GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2865
ANSWERED ON 18.08.2025

SOURCE-WISE POWER GENERATION AND RENEWABLE ENERGY STRATEGY

2865 SMT. PHULO DEVI NETAM:

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

(a) the aggregate amount of power generated in the country from April to May in the year 2025, categorised by generation source;

(b) factors contributing to the decrease in coal fired power generation and overall energy consumption during this period; and

(c) whether Government is undertaking any measures to ensure incorporation of renewable energy in response to the fluctuating demand, if so, the details thereof, if not, the reasons therefor?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b): The comparative details of electricity generated in the country from various sources during April, 2025 to May, 2025 vis-à-vis corresponding period in 2024 are given at **Annexure.**

As against the Energy Requirement of 2,99,749 Million Units (MUs) during April to May 2024, the Energy Requirement was 2,96,014 MUs during April to May 2025, showing a decline of 1.2 % in the Energy Requirement. This was primarily due to favorable weather conditions this year resulting in decline in overall generation.

Further, during the aforesaid period, overall percentage contribution from coal, lignite and gas sources in the total generation declined while the percentage contribution from hydro, nuclear and renewables in the total generation has increased.

(c): The Government of India has taken following broad steps to ensure the integration of renewable energy and address fluctuations:

(i) Development of inter and intra-State transmission network is being planned to keep pace with RE capacity addition. Strong inter connection of transmission networks to ensure better reliability in terms of anchoring voltage stability, angular stability, losses reduction etc. is being done.

(ii) Central Financial Assistance (CFA) is being provided to the States for setting up Transmission infrastructure for RE integration within their State under the Green Energy Corridor Scheme.

(iii) Encouraging setting up of RE projects with storage facilities for optimal utilisation of transmission facilities.

(iv) Flexibilization of Thermal generation is mandated to address the variability of RE generation.

(v) CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure the safe, secure and reliable operation of the grid. The compliances to the said regulations by RE plants are verified jointly by Central Transmission Utility (CTUIL) and Grid-India/RLDCs before granting connectivity/interconnection to the national grid.

(vi) Indian Electricity Grid Code mandates that RE plants participate in the primary and secondary frequency control in case of contingencies. Hybrid RE power plants, Energy Storage Systems such as BESS (Battery Energy Storage System) and PSP (Pump Storage Project) are being promoted for mitigating variability in RE generation and provide adequate frequency support to the grid.

(vii) The grid stability in case of voltage fluctuations is dependent on the adequate reactive power support from generators. The requirements w.r.t to the dynamic reactive power support from the Generators is covered in the CEA (Technical Standards for connectivity to the Grid) Regulations. Power equipment like STATCOM (Static Synchronous Compensator) and Synchronous Condensers are being planned for dynamically varying reactance support in the grid.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2865 ANSWERED IN THE RAJYA SABHA ON 18.08.2025

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The comparative details of electricity generated in the country from various sources for the period April, 2025 to May, 2025 vis-à-vis April, 2024 to May, 2024:-

(All figures in Million Units)

Fuel		April,2024 to May,2024		April,2025 to May,2025	
		Generation	**% of Total Generation**	**Generation**	**% of Total Generation**
FOSSIL FUEL	**Coal**	2,36,339.11	73.27	2,22,225.6	70.03
	Diesel	83.16	0.03	79.01	0.02
	Lignite	6,245.55	1.94	4,883.97	1.54
	Natural gas	8,884.19	2.75	5,977.86	1.88
Fossil Fuel Total		**2,51,552.01**	**77.99**	**2,33,166.44**	**73.48**
NON-FOSSIL FUEL	**Nuclear**	8,890.66	2.76	10,088.53	3.18
	Hydro	20,755.83	6.44	22,882.75	7.21
	Bhutan import	208.8	0.06	731.51	0.23
	Renewable (excluding Large Hydro)	41,136.92	12.75	50,450.78	15.90
Non-Fossil Fuel Total		**70,992.21**	**22.01**	**84,153.57**	**26.52**
GRAND TOTAL		**3,22,544.22**	**100.00**	**3,17,320.01**	**100.00**

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