

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.1915
ANSWERED ON 17.03.2025

ADDRESSING THE RISING DEMAND FOR ELECTRICITY

1915 SHRI MASTHAN RAO YADAV BEEDHA:

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

- (a) the manner in which Ministry is addressing the rising demand for electricity in the country, given the rapid economic growth and increasing electrification, particularly in rural areas ;
- (b) the steps being taken to resolve challenges related to fuel and gas supply for power plants despite increase in general power generation capacity, the details thereof;
- (c) the manner in which the Ministry plans to address the existence of significant idle power generation capacity, and state the need for additional imports in this context; and
- (d) whether Government is planning to enhance subsidies for the residential roof top solar power connections?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : There is adequate availability of power in the country. Present installed generation capacity of the country is 466 GW. Government of India has addressed the critical issue of power deficiency by adding 234 GW of generation capacity since April, 2014 transforming the country from power deficit to power sufficient. Further, addition of 2,01,088 circuit kilometer (ckm) of Transmission lines, 7,78,017 MVA of Transformation capacity and 82,790 MW of Inter-Regional capacity has been done since 2014.

The details of All India Power Supply Position of the country during the last three years and current year 2024-25 (upto February 2025) are given at **Annexure**. This indicates that the gap between Energy Requirement and Energy Supplied has declined to marginal level of 0.1% during current year 2024-25 (upto February, 2025). Even this marginal gap between Energy Requirement and Energy Supplied is generally on account of constraints in the State transmission/distribution network.

The Government of India has taken the following steps to address the rising demand for electricity in the country, including rural areas:

- (i) In order to augment the power generation capacity, the Government of India has initiated following capacity addition programme:
 - (A) Government of India has proposed in November 2023 for setting up of an additional minimum 80,000 MW coal based capacity by 2031-32. Against this target, coal based capacity of 9,350 MW has already been commissioned in 2023-24 & 2024-25. 29,900 MW Thermal Capacity is under construction and contracts for 22,640 MW thermal capacity have been awarded in FY 2024-25. Further, 33,580 MW of coal and lignite based candidate capacity has been identified which is at various stages of planning in the country.

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(B) 13,997.5 MW of Hydro Electric Projects and about 8,000 MW Pumped Storage Projects (PSPs) are under construction. Further, 24,225.5 MW of Hydro Electric Projects and 50,760 MW of PSPs are under various stage of planning and targeted to be completed by 2031-32.

(C) 7,300 MW of Nuclear Capacity is under construction and targeted to be completed by 2029-30. 7,000 MW of Nuclear Capacity is under various stages of planning and approval.

(D) 1,53,920 MW Renewable Capacity including 84,310 MW of Solar, 28,280 MW of Wind and 40,890 MW Hybrid power is under construction while 70,210 MW of Renewable Capacity including 46,670 MW of Solar, 600 MW of Wind and 22,940 MW Hybrid Power is at various stages of planning and targeted to be completed by 2029-30.

(E) 13,389 MW/ 56,457 MWh of energy storage system (3,180 MW/19,080 MWh Pumped Storage Projects and 10,209 MW/37,377 MWh Battery Energy Storage System) are currently under various stages of construction/bidding.

- (ii) A robust national grid has been established to facilitate the transfer of power from power surplus regions to power deficit regions. Addition of 2,01,088 circuit kilometer (ckm) of Transmission lines, 7,78,017 MVA of Transformation capacity and 82,790 MW of Inter-Regional capacity has been done since 2014 with capability of transferring 1,18,740 MW from one corner of the country to another. The capacity of National Grid is being expanded on a continuous basis commensurate with the growth in electricity generation and electricity demand.
- (iii) Directions under Section 11 of Electricity Act have been issued to imported coal based plants to operate and generate power to their full capacity.
- (iv) Steady supply of coal to all the thermal power plants is being ensured to prevent fuel shortages.
- (v) Gas-based power plants of NTPC as well as other generators are being scheduled during high power demand period.
- (vi) All the GENCOs including IPPs and Central generating stations have been advised to generate and maintain full availability on daily basis excluding the period of planned maintenance or forced outage.
- (vii) Hydro based generation is being scheduled in a manner so as to conserve water for meeting demand during peak period.
- (viii) Planned maintenance of generating units is being minimized during period of high demand.
- (ix) New power generation capacity is being monitored closely for timely addition.
- (x) Government has facilitated power trading through regulatory framework whereby states with surplus generation can sell power to states which are in deficit through three (3) power exchanges viz. Indian Energy Exchange (IEX), Power Exchange India Ltd (PXIL) and Hindustan Power Exchange Ltd.

(xi) Electricity market has been reformed by adding the Real Time Market (RTM), Green Day Ahead Market (GDAM), Green Term Ahead Market (GTAM), High Price Day Ahead Market (HPDAM) in Power exchange. Also, there is DEEP portal (Discovery of Efficiency Electricity Price) for e-bidding and e-Reverse for procurement of short-Term power by DISCOMs

(b) & (c) : Presently, the coal stock position of thermal power plants in the country is at an all time high during the past 5 years. As on 09.03.2025, the total Coal Stock available with the Coal based Thermal Power Plants in the country is 55.9 MT (Million Tonnes) which is sufficient to run these plants at 85% PLF for about 19 days. Due to improvement in domestic coal supplies, advisory to GENCOs for blending of imported coal was not extended by the Ministry of Power beyond 15th October, 2024.

Further, following steps have been taken to address the coal supply related issues:

- i) In order to address the issues of coal supplies to power sector, an Inter-Ministerial Sub Group comprising of representatives from Ministry of Power, Ministry of Coal, Ministry of Railways and Ministry of Shipping meet regularly and take various operational decisions for addressing any contingent situations including enhancing coal supply to power plants having critical coal stock position.
- ii) All captive coal blocks have been advised to maximize the coal production to supplement the coal supply from domestic coal companies (CIL and SCCL).
- iii) Imported Coal Based (ICB) Plants have been issued statutory direction to stock coal and generate power during high demand period.

The monitored natural gas-based power plant capacity as on 31st January, 2025 is about 23,636 MW. To promote the usage and distribution of Liquefied Natural Gas (LNG), the Government has put LNG imports under Open General Licensing (OGL) category and therefore, LNG may be imported by power plants as per its requirement on mutually agreed terms with sellers.

Ministry of Power from time to time have brought out schemes for competitive procurement of power from gas-based power plants during high demand period of power supply. A total of two such schemes have already been implemented and under the latest scheme for operationalisation of gas based capacity will commence from 16th March, 2025 to 15th October, 2025. The details of these schemes are as follows:

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|-------|-----------------------------|---|---------|
| (i) | April, 2023 – May, 2023 | : | 1010 MW |
| (ii) | March, 2024 – June, 2024 | : | 860 MW |
| (iii) | March, 2025 – October, 2025 | : | 1744 MW |

In addition, Government of India issued directions under Section-11 of the Electricity Act-2003 to ensure maximum generation from Gas Based Generating Stations (GBS) during May, 2024 and June, 2024. 26 GBS were identified for this initiative. The identified GBS provided 2,953 MU of energy during this period.

(d): To enhance adoption of rooftop solar in the residential sector, the PM Surya Ghar Muft Bijli Yojana (PMSG: MBY) launched in February 2024, targeting installation of rooftop solar for one crore households in the residential sector, has provision of enhanced subsidy. The details are as under:

- (i) For individual households, the Central Financial Assistance (CFA) available under PMSG: MBY is Rs. 30,000/- per kWp for the first 2 kWp and Rs. 18,000/- per kWp for the additional one kWp. The subsidy is capped at 3 kWp rooftop solar plant capacity for individual household.
- (ii) For Group Housing Societies/ Resident Welfare Associations (GHS/RWA) the CFA is Rs. 18,000/- per kWp with rooftop solar plant capacity limit of 500 kWp.
- (iii) In case of special category states/UTs including Uttarakhand, Himachal Pradesh, J&K, Ladakh, States in the North East Region, UTs of A&N and Lakshadweep, the CFA is 10% higher.
- (iv) To increase the adoption of rooftop solar in rural areas and low income residential households Renewable Energy Service Company (RESCO) model/ Utility led aggregation (ULA) model have been introduced in the PMSG: MBY.

In addition, collateral free loan upto Rs. 2 lakh is also available from nationalized banks at concessional interest rate of repo-rate plus 50 bps with tenure of 10 years. The loan facility can be accessed seamlessly through the Jan Samarth portal under the Department of Financial Services, integrated with the National Portal of the PMSG: MBY.

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1915 ANSWERED IN THE RAJYA SABHA ON 17.03.2025

The details of All India Power Supply Position of the country during the last three years and current year 2024-25 (upto February 2025) :

Year	Energy Requirement	Energy Supplied	Energy Not Supplied	
	(MU)	(MU)	(MU)	%
2021-22	13,79,812	13,74,024	5,787	0.4
2022-23	15,13,497	15,05,914	7,583	0.5
2023-24	16,26,132	16,22,020	4,112	0.3
2024-25* (upto February 2025)	15,47,785	15,46,229	1,555	0.1

(*Provisional figures)
