GNA Monthly Insights

JANUARY 2025

GNA ENERGY
OTC PLATFORM
Regulated by CERC

GNA Energy is India's premium OTC Platform for power. Our AI-powered data insights empower buyers and sellers to make informed decisions and optimise their energy strategy.

Beta Version

GNA Monthly INSIGHTS

January 2025

Power System Overview

- **Peak Demand:** The peak demand in Jan'25 reached 237.31 GW on the 29th, marking a 6.74% YoY increase from the previous peak of 222.33 GW recorded on January 25, 2024.
- **Energy Demand:** The total electricity demand recorded a YoY growth of 1.89% in Jan'25, rising from 134.99 BUs to 137.54 BUs, indicating an increase in consumption.
- **Renewable Energy:** RE generation increased by 32.33% YoY in Jan'25, reaching 25.05 BUs.
- **Collective Market:** In Jan'25, the volumes of DAM, GDAM, and RTM grew by 6.70%, 231.63%, and 28% YoY, respectively. Meanwhile, their weighted average prices saw a decline of 27.56%, 20.82%, and 29.59%, respectively.
- **TAM Market:** In Jan'25, the Intra-Day, DAC, and Daily volumes increased by 209.92%, 27%, and 153.40% YoY, respectively, while their weighted average prices dropped by 3.40%, 11.86%, and 14.15%, respectively.

Power Supply Position

	Jan'24	Jan'25	%
Installed Capacity (GW)[1]	428.30	**462.00**	↗ 7.87%
Total Energy Demand (BUs)[2]	134.99	**137.54**	↗ 1.89%
Peak Demand (GW)[3]	222.33	**237.31**	↗ 6.74%
Energy Deficit (BUs)	0.51	**0.045**	↘ 91.18%

Generation Overview

	Jan'24	Jan'25	%
Total Generation (BUs)	145.90	**149.32**	↗ 2.34%
RE Generation (BUs)[4]	18.93	**25.05**	↗ 32.33%
Avg. Generation Outage (GW)	53.02	**53.09**	↗ 0.13%
Net: Cross Border Trade (BUs)[5]	-1.84	**-1.60**	↘ 13.04%

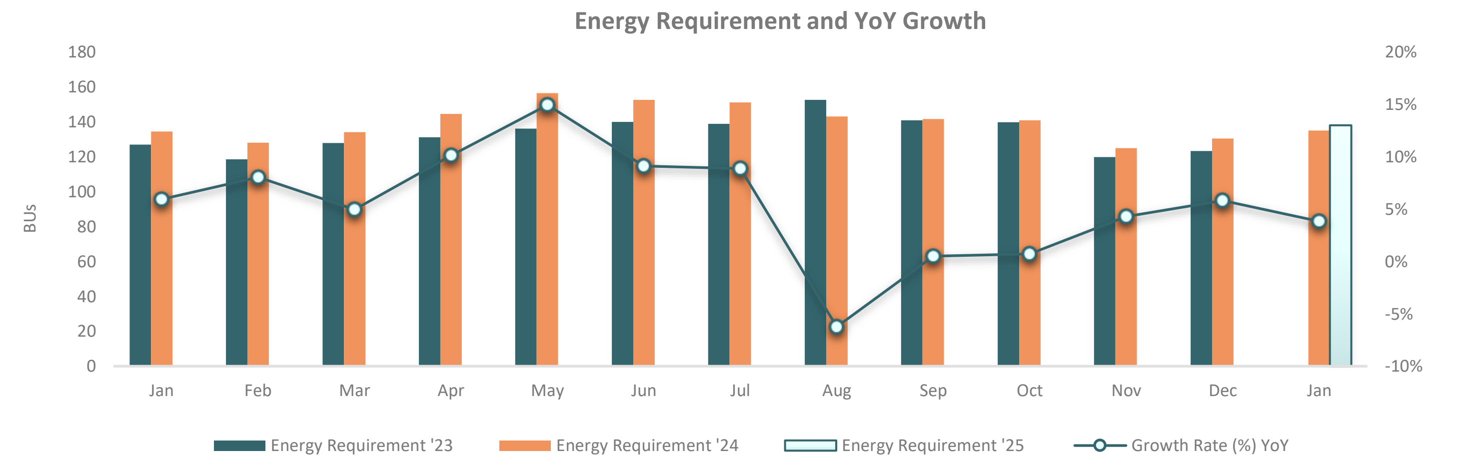
Note: 1. Installed Capacity as of Dec'23 and Dec'24: 2. Total Energy Demand= Energy Met + Energy Shortage; 3. Peak Demand is for 25th Jan'24 and 29th Jan'25; 4. RE Generation includes Hydro; 5. Cross Border Trade is denoted as = Net Import (+)/ Export (-)

Power Market Summary*

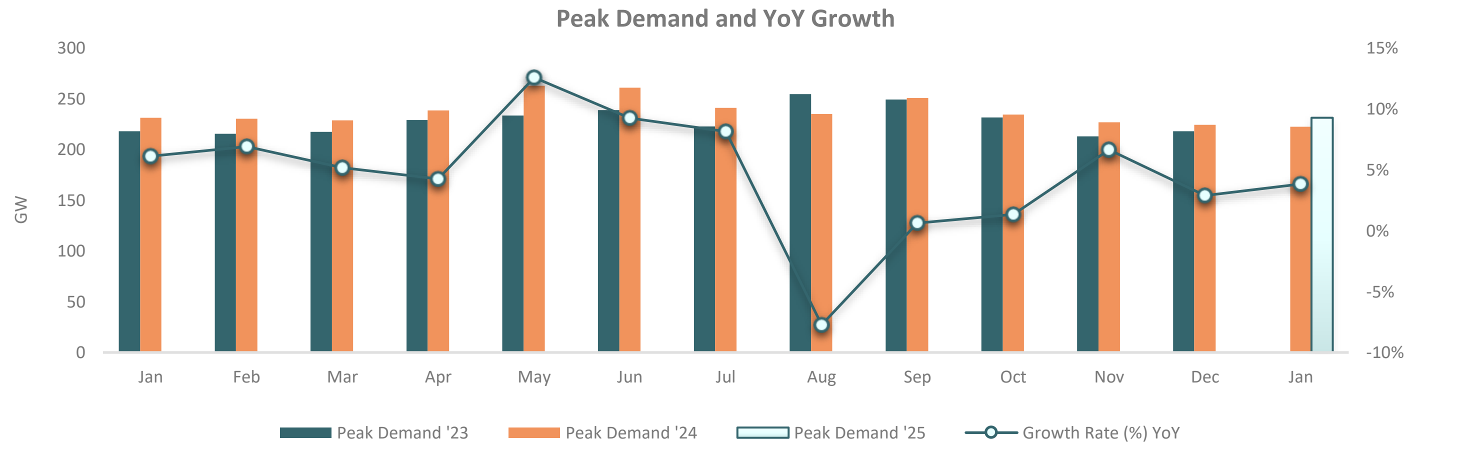
		Collective Market			Term Ahead Market		
		DAM	**GDAM**	**RTM**	**INTRADAY**	**DAC**	**DAILY**
Total Traded Volume (MUs)	Jan 25'	**6,017.4**	**694.59**	**3,056.99**	**11.56**	**501.34**	**1,148.97**
	Jan 24'	5,639.74	209.45	2,388.23	3.73	394.73	453.42
Wt. Avg. Price (₹/kWh)	Jan 25'	**4.39**	**4.64**	**4.26**	**8.5**	**7.21**	**6.61**
	Jan 24'	6.06	5.86	6.05	8.8	8.18	7.70

Note: *Volume and price data are aggregated across all exchanges

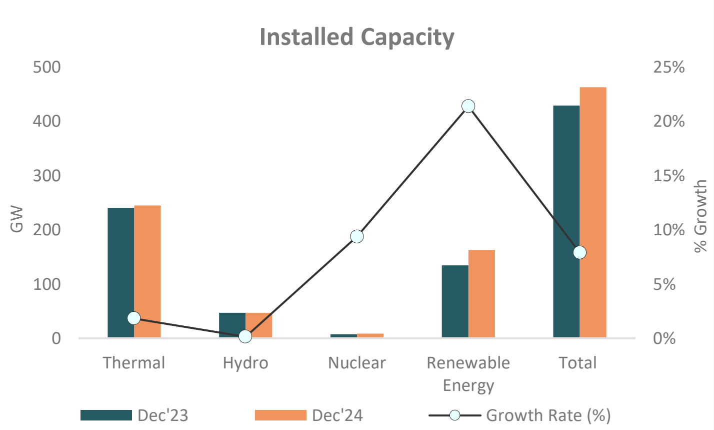
Power Supply Position-All India

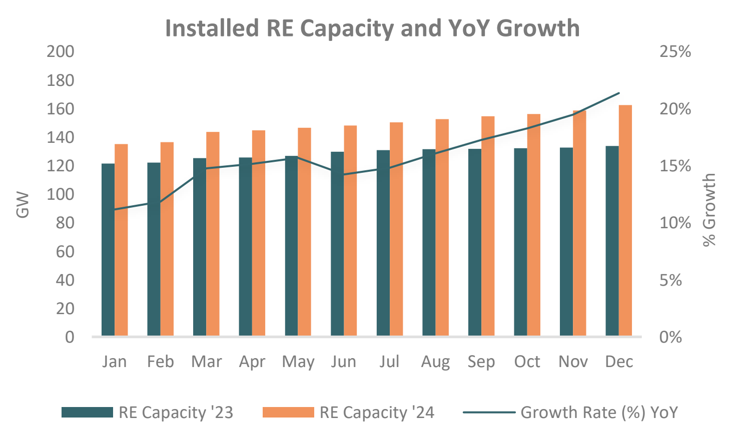


- The Energy Requirement shows the highest YoY growth in May’24, with a 15% increase compared to May’23.
- The Energy Requirement in Jan’25 increased to 138 BUs, marking a 2.22% YoY growth compared to 135 BUs in Jan’24



- The Peak Demand in May’24 experienced the highest YoY growth rate of 13%, rising significantly compared to May’23.
- The Peak Demand in Jan’25 increased to 237.31 GW, reflecting a 4% YoY growth compared to 222.33 GW in Jan’24.

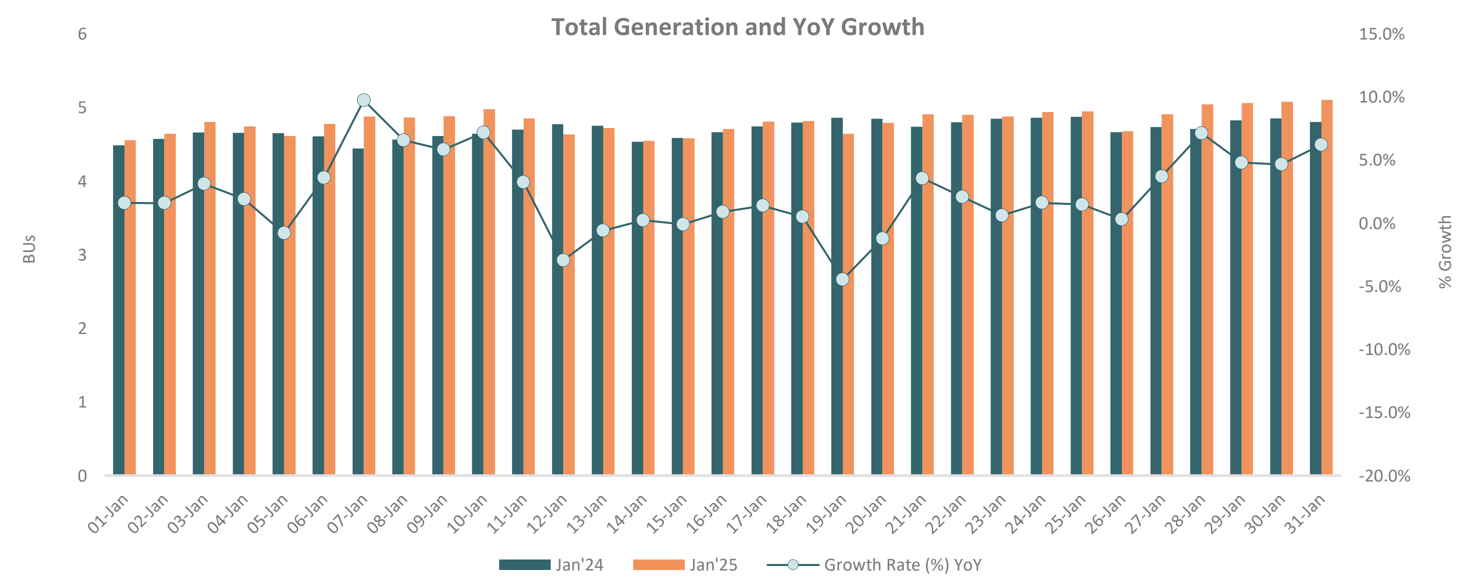




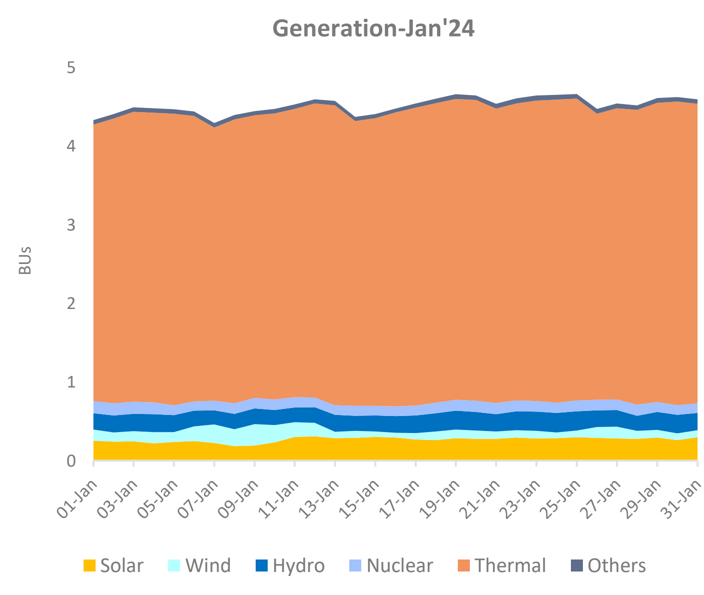
- The total Installed Capacity reached 462 GW in Dec’24, reflecting a 7.86% increase from Dec’23.
- The largest increase came from RE sources, which grew by 21.35 GW, or 20%, compared to Dec’23.
- The RE capacity shows steady YoY growth across all months.

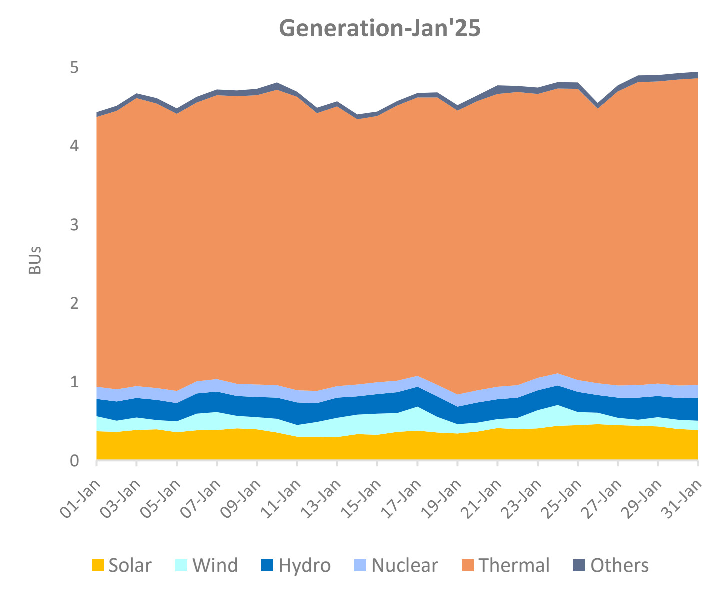
Source: CEA, GRID INDIA

Power Supply Position - All India



- Total generation was 149.32 BUs in Jan’25 compared to 145.90 BUs in Jan’24, reflecting a modest increase of 2.34%.
- The highest daily generation in Jan’25 was on 31st Jan’25 with 5.10 BUs, this was 4.55% higher compared to the highest generation of 4.88 BUs in Jan’24 which was recorded on 25th Jan’24.

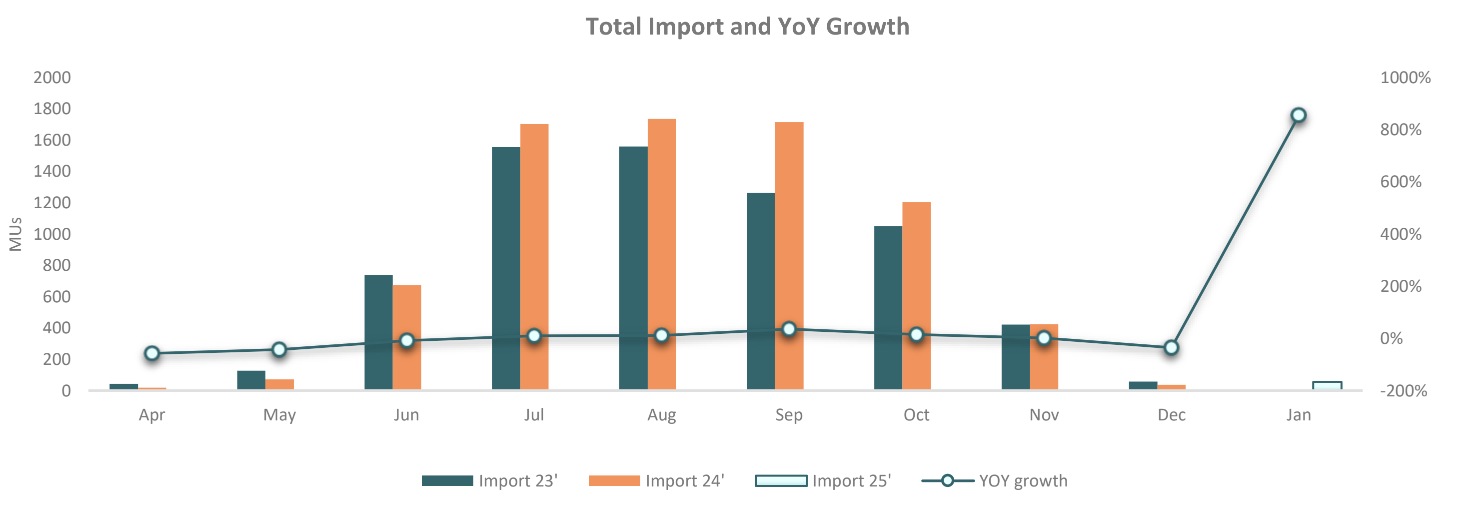




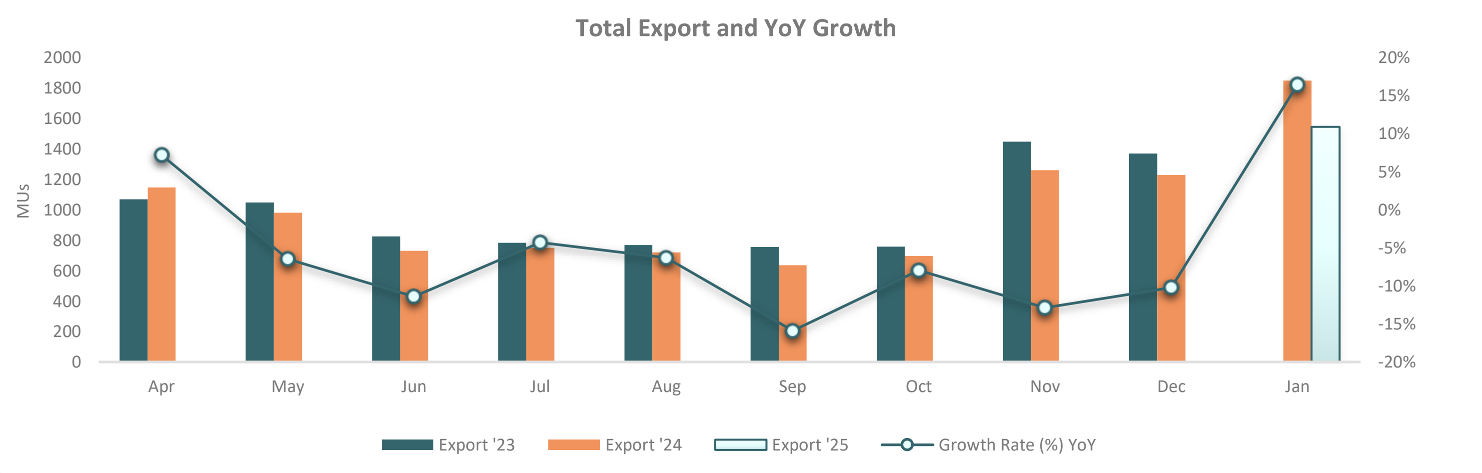
- Although overall power generation saw only minimal growth, the share of solar and wind appears slightly higher in Jan’25, indicating a push toward renewables. This change highlights a continuing shift toward a greener energy mix.
  - RE sources generated 25.05 BUs in Jan’25 compared to 18.93 BUs in Jan’24, reflecting an impressive 32.33% growth
  - Thermal power generation remained almost the same with a slight decrease of 2.28% from 115.21 BUs in Jan'24 to 112.64 BUs in Jan’25

Source: GRID INDIA

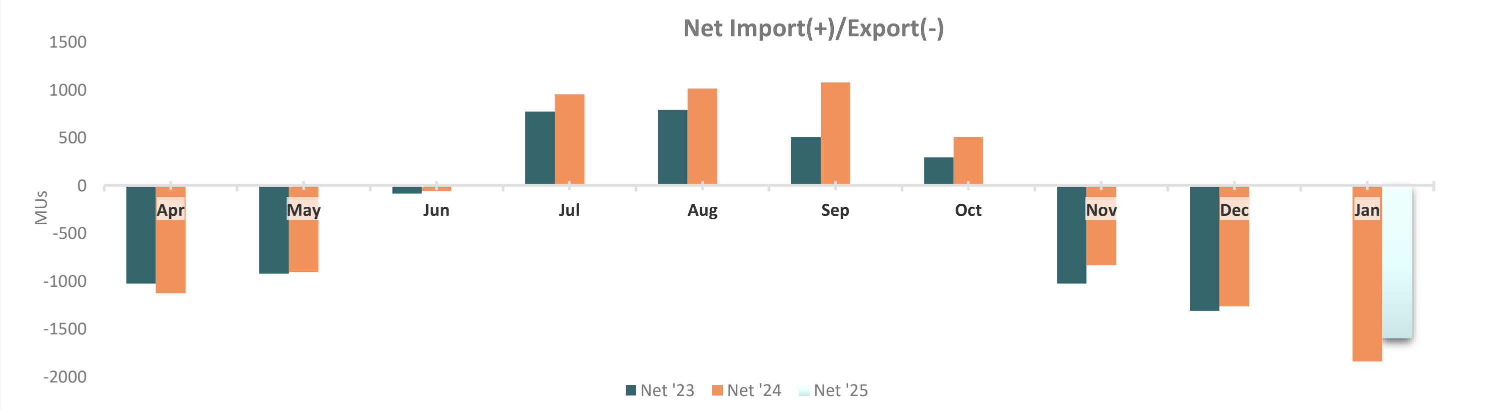
Cross-Border Trades



- Imports were highest from Jul’24 to Sep’24, with Aug’24 reaching the maximum volume of over 1,735.50 MUs.
- Import volumes declined significantly in Jan'25, reaching 55.4 MUs.



- Export volumes remained relatively stable from Apr’24 to Oct’24, with export volumes between 800-1,000 MUs.
- Exports saw a significant peak in Jan’25, reaching 1,544.43 MUs, marking the highest volume for the observed period.



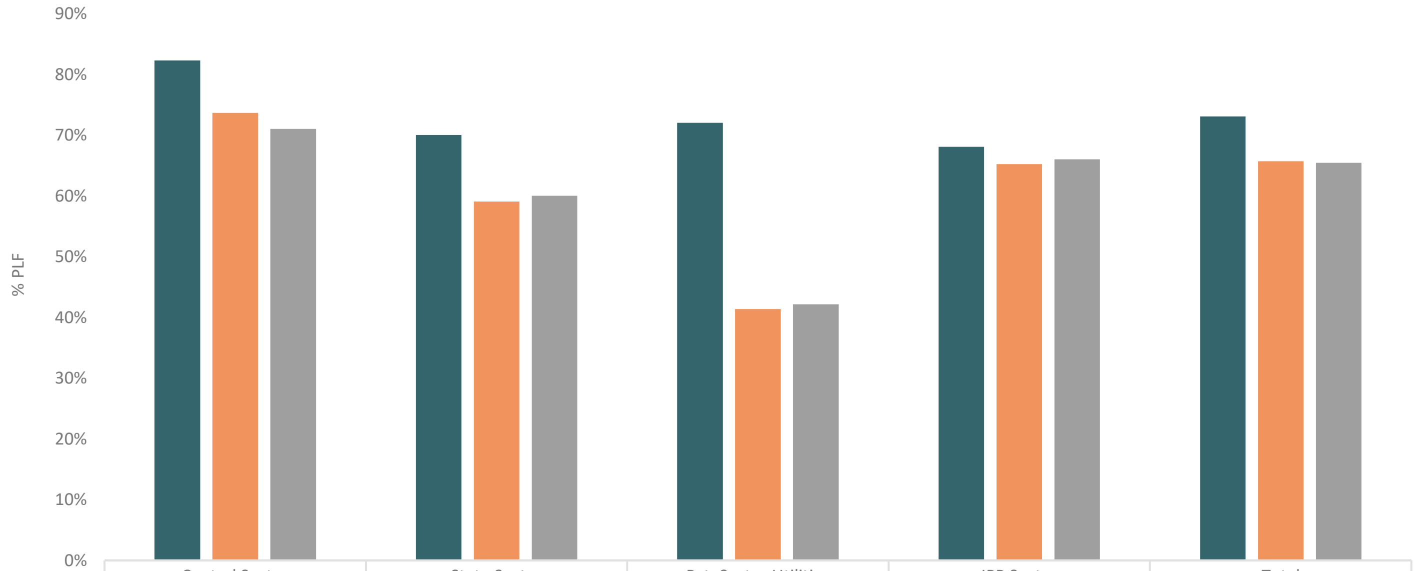
- Net imports were highest during Jul’24 to Sep’24, with values exceeding 500 MUs, indicating stronger import activity during this period.
- Significant net exports were observed in Jan'25 with a net value of -1,599.4 MUs.

Note: Net Trade= Net Import- Net Export

Source: GRID INDIA

Thermal PLF & Coal Report

Thermal PLF Sector Wise

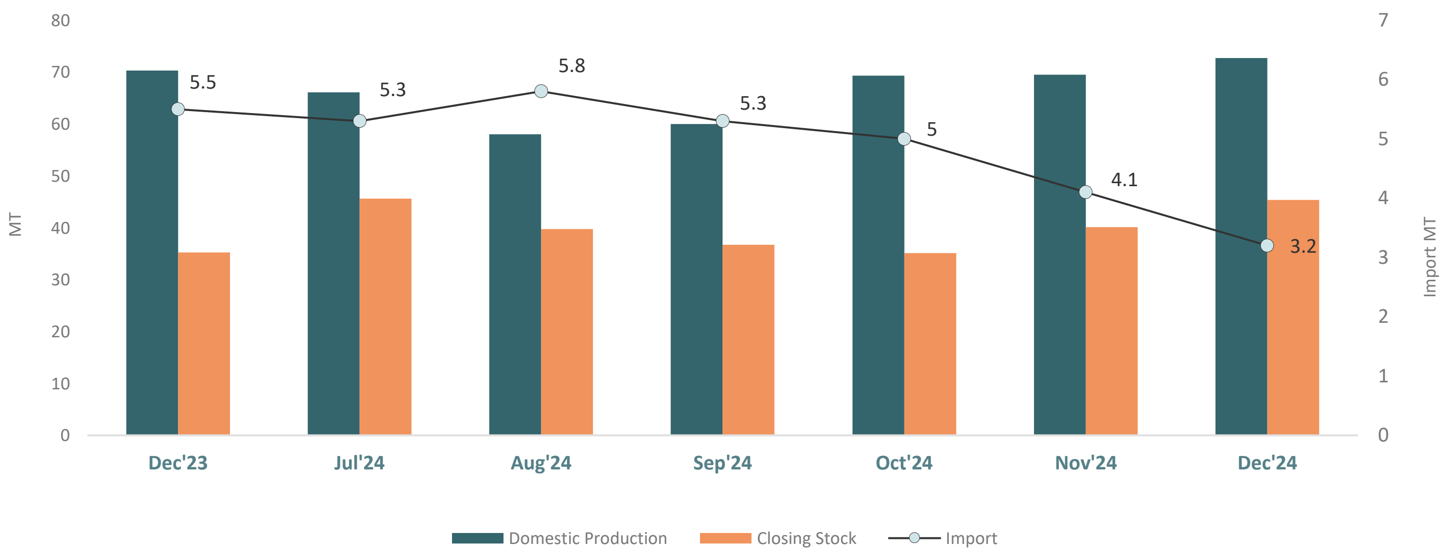


	Central Sector	State Sector	Pvt. Sector Utilities	IPP Sector	Total
Dec'23	82%	70%	72.00%	68%	73.07%
Nov'24	74%	59%	41.34%	65%	65.67%
Dec'24	71.00%	60.00%	42.15%	66.00%	65.43%

Dec'23 Nov'24 Dec'24

- State, Private and IPP Sectors saw lower PLF in Dec'24 compared to Dec'23
- The overall PLF dropped from 73.07% in Dec'23 to 65.43% in Dec'24

Coal Report

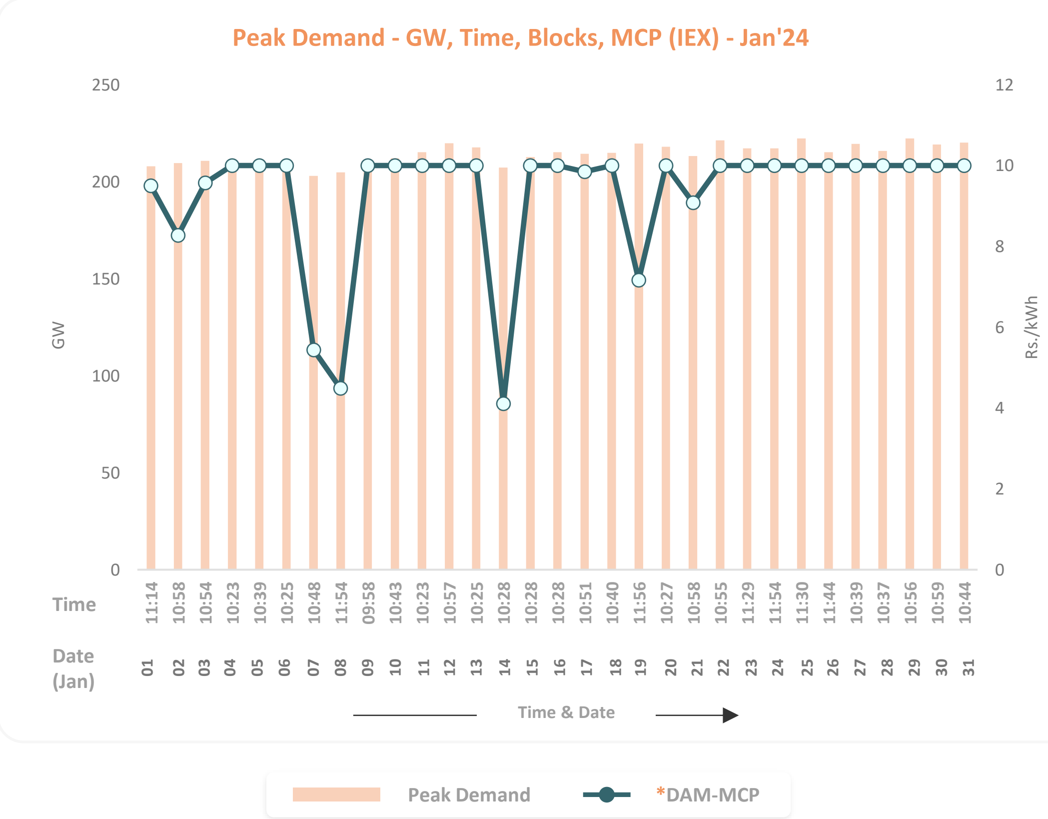


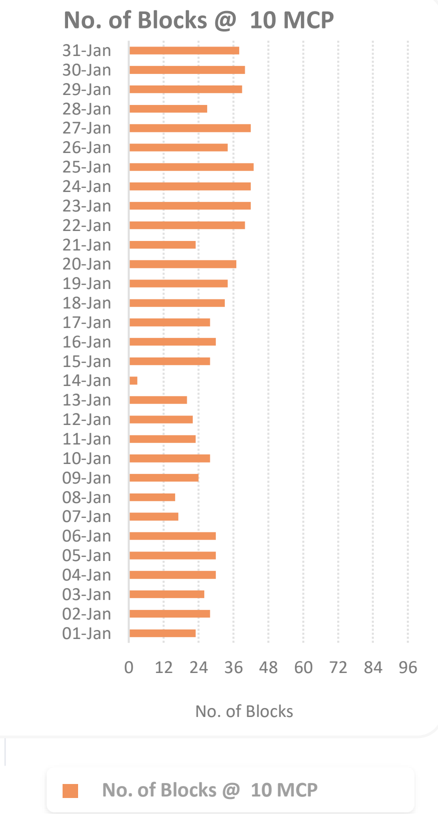
- The domestic coal production increased by 5.14% from 66.10 MT in Jul'24 to 69.5 MT in Nov'24 while the closing stock decreased by 12.1% from 45.63 MT in Jul'24 to 40.11 MT in Nov'24.
- Imports declined by 39.62% during the period from Jul'24 to Dec'24.

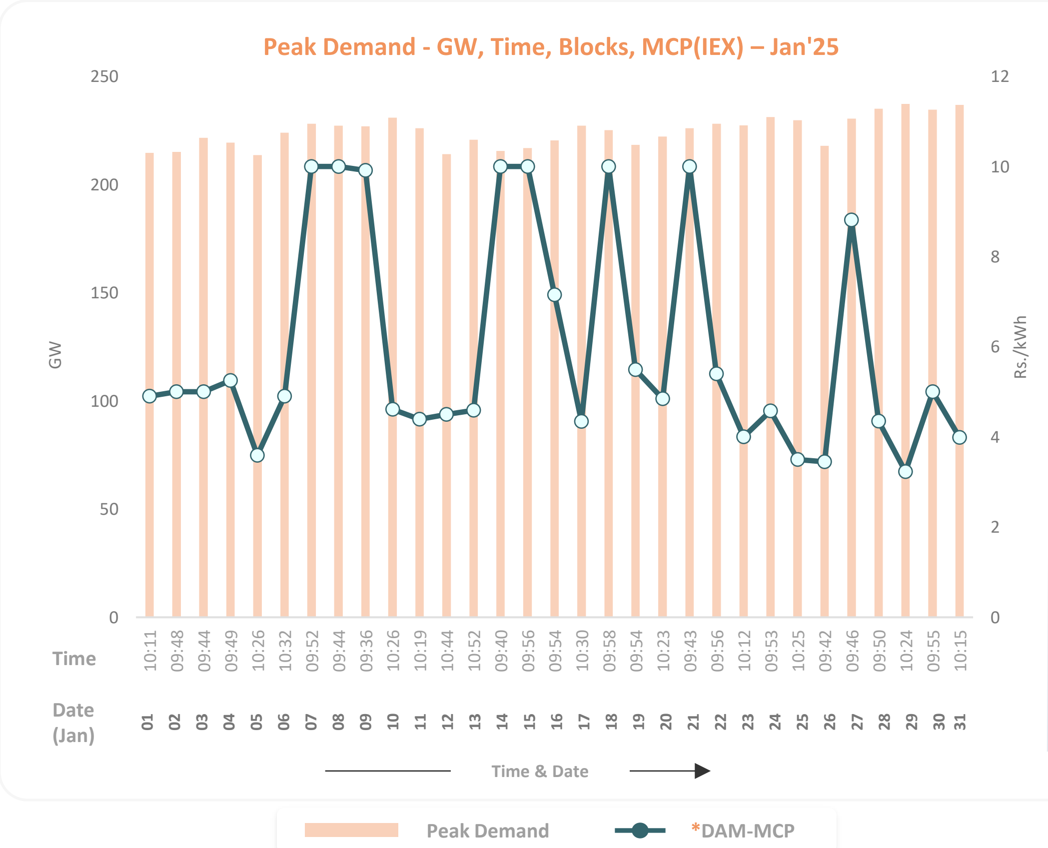
Note: Dec'24 Generation-Monthly Report (Thermal)
Note: Coal Report as of Dec'24

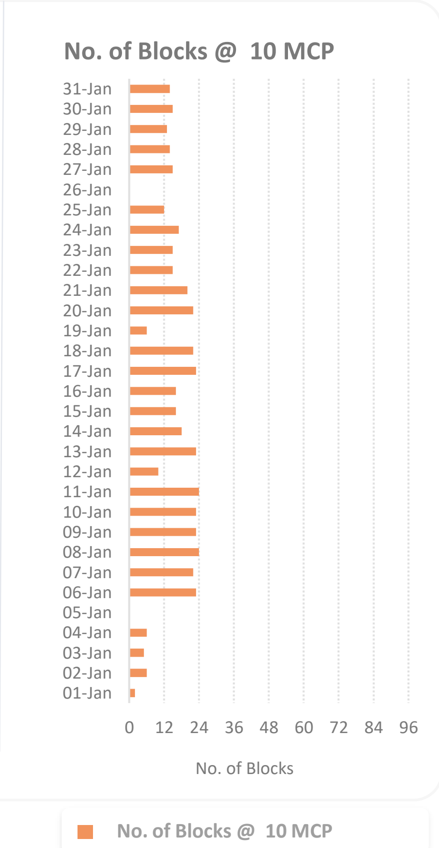
Source: NPP, Ministry of Coal

Peak Demand, Time, and Price Scenario









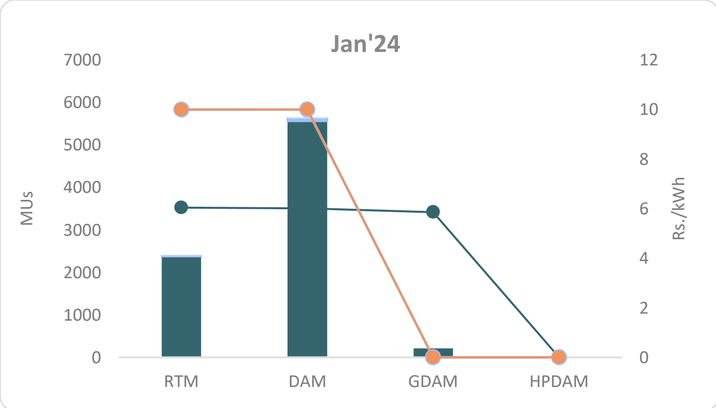
Note: ***DAM-MCP** for IEX is the price corresponding to the Time Block with Peak Demand as reported in the Daily PSP Report (GRID India)

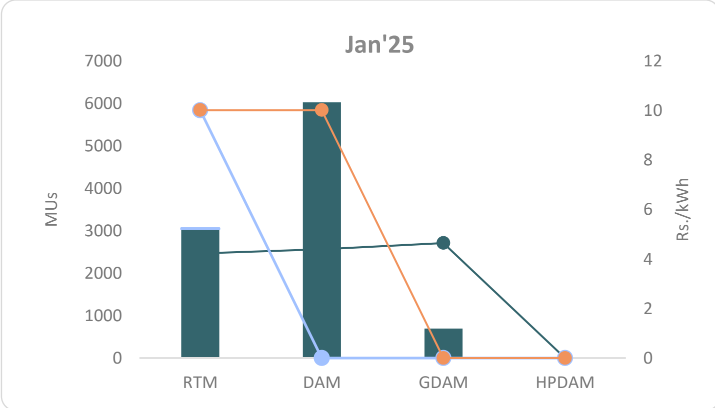
- Peak Demand increased from 222.327 GW in Jan'24 to 237.31 GW in Jan'25.
- Peak Demand in both Jan'25 and Jan'24, mostly occurred between 10:00 to 11:00 hours.

Source: IEX, GRID INDIA

Power Market

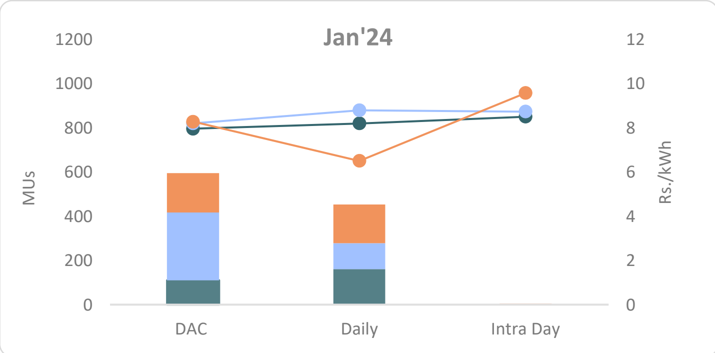
Collective Market: Volume & Price

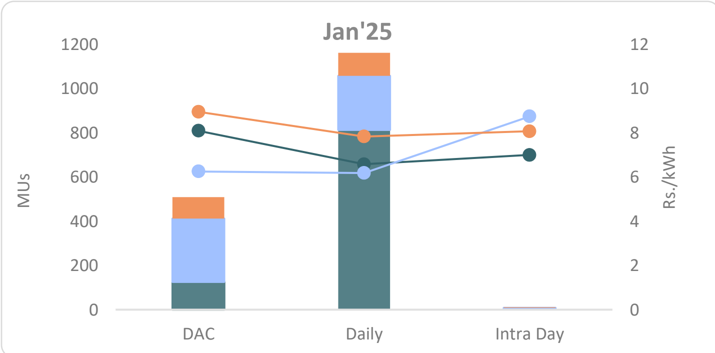




IEX-Volume | PXIL-Volume | HPX-Volume | IEX-Wt. Avg. Price | PXIL-Wt. Avg. Price | HPX-Wt. Avg. Price

Term Ahead Market: Volume & Price





IEX-Volume | PXIL-Volume | HPX-Volume | IEX-Wt.-Avg.-Price | PXIL-Wt.-Avg.-Price | HPX-Wt.-Avg.-Price

Collective Market

- RTM volume increased by 28%, rising from 2,388.23 MUs in Jan '24 to 3,056.99 MUs in Jan'25.
- DAM volume increased by 6.70%, from 5,639.74 MUs in Jan'24 to 6,017.39 MUs in Jan'25.
- The RTM wt. avg. price for IEX decreased by 30.13%, from ₹6.04/kWh in Jan'24 to ₹4.22/kWh in Jan'25, while the DAM wt. avg. price for IEX fell by 26.95%, from ₹6.01/kWh in Jan'24 to ₹4.39/kWh in Jan'25.

Key Observation: RTM, DAM, and GDAM volumes increased in Jan'25 compared to Jan'24. The wt. avg. prices on IEX decreased across all contracts in Jan'25 compared to Jan'24.

Term Ahead Market (TAM)

- The DAC volume decreased by 14.49%, from 594.73 MUs in Jan'24 to 508.57 MUs in Jan'25.
- Daily contract volume increased significantly by 156.26%, down from 453.42 MUs in Jan'24 to 1161.93 MUs in Jan'25.
- The wt. avg. DAC price for IEX increased by 1.51% from ₹7.96/kWh to ₹8.09/kWh, while the prices of daily contracts dropped by 29.69% from ₹8.79/kWh to ₹6.18/kWh.

Key Observation: The Term Ahead Market saw a significant volume increase from Jan'24 to Jan'25, particularly in the "Daily" category, with IEX dominating volumes.

Collective Market (Jan'25)

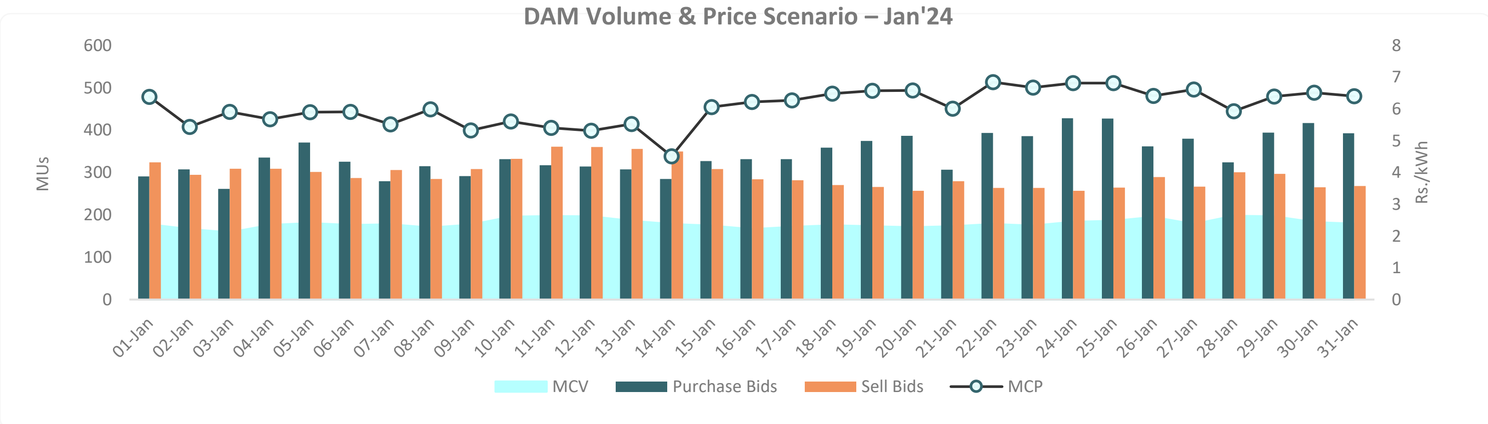
	IEX			HPX			PXIL		
	DAM	GDAM	RTM	DAM	GDAM	RTM	DAM	GDAM	RTM
Volume (MUs)	6,017.39	694.59	3,035.92	0.01	0	0.65	0	0	20.42
Wt. Avg. Price (₹/kWh)	4.39	4.64	4.22	10	0	10	0	0	10

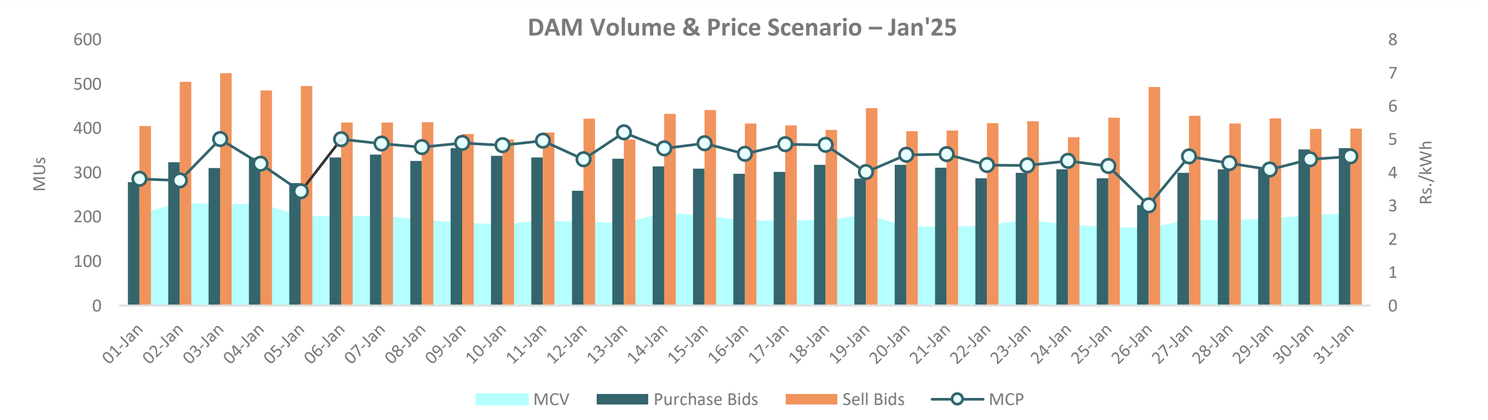
Term Ahead Market (Jan'25)

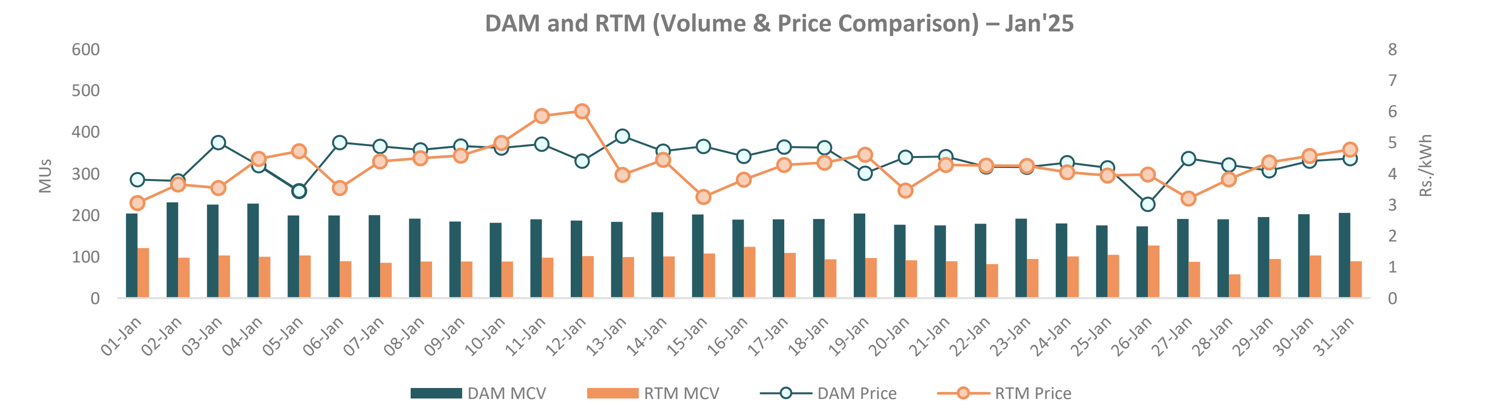
	IEX			HPX			PXIL		
	Intraday	DAC	Daily	Intraday	DAC	Daily	Intraday	DAC	Daily
Volume (MUs)	0.50	125.21	813.15	2.87	96.95	104.38	8.19	286.41	244.4
Wt. Avg. Price (₹/kWh)	7	8.09	6.58	8.07	8.95	7.83	8.74	6.25	6.18

Source: IEX, PXIL, HPX

DAM & RTM – IEX







DAM Volume & Price Scenario (Jan'24 & Jan'25)

- In Jan'25, total sell bids for the DAM were 13.63% higher than sell bids in Jan'24, reaching a notable 10,399.90 MUs. This was reflected in the total MCV for the month which stood at 6017.37 MUs in Jan'25 compared to 5561.81 MUs in Jan'24.
- In Jan'25, total sell bids for the DAM were 8.12% higher than purchase bids in Jan'25. In Jan'25, the volume of purchase bids lags behind sell bids, highlighting an oversupply trend in the market.
- The weighted MCP for Jan'25 declined by 26.73% to ₹4.44/kWh from ₹6.06/kWh in Jan'24.

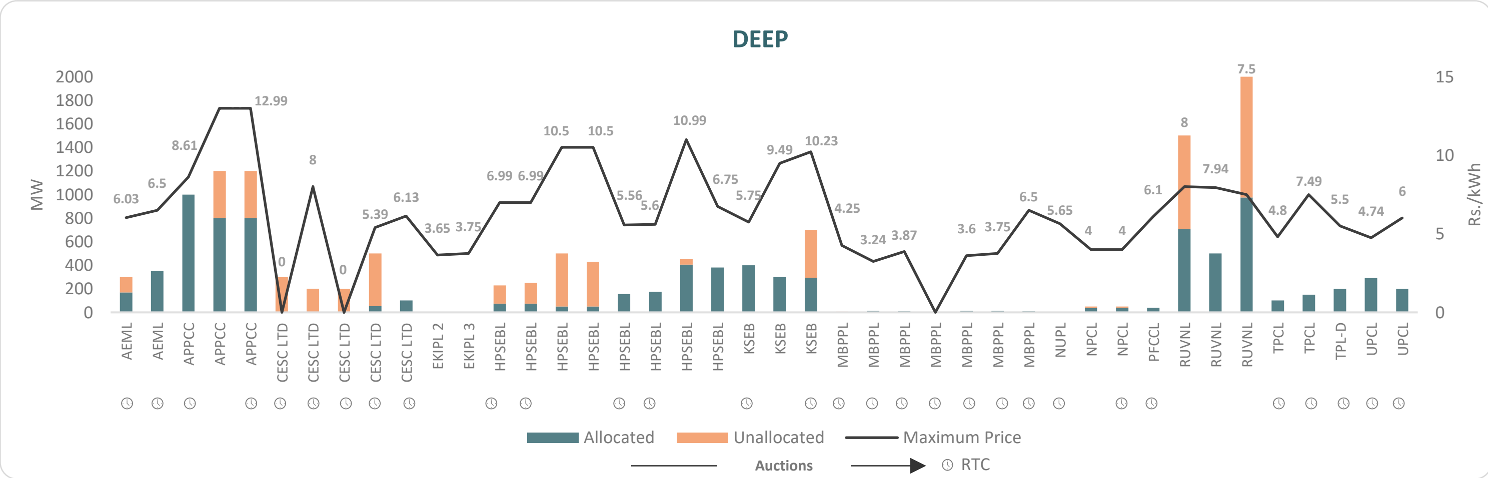
DAM and RTM (Volume & Price Comparison Jan'25)

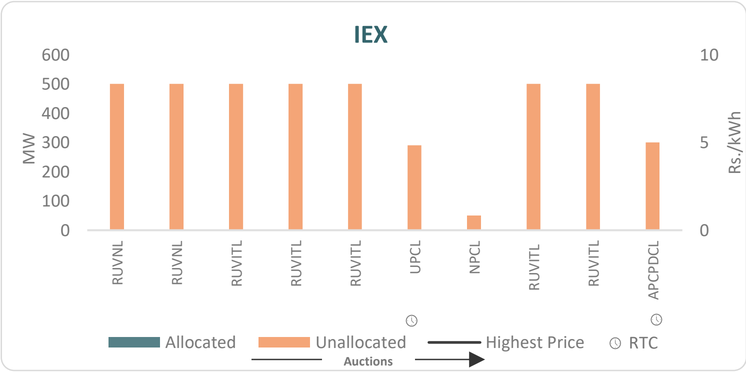
- The DAM shows consistently higher MCV and prices than RTM, with a peak DAM MCV of 230.61 MUs on 2nd Jan'25 and the highest price of ₹5.20/kWh on 13th Jan'25. RTM remains steadier but lower across both metrics.

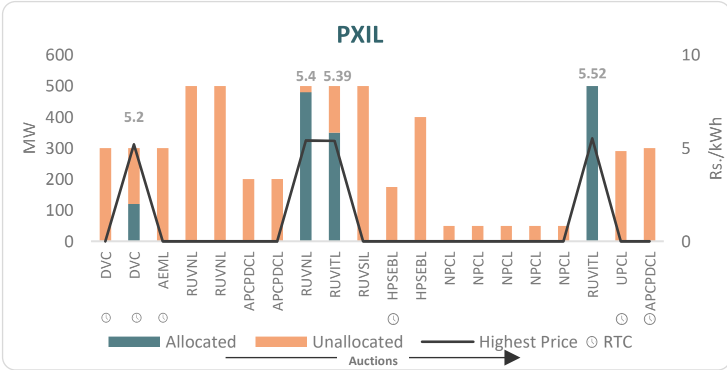
Source: IEX

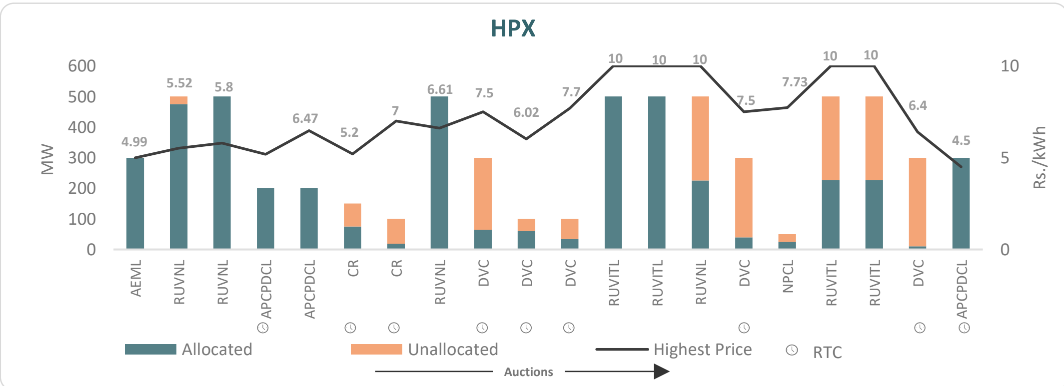
Long Duration Contracts (Reverse Auction)

Results of Reverse Auctions Across Platforms for Delivery Period Jan'25

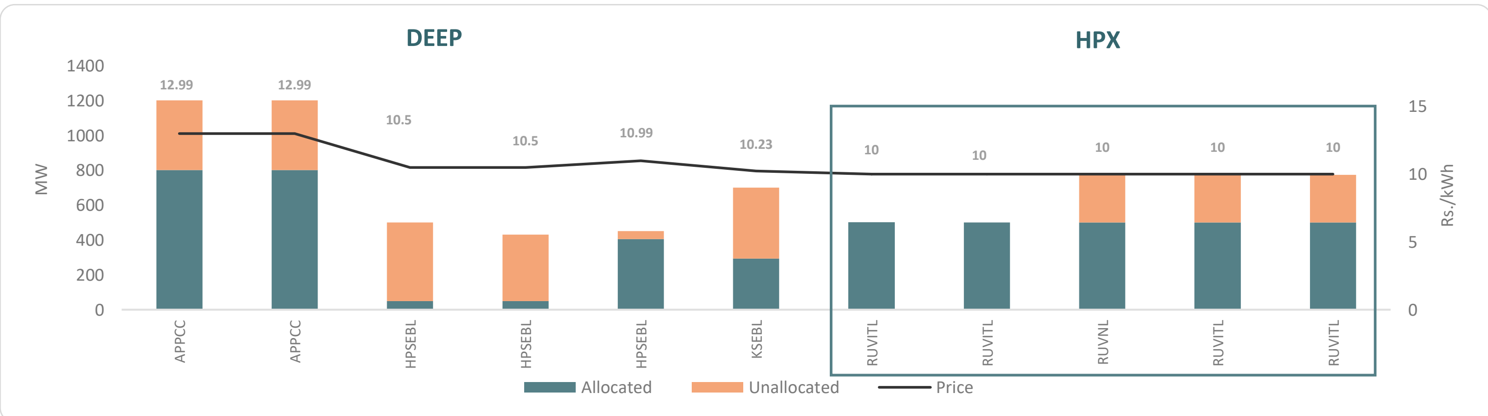








Highest Price Discovery Across Platforms for Delivery Date Jan'25



Note: Data as reported in the results of the reverse auctions; does not indicate actual power scheduled or LOA issued after the reverse auction

Source: IEX, PXIL, HPX, DEEP

Renewable Energy Tenders

S. No.	Source	Tendered Quantity (MW)	Last Date Bid Submission
1	JVVNL, Grid-connected solar power projects through the renewable energy service company model under Component C of PM-KUSUM	26.77	15th Jan'25
2	Onix Renewable, EOI to setup solar power projects across 252 locations in Maharashtra	1900	17th Jan'25
3	CMPDI, Solar(EPC), Madhya Pradesh	70	23rd Jan'25
4	SECI on behalf of Singareni Collieries Company (SCCL), Floating solar project in Singareni Thermal Power Plant, Telangana	10	23rd Jan'25
5	REIL, Project Development for grid-connected rooftop solar projects on state gov. buildings	24	24th Jan'25
6	OREDA, Empanelment for the design, engineering, supply , installation, testing, and commissioning of grid-connected rooftop-solar systems	10	27th Jan'25
7	THDC, India, Solar Projects at KPCL thermal projects in Bellary and Raichur, Karnataka	100	30th Jan'25
8	TPTCL, EOI from consumers, distribution utilities, and C&I entities for the procurement of green attributes for up to 25 years	500	31st Jan'25
9	UPNEDA, EOI to setup solar projects in Chitrakoot, Jalaun, Jhansi and Lalitpur districts in U.P.	2,000	10th Feb'25
10	GUVNL, Utility Scale Solar (Phase XXVI) with additional green shoe capacity Pan India	250	10th Feb'25
11	GUVNL, Wind Project with additional green shoe capacity (Phase IX), Gujarat	250	11th Feb'25
12	SJVN, Rooftop Solar Project Development	18	11th Feb'25
13	HPSEBL, Grid-connected solar projects under the RESCO model	8.33	13th Feb'25
14	WBSEDCL, Solar (EPC) in Birbhum district , West Bengal	20	17th Feb'25
15	TGGENCO, Standalone BESS, Telangana	250 MW/500 MWh	21st Feb'25
16	NHPC, Standalone BESS, Kerala	125 MW/500 MWh	21st Feb'25
17	NHPC, Rooftop Solar Projects in Sikkim and J&K	39.73	21st & 24th Feb'25
18	GUVNL, Standalone BESS (Phase VI), Gujarat	500 MW/1000 MWh	24th Feb'25
19	REMCL, Project development for RTC power from grid-connected RE power projects (with or without storage) to the Indian Railways	500	25th Feb'25
20	NHPC, Rooftop Solar (EPC), Pan India	24.22	3rd Mar'25
21	HPPC, Utility Scale Solar, Haryana	500	12th Mar'25
22	NTPC, ISTS connected solar project with 600 MW/2400 MWh ESS, Pan India	600 MW/2400 MWh	13th Mar'25

Source: SECI, NTPC, SJVN, NHPC, Discom Websites

Renewable Energy Tenders Results

Source	Tendered Quantity (MW)	Bidder's Name	Tariffs (₹/kWh)	Awarded capacity (MW)
NHPC (Tranche VIII), ISTS-connected solar, ESS, Sep 2024	1,200 MW	Onix Renewables	3.09	100
		Jindal India Renewable Energy	3.09	180
		NTPC Renewable Energy	3.09	300
		Kolar Solar Power (Rays Power Infra)	3.09	150
		ReNew Solar Power	3.10	300
		Adani Renewable Energy Holding Nine (Adani Green)	3.10	170
RUVNL, BESS, Rajasthan, Nov 2024	500 MW/1,000 MWh	Solar World	2.21	125 MW/250 MWh
		Oriana Power	2.22	50 MW/100 MWh
		Rays Power Experts	2.23	75 MW/150 MWh
		JSW Neo Energy	2.24	250 MW/500 MWh
HPPCL, EPC Contracts for Solar Projects, June 2024	23 MW	Saatvik Green	2.55	23
SECI, ISTS-connected projects under Tariff-based competitive bidding (FDRE-VI), Pan India, Sep 2024	2000 MW/ 8000 MWh	Altra Xergi (O2 Power)	8.50	200/800 MWh
UPPCL, Solar, Pan India, Feb 2024	2000 MW	NTPC REL	2.56	1000 MW
NTPC, Wind Solar Hybrid, Pan India, Aug 2024	1200 MW	Jindal Renewables	3.38	350 MW
		Datta Infra	3.44	150 MW
		EverGreen Power	3.44	200 MW
		AmpIn Energy	3.44	150 MW
		Adani	3.44	350 MW
SJVN, Wind, Pan India, Mar 2024	600 MW	Datta Infra	3.98	70 MW
		UPC Renewables	3.99	100 MW
DGVCL, PM KUSUM, Solar	160 MW	KPI Energy	2.28-3.0	51 MW
		Shree Ganesh Corporation	3.0	45.5 MW
		Sartha Infrastructure	2.85	15.5 MW
		Hari Singh Chauhan	2.98	15 MW
		Others	2.25-3.0	33 MW

Source: SECI, NTPC, SJVN, Discom Websites

Regulatory Updates

Issue Date	Policy, Orders, and Regulations	Agency
	Notices	
1st Jan'25	Public Notice on Draft Amendments to Regulation No 4 of 2013 Regulation No 5 of 2004 Regulation 6 of 2004 and GTCS	APERC
7th Jan'25	Determination of generic levelized Tariff for Solar PV Projects for FY 2025-26 under HPERC (Promotion of Generation from RE Sources and Terms and Conditions for Tariff Determination) Regulations, 2017	HPERC
11th Jan'25	Guidelines for Installation and Operation of Battery Swapping and Charging Stations	MoP
13th Jan'25	Discussion paper on Regulatory Framework for Renewable Energy in Kerala	KSERC
13th Jan'25	Draft Terms and Conditions of Generation Tariff Regulation, 2024 for the tariff period from 1. 4.2024 to 31.3.2029	UPERC
16th Jan'25	Inviting comments on Draft (Multi Year Tariff for Distribution) Regulations, 2025	UPERC
20th Jan'25	Draft Karnataka Electricity Grid Code (KEGC), 2024	KERC
21st Jan'25	Public notice for time extension of Draft amendments to Regulation No 4 of 2013 Regulation No 5 of 2004 Regulation 6 of 2004 and GTCS	APERC
24th Jan'25	Draft Regulations of the Gujarat Electricity Regulatory Commission (Terms and Conditions for Green Open Access) (Second Amendment) Regulations, 2025	GERC
	Orders	
22nd Jan'25	Multi Year Tariff Order For Himachal Pradesh Power Transmission Corporation Limited (HPPTCL) FY 2024-25 to FY 2028-29	HPERC
27th Jan'25	Solar Systems, Devices and Components Goods Order, 2025	MNRE
	Office Memorandum	
6th Jan'25	Updated (06.01.2025) List-I under ALMM order for Solar PV Modules	MNRE
23rd Jan'25	Updated (23.01.2025) List-I under ALMM order for Solar PV Modules	MNRE
	Press Release	
1st Jan'25	Year End Review - 2024	PIB
2nd Jan'25	Clarification on Smart Meters	APERC
4th Jan'25	Press Note dated 04.01.2025 on 10th State Coordination Forum Meeting	APERC
6th Jan'25	UJALA: 10 Years of Energy-Efficient Lighting	PIB
14th Jan'25	MNRE issues Operational Guidelines for implementation of components under PM-Surya Ghar: Muft Bijli Yojana	PIB
17th Jan'25	Union Minister Shri Manohar Lal chairs meeting of the Consultative Committee of the Members of Parliament for Ministry of Power	PIB
17th Jan'25	Press Release dated 17-01-2025 on SAC Meeting	APERC
17th Jan'25	Union Food and Consumer Affairs Minister announces revised Open Market Sale Scheme (Domestic) Policy for 2024-25	PIB
18th Jan'25	Union Minister Shri Manohar Lal Chairs the Meeting of the Consultative Committee of the Members of Parliament for Ministry of Power	PIB
24th Jan'25	Bureau of Energy Efficiency (BEE) and The Energy and Resources Institute(TERI) signs MoU to Establish Centre of Excellence on Energy Transition in Hyderabad	PIB
	Reports	
1st Jan'25	Akshay Urja Magazine Volume 14 • Issue 1 • January 2025	KSERC

Source: State Regulatory Commissions, CERC, MoP, MNRE

Regulatory Updates

Issue Date	Policy, Orders, and Regulations	Agency
	Central Regulations	
7th Jan'25	Central Electricity Regulatory Commission (Conduct of Business) (First Amendment) Regulations, 2025	CERC
7th Jan'25	Central Electricity Regulatory Commission (Appointment of Consultants) (Fifth Amendment) Regulations, 2025	CERC
	State Regulations	
1st Jan'25	Draft Karnataka Electricity Regulatory Commission (Ancillary Services) Regulations, 2024	KERC
16th Jan'25	Draft Karnataka Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2025	KERC
16th Jan'25	Draft KERC (Consumer Grievance Redressal Forum and Ombudsman) (Third Amendment) Regulations 2025	KERC
20th Jan'25	Draft Karnataka Electricity Grid Code (KEGC), 2024	KERC
20th Jan'25	Draft Karnataka Electricity Distribution Code (KEDC), 2024	KERC
20th Jan'25	KERC (Implementation of Rooftop Aero Turbine with solar or without solar) Regulations, 2025	KERC
24th Jan'25	Grant of connectivity to the intrastate transmission system regulations, 2025	AERC
24th Jan'25	Draft Gujarat Electricity Regulatory Commission (Terms & Conditions for Green Energy Open Access) (Second Amendment) Regulations, 2025	GERC

Source: State Regulatory Commissions, CERC, MNRE

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Beta Version

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