

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.795
ANSWERED ON 10.02.2025

POWER DEMAND IN THE COUNTRY

795 DR. DHARMASTHALA VEERENDRA HEGGADE:

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

- (a) whether power demand in country has gone up in energy terms and total quantum of power produced in the country till now;
- (b) the present renewable energy capacity and capacity under installation;
- (c) the details of initiatives Government has taken to modernize and restructure the nation's electricity market particularly to facilitate the seamless integration of Renewable Energy sources into the power grid, ensuring optimal utilization of electricity generation resources;
- (d) the details of the concerted efforts made to make Power Sector viable; and
- (e) the steps being implemented in order to reduce the AT & C losses?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : There has been consistent growth in energy requirement and peak demand in the country. The details of all India power supply position during the last five years and current year (Upto December, 2024) are given at **Annexure-I**.

The details of power generated in the country during the last five years and current year (Upto December, 2024) are given at **Annexure-II**.

(b): As on 31.12.2024, the country has achieved 209.44 Gigawatts (GW) of installed capacity from Renewable Energy (RE) Sources (including Large Hydro) and 167.21 GW RE capacity is under installation.

(c): The Government of India has taken following initiatives to modernise and restructure the nation's electricity market including integration of renewable energy resources into the power grid:

(i) At present, three Power Exchanges namely Indian Energy Exchange (IEX), Power Exchange India Limited (PXIL) and Hindustan Power Exchange (HPX) are functional in the country to ensure optimal utilization of electricity generation resources.

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(ii) Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022, has been notified on 06th June 2022 with objective of ensuring access to affordable, reliable, and sustainable green energy for all. Green Energy Open Access is allowed to any consumer with contract demand of 100 kW or above through single or multiple single connection aggregating Hundred kW or more located in same electricity division of a distribution licensee.

(iii) Various market instruments, such as Green Open Access, Green Day-Ahead Market (GDAM), and Green Term Ahead Market (GTAM), have been introduced to facilitate the trading of green energy. Additionally, a Real-Time Market has been implemented to help stakeholders manage their portfolios closer to real-time, addressing variability from renewable energy. Ancillary services are also being strengthened to support system balancing with higher renewable energy penetration.

(iv) A Renewable Energy Certificates (RECs) mechanism provides a market-based framework to balance the geographically concentrated availability of renewable energy resources. The REC framework also includes a multiplier to incentivize the adoption of new technologies.

(v) 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 for non-compliance.

(vi) Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Despatchable RE (FDRE) projects have been issued.

(d) & (e) : Government of India has been implementing various performance linked and result oriented schemes with the objective to have a financially viable and sustainable power sector. These initiatives have been designed to tackle financial and operational issues of the distribution utilities to bring in desired financial discipline in them and the State Governments. The details of steps taken are:

- (i) Putting in place Rules to ensure timely payment of subsidy by State Government.
- (ii) Timely issuance of tariffs orders.
- (iii) Proper Energy Accounting and Energy Audit.
- (iv) Ensuring that the generating companies are paid on time through Electricity Late Payment Surcharge Rules.
- (v) Compliance to Additional Prudential Norms for lending by Power Finance Corporation (PFC) Limited and REC Limited, based on the financial performance of the utilities.
- (vi) Bringing Liquidity Infusion Scheme (LIS) for payment of GENCO dues by the distribution utilities.
- (vii) Allowing additional borrowing space of 0.5% of GSDP to State Governments linked with power sector reforms.
- (viii) Corporate Governance Guidelines to enable mechanisms for performance improvement and accountability in DISCOMs.

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- (ix) The release of funds under Revamped Distribution Sector Scheme (RDSS) have been linked to performance of the Distribution Utilities against various financial parameters, the prominent among them being Aggregate Technical and Commercial (AT&C) losses and ACS-ARR Gap.

Electricity being a concurrent subject, supply and distribution of electricity to the consumers is within the purview of the respective State Government/Power Utility. Government of India has been supporting the 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 including works of covered conductor in high loss areas and creation of new/upgradation of sub-stations. These works have helped reduce losses and improve quality of supply of power.

Under the scheme of RDSS, the objective is to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero. Under the Scheme, Projects worth Rs. 2.78 lakh Cr. have been sanctioned. These involve loss reduction infrastructure works worth Rs. 1.48 lakh Cr. which includes replacement of bare conductors with covered conductors, laying Low Tension Aerial Bunched (LT AB) cables, and upgradation/augmentation of Distribution transformers (DT)/sub-stations, etc. Further, Smart Metering works sanctioned under the scheme cover 19.79 Cr consumers, 2.11 lakh feeders and 52.53 lakhs Distribution Transformers (DT). Implementation of these works would further help reduce losses and improve quality of supply of power to consumers.

Prepaid smart metering is one of the critical interventions envisaged under RDSS to improve the AT&C losses. It allows the Distribution Utilities to timely collect the revenues and measure energy flows at all levels, without any human interference. Proper and accurate energy accounting is the key to identification of high loss and theft prone areas, which will improve the billing and collection efficiencies of the utilities significantly.

As a result of concerted efforts made by the Government, the AT&C losses have come down from 21.91% in FY2021 to 15.37% in FY2023

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 795 ANSWERED IN THE RAJYA SABHA ON 10.02.2025

The details of All India power supply position during the last five years and current year (upto December, 2024):

Year	Energy Requirement		Energy Supplied		Energy Not Supplied	
	(MU)	% Growth	(MU)	% Growth	(MU)	(%)
2019-20	12,91,010		12,84,444		6,566	0.5
2020-21	12,75,534	-1.2*	12,70,663	-1.1*	4,871	0.4
2021-22	13,79,812	8.2	13,74,024	8.1	5,787	0.4
2022-23	15,13,497	9.7	15,05,914	9.6	7,583	0.5
2023-24	16,26,132	7.4	16,22,020	7.7	4,112	0.3
2023-24 (upto December 2023)	1,224,918	--	1,221,718	--	3,134	0.3
2024-25 (upto December 2024)	1,280,037	4.5	1,278,565	4.6	1,472	0.1

*Due to Covid Pandemic

Year	Peak Demand		Peak Met		Demand not Met	
	(MW)	% Growth	(MW)	% Growth	(MW)	(%)
2019-20	1,83,804		1,82,533		1,271	0.7
2020-21	1,90,198	3.5	1,89,395	3.8	802	0.4
2021-22	2,03,014	6.7	2,00,539	5.9	2,475	1.2
2022-23	2,15,888	6.3	2,07,231	3.3	8,657	4.0
2023-24	2,43,271	12.7	2,39,931	15.8	3,340	1.4
2024-25 (upto December 2024)	2,49,856	2.7	2,49,854	4.1	2	0.001

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 795 ANSWERED IN THE RAJYA SABHA ON 10.02.2025

The details of power generated in the country during the last five years and current year (Upto December, 2024):

Year	Total Generation (In Million Units)
2019-20	13,89,121
2020-21	13,81,855
2021-22	14,91,859
2022-23	16,24,465
2023-24	17,39,091
2024-25 (upto December 2024)	13,79,930
