

'LOCKDOWNS SLOWED GREEN ENERGY PUSH'

Relevant for: Economy | Topic: Infrastructure: Energy incl. Renewable & Non-renewable

The lockdowns slowed renewable energy installations in the country and the pace of such installation is lagging India's 2022 target, according to a report by the Institute for Energy Economics and Financial Analysis (IEEFA), a research think tank.

As part of its commitment to reducing greenhouse gas emissions, India has said that it would install 175 gigawatts (GW) of green energy by 2022 and 450 GW by 2030 but only 7 GW of such capacity was added in the financial year 2020-21, Vibhuti Garg, report author and energy economist, said.

A gigawatt is 1,000 megawatts.

100-GW target

Data from the Central Electricity Authority independently shows that India was to have installed 100 GW of solar energy capacity by March 2023 — 40-GW rooftop solar and 60-GW ground-mounted utility scale.

The country has managed to install only 43.94 GW till July 31, 2021.

In its analysis of monthly volumes and prices at the largest power exchange in India, Indian Energy Exchange (IEX), the IEEFA study found that the amount of power traded increased by 20% over 2020, by 37% from the 2019 figure and by 30% over 2018.

This led to prices on average increasing by 38% from the 2020 rates, by 8% from the 2019 figure and by 11% over 2018.

"Clearly as economic growth revives, electricity demand grows and average prices at the exchange increase," Ms. Garg says.

Had there been more access to renewable energy, particularly wind and hydropower, it could have contributed to lower energy prices, the report says.

Coal stocks

The IEEFA's analysis shows coal stocks hit a new record high of 1,320 lakh tonnes at the end of 2020-21 and exceeded the monthly averages of the previous five years. Having reduced its reliance on imported coal and replaced it with domestic coal, Coal India Ltd., India's largest coal producer, had about two months' supply.

However, an analysis of the daily coal stock position exhibited a "deterioration" as more plants reported supplies were critical. On August 1, 23 plants with an installed capacity of 33 GW had critical coal supplies. By September 9, this increased to 92 with an installed capacity of 112 GW and by September 22, 102 with installed capacity of 123 GW.

"Most plants had coal stockpiles for one to five days. However, the requirement for thermal power plants is to maintain coal supplies for 21 days or at least 15," Ms. Garg says. "In most cases, the issue of supply was at the thermal power producer end, rather than the issue of coal stock shortage at CIL end."

Imported coal prices have been rising in the past few months because of resurgent demand after the pandemic — especially in emerging Asian markets such as China and India, but also in Japan, South Korea, Europe and the U.S.

“Greater reliance on coal imports will increase thermal power prices in India, leading to higher prices for the ultimate consumers,” Ms. Garg says.

Flexible solutions

The IEEFA notes that the challenge of India’s growing daily peak demand does not require investment in excess baseload thermal capacity. Instead, the electricity system needed “flexible and dynamic generation solutions” such as battery storage, pumped hydro storage, peaking gas-fired capacity and flexible operation of its existing coal fleet.

“Government should accelerate deployment of such sources to help meet peak demand and also balance the grid at a lower cost,” says Ms. Garg.

Their prices were falling and so would be cost effective and a buffer against very high prices at the power exchange during peak demand.

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