

Clean energy generation dips in FY24 amid rising power demand

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Even as India's power demand climbs to new highs, the share of clean power in total power generated took a hit in FY24 due to under-performance of hydro power sources.

DATA FOCUS.

After rising for at least eight years, the share of renewable energy in overall electricity generated fell to 20.7 per cent in FY24 from 22.5 per cent in FY23, as per Sustainable Development Goals National Indicator Framework released by MoSPI last week. The global average of clean energy generation is at around 39 per cent.

Total electricity generated from RE (including hydro) stood at 359.9 billion units (BU) in FY24 compared with 365.7 BU in FY23. While power generated from solar, wind and other clean sources grew, generation of power from small and large hydro power plants declined. Hydro power makes up around 10 per cent of the total renewable power source.

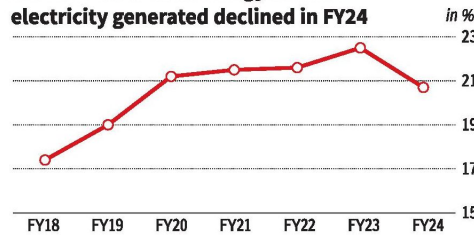
POOR MONSOONS

Vikram V, Vice President and Co-Group Head- Corporate Ratings, ICRA, attributed the fall in share of clean power to lower water availability due to poor monsoons and impact of floods on certain hydro projects in northern and north-eastern parts of the country. "We expect the share of renewable energy, including large hydro to remain at about 22-23 per cent in FY25 and further increase to about 37-38 per cent by FY30, supported by the large scale up expected in solar and wind power capacity in the country," he said.

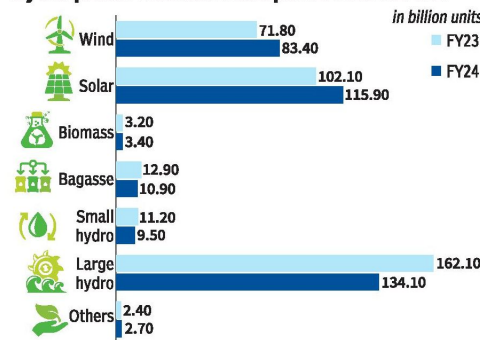
India has set a target to achieve 50 per cent cumulative electric power from renewables by 2030 and to achieve net-zero carbon emissions by 2070. For FY25, analysts expect hydro projects to record flat performance in their contribution to total power generation owing to climate vagar-

Not so green

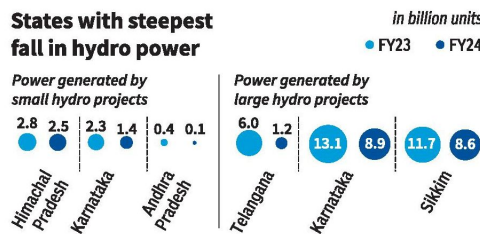
Share of renewable energy in total electricity generated declined in FY24



Hydro power sources underperformed in FY24



States with steepest fall in hydro power



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

ies and large hydro projects yet to gain ground.

State-wise analysis of share of RE in total power generation shows that most States recorded a decline in share. In case of small hydro projects (up to 25 MW), Karnataka and Himachal Pradesh recorded the steepest fall. In case of large hydro, Telangana and Karnataka projects underperformed in FY24.

Ulka Kelkar, Executive Director, Climate, WRI India, said that a major barrier to clean power generation across sources is high cost of battery storage. Both in case of solar and wind, storage systems and grid modernisation need to improve, she added. Global

Electricity Review 2024 by energy think tank Ember also showed that hydro deficit was a key factor behind increase in fossil generation at a global level in 2023. "95 per cent of the coal generation rise occurred in four countries that were severely affected by droughts, while also having above-average demand growth, in part boosted by heatwaves and greater cooling requirements," the report noted. In China and India, lower hydro accounted for 18 per cent and 26 per cent of the rise in coal, respectively, it added.

With inputs from Jameela Suha, intern with businessline