

ASSESSMENTS ON ADEQUACY OF TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE

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As per Section 7 of Electricity Act, 2003, setting up of a power plant is a de-licensed activity in the country. Any generating company may establish, operate and maintain a generating station without requiring a license under Electricity Act, 2003 if it complies with the technical standards relating to connectivity with the grid.

Details of source-wise power generation capacity addition during FY 2026-27 (till June, 2026) is given at **Table .**

Further, capacity addition is essential to meet the increasing electricity demand, particularly during peak load conditions, which ensures adequate generation availability, minimises the risk of power shortages and outages, and enhances the reliability.

Details of assessments made by Central Electricity Authority (CEA) / Ministry of Power (MoP) on the adequacy of transmission and distribution infrastructure to absorb the added capacity are as follows:

(i).Transmission Infrastructure:

To strengthen the transmission infrastructure in line with the growing electricity demand, the Government of India notified the National Electricity Plan (Transmission), 2024, which outlines the transmission system requirements for the period 2023–2032. As per the plan, the transmission network is likely to expand from 5.09 lakh ckm (as on June, 2026) to 6.48 lakh ckm by 2032 and transformation capacity from 1,478 GVA (as on June, 2026) to 2,345 GVA. Also, the inter-regional transmission capacity is planned to increase from 120 GW as on June, 2026 to 168 GW by the year 2032.

(ii).Distribution Infrastructure:

Electricity being a concurrent subject, the supply and distribution of electricity is responsibility of the respective State Government/Distribution Utility. Hence, it is the responsibility of respective distribution utilities to take necessary measures to maintain an adequate and efficient distribution system in its area of operation.

As per the perspective plan prepared by CEA based on expected demand, the sub-station capacity at 66/33/22 kV level is planned to be augmented from 605GVA (as on March 2026) to 711 GVA by 2030 and 872 GVA by 2035, Distribution Transformer capacity from 895 GVA to 1135 GVA by 2030 and 1631 GVA by 2035, 11 kV feeder length from 55.35 lakh ckm to 61.60 lakh ckm by 2030 and 70.77 lakh ckm by 2035, and LT lines from 84.75 lakh ckm to 95.69 lakh ckm by 2030 and 111.67 lakh ckm by 2035.

Presently under the Revamped Distribution Sector Scheme (RDSS), launched by Government of India in July 2021 with the objective of making distribution utilities operationally efficient and financially viable, financial assistance is being provided to distribution utilities for upgradation of distribution infrastructure

& smart metering works, Under the scheme, projects worth Rs. 1.53 lakh crore for loss reduction infrastructure and Rs. 1.31 lakh crore for smart metering works have been sanctioned across the country.

The Government has put in place several measures and monitoring mechanisms to ensure the timely completion/ commissioning of transmission projects, Hydro Electric Projects (HEPs) and Thermal Power Projects which subsequently help in minimizing their time and cost overruns. The details are as under:

- i. **Monitoring of Transmission Projects:** To ensure timely commissioning of transmission projects, their implementation is closely monitored, and necessary interventions are undertaken to resolve challenges faced by developers. Transmission projects are monitored through periodic reviews by Central Transmission Utility of India Ltd. (CTUIL), Central Electricity Authority (CEA) and by Ministry of Power. In addition, a review of projects is done through a dedicated platform viz. the Project Monitoring Group (PMG) under the Department for Promotion of Industry and Internal Trade of India (DPIIT) and at the highest level of the Government through Pro-Active Governance and Timely Implementation (PRAGATI) portal.

These mechanisms facilitate timely resolution of issues related to right of way, forest clearances, land acquisition, inter-agency coordination and other implementation challenges.

- (ii) **Monitoring of Hydro Electric Projects (HEPs):** Ministry of Power has issued guidelines to minimise time and cost overruns, established dispute avoidance and dispute resolution mechanisms for contractual issues. Additionally, an IT portal, Jal VidyutAmrit, has been developed for monitoring the progress of under-construction hydroelectric projects. Further, regular site visits are under taken by CEA to review project progress and resolve implementation bottlenecks.

- (iii) **Monitoring of Thermal Power Projects:** Ministry of Power regularly reviews the progress of under-construction projects to identify constraints and expedite the resolution of inter-ministerial and other outstanding issues. The Portal for Online Monitoring of Projects Thermal (PROPMT Portal), launched on 20.08.2024, is used to monitor project progress. Project-related issues are also taken up with the concerned State Governments and District Administrations, as required, and are reviewed on the PRAGATI portal to ensure proactive governance and timely implementation.

- (e) The efforts already made towards enhancing generation capacity utilisation, transmission and distribution efficiency and grid resilience have yielded encouraging results on electricity access, tariffs, energy security and economic growth:

- i. With the concerted efforts of Central and State Government, the average hours of supply in rural areas have increased from 12.5 hours in FY 14 to 22.6 hours in FY 26 and in urban areas the same has increased from 22.1 hours in FY 14 to 23.4 hours in FY 26.
- ii. The Aggregate Technical and Commercial (AT&C) loss of distribution utilities at national level have reduced from 22.62 % in FY14 to 15.04 % in FY25.
- iii. The gap between the Average Cost of Supply (ACS) and the Average Revenue Realised (ARR), a key indicator of whether utilities are recovering their costs, narrowed sharply from ₹0.78 per unit in FY 14 to ₹0.06 per unit in FY25.
- iv. A defining milestone was achieved on 29 July 2025, when India recorded its highest-ever renewable energy share in electricity generation. On that day, renewable sources met 51.5 per cent of the

country's total electricity demand of 203 GW.

- v. A record generation capacity addition of 64,695 MW was achieved during 2025-26. Out of this, 50,905 MW came from renewable energy sources (excluding large hydro) which represents the highest ever capacity addition in a single year, surpassing the previous record of 34,054 MW achieved in FY 2024–25.
- vi. The energy shortage declined sharply to 0.0% in FY 2025-26, compared to 4.2% in FY 2013–14, reflecting a significant improvement in supply adequacy.
- vii. India has achieved its commitment made at COP-26 by achieving the NDC goal of 50% of its installed electric power capacity from non-fossil fuel sources in 2025 i.e. five years ahead of the committed timeline of 2030.

TABLE

Details of source-wise power generation capacity addition during FY 2026-27 (till June, 2026):

[All figures in Mega Watt (MW)]

Thermal (Coal based)	Nuclear	Hydro	RES (excluding Hydro)	Total
2,260	0	650	13,251.26	16,161.26

This information was given by The Minister of State in the Ministry of Power, Shri Shripad Naik, in a written reply in the Lok Sabha today.

NR/MD

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