Press release

India's solar generation rose 24% YoY in Q4 FY 2025–26 as energy demand hit new peaks

Increasing renewable curtailment points to challenges in integrating clean energy into the country's grid.

New Delhi, 30 April 2026 – India's peak energy demand reached a new all-time high of 256 GW on 26 April 2026, surpassing previous peaks of 245 GW on 9 January 2026 and 250 GW on 30 May 2024. Against this backdrop of rising electricity demand, the Centre for Research on Energy and Clean Air (CREA) found in its first quarterly energy snapshot for India that the country generated 464 billion units (BU) of electricity in Q4 2025-26, up 3% year-on-year (YoY), driven by strong growth in non-fossil power generation, particularly solar, which rose by 24%. However, rising instances of renewable curtailment events highlight growing challenges in integrating clean energy into India's grid.

Generation trends

India's total electricity generation reached 464 billion units (BU) in Q4 2025-26, up 3%. While coal and lignite generation declined by 1%, generation from solar, wind, nuclear, and large hydro increased by 24%, 11%, 10%, and 7%, respectively. Solar generation reached 48.9 BU, with the highest daily output recorded on 27 March 2026 (658 MU).

Renewable curtailment remains high

Despite higher renewable generation, a significant amount of clean energy was not utilised during Q4 2025-26, with around 27 GW (72 MU) of solar and 4 GW (6 MU) of wind being curtailed. An additional 83 GW (103 MU) of solar and 11 GW (17.5 MU) of wind were curtailed under India's Tertiary Reserve Ancillary Service (TRAS), a manually activated power system balancing service used to resolve grid congestion. Gujarat in Western India recorded the highest curtailment, highlighting grid integration challenges in high-renewables regions.

Peak demand hits a new high

After recording an all-time peak demand of 250 GW on 30 May 2024, India's peak electricity demand reached a new Q4 high of 245 GW on 9 January 2026, with overall demand growing by nearly 3% YoY. However, this is the slowest YoY growth in Q4 since 2020-21. Notably, 88 out of 90 days recorded peak demand during solar generation hours. During the Q4 2025-26 peak demand period of 245 GW, thermal generation accounted for 67% (165 GW) of the total, followed by solar at 20% (48 GW). Maharashtra in Western India

recorded the highest state-level peak demand (32 GW) in Q4 2025-26, followed by Gujarat (25 GW) and Uttar Pradesh (23 GW).

Coal power capacity utilisation declines

Coal power capacity plant load factor (PLF) fell from 72% to 69% in Q4 2025-26, despite rising demand. Gas PLF increased from 10% to 12%, while nuclear rose marginally from 78% to 79%. Solar capacity utilisation factor (CUF) declined slightly from 23% to 22%.

Renewables lead capacity additions while no thermal is retired

Capacity additions in Q4 2025-26 were led by renewables, with 16.2 GW added, compared with 2.3 GW of thermal and 0.5 GW of large hydro. India commissioned 2.3 GW of new thermal capacity which was entirely coal-based in Q4 2025-26, down 18% YoY, while no thermal capacity was retired. Meanwhile, 39.4 GW of coal capacity remains under construction, with most projects still in the early stages.

'India's rising power demand is increasingly being met by renewables, particularly during daytime peak hours. However, rising renewable curtailment shows that grid infrastructure and flexibility are not keeping pace with clean energy growth. With stronger transmission networks, more flexible grid operations, and faster battery deployment, a larger share of evening and night-time demand can also be met through non-fossil sources,' said Manoj Kumar, India Analyst at CREA.

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Note: All data used in this assessment has been sourced from GRID-INDIA, Central Electricity Authority (CEA), and the National Power Portal (NPP).

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About CREA

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efforts of governments, companies and campaigning organisations worldwide in their efforts to move towards clean energy and clean air. www.energyandcleanair.org.