

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.1912
ANSWERED ON 09.03.2026

DISTRIBUTION AND SUPPLY OF ENERGY FROM VARIOUS SOURCES

1912. SHRI BABUBHAI JESANGBHAI DESAI:
SHRI SHAMBHU SHARAN PATEL:
SHRI BRIJ LAL:
SHRI MITHLESH KUMAR:
SHRI RYAGA KRISHNAIAH:
SHRI AMAR PAL MAURYA:
SHRI NARAYANA KORAGAPPA:
DR. PARMAR JASHVANTSINH SALAMSINH:
SMT. DARSHANA SINGH:

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

- (a) source-wise details of the total energy produced in the country including thermal, hydro, nuclear and renewable energy during the last five years and current year including States of Bihar and Uttar Pradesh especially under Uttar Pradesh Power Corporation;
- (b) whether energy production capacity in the country is sufficient to meet the present and projected demands of electricity and energy consumption in the country;
- (c) if so, the details thereof, including peak demand met and supply position during the said period; and
- (d) the details of the distribution and supply of energy across the country from various sources during the said period?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a): The source-wise details of total quantum of electricity generated in the country from various sources including thermal, hydro, nuclear and renewable energy during the past five (5) financial years and current financial year 2025-26 (upto January, 2026) are given at **Annexure –I**.

The details of electricity generated in the state of Bihar and Uttar Pradesh during last five financial years and current financial year (up to Jan, 2026) are given at **Annexure-II**. Further, the details of electricity generated by Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) in the state Uttar Pradesh during last five financial years and current financial year (up to Jan, 2026) are given at **Annexure-III**.

(b) to (d): There is adequate availability of power in the country to meet the present and projected demand of the electricity. Present installed generation capacity of the country is 520.511 GW. Government of India has addressed the critical issue of power deficiency by adding 296.388 GW of fresh generation capacity since April, 2014 transforming the country from power deficit to power sufficient.

The details of Power Supply Position in terms of peak demand and energy requirement for the last five financial years and the current FY i.e. 2025-26 (upto January, 2026) are attached at **Annexure-IV**. These details indicate that Energy Supplied has been commensurate to the Energy Requirement with only a marginal gap which is generally on account of constraints in the State transmission/distribution network. Hence there is no impact of shortage on the economy and industrial growth.

As per midterm review of 20th Electric Power Survey (EPS), the peak electricity demand and energy requirement for FY 2029-30 is anticipated to be 345 GW and 2388 BU respectively and for FY 2031-32, the peak electricity demand and energy requirement is anticipated to be 388 GW and 2703 BU respectively.

The Government have taken the following steps to meet the increasing demand of electricity in 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 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.
- (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) The projected thermal (coal and lignite) capacity requirement by the year 2034–35 is estimated at approximately 3,07,000 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 97,000 MW coal and lignite based thermal capacity.

To meet this requirement, several initiatives have already been undertaken. Thermal capacities of around 18,160 MW have already been commissioned since April 2023 till 31.01.2026. In addition, 38,745 MW of thermal capacity (including 4,845 MW of stressed thermal power projects) is currently under construction. The contracts of 22,920 MW have been awarded and is due for construction. Further, 24,020 MW of coal and lignite-based candidate capacity has been identified which is at various stages of planning in the country.

(B) 12,723.50 MW of Hydro Electric Projects are under construction. Further, 4,274 MW of Hydro Electric Projects are under various stage of planning and targeted to be completed by 2031-32.

(C) 6,600 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) 1,57,800 MW Renewable Capacity including 67,280 MW of Solar, 6,500 MW of Wind and 60,040 MW Hybrid power is under construction while 48,720 MW of Renewable Capacity including 35,440 MW of Solar and 11,480 MW Hybrid Power is at various stages of planning and targeted to be completed by 2029-30.

(E) In energy storage systems, 11,620 MW/69,720 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. Currently, 9,653.94 MW/ 26,729.32 MWh Battery Energy Storage System (BESS) capacity are under construction and 19,797.65 MW/ 61,013.40 MWh BESS capacity are under tendering stage

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 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.

3. **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.

ANNEXURE-I

**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1912
ANSWERED IN THE RAJYA SABHA ON 09.03.2026**

Source-wise details of total quantum of electricity generated in the country from FY 2020-21 to FY 2022-23:

(All Generation figures are in Million Units (MUs))

Fuel		2020-21	2021-22	2022-23	2023-24	2024-25	2025-26 (upto Jan'26)
THERMAL	COAL	9,50,937.55	10,41,487.43	11,45,907.58	12,60,902.62	12,98,872.29	10,31,882.53
	DIESEL/HSD	126.31	117.24	229.71	400.58	442.65	358.21
	LIGNITE	30,505.68	37,094.04	36,188.34	33,949.79	32,994.77	24,906.72
	MULTI FUEL	0.00	0.00	0.00	0.00	0.00	0.00
	NAPHTHA	101.41	0.00	0.83	0.03	0.00	0.00
	NATURAL GAS	50,842.59	36,015.77	23,884.21	31,295.91	31,580.05	22,764.15
THERMAL Total		10,32,513.54	11,14,714.48	12,06,210.67	13,26,548.93	13,63,889.76	10,79,911.61
NUCLEAR		43,029.08	47,112.06	45,861.09	47,937.41	56,680.83	45,193.67
TOTAL [Conventional]		10,75,542.62	11,61,826.54	12,52,071.76	13,74,486.34	14,20,570.59	11,25,105.28
RES (excluding Large Hydro)	WIND	60,149.95	68,640.07	71,814.16	83,385.35	83,347.19	95,586.95
	SOLAR	60,402.26	73,483.94	1,02,014.24	1,15,975.11	1,44,150.23	1,38,386.93
	BIOMASS	3,512.98	3,482.70	3,161.32	3,417.19	3,738.67	3,377.60
	BAGASSE	11,302.85	12,573.88	12,863.16	10,825.59	9,335.32	7,635.91
	SMALL HYDRO	10,258.41	10,463.55	11,170.62	9,485.04	11,568.04	10,885.08
	OTHERS	1,621.06	2,268.17	2,529.18	2,746.55	2,869.73	2,453.59
Large Hydro		1,50,299.52	1,51,627.33	1,62,098.77	1,34,053.92	1,48,633.98	1,50,039.12
TOTAL [Renewable]		2,97,547.03	3,22,539.63	3,65,651.45	3,59,888.75	4,03,643.16	4,08,365.18
Bhutan Imp		8,765.50	7,493.20	6,742.40	4,716.10	5,484.18	7,765.68
GRAND TOTAL		13,81,855.15	14,91,859.37	16,24,465.61	17,39,091.19	18,29,697.93	15,41,236.14

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1912
ANSWERED IN THE RAJYA SABHA ON 09.03.2026

The details of electricity generated in the state of Bihar and Uttar Pradesh during last five financial years and current financial (year up to Jan, 2026):

(All Generation figures are in Million Units (MUs))

State	Fuel		2020-21	2021-22	2022-23	2023-24	2024-25	2025-26 (upto Jan'26)
Bihar	Conventional	Coal	33,866.14	43,940.40	55,200.21	58,361.80	60,757.75	48,552.97
	Total (Conventional)		33,866.14	43,940.40	55,200.21	58,361.80	60,757.75	48,552.97
	Renewable	Solar	160.63	163.08	169.53	195.19	325.86	263.60
		Biomass	21.30	2.14	-	-	-	-
		Bagasse	1.48	65.84	106.68	140.98	104.70	48.36
		Hydro	43.20	8.77	12.63	5.92	14.54	18.42
	Total (Renewable)		226.61	239.83	288.85	342.08	445.10	330.38
Grand Total		34,092.75	44,180.23	55,489.06	58,703.88	61,202.85	48,883.35	
Uttar Pradesh	Conventional	Coal	1,19,592.96	1,30,698.93	1,51,154.99	1,52,505.20	1,61,337.30	1,37,067.34
		Natural Gas	2,470.75	1,148.49	908.23	1,619.52	1,247.56	764.60
		Nuclear	3,284.81	3,580.25	3,192.62	2,874.63	3,629.48	2,140.05
	Total (Conventional)		1,25,348.52	1,35,427.67	1,55,255.84	1,56,999.35	1,66,214.34	1,39,971.99
	Renewable	Solar	1,856.19	2,900.41	3,674.02	3,971.31	4,966.06	4,244.53
		Biomass	135.82	85.20	66.35	46.65	76.48	88.47
		Bagasse	3,590.87	3,160.39	3,183.67	2,923.55	2,457.35	1,574.63
		Hydro	1,737.26	1,565.22	1,208.73	1,025.88	1,452.74	1,626.33
		Others	-	20.40	58.45	84.85	29.88	30.92
Total (Renewable)		7,320.13	7,731.62	8,191.22	8,052.23	8,982.50	7,564.88	
Grand Total		1,32,668.65	1,43,159.29	1,63,447.06	1,65,051.58	1,75,196.84	1,47,536.87	

ANNEXURE-III

**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1912
ANSWERED IN THE RAJYA SABHA ON 09.03.2026**

The details of electricity generated by UPRVUNL in the state Uttar Pradesh during last five financial years and current financial year up to Jan, 2026:

(All Generation figures are in Million Units (MUs))

Year	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Generation	25,797.94	27,310.19	34,796.96	33,704.12	38,256.72	35,101.54

ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PARTS (b) TO (d) OF UNSTARRED QUESTION NO. 1912 ANSWERED IN THE RAJYA SABHA ON 09.03.2026

The details of Power Supply Position, for the last five years and the current FY i.e. 2025-26 (upto January, 2026)

Financial Year (FY)	Energy [in Million Unit (MU)]				Peak [in Mega Watt (MW)]			
	Energy Requirement	Energy Supplied	Energy not Supplied		Peak Demand	Peak Met	Demand Not Met	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2020-21	12,75,534	12,70,663	4,871	0.4	1,90,198	1,89,395	-802	-0.4
2021-22	13,79,812	13,74,024	5,787	0.4	2,03,014	2,00,539	-2,475	-1.2
2022-23	15,13,497	15,05,914	7,583	0.5	2,15,888	2,07,231	8,657	4.0
2023-24	16,26,132	16,22,020	4,112	0.3	2,43,271	2,39,931	3,340	1.4
2024-25	16,93,959	16,92,369	1,590	0.1	2,49,856	2,49,854	2	0.0
2025-26 (up to January, 2026)	14,27,436	14,27,009	427	0.0	2,45,444	2,45,416	28	0.0
