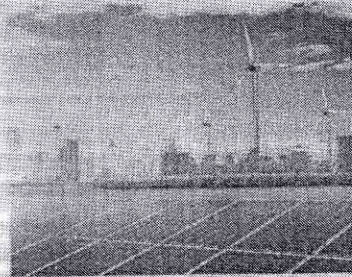


Renewable energy mix in total power generation to touch 35 per cent in FY27

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Renewable energy sources (RES) are expected to make up more than one-third of total energy generation in the country by 2026-27, and about 44 per cent by 2031-32.

“The Indian power sector is poised to witness significant capacity addition from renewable energy sources, increasing variable renewable energy (VRE) penetration. The cost economics also indicates that RE-based capacity addition is expected to account for a larger share of the total capacity addition in the future. However, the large-scale addition of RE capacity would require additional flexible generation in the system to balance the grid,” according to a National Electricity Plan



document of the Central Electricity Authority.

Based on capacity addition targets, the expected electricity generation from renewable energy sources is estimated at 710 billion units, accounting for 35 per cent of the total energy generation in 2026-27.

This is expected to increase to 44 per cent at 1,172 billion units by 2031-32.

Solar is expected to be the major contributor, followed by hydro and wind energy.

In FY23, energy generation from RES stood at

203.55 billion units (up from 170.91 billion units in FY22), accounting for 12.53 per cent of the cumulative energy generated (1,624.47 billion units) in the country. The solar segment accounted for 6.28 per cent of the generation, and wind energy 4.42 per cent during the period.

RAJASTHAN LEADS IN RE Rajasthan led the States in renewable energy generation at 41 billion units, followed by Gujarat and Karnataka at 30 billion units each.

Tamil Nadu's total renewable power generation stood at 28 billion units. Maharashtra and Andhra Pradesh generated 17 billion and 16 billion units respectively in FY23.

Overall, the southern region accounted for the biggest share of RE generation at 83 billion units, fol-

lowed by the Northern region (59 billion units), and the Western Region (58 billion units).

By 2026-27, the total installed capacity of RES (including the large hydro segment) is estimated at about 337 GW, and by 2031-32 at 596 GW.

“The renewable sector in India is set to expand and supply electricity to an increasingly large number of people. From public transport to infrastructure for industry and societal development, renewable energy and the technological capability to store power for on-demand usage creates a new dynamic within the country to further explore green opportunities for the future. With the ambitious plan, the country can accomplish the dual goal of economic development and green-energy production,” said the report.