.7 GW) was recorded in the month of July, 2026.

Ministry of Power has diversified its electricity generation by optimal energy mix to strengthen the energy security and sustainable growth of power sector. Government has taken various measures for maintaining uninterrupted electricity supply, adequate coal stocks, strengthening fuel logistics, enhancing capacity addition-generation, transmission & distribution, energy transition through Renewable Energy sources and strengthening overall grid resilience & energy security. Details of short term and long-term measures taken by Government is given at Annexure-I and Annexure-II respectively.

The efforts already made towards enhancing generation capacity utilisation, transmission and distribution efficiency and grid resilience have yielded encouraging results:

(i) The coal (including Lignite) based generation capacity in the country is about 230.8 GW and its share in the total electricity supplied from April to June 2026 is 69.54 %. Further, the maximum generation achieved from such power plants is about 188.8 GW (around 75% of the total generation - 251.4 GW) during non-solar peak demand hours. As on 18.07.2026, 41.4 Million Tonnes (MT) coal stock is available at the Thermal Power Plants, sufficient for 13 days at 85% Plant Load Factor (PLF). Also, sufficient coal is being received by the Thermal power Plants at present to meet the daily demands. Gas based generation is less than 2 % of overall basket of generation resources and the geopolitical issues in Middle East has had minimum impact on energy availability in the country.

(ii) Government of India has been supporting States/ UTs through schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) to improve access and quality of power supply to all consumers. Under these schemes, projects worth Rs. 1.85 lakh Cr. were executed for strengthening of power distribution infrastructure. These schemes stand closed as on 31.03.2022. A total of 18,374 villages were electrified under DDUGJY and a total 2.86 crore households under SAUBHAGYA.

(iii) With the concerted efforts of Central and State Government, the average hours of supply in rural areas have increased from 12.5 hours in FY 14 to 22.6 hours in FY 26 and in urban areas the same has increased from 22.1 hours in FY 14 to 23.4 hours in FY 26.

(iv) The Aggregate Technical and Commercial (AT&C) loss of distribution utilities at national level have reduced from 22.62 % in FY14 to 15.04 % in FY25.

(v) The gap between the Average Cost of Supply (ACS) and the Average Revenue Realised (ARR), a key indicator of whether utilities are recovering their costs, narrowed sharply from ₹0.78 per unit to ₹0.06 per unit in FY25

(vi) A defining milestone was achieved on 29 July 2025, when India recorded its highest-ever renewable energy share in electricity generation. On that day, renewable sources met 51.5 per cent of the country's total electricity demand of 203 GW.

(vii) A record generation capacity addition of 64,695 MW was achieved during 2025-26. Out of this, 50,905 MW came from renewable energy sources (excluding large hydro) which represents the highest ever capacity addition in a single year, surpassing the previous record of 34,054 MW achieved in FY 2024–25.

(viii) India's national transmission network achieved the feat of being the world's largest synchronous national grid on 14th January 2026. India's transmission network has crossed a major milestone with 5.08 lakh circuit kilometres (ckm) of transmission lines and reaching a total transformation capacity of 1,469 gigavolt amperes (GVA).

(ix) The energy shortage declined sharply to 0.0% in FY 2025-26, compared to 4.2% in FY 2013–14, reflecting a significant improvement in supply adequacy.

(x) India has achieved its commitment made at COP-26 by achieving the NDC goal of 50% of its installed electric power capacity from non-fossil fuel sources in 2025 i.e. five years ahead of the committed timeline of 2030.

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ANNEXURE-I

ANNEXURE REFERRED TO IN PARTS (a) TO (e) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 73 ANSWERED IN THE LOK SABHA ON 23.07.2026 REGARDING RISING ELECTRICITY DEMAND

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Details of short-term measures

(i) Optimal utilization of generation from all available sources for ensuring supply of electricity to the consumers. The un-requisitioned surplus generation is to be facilitated for sale in the power exchanges.

(ii) Ensure optimized scheduling of hydro generation for conservation of reservoir storage and utilization mainly during peak demand periods.

(iii) All generating utilities are to ensure maximum availability of their units to meet the growing demand.

(iv) Ensure adequate availability of fuel at power stations with regular monitoring to resolve any incipient supply issues.

(v) Regular monitoring of outages and maintenance activities to minimize system distress, and completion within the committed timelines to ensure reliable system operation.

(vi) Transmission utilities to monitor the transmission system for maximum availability.

(vii) Facilitate and expedite grid connectivity, operational clearances, and system readiness for renewable energy projects, particularly facilitating smooth wind-based generation integration and Battery Energy Storage Systems (BESS).

(viii) Ensure adequate and reliable power supply on agricultural feeders to support irrigation requirements. Efforts should be made to shift the agricultural load to day-time/Solar hours and deployment of decentralized solar pumps in drought prone belts may be prioritized.

(ix) Facilitate utilization of the available renewable capacity in the power market beyond the contracted/PPA capacity.

(x) Distribution licensees to promote and implement energy efficiency measures to ensure optimal utilization of electricity among consumers specifically for the optimization of the predominant cooling, pumping loads etc. and charging of Electric Vehicle (EV) during day time/Solar hours.

(xi) Close monitoring of the progress of under-construction generating units and facilitate necessary coordination for timely commissioning.

(xii) Power stations to implement conservation of fuel, water etc. by adopting the best operational practices.

(xiii) Close coordination be maintained among National Load Dispatch Center (NLDC), Regional Load Dispatch Centers (RLDC)s, State Load Dispatch Centers (SLDCs), DISCOMs, generating and transmission utilities for contingency preparedness.

(xiv) To address the issues of coal supplies to power sector, an Inter-Ministerial Sub Group comprising of representatives from Ministries of Power, Coal, Railways, Central Electricity Authority (CEA), Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) meet regularly to take various operational decisions to enhance supply of coal to thermal power plants as well as for meeting any contingent situations relating to Power Sector including to alleviate critical coal stock position in power plants.

(xv) Inter Ministerial Committee (IMC) comprising Chairman, Railway Board; Secretary, Ministry of Coal and Secretary, Ministry of Power, meeting is being held regularly to closely review coal supplies to Thermal Power Plants.

(xvi) The scheduled maintenance of thermal units is planned in advance by taking into consideration the demand scenario for different months. It is a standard practice to minimize scheduled maintenance during the peak months. Central Electricity Authority (CEA) further monitors & permits deferment on case-to-case basis based on the technical parameters of the plant if increased demand necessitates so.

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ANNEXURE-II

ANNEXURE REFERRED TO IN PARTS (a) TO (e) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 73 ANSWERED IN THE LOK SABHA ON 23.07.2026 REGARDING RISING ELECTRICITY DEMAND

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Details of long-term measures

(i) Capacity addition from non-fossil Sources: Thrust is on capacity addition from non-fossil sources, which now exceeds 54% of the total installed electricity generation capacity. Further, Government has planned to achieve 500 GW of non-fossil fuel based installed generation capacity by 2030. As per the National Generation Adequacy Plan prepared by CEA in March 2026, the non-fossil fuel based installed capacity is likely to increase to 786 GW by 2035-36.

(ii) Capacity addition from Conventional Sources: It is projected to increase the installed capacity of coal-based plants to 315 GW by 2035-36. Keeping in view energy security, no new imported coal-based power plants have been planned.

(iii) 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.

(iv) Energy Storage Systems are being encouraged. Roadmap to 100 GW of Hydro Pumped Storage Projects by 2035-36 has been prepared. As per the National Generation Adequacy Plan prepared by CEA in March 2026, the likely BESS installed capacity and PSP installed capacity in 2035-36 is 80 GW and 94 GW respectively

(v) 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.

(vi) 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.

(vii) 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.

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

(ix) 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.

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

(xi) 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.

(xii) Development of intra-state transmission network is being planned to keep pace with RE capacity addition. Strong inter connection of Inter-State Transmission System (ISTS) RE schemes with the intra-state network to ensure better reliability in terms of anchoring voltage stability, angular stability, losses reduction etc. is being done.

(xiii) Encouraging setting up of RE projects with storage facilities for optimal utilization of transmission facilities.

(xiv) CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure safe, secure and reliable operation of the grid

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

(xvi) 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.

(xvii) The Ministry of Heavy Industries has launched the PLI scheme namely "National Programme on Advanced Chemistry Cell (ACC) Battery Storage," approved in May 2021 with a total outlay of ₹18,100 crore to establish 50 GWh of domestic Advanced Chemistry Cell manufacturing capacity, out of which 10 GWh is earmarked for Grid Scale Stationary Storage (GSSS) applications.

(xviii) Ministry of Power has issued guidelines for the installation and operation of EV charging infrastructure in Sep'24 and guidelines for installation and operation of battery swapping and battery charging stations in Jan'25, facilitating the development of a robust, accessible charging network for electric vehicles.

(xix) Ministry of Power (MoP) has notified Electricity (Amendment) Rules 2022, for enabling Energy Storage System (ESS).

(xx) MoP in March, 2022 notified the Guidelines for Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services.

(xxi) MoP has notified Guidelines to promote development of Pumped Storage Projects in the country on 10th April, 2023.

(xxii) 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).

(xxiii) MoP, vide order dated 01.08.2025, has increased the limit for concurrence of hydro generating stations, off- stream open loop and on-stream PSP by Central Electricity Authority from ₹1,000 crore to ₹3,000 crore. Further, off-stream closed loop PSPs has been exempted from the requirement of concurrence from the Authority.

(xxiv) Tariff Based Competitive Bidding (TBCB) guidelines have been issued for procurement of power from Pumped Storage Projects.

(xxv) Central Electricity Authority (CEA) issued an advisory on 18.02.2025 recommending the co-location of Energy Storage Systems (ESS) with solar power projects to enhance grid stability and cost efficiency.

(xxvi) CEA (Measures Relating to Safety and Electric Supply) (First Amendment) Regulations, 2025 has been notified on 30.03.2026, which includes the safety requirements for BESS.

(xxvii) CEA's (Technical Standards for Construction of Electrical Plants and Electric Lines) Amendment Regulations, 2026 has been notified to specify the construction standards for BESS.

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