

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.953
ANSWERED ON 27.07.2026

POWER SUPPLY VIZ-A-VIZ DEMAND

953 SHRI SANDOSH KUMAR P:

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

- (a) the peak electricity demand and peak demand met in the country during each of the last five years, year-wise;
- (b) the present installed power generation capacity, source-wise, including thermal, hydro, nuclear and renewable energy;
- (c) whether Government has assessed the country's power generation requirements over the next ten years in view of increasing industrialisation, urbanisation and electrification, if so, the details thereof;
- (d) the measures taken to strengthen transmission infrastructure and prevent power shortages during periods of peak demand; and
- (e) the steps taken by Government to ensure an affordable, reliable and sustainable electricity supply across the country?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

- (a):** The details of peak electricity demand and peak demand met in the country during each of the last five financial years is given at **Annexure-I**.
- (b):** Present installed generation capacity of the country is 5,48,858 MW. The source-wise details including thermal, hydro, nuclear and renewable energy are given at **Annexure-II**.
- (c) :** Electric Power Survey (EPS) of the country is conducted every five years for estimating the electricity demand of the country, as obligated under Section 73(a) of the Electricity Act-2003. As per midterm review of 20th Electric Power Survey (EPS), the detail of peak demand and energy requirement up to 2034-35 in view of increasing industrialisation, urbanisation and electrification is given at **Annexure-III**.
- (d) & (e):** The Government has taken following measures to prevent power shortages including strengthening of transmission infrastructure during periods of peak demand to ensure an affordable, reliable and sustainable electricity supply across the country:

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 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) Thermal Capacity Addition: The projected thermal (coal and lignite) capacity requirement by the year 2035–36 is estimated at approximately 3,15,000 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 1,05,000 MW coal and lignite based thermal capacity.

Further, following initiatives have also been undertaken: -

Thermal capacities of around 21,080 MW have been commissioned since April 2023 till 30.06.2026. In addition, 47,545 MW of thermal capacity (including 4,845 MW of stressed thermal power projects) is currently under construction. The contracts of 16,000 MW have been awarded and are due for construction.

(b) Hydro Capacity Addition: 13,373 MW of Hydro Electric Projects are under construction. 16,448 MW of Hydro Electric Projects are under various stage of planning/ construction and targeted to be completed by 2031-32.

(c) Nuclear Capacity Addition: 8,000 MW of Nuclear Capacity is under construction and targeted to be completed by 2031-32. 5,600 MW of Nuclear Capacity is under various stages of planning and approval.

(d) Renewables Capacity Addition: 1,47,720 MW Renewable Capacity including 119,580 MW of Solar (including Hybrid-Solar) and 27,720 MW of Wind (including Hybrid-wind) is under construction while 47,830 MW of Renewable Capacity including 44,440 MW of Solar is at various stages of planning and targeted to be completed by 2029-30.

(e) Addition of Energy Storage Systems: As on 30.06.2026, 15,870 MW/95,220 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. As on 30.06.2026, 15,754 MW / 42,530 MWh Battery Energy Storage System (BESS) capacity are under construction, 11,747 MW / 38,425 MWh has been awarded and 19,192 MW / 67,574 MWh BESS capacity are under tendering stage.

2. 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.
- (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.

3. Transmission:

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

4. Distribution Sector:

Government of India has supplemented the efforts of the States earlier through schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) and currently under Revamped Distribution Sector Scheme (RDSS), to help them achieve the objective of providing quality and reliable supply of power.

Government of India launched RDSS in July 2021 with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution Sector. The scheme has an outlay of Rs. 3,03,758 Cr. and estimated Gross

Budgetary Support (GBS) from Central Government of Rs. 97,631 Cr. Under the scheme, financial assistance is being provided to the Distribution Utilities (excluding Private Sector Utilities) for loss reduction infrastructure works and smart metering works. Projects worth Rs. 1.53 lakh crore for loss reduction infrastructure and Rs. 1.31 lakh crore for smart metering works have been sanctioned under the scheme which would help improve the reliability and quality of power supply in the country.

In addition to above, to support the power distribution utilities to improve their Aggregate Technical and Commercial (AT&C) losses some of the key initiatives taken, in addition to RDSS, are as under:

- (i) Additional Borrowing consent of 0.5% of Gross State Domestic Product (GSDP) to State Governments, which is conditional on them undertaking specific reforms in the power sector.
- (ii) Additional Prudential Norms for sanctioning of loans to State owned power utilities contingent on the performance of power distribution utilities against prescribed conditions.
- (iii) Rules for implementation of Fuel and Power Purchase Cost Adjustment (FPPCA) and cost reflective tariff so as to ensure that all prudent cost for supply of electricity is passed through.
- (iv) Rules and Standard Operating Procedure issued for proper subsidy accounting and their timely payment.

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.

ANNEXURE-I**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 953
ANSWERED IN THE RAJYA SABHA ON 27.07.2026***********

The details of peak electricity demand and peak demand met in the country during each of the last five financial years:

Year	Peak Demand	Peak Met	Demand Not Met	
	(MW)	(MW)	(MW)	%
2021-22	203,014	200,539	2,475	1.2
2022-23	2,15,888	2,07,231	8,657	4.0
2023-24	2,43,271	2,39,931	3,340	1.4
2024-25	2,49,856	2,49,854	2	0.0
2025-26	2,45,444	2,45,416	28	0.0
2026-27 (till June 2026)	2,70,832	2,70,820	12	0.0

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 953
ANSWERED IN THE RAJYA SABHA ON 27.07.2026

The source-wise detail of installed generation capacity:

Installed Capacity (in MW) of the country as on 30.06.2026			
Category	Sources	Installed Capacity (MW)	% Share in Total
Fossil Fuel	Coal	2,24,158	40.84%
	Lignite	6,620	1.21%
	Gas	20,122	3.67%
	Diesel	589	0.11%
	Total Fossil Fuel	2,51,489	45.82%
Non-Fossil Fuel	RES (including Hydro)	2,88,589	52.58%
	Hydro (including PSPs)	52,065	9.49%
	Wind, Solar & Other RE	2,36,525	43.09%
	Wind	57,443	10.47%
	Solar	1,62,152	29.54%
	BM Power	10,869	1.98%
	Waste to Energy	878	0.16%
	Small Hydro	5,182	0.94%
	Nuclear	8,780	1.60%
	Total Non-Fossil Fuel	2,97,369	54.18%
	Total Installed Capacity	5,48,858	100.0%

ANNEXURE-III

**ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 953
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The details of peak demand and energy requirement up to 2034-35:

Year	Projected Peak Electricity Demand (GW)	Energy Requirement (BU)
2026-27	289	1,929
2027-28	305	2,072
2028-29	325	2,227
2029-30	345	2,388
2030-31	364	2,546
2031-32	388	2,703
2032-33	407	2,874
2033-34	427	3,045
2034-35	446	3,215
