

SectorVector

Reading the topical trends

June 2025

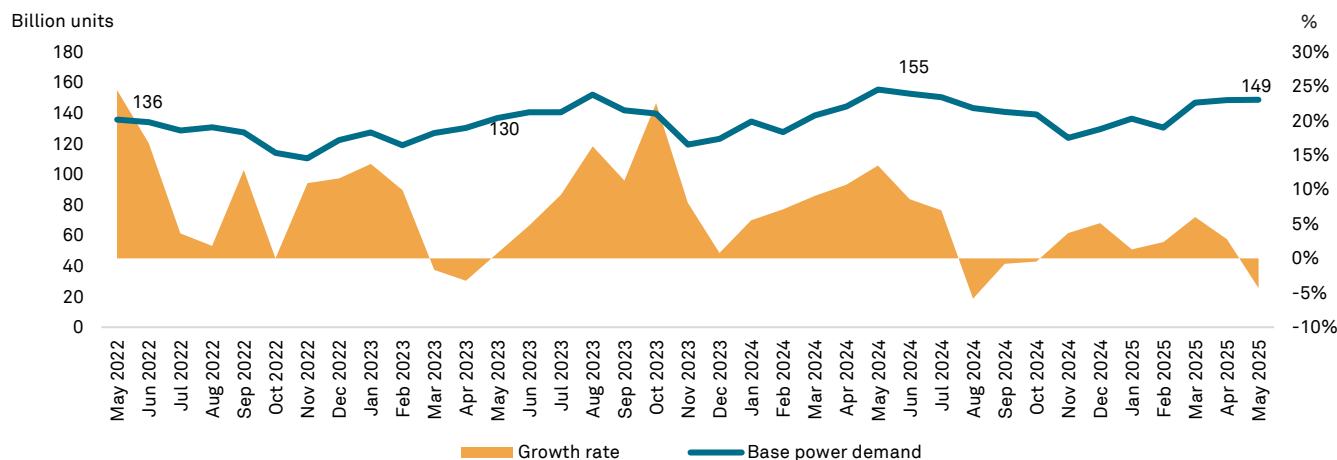
Tripping on mercury

Electricity demand fell in May as the temperature dropped

Power demand in the country fell 4.3% on-year in May to 149 billion units (BUs), compared with 155 BUs in the corresponding month last year, as average temperature

during the month was unusually low amid unseasonal rainfall in several parts of the country.

Power demand declined on-year in May 2025



Note: May 2025 is tentative data from Grid India
Source: Central Electricity Authority (CEA), Grid India, Crisil Intelligence

Power demand in the North decreased ~8% on-year vis-a-vis a 30% rise in May 2024.

Rainfall in the northwest region, which as per the Indian Metrological Department’s classification includes north India, was 31% above normal during the month. This was contrary to what we saw in May 2024, when there were severe heatwaves and rainfall was 66% below normal.

Central India and the southern peninsula also recorded high deviation in rainfall at 443% and 171%, respectively, above normal.

Overall, rainfall during the month was 91% above the normal, at 103.5 mm of rainfall between May 1 and May 28 as against the historical average of 56.8 mm. This time, the southwest monsoon also arrived about 8 days early, the earliest date of the onset of the monsoon since 2009.

It was not only the rains and consequent cooling of temperatures that lowered power demand. Power demand is also expected to have declined due to easing industrial activity as indicated by the Purchasing Managers' Index (PMI) data.

The seasonally adjusted India PMI, a proxy to gauge the country's industrial activity, printed a three-month low of 57.6 in May. While the reading was above the long-term average of 54.1 and continued to signal strong growth, the rate of expansion in output and new orders eased compared with the previous month.

Peak power demand hits a low

GW	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
FY23	216	206	212	192	197	200	187	188	206	213	210	209
FY24	217	221	224	208	238	243	221	204	213	223	222	221
FY25	224	250	245	226	217	231	219	207	224	237	238	235
FY26	235	231										

% Dev from peak
 ■ > 0% and <=5%
 ■ More than 10%
■ > 5% and <=10%
■ Peak demand for respective fiscal

*Note: May 2025 is tentative data from Grid India
Source: CEA, Crisil Intelligence*

Lower power offtake led to lower prices in the short-term market

While May 2024 was characterised by record temperatures and peak power reaching a high of 250 GW, a cooler month this year resulted in lower peak demand.

This percolated into prices in the short-term power market.

Average market clearing price (MCP) in the real time market (RTM) declined 28% on-year to Rs 3.43/unit in May 2025, indicating ample availability amid tepid electricity volume requirement.

Time block-wise, the average MCP during solar hours (11:00-16:00 hours) was Rs 2.2/unit this May vs Rs 3.5/unit in May 2024, with prices in some time blocks at nearly Rs 0/unit. The average MCP during non-solar hours (00:00-11:00 hours and 16:00-24:00 hours) was Rs 3.8/unit vs Rs 5.2/unit in the previous corresponding year.

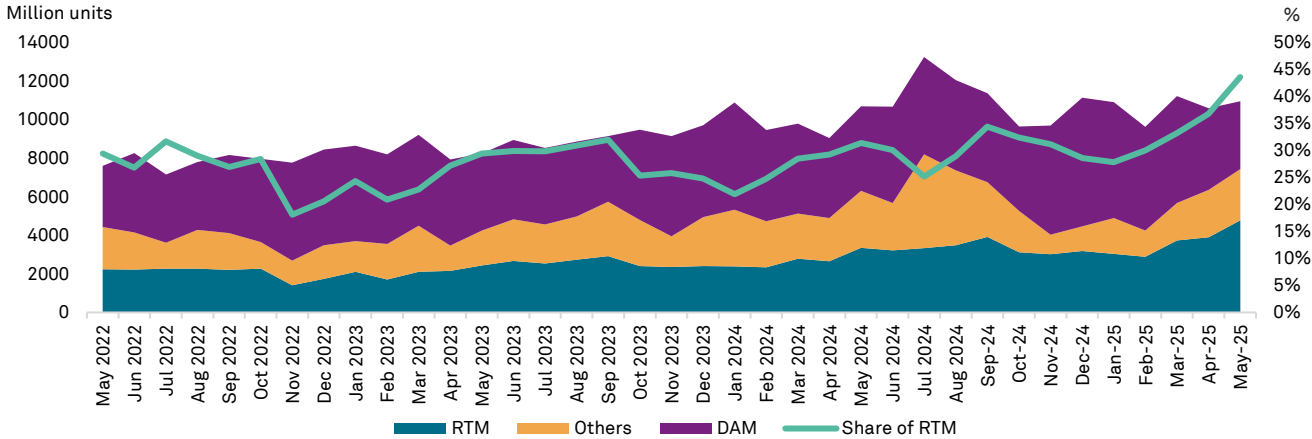
It is notable that at an overall level, sell bids outpaced purchase bids by 2.73x on average during solar hours and 1.58x during non-solar hours, highlighting excess supply in the system.

Similarly, MCP for the Day Ahead Market (DAM) declined 22% on-year to Rs 4.12/unit. These prices presented an opportunity for distribution companies and commercial and industrial consumers to meet their demand at a competitive price and to replace their costlier power by procuring through the exchange.

Interestingly, May 2025 saw higher volume traded under RTM vs those traded in the DAM segment, indicating a probable shift in buyer behaviour due to the fluctuation in temperature. This is estimated to have resulted in RTM volume increasing 42% on-year to 4,770 million units (MUs) whereas DAM volume is estimated to have declined 20% on-year to 3,510 MUs.

Additionally, the share of RTM in total electricity volume traded on the Indian Energy Exchange rose to 44% vs an average of 24% since inception, i.e. June 2020 to May 2025.

Share of RTM touched a new peak in May 2025



Source: Indian Energy Exchange, Crisil Intelligence

Generation falls in sync with demand; share of renewable energy increases

Tracking the decline in power demand, generation declined 4.1% on-year to 160 BUs in May.

Fuel-wise, coal-based power generation fell 7.4% on-year vs a rise of ~13.0% on-year in May 2024.

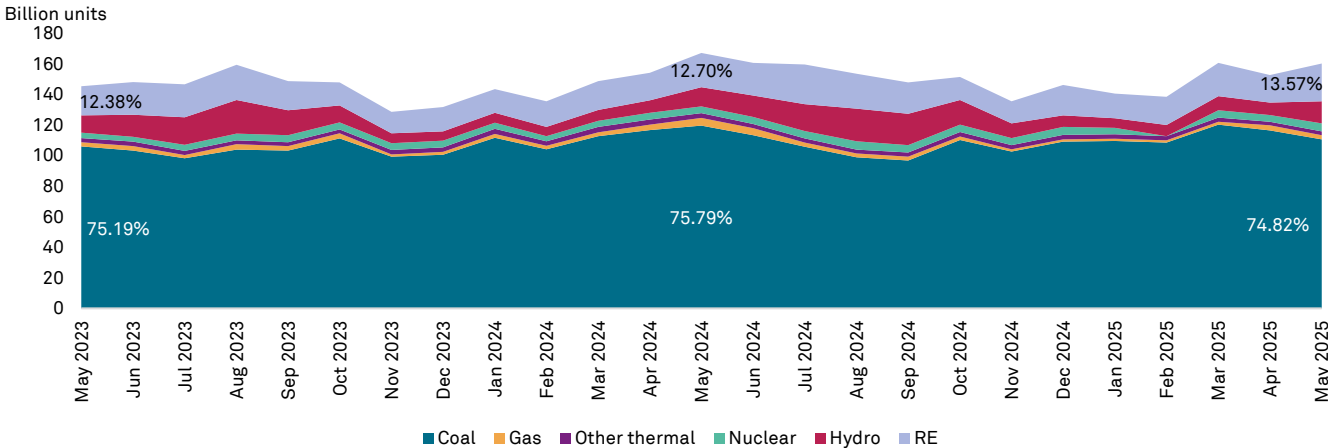
While generation from thermal power declined on-year this May, generation from clean energy sources, i.e. nuclear, hydro and renewable energy, increased. Nuclear energy rose 14.7% on-year on account of increased generation from the recently commissioned RAPP-7 whereas higher rainfall resulted in a 14.8%

on-year rise in hydro power generation. And renewable energy rose 10.4% on-year.

Consequently, coal accounted for 69% of the total power output vs 72% a year ago, which also highlighted the easy ability of the fuel to be ramped up or down in times of high or low power demand.

In contrast, the shares of nuclear, hydro and renewable energy in the overall fuel mix increased to 3.2%, 9.0% and 15.5% from 2.7%, 7.5% and 13.4% in May 2024, respectively. The increase in renewable energy’s contribution to the fuel mix highlights the government’s push to achieve the COP26 targets.

Unseasonal rainfall powered hydro generation as water availability rose



Note: May 2025 data is provisional from Grid India
Source: Grid India, CEA, Crisil Intelligence

Coal inventory improves on lower generation

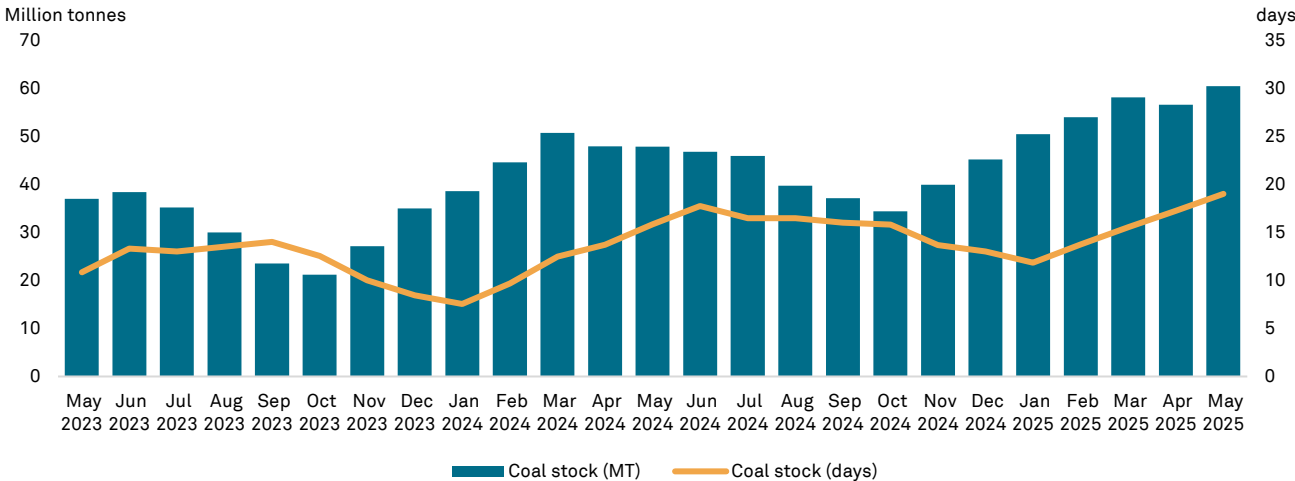
Coal remains the primary fuel to generate electricity in India.

As on May 31, thermal power plants had 60 million tonne (MT) of coal stocks as against 48 MT a year ago.

The improvement in coal inventory during the month was supported by a 2.3% on-year rise in coal despatch to power plants as well as lower generation.

Consequently, as on May 31, coal inventory had improved to 21 days vs 16 days in May 2024.

Coal inventory remained adequate



Source: National Power Portal, Crisil Intelligence

In conclusion

Rains were the primary reason for lower power demand in May. Through the remainder of the year, however, offtake from industrial and commercial consumers

will dictate the trajectory of power demand. The two segments account for nearly half of India’s power demand and, therefore, continuing expansion of relevant activities will be crucial for a rise in power demand.

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