GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1454
ANSWERED ON 13.02.2025

CONSUMPTION OF ELECTRICITY

1454. SHRI SAUMITRA KHAN:
SHRI JANARDAN SINGH SIGRIWAL:

Will the Minister of POWER
be pleased to state:

(a) whether consumption of electricity has increased across the country during the last three years and the current year and if so, the details thereof;

(b) whether the present generation of electricity is sufficient to meet the demand in the country, if so, the details thereof and if not, the reasons therefor;

(c) the steps taken/being taken by the Government to meet the increasing demand for electricity;

(d) whether the Government has approved new power projects in the country; and

(e) if so, the details thereof, State-wise including West Bengal and Bihar?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : There has been consistent growth of consumption of electricity in the country. The details of consumption of electricity during the period from 2020-21 to 2023-24 are given at Annexure-I.

(b) : There is adequate availability of power in the country. Present installed generation capacity of the country is 462 GW. Government of India has addressed the critical issue of power deficiency by adding 230 GW of generation capacity since April, 2014 transforming the country from power deficit to power sufficient. Further, addition of 2,00,168 circuit kilometer (ckm) of Transmission lines, 7,66,859 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.

.....2.

The details of Energy Requirement and Energy Supplies during the last three years and current year 2024-25 (upto December 2024) are given at Annexure-II. Energy Supplied has been by and large commensurate to the Energy Requirement. Marginal gap between Energy Requirement and Energy Supplied is generally on account of constraints in the State transmission/distribution network.

(c) : Government of India has taken following steps to meet the increasing demand of electricity:

1. Generation Planning:

(i) Installed generation capacity in 2031-32 is likely to be 874 GW. This includes capacity from conventional sources- Coal, Lignite etc., renewable sources- Solar, Wind and Hydro.

(ii) 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.

(iii) All the States were advised to initiate process for creation of generation capacities; from all generation sources, as per their Resource Adequacy Plans.

(iv) In order to augment the power generation capacity, the Government of India has initiated following capacity addition programme:

(A) Ministry of Power, in consultation with States, has envisaged a plan to add thermal capacity of a minimum 80,000 MW by 2031-32. Against this target, 28,020 MW Thermal Capacity is already under construction and contracts for 19,200 MW thermal capacity have been awarded in FY 2024-25. Further, 36,320 MW of coal and lignite based candidate capacity has been identified which is at various stages of planning in the country.

(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) 147,160 MW Renewable Capacity including 84,190 MW of Solar, 26,200 MW of Wind and 36,330 MW Hybrid power is under construction while 79,270 MW of Renewable Capacity including 50,830 MW of Solar, 600 MW of Wind and 27,840 MW Hybrid Power is at various stages of planning and targeted to be completed by 2029-30.

(E) Six (06) Battery Energy Storage System (BESS) projects of 522.60 MW capacity are under construction and 45 BESS projects of 14,242.29 MW capacity are at various stages of planning.

.....3.

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 1274 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.

3. Distribution System Planning:

(i) 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 scheme, projects worth Rs. 1.85 lakh Cr. were executed for strengthening of power distribution infrastructure. A total of 18,374 villages were electrified under the DDUGJY and 2.86 Cr households were electrified during SAUBHAGYA.

(ii) Further, Government of India launched Revamped Distribution Sector Scheme (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. Under the scheme, infrastructure works worth Rs. 2.78 lakh Cr. have been sanctioned for the distribution utilities.

4. Promotion of Renewable Energy Generation:

(i) Ministry of New & Renewable Energy (MNRE) has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW/annum by Renewable Energy Implementing Agencies from FY 2023-24 to FY 2027-28.

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

(iii) 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, for Green Hydrogen Projects till December, 2030 and for offshore wind projects till December, 2032.

(iv) 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.

(v) 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.

.....4.

(vi) 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, National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects have been launched.

(vii) Scheme for setting up of Ultra Mega Renewable Energy Parks is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.

(viii) 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.

(ix) "Strategy for Establishment of Offshore Wind Energy Projects" has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.

(x) The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.

(xi) 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. This will enable manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Module

(d) & (e): The State-wise details of 19,200 MW awarded coal and lignite based thermal capacity, including the State of Bihar, are given at Annexure-III.

The State-wise details of Hydro Electric/Pumped Storage projects of 23,560 MW of capacity concurred by CEA, including the State of West Bengal, are given at Annexure-IV.

The State-wise details of 7,000 MW of under planning nuclear generating capacity are given at Annexure-V.

****

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1454 ANSWERED IN THE LOK SABHA ON 13.02.2025

****

The details of consumption of electricity during the period from 2020-21 to 2023-24:

(MU: Million Units)

Financial year	Electricity Consumption (in MUs)
2020-21	12,30,208
2021-22	13,16,765
2022-23	14,40,311
2023-24 (estimated)	15,43,000

****

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1454 ANSWERED IN THE LOK SABHA ON 13.02.2025

****

The details of Energy Requirement and Energy Supplies during the last three years and current year 2024-25 (upto December 2024)

(MU: Million Units)

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 December 2024)	12,80,037	12,78,565	1472	0.1

****

ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 1454 ANSWERED IN THE LOK SABHA ON 13.02.2025

****

The State-wise details of 19,200 MW awarded coal and lignite based thermal capacity, including the State of Bihar:

Sl. No	Name Of Project	Sector	State	Capacity in MW
1	Darlipalli-II	Center	Odisha	1x800
2	Sipat-III	Center	Chhattisgarh	1x800
3	Raigarh	Private	Chhattisgarh	2x800
4	MAHAN ENERGEN Ph-III	Private	Madhya Pradesh	2x800
5	Koderma TPS , PH-II	Center	Jharkhand	2x800
6	Raipur TPS	Private	Chhattisgarh	2x800
7	Mirjapur TPS	Private	Uttar Pradesh	2x800
8	Kawai	Private	Rajasthan	4x800
9	Telangana Stage II	Center	Telangana	3x800
10	New Nabi Nagar- II	Center	Bihar	3x800
11	Gadarwara Stage II	Center	Madhya Pradesh	2x800
	GRAND TOTAL CANDIDATE			19200

****

ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 1454 ANSWERED IN THE LOK SABHA ON 13.02.2025

****

The state-wise details of Hydro Electric/Pumped Storage projects of 23,560 MW of capacity concurred by CEA, including the state of West Bengal

Sl. No.	Name of Scheme	Sector	Developer	Installed Capacity (MW)
Sikkim				
1	Teesta St-IV	Central	NHPC	520
			Sub-Total	520
Arunachal Pradesh				
2.	Tawang St-I	Central	NHPC	600
3.	Tawang St-II	Central	NHPC	800
4.	Hirong	Central	NEEPCO	500
5.	Naying	Central	NEEPCO	1000
6.	Nafra	Central	NEEPCO	120
7.	Lower Siang	Private	JAVL	2700
8.	Demwe Lower	Private	ADPL	1750
9.	Kalai-II	Private	Kalai PPL	1200
10.	Heo	Central	NEEPCO	240
11.	Tato-I	Central	NEEPCO	186
12.	Tato-II	Central	NEEPCO	700
13.	Talong Londa	Private	GLHPL	225
14.	Etalin	Central	SJVN	3097
15.	Attunli	Central	SJVN	680
			Sub-Total	13798
Meghalaya				
16.	Wah-Umiam Stage-III	Central	NEEPCO	85
			Sub-Total	85
Himachal Pradesh				
17.	Thana Plaun	State	HPPCL	191
18.	Dugar	Central	NHPC	500
19.	Chhatru	Private	DSIL	126
20.	Miyar	Central	NTPC	120
			Sub-Total	937
UT of J&K				
21.	Kirthai-II	JV	CVPPL	930
22.	Sawalkot	Central	NHPC	1856
23.	New Ganderwal	State	JKSPDC	93
24.	Uri-I Stage-II HE Project	Central	NHPC	240
			Sub-Total	3119

Uttarakhand				
25.	**Kotlibhel Stage -IA**	**Central**	**NHPC**	**195**
26.	**Kotlibhel Stage-IB**	**Central**	**NHPC**	**320**
27.	**Alaknanda**	**Private**	**GMRL**	**300**
			Sub-Total	**815**
West Bengal				
28.	**Turga PSP**	**State**	**WBSEDCL**	**1000**
			Sub-Total	**1000**
Nagaland				
29.	**Dikhu**	**Private**	**NMPPL**	**186**
			Sub-Total	**186**
Odisha				
30.	**Upper Indravati PSP**	**State**	**OHPC**	**600**
			Sub-Total	**600**
Maharashtra				
31.	**Bhavali PSP**	**Private**	**JSW Energy PSP Two limited**	**1500**
32.	**Bhivpuri PSP**	**Private**	**TATA Power Company Ltd.**	**1000**
			Sub-Total	**2500**
Grand Total				**23560**

****

ANNEXURE-V

ANNEXURE REFERRED IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 1454 ANSWERED IN THE LOK SABHA ON 13.02.2025

****

The State-wise details of 7,000 MW of under planning nuclear generating capacity are:

Unit	State	Unit No.	Capacity (MW)	Type of Reactor
Kaiga Atomic Power Stataion	Karnataka	5	700	PHWR
Kaiga Atomic Power Stataion	Karnataka	6	700	PHWR
Mahi Banswara (MBAPP)	Rajasthan	1	700	PHWR
Mahi Banswara (MBAPP)	Rajasthan	2	700	PHWR
Ghorakpur AHVP (GAHVP)	Haryana	3	700	PHWR
Ghorakpur AHVP (GAHVP)	Haryana	4	700	PHWR
Chutkha (CHAMPP)	Madhya Pradesh	1	700	PHWR
Chutkha (CHAMPP)	Madhya Pradesh	2	700	PHWR
Mahi Banswara (MBAPP)	Rajasthan	3	700	PHWR
Mahi Banswara (MBAPP)	Rajasthan	4	700	PHWR

PHWR: Pressurized Heavy-Water Reactor.

****