India

Overweight *(no change)*

Power

Monthly Update – May 2025

- May 2025 power demand fell 4% YoY to 148BU, with peak demand at 231GW, below the projected 266GW, due to early monsoon and unseasonal rains.
- Electricity prices on exchanges crashed to zero on 25 May 2025, highlighting the impact of excess renewable energy supply during low-demand periods.
- NTPC, with the ongoing capacity addition enhancing its regulated equity base, positions it as a resilient investment on bleak demand growth.

A weather-driven demand contraction

In May 2025, India's power sector faced a demand downturn, with energy consumption falling by 4% YoY to 148.5BU, from 155BU in May 2024, driven by early monsoon rains and unseasonal weather that reduced cooling requirements. Peak demand fell 7% YoY to 231GW, 13% below the Central Electricity Authority or CEA's projected 266GW, with daily peaks ranging from 200GW to 231GW. Heavy rainfall saturated western states (-3% YoY) like Maharashtra and southern states (-4% YoY), while the northern region (-8% YoY) saw subdued effects from early monsoon advances and widespread blackouts. This shortfall, against a high base (13.5% YoY growth in May 2024), underscores the challenges of weather-dependent demand forecasting, prompting the Ministry of Power to reassess CEA's projections.

Merchant market volatility signals grid needs

The merchant power market in May 2025 experienced extreme volatility, with electricity prices on the Indian Energy Exchange (IEX) crashing to zero on 25 May 2025, driven by surplus solar generation during low-demand mid-day hours. RTM prices averaged Rs2.2/kWh during solar hours (8AM-4PM), with prices averaging Rs3.4/kWh for the month, down 27% YoY. Day-ahead market (DAM) prices averaged Rs 4.1/kWh, a 21% decline YoY and MoM. This reflects the 'duck curve' phenomenon, where solar-heavy mid-day supply depresses prices, while evening demand spikes keep prices elevated. IEX trading volume grew by 14% YoY to 10,946MU, with RTM volume surging 42% to 4,770 MU, but DAM volume dipped 20% to 3,510MU, indicating a shift to real-time trading amid low prices. Coal stocks at thermal plants stood at 60.5mt, ensuring fuel security despite reduced thermal utilization as discoms favoured cheaper renewables.

Balancing volatility with long-term growth

The May 2025 demand slump, driven by weather anomalies, highlights the need for improved demand forecasting and flexible grid management. With FY26 starting softly (flat YTD demand), the sector faces near-term challenges, but India's long-term power demand growth remains tied to GDP expansion. Merchant price volatility, with zero prices signaling renewable oversupply, underscores the urgency of scaling battery storage and transmission infrastructure to align supply with evening demand peaks. NTPC's robust fundamentals and capacity pipeline position it as a top investment, while opportunities in battery storage and renewable projects offer growth potential. As India targets 500GW of renewable capacity by 2030F, strategic investments in storage and grid upgrades will be critical to stabilizing prices and ensuring energy security.

Research Analyst(s)

Ishan VERMA
T (91) 22 4161 1565
E ishan.verma@incredresearch.com

Figure 1: NTPC's 4QFY25 results snapshot

Standalone (Rs m)	4QFY25A	4QFY24	YoY (%)	3QFY25	QoQ (%)
Net Sales	**4,39,037**	**4,25,322**	**3.2%**	**4,13,523**	**6.2%**
Fuel Costs	2,51,768	2,49,767	0.8%	2,44,893	2.8%
Employee Expenses	16,658	16,348	1.9%	13,923	19.7%
Other Expenses	37,419	45,614	-18.0%	38,703	-3.3%
Total Expenses	**3,05,845**	**3,11,729**	**-1.9%**	**2,97,518**	**2.8%**
EBITDA	**1,33,191**	**1,13,593**	**17.3%**	**1,16,005**	**14.8%**
Other Income	19,090	16,887	13.0%	9,507	100.8%
Depreciation	40,325	37,279	8.2%	37,220	8.3%
EBIT	**1,11,957**	**93,201**	**20.1%**	**88,292**	**26.8%**
Interest	30,973	24,880	24.5%	22,029	40.6%
PBT	**80,984**	**68,321**	**18.5%**	**66,263**	**22.2%**
Tax Expenses	23,202	21,102	10.0%	19,149	21.2%
PAT	**57,781**	**47,219**	**22.4%**	**47,114**	**22.6%**

SOURCE: INCRED RESEARCH, COMPANY REPORTS

A weather-driven demand contraction

Early monsoon's cooling effect

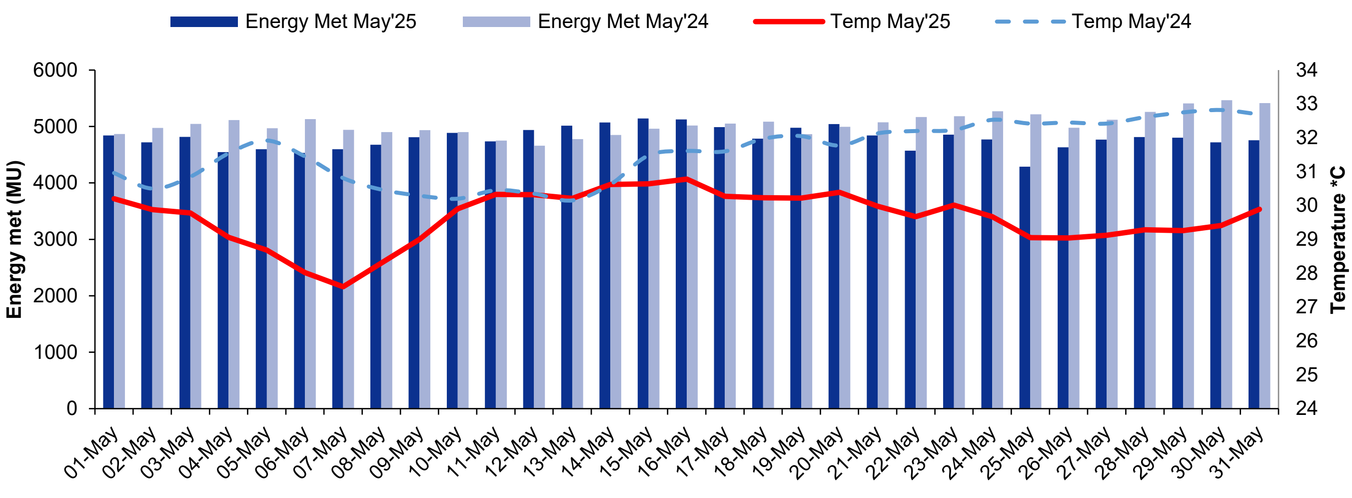
In May 2025, India's power consumption declined by 4% year-on-year (YoY) to 148.5bn units (BU), a significant shift from the 13.5% YoY growth observed in May 2024. This decline was driven by cooler weather—May 2025 was 6% cooler than the previous year—and early monsoon rains, which reduced the demand for air-conditioning and cooling appliances. The monsoon's influence intensified in the latter half of the month, leading to a sharper 7% drop in demand.

Peak demand fell to 231GW, down 7% YoY from last year's high of 250GW in May 2024. Evening peak demand saw a more modest decline of 2% YoY, suggesting a shift in load patterns toward non-solar hours. Actual peak demand in May 2025 was 13% below the Central Electricity Authority's (CEA) estimate of 266 GW, highlighting the difficulties in forecasting weather-driven demand fluctuations.

No energy deficits emerged, but peak deficits grew (at 0.2%), signalling grid challenges during high-load periods. Heavy rainfall saturated western states (-3% YoY) like Maharashtra and southern states (-4% YoY) like Kerala and Karnataka, reducing cooling demand. The northern (-8% YoY) region saw subdued effects from early monsoon advances and widespread blackouts. Exceptions like Bihar (+6% YoY) and Arunachal Pradesh (+13% YoY) show growth but is expected to decline in Jun 2025F as monsoon advances.

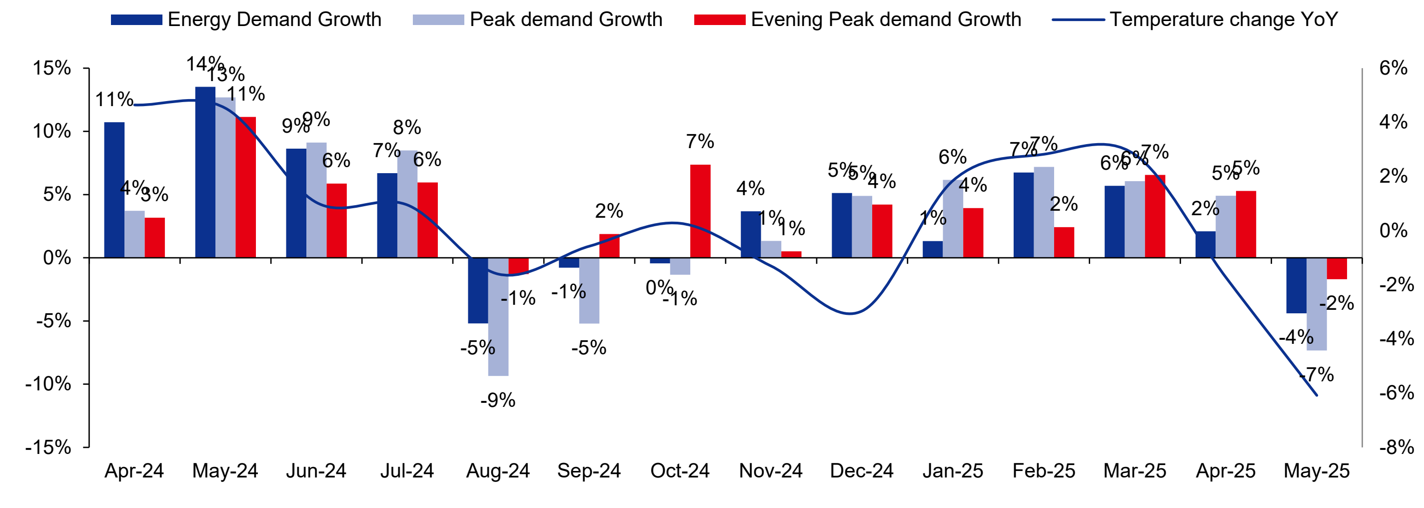
This demand slowdown, against a high base from May 2024, highlights the sector's sensitivity to weather patterns. Cooler temperatures reduced the need for air-conditioning and other cooling devices, prompting distribution companies or discoms to scale back purchases. The flat year-to-date (YTD) demand in FY26 (April-May) signals near-term challenges, but India's long-term power demand growth remains tied to economic expansion and urbanization.

Figure 2: Energy demand fell 4% YoY as May 2025 was 6% cooler compared to last year; monsoon leading to a sharper decline of 7% in the latter half of the month



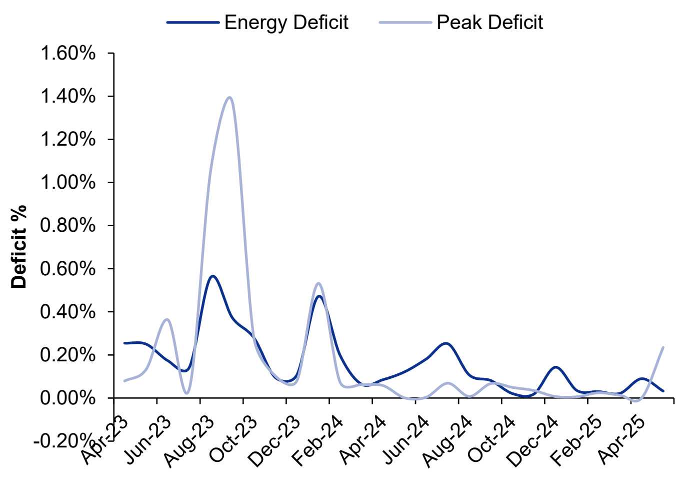
SOURCE: INCRED RESEARCH, BLOOMBERG, GRID INDIA

Figure 3: Peak demand fell 7% YoY whereas evening peak dipped 2% YoY; last year peak demand was seen in the month of May at 250GW



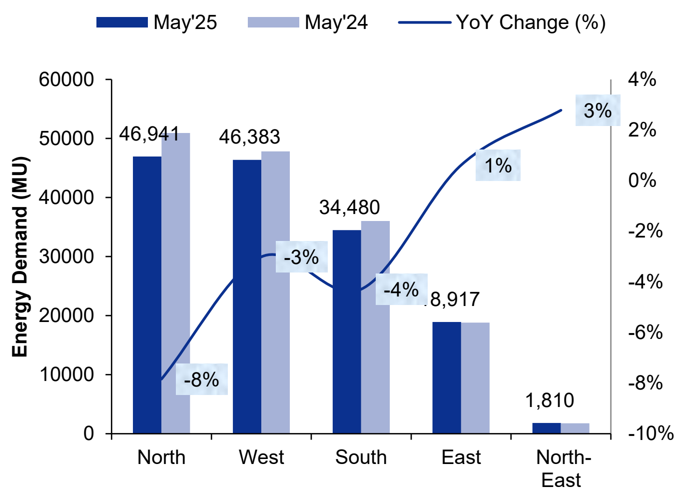
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 4: No signs of energy deficit but peak deficit increased



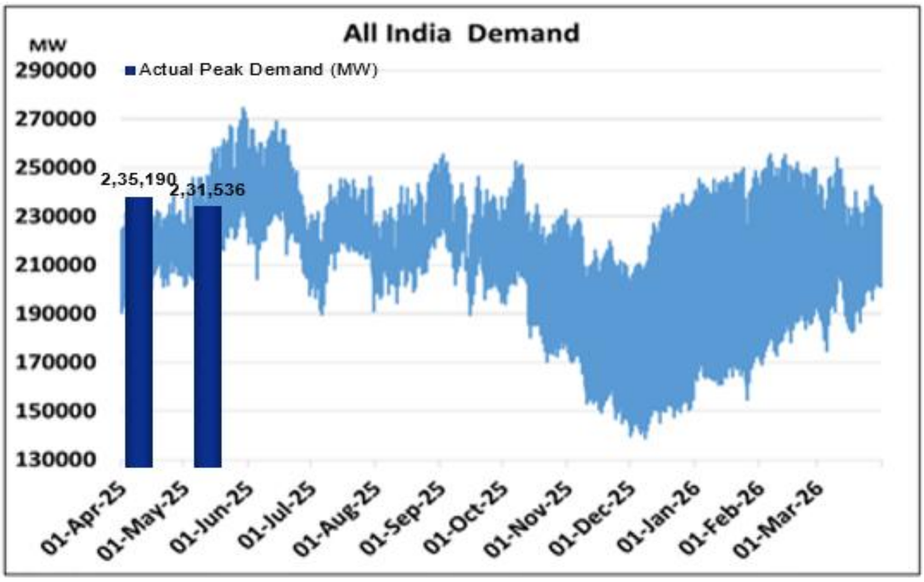
SOURCE: INCRED RESEARCH, BLOOMBERG

Figure 5: Moonsoon-hit states saw demand decline



SOURCE: INCRED RESEARCH, CEA, GRID INDIA

Figure 6: May 2025 peak demand was 13% below the CEA estimate of 266GW



SOURCE: INCRED RESEARCH, GRID INDIA

Merchant volatility due to duck curve's disruptive impact

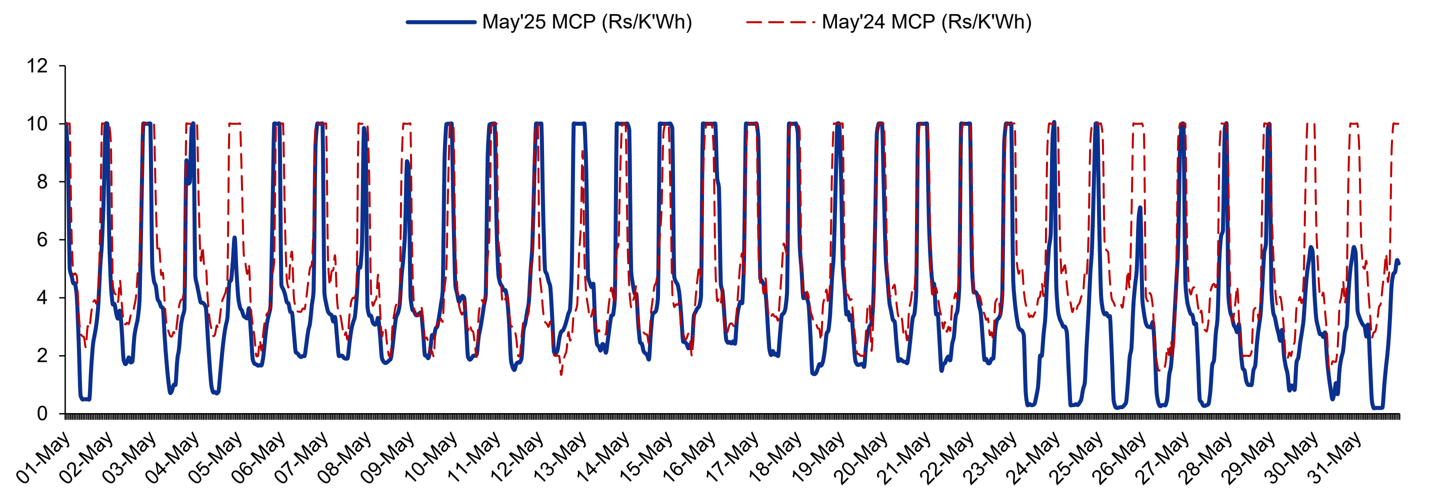
The merchant power market in May 2025 experienced extreme volatility, with electricity prices on the Indian Energy Exchange (IEX) crashing to zero on 25 May 2025, marking a historic low in the real-time market (RTM). RTM prices averaged Rs2.2/kWh during solar hours (8AM-4PM), with prices averaging Rs3.4/kWh for the month, down 27% YoY. Day-ahead market (DAM) prices averaged Rs 4.1/kWh, a 21% decline YoY and MoM, reflecting a reversal due to subdued demand and renewable oversupply. This price crash was driven by a surplus of solar power during low-demand mid-day hours, a phenomenon known as the 'duck curve,' where renewable supply peaks when demand dips, leading to oversupply.

India's 'must-run' policy for renewables ensures that solar and wind power cannot be stopped, flooding the grid with cheap electricity during off-peak hours. This supply-demand mismatch depressed prices, with some generators even paying to offload power, a global trend seen in California, Australia, and Germany. Despite the price crash, IEX trading volume grew by 14% YoY to 10,946m units (MU), with RTM volume surging 42% to 4,770MU, while DAM volume declined by 20% to 3,510MU, indicating a shift to real-time trading amid low prices.

These dynamics impact market participants significantly

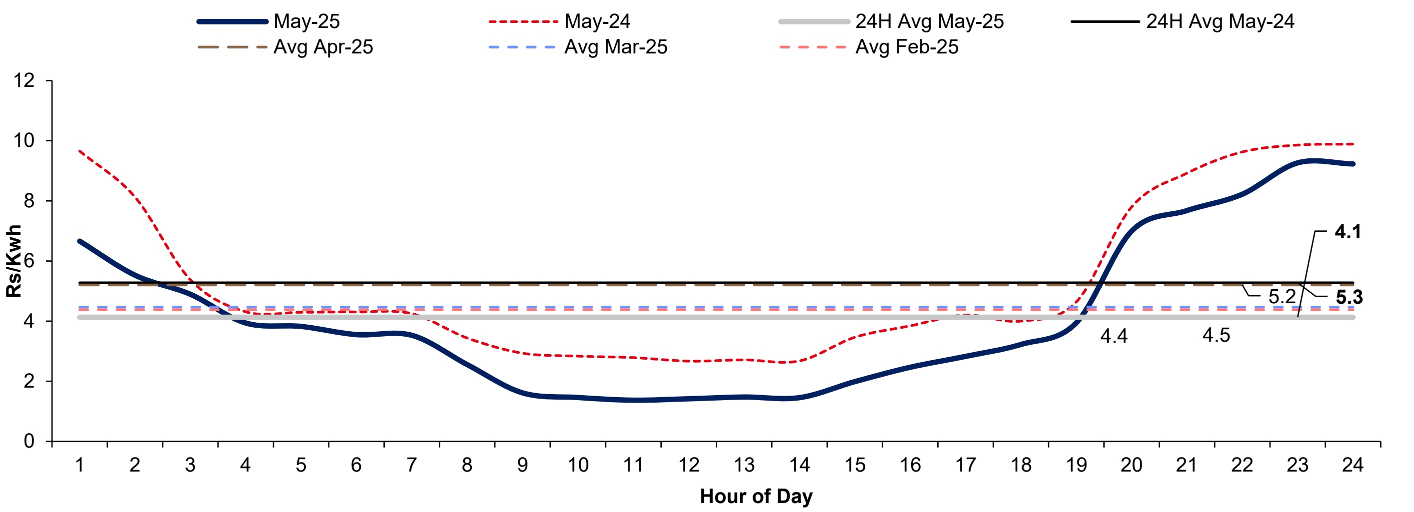
- **Solar developers**: Those reliant on merchant sales face revenue uncertainty, as prices collapse during peak generation hours, challenging investment recovery without storage solutions.
- **Distribution companies (discoms)**: Discoms purchasing solar power at fixed tariffs (e.g., Rs2.50/unit) but selling at near-zero prices (e.g., Re0.10/unit) incur substantial losses, which may lead to higher consumer tariffs.
- **Conventional generators**: Thermal and gas plants see reduced operating hours during mid-day, squeezing profitability and accelerating the retirement of less flexible units. Reduced thermal utilization, as discoms favour cheaper renewables, highlight the need for grid-scale storage and transmission upgrades.

Figure 7: Day ahead market or DAM prices remain volatile, nearing zero during solar hours and hitting the regulatory cap of Rs 10/kWh in the evening



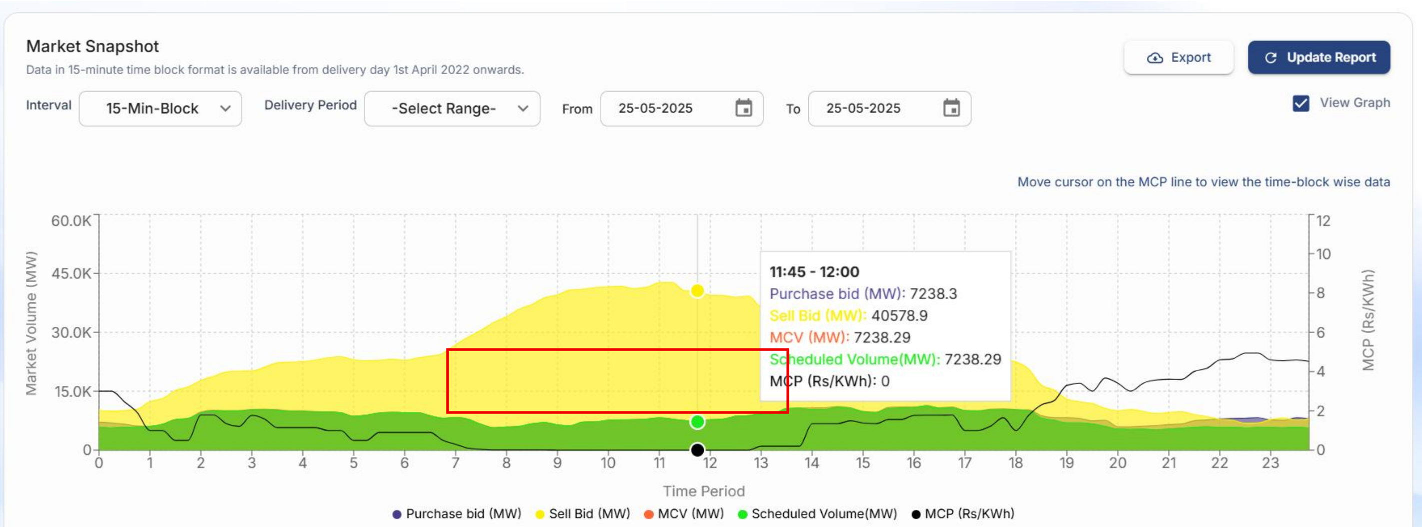
SOURCE: INCRED RESEARCH, IEX

Figure 8: DAM prices averaged Rs4.1/kWh, down 21% YoY/MoM, due to subdued demand & renewable oversupply



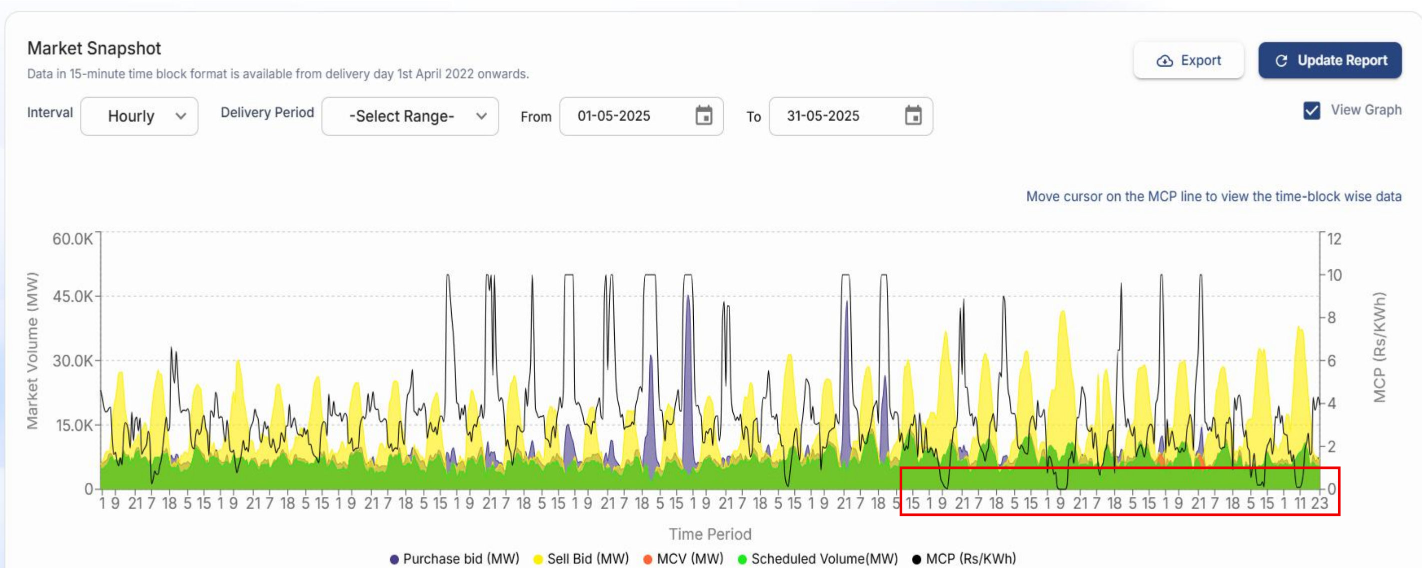
SOURCE: INCRED RESEARCH, IEX

Figure 9: RTM prices hit 0Rs/kWh on 25 May 2025 for several hours; overall RTM prices average at Rs3.4/kWh (-27% YoY)



SOURCE: INCRED RESEARCH, IEX

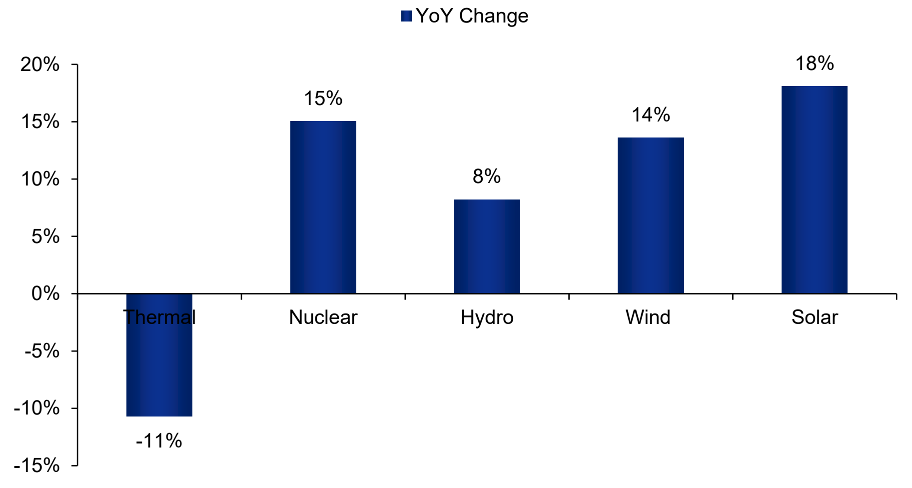
Figure 10: Evening RTM prices were lower than evening DAM prices; solar hour prices averaging Rs2.2/kWh frequently, hitting zero in the last week of May 2025, whereas non-solar hour prices averaged Rs4.2/kWh during the month



SOURCE: INCRED RESEARCH, IEX

Generation ➤

Figure 11: The thermal power generation saw an 11% decline whereas non-fossil generation grew



SOURCE: INCRED RESEARCH, CEA

Navigating short-term challenges and long-term growth ➤

May 2025 demand dip and price volatility highlight the sector's vulnerability to weather and renewable integration issues. FY26 has started softly, with flat YTD demand, but this is likely to be short term, given India's projected long-term demand to grow in line with GDP growth driven by economic expansion. The duck curve and zero-price events underscore the urgency of scaling battery storage and transmission infrastructure to align renewable supply with evening demand peaks. NTPC's strategic expansions and limited merchant exposure position it as a defensive investment, while opportunities in battery storage and renewable projects offer growth potential.

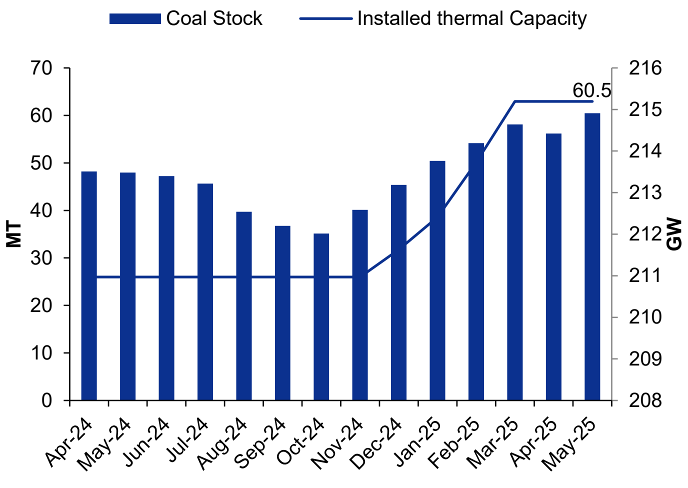
NTPC is a regulated bet in turbulent times ➤

NTPC's focus on regulated assets shielded it from merchant market fluctuations, with 33.7GW of capacity under construction set to expand its regulated equity base at a 9% CAGR over FY25-30F, offering a stable 12% RoE (standalone). The acquisition of Ayana Renewable Power (4.1GW) for Rs 231.85bn strengthened its renewable portfolio, while there are plans to add 11.8GW in FY26F (7.2GW renewables, 3.6GW thermal, 1GW hydro) and 9.9GW in FY27F (8GW renewables, 1.5GW thermal, 0.4GW hydro), alongside nuclear ventures (2,800 MW by 2030F) and green hydrogen initiatives, position it as a leader in India's energy transition.

NTPC posted robust 4QFY25 results, with revenue up 3% YoY at Rs439bn and profit after tax (PAT) growing by 22% to Rs58bn. Regulated equity base grew by 4% YoY to Rs909bn standalone (from Rs877bn) and Rs1,088bn consolidated (from Rs1,043bn), reflecting steady capital investments with a 29% YoY increase in captive coal production to 46mmt. Standalone generation grew by 2% YoY to 95.2BU, with a coal plant load factor (PLF) of 81.24%, significantly above the industry average, reflecting NTPC's operational excellence.

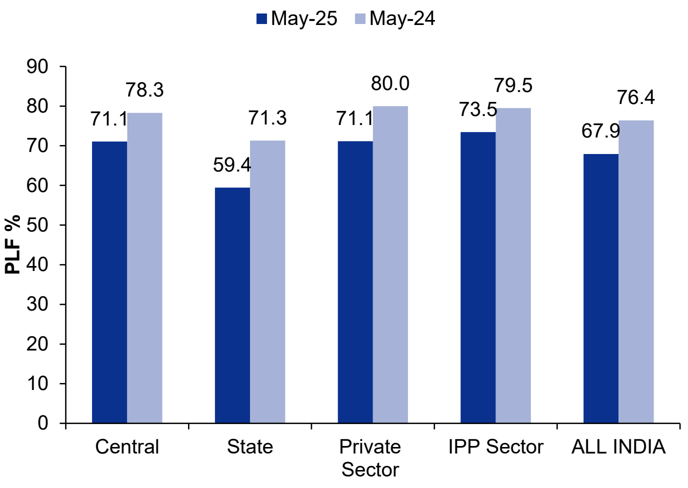
Other key charts

Figure 12: Plants at comfortable coal stock of 60.5mt



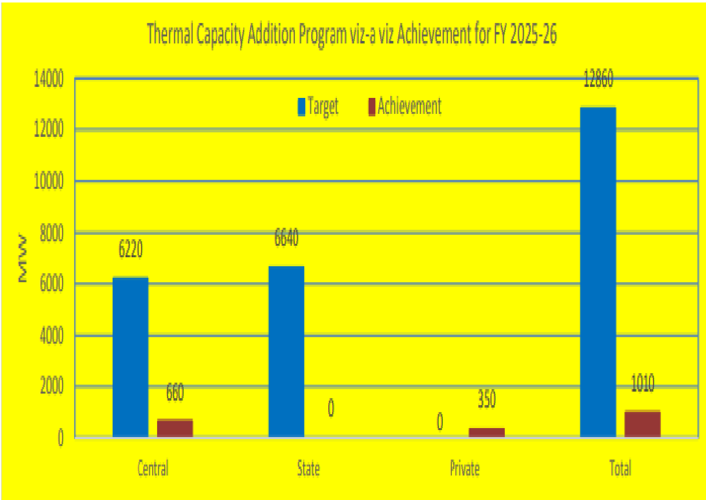
SOURCE: INCRED RESEARCH, NPP

Figure 13: Tentative May 2025 thermal PLF sluggish at 67.9%



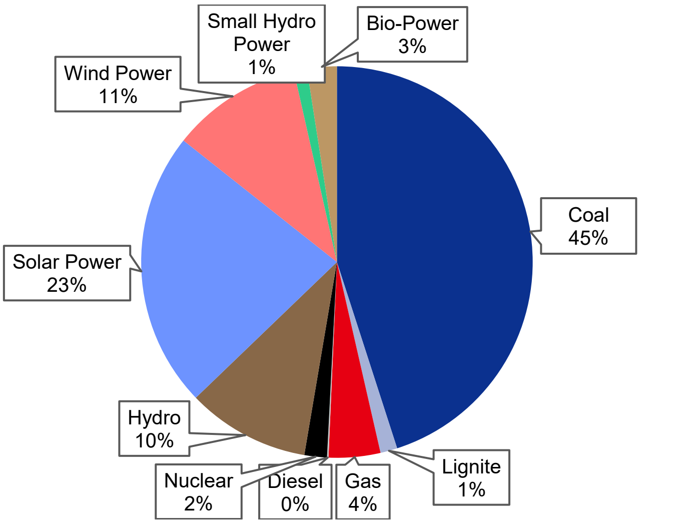
SOURCE: INCRED RESEARCH, NPP

Figure 14: 1GW of thermal capacity in Apr 2025, whereas 4.4GW of gas-based planets were decommissioned



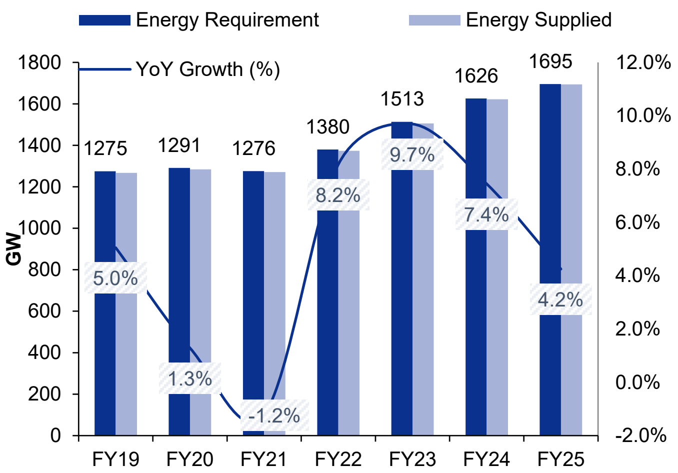
SOURCE: COMPANY REPORTS, BROAD STATUS REPORT CEA

Figure 15: India has 472GW of installed capacity as of Apr 2025, with 51% of the capacity being fossil-based



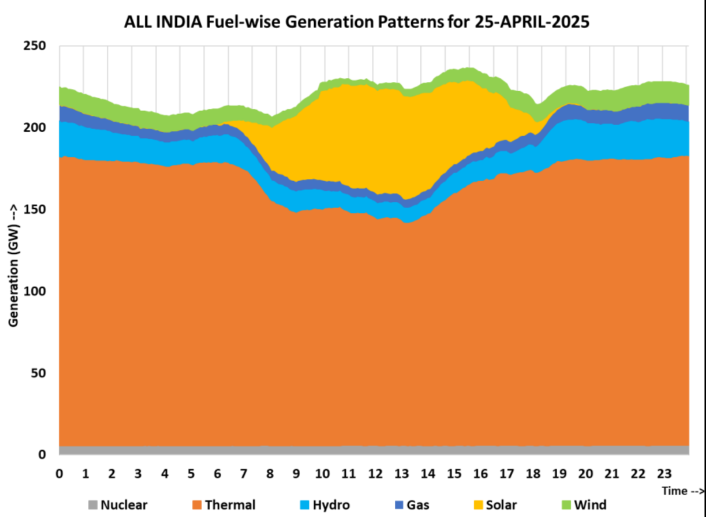
SOURCE: COMPANY REPORTS, CEA

Figure 16: FY25 energy demand growth at 4.2%



SOURCE: INCRED RESEARCH, GRID INDIA

Figure 17: Generation pattern for Apr 2025 peak demand day



SOURCE: INCRED RESEARCH, GRID INDIA

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Phone: +91-22-6844-6100
Corporate Office: 05th floor, Laxmi Towers, Plot No. C-25, G Block, Bandra – Kurla Complex, Bandra (East), Mumbai – 400051
Phone: +91-22-4161-1500
Name of the Compliance Officer: Mr. Yogesh Kadam
Email ID: compliance@incredresearch.com, Phone No: +91-22-41611539
For any queries or grievances, you may contact the Grievance Officer.
Name of the Grievance Officer: Mr. Rajarshi Maitra
Phone no. +91-022-41611546
Email ID: rajarshi.maitra@incredresearch.com
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Add	The stock's total return is expected to exceed 10% over the next 12 months.
Hold	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
Reduce	The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

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Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

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Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.