

Giving efficient plants priority in coal power despatch could save INR 9,000 crore annually: CEEW

Decommissioning coal assets older than 25 years on priority could result in total savings of INR 37,750 crore.

New Delhi, 26 July 2021: Discoms in India could save up to INR 9,000 crore (USD 1.23 billion) each year by prioritising coal power despatch based on efficiency rather than the prevailing system which prioritises based on variable costs, according to a first-of-its kind independent study released today by the Council on Energy, Environment and Water (CEEW). This can provide much needed respite to public discoms, which last reported a loss of INR 61,360 crore (USD 8.4 billion) in FY19.

The findings are based on the performance of 194 GW of Indian coal assets (out of a total capacity of nearly 205 GW) during the 30 months preceding the COVID-19 pandemic. Further, the study found that prioritising efficiency-based despatch during this time could have improved coal fleet efficiency by 1.9 per cent, resulting in annual coal savings of 42 million tonnes (MT) and a commensurate reduction in greenhouse gas emissions.

The CEEW study also recommends considering 30 GW of India's coal-based capacity for accelerated decommissioning. The proposed plants overlap with those identified for retirement in the National Electricity Plan (NEP), 2018. The study also recommends temporarily mothballing a further 20 GW of relatively new capacity that does not feature in the NEP list. Factoring in planned renewables and coal capacity, relegating these newer plants would not adversely affect supply at a system level. In fact, relegating these inefficient plants would additionally result in a one-time saving of INR 10,000 crore (USD 1.37 billion) on account of avoided pollution control retrofits. Further, the study advocates for a unified electricity market that treats the whole country as a single dispatch region. Its findings reinforce the Central Electricity Regulatory Commission's (CERC) proposal to move away from bilateral scheduling of generation and focus on shifting to market-based economic dispatch (MBED).

Karthik Ganesan, Director of Research Coordination, CEEW, and the study's lead author, said, "The slower-than-expected growth of power demand and the increasing competitiveness of renewable energy in India have left our coal assets under-utilised. While India is contemplating a net-zero commitment year, its current plants are entirely premised on renewable energy addition only. Given that India will continue to rely on coal power in the coming decade, it must rein in wasteful coal use and improve generation efficiency. Decommissioning a part of the fleet today could make coal power generation more efficient and less polluting, and accelerate decarbonisation in the power sector. Decommissioning identified assets will usher in new investments in a more balanced generation system that does not have the sword of surplus hanging over it."

A second independent study released today by the CEEW Centre for Energy Finance (CEF) separately examined 130 plants representing 95 GW of India's coal-based capacity. It found that decommissioning coal assets older than 25 years (35 GW of total capacity) on priority could result in annual savings of INR 7,550 crore (USD 1.03 billion) over the next 5 years. These savings would be generated through avoided annual capacity or fixed-charge payouts, primarily towards operation and maintenance costs. Further, the savings would add up to a total of INR 37,750 crore (USD 5.2 billion) over the plants' remaining life. On the other hand, the decommissioning of these assets would cost INR 21,500 crore (USD 2.9 billion) in payouts to debt and equity holders and an additional INR 11,700 crore (USD 1.6 billion) in compensatory payouts to the workforce. This suggests that decommissioning will pay for itself over a five to six-year period.

Vaibhav Pratap Singh, Programme Lead, CEEW-CEF, and the study's lead author, said, "Estimating costs is a crucial first step for decommissioning. A suitable mechanism must be designed to ensure a just transition for all stakeholders in allied sectors such as coal mining and railways. Managing equity payouts, which contribute to around 29 per cent of decommissioning costs, would also be critical. This could help lower the eventual transition costs and allocate more resources for workforce payouts."

Further, while the CEEW-CEF study does not endorse large-scale decommissioning, it found that retiring 95 GW of capacity could cost between INR 2.3 lakh crore and 3.5 lakh crore (USD 32 to 48 billion) to pay off debt and equity holders. Payoffs to the workforce costs could add another INR 57,490 crore (USD 7.8 billion). The study also highlighted that freeing up capital through decommissioning will require innovative financial mechanisms. Once unlocked, these resources could be made available for India's transition to renewables.

The CEEW study 'Coal Power's Trilemma: Variable Cost, Efficiency and Financial Solvency' can be accessed [here](#) and the CEEW-CEF study 'Mapping Costs for Early Coal Decommissioning in India' can be accessed [here](#).

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About CEEW

The Council on Energy, Environment and Water ([CEEW](#)) is one of Asia's leading not-for-profit policy research institutions. The Council uses data, integrated analysis, and strategic outreach to explain – and change – the use, reuse, and misuse of resources. It prides itself on the independence of its high-quality research, develops partnerships with public and private institutions, and engages with wider public. In 2021, CEEW once again featured extensively across ten categories in the 2020 Global Go To Think Tank Index Report. The Council has also been consistently ranked among the world's top climate change think tanks. Follow us on Twitter [@CEEWIndia](#) for the latest updates.

About CEEW-CEF

The CEEW Centre for Energy Finance ([CEEW-CEF](#)) is an initiative of the Council on Energy, Environment and Water (CEEW), one of Asia's leading think tanks. CEEW-CEF acts as a non-partisan market observer and driver that monitors, develops, tests, and deploys financial solutions to advance the energy transition. It aims to help deepen markets, increase transparency, and attract capital in clean energy sectors in emerging economies. It achieves this by comprehensively tracking, interpreting, and responding to developments in the energy markets while also bridging gaps between governments, industry, and financiers.