SectorVector

May 2023

Reading the topical trends

# April rains, buffers bloom

Coal enough to cool heat of peak power demand

Proactive efforts by the central government, and rains in April have ensured coal availability will be adequate to meet the imminent increase in power demand this summer, amid forecasts of heatwaves.

Coal production rose 12% on-year to a record high of 107.8 million tonne (MT) in March 2023 and 8.63% on-year in April 2023.

In contrast, output had fallen 0.2% in March last year, and power demand had surged 14.7% in April. Consequently, coal stocks at thermal power plants fell to an average 8 days by the end of April 2022. As many as 96 plants saw their coal buffers declining below the 25% normative requirement. This year, the supply situation has fared much better.

Increase in power demand in May will lead to higher dependency on coal
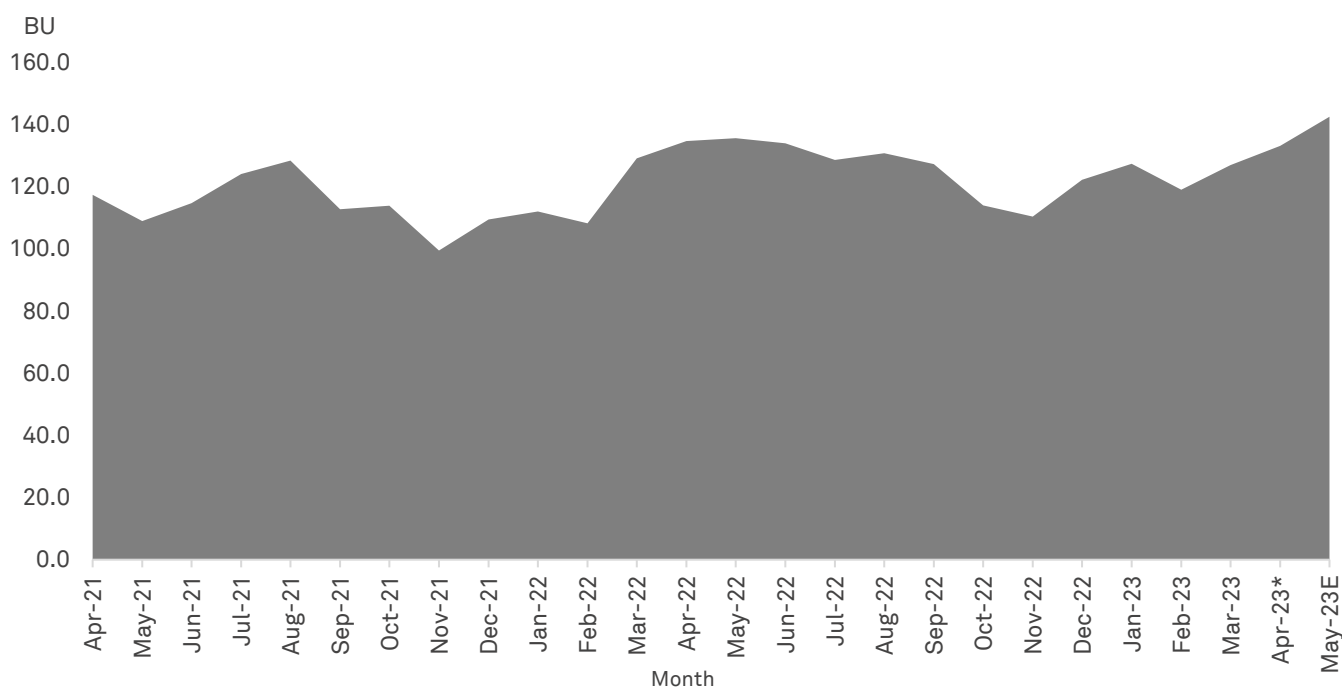
Source: Central Electricity Authority
Note: Numbers are provisional, E- estimated*

Overall despatch of coal to end users increased 11.6% on-year to 80.35 MT in April 2023. Despatches made to power plants were up 6.6% to 65.41 MT in the same period. The increase in domestic supply, and the mandate to blend 6% of requirement with imported coal in the first half of fiscal 2024, has led to adequate buffers at thermal power plants this time.

As for other sources, hydro generation slipped 19% on-year in April 2023, while nuclear and solar generation increased 11% and 15%, respectively account for 9% of total generation — higher than last summer, when the share of the two had dipped to 8%.

Coal continued to account for a lion's share in the generation mix at 76% in April 2023.

Plant load factor (PLF) of coal-based plants fell to 71.7% this April from 72.2% last April, indicating higher coal usage last summer.

Thermal plants as such had been running at 64% capacity last fiscal, higher than the decadal average of 61%. Hence, high PLFs will remain a monitorable as thermal generation is likely to meet any sharp increase in power demand. PLFs for thermal plants peaked at 72% last April and currently stand at similar levels.

The comfort in the market is also evident from softening of short-term prices. Prices in day ahead and real-time market (which forms ~86% of the overall exchange market) dropped 46% and 48% on-year, respectively, in April.

Sufficient summer

Coal stock availability at power plants was 13 days at the end of April 2023, while the number of plants having critical level of stocks came down to 41 in April this year from 96 last April. Power demand declined 1.1% to 133 billion units (BU) in April as unseasonal rainfall observed in certain parts of the country further boosted coal stocks compared with April 2022.

Coal stocks up 63.3% on-year in April 2023, spelling relief for thermal plants
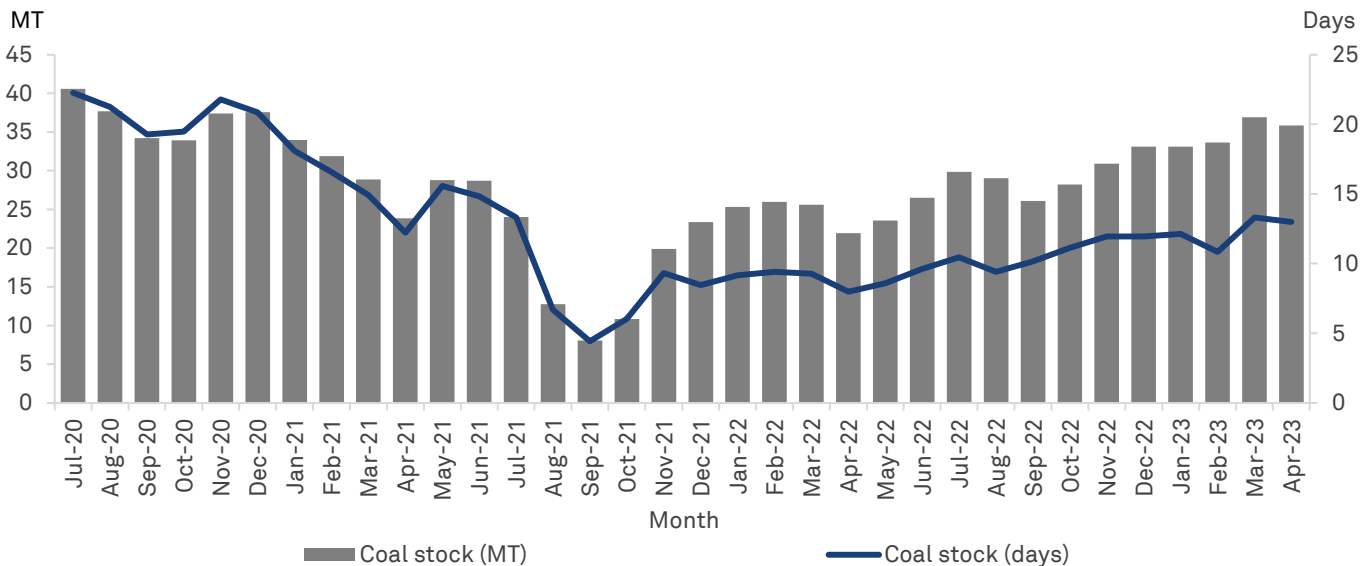
Source: CRISIL MI&A Research, Ministry of Coal

With power consumption expected to peak in May, CRISIL Research expects power demand to touch 142-144 BU during the month, with coal meeting 76-78% of total demand.

To address peak demand, thermal power plants will require 77-79 MT of coal. We expect domestic supply of coal to be 68-70 MT with a majority coming from Coal India.

Moreover, approximately 3-5 MT of imported coal will ensure that the stock remains in the range of 13-15 days, equating to 36-38 MT of coal at the end of May 2023. Additionally, ~5.4% increase in power demand this fiscal will lead to higher dependency on coal.

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