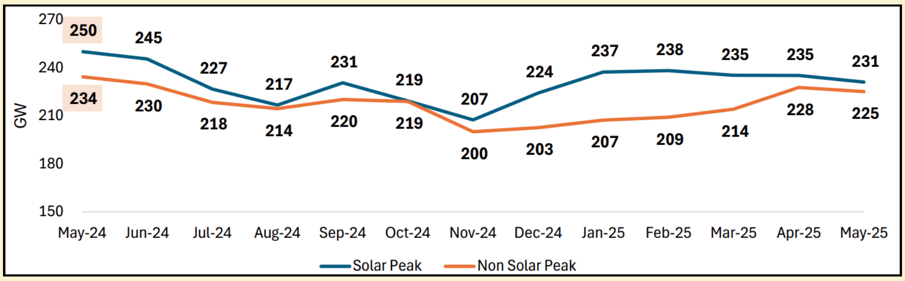
MONTHLY SNAPSHOT

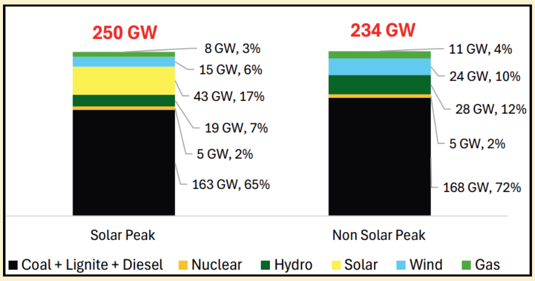
INDIA POWER SECTOR: MAY 2025

Figure 1: PEAK DEMAND MONTHLY TREND



Note: *1) Solar Peak (231 GW) on 15th May 2025 @ 14:59 hrs*
2) Non Solar Peak (225 GW) on 14th May 2025 @ 22:30 hrs
Source: Grid India

Figure 2: Source-wise contribution in Peak Demand [EFFECTIVE CAPACITIES]



Note: *Contribution mix at the maximum Solar Peak and Non-Solar Peak recorded in the past 13 months;*
Source: Grid India

Table 1: INSTALLED CAPACITY (GW)

Source		2030 Target	Under Planning^	Under Construction*	May-25	Y-o-Y Growth
Fossil Sources		**277**	**52**	**32**	**240**	**-1%**
Thermal	Coal & Lignite	252	52	32	219	1%
	Diesel & Gas	25			21	-18%
Non-Fossil Sources		**482**	**115**	**165**	**235**	**18%**
Nuclear		15	7	7	9	7%
Hydro	Large	54	24	13	48	2%
	Small	5			5	2%
Solar	Ground Mounted Solar	293	84	79	84	30%
	Solar Rooftop				18	53%
	Hybrid Solar				3	17%
	Off-grid Solar/KUSUM				5	65%
Wind		100		26	51	11%
Other		15		39	12	6%
Total		**758**	**166**	**197**	**475**	**-26%**
Pumped Storage Plants		19	4	10	5	0%
Battery Energy Storage System (GW/GWh)		41.65/ 208.25		14.97/ 54.80	-	-

** As of March 2025; ^Estimated wherever actuals are not available*
Source: Central Electricity Authority; Ministry of New and Renewable Energy; Optimal Generation Mix Report; Parliament Q&A

Table 2: MONTHLY GENERATION (BU)

Source		May-25	Y-o-Y Growth
Thermal		114	-11% ⇩
Nuclear		5	16% ⇧
Hydro	Large	13	5% ⇧
	Small	0.7	-6% ⇩
Solar		14	18% ⇧
Wind		9	90% ⇧
Other (Biomass, Bagasse)		0.3	-75% ⇩
Total		**157**	**-4.3%** ⇩

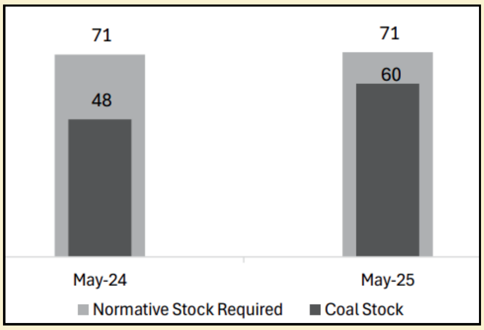
Source: Central Electricity Authority; Ministry of New and Renewable Energy

Table 3: TRANSMISSION INFRASTRUCTURE

Parameter		NEP Target (2032)	Under Planning^	Under Construction*	May-25	Y-o-Y Growth
Total Transmission Line Capacity (≥ 220 kV) ('000 ckm)		**648**	**7**	**51**	**495**	**2%**
	ISTS	295			214	2%
	InSTS	354			281	2%
Transformation capacity ('000 MVA)		**2,412**	**19**	**247**	**1,354**	**8%**
	ISTS	1,281			565	9%
	InSTS	1,131			789	7%
Inter-regional Trans. Capacity (GW)		**168**			**119**	**0%**

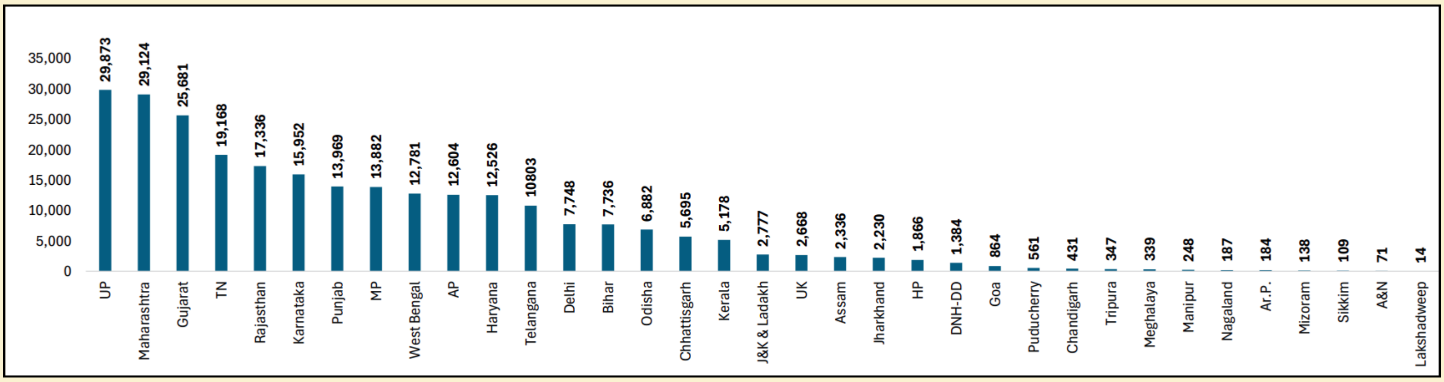
NEP: National Electricity Plan (Volume II) Transmission;
Source: Central Electricity Authority

Figure 3: COAL STOCK (million metric tonnes)



Source: National Power Portal

Figure 4: STATE-WISE PEAK DEMAND (MW) IN MAY 2025



Source: Central Electricity Authority

KEY HIGHLIGHTS

1. Ministry of Power (GoI) vide its Order dated 16/05/25 has issued directions to Gas based generating stations under Section 11 of the Electricity Act 2003 mainly pertaining to optimal utilisation of all available generation resources to meet the growing power requirements.

2. THDC India Ltd. has commenced Commercial Operation of the 1st unit (250 MW) of the 1000 MW of India's first Variable Speed Pumped Storage Plant at Tehri, Uttarakhand.

3. CERC issued Draft Guidelines for Virtual Power Purchase Agreements (VPPAs). VPPAs are Over-the-Counter contracts entered between a Designated Consumer and a Renewable Energy (RE) Generator. There is no physical delivery of electricity between the two parties. The Designated Consumer receives RE Certificates from the RE Generator at a mutually agreed price. The RE Generator sells electricity through Power Exchange and the difference between the VPPA price and the market price is settled bilaterally between the contracting parties.

4. Jharkhand issued Tariff Order of DVC for FY 2025-26, increased Energy Charges only for HT Services from 4.05 to 4.20 Rs./kVAh and for HT Institutional Services from 3.70 to 4.10 Rs./kVAh.

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PFI is a Policy Research and Advocacy entity registered as a society under the aegis of Ministry of Power (MoP), Government of India.
It is supported by leading Central Power Sector Organizations to undertake evidence-based policy research and facilitate informed decision making by the MoP, Central & State Electricity Regulatory Commissions and other concerned stakeholders.

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