



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

1. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi- 110001.
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: अक्टूबर, 2024 माह की मार्केट मॉनिटरिंग रिपोर्ट।

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

महोदय/ Sir,

अक्टूबर, 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 October, 2024 is enclosed herewith for kind information and perusal.

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

- i. अक्टूबर, 2024 माह में देश में कुल 141,398 MU विद्युत का कारोबार किया गया, जिसमें से 69,706 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 October, 2024 a total of 141,398 MU of electricity was transacted in the country out of which 69,706 MU was transacted through ISTS, and the remaining through state controlled generating stations through Intra State Transmissions System.

- ii. अल्पावधि मार्केट के अंतर्गत कुल 16,299 MU का कारोबार किया गया था, जिसमें से 11,409 MU पावर एक्सचेंजों के माध्यम से कारोबार किया गया और शेष द्विपक्षीय कारोबार और विचलन (deviations) के रूप में हुआ। इस प्रकार अल्पावधि कारोबार, अक्टूबर, 2024 माह में ट्रेड की गई विद्युत की कुल मात्रा का 11.53 % था और 8.07 % पावर एक्सचेंजों के माध्यम से रहा।

A total of 16,299 MU was transacted under Short Term Market, out of which 11,409 MU was transacted through Power Exchanges and remaining happened as bilateral transactions & deviations. Thus, the total short term trade in October, 2024 was 11.53 % of total volume of electricity traded in October, 2024 and 8.07 % 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 23.38 % रहा, जिसमें से पावर एक्सचेंजों के माध्यम से कारोबार 16.37 % रहा।

If we compare these transactions with respect to the electricity supplied through ISTS, the short term transactions constitutes about 23.38 % of ISTS transactions, out of which transaction through the power exchanges constitutes 16.37 %.

भवदीय/ Yours faithfully,

Signed by Vikram Singh

Date: 09-12-2024 17:40:45

(विक्रम सिंह / Vikram Singh)

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

प्रतिलिपि/ Copy for information, through email, to:

1. O/o Chairperson, CEA
 2. O/o Member (E&C), CEA
 3. Secretary (All SERCs and JERCs)
 4. CMD, Grid Controller of India Limited (GRID-INDIA), B-9 (1st Floor), Qutab Institutional Area, Katwaria Sarai, New Delhi -110016.
 5. CMD, Indian Energy Exchange (IEX), 9th Floor, Max Towers, Sector 16B, Noida- 201301.
 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>)



सत्यमेव जयते

मासिक मार्केट मॉनिटरिंग रिपोर्ट - अक्टूबर, 2024

Monthly Market Monitoring Report

October, 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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**अक्टूबर, 2024 की मासिक मार्केट
मॉनिटरिंग रिपोर्ट का सारांश**

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

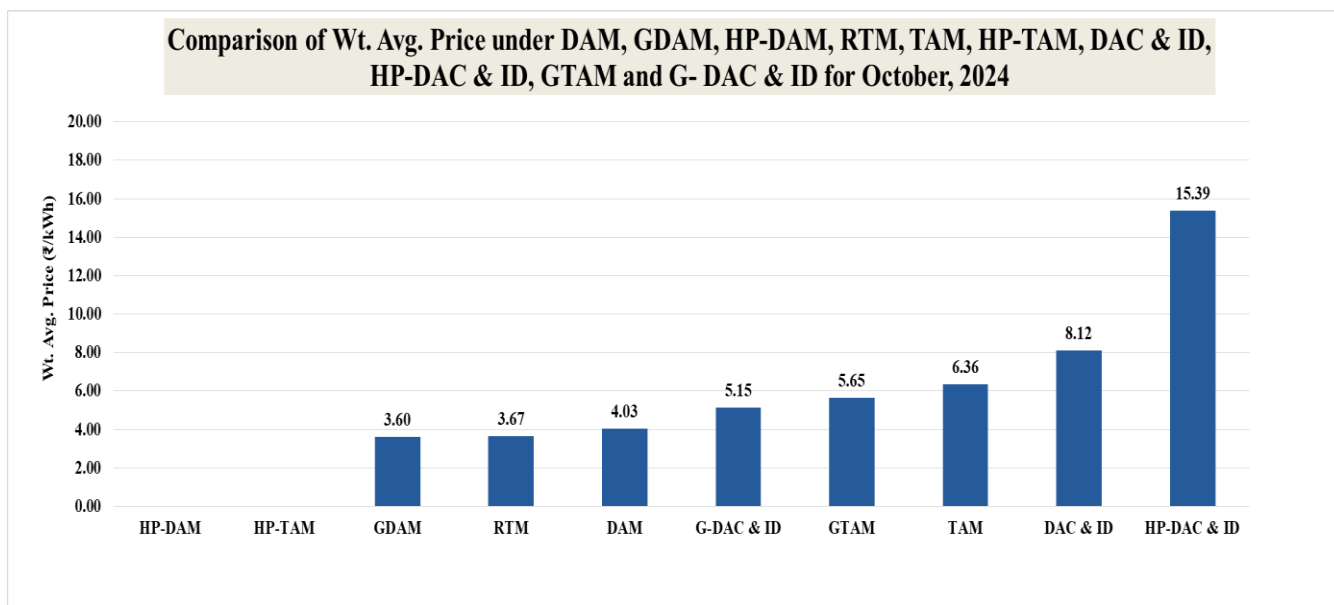
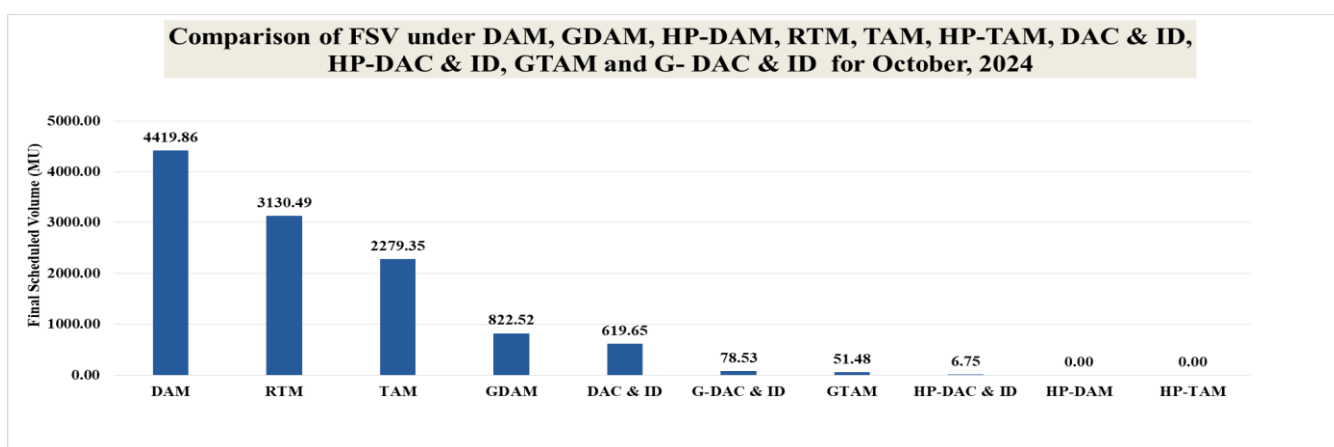
अक्टूबर, 2024 माह के लिए सारांश Summary for Month: October, 2024

भारत में विद्युत एक्सचेंजों पर विद्युत के व्यापार का सारांश

Summary of Electricity Transactions on Power Exchanges in India

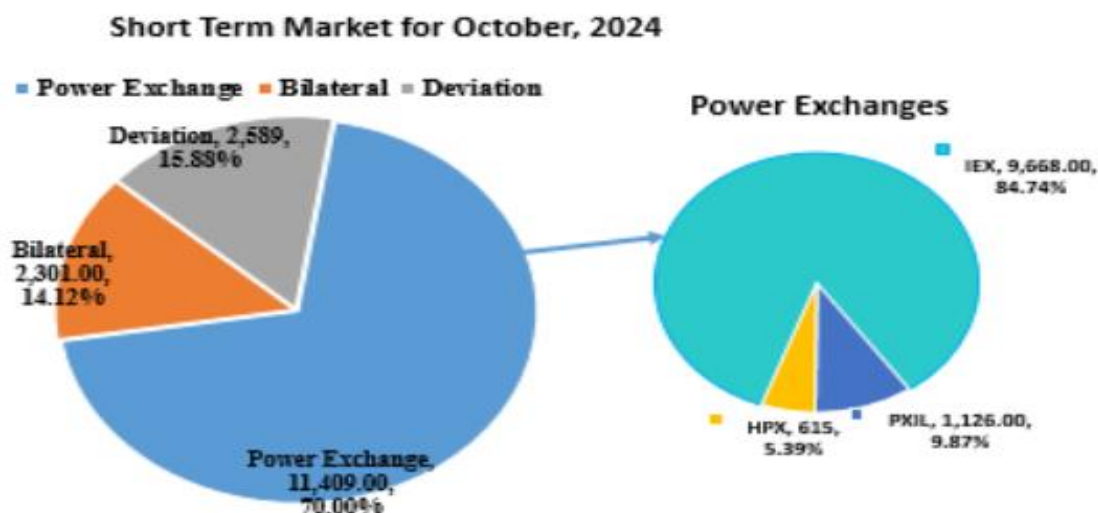
- अक्टूबर, 2024 के दौरान विद्युत एक्सचेंजों (यानी आईईएक्स, पीएक्सआईएल और एचपीएक्स) के माध्यम से कुल **11,409 MU** विद्युत का कारोबार किया गया। विद्युत की यह मात्रा डिलीवरी की तारीख के आधार पर है और इसमें DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM और G-DAC & ID मार्केट खंडों के माध्यम से कारोबार शामिल हैं।

A total volume of **11,409 MU** electricity was transacted through power exchanges i.e. IEX, PXIL & HPX, during the month of October, 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 **2,301 MU** विद्युत का कारोबार किया गया और **2,589 MU** को विचलन के रूप में लेनदेन किया गया। इस प्रकार कुल **16,299 MU** विद्युत का कारोबार अल्पावधि व्यापार के रूप में किया गया था। अक्टूबर, 2024 के महीने में देश में कुल **141,398 MU** विद्युत की आपूर्ति की गई थी, इस प्रकार अक्टूबर, 2024 माह में कारोबार की गई विद्युत की कुल मात्रा में अल्पावधि बाजार का हिस्सा **11.53 %** था।

Under the Bilateral trade, a total of **2,301 MU** of electricity was transacted and **2,589 MU** was transacted as deviation from schedule. Thus, a total of **16,299 MU** of electricity was transacted as short term trade (Power Exchange + Bilateral trade + deviation from schedule). In October, 2024, a total of **141,398 MU** of electricity was supplied in the country, thus, the share of short term market in the total volume of electricity supplied in October, 2024 was **11.53 %**.



- अक्टूबर, 2024 के दौरान संचरण जाम शून्य रहा।

There was no transmission congestion during the month of October, 2024.

अक्टूबर, 2024 माह के महीने में रिपोर्ट की गई वास्तविक समय में विद्युत कटौती की कुल मात्रा केवल **50.85 MU** थी।

The total volume of real time curtailment reported in the month of October, 2024 was only **50.85 MU**.

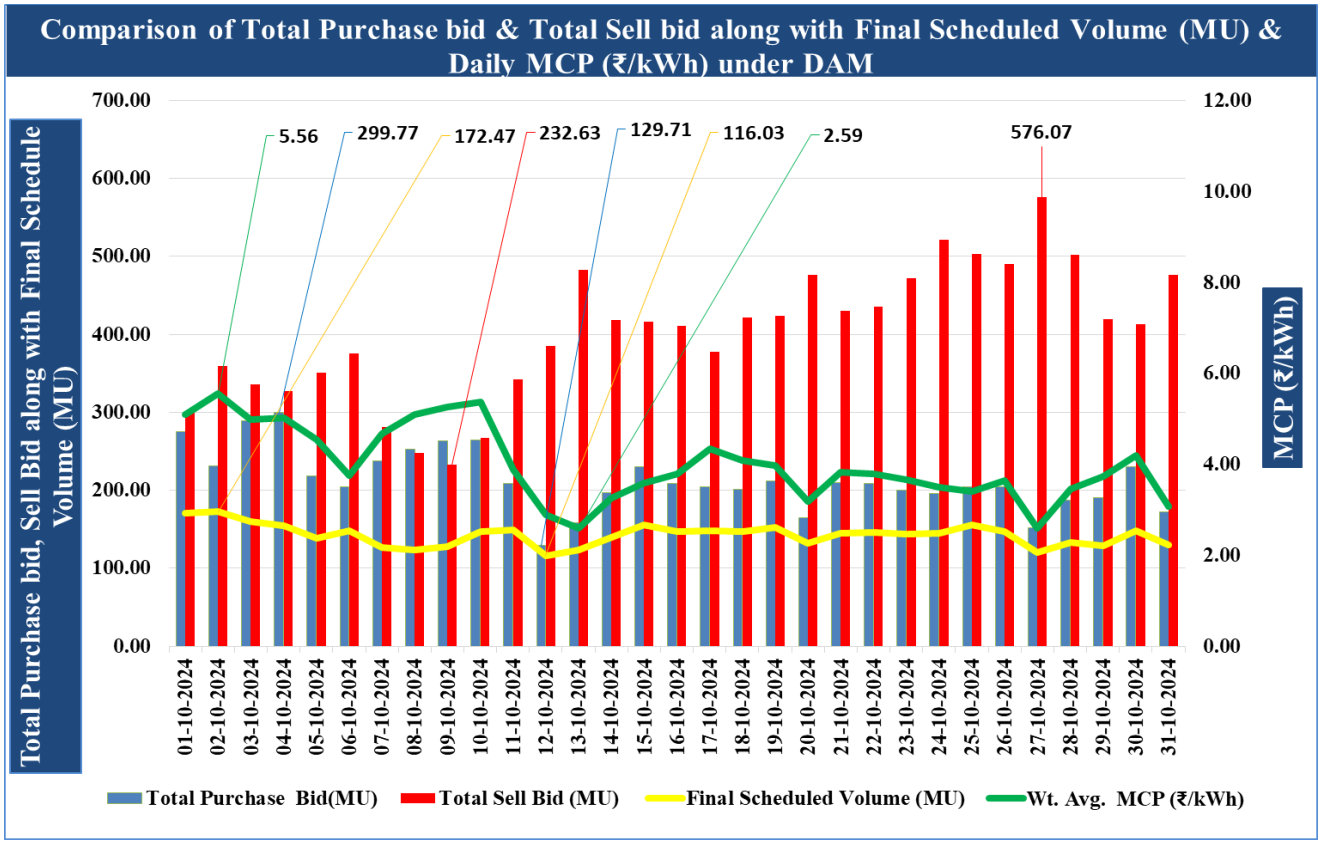
- अक्टूबर, 2024 माह के दौरान अंतर्राज्यीय पारेषण प्रणाली (ISTS) में निर्धारित अनुसूचित विद्युत की कुल मात्रा **69,706 MU** थी। अक्टूबर, 2024 के महीने में अल्पावधि बाजार में विद्युत का लेन-देन अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से अनुसूचित की गई कुल विद्युत की मात्रा का **23.38 %** रहा।

The total volume of electricity scheduled through ISTS during the month of October, 2024 was **69,706 MU**. The total volume of electricity transacted in the short term market was **23.38 %** of total volume schedule at ISTS in October, 2024.

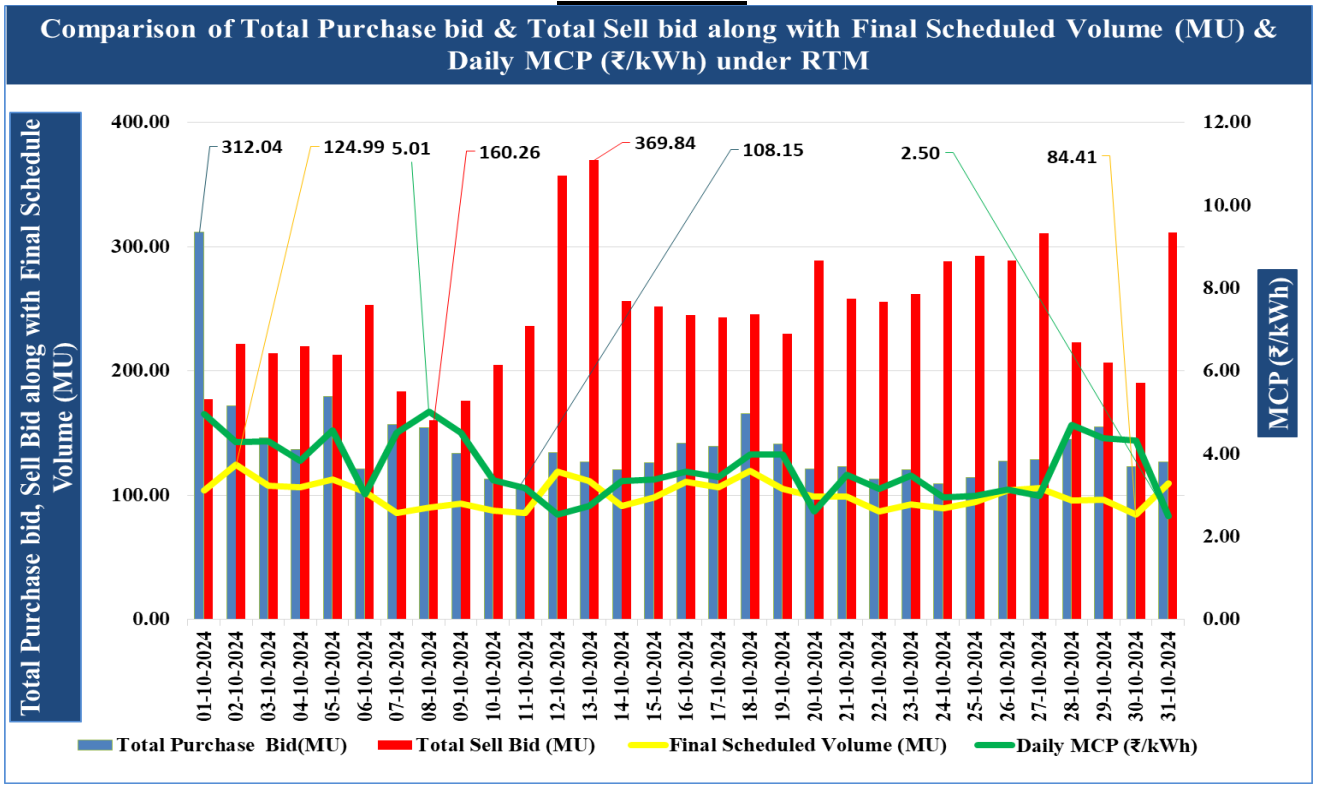
- अक्टूबर, 2024 माह के दौरान DAM और RTM में विद्युत की खरीद और बिक्री बोलियों, अंतिम अनुसूचित मात्रा और दैनिक औसत MCP की भिन्नता निम्नलिखित चित्रों में दर्शाई गई है:

The variation of Purchase and Sell bids, Final Scheduled Volume and Daily Wt. Avg. MCP under DAM and RTM during the month of October, 2024 are shown in following figures:

DAM Volume



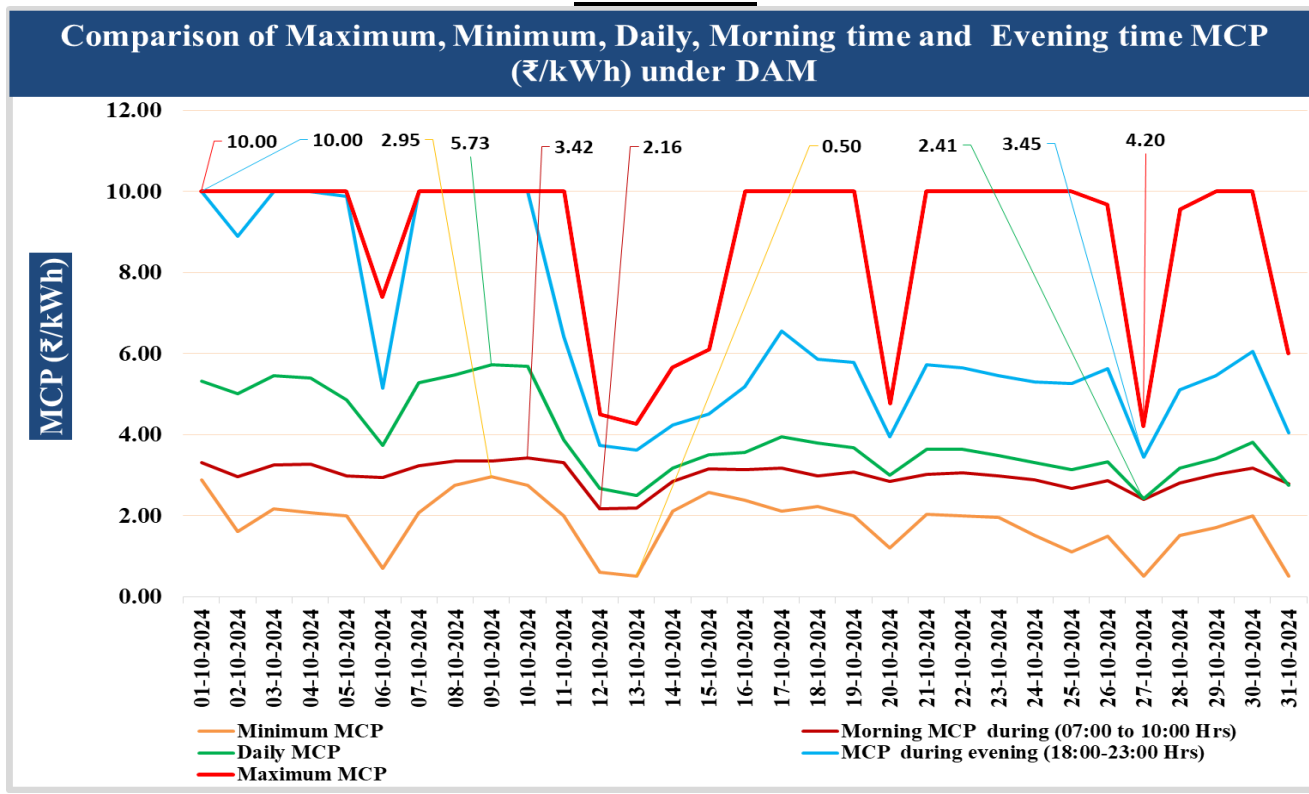
RTM Volume



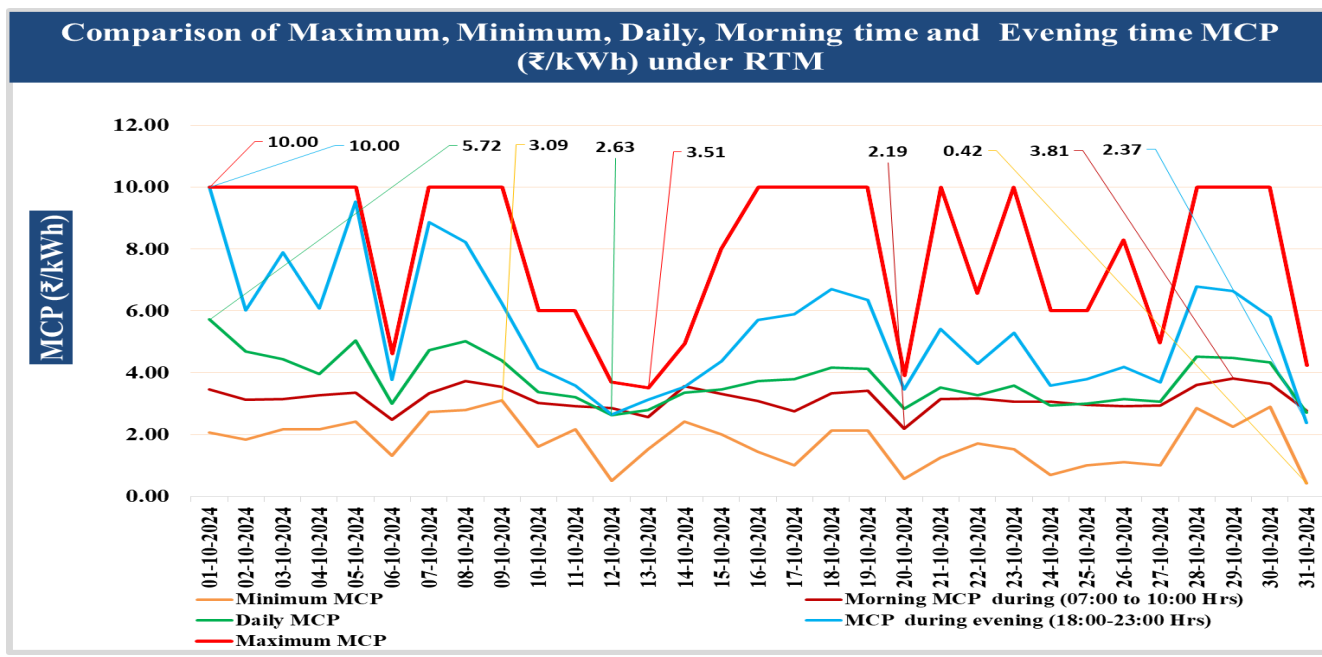
- अक्टूबर, 2024 माह के दौरान DAM और RTM में अधिकतम, न्यूनतम, दैनिक, सुबह और शाम के समय MCP की भिन्नता निम्नलिखित चित्रों में दिखाई गई है:

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

DAM Prices



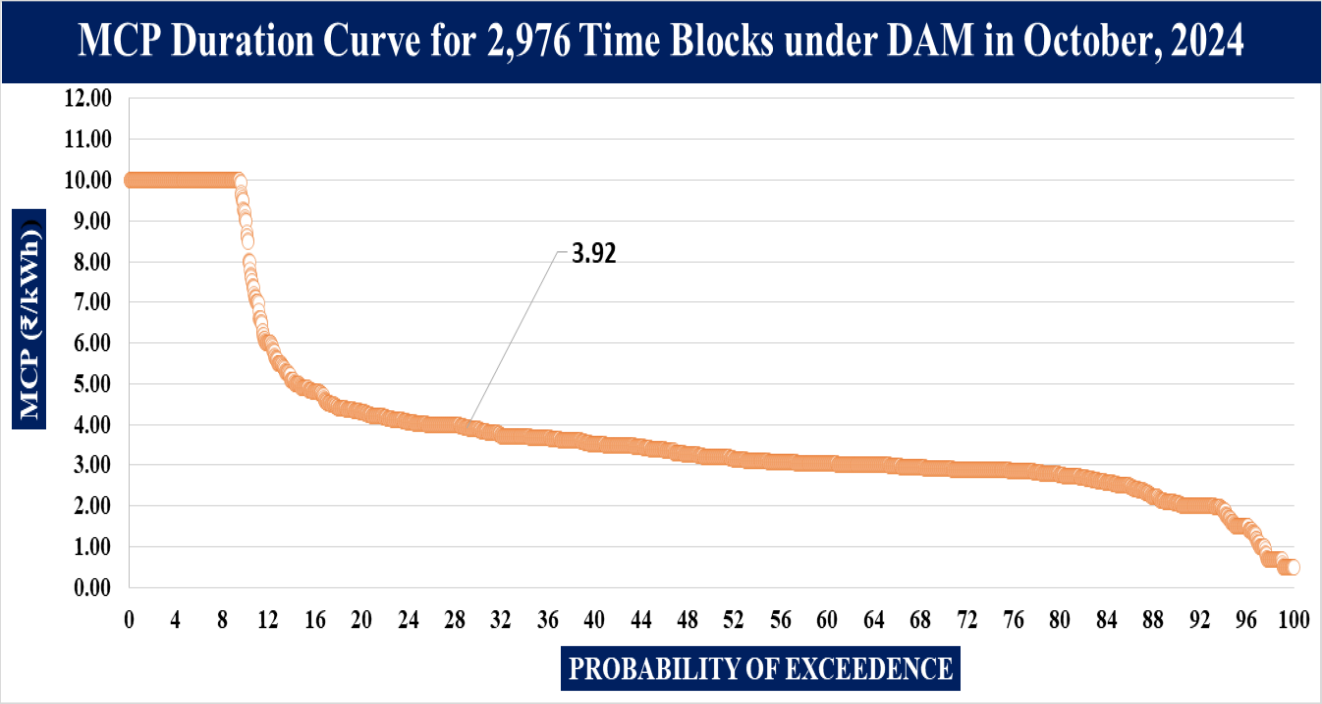
RTM Prices



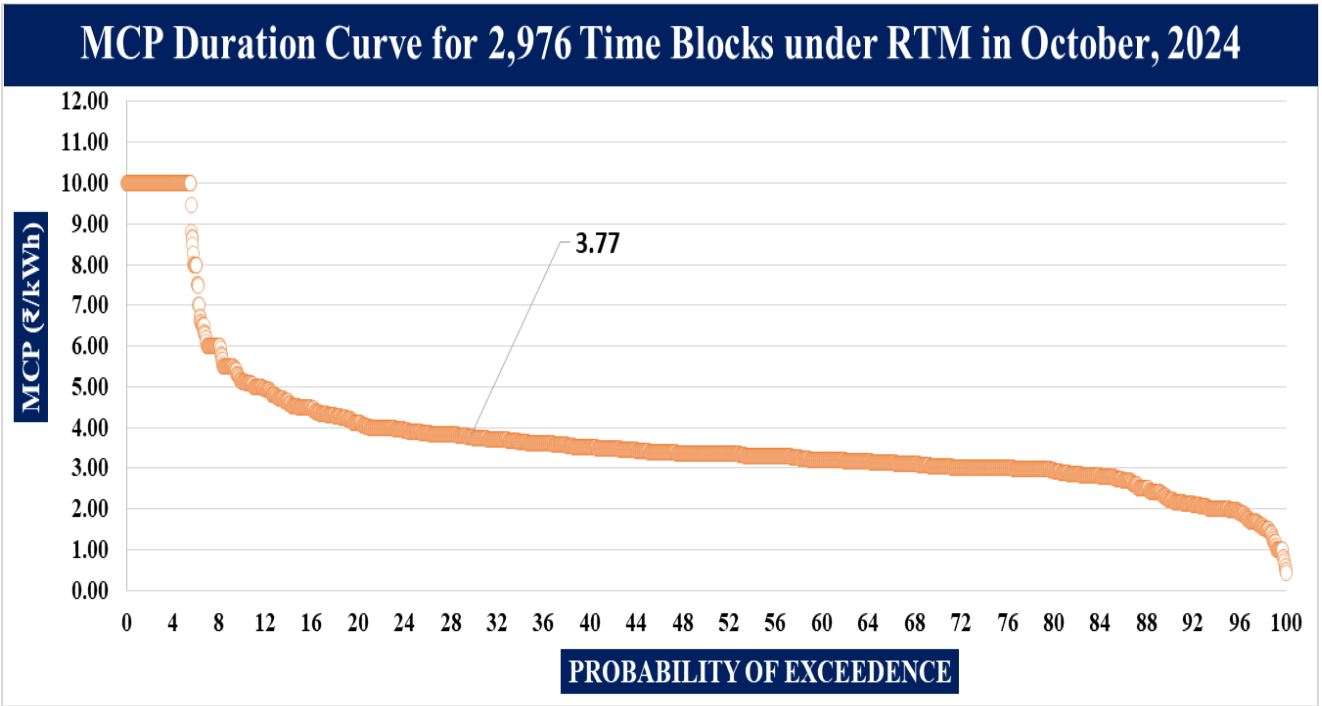
- अक्टूबर, 2024 के महीने के दौरान DAM और RTM के तहत समय ब्लॉकवार MCP अवधि वक्र निम्नलिखित चित्रों में में दिखाए गए हैं:

The Market Clearing Price duration curves for time block wise under DAM and RTM during the month of October, 2024 are shown in following figures:

DAM MCP duration curve



RTM MCP duration curve



MARKET MONITORING REPORT DETAILS

Electricity Transactions on Power Exchanges in India

1. Day Ahead Market (DAM)

The volume of electricity transacted under DAM was 4,419.86 MU at a Wt. Avg. Price of ₹ 4.03/kWh in October, 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 October, 2024 was **4,419.86 MU**. The total energy supplied in the country during the month of October, 2024 was **141,398 MU**. Thus, the volume of electricity transacted on the power exchanges under DAM during October, 2024 was 3.13 % of the total energy supplied in the country. Comparing with the total volume of electricity transacted under DAM during last month September, 2024 i.e. **4,562.18 MU** which was 3.24 % of the total energy supplied (**140,728 MU**) in the country during September, 2024. Similarly, the total volume of electricity transacted under DAM during previous year i.e. October, 2023, was **4,746.78 MU** which was 3.40 % of the total energy supplied (**139,441 MU**) in the country during October, 2023.
- 1.2. The DAM volume for October, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XII**), which was **50.38 MU (i.e. 50.38 MU sold by Bhutan)**.
- 1.3. The Average Market Clearing Price (MCP) on IEX during the month of October, 2024 was ₹ **4.03/kWh**, which shows of a decrease of 5.84 % & 36.64 % when compared with Wt. Avg. MCP's for the month of September, 2024 and October, 2023, which were ₹ **4.28/kWh** and ₹ **6.36/kWh**, respectively. On PXIL & HPX, no transaction of electricity under DAM took place during October, 2024.
- 1.4. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under DAM for October, 2024 vs September, 2024 and October, 2023 is shown below as **Figure-1**:

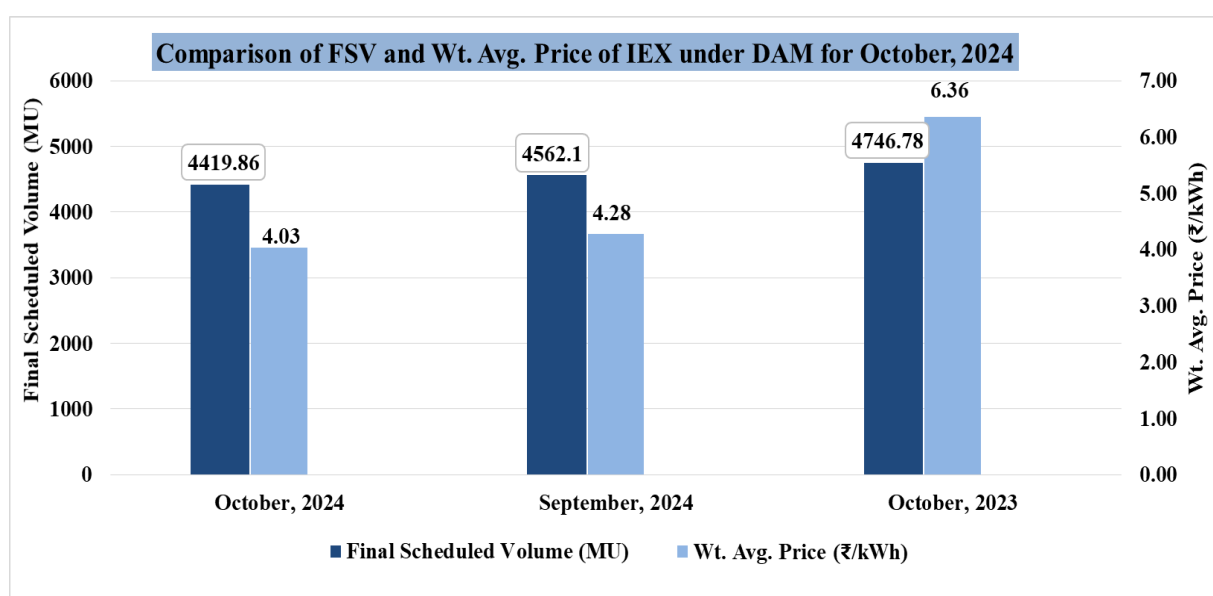


Figure-1

- 1.5.** The maximum Area Clearing Price (ACP) of ₹ 10.00/kWh in IEX was observed in all 13 regions during 301 time blocks from 1st to 5th, 8th, 16th to 18th, 21st to 23rd & 28th to 30th October, 2024. Whereas, in PXIL & HPX, no transaction of electricity took place during October, 2024.
- 1.6.** The minimum ACP of ₹ 0.50/kWh in IEX was observed in 13 regions during the time block 13:30 - 13:45 Hrs on 13th October, 2024. Whereas, in PXIL & HPX, no transaction of electricity took place during October, 2024.

2. Real Time Market (RTM)

The volume of electricity transacted under RTM was 3,130.49 MU at a Wt. Avg. Price of ₹ 3.67/kWh in October, 2024.

- 2.1. The total volume of electricity transacted on the power exchanges under Real Time Market in October, 2024 was **3,130.49 MU**, out of which **3,122.66 MU** (99.75 %) was transacted in IEX, **6.75 MU** (0.22 %) was transacted in PXIL and **1.08 MU** (0.03 %) was transacted in HPX.
- 2.2. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under RTM for October, 2024 vs September, 2024 and October, 2023 is shown below as **Figure-2, Figure-3 & Figure-4**:

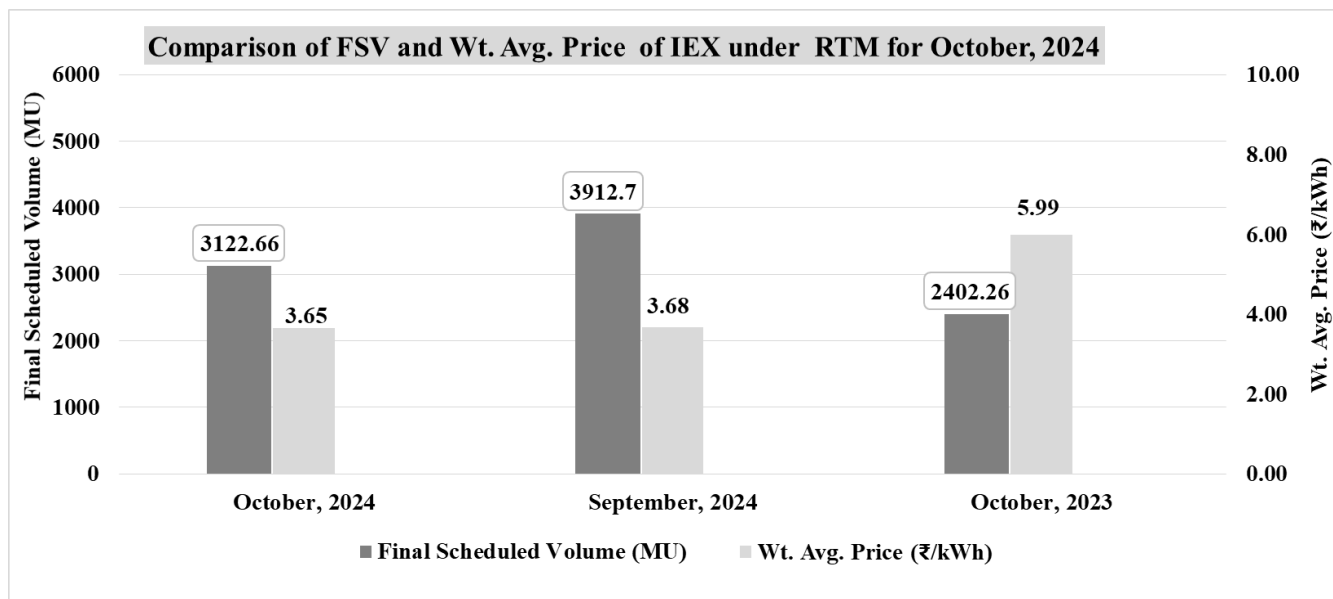


Figure-2

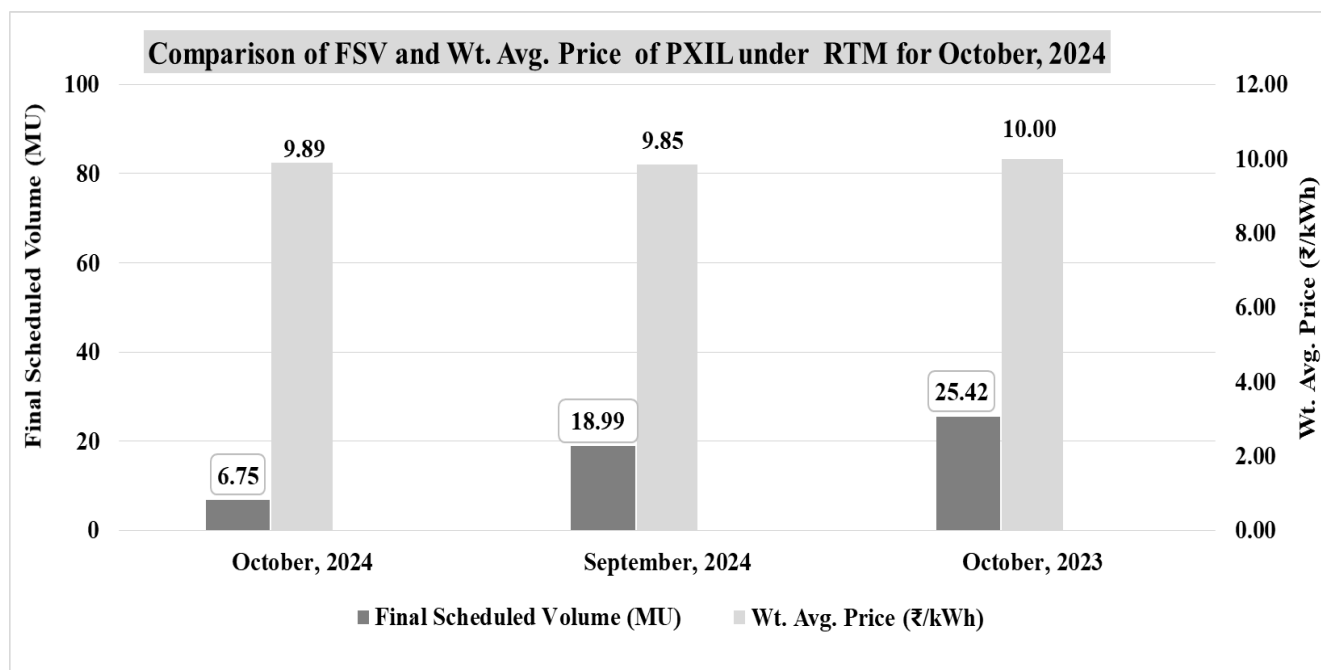


Figure-3

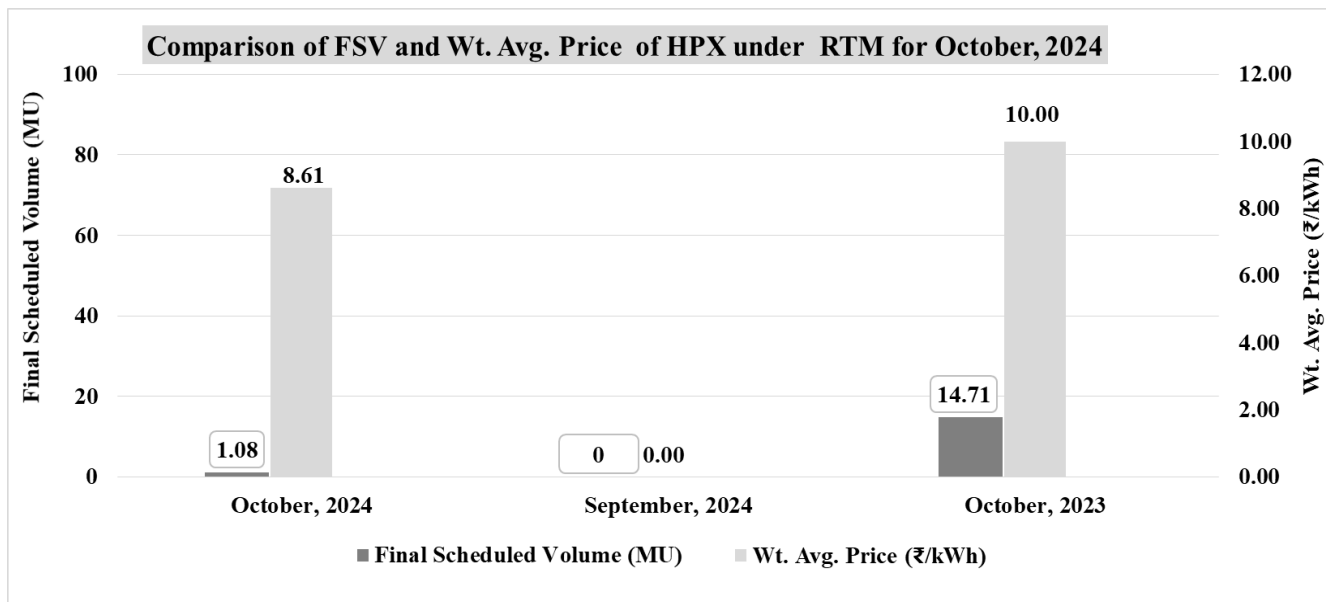


Figure-4

2.3. The RTM volume for October, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XIII**), which was **117.78 MU (i.e. 117.37 MU sold by Nepal, 0.41 MU sold by Bhutan)**.

3. Green Day Ahead Market (GDAM)

The volume of electricity transacted under GDAM was 822.52 MU at a Wt. Avg. Price of ₹ 3.60/kWh in October, 2024.

3.1. The volume of electricity transacted under GDAM in October, 2024 was **822.52 MU** (434.51 MU in Solar, 341.59 MU in Non-Solar and 46.42 MU in Hydro) in IEX at a Wt. Avg. MCP of ₹ **3.60/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 October, 2024 vs September, 2024 and October, 2023 is shown below as **Figure-5**:

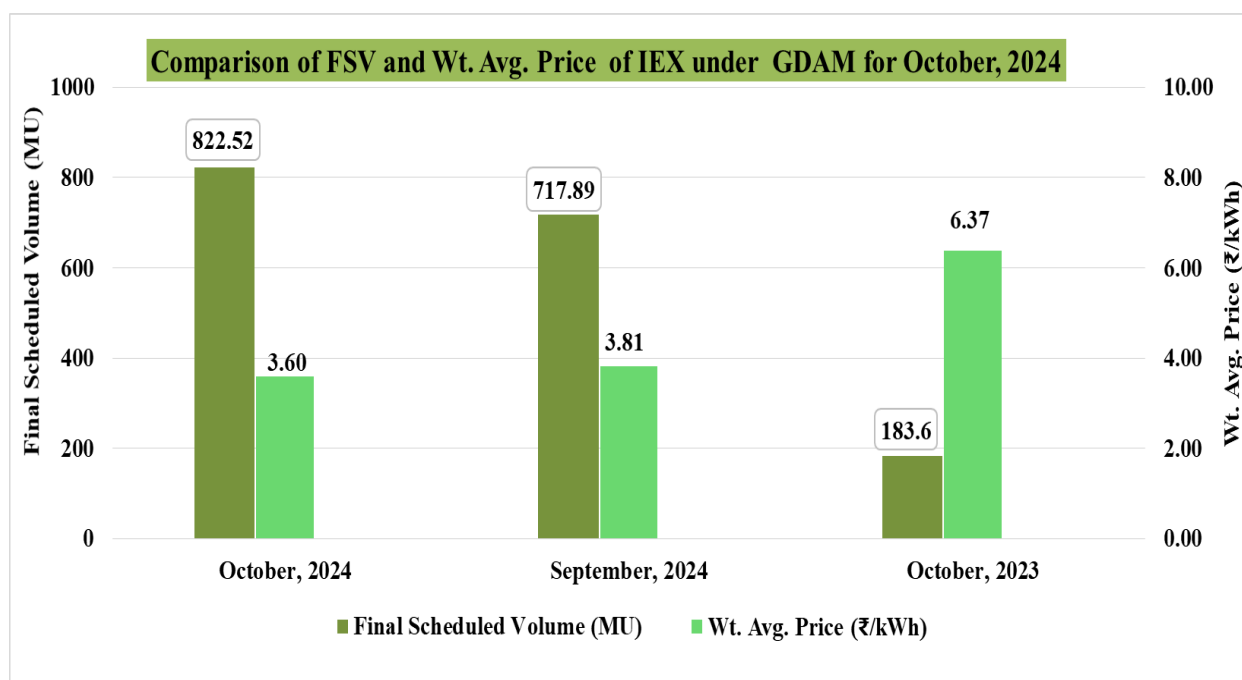


Figure-5

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

3.4. The **top 10 sellers** on the power exchanges under Green Day Ahead Market (**GDAM**) in October, 2024 were **Karnataka, ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Adani Green Energy Twenty Five B Limited_infirm, Meghalaya, Himachal Pradesh, ADANI GREEN ENERGY TWENTY FIVE LIMITED_infirm, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED, ADANI RENEWABLE ENERGY FORTY ONE LIMITED_infirm, Singoli Bhagwati and ADANI RENEWABLE ENERGY FIFTY FIVE LIMITED_Infirm**, which constituted **65.69 %** of the market volume.

3.5. The **top 10 buyers** on the power exchanges under Green Day Ahead Market (**GDAM**) in October, 2024 were **Maharashtra, ArcelorMittal Nippon steel (ESIL), DVC, Odisha, Tamil Nadu, Jharkhand, Punjab, Haryana, Goa WR and Delhi**, which constituted **86.88 %** of the market volume.

4. Term Ahead Market (TAM)

The volume of electricity transacted under TAM was 2,279.35 MU at a Wt. Avg. Price of ₹ 6.36/kWh in October, 2024.

4.1. The total volume of electricity transacted on the power exchanges on delivery date basis under Term Ahead Market in October, 2024, September, 2024 and October, 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)
October, 2024	2,279.35	1148.34 (50.38 %)	754.37 (33.10 %)	376.64 (16.52 %)
September, 2024	1,711.70	966.43 (56.46 %)	339.17 (19.81 %)	406.10 (23.72 %)
October, 2023	3,130.57	1677.00 (53.57 %)	611.28 (19.53 %)	842.29 (26.91 %)

4.2. In the month of October, 2024, no transaction took place in IEX, PXIL & HPX under **High Price Term Ahead Market (HP-TAM)**.

4.3. With respect to the total energy supplied during the month of October, 2024 in the country, the volume of electricity traded on the power exchanges under TAM on delivery date basis represents **1.61 %** of the total energy supplied. The same was **1.22 %** in September, 2024 and **2.25 %** in October, 2023.

4.4. In October, 2024, there was no transmission congestion under TAM in IEX, PXIL & HPX.

4.5. There was real time curtailment of **45.27 MU** under TAM.

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 October, 2024 with September, 2024 and October, 2023 are shown in Table – 1A & 1B:

(i) Final Scheduled Volume (MU), October, 2024 vis- a- vis September, 2024 and October, 2023

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
IEX	October, 2024	300.66	-	2.23	845.45	1148.34
	September, 2024	263.28	-	120.97	582.18	966.43
	%Change (Month over Month)	14.20	NA	-98.16	45.22	18.82
	October, 2023	390.32	246.96	230.48	809.24	1677.00
	%Change (Year over Year)	-22.97	NA	-99.03	4.47	-31.52
PXIL	October, 2024	333.13	-	-	421.24	754.37
	September, 2024	103.21	-	-	235.96	339.17
	%Change (Month over Month)	222.77	NA	NA	78.52	122.42
	October, 2023	392.41	41.79	-	177.08	611.28
	%Change (Year over Year)	-15.11	NA	NA	137.88	23.41
HPX	October, 2024	192.31	-	-	184.33	376.64
	September, 2024	99.48	-	70.44	236.18	406.10

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
	%Change (Month over Month)	93.32	NA	NA	-21.95	-7.25
	October, 2023	438.92	86.35	-	317.02	842.29
	%Change (Year over Year)	-56.19	NA	NA	-41.86	-55.28

- : No transaction took place

NA: Not Applicable

Table: 1A

(ii) Wt. Avg. MCP, October, 2024 vis- a- vis September, 2024 and October, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)			
		Daily or Any Day	Weekly	Monthly	Anyday Single Side
IEX	October, 2024	7.23	-	5.13	5.89
	September, 2024	6.77	-	5.94	6.25
	%Change (Month over Month)	6.79	NA	-13.64	-5.76
	October, 2023	9.18	8.95	7.07	7.36
	%Change Year over Year)	-21.24	NA	-27.44	-19.97
PXIL	October, 2024	7.01	-	-	5.93
	September, 2024	8.03	-	-	6.60
	%Change (Month over Month)	-12.70	NA	NA	-10.15
	October, 2023	9.81	9.67	-	8.52
	%Change (Year over Year)	-28.54	NA	NA	-30.40
HPX	October, 2024	7.21	-	-	6.08
	September, 2024	10.00	-	5.40	6.99
	%Change (Month over Month)	-27.90	NA	NA	-13.02
	October, 2023	9.92	7.56	-	7.53
	%Change Year over Year)	-27.32	NA	NA	-19.26

-: 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 619.65 MU at a Wt. Avg. Price of ₹ 8.12/kWh in October, 2024.

- 5.1. The volume of electricity transacted on IEX, PXIL and HPX under DAC & ID on delivery date basis during October, 2024 were **111.55 MU, 340.81 MU and 167.29 MU**, respectively.
- 5.2. In the month of October, 2024, the transaction of electricity in PXIL in **High Price Day Ahead Contingency & Intra Day (HP- DAC & ID)** under ID contract was **6.75 MU** at an average MCP of **₹ 15.19/kWh**, whereas no transaction took place in IEX and HPX under HP- DAC & ID.
- 5.3. In October, 2024, there was no transmission congestion under TAM in IEX, PXIL & HPX.
- 5.4. In October, 2024, there was real time curtailment of **3.30 MU** under DAC & ID.
- 5.5. The total volume of electricity transacted under DAC & ID under Day Ahead Contingency & Intra Day contracts during October, 2024 and its comparison with September, 2024 and October, 2023 on delivery date basis are shown in Tables- 2A & 2B:

(i) Final Scheduled Volume (MU), October, 2024 vis- a- vis September, 2024 and October, 2023

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
IEX	October, 2024	101.76	9.79	111.55
	September, 2024	110.80	8.94	119.74
	%Change (Month over Month)	-8.16	9.51	-6.84
	October, 2023	229.85	4.22	234.07
	%Change (Year over Year)	-55.73	131.99	-52.34
PXIL	October, 2024	323.15	17.66	340.81
	September, 2024	319.81	36.25	356.06
	%Change (Month over Month)	1.04	-51.28	-4.28
	October, 2023	302.08	12.88	314.96
	%Change (Year over Year)	6.97	37.11	8.21
HPX	October, 2024	152.95	14.34	167.29
	September, 2024	134.77	-	134.77
	%Change (Month over Month)	13.49	NA	24.13
	October, 2023	257.55	7.93	265.48
	%Change (Year over Year)	-40.61	80.83	-36.99

- : No transaction took place

NA: Not Applicable

Table: 2A

(ii) Wt. Avg. MCP, October, 2024 vis- a- vis September, 2024 and October, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)	
		Day Ahead Contingency	Intra Day
IEX	October, 2024	8.67	9.62
	September, 2024	7.25	9.36
	%Change (Month over Month)	19.59	2.78
	October, 2023	8.66	9.79
	%Change Year over Year)	0.12	-1.74
PXIL	October, 2024	7.68	9.10
	September, 2024	7.43	9.46
	%Change (Month over Month)	3.36	-3.81
	October, 2023	9.19	9.35
	%Change (Year over Year)	-16.43	-2.67
HPX	October, 2024	8.33	9.50
	September, 2024	7.49	-
	%Change (Month over Month)	11.21	NA
	October, 2023	9.13	9.99
	%Change Year over Year)	-8.76	-4.90

- : No transaction took place

NA: Not Applicable

Table: 2B

6. Green Term Ahead Market (GTAM)

The volume of electricity transacted under GTAM was 51.48 MU at a Wt. Avg. Price of ₹ 5.65/kWh in October, 2024.

The total volume of electricity transacted in the PXs under GTAM on delivery date basis was **51.48 MU** (**11.51 MU** in Solar and **39.97 MU** in Non-Solar). The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under GTAM for October, 2024 is shown below as **Figure-6**, **Figure-7** and **Figure-8**:

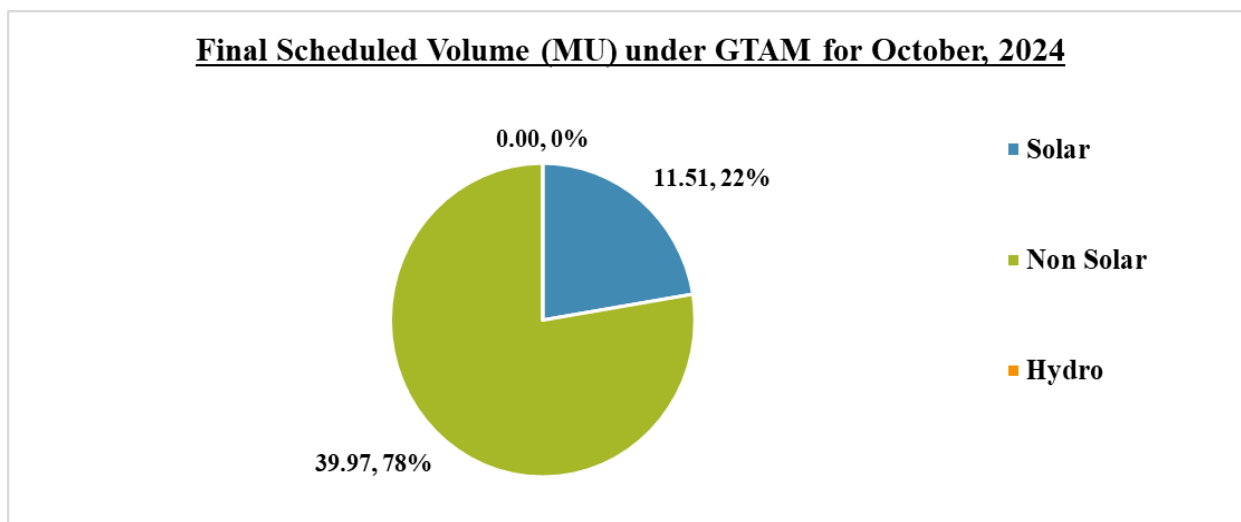


Figure-6

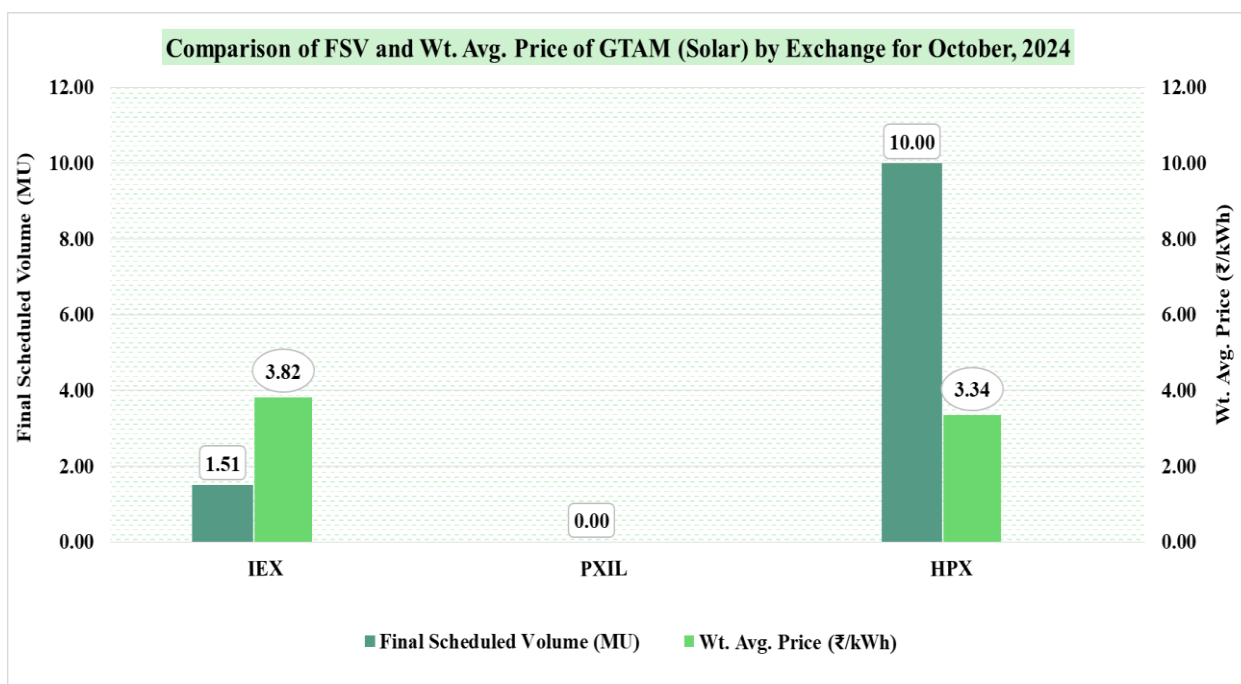


Figure-7

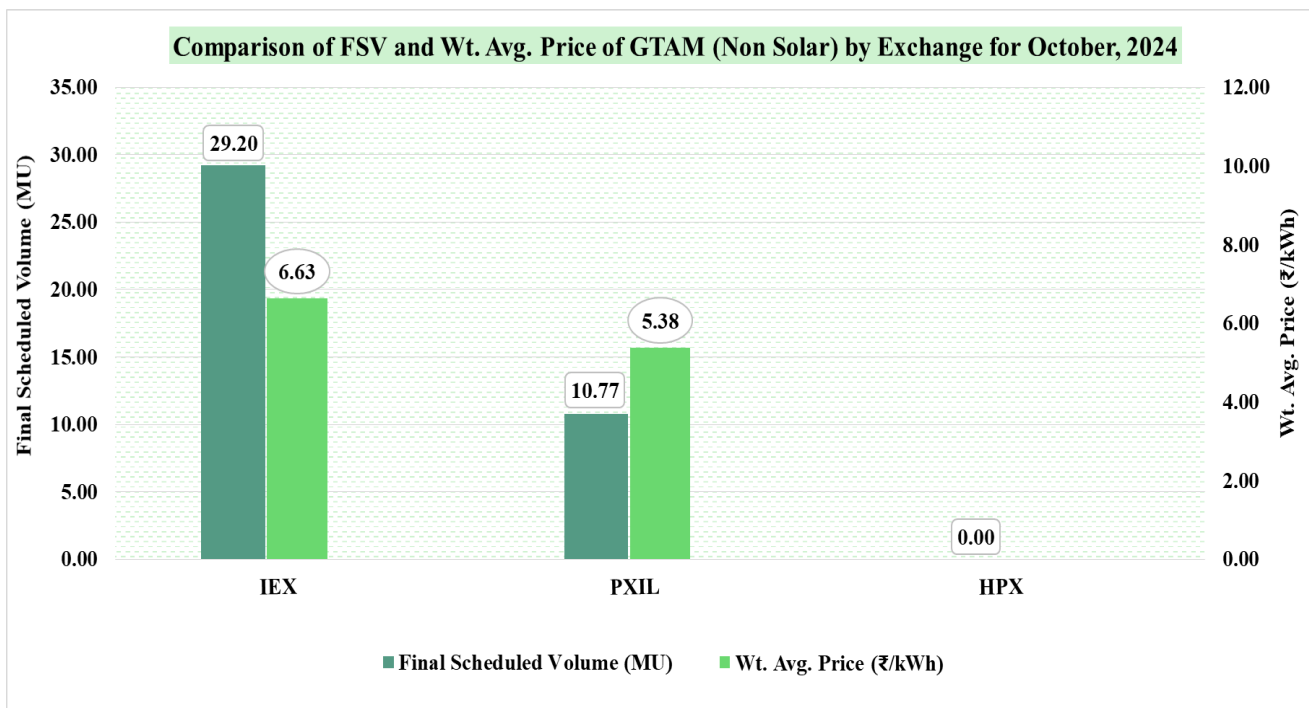


Figure-8

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

The volume of electricity transacted under G-DAC & ID was 78.53 MU at a Wt. Avg. Price of ₹ 5.15/kWh in October, 2024.

The total volume of electricity transacted in the IEX, PXIL & HPX under G-DAC & ID on delivery date basis was **78.53 MU** (27.78 MU in Solar, 27.15 MU in Non-Solar and 23.60 MU in Hydro), respectively. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under G-DAC & ID for October, 2024 is shown below as **Figure-9, Figure-10, Figure-11 and Figure-12:**

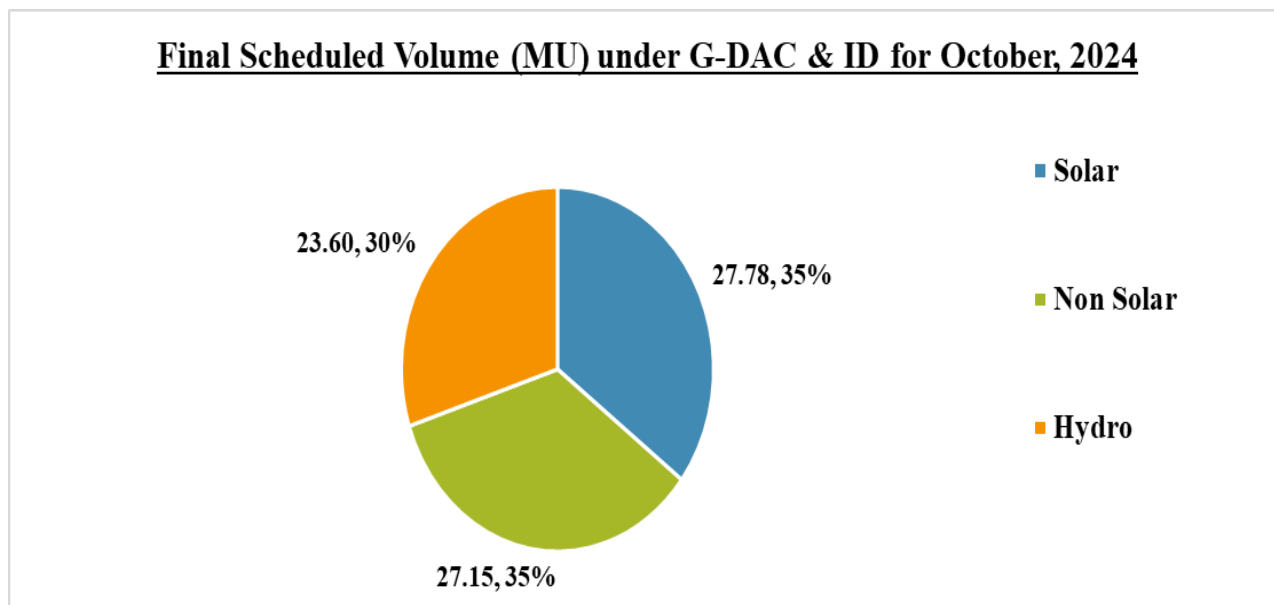


Figure-9

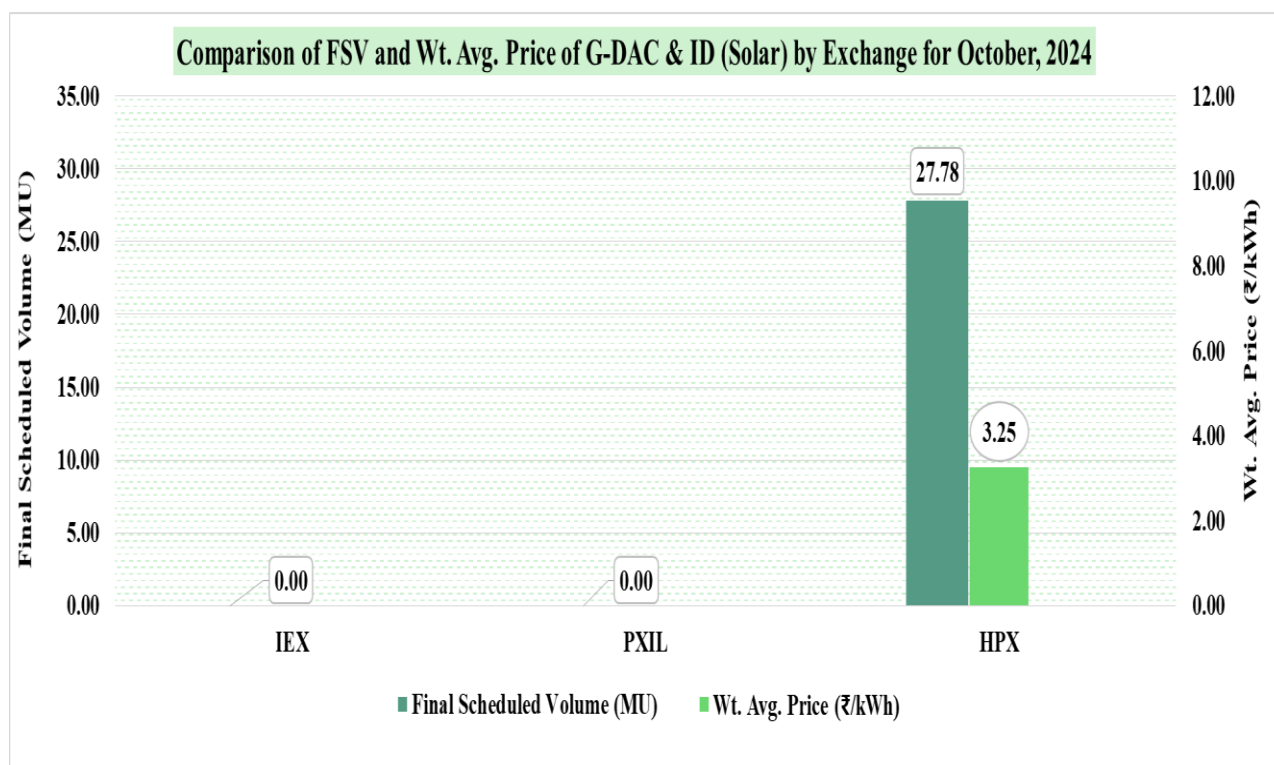


Figure-10

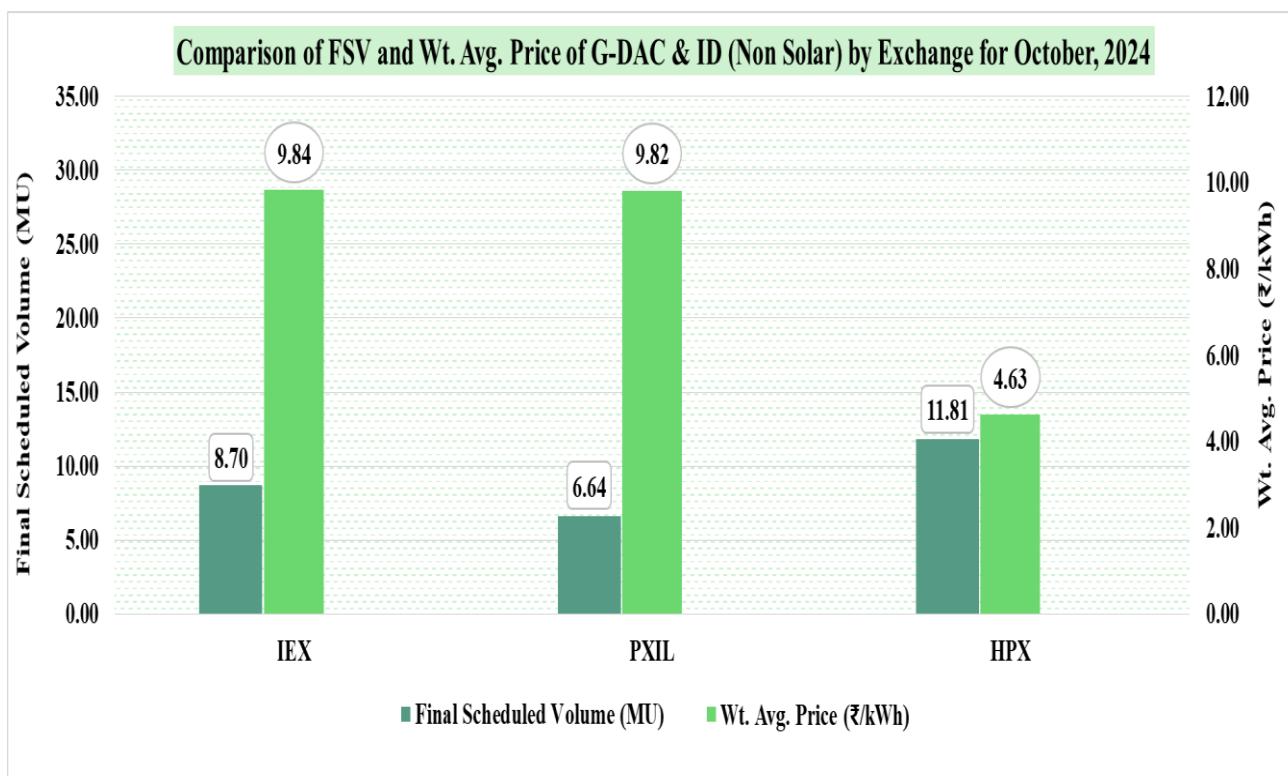


Figure-11

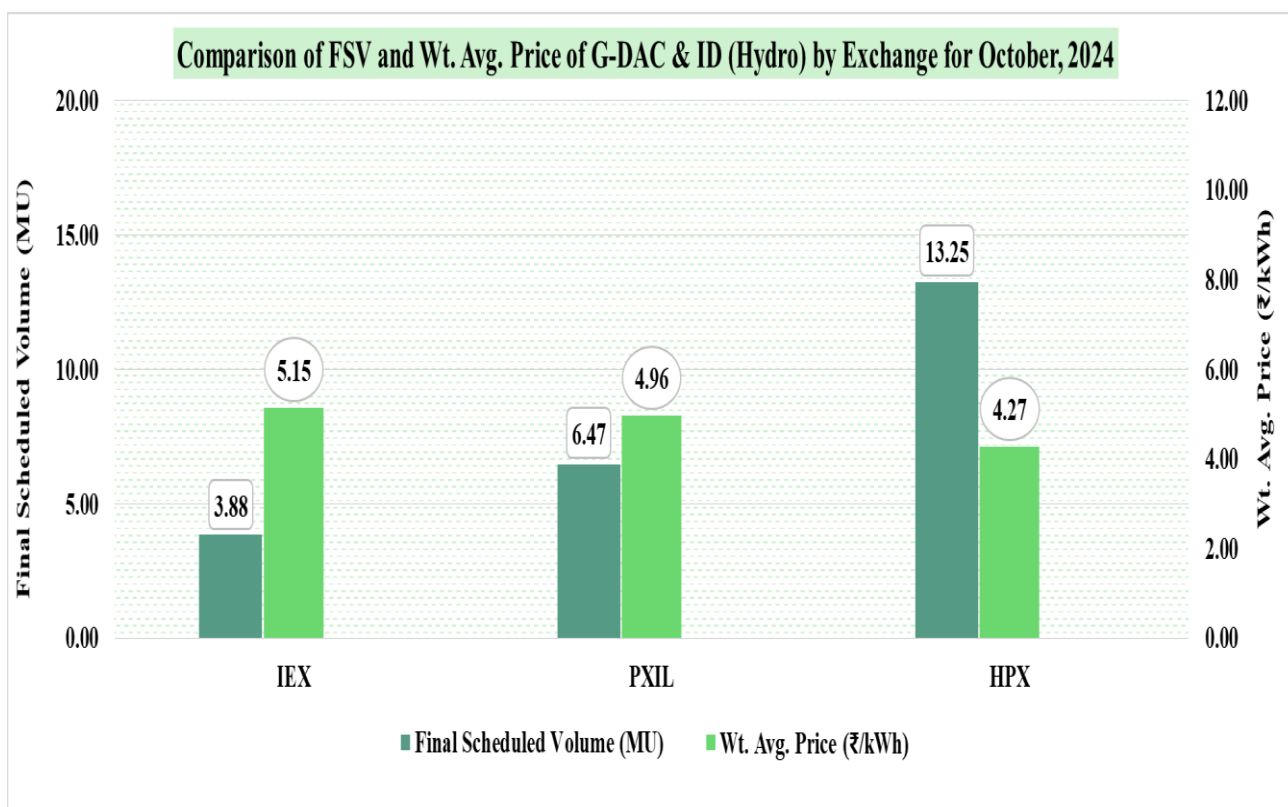


Figure-12

8. Bilateral Transactions:

The total volume of electricity transacted through **bilateral transactions** in October, 2024 was **2,301.46 MU**. The total buy volume of electricity transacted in bilateral market through direct and trader transactions in October, 2024 were **1,246.73 MU** and **1,054.73 MU** respectively. The details of bilateral transactions of Electricity during October, 2024 are shown in table below:

October, 2024	Direct	Traders	Total Bilateral Transaction (MU)
Total	1,246.73	1,054.73	2,301.46
Minimum	0.35	0.55	-
Maximum	531.30	203.08	-

Table -3A

The region-wise maximum/ minimum volume of electricity transacted bilaterally during October, 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	666.13	48.54	86.02	373.77	390.28	290.57	104.29	335.77	-	6.08
Minimum	1.01	0.07	8.12	2.07	0.35	1.19	7.25	1.35	-	0.55
Maximum	531.30	18.37	60.78	171.18	224.60	124.89	74.24	203.08	-	4.33

Table-3B

8.1. The top 5 buyers on bilateral transaction through direct transactions in October, 2024 were **Bihar, Haryana, Odisha, Delhi and Kerala**, which constituted **83.42 %** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in October, 2024 were **Tamil Nadu, Maharashtra, Uttar Pradesh, Coastal Energen Private Limited and Chhattisgarh**, which constituted **67.06 %** of the market volume. [Annexure III]

8.2. The top 5 sellers on bilateral transaction through direct transactions in October, 2024 were **NABINAGAR POWER GENERATING COMPANY LIMITED, NTPC BARH Stage II, IGSTPS JHAJJAR, Jindal India Thermal Power Limited and Tamil Nadu**, which constituted **50.23%** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in October, 2024 were **Adani Power Limited-Raipur TPP, Karnataka, DGEN MEGA POWER PROJECT, Odisha and Adani Power Limited-Raigarh TPP**, which constituted **49.05 %** of the market volume. [Annexure III]

8.3. Deviation Volume -The volume of Deviation observed in October, 2024 in import and export were **2,701.05 MU** and **2,477.84 MU** respectively. The total volume of Deviation observed in October, 2024 can be taken as **2,589.44 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 October, 2024 is shown in **Figure 13:**

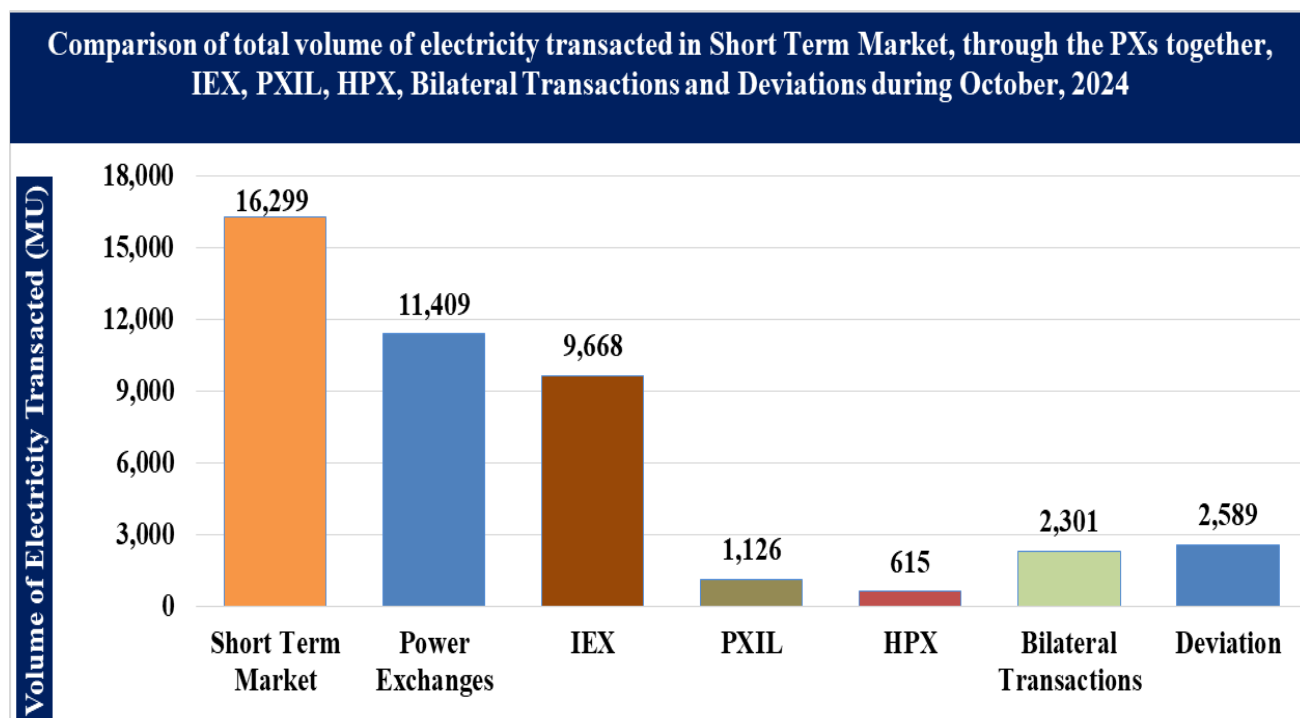
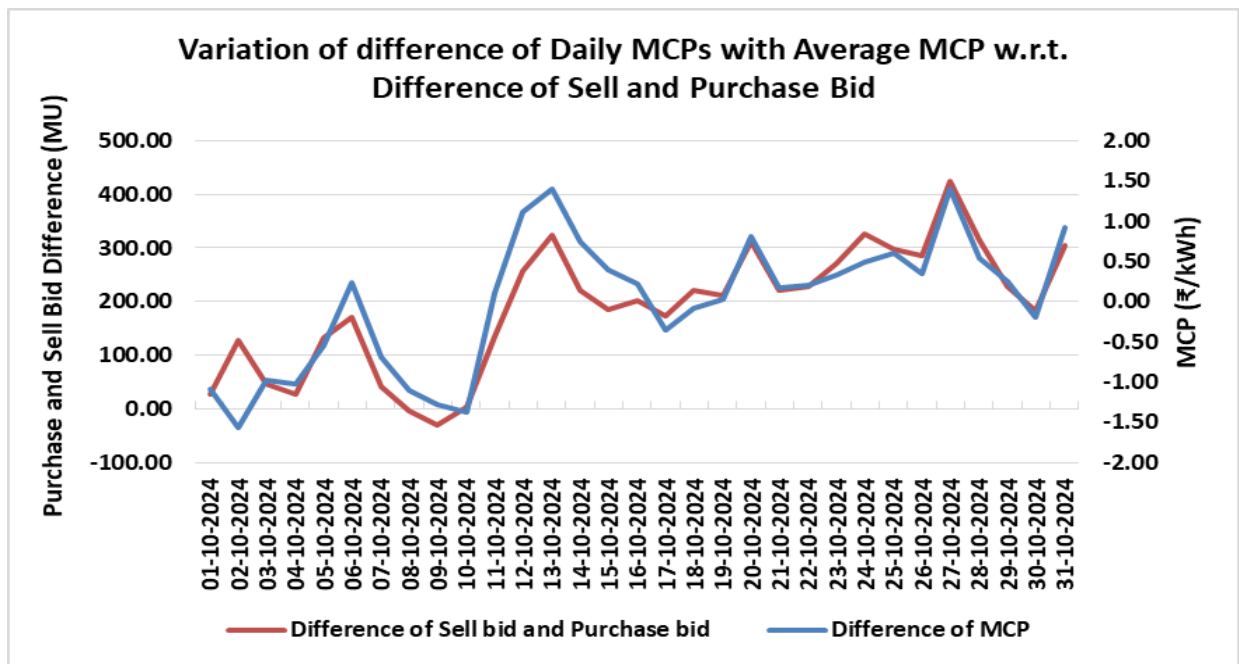


Figure -13

9. Analysis of movement of prices observed under DAM during October, 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 October, 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 Coal Generation was **4.05** in October, 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:**

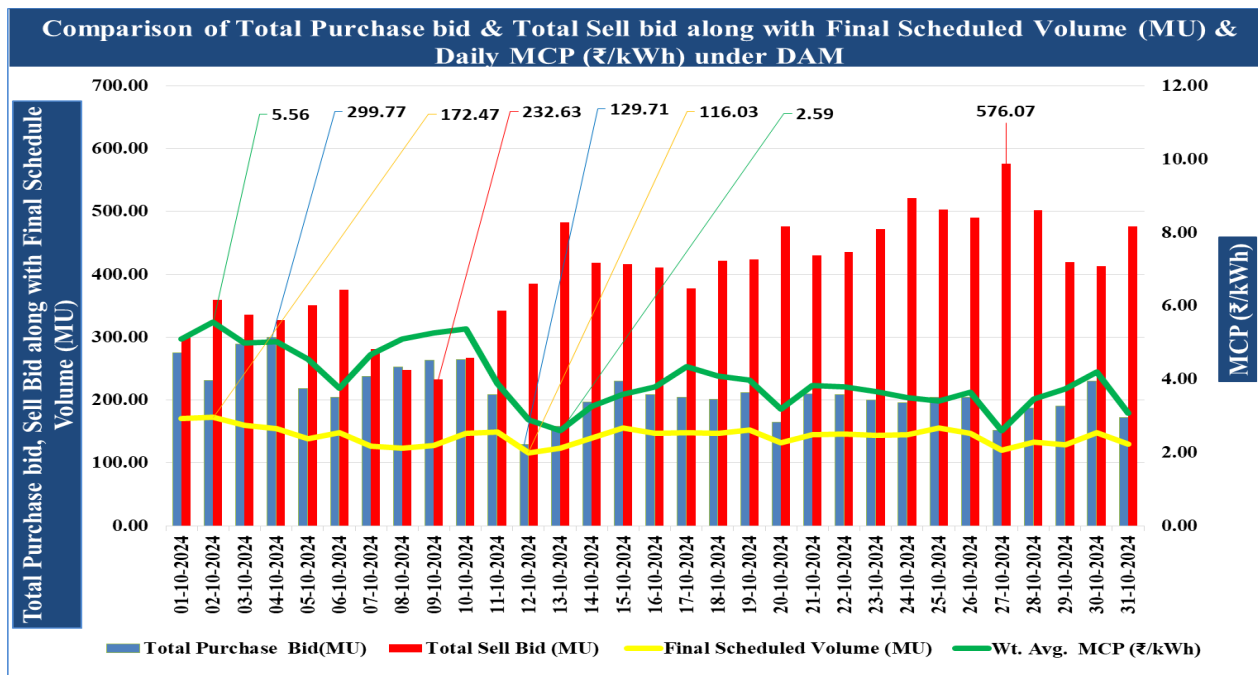


Figure – 14

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 October, 2024, it is observed that on first Sunday (6th October, 2024), FSV showed increasing trend in comparison to first Saturday (5th October, 2024) and first Monday (7th October, 2024), FSV showed decreasing trend in comparison to first Sunday (6th October, 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**.

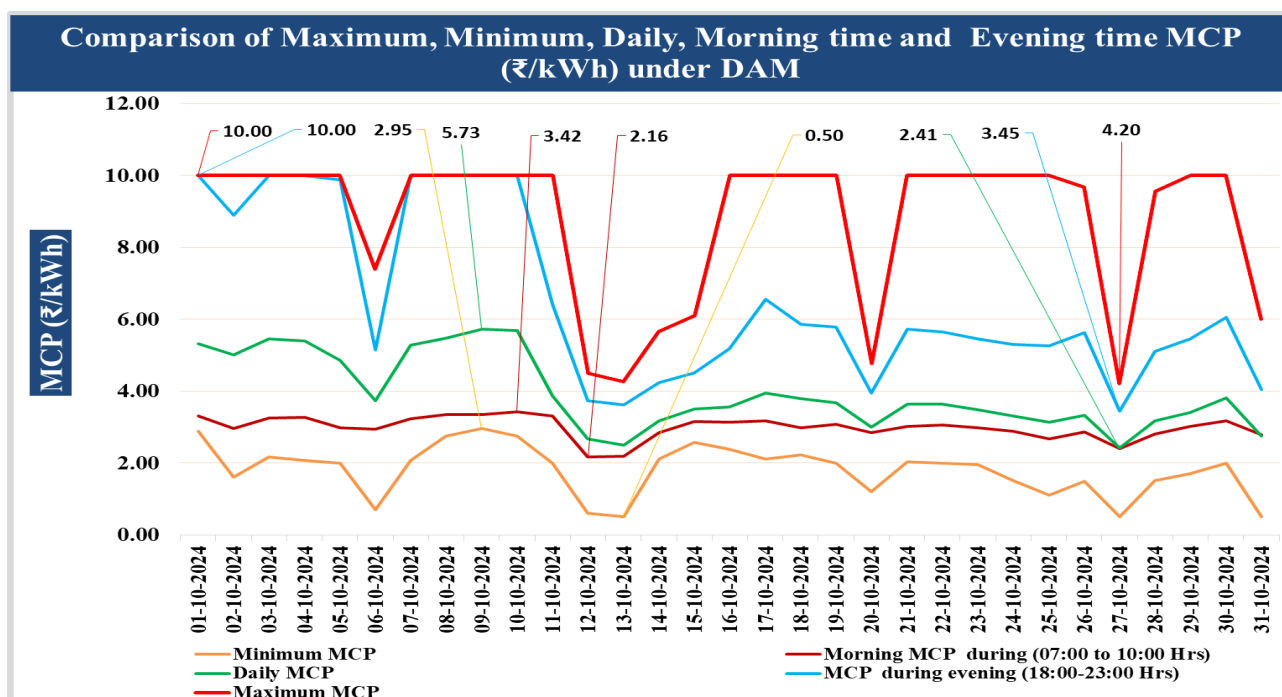


Figure-15

9.7. The Market Clearing Price duration curves for time block wise MCP for the month of October, 2024 is shown in **Figure-16**, whereas the day wise MCP duration curve for the period 1st April, 2024 to 31st October, 2024 is shown in **Figure-17**.

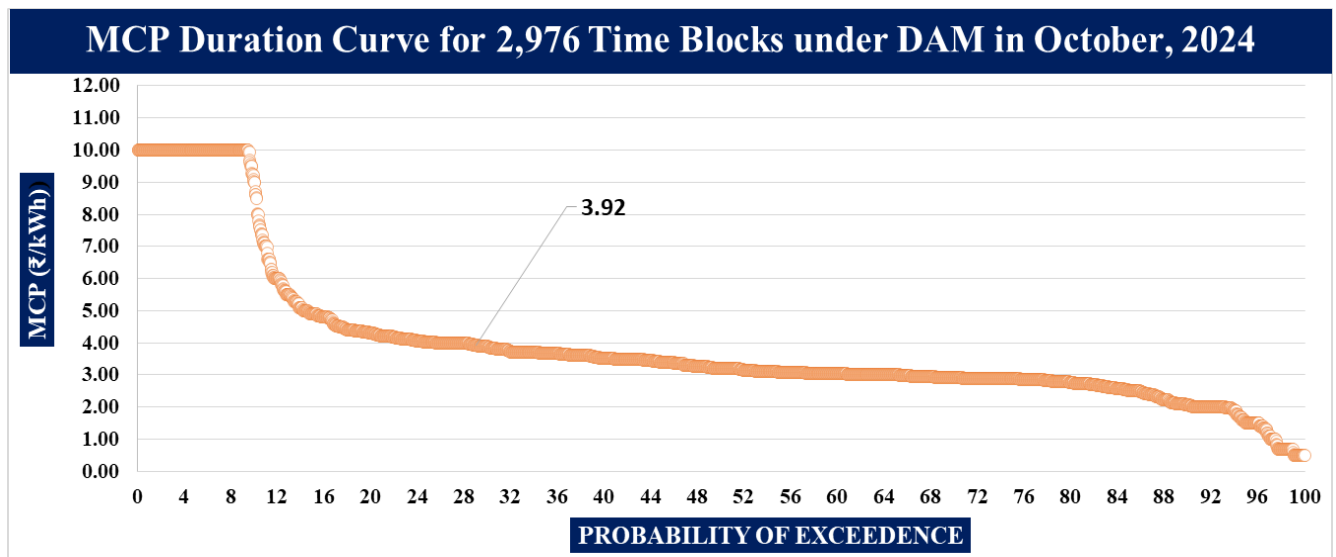


Figure – 16

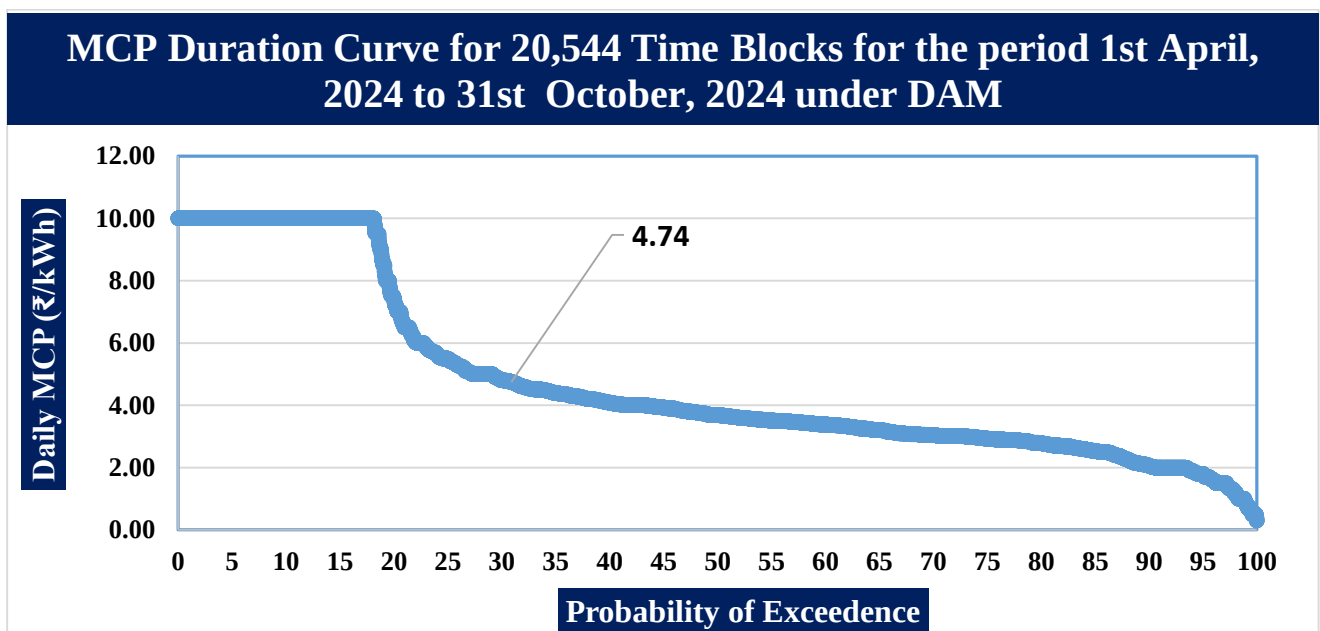


Figure – 17

9.8. It can be seen in figure 15 above that in the MCP duration curve of October, 2024, for 30.00 % of the time MCP was above Wt. Avg. MCP of the month (i.e. ₹ 3.92/kWh) and almost 70.00 % of the time MCP was below the Wt. Avg. MCP of the month. Similarly, it can be seen in the MCP duration curve from 1st April, 2024 to 31st October, 2024 (figure-16), that for 32.00 % of the time the MCP was above the Wt. Avg. MCP for the period (i.e. ₹ 4.74/kWh) and for 68.00 % of the time the Daily Wt. Avg. MCP was below the Wt. Avg. MCP for the period.

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 October, 2024, the maximum FSV occurred mostly during **the time period 07-08 Hrs** (on 17 no. of days). Whereas, the maximum MCP occurred mostly during **the time period 18-19 Hrs** (on 21 no. of days). Similarly, the minimum FSV occurred mostly during **the time period 13-14 Hrs** (on 07 no. of days). Whereas, the minimum MCP occurred mostly during **the time period 13-14 Hrs** (on 26 no. of days). **[Annexure VI]**
- 9.11.** In October, 2024, there was no congestion in IEX and no transaction of electricity took place in PXIL & HPX. Further, in September, 2024, there was congestion of **17.72 MU** in IEX and no transaction of electricity took place in PXIL & HPX. Further, in October, 2023, there was no congestion in IEX, PXIL & HPX.
- 9.12.** In October, 2024, there was **no** real time curtailment in IEX & HPX and no transaction of electricity took place in PXIL. Further, in September, 2024, there was **no** real time curtailment in IEX and no transaction of electricity took place in PXIL & HPX. Further in October, 2023, there was **no** real time curtailment IEX, PXIL & HPX.
- 9.13.** The **top 10 sellers** on the power exchanges under Day Ahead Market (**DAM**) in October, 2024 were **Odisha, Jindal Power Ltd. Stg-II, Adani Power Limited-Raipur TPP, MAHAN ENERGEN LIMITED U#1, Uttar Pradesh, Assam, JITPL, Madhya Pradesh, MAHAN ENERGEN LIMITED U#2 and Adani Power Limited - Raigarh TPP**, which constituted **51.38 %** of the market volume. **[Annexure VII]**
- 9.14.** The **top 10 buyers** on the power exchanges under Day Ahead Market (**DAM**) in October, 2024 were **Gujarat, Maharashtra, Uttar Pradesh, Telangana, Delhi, Chhattisgarh, Uttarakhand, Daman & Diu - Dadra & Nagar Haveli, Tamil Nadu and Rajasthan**, which constituted **80.47 %** of the market volume. **[Annexure VII]**
- 9.15.** The total volume of electricity purchased by Discoms/Licensees under DAM in October, 2024 was **4,341.19 MU**, which constituted **98.22 %** 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 October, 2024 was **1,712.25 MU**, which constituted **38.74 %** of total volume of electricity sold on the power exchanges.

10. Analysis of movement of prices observed under Real Time Market (RTM) transactions in October, 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 **4.21** in October, 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-18** below:

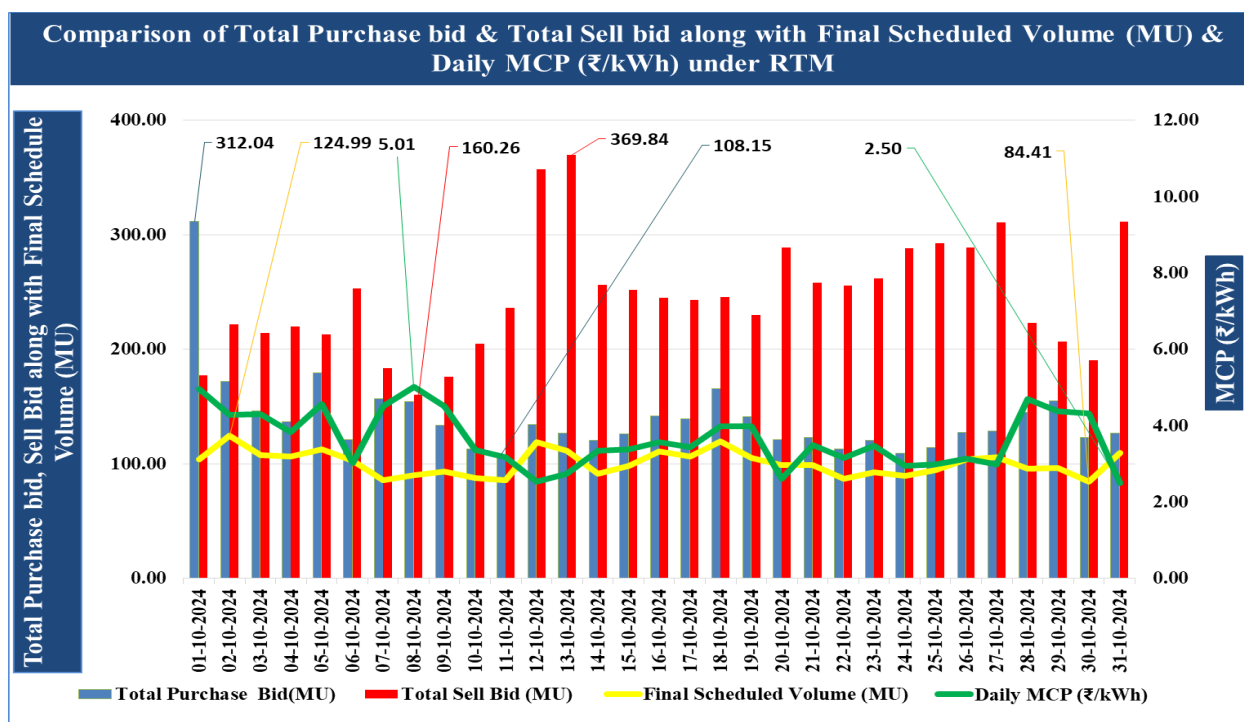


Figure-18

10.4. A comparison of maximum, minimum, daily, evening time MCP is shown in **Figure-19**. The same are also tabulated in **Annexure-VIII**.

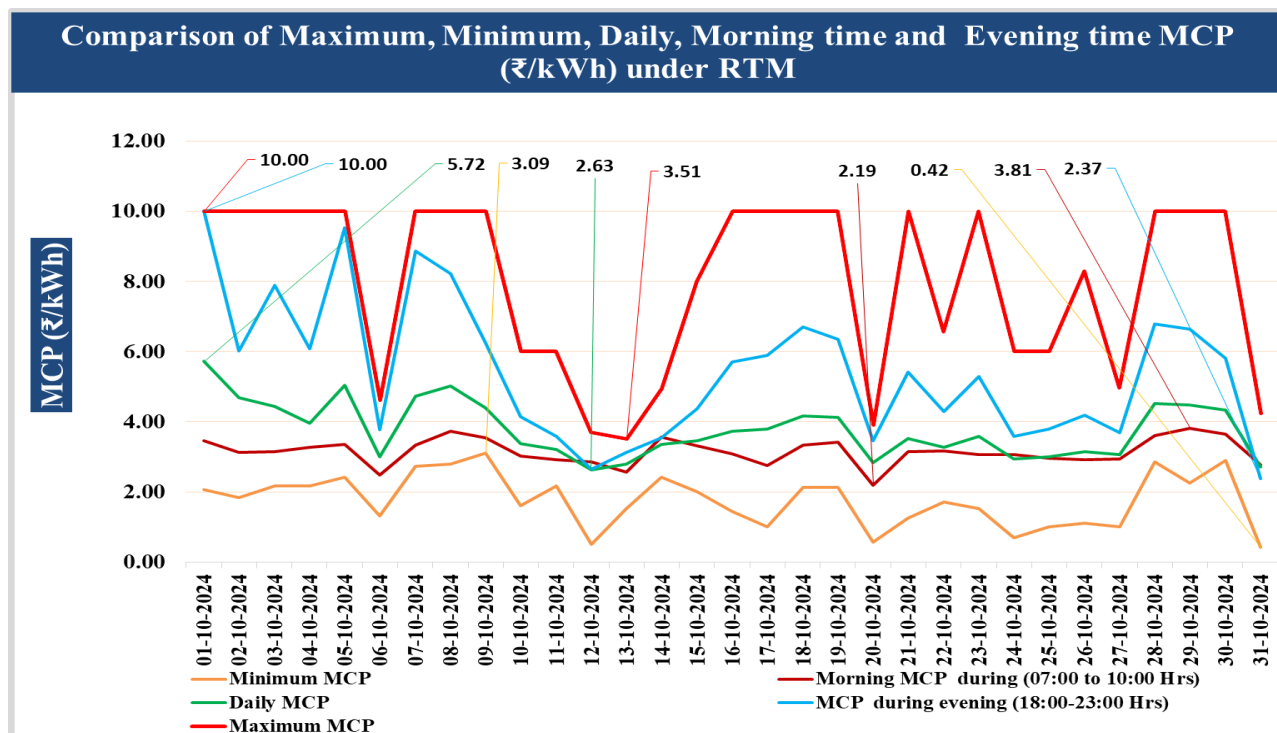


Figure-19

10.5. The Market Clearing Price duration curves for time block wise MCP for the month of October, 2024 is shown in **Figure-20**, whereas the day wise MCP duration curve for the period 1st April, 2024 to 31st October, 2024 is shown in **Figure-21**.

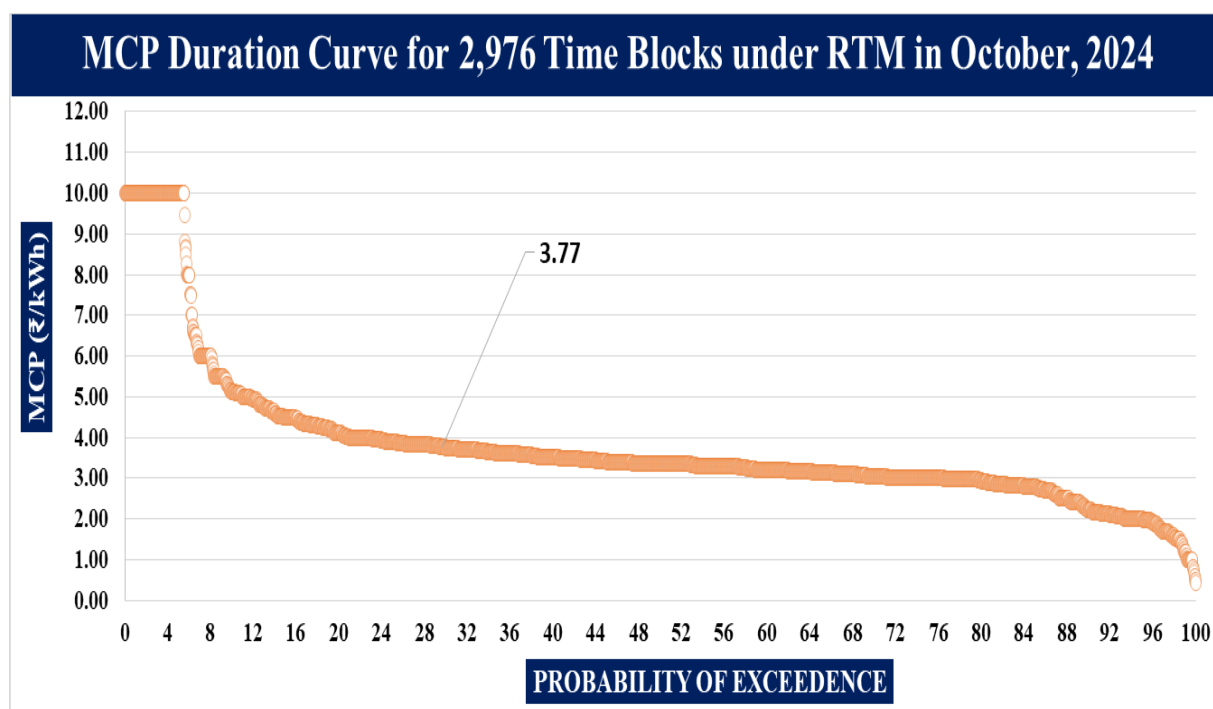


Figure-20

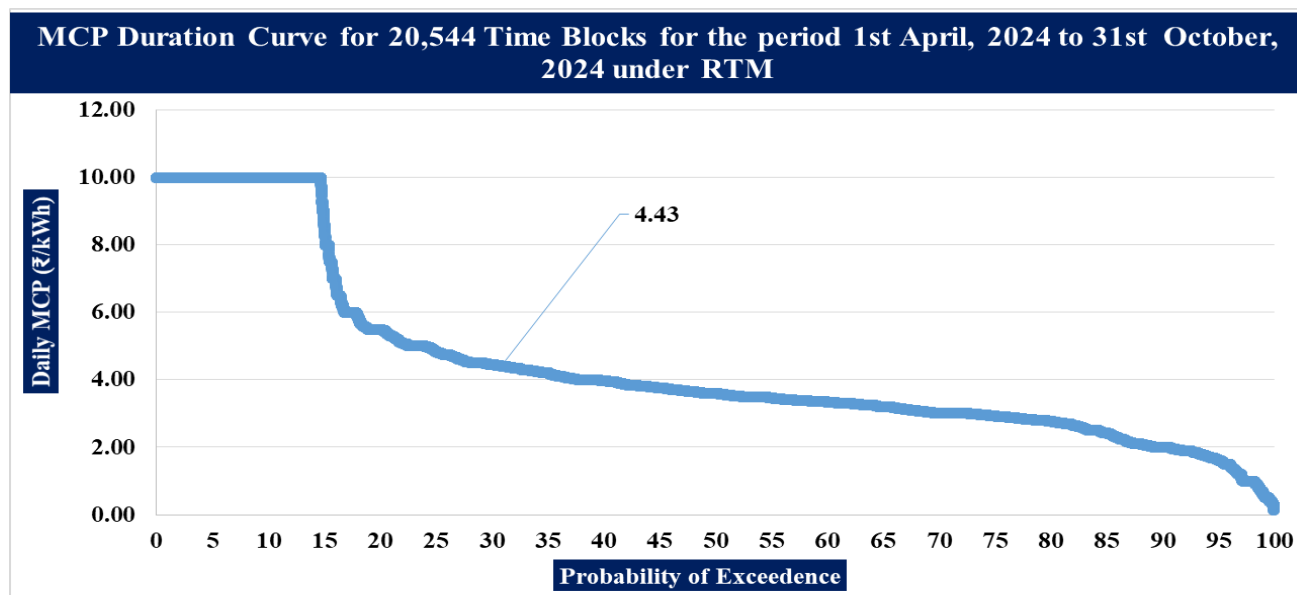


Figure-21

- 10.6.** It can be seen in figure 19 above that in the MCP duration curve of October, 2024, for 30.00 % of the time the MCP was above the Wt. Avg. MCP of the month (i.e. ₹ 3.77/kWh) and for 70.00 % of the time the MCP was below the Wt. Avg. MCP of the month. Similarly, it can be seen in the cumulative MCP duration curve from 1st April, 2024 to 31st October, 2024 (figure 20) that, for 31.00 % of the time the Daily Wt. Avg. MCP was above the Wt. Avg. MCP for the period (i.e. ₹ 4.43/kWh) and for 69.00 % of the time the Daily Wt. Avg. MCP was below the Wt. Avg. MCP for the period.
- 10.7.** In October, 2024, the maximum FSV occurred mostly during the **time period 12-14 Hrs** (on 7 no. of days). Whereas, the maximum MCP also occurred mostly during the **time period 17-18 Hrs** (on 8 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 03-05 Hrs** (on 12 no. of days). Whereas, the minimum MCP occurred mostly during the **time period 13-14 Hrs** (on 20 no. of days).[Annexure X]
- 10.8.** There was no real time curtailment of in IEX, PXIL and HPX under Real Time Market (RTM) during October, 2024. Further, in September, 2024, **0.12 MU** real time curtailment in PXIL and no real time curtailment in IEX & HPX. Similarly, in October, 2023, there was **no** real time curtailment in IEX, PXIL & HPX.
- 10.9.** In October, 2024, there was no congestion in IEX, PXIL and HPX. Further, in September, 2024, there was congestion of **7.03 MU** in IEX & **0.36 MU** in HPX and no congestion in PXIL. Similarly, in October, 2023, there was no congestion in IEX, PXIL & HPX.
- 10.10.** The **top 10 sellers** on the power exchanges under Real Time Market (RTM) in October, 2024 were **Madhya Pradesh, Bihar, Tamil Nadu, Odisha, Uttar Pradesh, Haryana, Assam, Karnataka, West Bengal** and NVVN (SNA) - NEA, which constituted **53.74 %** of the market volume. [Annexure XI]

10.11. The **top 10 buyers** on the power exchanges under Real Time Market (**RTM**) in October, 2024 were **Punjab, Telangana, Maharashtra, Rajasthan, Uttar Pradesh, J&K, West Bengal, Tamil Nadu, Delhi** and **Gujarat**, which constituted **80.81%** of the market volume. [**Annexure XI**]

10.12. The total volume of electricity purchased by Discoms/Licensees under RTM in October, 2024 was **3,041.47 MU**, which constituted **97.42 %** 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 October, 2024 was **2,244.88 MU**, which constituted **71.89 %** 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	4,836.23	0	0	4.84	-	-	0	0	0
Total Quarter -I	April - June, 2024	13,283.23	3.85	0.10	4.75	10.00	10.00	0	0	0
Quarter -II	July, 2024	5,070.64	0	0	4.64	-	-	0	0	0
	August, 2024	4,711.98	0	0	4.15	-	-	0	0	0
	September, 2024	4,562.10	0	0.08	4.28	-	10.00	0	0	0
Total Quarter -II	July - September, 2024	14,344.72	0.00	0.08	4.36	-	10.00	0	0	0
Quarter -III	October, 2024	4,419.86	0	0	4.03	-	-	0	0	0
Total Quarter -III	October - December, 2024	4,419.86	0.00	0.08	4.03	-	-	0	0	0
Total April, 2024 – March, 2025		32,047.81	3.85	0.18	4.48	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	1054.97	564.87	396.82	2016.66
Total Quarter – I	April - June, 2024	3,108.47	3,089.45	2,259.07	8,456.99
Quarter -II	July, 2024	337.92	253.37	177.63	768.92
	August, 2024	646.40	463.63	119.80	1,229.83
	September , 2024	966.43	339.17	406.10	1,711.70
Total Quarter – II	July - September, 2024	1,950.75	1,056.17	703.53	3,710.45
Quarter –III	October, 2024	1148.34	754.37	376.64	2279.35
Total Quarter – III	October-December, 2024	1,148.34	754.37	376.64	2,279.35
Total April, 2024 – March, 2025		6,207.56	4,899.99	3,339.24	14,446.79

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

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Bihar	531.30	42.62%	Tamil Nadu	203.08	19.25%
Haryana	224.60	18.02%	Maharashtra	171.18	16.23%
Odisha	107.53	8.62%	Uttar Pradesh	124.89	11.84%
Delhi	102.42	8.22%	COASTAL ENERGEN PRIVATE LIMITED	124.38	11.79%
Kerala	74.24	5.95%	Bihar	83.80	7.94%
Total Volume	1,040.03	83.42%	Total Volume	707.34	67.06%
Total Volume in Bilateral	1,246.74		Total Volume in Bilateral	1,054.73	

(ii) Top five Sellers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
NABINAGAR POWER GENERATING COMPANY LIMITED	175.92	14.11%	Adani Power Limited- Raipur TPP	222.37	21.08%
NTPC BARH Stage II	147.18	11.80%	Karnataka	92.80	8.80%
IGSTPS JHAJJAR	129.89	10.42%	DGEN MEGA POWER PROJECT	80.76	7.66%
Jindal India Thermal Power Limited	89.28	7.16%	Odisha	68.14	6.46%
Tamil Nadu	83.94	6.73%	Adani Power Limited - Raigarh TPP	53.27	5.05%
Total Volume	626.24	50.23%	Total Volume	517.34	49.05%
Total Volume in Bilateral	1,246.74		Total Volume in Bilateral	1,054.73	

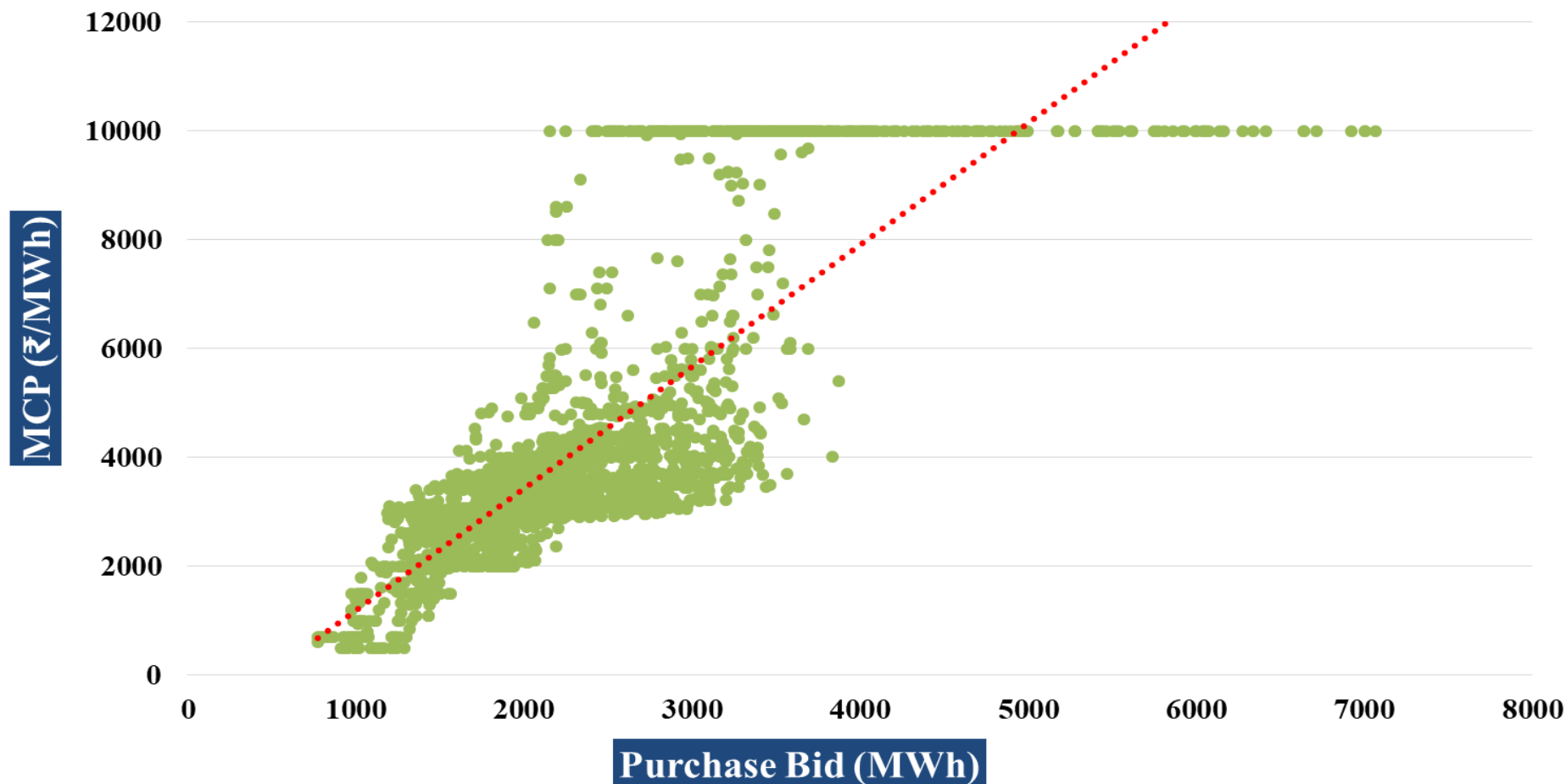
Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under DAM

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)
01-10-2024	3.30	3.20	10.00	5.19	10.00	2.88	5.32	171.00
02-10-2024	2.97	2.37	8.89	5.55	10.00	1.60	5.01	172.47
03-10-2024	3.24	2.86	10.00	5.01	10.00	2.17	5.44	159.68
04-10-2024	3.27	2.76	10.00	4.79	10.00	2.07	5.40	154.73
05-10-2024	2.98	2.59	9.88	4.61	10.00	1.99	4.86	138.60
06-10-2024	2.94	2.12	5.14	4.41	7.40	0.70	3.73	148.34
07-10-2024	3.24	2.87	10.00	5.02	10.00	2.06	5.27	126.74
08-10-2024	3.34	3.24	10.00	5.14	10.00	2.75	5.48	123.44
09-10-2024	3.35	3.51	10.00	5.35	10.00	2.95	5.73	127.58
10-10-2024	3.42	3.35	10.00	5.32	10.00	2.75	5.69	146.63
11-10-2024	3.30	2.84	6.42	3.31	10.00	1.99	3.87	149.19
12-10-2024	2.16	1.52	3.72	3.21	4.50	0.60	2.67	116.03
13-10-2024	2.18	1.24	3.61	3.00	4.27	0.50	2.49	123.23
14-10-2024	2.84	2.65	4.24	3.02	5.65	2.11	3.17	139.05
15-10-2024	3.15	2.94	4.50	3.40	6.10	2.57	3.49	155.64
16-10-2024	3.13	2.81	5.17	3.19	10.00	2.38	3.56	146.46
17-10-2024	3.16	2.79	6.56	3.41	10.00	2.10	3.94	148.08
18-10-2024	2.97	2.86	5.86	3.48	10.00	2.22	3.79	147.20
19-10-2024	3.07	2.73	5.78	3.22	10.00	2.00	3.67	152.25
20-10-2024	2.84	1.98	3.94	3.27	4.78	1.20	3.00	131.67
21-10-2024	3.02	2.81	5.72	3.12	10.00	2.02	3.63	144.59
22-10-2024	3.06	2.73	5.65	3.14	10.00	2.00	3.63	145.76
23-10-2024	2.98	2.56	5.46	3.10	10.00	1.96	3.48	143.36
24-10-2024	2.89	2.28	5.29	3.05	10.00	1.50	3.32	144.31
25-10-2024	2.67	2.01	5.25	2.90	10.00	1.10	3.14	155.98
26-10-2024	2.86	2.07	5.62	3.02	9.68	1.50	3.33	146.66
27-10-2024	2.39	1.18	3.45	2.74	4.20	0.50	2.41	120.47
28-10-2024	2.80	2.22	5.10	2.77	9.57	1.50	3.17	133.47
29-10-2024	3.03	2.31	5.45	3.00	10.00	1.70	3.41	129.09
30-10-2024	3.16	2.47	6.05	3.07	10.00	2.00	3.80	147.97
31-10-2024	2.79	1.03	4.03	3.20	6.00	0.50	2.74	130.20
Maximum	3.42	3.51	10.00	5.55	10.00	2.95	5.73	172.47
Minimum	2.16	1.03	3.45	2.74	4.20	0.50	2.41	116.03
Average	2.98	2.48	6.48	3.74	8.78	1.80	3.92	142.58

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 October, 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
01-10-2024	06:45 - 07:00	2.64	18:15 - 18:30	10.00	21:30 - 21:45	1.39	13:15 - 13:30	2.88
02-10-2024	06:45 - 07:00	2.37	00:00 - 00:15	10.00	10:15 - 10:30	1.14	11:00 - 11:15	1.60
03-10-2024	06:45 - 07:00	2.71	00:00 - 00:15	10.00	22:45 - 23:00	1.04	13:00 - 13:15	2.17
04-10-2024	16:45 - 17:00	2.72	00:00 - 00:15	10.00	23:00 - 23:15	1.13	13:00 - 13:15	2.07
05-10-2024	07:00 - 07:15	2.43	18:15 - 18:30	10.00	01:45 - 02:00	1.00	13:45 - 14:00	1.99
06-10-2024	07:00 - 07:15	2.28	00:15 - 00:30	7.40	23:45 - 24:00	1.15	10:45 - 11:00	0.70
07-10-2024	06:30 - 06:45	2.40	17:45 - 18:00	10.00	23:15 - 23:30	0.71	11:30 - 11:45	2.06
08-10-2024	07:00 - 07:15	2.29	17:45 - 18:00	10.00	19:00 - 19:15	0.83	11:30 - 11:45	2.75
09-10-2024	07:00 - 07:15	2.32	00:00 - 00:15	10.00	19:00 - 19:15	0.80	11:00 - 11:15	2.95
10-10-2024	16:45 - 17:00	2.44	00:00 - 00:15	10.00	19:00 - 19:15	1.01	13:15 - 13:30	2.75
11-10-2024	16:45 - 17:00	2.38	18:45 - 19:00	10.00	23:45 - 24:00	0.92	13:15 - 13:30	1.99
12-10-2024	18:45 - 19:00	1.88	18:45 - 19:00	4.50	13:00 - 13:15	0.77	13:00 - 13:15	0.60
13-10-2024	18:45 - 19:00	1.90	18:45 - 19:00	4.27	13:30 - 13:45	1.00	13:30 - 13:45	0.50
14-10-2024	07:00 - 07:15	2.21	19:00 - 19:15	5.65	02:45 - 03:00	1.08	13:15 - 13:30	2.11
15-10-2024	18:45 - 19:00	2.38	18:45 - 19:00	6.10	11:00 - 11:15	1.17	13:00 - 13:15	2.57
16-10-2024	07:00 - 07:15	2.39	18:45 - 19:00	10.00	12:30 - 12:45	1.06	13:00 - 13:15	2.38
17-10-2024	18:15 - 18:30	2.43	18:00 - 18:15	10.00	13:30 - 13:45	0.93	13:00 - 13:15	2.10
18-10-2024	19:00 - 19:15	2.41	18:30 - 18:45	10.00	13:30 - 13:45	0.91	13:15 - 13:30	2.22
19-10-2024	07:00 - 07:15	2.49	18:30 - 18:45	10.00	13:45 - 14:00	1.03	13:15 - 13:30	2.00
20-10-2024	07:00 - 07:15	2.15	18:45 - 19:00	4.78	13:30 - 13:45	0.82	13:15 - 13:30	1.20
21-10-2024	07:00 - 07:15	2.28	18:30 - 18:45	10.00	04:15 - 04:30	1.03	13:15 - 13:30	2.02
22-10-2024	07:00 - 07:15	2.50	18:00 - 18:15	10.00	04:00 - 04:15	1.02	13:15 - 13:30	2.00
23-10-2024	07:00 - 07:15	2.46	18:15 - 18:30	10.00	04:00 - 04:15	1.04	13:15 - 13:30	1.96
24-10-2024	07:00 - 07:15	2.38	18:30 - 18:45	10.00	09:45 - 10:00	1.16	13:15 - 13:30	1.50
25-10-2024	07:00 - 07:15	2.49	18:30 - 18:45	10.00	04:00 - 04:15	1.14	13:15 - 13:30	1.10
26-10-2024	07:00 - 07:15	2.41	18:45 - 19:00	9.68	11:15 - 11:30	1.11	13:00 - 13:15	1.50
27-10-2024	07:15 - 07:30	1.94	18:30 - 18:45	4.20	14:00 - 14:15	0.87	13:30 - 13:45	0.50
28-10-2024	18:30 - 18:45	2.20	18:30 - 18:45	9.57	13:30 - 13:45	1.01	13:15 - 13:30	1.50
29-10-2024	07:15 - 07:30	2.24	18:00 - 18:15	10.00	11:00 - 11:15	0.91	13:00 - 13:15	1.70
30-10-2024	19:15 - 19:30	2.35	17:15 - 17:30	10.00	10:00 - 10:15	1.10	13:15 - 13:30	2.00
31-10-2024	18:45 - 19:00	2.42	18:30 - 18:45	6.00	16:00 - 16:15	0.86	13:15 - 13:30	0.50

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

Sellers and Buyers under Day Ahead Market (DAM) in October, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Orissa	318.12	7.42%	Gujarat	695.76	16.22%
2	Jindal Power Ltd. Stg-	267.71	6.24%	Maharashtra	617.08	14.39%
3	Adani Power Limited-	246.33	5.74%	Uttar Pradesh	362.33	8.45%
4	MAHAN ENERGEN	239.43	5.58%	Telangana	350.33	8.17%
5	Uttar Pradesh	234.46	5.47%	Delhi	312.53	7.29%
6	Assam	233.00	5.43%	Chhattisgarh	261.34	6.09%
7	JITPL	197.11	4.59%	Uttarakhand	222.65	5.19%
8	Madhya Pradesh	170.92	3.98%	Daman & Diu - Dadra &	212.47	4.95%
9	MAHAN ENERGEN	156.76	3.65%	Tamilnadu	211.97	4.94%
10	Adani Power Limited	140.36	3.27%	Rajasthan	205.60	4.79%
11	Karnataka	118.58	2.76%	West Bengal	185.71	4.33%
12	Telangana	115.96	2.70%	Punjab	157.96	3.68%
13	Jindal Power	114.27	2.66%	Andhra Pradesh	144.89	3.38%
14	Jaypee Nigrie	103.34	2.41%	J&K	117.31	2.73%
15	Kameng HEP	81.92	1.91%	Madhya Pradesh	60.22	1.40%
16	Jindal Steel	78.08	1.82%	Haryana	44.90	1.05%
17	Sembcorp Energy	74.11	1.73%	Karnataka	41.37	0.96%
18	Chhattisgarh	63.09	1.47%	ArcelorMittal Nippon steel	40.94	0.95%
19	Government of	54.51	1.27%	DVC	27.37	0.64%
20	Haryana	49.09	1.14%	Kerala	26.42	0.62%
21	IND BARATH	44.72	1.04%	BHARAT ALUMINIUM	26.29	0.61%
22	DB Power	44.12	1.03%	Himachal Pradesh	24.60	0.57%
23	ACBIL	43.40	1.01%	Railways	22.71	0.53%
24	Gujarat	43.03	1.00%	Orissa	13.62	0.32%
25	Karcham Wangtoo	42.15	0.98%	Chandigarh	7.72	0.18%
26	West Bengal	40.31	0.94%	Jhabua Power	6.17	0.14%
27	Tamilnadu	37.96	0.88%	Jharkhand	5.33	0.12%
28	Basochhu	35.83	0.84%	Bihar	4.69	0.11%
29	ADANI	35.58	0.83%	Tripura	2.82	0.07%
30	SKS Power	33.42	0.78%	Meghalaya	2.69	0.06%
31	Bihar	30.25	0.71%	Goa WR	2.03	0.05%
32	RENEW SURYA	28.58	0.67%	Goa SR	0.77	0.02%
33	Renew Surya Ravi	28.35	0.66%	MEENAKSHI ENERGY	0.65	0.02%
34	Shree Cement	28.22	0.66%	MB Power	0.61	0.01%
35	Rajasthan	27.58	0.64%			
36	Simhapuri Energy	26.84	0.63%			
37	Farakka	26.53	0.62%			
38	Talcher	26.31	0.61%			
39	Andhra Pradesh	24.76	0.58%			
40	Adani Green Energy	24.49	0.57%			
41	Himachal Pradesh	24.24	0.57%			
42	KBUNL(MTPS-II)	24.20	0.56%			
43	BALCO 2	22.30	0.52%			
44	Government of	22.24	0.52%			
45	Chandigarh	21.06	0.49%			
46	AD Hydro	20.51	0.48%			
47	Maharashtra	19.93	0.46%			
48	Mizoram	19.90	0.46%			
49	Nabinagar Power	19.70	0.46%			
50	Talcher Stg-2	18.69	0.44%			
51	Sembcorp Gayatri	18.05	0.42%			
52	Adept Renewable	17.30	0.40%			
53	Delhi	17.23	0.40%			

54	Government of	16.23	0.38%			
55	Amp Energy Green	16.10	0.38%			
56	NTPC North	15.08	0.35%			
57	Nikachhu Hydropower	14.55	0.34%			
58	ADANI SOLAR	14.08	0.33%			
59	Palatana	13.08	0.30%			
60	Sainj HEP	12.13	0.28%			
61	Sikkim	11.79	0.27%			
62	DGEN Mega Power	11.68	0.27%			
63	Jharkhand	11.50	0.27%			
64	ADANI GREEN	11.08	0.26%			
65	DVC	10.90	0.25%			
66	ADANI WIND	10.10	0.24%			
67	Barh Stg-2	9.37	0.22%			
68	Government of	8.81	0.21%			
69	Nagaland	8.80	0.21%			
70	ADANI SOLAR	8.42	0.20%			
71	MB Power	8.05	0.19%			
72	Government of	7.15	0.17%			
73	JUNIPER GREEN	6.95	0.16%			
74	J&K	6.84	0.16%			
75	Singoli Bhagwati	6.60	0.15%			
76	Government of	6.37	0.15%			
77	ADANI	6.13	0.14%			
78	Sipat Stg-1	6.08	0.14%			
79	IL&FS	5.74	0.13%			
80	Adani Green Energy	5.61	0.13%			
81	Uttarakhand	5.55	0.13%			
82	Bongaigaon	5.16	0.12%			
83	Punjab	5.05	0.12%			
84	Farakka Stg 3	4.78	0.11%			
85	Adani Green Energy	4.77	0.11%			
86	Vindhyachal stg-1	4.52	0.11%			
87	Simhadri Stg-2	4.46	0.10%			
88	Barh STPS Stg - I	4.38	0.10%			
89	Korba	4.35	0.10%			
90	RENEW SURYA	4.20	0.10%			
91	Government of	4.15	0.10%			
92	NTPP BRBCL	4.05	0.09%			
93	RKM Power	3.99	0.09%			
94	ADANI	3.91	0.09%			
95	Kerala	3.71	0.09%			
96	TRN Energy	3.68	0.09%			
97	Adani Green Energy	3.59	0.08%			
98	Onevolt Energy	3.48	0.08%			
99	JUNIPER GREEN	3.40	0.08%			
100	Ramagundam Floating	3.34	0.08%			
101	IGSTPS JHAJJAR	3.09	0.07%			
102	Government of	2.99	0.07%			
103	Kahalgaon	2.88	0.07%			
104	Tanda Stg-2	2.81	0.07%			
105	The Tata Power Co	2.76	0.06%			
106	Transition Energy	2.46	0.06%			
107	DHARIWAL STU	2.30	0.05%			
108	Sipat Stg-2	2.30	0.05%			
109	Serentica Renewables	2.30	0.05%			
110	Vindhyachal stg-4	2.26	0.05%			
111	Vindhyachal stg-3	2.26	0.05%			
112	AMBUJA CEMENTS	2.24	0.05%			

113	Dhariwal ISTS	2.21	0.05%			
114	Lanco Budhil	2.18	0.05%			
115	Singrauli	2.09	0.05%			
116	WIND FIVE	1.98	0.05%			
117	TPSL 200MW	1.96	0.05%			
118	Dadri TPS	1.80	0.04%			
119	Kahalgaon-II	1.76	0.04%			
120	Maruti Clean Coal	1.69	0.04%			
121	Korba Stg 3	1.62	0.04%			
122	Meghalaya	1.58	0.04%			
123	Pondicherry	1.50	0.04%			
124	Goa WR	1.50	0.04%			
125	NTPC Lara	1.43	0.03%			
126	Ostro Kannada Power	1.40	0.03%			
127	GMR Kamalanga	1.25	0.03%			
128	Vindhyachal stg-2	1.23	0.03%			
129	Serentica Renewables	1.01	0.02%			
130	Simhadri FSP 15 MW	0.99	0.02%			
131	GMR Warora	0.89	0.02%			
132	NTPC Kudgi	0.85	0.02%			
133	Rihand-III	0.82	0.02%			
134	Rihand-II	0.81	0.02%			
135	NTPC Gadarwara	0.73	0.02%			
136	Vindhyachal stg-5	0.66	0.02%			
137	Unchahar-IV	0.62	0.01%			
138	NTPC Simhadri 25	0.61	0.01%			
139	Khargone STPP	0.61	0.01%			
140	Costal Energen	0.55	0.01%			
141	ADANI WIND	0.50	0.01%			
142	NTPC Telangana	0.48	0.01%			
143	Darlipalli	0.30	0.01%			
144	MEENAKSHI	0.30	0.01%			
145	NTPC Sholapur	0.27	0.01%			
146	Jhabua Power	0.26	0.01%			
147	Unchahar-I	0.24	0.01%			
148	Tripura	0.23	0.01%			
149	NTPL	0.21	0.005%			
150	ADANI SOLAR	0.20	0.005%			
151	Ramagundam Stg-3	0.20	0.005%			
152	TPSL Banderwala	0.18	0.004%			
153	Rihand-I	0.16	0.004%			
154	Unchahar-II	0.16	0.004%			
155	ADANI GREEN	0.14	0.003%			
156	NLC	0.11	0.002%			
157	Dadri Stg-2	0.07	0.002%			
158	Ramagundam Stg-1	0.07	0.002%			
159	Unchahar-III	0.06	0.001%			
160	Mouda Stg-1	0.03	0.001%			
161	Mouda Stg-2	0.03	0.001%			
162	Nani Virani Wind	0.02	0.001%			
163	RENEW SURYA	0.02	0.0005%			
164	Neyveli New Thermal	0.02	0.0004%			
Total Volume of top 10		2,204.20	51.38%	Total Volume of top 10	3,452.47	80.47%
Total Volume in PXs		4,419.86		Total Volume in PXs	4,419.86	

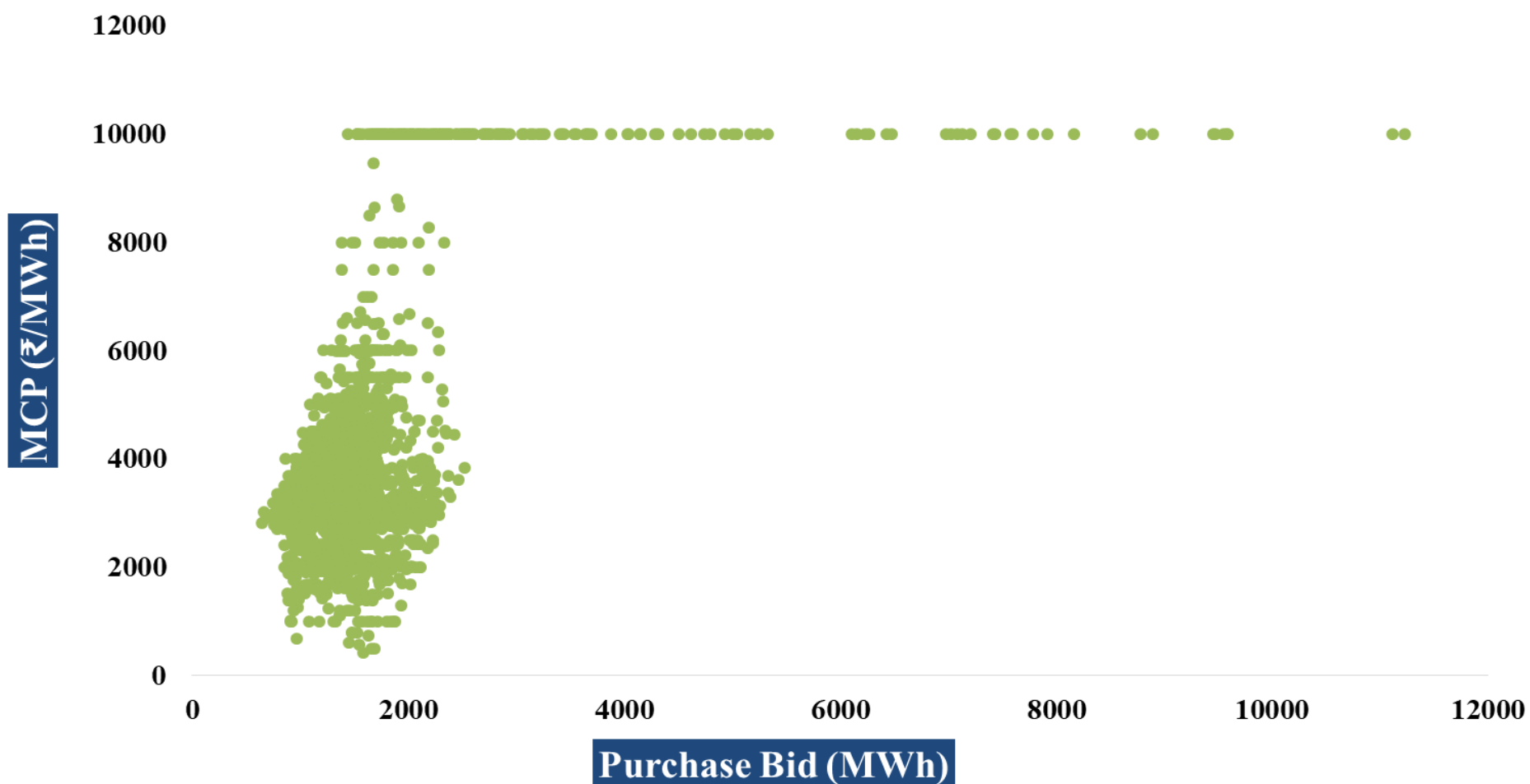
Annexure-VIII**Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under RTM**

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)
01-10-2024	3.45	3.67	10.00	5.02	10.00	2.07	5.72	104.21
02-10-2024	3.12	3.08	6.02	5.49	10.00	1.83	4.67	124.99
03-10-2024	3.14	3.31	7.89	3.67	10.00	2.17	4.43	107.48
04-10-2024	3.27	3.04	6.08	3.69	10.00	2.17	3.96	106.68
05-10-2024	3.35	3.53	9.53	4.34	10.00	2.42	5.03	112.69
06-10-2024	2.47	2.64	3.77	2.82	4.60	1.31	3.00	102.83
07-10-2024	3.32	3.48	8.86	3.79	10.00	2.73	4.73	85.87
08-10-2024	3.72	3.73	8.22	4.29	10.00	2.79	5.01	90.50
09-10-2024	3.54	3.58	6.24	3.72	10.00	3.09	4.38	93.45
10-10-2024	3.01	2.92	4.14	3.26	6.00	1.60	3.38	87.60
11-10-2024	2.91	3.04	3.58	3.22	6.00	2.17	3.21	85.57
12-10-2024	2.86	1.67	2.65	3.21	3.70	0.50	2.63	119.16
13-10-2024	2.57	2.57	3.12	2.97	3.51	1.52	2.80	111.27
14-10-2024	3.56	3.21	3.55	3.24	4.94	2.42	3.35	91.74
15-10-2024	3.31	2.85	4.37	3.37	8.00	2.00	3.46	98.13
16-10-2024	3.08	2.81	5.70	3.48	10.00	1.43	3.73	110.60
17-10-2024	2.74	2.81	5.88	3.55	10.00	1.00	3.78	106.70
18-10-2024	3.34	3.18	6.70	3.42	10.00	2.12	4.17	119.73
19-10-2024	3.41	3.07	6.34	3.76	10.00	2.13	4.12	105.21
20-10-2024	2.19	2.15	3.45	3.29	3.90	0.58	2.84	99.07
21-10-2024	3.14	3.20	5.40	2.88	10.00	1.25	3.53	98.81
22-10-2024	3.17	2.55	4.28	3.21	6.56	1.71	3.28	87.10
23-10-2024	3.05	2.96	5.29	3.23	10.00	1.52	3.58	93.01
24-10-2024	3.06	2.10	3.57	3.03	6.00	0.69	2.94	89.74
25-10-2024	2.96	2.38	3.80	2.99	6.00	1.00	3.00	94.63
26-10-2024	2.92	2.54	4.18	2.93	8.28	1.10	3.15	104.12
27-10-2024	2.93	2.36	3.69	3.24	4.97	1.00	3.06	106.12
28-10-2024	3.61	3.88	6.78	3.36	10.00	2.85	4.53	95.55
29-10-2024	3.81	3.60	6.64	3.48	10.00	2.25	4.46	96.22
30-10-2024	3.64	3.38	5.81	3.78	10.00	2.90	4.33	84.41
31-10-2024	2.78	1.86	2.37	3.47	4.24	0.42	2.71	109.46
Maximum	3.81	3.88	10.00	5.49	10.00	3.09	5.72	124.99
Minimum	2.19	1.67	2.37	2.82	3.51	0.42	2.63	84.41
Average	3.14	2.94	5.42	3.52	7.96	1.77	3.77	100.73

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 October, 2024 under RTM



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

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
01-10-2024	15:30 - 15:45	1.93	00:00 - 00:15	10.00	19:00 - 19:15	0.35	10:30 - 10:45	2.07
02-10-2024	11:45 - 12:00	2.03	00:00 - 00:15	10.00	00:15 - 00:30	0.73	10:00 - 10:15	1.83
03-10-2024	15:45 - 16:00	1.96	17:45 - 18:00	10.00	06:15 - 06:30	0.52	10:15 - 10:30	2.17
04-10-2024	16:00 - 16:15	1.68	19:00 - 19:15	10.00	18:30 - 18:45	0.74	13:00 - 13:15	2.17
05-10-2024	15:15 - 15:30	1.95	18:15 - 18:30	10.00	19:15 - 19:30	0.58	13:30 - 13:45	2.42
06-10-2024	06:00 - 06:15	1.44	18:45 - 19:00	4.60	14:30 - 14:45	0.73	10:00 - 10:15	1.31
07-10-2024	16:15 - 16:30	1.28	18:30 - 18:45	10.00	18:45 - 19:00	0.44	13:00 - 13:15	2.73
08-10-2024	11:30 - 11:45	1.38	17:45 - 18:00	10.00	01:30 - 01:45	0.59	13:00 - 13:15	2.79
09-10-2024	19:45 - 20:00	1.61	00:00 - 00:15	10.00	04:30 - 04:45	0.61	13:30 - 13:45	3.09
10-10-2024	19:45 - 20:00	1.37	19:00 - 19:15	6.00	03:45 - 04:00	0.58	13:00 - 13:15	1.60
11-10-2024	09:15 - 09:30	1.39	18:45 - 19:00	6.00	04:00 - 04:15	0.50	08:15 - 08:30	2.17
12-10-2024	13:45 - 14:00	1.84	00:15 - 00:30	3.70	03:15 - 03:30	0.96	13:15 - 13:30	0.50
13-10-2024	13:00 - 13:15	1.78	17:15 - 17:30	3.51	22:45 - 23:00	0.62	10:00 - 10:15	1.52
14-10-2024	11:45 - 12:00	1.43	18:45 - 19:00	4.94	02:15 - 02:30	0.50	13:00 - 13:15	2.42
15-10-2024	11:15 - 11:30	1.47	18:45 - 19:00	8.00	03:00 - 03:15	0.63	13:00 - 13:15	2.00
16-10-2024	15:15 - 15:30	1.99	18:30 - 18:45	10.00	03:15 - 03:30	0.66	13:00 - 13:15	1.43
17-10-2024	12:00 - 12:15	2.12	17:45 - 18:00	10.00	17:45 - 18:00	0.57	10:00 - 10:15	1.00
18-10-2024	14:45 - 15:00	2.09	17:45 - 18:00	10.00	03:00 - 03:15	0.57	13:15 - 13:30	2.12
19-10-2024	15:00 - 15:15	1.84	18:00 - 18:15	10.00	03:45 - 04:00	0.52	13:30 - 13:45	2.13
20-10-2024	12:30 - 12:45	1.93	19:00 - 19:15	3.90	02:30 - 02:45	0.47	11:00 - 11:15	0.58
21-10-2024	12:15 - 12:30	1.90	18:30 - 18:45	10.00	17:45 - 18:00	0.51	10:30 - 10:45	1.25
22-10-2024	14:00 - 14:15	1.60	18:45 - 19:00	6.56	04:30 - 04:45	0.53	13:00 - 13:15	1.71
23-10-2024	12:45 - 13:00	1.62	18:30 - 18:45	10.00	00:45 - 01:00	0.59	10:00 - 10:15	1.52
24-10-2024	19:00 - 19:15	1.34	18:30 - 18:45	6.00	04:00 - 04:15	0.49	13:30 - 13:45	0.69
25-10-2024	11:45 - 12:00	1.45	18:45 - 19:00	6.00	01:15 - 01:30	0.54	13:15 - 13:30	1.00
26-10-2024	14:15 - 14:30	1.67	18:30 - 18:45	8.28	04:00 - 04:15	0.53	13:15 - 13:30	1.10
27-10-2024	14:15 - 14:30	1.74	18:30 - 18:45	4.97	02:45 - 03:00	0.66	13:00 - 13:15	1.00
28-10-2024	16:15 - 16:30	1.51	17:00 - 17:15	10.00	01:30 - 01:45	0.54	01:45 - 02:00	2.85
29-10-2024	19:30 - 19:45	1.65	17:30 - 17:45	10.00	18:30 - 18:45	0.46	13:00 - 13:15	2.25
30-10-2024	12:45 - 13:00	1.29	17:15 - 17:30	10.00	02:00 - 02:15	0.59	13:00 - 13:15	2.90
31-10-2024	14:00 - 14:15	1.88	07:15 - 07:30	4.24	03:15 - 03:30	0.54	13:00 - 13:15	0.42

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Sellers and Buyers under Real Time Market (RTM) in October, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Madhya Pradesh	381.64	12.63%	Punjab	575.10	19.04%
2	Bihar	326.51	10.81%	Telangana	376.01	12.45%
3	Tamilnadu	186.52	6.17%	Maharashtra	373.02	12.35%
4	Orissa	171.18	5.67%	Rajasthan	228.94	7.58%
5	Uttar Pradesh	108.92	3.61%	Uttar Pradesh	219.60	7.27%
6	Haryana	99.41	3.29%	J&K	190.44	6.30%
7	Assam	98.23	3.25%	West Bengal	144.64	4.79%
8	Karnataka	88.52	2.93%	Tamilnadu	129.52	4.29%
9	West Bengal	87.76	2.91%	Delhi	104.28	3.45%
10	NVVN (SNA) -	74.94	2.48%	Gujarat	99.86	3.31%
11	Andhra Pradesh	70.32	2.33%	Andhra Pradesh	95.98	3.18%
12	Arunachal Pradesh	64.74	2.14%	DVC	64.48	2.13%
13	Jharkhand	62.28	2.06%	Assam	60.29	2.00%
14	Chhattisgarh	47.31	1.57%	Orissa	51.66	1.71%
15	NEA-NR	42.42	1.40%	Himachal Pradesh	47.78	1.58%
16	Farakka	41.94	1.39%	Uttarakhand	47.55	1.57%
17	Telangana	40.27	1.33%	Haryana	40.07	1.33%
18	Kameng HEP	39.36	1.30%	Daman & Diu - Dadra &	35.36	1.17%
19	Himachal Pradesh	37.56	1.24%	Chhattisgarh	33.75	1.12%
20	Nabinagar Power	36.81	1.22%	Kerala	31.76	1.05%
21	BALCO 2	33.69	1.12%	SKS Power	23.20	0.77%
22	Sembcorp Energy	33.25	1.10%	ArcelorMittal Nippon steel	19.50	0.65%
23	Manipur	32.30	1.07%	Tripura	17.57	0.58%
24	Punjab	28.76	0.95%	Madhya Pradesh	16.92	0.56%
25	Delhi	28.19	0.93%	Karnataka	14.19	0.47%
26	MEENAKSHI	24.76	0.82%	Jharkhand	12.36	0.41%
27	Jindal Power Ltd.	24.32	0.80%	Jindal Power Ltd. Stg-II	12.31	0.41%
28	Kahalgaon-II	22.07	0.73%	Meghalaya	9.65	0.32%
29	Adani Power	20.83	0.69%	Adani Power Limited -	8.07	0.27%
30	Maharashtra	20.64	0.68%	Bihar	4.52	0.15%
31	Talcher Stg-2	20.27	0.67%	Goa WR	3.91	0.13%
32	Adani Power	18.84	0.62%	Government of Himachal	3.79	0.13%
33	ADANI	18.15	0.60%	Jindal Power	3.74	0.12%
34	Sipat Stg-1	17.73	0.59%	Jhabua Power	3.62	0.12%
35	Tanda Stg-2	16.78	0.56%	MEENAKSHI ENERGY	3.20	0.11%
36	MAHAN	15.99	0.53%	Goa SR	2.99	0.10%
37	J&K	15.77	0.52%	Railways	2.96	0.10%
38	Pondicherry	15.45	0.51%	MB Power	2.93	0.10%
39	MAHAN	15.24	0.50%	Government of Himachal	2.32	0.08%
40	Gujarat	15.08	0.50%	Ratnagiri Gas & Power	1.99	0.07%
41	Uttarakhand	13.88	0.46%	Government of Himachal	1.84	0.06%
42	Barh Stg-2	12.80	0.42%	Manipur	1.51	0.05%
43	TRN Energy	12.62	0.42%	Jindal Steel	1.47	0.05%
44	Neyveli New	12.17	0.40%	Government of Himachal	1.10	0.04%
45	Singrauli	12.12	0.40%	Government of Himachal	0.81	0.03%
46	RENEW SURYA	12.10	0.40%	Kawas	0.80	0.03%
47	Sikkim	11.60	0.38%	Gandhar	0.77	0.03%

48	SKS Power	11.01	0.36%	Simhapuri Energy Limited	0.49	0.02%
49	DB Power	10.56	0.35%	Government of Himachal	0.45	0.01%
50	Palatana	10.12	0.33%	ACBIL	0.33	0.01%
51	Vindhyachal stg-4	9.88	0.33%	Government of Himachal	0.27	0.01%
52	NTPL	9.59	0.32%	Government of Himachal	0.23	0.01%
53	Vindhyachal stg-3	9.40	0.31%	Pondicherry	0.23	0.01%
54	Korba	9.37	0.31%	Sainj HEP	0.18	0.01%
55	RENEW SURYA	9.09	0.30%	Sikkim	0.12	0.00%
56	Farakka Stg 3	9.05	0.30%	Maruti Clean Coal Power	0.08	0.003%
57	Jindal Power	8.92	0.30%	2X600 VEDANTA	0.01	0.0003%
58	Kahalgaoon	8.78	0.29%			
59	Government of	8.64	0.29%			
60	Meghalaya	8.49	0.28%			
61	DVC	8.42	0.28%			
62	Rajasthan	7.82	0.26%			
63	Vindhyachal stg-1	7.74	0.26%			
64	Serentica	7.71	0.26%			
65	Renew Surya Ravi	7.67	0.25%			
66	Vindhyachal stg-2	7.57	0.25%			
67	Tripura	7.47	0.25%			
68	Adept Renewable	7.40	0.25%			
69	Transition Green	7.23	0.24%			
70	MB Power	7.03	0.23%			
71	Adani Green Energy	6.92	0.23%			
72	Sipat Stg-2	6.89	0.23%			
73	NLC	6.81	0.23%			
74	Amp Energy Green	6.78	0.22%			
75	Maithon Power	6.53	0.22%			
76	NTPC Gadawara	6.45	0.21%			
77	Sembcorp Gayatri	6.36	0.21%			
78	Khargone STPP	6.31	0.21%			
79	NTPP BRBCL	5.72	0.19%			
80	Nagaland	5.71	0.19%			
81	NLC TPS-II Stg-2	5.69	0.19%			
82	NTPC Telangana	5.27	0.17%			
83	Sasan UMPP	5.15	0.17%			
84	Karcham Wangtoo	5.05	0.17%			
85	Talcher	4.94	0.16%			
86	NTPC North	4.79	0.16%			
87	Kerala	4.67	0.15%			
88	The Tata Power Co	4.66	0.15%			
89	JUNIPER GREEN	4.62	0.15%			
90	Vindhyachal stg-5	4.60	0.15%			
91	NTPC Lara	4.58	0.15%			
92	VENA ENERGY	4.55	0.15%			
93	IND BARATH	4.55	0.15%			
94	Darlipalli	4.43	0.15%			
95	Government of	4.42	0.15%			
96	Rihand-III	4.41	0.15%			
97	NREL-Dayapar	4.38	0.15%			
98	NLC TPS-II	4.31	0.14%			
99	Transition Energy	4.27	0.14%			

100	Rihand-I	4.25	0.14%			
101	Bongaigaon	4.14	0.14%			
102	ADANI	4.08	0.14%			
103	NTPC Kudgi	4.06	0.13%			
104	Rihand-II	3.98	0.13%			
105	Serentica	3.89	0.13%			
106	ADANI WIND	3.66	0.12%			
107	Jhabua Power	3.58	0.12%			
108	ADHUNIK POWER	3.48	0.12%			
109	Jindal Steel	3.32	0.11%			
110	Onevolt Energy	3.01	0.10%			
111	Korba Stg 3	2.96	0.10%			
112	Simhapuri Energy	2.91	0.10%			
113	Jaypee Nigrie	2.83	0.09%			
114	VENA ENERGY	2.82	0.09%			
115	ACBIL	2.79	0.09%			
116	ACME PHALODI	2.78	0.09%			
117	TRANSITION	2.67	0.09%			
118	Ramagundam Stg-1	2.66	0.09%			
119	Barh STPS Stg - I	2.60	0.09%			
120	Government of	2.52	0.08%			
121	Grian Energy Private	2.51	0.08%			
122	Unchahar-IV	2.43	0.08%			
123	Sorang HEP,	2.42	0.08%			
124	RKM Power	2.41	0.08%			
125	SEMBCORP	2.39	0.08%			
126	ADANI SOLAR	2.18	0.07%			
127	NTPC Sholapur	2.16	0.07%			
128	Simhadri Stg-2	2.04	0.07%			
129	Goa WR	2.01	0.07%			
130	IGSTPS JHAJJAR	2.00	0.07%			
131	ADANI GREEN	1.97	0.07%			
132	Sainj HEP	1.95	0.06%			
133	Unchahar-II	1.91	0.06%			
134	Amplus Ages	1.87	0.06%			
135	Ostro Kannada	1.83	0.06%			
136	NLC TPS-II Expn	1.77	0.06%			
137	JUNIPER GREEN	1.74	0.06%			
138	TPSL Banderwala	1.73	0.06%			
139	Serentica	1.68	0.06%			
140	Mouda Stg-1	1.65	0.05%			
141	KBUNL(MTPS-II)	1.62	0.05%			
142	Government of	1.58	0.05%			
143	Singoli Bhagwati	1.44	0.05%			
144	Government of	1.43	0.05%			
145	ADANI	1.36	0.05%			
146	DGEN Mega Power	1.33	0.04%			
147	ADANI SOLAR	1.30	0.04%			
148	Dhariwal ISTS	1.25	0.04%			
149	Government of	1.24	0.04%			
150	Shree Cement	1.15	0.04%			
151	AD Hydro	1.14	0.04%			

152	IL&FS	1.11	0.04%			
153	AGBPP	1.09	0.04%			
154	ACME RAISAR	1.06	0.04%			
155	Mouda Stg-2	1.00	0.03%			
156	Unchahar-I	0.99	0.03%			
157	Dadri TPS	0.95	0.03%			
158	JITPL	0.94	0.03%			
159	Simhadri Stg-1	0.86	0.03%			
160	Daman & Diu -	0.83	0.03%			
161	Dadri Stg-2	0.81	0.03%			
162	Chandigarh	0.80	0.03%			
163	GMR Warora	0.76	0.03%			
164	Ramagundam Stg-3	0.74	0.02%			
165	Government of	0.72	0.02%			
166	Lanco Budhil	0.71	0.02%			
167	Chuzachen	0.65	0.02%			
168	RENEW SURYA	0.65	0.02%			
169	Government of	0.56	0.02%			
170	TPSL 200MW	0.52	0.02%			
171	Ramagundam	0.47	0.02%			
172	Adani Green Energy	0.45	0.01%			
173	Tashiding HEP	0.44	0.01%			
174	Jorethang	0.42	0.01%			
175	RENEW SURYA	0.39	0.01%			
176	Serentica	0.39	0.01%			
177	Unchahar-III	0.36	0.01%			
178	GMR Kamalanga	0.35	0.01%			
179	AGTPP	0.31	0.01%			
180	Ayana Renewable	0.30	0.01%			
181	Maruti Clean Coal	0.30	0.01%			
182	NTECL Vallur	0.25	0.01%			
183	Basochhu	0.24	0.01%			
184	Nikachhu	0.18	0.01%			
185	Costal Energen	0.09	0.003%			
186	Mizoram	0.08	0.003%			
187	Simhadri FSP 15	0.07	0.002%			
188	Nani Virani Wind	0.07	0.002%			
189	Adani Green Energy	0.05	0.001%			
190	RENEW SURYA	0.04	0.001%			
191	NSPCL Bhilai	0.04	0.001%			
192	Ratnagiri Gas &	0.04	0.001%			
193	Goa SR	0.04	0.001%			
194	ADANI GREEN	0.04	0.001%			
195	NTPC Simhadri 25	0.02	0.001%			
Total Volume of top 10		1,623.61	53.74%	Total Volume of top 10	2,441.39	80.81%
Total Volume in PXs		3,130.49		Total Volume in PXs	3,130.49	

Cross Border Electricity Transactions under Day Ahead Market (DAM) in IEX with Nepal and Bhutan during the month of October, 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	01-10-2024	-	-	-	2.18
2	02-10-2024	-	-	-	1.72
3	03-10-2024	-	-	-	2.33
4	04-10-2024	-	-	-	2.02
5	05-10-2024	-	-	-	1.96
6	06-10-2024	-	-	-	1.94
7	07-10-2024	-	-	-	2.33
8	08-10-2024	-	-	-	2.33
9	09-10-2024	-	-	-	2.28
10	10-10-2024	-	-	-	2.28
11	11-10-2024	-	-	-	2.33
12	12-10-2024	-	-	-	1.88
13	13-10-2024	-	-	-	1.60
14	14-10-2024	-	-	-	2.21
15	15-10-2024	-	-	-	1.58
16	16-10-2024	-	-	-	1.78
17	17-10-2024	-	-	-	1.76
18	18-10-2024	-	-	-	1.76
19	19-10-2024	-	-	-	1.49
20	20-10-2024	-	-	-	1.17
21	21-10-2024	-	-	-	1.38
22	22-10-2024	-	-	-	1.42
23	23-10-2024	-	-	-	1.22
24	24-10-2024	-	-	-	1.11
25	25-10-2024	-	-	-	1.06
26	26-10-2024	-	-	-	1.01
27	27-10-2024	-	-	-	0.95
28	28-10-2024	-	-	-	0.96
29	29-10-2024	-	-	-	0.80
30	30-10-2024	-	-	-	0.74
31	31-10-2024	-	-	-	0.79
Total		-	-	-	50.38
Grand Total		50.38			

-: No transaction took place

Note: Cross Border Transactions of Electricity of **50.38 MU (i.e. 50.38 MU sold by Bhutan)** happened during October, 2024 in IEX, which is included under DAM Volume of October, 2024 in IEX.

Cross Border Electricity Transactions under Real Time Market (RTM) in IEX with Nepal and Bhutan during the month of October, 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	01-10-2024	-	2.77	-	0.09
2	02-10-2024	-	2.81	-	0.10
3	03-10-2024	-	5.47	-	-
4	04-10-2024	-	5.66	-	-
5	05-10-2024	-	6.32	-	-
6	06-10-2024	-	5.41	-	-
7	07-10-2024	-	4.82	-	-
8	08-10-2024	-	4.65	-	-
9	09-10-2024	-	4.37	-	-
10	10-10-2024	-	7.46	-	-
11	11-10-2024	-	6.64	-	-
12	12-10-2024	-	5.84	-	-
13	13-10-2024	-	5.11	-	-
14	14-10-2024	-	4.56	-	-
15	15-10-2024	-	3.81	-	-
16	16-10-2024	-	3.38	-	-
17	17-10-2024	-	2.67	-	-
18	18-10-2024	-	2.61	-	-
19	19-10-2024	-	2.81	-	-
20	20-10-2024	-	2.89	-	0.20
21	21-10-2024	-	2.58	-	-
22	22-10-2024	-	2.01	-	-
23	23-10-2024	-	1.64	-	-
24	24-10-2024	-	1.76	-	-
25	25-10-2024	-	3.06	-	0.02
26	26-10-2024	-	4.34	-	-
27	27-10-2024	-	2.79	-	-
28	28-10-2024	-	2.21	-	-
29	29-10-2024	-	2.11	-	-
30	30-10-2024	-	1.35	-	-
31	31-10-2024	-	3.49	-	-
Total		-	117.37	-	0.41
Grand Total		117.78			

-: No transaction took place

Note: Cross Border Transactions of Electricity of 117.78 MU (i.e. 117.37 MU sold by Nepal, 0.41 MU sold by Bhutan) happened during October, 2024 in IEX, which is included under RTM Volume of October, 2024 in IEX.

Analysis for change in trend of Final Scheduled Volume under DAM on 1st Saturday and 1st Monday of October, 2024 (i.e. 5th October, 2024 and 7th October, 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 October, 2024, it is observed that on first Sunday (6th October, 2024), FSV showed increasing trend in comparison to first Saturday (5th October, 2024) and first Monday (7th October, 2024), FSV showed decreasing trend in comparison to first Sunday (6th October, 2024).

- (i) On first Sunday (6th October, 2024), although there was decrease in purchase on power exchange by some of the States in comparison to first Saturday (5th October, 2024) by **25.97 MU** [i.e. Rajasthan (12.13 MU), Telangana (9.69 MU), Uttar Pradesh (2.35 MU) and Delhi (1.52 MU), etc.], there was also increase in purchase on power exchange by some of the States by **16.23 MU** [i.e. Punjab (6.90 MU), Maharashtra (3.45 MU), Daman & Diu (2.01 MU) and Gujarat (1.67 MU), etc.]. This resulted in an overall increase in FSV by **9.74 MU** on Sunday (6th October, 2024) as compared to Saturday (5th October, 2024).
- (ii) On first Monday (7th October, 2024), although there was increase in purchase on power exchange by some of the States in comparison to first Sunday (6th October, 2024) by **15.46 MU** [i.e. Maharashtra (5.04 MU), Gujarat (2.46 MU), Chhattisgarh (1.99 MU) and Daman & Diu (1.96 MU), etc.], there was also decrease in purchase on power exchange by some of the States by **37.06 MU** [i.e. Rajasthan (18.09 MU), Punjab (9.12 MU), Telangana (7.00 MU) and Tamil Nadu (2.84 MU), etc.]. This resulted in an overall decrease in FSV by **21.60 MU** on Monday (7th October, 2024) as compared to Sunday (6th October, 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).