



भारत सरकार/ Government of India
विद्युत मंत्रालय/ Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority
आर. ए. प्रभाग/ Regulatory Affairs Division

सेवा में /To

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2. Secretary, Ministry of New & Renewable Energy, Atal Akshay Urja Bhawan, CGO Complex, Lodhi Road, New Delhi- 110003.
3. Secretary, CERC, 7th Floor, Tower B, World Trade Centre, Nauroji Nagar, New Delhi- 110029.

विषय: मई, 2024 माह की मार्केट मॉनिटरिंग रिपोर्ट।

Subject: Monthly Market Monitoring Report for the month of May, 2024.

महोदय/Sir,

मई, 2024 माह के लिए केंद्रीय विद्युत प्राधिकरण द्वारा तैयार की गई मासिक मार्केट मॉनिटरिंग रिपोर्ट (MMMR) की एक प्रति सूचना और अवलोकन के लिए संलग्न है। A copy of the monthly market monitoring report (MMMR) prepared by Central Electricity Authority for the month of May, 2024 is enclosed herewith for kind information and perusal.

मई, 2024 माह के दौरान मार्केट के संचालन की मुख्य विशेषताएं इस प्रकार रही। Key highlights of the market operation during May, 2024 are as under:

- i. मई, 2024 माह में देश में कुल 155,157 MU विद्युत का कारोबार किया गया, जिसमें से 75,957 MU का कारोबार अंतर्राज्यीय पारेषण प्रणाली (Inter State Transmission System) के माध्यम से किया गया था और शेष राज्य नियंत्रित उत्पादन स्टेशनों से अंतराज्यीय पारेषण प्रणाली (Intra State Transmissions System) के माध्यम से किया गया। In the month of May, 2024 a total of 155,157 MU of electricity was transacted in the country out of which 75,957 MU was transacted through ISTS, and the remaining through state controlled generating stations through Intra State Transmissions System.
- ii. अल्पावधि मार्केट के अंतर्गत कुल 22,875 MU का कारोबार किया गया था, जिसमें से 12,625 MU पावर एक्सचेंजों के माध्यम से कारोबार किया गया और शेष द्विपक्षीय कारोबार और विचलन (deviations) के रूप में हुआ। इस प्रकार अल्पावधि कारोबार,

मई, 2024 माह में ट्रेड की गई विद्युत की कुल मात्रा का 14.74 % था और 8.14 % पावर एक्सचेंजों के माध्यम से रहा। A total of 22,875 MU was transacted under Short Term Market, out of which 12,625 MU was transacted through Power Exchanges and remaining happened as bilateral transactions & deviations. Thus, the total short term trade in May, 2024 was 14.74 % of total volume of electricity traded in May, 2024 and 8.14 % was through Power Exchanges.

- iii. यदि हम अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से आपूर्ति की गई विद्युत के संबंध में इन कारोबारों की तुलना करते हैं, तो अल्पावधि कारोबार अंतर्राज्यीय पारेषण प्रणाली (ISTS) कारोबार का लगभग 30.12 % रहा, जिसमें से पावर एक्सचेंजों के माध्यम से कारोबार 16.62 % रहा। If we compare these transactions with respect to the electricity supplied through ISTS, the short term transactions constitutes about 30.12 % of ISTS transactions, out of which transaction through the power exchanges constitutes 16.62 %.

भवदीय/ Yours faithfully,

Signed by Vikram Singh

Date: 18-07-2024 15:50:33

(विक्रम सिंह / Vikram Singh)

मुख्य अभियंता (आर.ए.)/ Chief Engineer (RA)

प्रतिलिपि/ Copy for information, through email, to:

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6. MD & CEO, Power Exchange India Limited (PXIL), Sumer Plaza, 9th floor, Unit no - 901, Marol Maroshi Road, Andheri (East), Mumbai- 400 059.
7. COO, Hindustan Power Exchange Limited (HPX), World Trade Tower, 8th Floor, Sector 16, Noida, Uttar Pradesh - 201301.

CEA website (<https://cea.nic.in/market-monitoring-report/?lang=en>)



मासिक मार्केट मॉनिटरिंग रिपोर्ट - मई, 2024

Monthly Market Monitoring Report

May, 2024



भारत सरकार/ Government of India
विद्युत मंत्रालय/ Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority
आर. ए. प्रभाग / Regulatory Affairs Division

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मई, 2024 की मासिक मार्केट
मॉनिटरिंग रिपोर्ट का सारांश

**Summary of Market Monitoring Report
For the month of May, 2024**

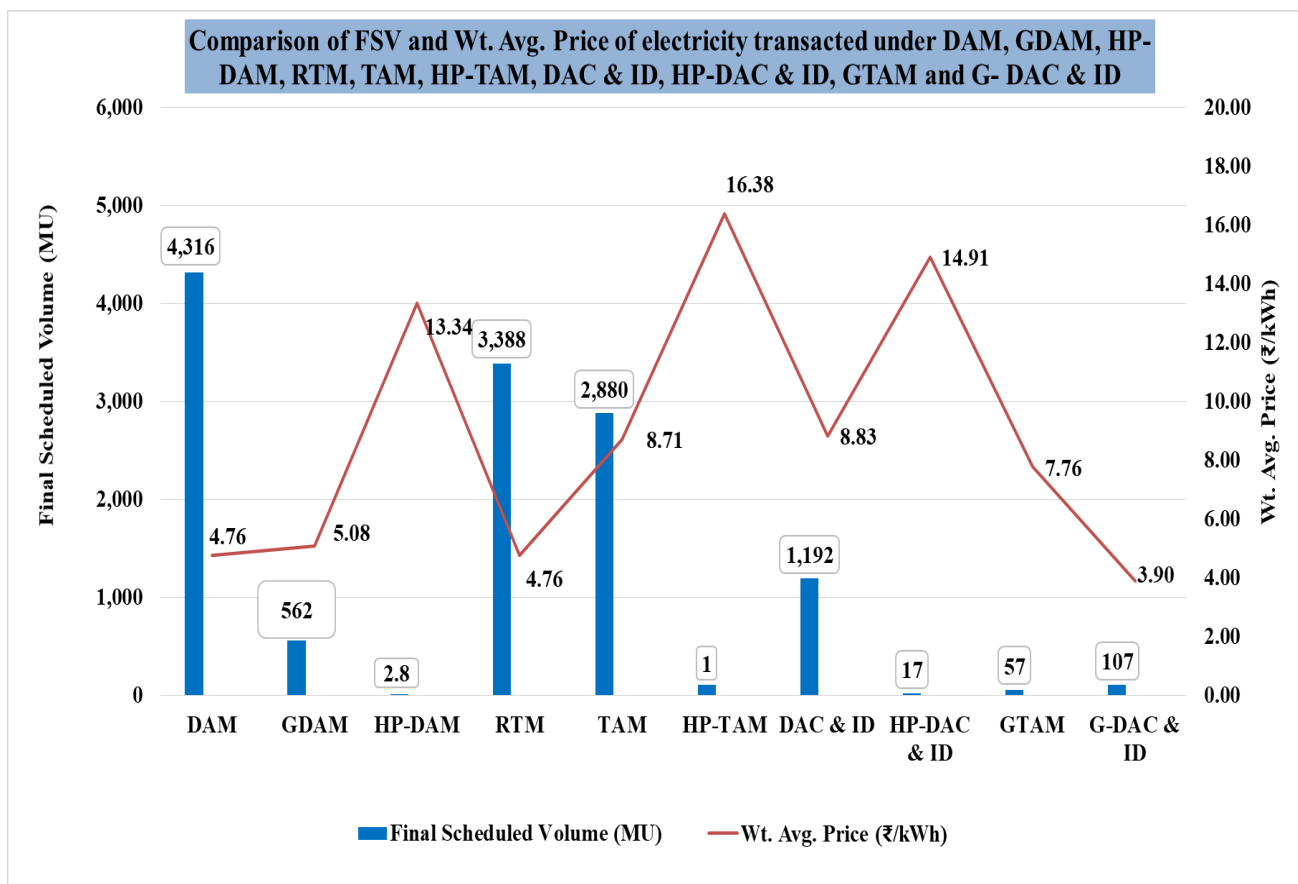
मई, 2024 माह के लिए सारांश Summary for Month: May, 2024

भारत में विद्युत एक्सचेंजों पर विद्युत के व्यापार का सारांश

Summary of Electricity Transactions on Power Exchanges in India

- मई, 2024 के दौरान विद्युत एक्सचेंजों (यानी आईईएक्स, पीएक्सआईएल और एचपीएक्स) के माध्यम से कुल **12,625 MU** विद्युत का कारोबार किया गया। विद्युत की यह मात्रा डिलीवरी की तारीख के आधार पर है और इसमें DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM और G-DAC & ID मार्केट खंडों के माध्यम से कारोबार शामिल हैं।

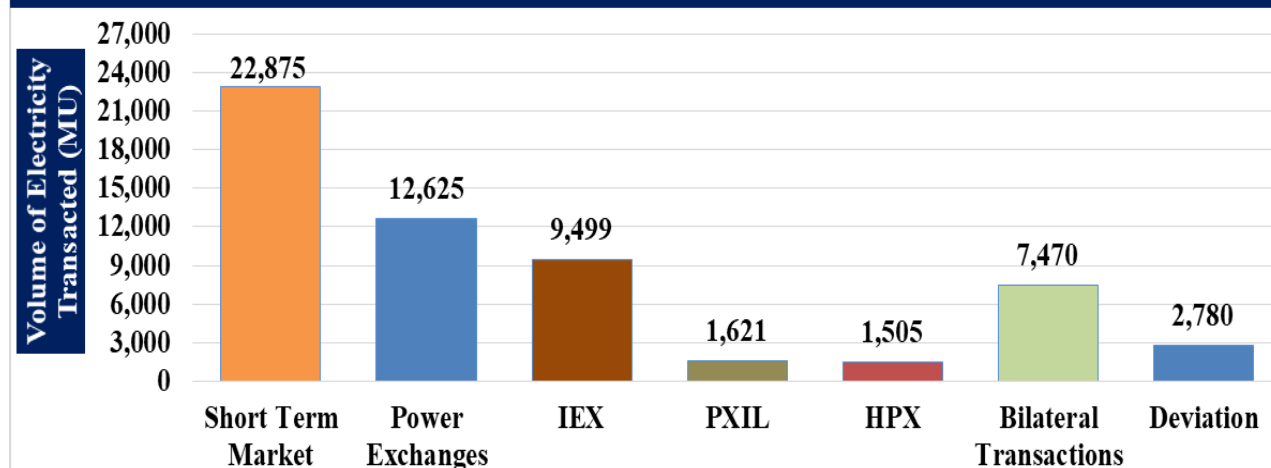
A total volume of **12,625 MU** electricity was transacted through power exchanges i.e. IEX, PXIL & HPX, during the month of May, 2024. This volume of electricity is on delivery date basis and includes transactions through DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM and G-DAC & ID market segments.



- द्विपक्षीय व्यापार के तहत कुल **7,470 MU** विद्युत का कारोबार किया गया और **2,780 MU** को विचलन के रूप में लेनदेन किया गया। इस प्रकार कुल **22,875 MU** विद्युत का कारोबार अल्पावधि व्यापार के रूप में किया गया था। मई, 2024 के महीने में देश में कुल **155,157 MU** विद्युत की आपूर्ति की गई थी, इस प्रकार मई, 2024 माह में कारोबार की गई विद्युत की कुल मात्रा में अल्पावधि बाजार का हिस्सा **14.74 %** था।

Under the Bilateral trade, a total of **7,470 MU** of electricity was transacted and **2,780 MU** was transacted as deviation from schedule. Thus, a total of **22,875 MU** of electricity was transacted as short term trade (Power Exchange + Bilateral trade + deviation from schedule). In May, 2024, a total of **155,157 MU** of electricity was supplied in the country, thus, the share of short term market in the total volume of electricity supplied in May, 2024 was **14.74 %**.

Comparison of total volume of electricity transacted in Short Term Market, through the PXs together, IEX, PXIL, HPX, Bilateral Transactions and Deviations during May, 2024



- मई, 2024 के दौरान संचरण जाम की कुल मात्रा **16.71 MU** थी, जो की विद्युत एक्सचेंजों में कारोबार की गई विद्युत की कुल मात्रा का केवल 0.13 % है और मई, 2024 के महीने के दौरान आपूर्ति की गई कुल ऊर्जा का 0.01 % है।
The total volume affected by the transmission congestion during the month of May, 2024 was **16.71 MU** which is only 0.13 % of the total volume of electricity transacted in the power exchanges and 0.01 % of total energy supplied during the month of May, 2024.

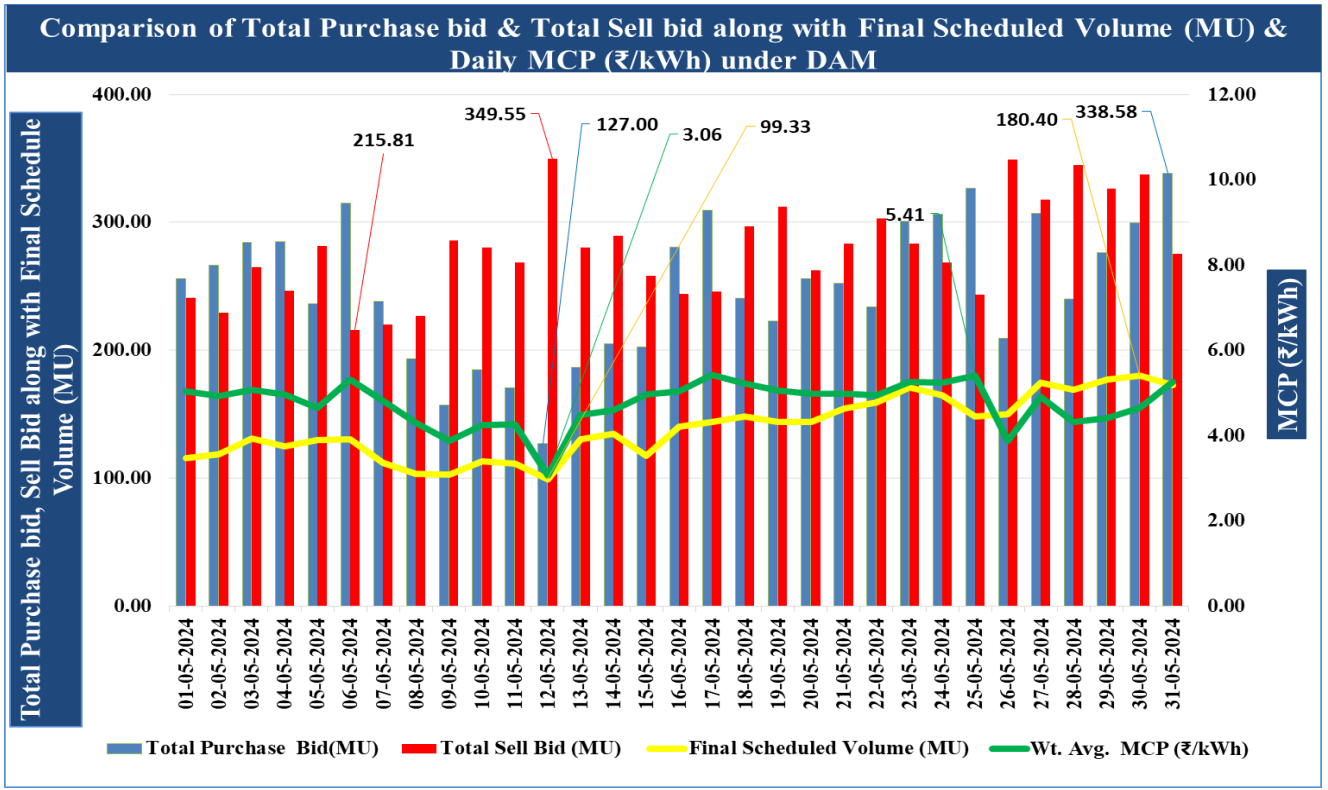
DAM में 3 दिन अर्थात् दिनांक 4, 8 एवं 11 मई, 2024, GDAM में 2 दिन अर्थात् दिनांक 4 एवं 12 मई, 2024, RTM में 30 दिन अर्थात् दिनांक 1 से 30 मई, 2024 तथा DAC & ID में 6 दिन अर्थात् दिनांक 16, 19, 22, 27 से 29 मई, 2024 को संचरण जाम देखा गया। जबकि TAM, HP-DAM, HP-TAM, HP-DAC & ID, GTAM और G-DAC & ID में कोई संचरण जाम नहीं देखा गया। मई, 2024 माह के महीने में रिपोर्ट की गई वास्तविक समय में विद्युत कटौती की कुल मात्रा केवल **107.54 MU** थी।

Transmission congestion was observed in DAM on 3 days i.e. 4th, 8th and 11th May, 2024, in GDAM on 2 days i.e. 4th and 11th May, 2024, in RTM on 30 days i.e. 1st to 30th May, 2024 and in DAC & ID on 6 days i.e. 16th, 19th, 22nd, 27th to 29th May, 2024. Whereas, there was no impact of congestion in TAM, HP-DAM, HP-TAM, HP-DAC & ID, GTAM and G-DAC & ID. The total volume of real time curtailment reported in the month of May, 2024 was only **107.54 MU**.

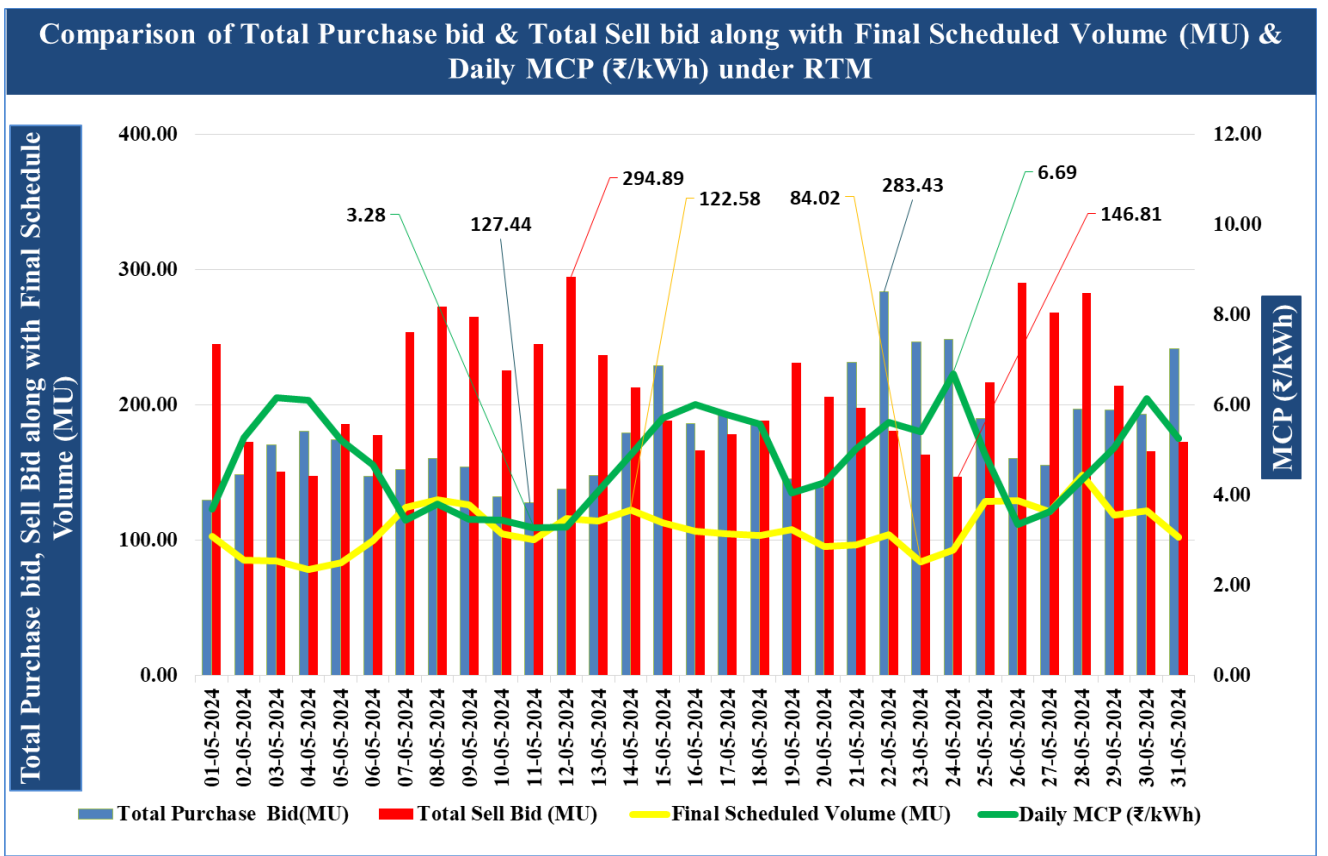
- मई, 2024 माह के दौरान अंतर्राज्यीय पारेषण प्रणाली (ISTS) में निर्धारित अनुसूचित विद्युत की कुल मात्रा **75,957 MU** थी। मई, 2024 के महीने में अल्पावधि बाजार में विद्युत का लेन-देन अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से अनुसूचित की गई कुल विद्युत की मात्रा का **30.12 %** रहा।
The total volume of electricity scheduled through ISTS during the month of May, 2024 was **75,957 MU**. The total volume of electricity transacted in the short term market was **30.12 %** of total volume schedule at ISTS in May, 2024.

- मई, 2024 माह के दौरान DAM और RTM में विद्युत की खरीद और बिक्री बोलियों, अंतिम अनुसूचित मात्रा और दैनिक औसत MCP की भिन्नता निम्नलिखित चित्रों में दर्शाई गई है:
The variation of Purchase and Sell bids, Final Scheduled Volume and Daily Wt. Avg. MCP under DAM and RTM during the month of May, 2024 are shown in following figures:

DAM Volume



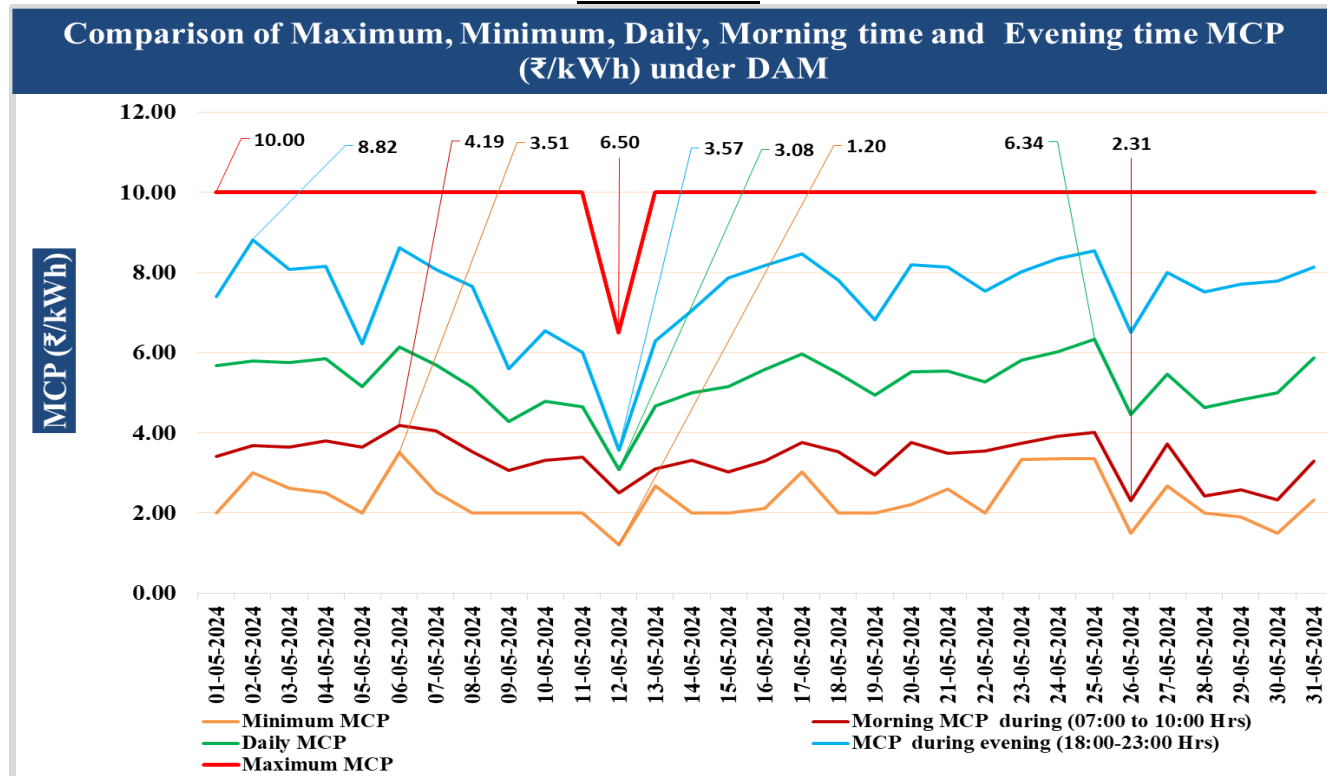
RTM Volume



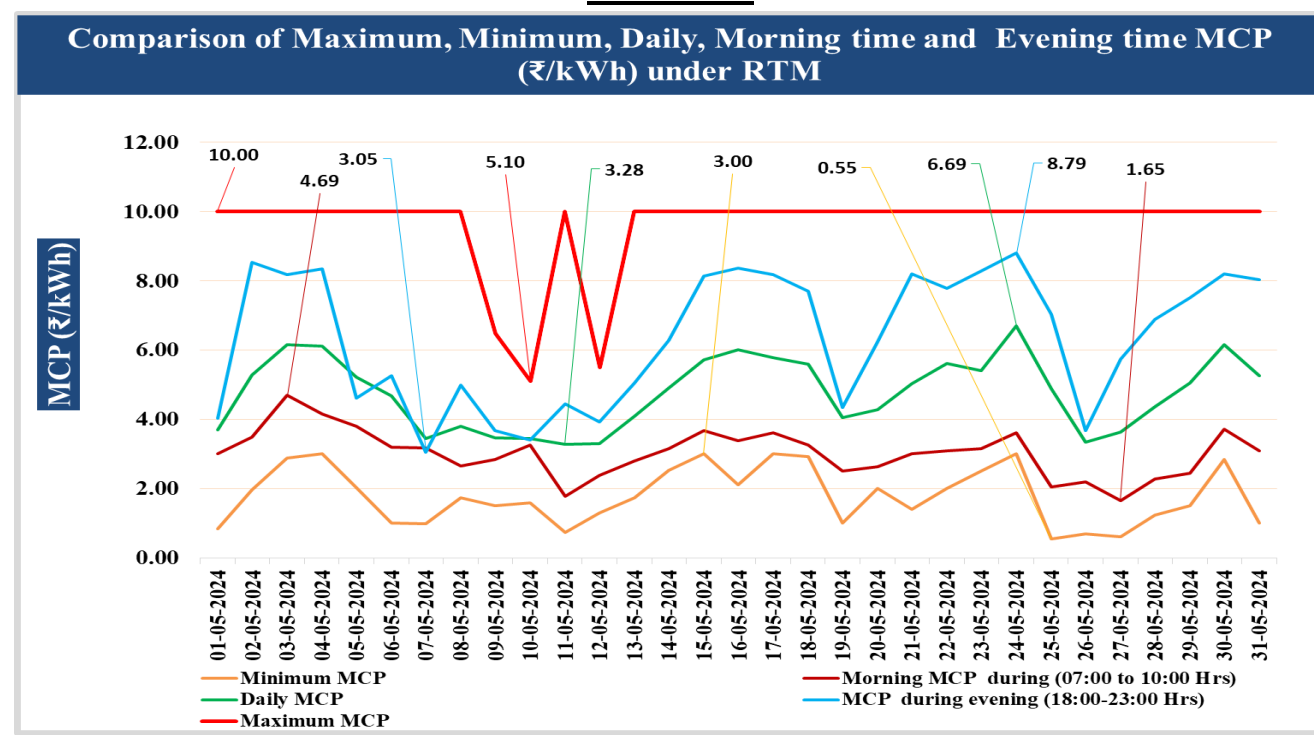
- मई, 2024 माह के दौरान DAM और RTM में अधिकतम, न्यूनतम, दैनिक, सुबह और शाम के समय MCP की भिन्नता निम्नलिखित चित्रों में दिखाई गई है:

The variation of Maximum, Minimum, Daily, Morning and Evening time MCPs under DAM and RTM during the month of May, 2024 are shown in following figures:

DAM Prices



RTM Prices



MARKET MONITORING REPORT

DETAILS

Electricity Transactions on Power Exchanges in India

1. Day Ahead Market (DAM)

The volume of electricity transacted under DAM was 4,315.68 MU at a Wt. Avg. Price of ₹ 4.76/kWh in May, 2024.

- 1.1. The total volume of electricity transacted on the power exchanges, viz., IEX, HPX and PXIL in the Day Ahead Market (DAM) in May, 2024 was **4315.68 MU**. The total energy supplied in the country during the month of May, 2024 was **155,157 MU**. Thus, the volume of electricity transacted on the power exchanges under DAM during May, 2024 was 2.78 % of the total energy supplied in the country. Comparing with the total volume of electricity transacted under DAM during last month April, 2024 i.e. **4,135.27 MU** which was 2.87 % of the total energy supplied (**144,280 MU**) in the country during April, 2024. Similarly, the total volume of electricity transacted under DAM during previous year i.e. May, 2023, was **4,001.32 MU** which was 2.93 % of the total energy supplied (**136,504 MU**) in the country during May, 2023.
- 1.2. The DAM volume for May, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XII**), which was **286.91 MU** (i.e. 204.11 MU bought by Nepal, 14.55 sold by Nepal, 68.25 MU bought by Bhutan).
- 1.3. The Average Market Clearing Price (MCP) on IEX during the month of May, 2024 was ₹ **4.76/kWh**, which shows an increase of 2.37 % & decrease of 0.21 % when compared with Wt. Avg. MCP's for the month of April, 2024 and May, 2023, which were ₹ **4.65/kWh** and ₹ **4.77/kWh**, respectively. On HPX, the Wt. Avg. MCP during the month of May, 2024 was ₹ **10.00/kWh** and no transaction of electricity took place in PXIL during April, 2024 and May, 2023. On PXIL, no transaction of electricity took place during May, 2024.
- 1.4. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under DAM for May, 2024 vs April, 2024 and May, 2023 is shown below as **Figure-1, Figure-2 & Figure-3**:

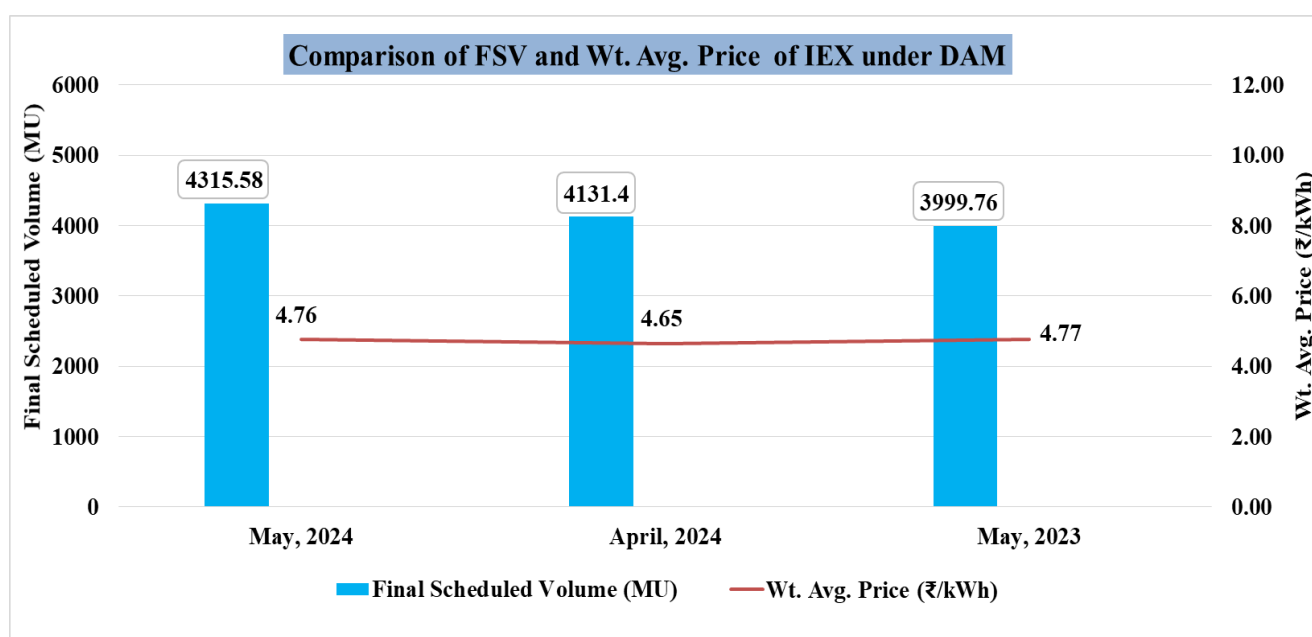


Figure-1

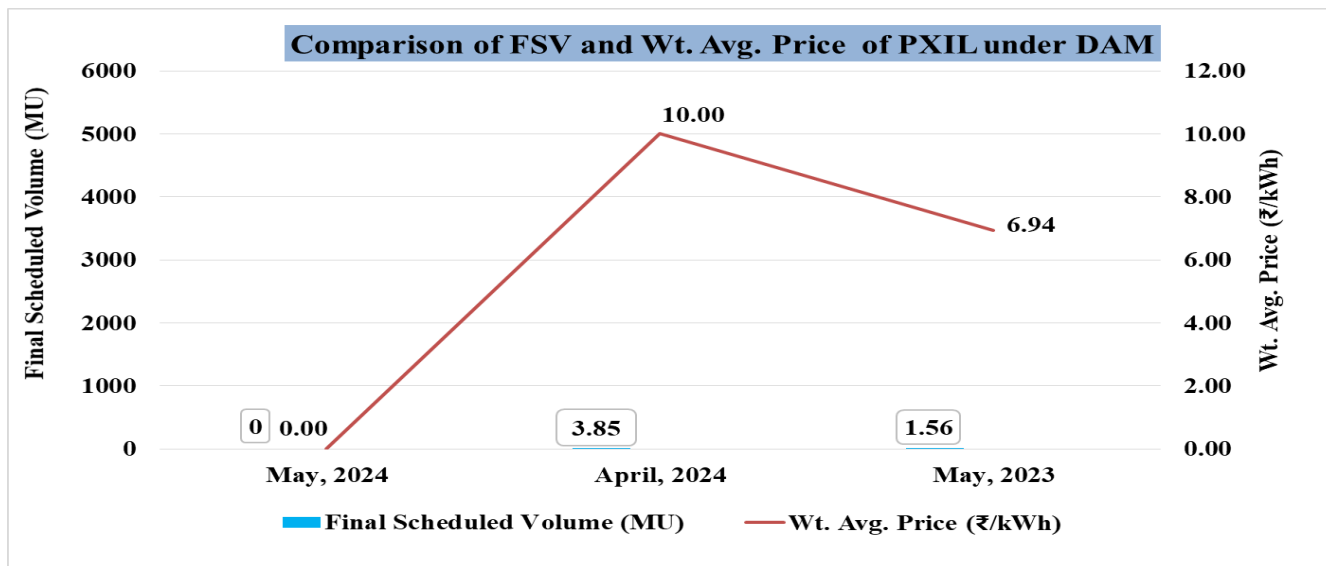


Figure-2

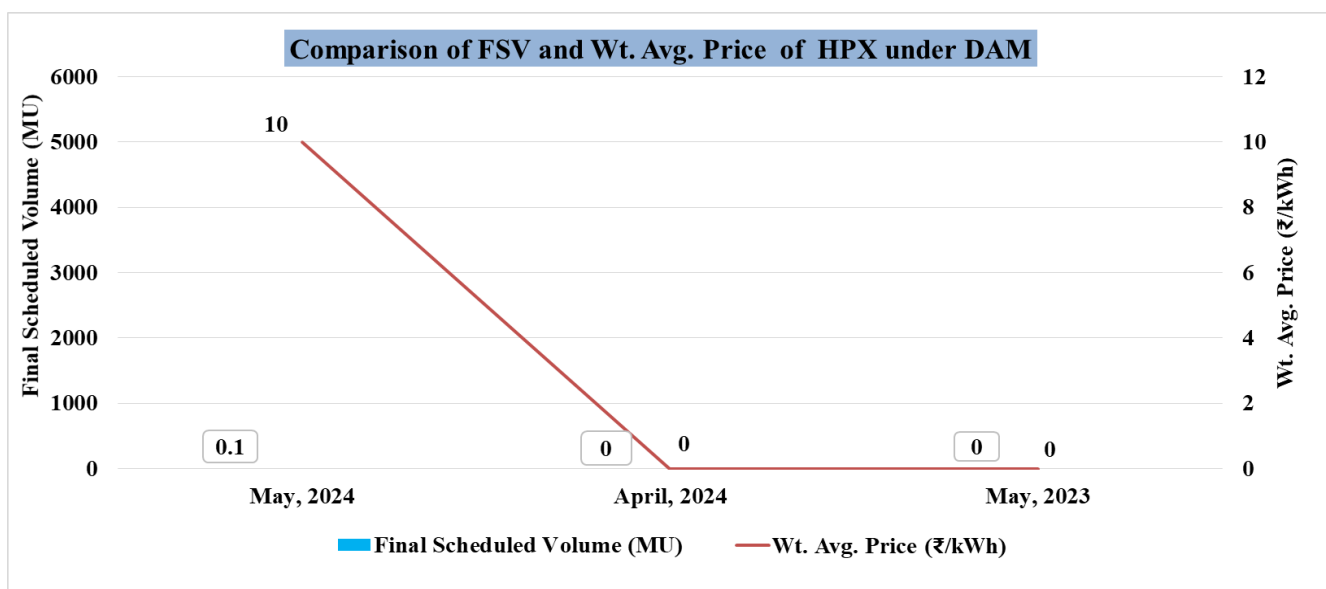


Figure-3

- 1.5. The maximum Area Clearing Price (ACP) of ₹ 10.00/kWh in IEX was observed in all 13 regions during 478 time blocks from 1st to 31st May, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 10.00/kWh. Whereas, in HPX, the maximum ACP of ₹ 10.00/kWh was observed in all 13 regions during 8 time blocks on 25th May, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 10.00/kWh. Further, in PXIL, no transaction of electricity took place during May, 2024.
- 1.6. The minimum ACP of ₹ 1.20/kWh in IEX was observed in 13 regions during the time block 12:00 - 12:15 Hrs on 12th May, 2024. As there was congestion in transmission system, the MCP for this time-block was also ₹ 1.20/kWh. Whereas, in HPX, the minimum ACP was similar as only transaction took place at ₹ 10.00/kWh. Further, in PXIL, no transaction of electricity took place during May, 2024.

2. Real Time Market (RTM)

The volume of electricity transacted under RTM was 3388.14 MU at a Wt. Avg. Price of ₹ 4.76/kWh in May, 2024.

- 2.1. The total volume of electricity transacted on the power exchanges under Real Time Market in May, 2024 was **3,388.14 MU**, out of which **3,351.66 MU** (98.92 %) was transacted in IEX, **36.48 MU** (1.08 %) was transacted in HPX and no electricity transaction took place in PXIL.
- 2.2. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under RTM for May, 2024 vs April, 2024 and May, 2023 is shown below as **Figure-4, Figure-5 & Figure-6**:

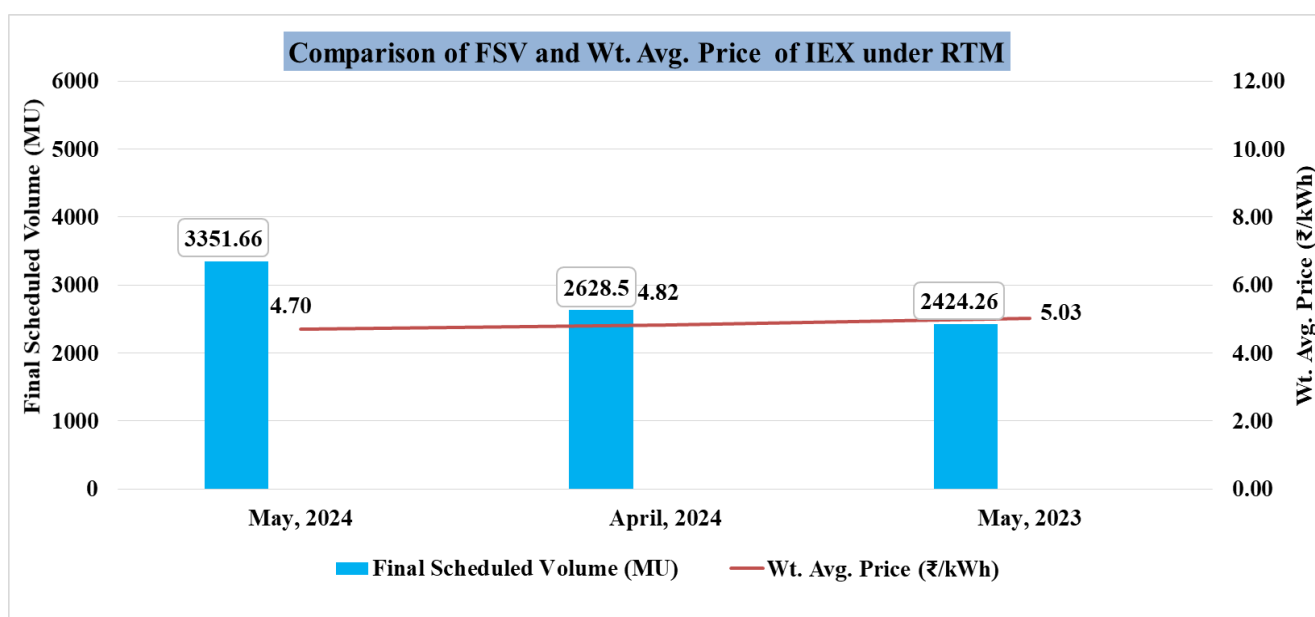


Figure-4

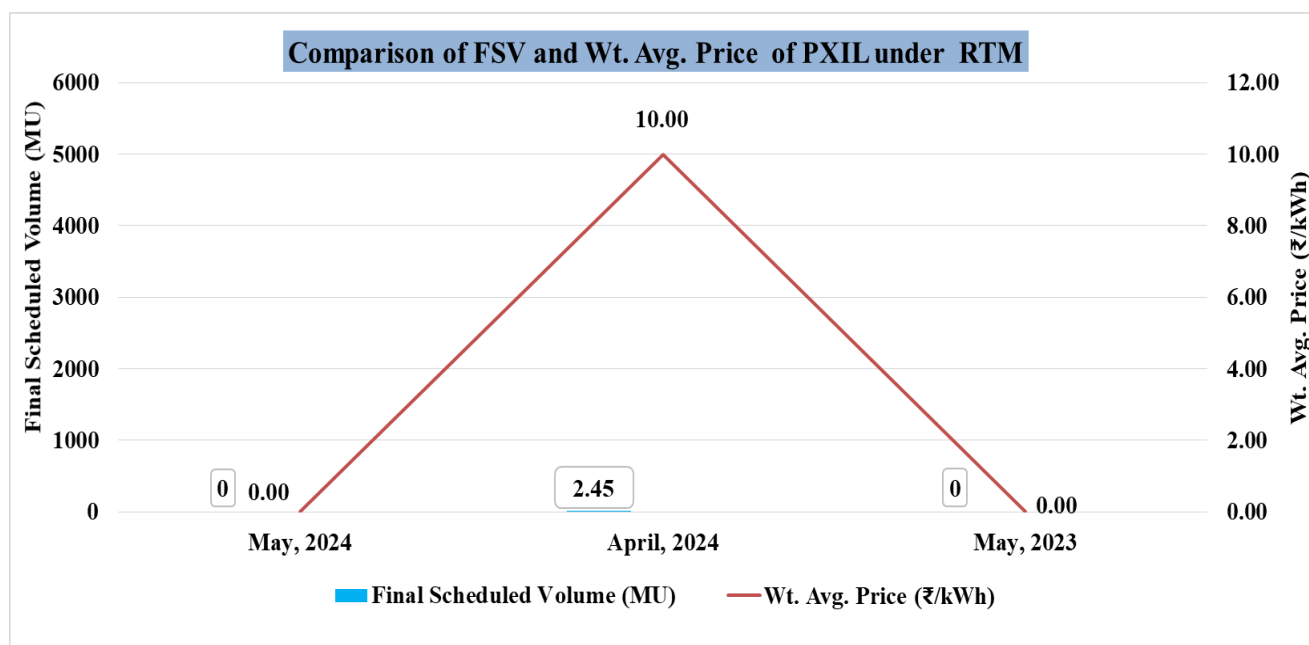


Figure-5

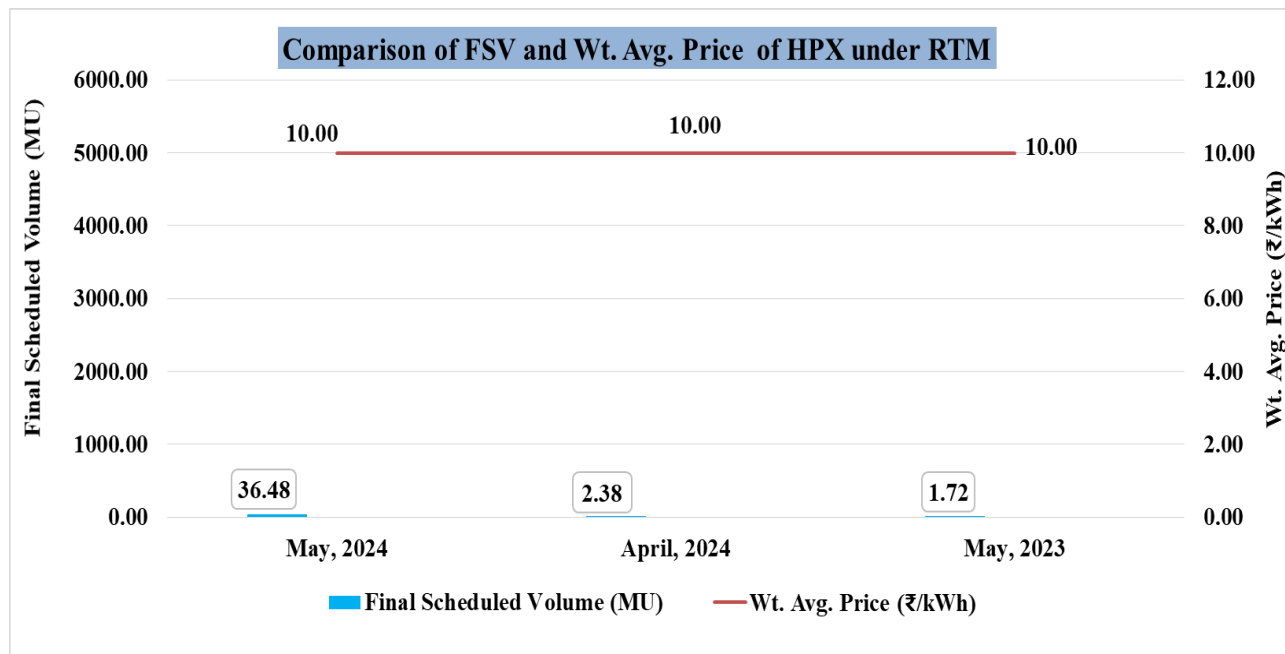


Figure-6

2.3. The RTM volume for May, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XIII**), which was **63.39 MU** (i.e. 34.46 MU bought by Nepal, 18.65 MU sold by Nepal, 10.28 MU bought by Bhutan).

3. Green Day Ahead Market (GDAM)

The volume of electricity transacted under GDAM was 561.82 MU at a Wt. Avg. Price of ₹ 5.08/kWh in May, 2024.

3.1. The volume of electricity transacted under GDAM in May, 2024 was **561.82 MU** (375.49 MU in Solar, 174.71 MU in Non-Solar and 11.62 MU in Hydro) in IEX at a Wt. Avg. MCP of ₹ 5.08/kWh and no transaction took place in PXIL & HPX under GDAM.

3.2. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX under GDAM for May, 2024 vs April, 2024 and May, 2023 is shown below as **Figure-7**:

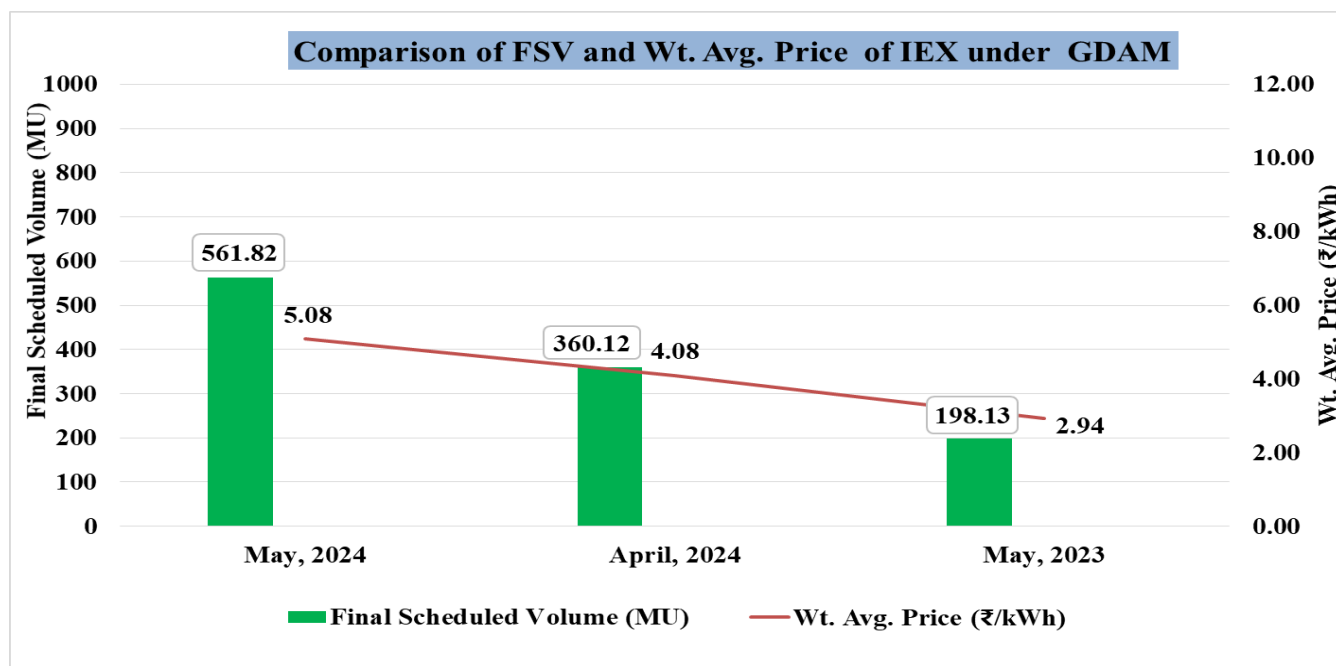


Figure-7

3.3. There was no real time curtailment in the power exchanges under Green Day Ahead Market during the month of May, 2024, April, 2024 and May, 2023.

3.4. The **top 10 sellers** on the power exchanges under Green Day Ahead Market (GDAM) in May, 2024 were **ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Adani Green Energy Twenty Five B Limited_infirm, TPSL 200MW TPTCL Banderwala, Himachal Pradesh, Madhya Pradesh, ADANI WIND ENERGY KUTCHH FOUR Ltd. Nakhatrana, Andhra Pradesh, Uttar Pradesh, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED and Grian Energy Private Limited**, which constituted **61.81 %** of the market volume.

3.5. The **top 10 buyers** on the power exchanges under Green Day Ahead Market (GDAM) in May, 2024 were **Maharashtra, Punjab, DVC, Tamilnadu, ArcelorMittal Nippon steel (ESIL), Uttar Pradesh, Railways, Delhi, Odisha and Jharkhand**, which constituted **88.26 %** of the market volume.

4. Term Ahead Market (TAM)

The volume of electricity transacted under TAM was 2,880.16MU at a Wt. Avg. Price of ₹ 8.71/kWh in May, 2024

4.1. The total volume of electricity transacted on the power exchanges on delivery date basis under Term Ahead Market in May, 2024, April, 2024 and May, 2023 is tabulated below:

Month	Total Volume (in MU)	IEX in MU (in % of total volume)	PXIL in MU (in % of total volume)	HPX in MU (in % of total volume)
May, 2024	2,880.16	911.93 (31.66 %)	1003.55 (34.84 %)	964.68 (33.49 %)
April, 2024	3,560.17	1141.57 (32.07 %)	1521.03 (42.72 %)	897.57 (25.21 %)
May, 2023	940.27	607.72 (64.65 %)	133.80 (14.23 %)	198.75 (21.12 %)

4.2. In the month of May, 2024, the transaction of electricity in PXIL in **High Price Term Ahead Market (HP-TAM)** under Daily-Anyday contract was **48.00 MU** at an average MCP of ₹ **17.98/kWh** and under Monthly contract was **37.20 MU** at an average MCP of ₹ **15.00/kWh** and in HPX in High Price Term Ahead Market (HP-TAM) under Daily-Anyday contract was **18.60 MU** at an average MCP of ₹ **15.00/kWh** whereas no transaction took place in IEX in HP-TAM.

4.3. With respect to the total energy supplied during the month of May, 2024 in the country, the volume of electricity traded on the power exchanges under TAM on delivery date basis represents **2.48 %** of the total energy supplied. The same was **1.82 %** in April, 2024 and **0.57 %** in May, 2023.

4.4. In May, 2024, there was no transmission congestion under TAM.

4.5. There was real time curtailment of 100.60 MU under TAM, out of which 37.11 MU in IEX, 60.34 MU in PXIL and 3.15 MU in HPX.

4.6. The comparison of total volume of electricity transacted and Wt. Avg. MCP in the power exchanges under Term Ahead Market (TAM) on delivery date basis during May, 2024 with April, 2024 and May, 2023 are shown in Table – 1A & 1B:

(i) Final Scheduled Volume (MU), May, 2024 vis- a- vis April, 2024 and May, 2023

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
IEX	May, 2024	587.91	-	196.55	127.47	911.93
	April, 2024	513.00	23.52	219.65	385.40	1141.57
	%Change (Month over Month)	14.60	NA	-10.52	-66.93	-20.12
	May, 2023	283.05	90.65	89.28	144.74	607.72
	%Change (Year over Year)	107.71	NA	120.15	-11.93	50.06
PXIL	May, 2024	344.79	-	658.76	-	1003.55
	April, 2024	547.43	83.50	787.71	102.39	1521.03

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
	%Change (Month over Month)	-37.02	NA	-16.37	NA	-34.02
	May, 2023	59.40	-	-	74.40	133.80
	%Change (Year over Year)	480.45	NA	NA	NA	650.04
HPX	May, 2024	700.28	-	234.87	29.53	964.68
	April, 2024	530.28	-	67.34	299.95	897.57
	%Change (Month over Month)	32.06	NA	248.78	-90.16	7.48
	May, 2023	141.54	42.00	-	15.21	198.75
	%Change (Year over Year)	394.76	NA	NA	94.15	385.37

- : No transaction took place

NA: Not Applicable

Table: 1A

(ii) Wt. Avg. MCP, May, 2024 vis- a- vis April, 2024 and May, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)			
		Daily or Any Day	Weekly	Monthly	Anyday Single Side
IEX	May, 2024	8.39	-	7.57	8.01
	April, 2024	9.37	8.40	9.15	9.20
	%Change (Month over Month)	-10.46	NA	-17.27	-12.93
	May, 2023	8.70	9.05	6.80	7.91
	%Change Year over Year)	-3.56	NA	11.32	1.26
PXIL	May, 2024	8.50	-	9.01	-
	April, 2024	9.57	8.40	6.73	9.98
	%Change (Month over Month)	-11.18	NA	33.88	NA
	May, 2023	8.30	-	-	7.95
	%Change (Year over Year)	2.41	NA	NA	NA
HPX	May, 2024	9.11	-	8.97	9.56
	April, 2024	9.63	-	9.56	9.92
	%Change (Month over Month)	-5.40	NA	-6.17	-3.63
	May, 2023	9.07	6.40	-	9.74
	%Change Year over Year)	0.44	NA	NA	-1.85

-: No transaction took place

NA: Not Applicable

Table: 1B

5. Day Ahead Contingency & Intra Day (DAC & ID)

*The volume of electricity transacted under DAC & ID was **1192.05 MU** at a Wt. Avg. Price of ₹ **8.83/kWh** in May, 2024.*

- 5.1. The volume of electricity transacted on IEX, PXIL and HPX under DAC & ID on delivery date basis during May, 2024 were **307.79 MU**, **503.84 MU** and **380.42 MU**, respectively.
- 5.2. In the month of May, 2024, the transaction of electricity in PXIL in **High Price Day Ahead Contingency & Intra Day (HP- DAC & ID)** under Day Ahead Contingency contract was **3.75 MU** at an average MCP of ₹ **15.00/kWh**, under Intra Day contract was **11.44 MU** at an average MCP of ₹ **15.00/kWh**, while in HPX under DAC contract was **1.56 MU** at an average MCP of ₹ **14.00/kWh** whereas no transaction took place in IEX under HP- DAC & ID.
- 5.3. In May, 2024, there was transmission congestion **7.39 MU** under DAC & ID. Out of which **1.25 MU** was in IEX, **4.31 MU** in PXIL and **1.70 MU** in HPX.
- 5.4. In May, 2024, there was real time curtailment of **5.59 MU**.
- 5.5. The total volume of electricity transacted under DAC & ID under Day Ahead Contingency & Intra Day contracts during May, 2024 and its comparison with April, 2024 and May, 2023 on delivery date basis are shown in Tables- 2A & 2B:

(i) Final Scheduled Volume (MU), May, 2024 vis- a- vis April, 2024 and May, 2023

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
IEX	May, 2024	262.63	45.16	307.79
	April, 2024	127.17	8.61	135.78
	%Change (Month over Month)	106.52	424.51	126.68
	May, 2023	531.97	6.28	538.25
	%Change (Year over Year)	-50.63	619.11	-42.82
PXIL	May, 2024	457.00	46.84	503.84
	April, 2024	309.18	22.03	331.21
	%Change (Month over Month)	47.81	112.62	52.12
	May, 2023	362.62	21.23	383.85
	%Change (Year over Year)	26.03	120.63	31.26
HPX	May, 2024	331.61	48.81	380.42
	April, 2024	109.71	22.32	132.03
	%Change (Month over Month)	202.26	118.68	188.13
	May, 2023	448.80	6.40	455.20

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
	%Change (Year over Year)	-26.11	662.66	-16.43

- : No transaction took place

NA: Not Applicable

Table: 2A

(ii) Wt. Avg. MCP, May, 2024 vis- a- vis April, 2024 and May, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)	
		Day Ahead Contingency	Intra Day
IEX	May, 2024	8.40	9.84
	April, 2024	7.75	9.87
	%Change (Month over Month)	8.39	-0.30
	May, 2023	5.08	9.90
	%Change Year over Year)	65.35	-0.61
PXIL	May, 2024	7.92	9.77
	April, 2024	8.37	2.67
	%Change (Month over Month)	-5.38	265.92
	May, 2023	5.00	9.01
	%Change (Year over Year)	58.40	8.44
HPX	May, 2024	9.83	9.98
	April, 2024	8.85	9.98
	%Change (Month over Month)	11.07	0.00
	May, 2023	7.03	9.83
	%Change Year over Year)	39.83	1.53

- : No transaction took place

NA: Not Applicable

Table: 2B

6. Green Term Ahead Market (GTAM)

The volume of electricity transacted under GTAM was 56.76 MU at a Wt. Avg. Price of ₹ 7.76/kWh in May, 2024.

The total volume of electricity transacted in the PXs under GTAM on delivery date basis was **56.76 MU** in Non-Solar only. Whereas, no transactions took place in Solar and Hydro segment under GTAM. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under GTAM for May, 2024 is shown below as **Figure-8 & Figure-9**:

Final Scheduled Volume (MU) under GTAM on Power Exchanges

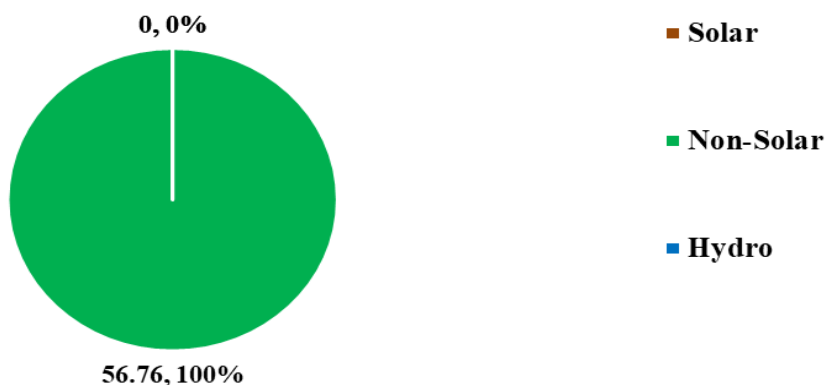


Figure-8

Comparison of FSV and Wt. Avg. Price under GTAM (Non-Solar) on Exchanges for May, 2024

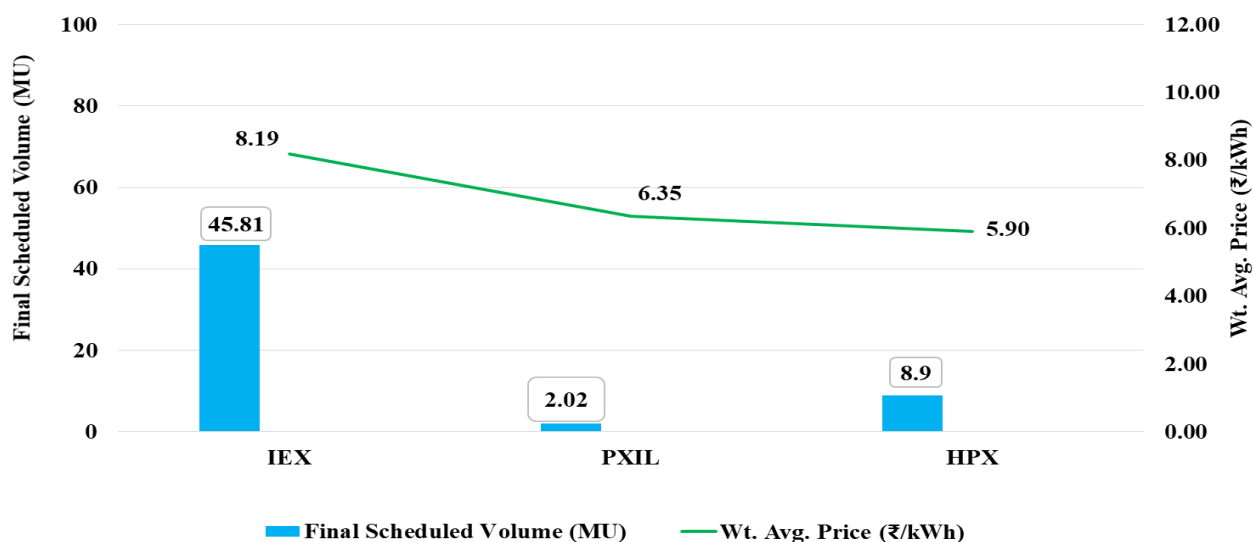


Figure-9

7. Green Day Ahead Contingency & Intra Day (G-DAC & ID)

The volume of electricity transacted under G-DAC & ID was 107.06 MU at a Wt. Avg. Price of ₹ 3.92/kWh in May, 2024.

The total volume of electricity transacted in the IEX, PXIL & HPX under G-DAC & ID on delivery date basis was **107.06 MU (82.80 MU in Solar and 24.26 MU in Non-Solar)**, respectively. Whereas, no transactions took place in Hydro segments under G-DAC & ID. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under G-DAC & ID for May, 2024 is shown below as **Figure-10, Figure-11 & Figure-12**:

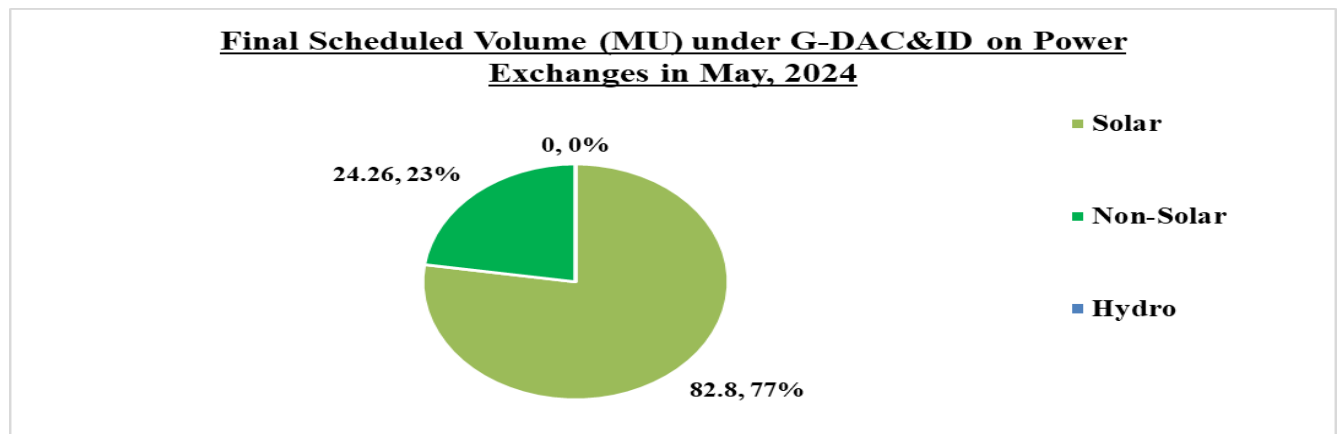


Figure-10

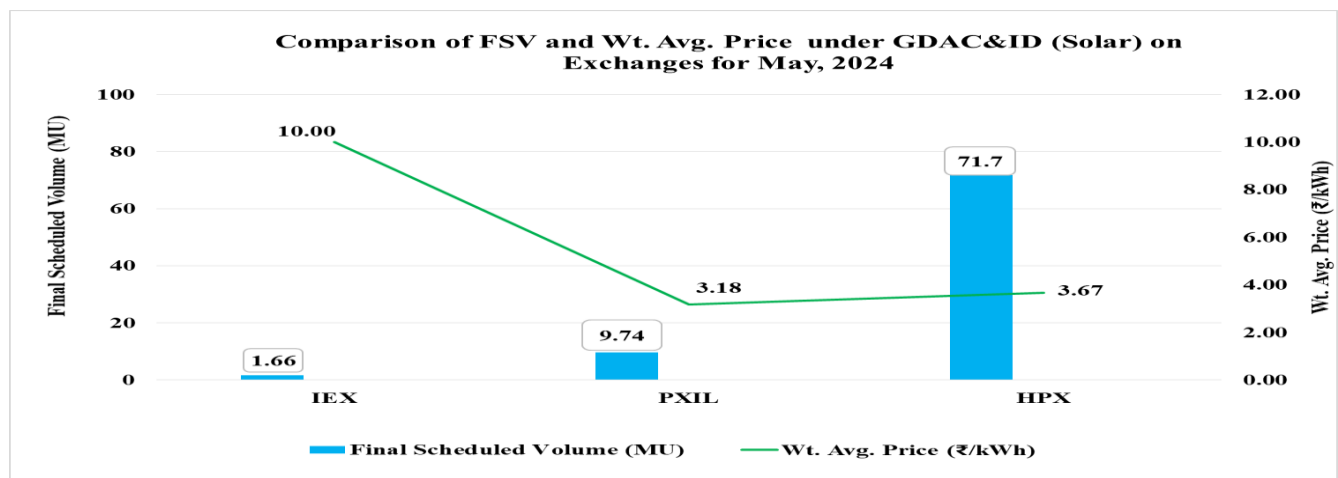


Figure-11

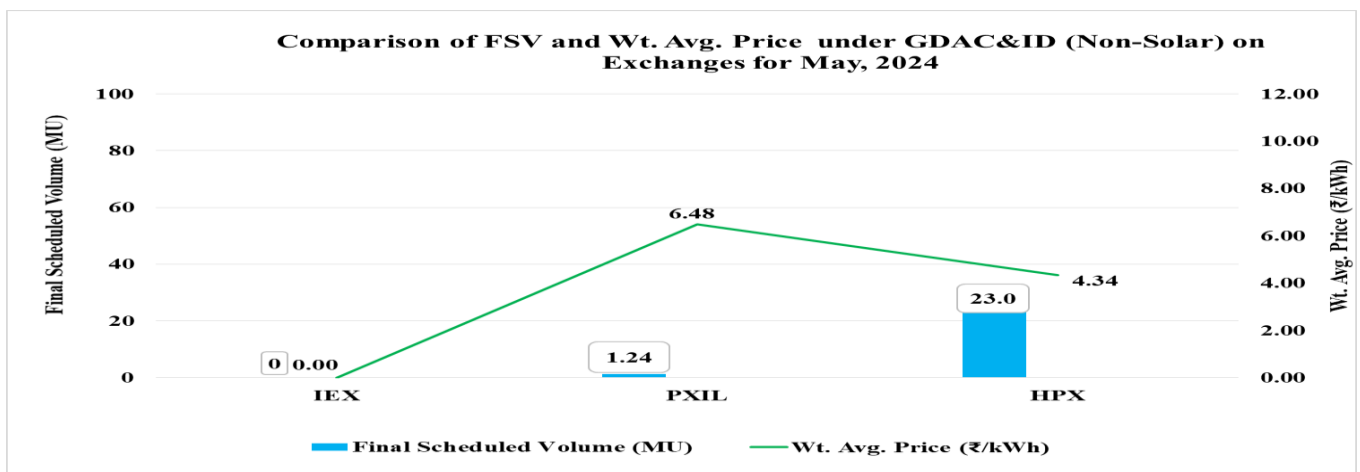


Figure-12

8. Bilateral Transactions:

The total volume of electricity transacted through **bilateral transactions** in May, 2024 was **7,470.08 MU**. The total buy volume of electricity transacted in bilateral market through direct and trader transactions in May, 2024 were **1,613.74 MU** and **5,856.34 MU** respectively. The details of bilateral transactions of Electricity during May, 2024 are shown in table below:

May, 2024	Direct	Traders	Total Bilateral Transaction (MU)
Total	1613.74	5,856.34	7,470.08
Minimum	0.30	0.15	-
Maximum	412.83	1237.20	-

Table -3A

The region-wise maximum/ minimum volume of electricity transacted bilaterally during May, 2024 are given in table below:

(i) Region-wise Volume:

Region-wise Volume (MU)	ER		WR		NR		SR		NER	
	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader
Total	541.64	1250.9	211.08	546.00	356.22	1827.24	504.47	1237.20	0.33	24.76
Minimum	102.57	0.88	3.05	0.15	1.44	0.68	0.30	25.92	0.33	10.95
Maximum	294.48	1176.7	147.56	315.34	132.85	879.83	412.83	2207.41	0.33	13.81

Table-3B

8.1. The top 5 buyers on bilateral transaction through direct transactions in May, 2024 were **Karnataka, Bihar, Chhattisgarh, West Bengal and Delhi**, which constituted **70.17 %** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in May, 2024 were **Tamil Nadu, West Bengal, Kerala, Maharashtra and Uttar Pradesh**, which constituted **79.07 %** of the market volume. [Annexure III]

8.2. The top 5 sellers on bilateral transaction through direct transactions in May, 2024 were **Andhra Pradesh, Gujarat, IGSTPS, NABINAGAR POWER and Jindal India Thermal Power Limited**, which constituted **53.60 %** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in May, 2024 were **Jindal Power Limited, Stage-2, Gujarat, Maharashtra, Adani Power Limited-Raigarh TPP and Adani Power Limited-Raipur TPP**, which constituted **29.71 %** of the market volume. [Annexure III]

8.3. Deviation Volume -The volume of Deviation observed in May, 2024 in import and export were **2,599.98 MU** and **2,960.12 MU** respectively. The total volume of Deviation observed in May, 2024 can be taken as **2,780.05 MU**.

8.4. A comparison of volume of electricity transacted through the Power Exchanges together under DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM and G-DAC & ID (on delivery date basis) with Bilateral transactions and Deviation in May, 2024 is shown in **Figure 13**:

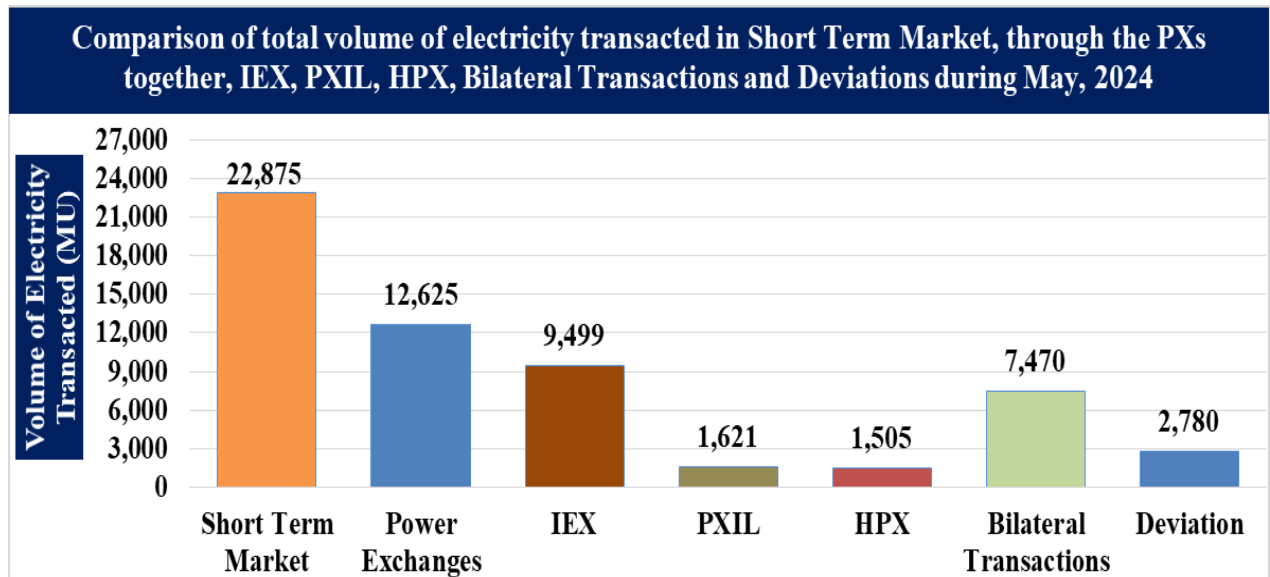
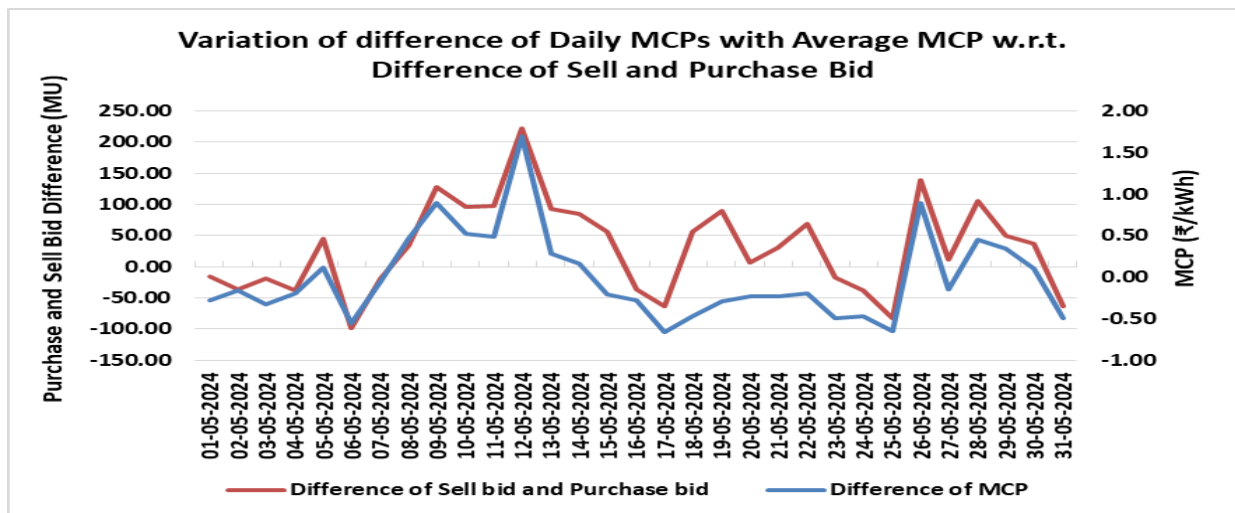


Figure -13

9. Analysis of movement of prices observed under DAM during May, 2024

A regression analysis has been carried out on the Day Ahead Market data taken from IEX website. Also, data was plotted in various graphs to observe patterns for each day of the May, 2024 month. The observations made are as under:

- 9.1. In order to find out the determinants which are responsible for the Daily Wt. Avg. MCP, a regression analysis has been carried out where the Daily Wt. Avg. MCP is the dependent variable and the independent variables are peak demand, total purchase bid, total sell bid, coal generation, hydro generation, wind generation and solar generation.
- 9.2. A double log function was used so that elasticity of Daily Wt. Avg. MCP could be read off from the coefficients of independent variables. The regression analysis revealed that the most significant variable was the Coal Generation. Further, the regression analysis revealed that the elasticity of the Daily Wt. Avg. MCP with respect to Coal Generation was **2.11** in May, 2024.
- 9.3. The variation of difference of Daily Wt. Avg. MCPs with Wt. Avg. MCP w.r.t Difference of Sell and Purchase bid is Shown below:



- 9.4. The same relationship is visible from the analysis carried out from the plot in **Figure – 14**:

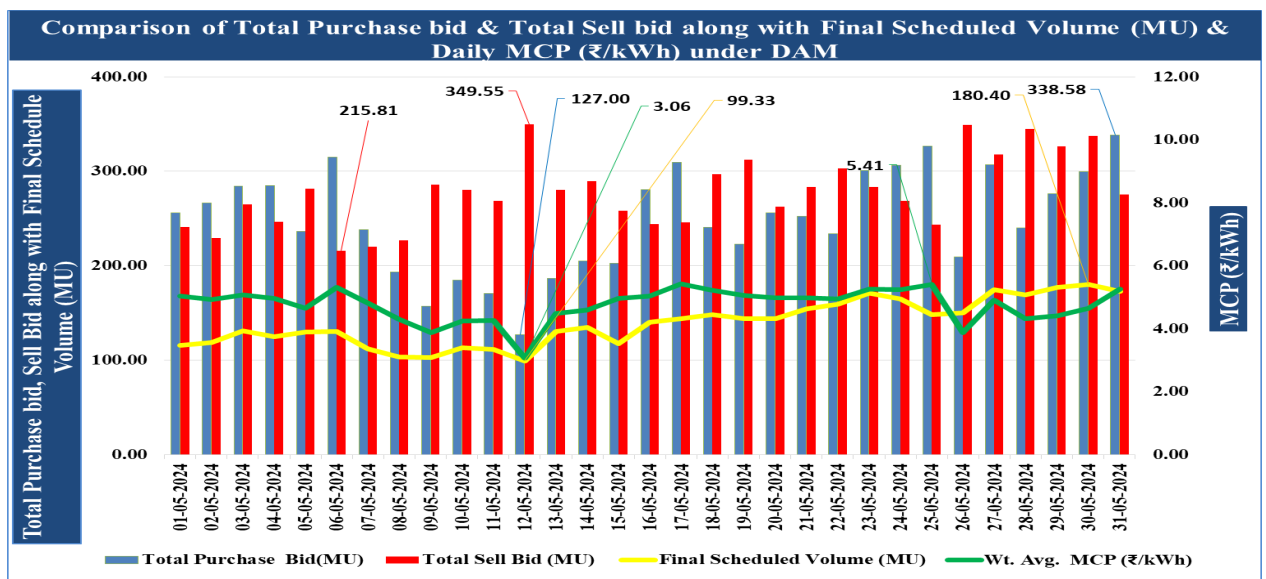


Figure – 14

9.5. Invariably, the Final Scheduled Volume (MU) and the Daily Wt. Avg. MCP (₹/kWh) showed decreasing trend on Sundays and increasing trend on Mondays as the demand of electricity in the country was less on Sundays as compared to other days of week. However, during the month of May, 2024, it is observed that on first Sunday (05th May, 2024), FSV showed increasing trend in comparison to first Saturday (04th May, 2024). The detailed analysis on this is given at **Appendix-I**.

9.6. A comparison of maximum, minimum, daily, evening time MCP is shown in **Figure-15**. The same are also tabulated in **Annexure-I**

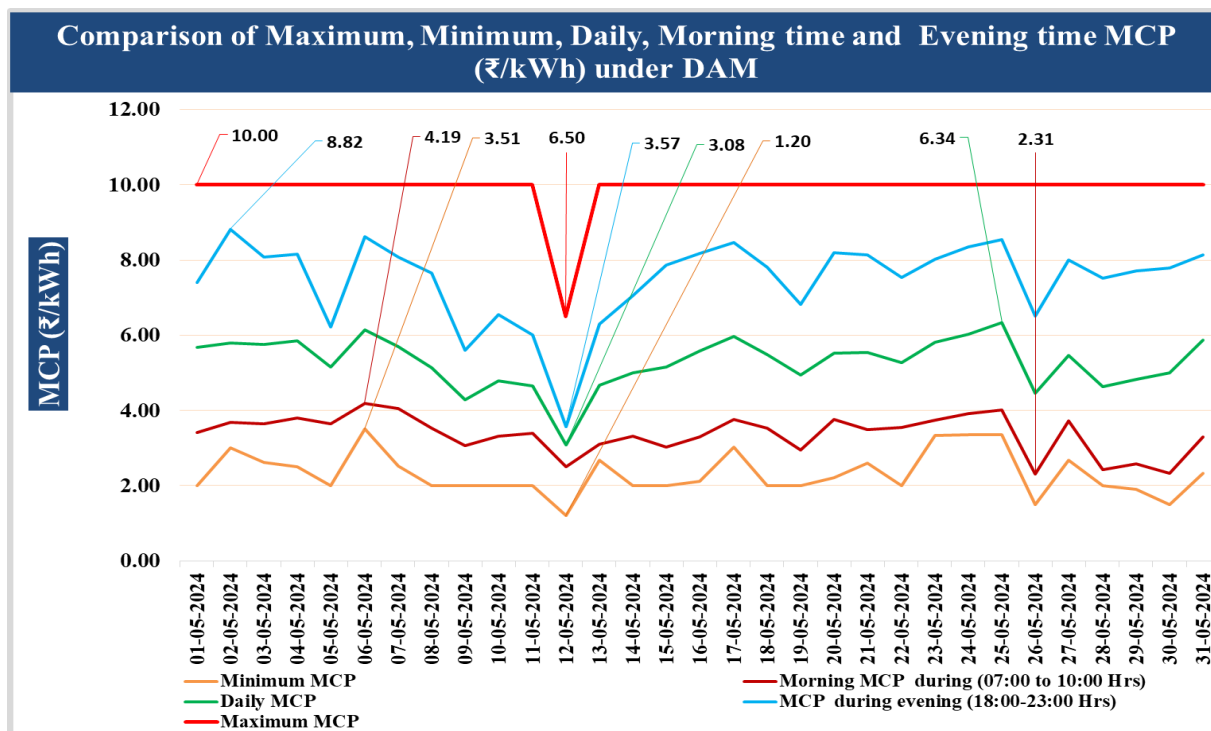


Figure-15

9.7. The Market Clearing Price duration curves for time block wise MCP for the month of May, 2024 is shown in **Figure-16**.

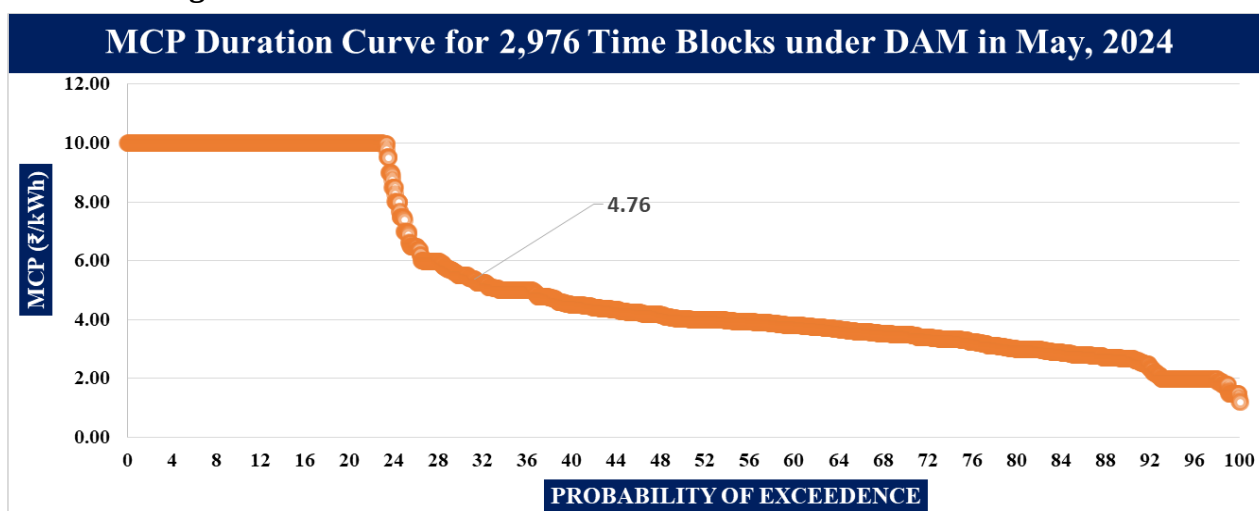


Figure – 16

- 9.8. It can be seen in figure 17 above that in the MCP duration curve of May, 2024, for 32.00 % of the time MCP was above Wt. Avg. MCP of the month (i.e. ₹ 4.76/kWh) and almost 68.00 % of the time MCP was below the Wt. Avg. MCP of the month.
- 9.9. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [Annexure V]. This is also corroborated with the outcome of regression analysis mentioned at para 9.1 and 9.2 above.
- 9.10. In May, 2024, the maximum FSV occurred mostly during the time period 02-03 Hrs (on 12 no. of days). Whereas, the maximum MCP occurred mostly during the time period 00-01 Hrs (on 29 no. of days). Similarly, the minimum FSV occurred mostly during the time period 23-24 Hrs (on 19 no. of days). Whereas, the minimum MCP occurred mostly during the time period 13-14 Hrs (on 13 no. of days). [Annexure VI]
- 9.11. In May, 2024, there was congestion of 0.52 MU in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in April, 2024, there was congestion of 13.94 MU in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in May, 2023, there was congestion of 0.41 MU in IEX and no transaction of electricity took place in PXIL & HPX.
- 9.12. In May, 2024, there was no real time curtailment in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in April, 2024, there was no real time curtailment in IEX, PXIL & HPX. Further in May, 2023, there was real time curtailment of 1.55 MU in PXIL and no real time curtailment in IEX & HPX.
- 9.13. The top 10 sellers on the power exchanges under Day Ahead Market (DAM) in May, 2024 were Chhattisgarh, Himachal Pradesh, Jindal Power Ltd. Stg-II, ADANI Power Limited, Mahan Energy Limited, Karnataka, DB Power, Jaypee Nigrie, Maharashtra and Gujarat, which constituted 46.50 % of the market volume. [Annexure VII]
- 9.14. The top 10 buyers on the power exchanges under Day Ahead Market (DAM) in May, 2024 were Rajasthan, Gujarat, Uttar Pradesh, Punjab, Uttarakhand, Haryana, Telangana, West Bengal, Tamil Nadu and Andhra Pradesh, which constituted 75.74 % of the market volume. [Annexure VII]
- 9.15. The total volume of electricity purchased by Discoms/Licensees under DAM in May, 2024 was 4,016.79 MU, which constituted 93.07 % of total volume of electricity purchased on the power exchanges.
- 9.16. Similarly, the total volume of electricity sold by Discoms/Licensees under DAM in May, 2024 was 1,965.54 MU, which constituted 45.54 % of total volume of electricity sold on the power exchanges.

10. Analysis of movement of prices observed under Real Time Market (RTM) transactions in May, 2024

- 10.1. Similar to the regression analysis carried out for Day Ahead Market, the regression analysis for Real Time Market was also done. The regression analysis revealed that the significant variable was the Coal Generation. Further, the regression analysis revealed that the elasticity of the Daily Wt. Avg. MCP with respect to Coal Generation was **5.05** in May, 2024.
- 10.2. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [**Annexure IX**]. This is also corroborated with the outcome of regression analysis mentioned at **para 10.1 above**.
- 10.3. The Total Purchase Bid, Total Sell Bid, Daily Wt. Avg. MCP and FSV are shown in **Figure-17** below:

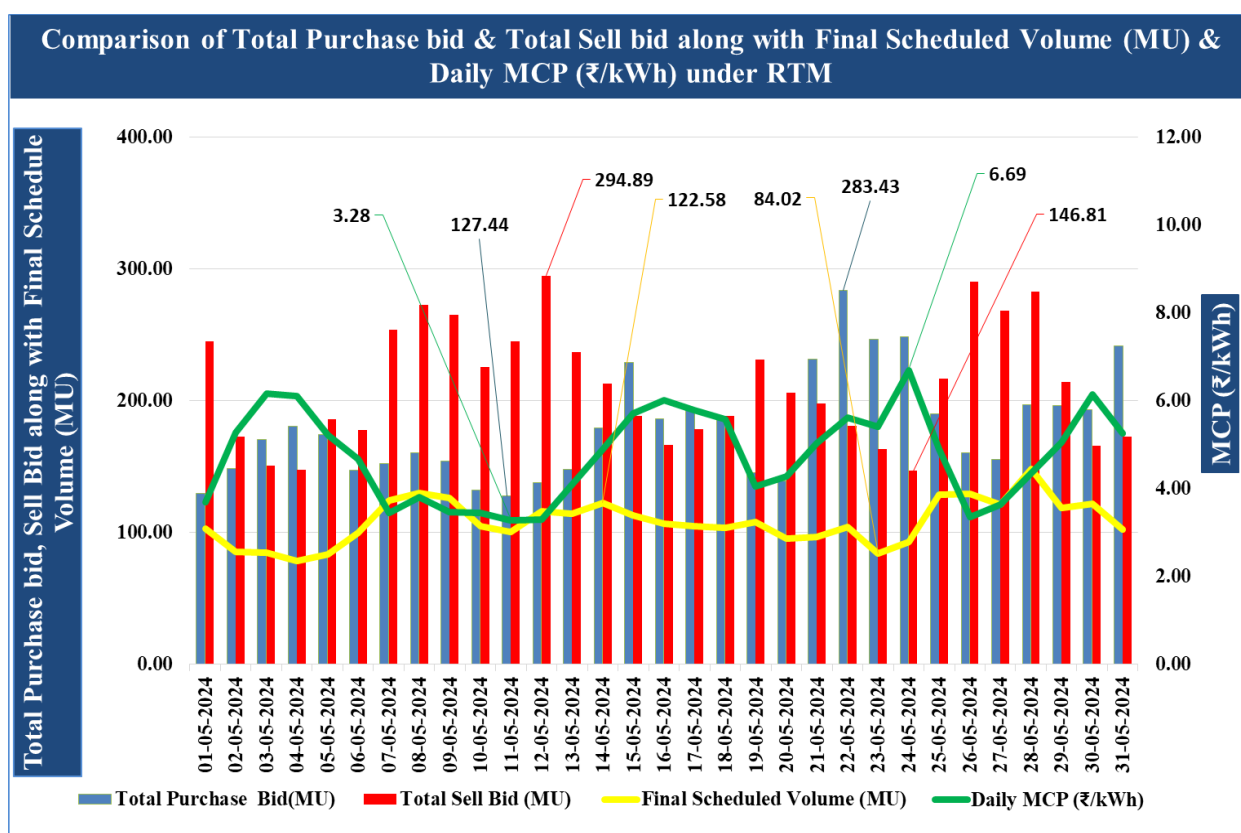


Figure-17

- 10.4. A comparison of maximum, minimum, daily, evening time MCP is shown in **Figure-18**. The same are also tabulated in **Annexure-VIII**.

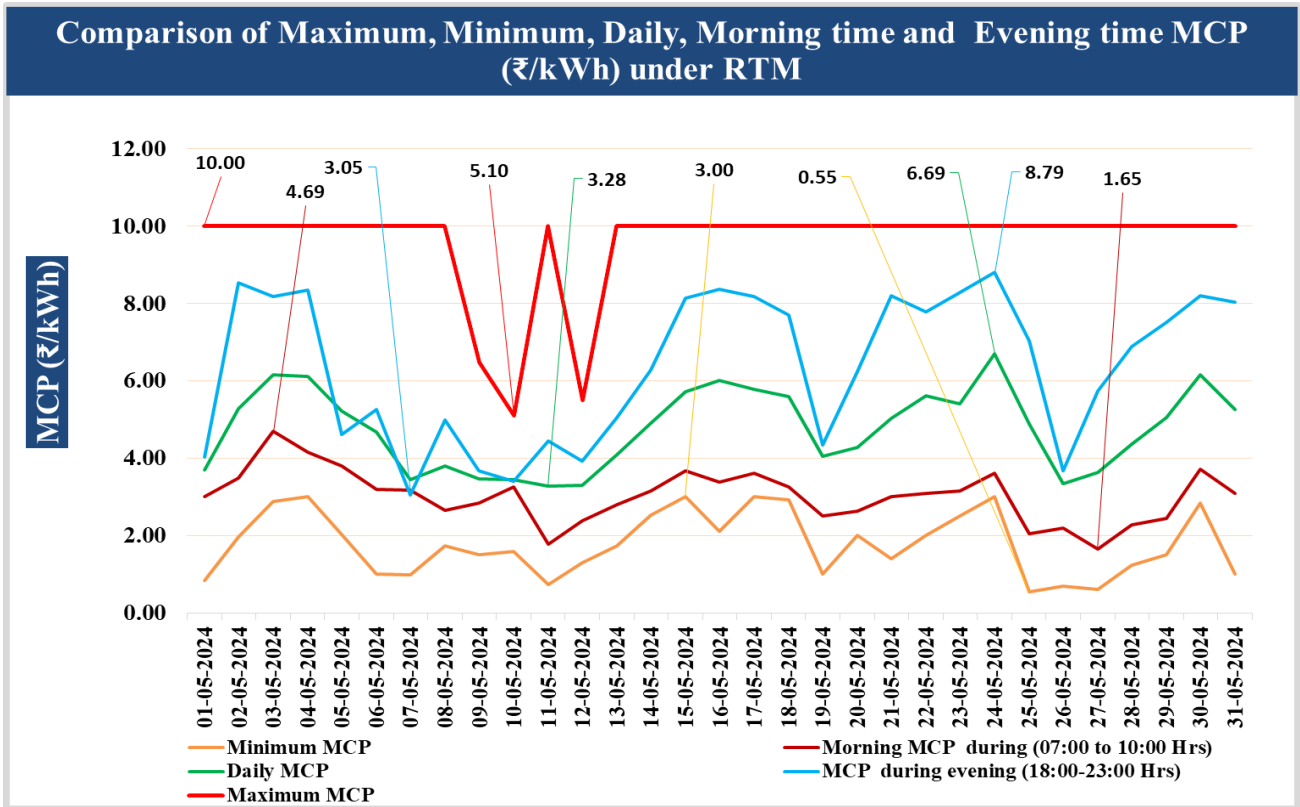


Figure-18

10.5. The Market Clearing Price duration curves for time block wise MCP for the month of May, 2024 is shown in **Figure-19**.

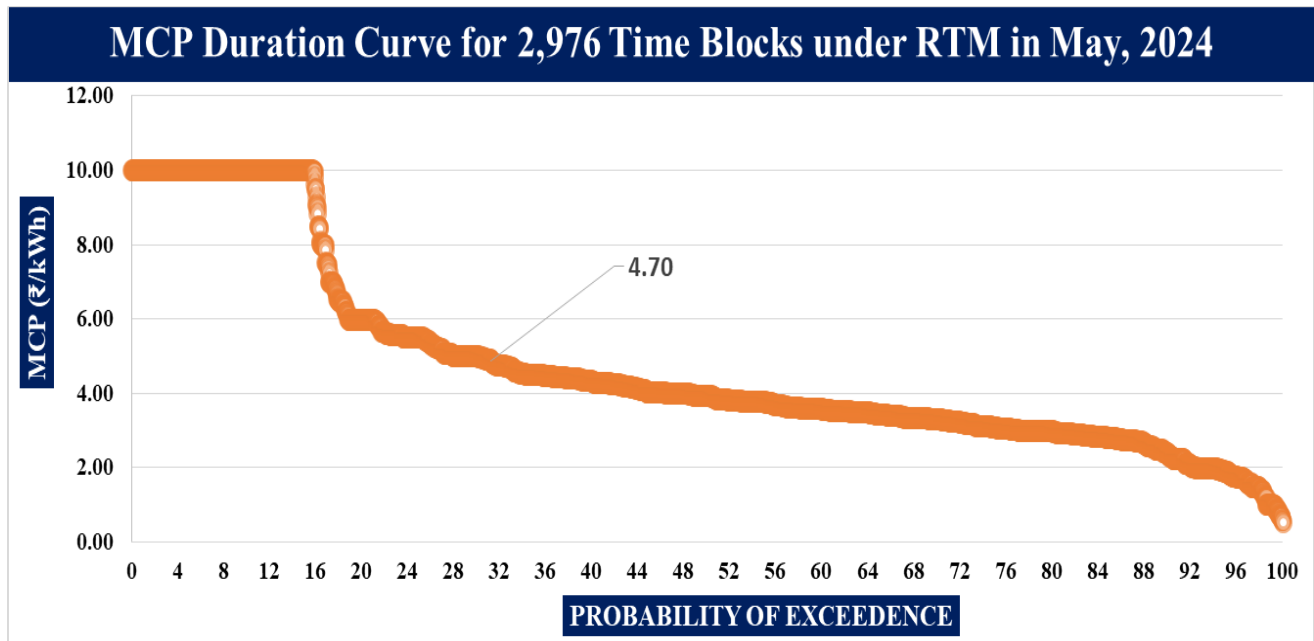


Figure-19

10.6. It can be seen in figure 19 above that in the MCP duration curve of May, 2024, for 33.00 % of the time the MCP was above the Wt. Avg. MCP of the month (i.e. ₹ 4.70/kWh) and for 67.00 % of the time the MCP was below the Wt. Avg. MCP of the month.

- 10.7.** In May, 2024, the maximum FSV occurred mostly during the **time period 15-16 Hrs** (on 7 no. of days). Whereas, the maximum MCP also occurred mostly during the **time period 00-01 Hrs** (on 18 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 22-24 Hrs** (on 8 no. of days). Whereas, the minimum MCP occurred mostly during the **time period 13-14 Hrs** (on 8 no. of days).[Annexure X]
- 10.8.** There was **no** real time curtailment in IEX, PXIL & HPX under Real Time Market (RTM) during May, 2024. Further, in April, 2024 **no** real time curtailment in IEX & HPX and no transaction took place in PXIL. Similarly, in May, 2023, there was **no** real time curtailment in IEX and HPX while no transaction took place in PXIL.
- 10.9.** In May, 2024, there was congestion of **4.95 MU** in IEX and no congestion in PXIL & HPX. Further, in April, 2024, there was congestion of **18.03 MU** in IEX and no congestion in PXIL & HPX. Similarly, in May, 2023, there was no congestion in IEX and no transaction happened in PXIL & HPX.
- 10.10.** The **top 10 sellers** on the power exchanges under Real Time Market (**RTM**) in May, 2024 were **Madhya Pradesh, Karnataka, Chhattisgarh, Bihar, West Bengal, Himachal Pradesh, Assam, Andhra Pradesh, Maharashtra and Telangana**, which constituted **56.52 %** of the market volume. [Annexure XI]
- 10.11.** The **top 10 buyers** on the power exchanges under Real Time Market (**RTM**) in May, 2024 were **Rajasthan, Punjab, Uttar Pradesh, Telangana, Tamilnadu, Maharashtra, Odisha, West Bengal, Gujarat and Bihar**, which constituted **76.25%** of the market volume. [Annexure XI]
- 10.12.** The total volume of electricity purchased by Discoms/Licensees under RTM in May, 2024 was **3,263.34 MU**, which constituted **96.32 %** of total volume of electricity purchased on the power exchanges.
- 10.13.** Similarly, the total volume of electricity sold by Discoms/Licensees under RTM in May, 2024 was **2,653.74 MU**, which constituted **78.32 %** of total volume of electricity sold on the power exchanges.

-
- Source DAM, GDAM, TAM, GTAM and RTM data: IEX, PXIL and HPX
 - Source Entity wise sale and purchase on PXs data: NLDC
 - Source Total Energy supplied: CEA
 - Source Generation & other data for Regression: NLDC and IEX

Final Scheduled Volume, Wt. Avg. MCP and Real-Time Curtailment under Day Ahead Market (DAM) for the months of April, 2024 to March, 2025 of IEX, PXIL and HPX.										
Quarter	Months	Final Scheduled Volume (MU)			Market Clearing Price (₹/kWh)			Real Time Curtailment (MU)		
		IEX	PXIL	HPX	IEX	PXIL	HPX	IEX	PXIL	HPX
Quarter -I	April, 2024	4,131.42	3.85	0	4.65	10.00	-	0	0	0
	May, 2024	4,315.58	0	0.10	4.76	-	10.00	0	0	0
	June, 2024									
Total Quarter -I	April - June, 2024	8,447.00	3.85	0.10	4.71	10.00	0	0	0	0
Total April, 2024 – March, 2025		8,447.00	3.85	0.10	4.71	10.00	10.00	0	0	0

Annexure-II

Final Scheduled Volume under Term Ahead Market (TAM) for the months of April, 2024 to March, 2025 of IEX, PXIL and HPX (Delivery date basis)					
Quarter	Months	Final Scheduled Volume (MU)			
		IEX	PXIL	HPX	Total
Quarter -I	April, 2024	1141.57	1521.03	897.57	3560.17
	May, 2024	911.93	1003.55	964.68	2880.16
	June, 2024				
Total Quarter – I	April - June, 2024	2053.50	2524.58	1862.25	6440.33
Total April, 2024 – March, 2025		2053.50	2524.58	1862.25	6440.33

Top Five Entities (Buyers and Sellers) in Bilateral transactions in May, 2024

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Karnataka	412.83	25.58%	Tamil Nadu	1237.20	21.13%
Bihar	294.48	18.25%	West Bengal	1176.76	20.09%
Chhattisgarh	147.56	9.14%	Kerala	879.83	15.02%
West Bengal	144.59	8.96%	Maharashtra	776.33	13.26%
Delhi	132.85	8.23%	Uttar Pradesh	560.41	9.57%
Total Volume	1,132.31	70.17%	Total Volume	4,630.52	79.07%
Total Volume in Bilateral	1,613.74		Total Volume in Bilateral	5,856.34	

(ii) Top five Sellers in Bilateral transactions

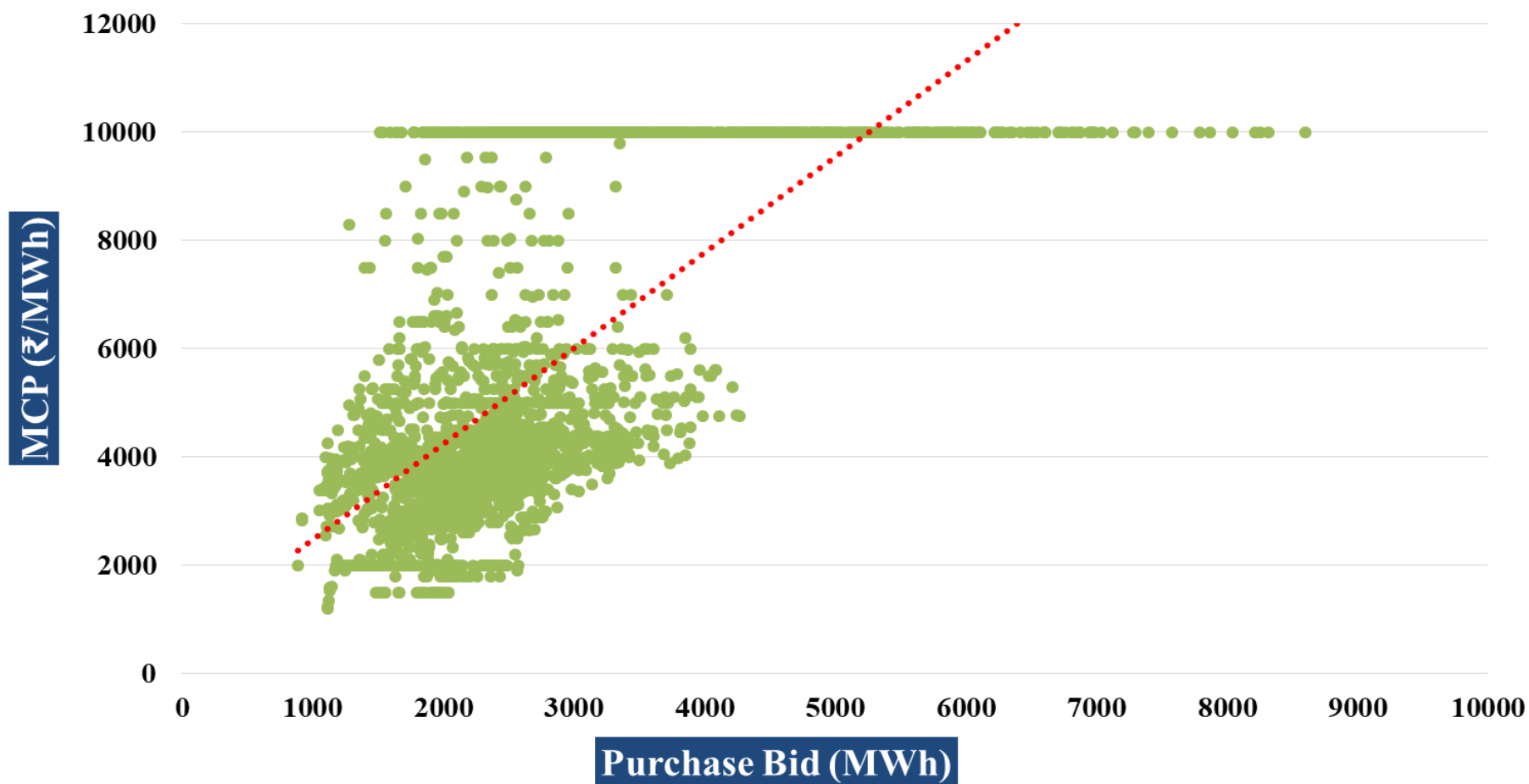
Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Andhra Pradesh	282.09	17.48%	Jindal Power Limited, Stage-2	553.13	10.11%
Gujarat	183.56	11.37%	Gujarat	328.58	8.21%
IGSTPS JHAJJAR	137.76	8.54%	Maharashtra	322.22	7.29%
NABINAGAR POWER GENERATING COMPANY LIMITED	131.44	8.14%	Adani Power Limited - Raigarh TPP	268.97	5.66%
Jindal India Thermal Power Limited	130.11	8.06%	Adani Power Limited-Raipur TPP	267.02	5.51%
Total Volume	864.96	53.60%	Total Volume	1,739.92	29.71%
Total Volume in Bilateral	1,613.74		Total Volume in Bilateral	5,856.34	

Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under DAM

Date	Morning MCP (07:00-10:00)	Day MCP (11:00-17:00)	Evening MCP (18:00- 23:00)	Night MCP (01:00- 06:00, 23:00-24:00)	Maximum MCP	Minimum MCP	Wt. Avg. MCP	Final Scheduled Volume (MU)
01-05-2024	3.42	3.16	7.40	8.00	10.00	2.00	5.67	115.42
02-05-2024	3.68	3.67	8.82	6.56	10.00	3.00	5.80	118.89
03-05-2024	3.65	3.11	8.08	7.63	10.00	2.61	5.76	131.03
04-05-2024	3.80	3.26	8.16	7.62	10.00	2.50	5.84	124.78
05-05-2024	3.64	2.61	6.22	7.65	10.00	2.00	5.15	129.51
06-05-2024	4.19	3.99	8.62	7.28	10.00	3.51	6.14	130.26
07-05-2024	4.06	3.19	8.08	7.10	10.00	2.53	5.70	111.98
08-05-2024	3.52	2.80	7.64	6.28	10.00	2.00	5.14	103.64
09-05-2024	3.06	2.56	5.61	5.59	10.00	2.00	4.29	102.90
10-05-2024	3.32	3.02	6.56	5.87	10.00	2.00	4.79	113.12
11-05-2024	3.39	2.68	6.00	6.18	10.00	2.00	4.65	111.40
12-05-2024	2.49	2.01	3.57	4.07	6.50	1.20	3.08	99.33
13-05-2024	3.10	3.25	6.30	5.56	10.00	2.67	4.66	130.45
14-05-2024	3.32	3.20	7.06	6.01	10.00	2.00	5.01	134.69
15-05-2024	3.02	3.08	7.86	6.10	10.00	2.00	5.15	117.28
16-05-2024	3.29	3.65	8.18	6.56	10.00	2.11	5.57	140.29
17-05-2024	3.76	4.03	8.47	6.99	10.00	3.02	5.96	143.83
18-05-2024	3.52	3.37	7.80	6.71	10.00	2.00	5.48	148.04
19-05-2024	2.96	2.64	6.81	6.77	10.00	2.00	4.94	143.75
20-05-2024	3.76	3.32	8.19	6.41	10.00	2.21	5.51	144.05
21-05-2024	3.49	3.39	8.13	6.66	10.00	2.60	5.55	154.43
22-05-2024	3.55	3.31	7.53	6.26	10.00	2.00	5.27	159.47
23-05-2024	3.75	3.75	8.01	7.17	10.00	3.34	5.81	170.77
24-05-2024	3.92	3.98	8.35	7.31	10.00	3.36	6.03	164.75
25-05-2024	4.01	4.03	8.54	8.08	10.00	3.36	6.34	147.94
26-05-2024	2.31	1.87	6.51	6.54	10.00	1.50	4.47	149.87
27-05-2024	3.73	3.57	8.00	6.15	10.00	2.67	5.46	174.39
28-05-2024	2.43	2.71	7.51	5.32	10.00	2.00	4.62	168.85
29-05-2024	2.57	2.93	7.72	5.56	10.00	1.90	4.83	177.14
30-05-2024	2.32	2.87	7.79	6.27	10.00	1.50	5.00	180.40
31-05-2024	3.29	4.04	8.13	7.22	10.00	2.33	5.87	172.94
Maximum	4.19	4.04	8.82	8.08	10.00	3.51	6.34	180.40
Minimum	2.31	1.87	3.57	4.07	6.50	1.20	3.08	99.33
Average	3.36	3.19	7.47	6.56	9.89	2.32	5.28	139.21

MCP: Market Clearing Price (₹/kWh)**FSV: Final Scheduled Volume (MU)**

Comparison of MCP w.r.t. Purchase Bid for 2,976 Time Blocks during the month of May, 2024 under DAM



Time Blocks during the Month [96 time blocks in a day x 31 days = 2,976]

Annexure-VI**Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP under DAM**

Date	Max. FSV (MU)		Max. MCP (₹/kWh)		Min FSV (MU)		Min. MCP (₹/kWh)	
	Time Block	Value	Time Block	Value	Time Block	Value	Time Block	Value
01-05-2024	15:15 - 15:30	1.91	00:00 - 00:15	10.00	00:15 - 00:30	0.73	11:15 - 11:30	2.00
02-05-2024	16:45 - 17:00	2.30	00:00 - 00:15	10.00	23:45 - 24:00	0.47	09:00 - 09:15	3.00
03-05-2024	15:45 - 16:00	2.29	00:00 - 00:15	10.00	23:15 - 23:30	0.54	11:15 - 11:30	2.61
04-05-2024	15:45 - 16:00	2.28	00:00 - 00:15	10.00	23:30 - 23:45	0.53	10:45 - 11:00	2.50
05-05-2024	15:30 - 15:45	1.89	00:00 - 00:15	10.00	00:00 - 00:15	0.58	11:00 - 11:15	2.00
06-05-2024	15:30 - 15:45	2.27	00:00 - 00:15	10.00	23:45 - 24:00	0.56	10:45 - 11:00	3.51
07-05-2024	15:45 - 16:00	1.90	00:00 - 00:15	10.00	23:45 - 24:00	0.42	13:15 - 13:30	2.53
08-05-2024	07:45 - 08:00	1.75	00:00 - 00:15	10.00	23:45 - 24:00	0.39	13:00 - 13:15	2.00
09-05-2024	07:00 - 07:15	1.82	00:00 - 00:15	10.00	01:30 - 01:45	0.56	18:00 - 18:15	2.00
10-05-2024	07:00 - 07:15	1.78	00:00 - 00:15	10.00	23:45 - 24:00	0.61	13:15 - 13:30	2.00
11-05-2024	07:00 - 07:15	1.66	00:00 - 00:15	10.00	23:00 - 23:15	0.65	12:45 - 13:00	2.00
12-05-2024	23:15 - 23:30	1.35	23:30 - 23:45	6.50	04:30 - 04:45	0.76	12:00 - 12:15	1.20
13-05-2024	14:45 - 15:00	1.80	00:00 - 00:15	10.00	04:45 - 05:00	0.99	07:45 - 08:00	2.67
14-05-2024	16:15 - 16:30	2.05	00:00 - 00:15	10.00	03:00 - 03:15	0.82	13:00 - 13:15	2.00
15-05-2024	16:15 - 16:30	1.86	00:00 - 00:15	10.00	02:30 - 02:45	0.68	13:15 - 13:30	2.00
16-05-2024	15:45 - 16:00	2.44	00:00 - 00:15	10.00	23:15 - 23:30	0.82	08:45 - 09:00	2.11
17-05-2024	16:00 - 16:15	2.44	00:00 - 00:15	10.00	23:30 - 23:45	0.82	13:00 - 13:15	3.02
18-05-2024	16:00 - 16:15	2.22	00:00 - 00:15	10.00	23:00 - 23:15	1.02	13:15 - 13:30	2.00
19-05-2024	02:00 - 02:15	1.86	00:00 - 00:15	10.00	18:00 - 18:15	1.01	13:15 - 13:30	2.00
20-05-2024	14:45 - 15:00	2.08	00:00 - 00:15	10.00	23:45 - 24:00	0.80	13:15 - 13:30	2.21
21-05-2024	14:45 - 15:00	2.28	00:00 - 00:15	10.00	23:45 - 24:00	0.99	13:00 - 13:15	2.60
22-05-2024	14:45 - 15:00	2.22	00:00 - 00:15	10.00	23:30 - 23:45	1.10	13:15 - 13:30	2.00
23-05-2024	14:45 - 15:00	2.58	00:00 - 00:15	10.00	23:30 - 23:45	1.00	09:15 - 09:30	3.34
24-05-2024	14:45 - 15:00	2.80	00:00 - 00:15	10.00	23:30 - 23:45	0.73	10:00 - 10:15	3.36
25-05-2024	14:45 - 15:00	2.62	00:00 - 00:15	10.00	21:00 - 21:15	0.63	13:00 - 13:15	3.36
26-05-2024	14:30 - 14:45	2.33	00:00 - 00:15	10.00	20:00 - 20:15	0.94	09:45 - 10:00	1.50
27-05-2024	14:45 - 15:00	2.79	00:00 - 00:15	10.00	23:30 - 23:45	1.00	13:00 - 13:15	2.67
28-05-2024	14:45 - 15:00	2.50	00:00 - 00:15	10.00	00:45 - 01:00	1.25	08:45 - 09:00	2.00
29-05-2024	13:45 - 14:00	2.42	19:45 - 20:00	10.00	20:00 - 20:15	1.24	08:45 - 09:00	1.90
30-05-2024	14:45 - 15:00	2.83	00:00 - 00:15	10.00	23:00 - 23:15	1.13	08:45 - 09:00	1.50
31-05-2024	14:30 - 14:45	2.88	00:00 - 00:15	10.00	23:00 - 23:15	0.78	08:45 - 09:00	2.33

MCP: Market Clearing Price (₹/kWh)**FSV: Final Scheduled Volume (MU)**

Sellers and Buyers under Day Ahead Market (DAM) in May, 2024

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Chhattisgarh	495.96	11.49%	Rajasthan	715.91	16.59%
2	Himachal Pradesh	304.68	7.06%	Gujarat	600.69	13.92%
3	Jindal Power Ltd. Stg-	203.95	4.73%	Uttar Pradesh	450.25	10.43%
4	Adani Power Limited-	173.93	4.03%	Punjab	270.86	6.28%
5	Mahan Energy	158.86	3.68%	Uttarakhand	252.99	5.86%
6	Karnataka	155.99	3.61%	Haryana	228.34	5.29%
7	DB Power	137.93	3.20%	Telangana	216.66	5.02%
8	Jaypee Nigrie	137.33	3.18%	West Bengal	191.87	4.45%
9	Maharashtra	124.29	2.88%	Tamilnadu	185.84	4.31%
10	Gujarat	113.75	2.64%	Andhra Pradesh	155.16	3.60%
11	Delhi	111.29	2.58%	Maharashtra	153.30	3.55%
12	Haryana	97.96	2.27%	NVVN (SNA) - NEA	109.82	2.54%
13	Karcham Wangtoo	95.17	2.21%	Orissa	103.76	2.40%
14	Kerala	83.79	1.94%	Bihar	93.80	2.17%
15	JITPL	80.50	1.87%	Delhi	84.66	1.96%
16	Sembcorp Energy	80.32	1.86%	NEA - Bihar STU	77.39	1.79%
17	Jindal Power	79.52	1.84%	Druk Green Power	68.24	1.58%
18	AD Hydro	73.25	1.70%	Daman & Diu - Dadra &	61.32	1.42%
19	West Bengal	68.57	1.59%	Karnataka	48.02	1.11%
20	ADANI	67.95	1.57%	Madhya Pradesh	41.76	0.97%
21	Uttar Pradesh	66.44	1.54%	Himachal Pradesh	40.98	0.95%
22	Adani Power Limited	65.64	1.52%	ArcelorMittal Nippon steel	32.26	0.75%
23	Jindal Steel	65.47	1.52%	NEA-NR	16.92	0.39%
24	ACBIL	59.49	1.38%	Kerala	16.91	0.39%
25	Telangana	52.22	1.21%	Goa SR	16.28	0.38%
26	RENEW SURYA	46.30	1.07%	Chandigarh	12.24	0.28%
27	Madhya Pradesh	46.08	1.07%	J&K	12.11	0.28%
28	Renew Surya Ravi	44.73	1.04%	Assam	10.67	0.25%
29	ADANI WIND	40.31	0.93%	Railways	10.16	0.24%
30	Goa WR	37.84	0.88%	Manipur	7.89	0.18%
31	Orissa	34.17	0.79%	Jharkhand	6.92	0.16%
32	Adept Renewable	32.64	0.76%	Sikkim	4.86	0.11%
33	Adani Green Energy	31.14	0.72%	Meghalaya	4.66	0.11%
34	ADANI SOLAR	29.16	0.68%	Tripura	3.53	0.08%
35	Amp Energy Green	29.01	0.67%	Nagaland	3.02	0.07%
36	SKS Power	28.70	0.67%	MB Power	2.32	0.05%
37	Andhra Pradesh	28.15	0.65%	Goa WR	1.58	0.04%
38	Rajasthan	27.04	0.63%	Jhabua Power	1.01	0.02%
39	Pondicherry	26.39	0.61%	BHARAT ALUMINIUM	0.38	0.01%
40	Sainj HEP	25.92	0.60%	Chhattisgarh	0.33	0.01%
41	Onevolt Energy	25.59	0.59%	Pondicherry	0.02	0.0004%
42	ADANI SOLAR	24.37	0.56%			
43	Simhapuri Energy	21.03	0.49%			
44	Barh Stg-2	20.97	0.49%			
45	Sorang HEP,	20.96	0.49%			
46	IND BARATH	20.37	0.47%			
47	Nabinagar Power	20.36	0.47%			
48	ADANI SOLAR	19.84	0.46%			
49	Tamilnadu	19.71	0.46%			
50	DVC	18.26	0.42%			
51	RENEW SURYA	17.15	0.40%			

52	Punjab	16.01	0.37%			
53	Chandigarh	15.17	0.35%			
54	Sembcorp Gayatri	14.88	0.34%			
55	NVVN (SNA) - NEA	14.28	0.33%			
56	Bihar	13.20	0.31%			
57	Dhariwal ISTS	12.65	0.29%			
58	RENEW SURYA	12.43	0.29%			
59	NTPC North	12.25	0.28%			
60	MB Power	11.68	0.27%			
61	RKM Power	11.62	0.27%			
62	Adani Green Energy	10.69	0.25%			
63	BALCO 2	10.59	0.25%			
64	Ramagundam Floating	10.03	0.23%			
65	KBUNL(MTPS-II)	9.93	0.23%			
66	NTPP BRBCL	9.59	0.22%			
67	Farakka Stg 3	9.13	0.21%			
68	Rihand-II	8.62	0.20%			
69	Meghalaya	8.56	0.20%			
70	Singoli Bhagwati	8.20	0.19%			
71	WIND FIVE	8.18	0.19%			
72	Grian Energy Private	8.08	0.19%			
73	DGEN Mega Power	7.93	0.18%			
74	Maruti Clean Coal	7.73	0.18%			
75	Ostro Kannada Power	7.58	0.18%			
76	DHARIWAL STU	7.20	0.17%			
77	ADANI WIND	7.19	0.17%			
78	Talcher	7.10	0.16%			
79	Rihand-III	6.91	0.16%			
80	Rihand-I	6.85	0.16%			
81	Farakka	6.82	0.16%			
82	IL&FS	6.66	0.15%			
83	Adani Green Energy	6.39	0.15%			
84	Jhabua Power	6.36	0.15%			
85	Assam	6.25	0.14%			
86	Barh STPS Stg - I	6.09	0.14%			
87	TPSL 200MW	5.88	0.14%			
88	Mizoram	5.80	0.13%			
89	ADANI	5.71	0.13%			
90	IGSTPS JHAJJAR	5.12	0.12%			
91	Darlipalli	4.37	0.10%			
92	Lanco Budhil	3.89	0.09%			
93	Singrauli	3.87	0.09%			
94	J&K	3.47	0.08%			
95	NTPC Kudgi	3.24	0.08%			
96	Kahalgaon-II	3.23	0.07%			
97	Kahalgaon	3.14	0.07%			
98	Dadri TPS	2.79	0.06%			
99	Transition Energy	2.78	0.06%			
100	Simhadri FSP 15 MW	2.66	0.06%			
101	GMR Kamalanga	2.58	0.06%			
102	Adani Green Energy	2.57	0.06%			
103	ADANI SOLAR	2.46	0.06%			
104	Costal Energen	2.18	0.05%			
105	Bongaigaon	2.03	0.05%			
106	Dadri Stg-2	1.91	0.04%			
107	NTPC Simhadri 25	1.82	0.04%			
108	Simhadri Stg-2	1.48	0.03%			

109	Unchahar-II	1.46	0.03%			
110	Basochhu	1.41	0.03%			
111	Simhadri Stg-1	1.32	0.03%			
112	Sikkim	1.32	0.03%			
113	Palatana	1.31	0.03%			
114	GMR Warora	1.22	0.03%			
115	Ramagundam Stg-1	1.21	0.03%			
116	Unchahar-I	1.14	0.03%			
117	Shree Cement	1.13	0.03%			
118	Tanda Stg-2	1.10	0.03%			
119	Unchahar-IV	0.95	0.02%			
120	The Tata Power Co	0.80	0.02%			
121	NTPC Gadarwara	0.76	0.02%			
122	NTECL Vallur	0.76	0.02%			
123	Nagaland	0.45	0.01%			
124	Khargone STPP	0.42	0.01%			
125	NTPC Sholapur	0.40	0.01%			
126	Unchahar-III	0.32	0.01%			
127	NTPL	0.32	0.01%			
128	ADANI GREEN	0.27	0.01%			
129	NEA-NR	0.27	0.01%			
130	KSK Mahanadi	0.24	0.01%			
131	Ramagundam Stg-3	0.18	0.004%			
132	NLC TPS-II Stg-2	0.08	0.002%			
133	TPSL Banderwala	0.08	0.002%			
134	RENEW SURYA	0.08	0.002%			
135	Mouda Stg-2	0.07	0.002%			
136	NTPC Lara	0.06	0.001%			
137	NLC TPS-II	0.04	0.001%			
138	Mouda Stg-1	0.04	0.001%			
139	NLC TPS-II Expn	0.04	0.001%			
140	Nani Virani Wind	0.03	0.001%			
141	Serentica Renewables	0.03	0.001%			
142	Neyveli New Thermal	0.02	0.0004%			
143	Vindhyachal stg-1	0.01	0.0003%			
144	Sipat Stg-1	0.01	0.0002%			
145	Korba	0.01	0.0002%			
146	NLC	0.005	0.0001%			
147	Vindhyachal stg-4	0.003	0.0001%			
148	Sipat Stg-2	0.003	0.0001%			
149	Vindhyachal stg-2	0.003	0.0001%			
150	Vindhyachal stg-3	0.003	0.0001%			
151	Korba Stg 3	0.002	0.0001%			
152	Vindhyachal stg-5	0.002	0.00004%			
Total Volume of top 10		2,006.68	46.50%	Total Volume of top 10	3,268.58	75.74%
Total Volume in PXs		4,315.68		Total Volume in PXs	4,315.68	

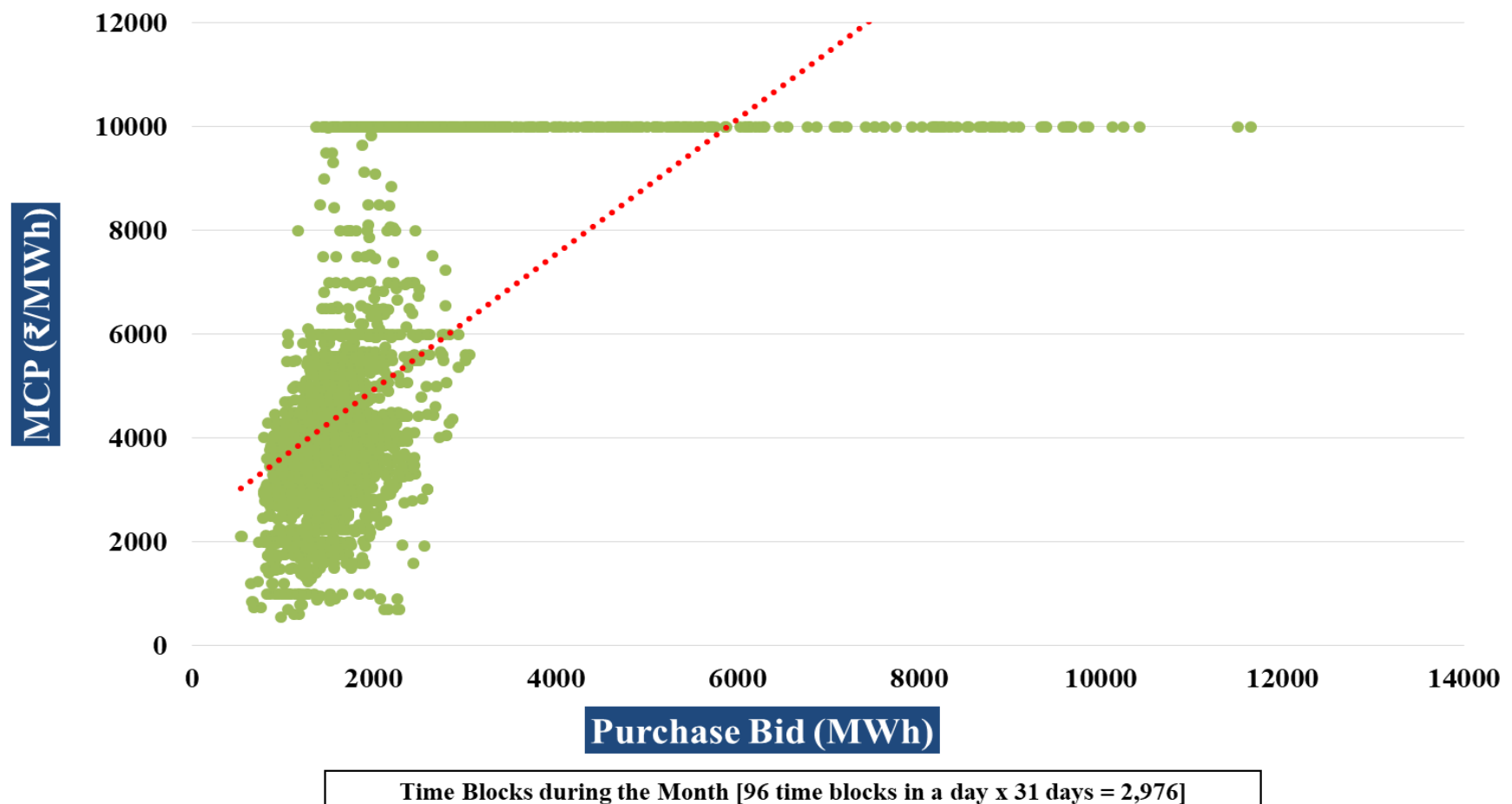
Annexure-VIII**Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under RTM**

Date	Morning MCP (07:00-10:00)	Day MCP (11:00-17:00)	Evening MCP (18:00- 23:00)	Night MCP (01:00- 06:00, 23:00-24:00)	Maximum MCP	Minimum MCP	Wt. Avg. MCP	Final Scheduled Volume (MU)
01-05-2024	3.01	2.02	4.03	5.47	10.00	0.85	3.69	102.69
02-05-2024	3.48	3.81	8.53	4.96	10.00	1.97	5.27	85.36
03-05-2024	4.69	4.05	8.18	7.38	10.00	2.88	6.16	84.95
04-05-2024	4.16	4.18	8.34	7.22	10.00	3.00	6.10	78.15
05-05-2024	3.80	3.21	4.61	8.57	10.00	2.02	5.22	83.51
06-05-2024	3.19	4.15	5.27	5.52	10.00	1.00	4.67	99.98
07-05-2024	3.18	3.13	3.05	4.27	10.00	0.99	3.45	124.04
08-05-2024	2.66	3.11	4.99	4.12	10.00	1.74	3.80	129.72
09-05-2024	2.84	3.09	3.67	4.00	6.48	1.50	3.46	125.88
10-05-2024	3.25	3.49	3.40	3.53	5.10	1.60	3.44	104.57
11-05-2024	1.78	2.68	4.45	3.72	10.00	0.73	3.28	100.17
12-05-2024	2.39	2.34	3.92	4.25	5.50	1.30	3.30	116.17
13-05-2024	2.80	3.38	5.05	4.68	10.00	1.74	4.08	114.07
14-05-2024	3.16	4.28	6.28	5.35	10.00	2.52	4.90	122.58
15-05-2024	3.68	3.94	8.14	6.55	10.00	3.00	5.71	112.99
16-05-2024	3.38	4.73	8.35	6.81	10.00	2.11	6.02	106.75
17-05-2024	3.62	4.82	8.18	5.96	10.00	3.00	5.79	104.65
18-05-2024	3.25	3.85	7.70	6.84	10.00	2.92	5.58	103.49
19-05-2024	2.50	2.81	4.35	5.93	10.00	1.00	4.05	107.98
20-05-2024	2.63	2.99	6.23	4.86	10.00	2.00	4.28	95.15
21-05-2024	3.00	3.10	8.19	5.40	10.00	1.40	5.03	96.93
22-05-2024	3.09	3.60	7.77	7.21	10.00	2.00	5.61	104.40
23-05-2024	3.15	3.53	8.28	6.08	10.00	2.50	5.40	84.02
24-05-2024	3.60	5.50	8.79	7.85	10.00	3.00	6.69	93.04
25-05-2024	2.05	3.12	7.03	6.44	10.00	0.55	4.89	128.99
26-05-2024	2.20	1.77	3.68	5.30	10.00	0.70	3.35	129.14
27-05-2024	1.65	2.68	5.74	3.91	10.00	0.60	3.63	121.34
28-05-2024	2.27	3.16	6.89	4.55	10.00	1.23	4.35	148.08
29-05-2024	2.45	4.00	7.51	5.47	10.00	1.50	5.05	118.84
30-05-2024	3.71	5.25	8.19	6.69	10.00	2.83	6.15	121.52
31-05-2024	3.09	4.32	8.03	5.08	10.00	1.00	5.26	102.51
Maximum	4.69	5.50	8.79	8.57	10.00	3.00	6.69	148.08
Minimum	1.65	1.77	3.05	3.53	5.10	0.55	3.28	78.15
Average	3.02	3.55	6.35	5.61	9.58	1.78	4.76	108.12

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,976 Time Blocks during the month of May, 2024 under RTM



Annexure-IX

Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP under RTM

Date	Max. FSV (MU)		Max. MCP (₹/kWh)		Min FSV (MU)		Min. MCP (₹/kWh)	
	Time Block	Value	Time Block	Value	Time Block	Value	Time Block	Value
01-05-2024	01:00 - 01:15	1.59	00:00 - 00:15	10.00	13:15 - 13:30	0.66	13:15 - 13:30	0.85
02-05-2024	17:15 - 17:30	1.47	19:15 - 19:30	10.00	05:00 - 05:15	0.51	13:00 - 13:15	1.97
03-05-2024	06:30 - 06:45	1.23	00:00 - 00:15	10.00	23:45 - 24:00	0.50	13:00 - 13:15	2.88
04-05-2024	15:15 - 15:30	1.23	00:00 - 00:15	10.00	23:45 - 24:00	0.23	13:15 - 13:30	3.00
05-05-2024	22:00 - 22:15	1.26	00:00 - 00:15	10.00	00:15 - 00:30	0.29	18:30 - 18:45	2.02
06-05-2024	21:00 - 21:15	1.73	00:00 - 00:15	10.00	02:45 - 03:00	0.66	18:00 - 18:15	1.00
07-05-2024	16:45 - 17:00	1.74	00:00 - 00:15	10.00	07:45 - 08:00	0.83	18:00 - 18:15	0.99
08-05-2024	00:00 - 00:15	1.83	22:30 - 22:45	10.00	18:00 - 18:15	0.79	07:45 - 08:00	1.74
09-05-2024	15:45 - 16:00	2.15	23:00 - 23:15	6.48	05:30 - 05:45	0.78	18:00 - 18:15	1.50
10-05-2024	14:30 - 14:45	1.62	22:45 - 23:00	5.10	19:15 - 19:30	0.58	18:00 - 18:15	1.60
11-05-2024	14:45 - 15:00	1.63	23:00 - 23:15	10.00	08:15 - 08:30	0.68	08:15 - 08:30	0.73
12-05-2024	10:45 - 11:00	1.56	22:15 - 22:30	5.50	06:45 - 07:00	0.86	09:45 - 10:00	1.30
13-05-2024	23:30 - 23:45	2.13	22:15 - 22:30	10.00	05:00 - 05:15	0.87	09:30 - 09:45	1.74
14-05-2024	00:00 - 00:15	1.91	21:30 - 21:45	10.00	06:15 - 06:30	0.63	07:45 - 08:00	2.52
15-05-2024	01:15 - 01:30	1.53	00:00 - 00:15	10.00	22:15 - 22:30	0.56	13:00 - 13:15	3.00
16-05-2024	14:30 - 14:45	1.76	00:00 - 00:15	10.00	08:30 - 08:45	0.54	08:45 - 09:00	2.11
17-05-2024	15:45 - 16:00	1.54	00:00 - 00:15	10.00	19:15 - 19:30	0.66	08:15 - 08:30	3.00
18-05-2024	15:45 - 16:00	1.92	00:00 - 00:15	10.00	00:30 - 00:45	0.54	11:45 - 12:00	2.92
19-05-2024	11:45 - 12:00	1.84	00:00 - 00:15	10.00	18:00 - 18:15	0.64	09:45 - 10:00	1.00
20-05-2024	23:45 - 24:00	1.59	21:00 - 21:15	10.00	01:30 - 01:45	0.44	13:00 - 13:15	2.00
21-05-2024	11:00 - 11:15	1.52	19:00 - 19:15	10.00	22:30 - 22:45	0.54	10:00 - 10:15	1.40
22-05-2024	15:00 - 15:15	1.66	00:00 - 00:15	10.00	22:15 - 22:30	0.39	09:15 - 09:30	2.00
23-05-2024	17:00 - 17:15	1.26	00:00 - 00:15	10.00	22:45 - 23:00	0.21	13:00 - 13:15	2.50
24-05-2024	14:00 - 14:15	1.68	00:00 - 00:15	10.00	19:45 - 20:00	0.38	09:45 - 10:00	3.00
25-05-2024	00:30 - 00:45	2.00	00:00 - 00:15	10.00	04:15 - 04:30	0.76	09:00 - 09:15	0.55
26-05-2024	13:45 - 14:00	2.42	00:00 - 00:15	10.00	04:45 - 05:00	0.73	13:00 - 13:15	0.70
27-05-2024	07:00 - 07:15	1.75	21:45 - 22:00	10.00	01:15 - 01:30	0.83	08:45 - 09:00	0.60
28-05-2024	15:30 - 15:45	2.51	20:30 - 20:45	10.00	07:15 - 07:30	1.03	08:30 - 08:45	1.23
29-05-2024	15:00 - 15:15	2.29	00:00 - 00:15	10.00	23:00 - 23:15	0.58	07:45 - 08:00	1.50
30-05-2024	13:30 - 13:45	2.19	00:00 - 00:15	10.00	19:00 - 19:15	0.62	07:15 - 07:30	2.83
31-05-2024	00:00 - 00:15	1.63	19:15 - 19:30	10.00	22:15 - 22:30	0.58	07:45 - 08:00	1.00

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Sellers and Buyers under Real Time Market (RTM) in May, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Madhya Pradesh	309.51	9.13%	Rajasthan	775.46	22.89%
2	Karnataka	308.08	9.09%	Punjab	347.39	10.25%
3	Chhattisgarh	229.63	6.78%	Uttar Pradesh	341.10	10.07%
4	Bihar	211.14	6.23%	Telangana	283.87	8.38%
5	West Bengal	203.97	6.02%	Tamilnadu	185.28	5.47%
6	Himachal Pradesh	195.93	5.78%	Maharashtra	173.26	5.11%
7	Assam	150.12	4.43%	Orissa	164.60	4.86%
8	Andhra Pradesh	125.61	3.71%	West Bengal	115.71	3.42%
9	Maharashtra	99.11	2.93%	Gujarat	99.65	2.94%
10	Telangana	81.77	2.41%	Bihar	97.10	2.87%
11	Haryana	75.57	2.23%	Delhi	94.64	2.79%
12	Delhi	73.13	2.16%	Andhra Pradesh	89.42	2.64%
13	Kerala	69.87	2.06%	Haryana	78.76	2.32%
14	Orissa	64.32	1.90%	Jharkhand	62.20	1.84%
15	J&K	62.96	1.86%	Assam	48.72	1.44%
16	Uttar Pradesh	60.90	1.80%	Uttarakhand	46.94	1.39%
17	Punjab	56.26	1.66%	J&K	45.40	1.34%
18	Gujarat	53.08	1.57%	Himachal Pradesh	38.32	1.13%
19	Jharkhand	43.08	1.27%	Madhya Pradesh	32.78	0.97%
20	Tamilnadu	35.92	1.06%	Daman & Diu - Dadra &	29.66	0.88%
21	Serentica	32.40	0.96%	NVVN (SNA) - NEA	23.09	0.68%
22	DVC	30.07	0.89%	DVC	21.71	0.64%
23	Adani Power	27.24	0.80%	Kerala	17.64	0.52%
24	Pondicherry	24.20	0.71%	Tripura	16.32	0.48%
25	RENEW SURYA	22.80	0.67%	Karnataka	14.78	0.44%
26	Transition Green	22.69	0.67%	ArcelorMittal Nippon steel	14.36	0.42%
27	The Tata Power Co	22.61	0.67%	Mahan Energy Limited	11.86	0.35%
28	Sembcorp Energy	22.14	0.65%	NEA - Bihar STU	10.88	0.32%
29	Kameng HEP	19.73	0.58%	Druk Green Power	10.27	0.30%
30	Arunachal Pradesh	19.46	0.57%	Manipur	10.21	0.30%
31	NVVN (SNA) -	18.27	0.54%	Adani Power Limited-	9.90	0.29%
32	Ayana Renewable	16.80	0.50%	BHARAT ALUMINIUM	9.76	0.29%
33	Tripura	16.15	0.48%	Meghalaya	8.28	0.24%
34	RENEW SURYA	15.18	0.45%	Shree Cement	8.18	0.24%
35	Uttarakhand	15.07	0.44%	Nagaland	6.60	0.19%
36	BALCO 2	14.90	0.44%	Jindal Steel	6.19	0.18%
37	MB Power	14.00	0.41%	SKS Power	5.42	0.16%
38	SKS Power	13.78	0.41%	Railways	4.88	0.14%
39	ADANI WIND	13.50	0.40%	Arunachal Pradesh	4.66	0.14%
40	NREL-Dayapar	13.39	0.40%	Goa SR	4.57	0.13%
41	Sembcorp Gayatri	12.82	0.38%	Sikkim	3.65	0.11%
42	Jhabua Power	12.13	0.36%	MB Power	3.14	0.09%
43	Transition	11.82	0.35%	Jindal Power	2.07	0.06%
44	Mahan Energy	11.48	0.34%	Chhattisgarh	2.06	0.06%
45	NTPC Gadawara	11.41	0.34%	Goa WR	1.97	0.06%
46	Manipur	10.93	0.32%	ACBIL	1.33	0.04%
47	Neyveli New	10.40	0.31%	NEA-NR	1.23	0.04%

48	RENEW SURYA	10.27	0.30%	Sainj HEP	0.85	0.03%
49	NTPC Kudgi	10.19	0.30%	Chandigarh	0.57	0.02%
50	Karcham Wangtoo	10.07	0.30%	Ratnagiri Gas & Power	0.41	0.01%
51	ADHUNIK POWER	9.76	0.29%	Maruti Clean Coal Power	0.31	0.01%
52	NTPC Telangana	9.48	0.28%	Gandhar	0.28	0.01%
53	Rajasthan	9.44	0.28%	Kawas	0.15	0.004%
54	Jindal Power Ltd.	9.04	0.27%	Simhapuri Energy Limited	0.13	0.004%
55	Kahalgaoon-II	9.02	0.27%	Jhabua Power	0.10	0.003%
56	TPSL Banderwala	8.61	0.25%	Pondicherry	0.05	0.001%
57	Ramagundam Stg-1	8.44	0.25%	Adani Power Limited -	0.002	0.001%
58	Farakka	8.20	0.24%	TPSL Banderwala SECI	0.001	0.001%
59	AD Hydro	8.13	0.24%			
60	ADANI	7.55	0.22%			
61	JITPL	7.54	0.22%			
62	Sorang HEP,	7.17	0.21%			
63	RKM Power	7.10	0.21%			
64	Simhadri Stg-1	6.73	0.20%			
65	Meghalaya	6.57	0.19%			
66	Singoli Bhagwati	6.56	0.19%			
67	Barh Stg-2	6.22	0.18%			
68	Simhapuri Energy	6.21	0.18%			
69	Sipat Stg-1	5.88	0.17%			
70	Lanco Kondapalli	5.78	0.17%			
71	Goa WR	5.64	0.17%			
72	Khargone STPP	5.47	0.16%			
73	Sasan UMPP	5.39	0.16%			
74	Tanda Stg-2	5.23	0.15%			
75	DB Power	4.87	0.14%			
76	NLC	4.82	0.14%			
77	NTPC Sholapur	4.76	0.14%			
78	Nabinagar Power	4.63	0.14%			
79	Kahalgaoon	4.61	0.14%			
80	Simhadri Stg-2	4.60	0.14%			
81	Adani Power	4.43	0.13%			
82	ACBIL	4.42	0.13%			
83	IGSTPS JHAJJAR	4.41	0.13%			
84	NTPL	4.37	0.13%			
85	Rihand-III	4.25	0.13%			
86	Rihand-II	4.00	0.12%			
87	Mouda Stg-2	3.98	0.12%			
88	Sainj HEP	3.97	0.12%			
89	Jindal Power	3.84	0.11%			
90	Farakka Stg 3	3.80	0.11%			
91	Korba	3.79	0.11%			
92	Jindal Steel	3.77	0.11%			
93	Sikkim	3.74	0.11%			
94	Dadri TPS	3.68	0.11%			
95	NTECL Vallur	3.64	0.11%			
96	Rihand-I	3.62	0.11%			
97	DGEN Mega Power	3.61	0.11%			
98	Barh STPS Stg - I	3.54	0.10%			
99	Unchahar-IV	3.30	0.10%			

100	Dadri Stg-2	3.30	0.10%			
101	Bongaigaon	3.23	0.10%			
102	KBUNL(MTPS-II)	3.20	0.09%			
103	Vindhyachal stg-4	3.04	0.09%			
104	Mouda Stg-1	2.96	0.09%			
105	Renew Surya Ravi	2.82	0.08%			
106	Unchahar-II	2.80	0.08%			
107	Vindhyachal stg-3	2.76	0.08%			
108	Sipat Stg-2	2.73	0.08%			
109	Kopili 2 IN	2.64	0.08%			
110	Onevolt Energy	2.58	0.08%			
111	Nagaland	2.49	0.07%			
112	Maruti Clean Coal	2.46	0.07%			
113	Vindhyachal stg-1	2.38	0.07%			
114	Serentica	2.36	0.07%			
115	NLC TPS-II Expn	2.29	0.07%			
116	Singrauli	2.25	0.07%			
117	Amplus Ages	2.25	0.07%			
118	Vindhyachal stg-2	2.22	0.07%			
119	AGBPP	2.19	0.06%			
120	NTPC Lara	2.07	0.06%			
121	IL&FS	1.93	0.06%			
122	Unchahar-I	1.83	0.05%			
123	DHARIWAL STU	1.74	0.05%			
124	TRN Energy	1.68	0.05%			
125	Dhariwal ISTS	1.66	0.05%			
126	Ostro Kannada	1.60	0.05%			
127	ADANI SOLAR	1.57	0.05%			
128	Vindhyachal stg-5	1.52	0.04%			
129	ADANI SOLAR	1.49	0.04%			
130	RENEW SURYA	1.44	0.04%			
131	NLC TPS-II Stg-2	1.35	0.04%			
132	Palatana	1.29	0.04%			
133	Amp Energy Green	1.27	0.04%			
134	Adani Green Energy	1.21	0.04%			
135	Unchahar-III	1.18	0.03%			
136	GMR Warora	1.16	0.03%			
137	Ramagundam Stg-3	1.16	0.03%			
138	IND BARATH	1.15	0.03%			
139	Chandigarh	1.14	0.03%			
140	Adept Renewable	1.11	0.03%			
141	Korba Stg 3	0.87	0.03%			
142	ADANI SOLAR	0.77	0.02%			
143	RENEW SURYA	0.76	0.02%			
144	Lanco Budhil	0.73	0.02%			
145	ADANI	0.72	0.02%			
146	AGTPP	0.71	0.02%			
147	NSPCL Bhilai	0.71	0.02%			
148	NLC TPS-II	0.61	0.02%			
149	RENEW SURYA	0.61	0.02%			
150	Transition Energy	0.60	0.02%			
151	Serentica	0.58	0.02%			

152	Shree Cement	0.52	0.02%			
153	MEENAKSHI	0.50	0.01%			
154	Daman & Diu -	0.45	0.01%			
155	NEA-NR	0.36	0.01%			
156	Jaypee Nigrie	0.33	0.01%			
157	Grian Energy Private	0.30	0.01%			
158	GMR Kamalanga	0.25	0.01%			
159	WIND FIVE	0.21	0.01%			
160	ADANI SOLAR	0.14	0.004%			
161	Adani Green Energy	0.09	0.003%			
162	Adani Green Energy	0.09	0.003%			
163	KSK Mahanadi	0.07	0.002%			
164	Mizoram	0.05	0.001%			
165	Chuzachen	0.03	0.001%			
166	Basochhu	0.02	0.001%			
167	Jorethang	0.02	0.001%			
168	Goa SR	0.01	0.0004%			
169	TPSL 200MW	0.0004	0.0001%			
Total Volume of top 10		1,914.86	56.52%	Total Volume of top 10	2,583.42	76.25%
Total Volume in PXs		3,388.10		Total Volume in PXs	3,388.10	

Cross Border Electricity Transactions under Day Ahead Market (DAM) in IEX with Nepal and Bhutan during the month of May, 2024					
S. No	Delivery Date	Buy Volume By Nepal (MU)	Sell Volume by Nepal (MU)	Buy Volume By Bhutan (MU)	Sell Volume by Bhutan (MU)
1	01-05-2024	3.60	0	-	-
2	02-05-2024	6.04	0	-	-
3	03-05-2024	5.16	0	3.76	0
4	04-05-2024	5.16	0	4.26	0
5	05-05-2024	10.09	0	4.65	0
6	06-05-2024	10.09	0	4.71	0
7	07-05-2024	10.09	0	5.16	0
8	08-05-2024	8.04	0	4.39	0
9	09-05-2024	7.66	0	4.43	0
10	10-05-2024	8.94	0	4.32	0
11	11-05-2024	7.14	0	4.31	0
12	12-05-2024	9.71	0	4.71	0
13	13-05-2024	6.56	0	3.93	0
14	14-05-2024	6.56	0	3.17	0
15	15-05-2024	7.49	0	3.50	0
16	16-05-2024	8.81	0	3.72	0
17	17-05-2024	8.87	0	3.34	0
18	18-05-2024	7.81	0	2.80	0
19	19-05-2024	8.78	0	2.18	0
20	20-05-2024	7.60	0	0.91	0
21	21-05-2024	7.08	0	-	-
22	22-05-2024	7.65	0	-	-
23	23-05-2024	7.18	0	-	-
24	24-05-2024	6.64	0	-	-
25	25-05-2024	6.64	0	-	-
26	26-05-2024	6.64	0	-	-
27	27-05-2024	2.22	0	-	-
28	28-05-2024	2.22	0	-	-
29	29-05-2024	0.36	8.43	-	-
30	30-05-2024	1.68	4.74	-	-
31	31-05-2024	1.60	1.38	-	-
Total		204.11	14.55	68.25	-
Grand Total		286.91			

-: No transaction took place

Note: Cross Border Transactions of Electricity of 286.91 MU (i.e. 204.11 MU bought by Nepal, 14.55 sold by Nepal, 68.25 MU bought by Bhutan) happened during May, 2024 in IEX, which is included under DAM Volume of May, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with Bhutan for the month of May, 2024 in IEX under DAM.

Cross Border Electricity Transactions under Real Time Market (RTM) in IEX with Nepal and Bhutan during the month of May, 2024					
S. No	Delivery Date	Buy Volume By Nepal (MU)	Sell Volume by Nepal (MU)	Buy Volume By Bhutan (MU)	Sell Volume by Bhutan (MU)
1	01-05-2024	3.69	0	-	-
2	02-05-2024	3.83	0	4.12	0
3	03-05-2024	4.70	0	1.54	0
4	04-05-2024	3.66	0	1.02	0
5	05-05-2024	-	-	0.41	0
6	06-05-2024	-	-	0.56	0
7	07-05-2024	0	0.65	-	-
8	08-05-2024	-	-	-	-
9	09-05-2024	1.11	0	-	-
10	10-05-2024	0.56	0	0.58	0
11	11-05-2024	0.90	0	0.58	0
12	12-05-2024	0	2.46	-	-
13	13-05-2024	0.12	0	-	-
14	14-05-2024	0.10	0	1.47	0
15	15-05-2024	1.02	0	-	-
16	16-05-2024	-	-	-	-
17	17-05-2024	0.09	0	-	-
18	18-05-2024	-	-	-	-
19	19-05-2024	0	0.97	-	-
20	20-05-2024	0	0.33	-	-
21	21-05-2024	0.46	0.12	-	-
22	22-05-2024	0	0.37	-	-
23	23-05-2024	0	0.37	-	-
24	24-05-2024	0.75	0	-	-
25	25-05-2024	-	-	-	-
26	26-05-2024	0	4.18	-	-
27	27-05-2024	1.10	1.14	-	-
28	28-05-2024	0	5.63	-	-
29	29-05-2024	5.71	0	-	-
30	30-05-2024	3.92	0.78	-	-
31	31-05-2024	2.74	1.65	-	-
Total		34.46	18.65	10.28	-
Grand Total		63.39			

-: No transaction took place

Note: Cross Border Transactions of Electricity of 63.39 MU (i.e. 34.46 MU bought by Nepal, 18.65 MU sold by Nepal, 10.28 MU bought by Bhutan) happened during May, 2024 in IEX, which is included under RTM Volume of May, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with **Bhutan** for the month of May, 2024 in IEX under RTM.

Analysis for change in trend of Final Scheduled Volume under DAM on 1st Sunday of May, 2024 (i.e. 5th May, 2024)

Final Scheduled Volume (MU) and the Daily Wt. Avg. MCP (₹/kWh) invariably shows decreasing trend on Sundays and increasing trend on Mondays as the demand of electricity in the country is less on Sundays as compared to other days of week. However, during the month of May, 2024, it is observed that first Sunday (05th May, 2024), FSV showed increasing trend in comparison to first Saturday (04th May, 2024).

- (i) On first Sunday (05th May, 2024), although there was decrease in purchase on power exchange by some of the States in comparison to first Saturday (04th May, 2024) by **14.69 MU** [i.e. ArcelorMittal Nippon steel (ESIL) (4.85 MU), West Bengal (4.46 MU), Punjab (2.59 MU), Himachal Pradesh (0.75 MU) and Druk Green Power Corporation Limited (DGPCL-Bhutan) (0.62 MU), etc.], there was also increase in purchase on power exchange by some of the States by **19.42 MU** [i.e. Andhra Pradesh (6.73 MU), Gujarat (5.07 MU), Rajasthan (2.81 MU), J&K (2.05 MU) and Tamil Nadu (1.71 MU) etc.]. This resulted in an overall increase in FSV by **4.73 MU** on Sunday (05th May, 2024) as compared to Saturday (04th May, 2024).

Definitions/ Terminologies used in the Report

1. **Area Clearing Price (ACP)** is price discovered in each time block of concerned bid area. The country has been divided into 13 bid areas for the purpose of calculating prices in Power Exchanges.

The 13 Bid areas are as under:

N1: Jammu and Kashmir, Himachal Pradesh, Chandigarh, Haryana; **N2:** Uttar Pradesh, Uttaranchal, Rajasthan, Delhi; **N3:** Punjab; **E1:** West Bengal, Sikkim, Bihar, Jharkhand; **E2:** Odisha; **W1:** Madhya Pradesh; **W2:** Maharashtra, Gujarat, Daman and Diu, Dadar and Nagar Haveli, North Goa; **W3:** Chhattisgarh; **S1:** Andhra Pradesh, Telangana, Karnataka, Pondicherry (Yanam), South Goa; **S2:** Tamil Nadu, Pondicherry (Puducherry), Pondicherry (Karaikal), Pondicherry (Mahe); **S3:** Kerala; **A1:** Tripura, Manipur, Mizoram, Nagaland; **A2:** Assam, Arunachal Pradesh, Meghalaya.

2. **Wt. Avg. MCP** is the average of Daily Wt. Avg. MCP of the days during the month on which transaction happened.
3. **Bilateral Transaction** means a transaction for exchange of electrical energy (MWh) between a specified buyer and a specified seller, from a specified point of injection to a specified point of drawal for a fixed or varying quantum of power (MW) for any time block during a month.
4. **Daily Wt. Avg. MCP** is the average of MCP of all 96 Time Blocks of the day during which transaction happened.
5. **Day-Ahead Market (DAM)** means a market where Day Ahead Contracts are transacted on the Power Exchanges, wherein Collective Transactions occur on day (T) and delivery of electricity is on the next day (T+1).
6. **Elasticity** is percentage of change in MCP with respect to change in independent variable viz. peak demand, average purchase bid, average sell bid, generation from coal based plants, generation from hydro based plants, generation from wind based plants and generation from solar plants.
7. **Energy Supplied** is the total energy (MU) available at the States' periphery.
8. **Final Scheduled Volume** is the total of scheduled volume of all 96 time blocks in a day during the month in which transaction happened.

9. **Green Term Ahead Market (GTAM)** is based on the principles of current Term Ahead Market (TAM) and will offer trade for Solar, Non-Solar and Hydro Renewable Energy (RE) generation.
10. **Green Day Ahead Market (GDAM)** is based on the principles of current Day Ahead Market (DAM), where market participants purchase and sell electricity generated from renewable sources.
11. **Long Duration Contracts** on the power exchanges is a product segment under which the participants are allowed to trade for delivery of power upto 90 Days (Delivery Starting from T+2 to T+90 Days).
12. **MCP** is the price discovered in each of the 15 Minute Time Block. The day is divided in 96-time blocks of 15 minutes each.
13. **Real Time Market (RTM)** means a market where Real-Time Contracts are transacted on the Power Exchange(s), i.e. a contract other than Day Ahead Contract or Intraday Contract or Contingency Contract. Under RTM collective transactions occur on day (T) or day (T-1) and delivery of electricity is on day (T) for a specified delivery period.
14. **Term Ahead Market (TAM)** means a market where Term Ahead Contracts are transacted on the Power Exchange(s), i.e. a contract wherein transactions occur on day (T) and physical delivery of electricity is on a day more than one day ahead (T + 2 or more).